## BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

- - -

In the Matter of the 2018:

Long-Term Forecast Report : Case No. 18-501-EL-FOR

of Ohio Power Company and :

Related Matters. :

In the Matter of the :

Application of Ohio Power: Company for Approval to:

Enter Into Renewable : Case No. 18-1392-EL-RDR

Energy Purchase :

Agreements for Inclusion :

in the Renewable

Generation Rider. :

In the Matter of the :

Application of Ohio Power: Case No. 18-1393-EL-ATA

Company for Approval to :

Amend its Tariffs. :

## PROCEEDINGS

before Ms. Sarah Parrot and Ms. Greta See, 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 Thursday, January 17, 2019.

VOLUME III

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542 1 Thursday Morning Session, 2 January 17, 2019. 3 EXAMINER SEE: Let's on the record. 4 5 Scheduled to continue at this time is 6 Case No. 18-501-EL-FOR, 18-1392-EL-RDR, and Case No. 7 18-1393-EL-ATA. 8 At this time, I would like to take brief appearances of the parties, starting with the 9 10 Company. 11 MR. NOURSE: Thank you, your Honor. On 12 behalf of Ohio Power Company, Steven T. Nourse, 13 Christen M. Blend, Christopher L. Miller, Eric B. 14 Gallon, and L. Bradford Hughes. 15 MS. WILLIS: Thank you, your Honor. On 16 behalf of the Ohio Consumers' Counsel, Maureen 17 Willis, Christopher Healey, and William Michael. 18 MR. McNAMEE: For the Staff of the PUCO, 19 Tom McNamee. 20 MR. OLIKER: Good morning, your Honor. 2.1 On behalf of Interstate Gas Supply, Inc. and IGS 22 Solar, LLC, Joe Oliker and Mike Nugent. MR. KURTZ: Good morning, your Honor. 23 24 For OEG, Mike Kurtz and Jody Kyler Cohn.

MS. WHITFIELD: Good morning, your Honor.

On behalf of The Kroger Company, Angie Paul Whitfield and Stephen Dutton.

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MR. COLLIER: Good morning. On behalf of the Ohio Coal Association, Orla Collier and John Stock; Benesch Friedlander Coplan & Aronoff.

MR. DOVE: Good morning, your Honor. On behalf of Natural Resources Defense Council, Robert Dove; Kegler, Brown, Hill & Ritter.

MS. PIRIK: Thank you, your Honor. On behalf of the Mid-Atlantic Renewable Energy Coalition, Christine Pirik, Terrence O'Donnell, Will Vorys, and Cristina Luse.

MR. DARR: On behalf IEU-Ohio, Frank Darr and Matt Pritchard.

MR. WHITT: On behalf of Direct Energy and Retail Energy Supply Association, Mark Whitt and Rebekah Glover from the law firm Whitt Sturtevant.

MS. BOJKO: Thank you, your Honor. On behalf of Ohio Manufacturers' Association Energy Group, Kimberly W. Bojko and Brian W. Dressel.

EXAMINER SEE: Thank you.

Ohio Power, do you want to call your next witness?

MR. NOURSE: Thank you, your Honor. Ohio
Power calls Trina Horner.

544 1 (Witness sworn.) 2 EXAMINER SEE: Thank you. 3 4 TRINA HORNER 5 being first duly sworn, as prescribed by law, was examined and testified as follows: 6 DIRECT EXAMINATION 7 By Mr. Nourse: 8 9 Ο. Good morning, Ms. Horner. Can you check 10 and see if your mic is working. 11 MR. McNAMEE: I changed all the batteries 12 this morning. 13 EXAMINER SEE: Thank you, thank you. 14 All right. Good morning, Ms. Horner. Ο. 15 Α. Good morning. Can you state and spell your name for the 16 Q. 17 record, please. 18 Α. Trina A. Horner. T-r-i-n-a H-o-r-n-e-r. 19 Ο. By whom are you employed and in what 20 capacity? 2.1 Α. Navigant Consulting. 22 And were you engaged by Ohio Power Q. 23 Company to file testimony in this case? 24 Α. Yes. 25 Q. And did you file testimony on September

- 19, 2018, in this case?
- 2 A. Yes.

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- MR. NOURSE: Your Honor, I would like to mark the prefiled direct testimony of Trina Horner as AEP Ohio Exhibit No. 6.
- 6 EXAMINER SEE: So marked.
  - (EXHIBIT MARKED FOR IDENTIFICATION.)
  - Q. (By Mr. Nourse) Ms. Horner, do you have the document I just marked as AEP Ohio Exhibit 6?
- 10 A. Yes.
- Q. And is this your prefiled direct testimony in this case?
- 13 A. Yes, it is.
- Q. And this was prepared by you or under your direction?
- 16 A. Yes.
- 17 Q. If I were to ask you the same questions
  18 in your testimony today under oath, would your
  19 answers be the same?
- 20 A. Yes.
- Q. Do you have any changes, additions, or corrections to the testimony?
- 23 A. No.
- MR. NOURSE: Okay. Your Honor, I would move for the admission of AEP Ohio Exhibit No. 6,

subject to cross-examination.

2.1

MR. HEALEY: Your Honor, would you entertain motions to strike at this time?

EXAMINER SEE: Yes.

MR. HEALEY: Thank you.

occ moves to strike this testimony in its entirety, including all exhibits. The testimony relies entirely on out-of-court statements by AEP Ohio customers who are not before this court to be cross-examined. Therefore, the testimony consists of inadmissible hearsay because the statements are offered for the truth of the matter asserted under Ohio Rules of Evidence 801 and 802.

Ohio courts have found similar surveys are inadmissible for this reason, including in Nye v. Fostroia Distribution Services Company, 78 Ohio App.3d 319, and Kelley v. Barberton City School District, 1987 Ohio App LEXIS 9201.

MR. COLLIER: Your Honor --

EXAMINER SEE: Ms. Whitfield.

MS. WHITFIELD: Kroger joins in on that motion to strike her testimony and all exhibits, and would also add that it is irrelevant under Rule 401 and 402 for the reasons we've set forth in prior motions to strike.

Under the Turning Point case, customer preferences and wants and desires have no bearing and no relevancy to the issue of need that is before the Commission today.

2.1

We also would move to strike, under Rule 702, the Ohio Rules of Evidence, those require that a witness may testify as an expert if the witness testimony either relates to matters beyond the knowledge or experience possessed by laypersons or dispels a misconception common among laypersons; the witness is qualified as an expert by specialized knowledge, skill, experience, training, or education regarding the subject matter of the testimony; the witness's testimony is based on reliable scientific, technical, and other specialized information.

It is our position that Ms. Horner does not satisfy Rule 702. There is no testimony that she has any specialized knowledge, skill, experience, training, or education regarding customer surveys and the interpretation of them. And she has not testified that her testimony is based on any reliable scientific, technical, or specialized information. In fact, as OCC pointed out, it is full of hearsay.

And finally, we would also move, under Rule 602, for lack of personal information.

Ms. Horner did not design or implement or really do anything other than prepare the report, so she lacks the necessary foundation to testify to that. Thank you, your Honor.

2.1

MS. BOJKO: Your Honor, OMAEG supports the motions that have been raised today and would add that Ms. Horner did not have personal discussions with the customers. She's merely interpreting statistics from a survey that we believe was misleading and inappropriately performed.

MR. COLLIER: OCA joins in the motions.

MR. NUGENT: Interstate Gas Supply, Inc. and IGS Solar joins in the motions.

MR. WHITT: And Direct Energy and RESA also join the motions. And I would like to raise additional grounds that the legal issues have been spoken to, but there is a more important reason for striking the testimony than evidence rules, and that is the integrity of the Commission's process itself.

The survey has opinion offered by AEP to show evidence of need for in-state renewables, but the survey itself was not even designed or conducted to demonstrate need. It was conducted for the express purpose of soliciting opinions about AEP's proposal. The survey itself and the questions that

were sent to people, it informs the respondents that AEP is actively working to develop 900 megawatts of renewable generation. That's disclosed in the survey, and what I just read is on page 31 of the report.

2.1

So the survey results just show that some small -- some percentage of some small sliver of AEP's customers support the Company's filing. And that's nice to know, but ultimately it's irrelevant. The -- there really are only five opinions relevant and those folks reside on the 5th floor of this building.

and, in fact, were heard. And the Commission heard from them directly. So if the Commission is now in the business of condoning a practice where parties are just going to go conduct surveys and introduce that as evidence and whoever has the most popular survey results would be declared the winner of the case, then these proceedings have really jumped the shark, and I think folks will rue the day and we will set precedent where we are going to go ask the public what they think and filter those results into a document that we pass off as evidence. And, as has been mentioned, it's a hearsay summary of hearsay

1 | statements.

2.1

2 MR. NOURSE: Okay. May I respond, your 3 Honor?

4 EXAMINER SEE: Yes.

MR. DARR: If I may, your Honor, one more. IEU joins in it, in the objections for all the reasons previously stated and also to point out, as I indicated on day one of this mini marathon, the evidence that is being presented by AEP Ohio in support of its finding of need does not conform with the statutory or regulatory requirements.

This is one more example of it. It clearly is outside the rule other than the fact that the Commission can take other evidence under the rule, but the evidence should be directed towards a determination of whether or not there is a physical need for additional resources, not a determination of whether or not AEP thinks that customers desire it to provide additional renewable resources. That is not a need finding within the contemplation of either the statute or the Commission's regulatory requirements and, therefore, this evidence is clearly outside the scope and should be excluded.

EXAMINER SEE: Would you like to respond,

Mr. Nourse?

MR. NOURSE: I suppose, yes.

2.1

2.2

Your Honor, I think the -- the only motion to strike aspect here that's being raised is hearsay, and I suppose relevance. The other arguments all go to the weight and credibility of the evidence being sponsored by these experts; Ms. Horner and Ms. Fry.

The relevancy question, I think, was already determined in the motion in limine, same arguments were made. The same testimony attacked. The same basis. And I think the Commission properly determined that, you know, the Company is entitled to its day in court and to present the evidence that —that it has prepared and believes has a bearing on the issues in this case.

So the -- all the other arguments about the level of expertise of the Navigant witnesses, the representativeness of the survey, you know, the sampling, other technical points that are being raised, you know, are all matters for cross-examination and go to the weight of the -- of the evidence.

As far as hearsay, again, this is being designed and is being sponsored as a professional, independent survey that captures the views of

customers. It's not a hearsay instrument of repeating what customers or third parties have said. It's about their conduct. It's about their expectations and beliefs and what the utility should be doing in the future to meet their -- meet their service expectations and to meet their demands for renewable energy.

2.1

2.2

So I don't think it's -- I don't think it's hearsay and, again, these witnesses will be, you know, these witnesses were not deposed. There's not been any sort of voir dire about their expertise and their ability to sponsor these surveys and defend them. And it is expert testimony. So I don't think it should be treated as hearsay for that reason either.

Well, yeah, the Commission obviously has flexibility regarding any strict application of the hearsay rule, but I would just say that -- and I think this has already been ruled upon in the January 14 Entry that I think it would be sad if the Commission did reject customer viewpoints as being relevant to -- to this case or any case but especially where we're talking about the expectations and the demands of customers and whether those are going to be met by the utility. That's a key issue

in this case. I think the examiners have already ruled on the Company's ability to present evidence to support that; that which is one of the bases of the need to be presented.

2.1

MR. DARR: Your Honor, brief response?

EXAMINER PIRIK: Your Honor, before their responses, I want just to put on the record, MAREC supports opposition to the motion to strike.

MR. DOVE: As does NRDC, and would note that a large portion of these arguments amount to basically a summary judgment on the issue of whether or not this is a factor that should be considered and what they believe to be a determination of need in a statute that doesn't define need. And you have broad discretion as to how to apply the Rules of Evidence and what information to take into these Commission hearings, and I believe you've already settled the bulk of the exception of potentially the hearsay and I think you did that earlier this week, but NRDC supports oppositions to these motions.

MR. WHITT: Very briefly, your Honor.
Under Ohio statute, the rulings of the Attorney
Examiners are always tentative, nonbinding on the
Commission itself, and what Direct and RESA are
asking the Bench to do is to grant the motions to

strike and exclude this evidence.

2.1

Now, if the Commission disagrees with that and wishes to consider these survey results, it can do so. But the onus ought to be on AEP to articulate some plausible theory of why the Commission's processes should be altered in such a dramatic fashion to allow evidence like this before there is legal precedent set today.

MR. DARR: If I may, your Honor? EXAMINER SEE: Mr. Darr.

MR. DARR: With regard to the threshold issues concerning this testimony, I think Mr. Dove captured the problem exactly with regard to the relevance issue and that is the statute does, and the statute that I am referring to is 143(B)(2)(d), what is to be considered when the Commission determines —determines need. This is not that.

Second, with regard to qualifications as an expert, Mr. Nourse has raised the issue that there has not been a voir dire. None is necessary. I go through the qualifications of the witness. There is nothing in these qualification that qualifies her as an expert with regard to the taking and interpretation of surveys. That being the case, voir dire is not necessary.

The witness's testimony itself fails the fundamental test of demonstrating this witness is qualified to testify as to the scope and accuracy of the survey results.

EXAMINER SEE: Mr. Kurtz.

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MR. KURTZ: Thank you, your Honor. I agree with AEP on this issue. I would say customer surveys are routinely admitted in the Commission's J.D. Power surveys, SAIDI, SAIFI surveys on reliability and so forth; so I don't think it is setting any adverse precedent, and I think that the Company has a right to put on their evidence on their definition of need. And I do agree with Mr. Whitt that the Commissioners would probably want to hear this, and they and you can give it the appropriate weight.

EXAMINER SEE: Is there -- did you want to reply, Mr. Nourse?

MR. NOURSE: Yes. Just to say, again, that their arguments fall into two categories. Either they disagree with your January 14 ruling and keep arguing that this testimony is irrelevant. I think that's already been disposed of. Or, again, the hearsay, the convenient hearsay argument, which I've already addressed, is not -- not applicable and,

in any event, the Commission has a lot of latitude in dealing with that. And these are -- it is a valid market consumer survey that has, you know, again, the Commission can consider the weight based on the challenges that intervenors want to raise during cross-examination, on brief. It shouldn't preclude the testimony from being considered.

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EXAMINER SEE: With that, the motion to strike Ms. Horner's testimony in its entirety is denied. And beyond that, the other arguments to strike -- to strike Ms. Horner's testimony are also denied, and the Commission will assign this testimony the weight it deems appropriate.

MR. HEALEY: Thank you, your Honor. I would ask that the Attorney Examiners rule that in light of that that this testimony, following the cross-examination, is entitled to very little, if any, weight if not stricken. Thank you.

EXAMINER SEE: We'll follow the same order that we had yesterday.

Ms. Pirik.

MS. PIRIK: No questions, your Honor.

EXAMINER SEE: Mr. Dove.

MR. DOVE: No questions, your Honor.

EXAMINER SEE: Sir, tell me your name,

AEP LTFR - Volume III 557 1 please. 2 MR. SAWMILLER: My name is Dan Sawmiller. 3 I am with NRDC, and I am not counsel. Sorry. 4 EXAMINER SEE: Mr. Kurtz? 5 MR. KURTZ: No questions, your Honor. 6 EXAMINER SEE: Mr. Healey? 7 MR. HEALEY: Yes, your Honor. 8 9 CROSS-EXAMINATION 10 By Mr. Healey: 11 Good morning, Ms. Horner. You've Ο. 12 attached to your testimony a document entitled "AEP 13 Ohio Voice of the Customer: Attitudes and 14 Expectations for Renewable Energy, " correct? 15 Α. Yes. 16 Ο. And if I refer to that as "the survey" or 17 "the report," you will understand that's what I am 18 referring to? 19 Α. Yes. 20 Ο. Just as a shorthand so I don't have to 2.1 say the whole name every time. 2.2 And just one other housekeeping, there

there are also page numbers at the top. The top ones

say page X of 41. I am going to use the page numbers

are page numbers at the bottom of your report and

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at the top just so we are all on the same page. If I say 19, that's page 19 of 41. Is that okay with you?

- A. Yes.
- Q. Looking at your background, you have an undergrad degree in International Relations and Finance from the University of California at Davis; is that right?
  - A. Yes.
    - Q. What year did you obtain that degree?
- 10 A. 1989.

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- Q. And your testimony also references work
  you did for the East Bay Municipal Utility District.
- 13 | When was that?
- 14 A. 2004, 2005.
  - Q. And why did you leave that position?
- A. I left that position to take a position at Pacific Gas & Electric.
- Q. And what position did you take at Pacific Gas & Electric?
- 20 A. I took a position of Director of 21 Regulatory Affairs --
- 22 EXAMINER SEE: Ms. Horner.
- 23 A. -- of Pacific Gas & Electric.
- EXAMINER SEE: Speak up or move the mic
- 25 closer, please.

- Q. And so, immediately after your work for East Bay Municipal Utility District, you went to work for PG&E?
  - A. Yes.

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- Q. And your testimony also references work you did for the California Public Utilities
- 7 Commission. When was that?
  - A. That was 1991 to 2004.
    - Q. Okay. So that was before East Bay?
- 10 A. Yes.
- 11 Q. And when did you leave PG&E?
- 12 A. 2014.
- 13 Q. And why did you leave that job?
- A. I'm sorry?
- Q. Why did you leave that position?
- 16 A. I resigned that position.
- Q. You resigned? Voluntarily?
- A. I resigned my position from PG&E.
- 19 Q. Did you resign voluntarily?
- A. Yes, I believe that's a resignation.
- Q. Is that a yes?
- 22 A. Yes.
- MR. HEALEY: Your Honor, if I may
- 24 approach the witness and mark OCC Exhibit 3, please?
- 25 EXAMINER SEE: Okay.

560 (EXHIBIT MARKED FOR IDENTIFICATION.) 1 2 Ms. Horner, I have just marked an article Q. from The Wall Street Journal, titled "PG&E Fires 3 Three Executives Over Contact with California 4 5 Regulator." Have you seen this article? 6 A. I do see the article, yes. 7 Ο. Do you see your name in the second 8 paragraph? 9 Α. I do. 10 And do you see that this article states Q. 11 that you were terminated from that position? 12 Yes, I see the characterization that we 13 were terminated. 14 In fact, it uses the word "fired," does Ο. it not? 15 16 Α. It does. 17 Q. And so, were you fired from that 18 position? 19 I resigned my position from PG&E. I have no control over how the company characterized it, but 20 2.1 I resigned my position from PG&E. 2.2 Q. So you were not fired; is that your 23 testimony?

My testimony is that I resigned from the

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company in 2014.

- Q. Ms. Horner, do you believe the words "resigned" and "fired" are synonyms?
- A. I believe that resigned is an action that I took to leave the company as a result of differences of opinion.
- Q. Thank you. My question was, you are using the word "resigned." I am trying to understand when you use that word, does that mean the same thing as "fired" or no?
- A. I think the -- the term "fired" in the context of this article is -- indicates that the company took an action implying that all three of the individuals named left the company as a result of a company decision, and I am distinguishing that from what I did which is to resign from the company.
- Q. Let's turn to page 2 of your testimony, please. And at the very bottom there is a question, "Was the VOC Report Prepared By You or Under Your Direction?" Do you see that question?
  - A. Yes.

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- Q. And then your response on the next page says yes, but then it says it was designed and implemented by Company witness Fry. So was it designed under your direction or under her direction?
  - A. The Voice of the Customer report that is

attached to my testimony, the overall report, was prepared by me or under my direction. The specific survey for residential and small commercial and industrial customers that is referenced in Chapter 4 of the report was prepared under the direction of witness Fry.

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- Q. So she -- she designed the survey and then you analyzed the results and prepared the report; is that accurate?
- A. Ms. Fry designed and implemented and analyzed the results of the survey. And how that survey was incorporated into the rest of the report was prepared under my direction.
- Q. Now, you believe that this survey shows that customers want AEP to invest more in renewable energy, correct?
- A. I believe the results of this survey express a strong desire on the part of residential and small commercial customers to -- for AEP Ohio to increase its renewable energy.
- Q. You don't know whether customers care if it's AEP or someone else that makes the investment in renewables, do you?
- A. In the survey we asked only AEP Ohio customers with e-mail addresses.

Q. Right. So you didn't ask customers, do you want AEP to invest in renewables as opposed to some other entity, correct?

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- A. Correct. The survey just asked customers about AEP Ohio actions.
- Q. So if we were to ask customers, do you prefer renewable energy to be provided by AEP or by say IGS, we don't know the answer to that question, correct, based on your survey?
- A. The intent of the survey was not to survey customers about their preferences about other players in the market. It was really to get the voice of the customer, of AEP Ohio's customers.
- Q. Right. But my question was does your survey include a question asking customers if they prefer AEP over other entities when it comes to renewable investment?
- A. The survey did not reference other entities.
- Q. And yet, you still conclude customers specifically want AEP and not others to invest in renewables?
- MR. NOURSE: I object. Can you point to where the survey says that customers do not want others to invest in renewables? I object to the

1 | characterization you are making there.

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MR. HEALEY: Your Honor, if the witness doesn't understand the question or it mischaracterizes her testimony, she can feel free to say so.

EXAMINER SEE: Yes, she can.

Ms. Horner, I am going to direct you to answer the question.

A. Again, the survey only asked customers about their opinions about AEP Ohio procurement actions, so -- I'm sorry, can you repeat the question?

MR. HEALEY: Can I have the question reread, please?

(Record read.)

- A. I don't think that -- excuse me. I don't think the survey or the report characterizes any -- any other entity beyond AEP Ohio because the survey only focused on AEP Ohio's customers.
- Q. Maybe let's try a hypothetical for you so we can understand what's going on here.

If you sent out a survey to customers and the question was "Would you like a free BMW?" and customers all said yes, would you conclude from that survey that customers only want free cars if they are

BMWs?

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- A. I would conclude that -- simply that the answer to that question was yes.
- Q. Right. But you wouldn't be able to extract from that single question anything about the fact it was a BMW as opposed to another car, would you?
  - A. No.
- Q. You understand the difference between the words "need" and "want," correct?
- A. Yes.
- Q. And you agree those words do not mean the same thing?
  - MR. NOURSE: Your Honor, I object.

    Ms. Horner, in the survey, did not address the statutory concept of need. This is a factual predicate to our case and the way we presented it in the context of other multiple bases supporting need. So I don't think her testimony is -- it's beyond the scope of her testimony and she's not here to address the statutory concepts in Ohio.
  - MR. HEALEY: Your Honor, that seems to me to be a straight admission this testimony is not relevant. He just -- counsel for AEP just admitted this witness is not testifying on anything relevant

to the definition of need under the statute. That's the definition of relevance of Phase I in this case. If this doesn't go to the statutory definition of need, and she doesn't understand the difference, then how can she possibly testify that her testimony supports the Company's definition of need?

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MR. NOURSE: That's not what I said, your Honor. This witness is not addressing Ohio Revised Code interpretations or PUCO regulations. It's beyond the scope of her testimony. She's addressing factually what a survey solicited from customers and what the results of the survey are. She's not anywhere in her testimony trying to attribute that as it relates to Ohio statutes or Administrative Code rules.

MR. HEALEY: And for the -EXAMINER SEE: The objection is
sustained. Move on, Mr. Healey.

- Q. (By Mr. Healey) Ms. Horner, are you familiar with the statutory standard in this case?
- A. I've heard references to it, but it was not the focus of our work in this case.
- Q. So you have no opinion whether your testimony supports a conclusion that the statutory definition of need has been met in this case?

- A. No. Our role was to focus on the opinions of AEP Ohio's customers.
- Q. Let's turn to page 5 of the report which is your Exhibit TH-1. And just as a reminder, I am talking about page 5 of 41 at the top. Ready?
  - A. Yes.

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Q. Thank you.

Here you state that Navigant -- Navigant did an online survey with three customer groups which are Percentage of Income Payment Plan or PIPP residential customers, residential non-PIPP customers, and small C&I customers, correct?

- A. Correct.
- Q. And you defined "small C&I customers" as those using less than 1 million kilowatt-hours per year; is that right?
  - A. Correct.
- Q. So any customer that uses more than 1 million kilowatt-hours would not have been part of the small C&I survey; is that right?
  - A. Correct.
- Q. And when you were defining "small C&I customers," you considered each meter to be a distinct customer, correct?
- A. Correct.

- Q. So, for example, if a corporate entity has five locations in the AEP Ohio service territory and at each location they use less than a million kilowatt-hours, that would be five customers for purposes of your survey, correct?
- A. In terms of how customers were selected for the survey, I would defer to Ms. Fry, and her testimony.
- Q. Thank you. I am not asking how they were selected. I am asking the basic definition of "small C&I customers" found in this report. So your report defines "small C&I customers" as single-meter customers less than a million kilowatt-hours, correct?
  - A. Correct.

- Q. So say McDonald's has 20 locations in AEP's territory, each of which uses less than a million kilowatt-hours. That would be 20 customers, correct?
  - A. I believe that is correct.
- Q. You say you believe that's correct but you're not sure?
- A. You would have to defer to the testimony of Ms. Fry.
- Q. You didn't send the survey to any large

C&I customers greater than a million kilowatt-hours usage, did you?

A. No, we did not.

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- Q. You could have, though, if you had an e-mail address for them, correct?
- A. We did not send them to large C&I customers with usage greater than a million kilowatt-hours because large C&I customers were not the focus of this survey.
- Q. Right. But if AEP had provided e-mail addresses for those large C&I customers, you could have sent them the survey if you wanted to, correct?
- A. We could have, but we did not request those e-mail addresses from AEP Ohio.
- Q. And instead, the large C&I customers were part of a separate evaluation you did. I think you refer to it as the Corporate Leader Evaluation; is that right?
  - A. That is correct.
- Q. Let's turn to page 13 of the report, please. And there's a Figure 4 at the top which shows that for purposes of this large C&I customer evaluation, you included any customer with an aggregate load greater than 100,000 kilowatt-hours, correct?

A. Correct.

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- Q. So we just discussed that small C&I customers in the survey were those with less than a million kilowatt-hours, and now large C&I customers are those greater than 100,000, which means in between 100,000 and a million you are counting customers twice potentially, correct?
- A. Yes. I think the two exercises that you're referring to were part of entirely separate analyses and -- and different methodologies and so we did use different thresholds to define the different groups in an effort to be as representative and comprehensive as possible.
- Q. Just to clarify, say we had a customer that uses 500,000 kilowatt-hours. They would have potentially received the survey for the small C&I customers, correct?
  - A. I'm sorry, could you repeat the question?
  - O. Sure.

Consider a customer, a C&I customer that uses 500,000 kilowatt-hours a year, that customer would be eligible for participation in this small C&I survey, correct?

A. Yes. If AEP Ohio had an e-mail address for that customer and it was randomly selected.

Q. And you also could have contacted that same customer as part of your large C&I evaluation, correct?

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- A. So in the figure that you have referenced that speaks to the Sustainability Customer Commitment Analysis, those to which the 100,000 kilowatt-hours threshold applied, we did not contact those customers directly. That was sort of an aggregated analysis that Navigant undertook to look at the actions of those customers after filtering their load and consolidating accounting.
- Q. Are you saying that you had no contact with the large C&I customers as a part of this process?
- A. No. I wanted to distinguish because you had referred to the large C&I customers analysis. So there were two pieces of the large C&I customer analysis that we did. One was the filtering approach that is referenced earlier by you, and the second was some outreach that we did to large -- some large C&I customers in the questionnaire.
- Q. Okay. Let's go back to my example of a customer with 500,000 kilowatt-hours. We've already established that customer could have been included in the C&I survey if it had an e-mail address and AEP

selected it, correct?

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- A. Yes.
- Q. And then that same customer would have been part of the analysis you did as represented in Figure 4 for large C&I customers, correct?
  - A. Yes, it would have been represented.
- Q. And certainly you're not suggesting that the Commission could -- should count some customers' opinions twice, should they?
- A. In the Sustainability Customer Commitment Analysis, Navigant didn't -- didn't ask customers their opinions -- or, as I said, we didn't contact them, so the -- that analysis focused on the actions -- the public actions that customers in that large C&I customer group had taken as opposed to opinions that they had expressed to Navigant.
- Q. But you are still asking the Commission to give weight to the actions that those customers have taken, correct?
- A. We're -- we are making some observations about what those customers, in the aggregate, the actions that they have taken.
- Q. And you believe that the actions that they have taken support the results of your survey.
  - A. We believe they are consistent -- they

are consistent with the overall support that we were observing among AEP Ohio's customer base for renewables, additional renewables, in Ohio.

- Q. Let's move on to the outreach you did then, and let's use my same example. You have a customer with 500,000 kilowatt-hours, could be included in the small C&I survey; that same customer could conceivably have been contacted by Navigant as part of the reaching out to large C&I customers, correct?
- A. It could conceivably have been included. There were significantly-smaller number of customers we reached out to as part of the questionnaire, if that's what you are referring to. So the number is likely to be small of that overlap, if any.
- Q. But you don't know what that number is though, correct?
  - A. Not off the top of my head.
- Q. Let's look at page 12 of the report, please. And under Section 3.1, the first paragraph, you refer to a two-step process to identify companies with a higher likelihood of interest in renewable energy. Do you see that?
  - A. Yes.

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Q. And you would admit that using this

574 1 process does not result in an unbiased sample, 2. correct? 3 MR. NOURSE: Object to the form of the question. Double negative. Could you try to 4 5 rephrase that? 6 MR. HEALEY: If the witness understands, 7 your Honor. If she doesn't . . . 8 MR. NOURSE: Thank you, Mr. Healey. 9 Can we read it back, please? 10 EXAMINER SEE: Sure. 11 (Record read.) 12 The population of customers that we're 13 describing in 3.1 of the report was designed to 14 examine customers that had identified with a 15 renewable energy procurement goal with an 16 organization. So the goal of this section was -- was 17 not necessarily to sample the general population of 18 large C&I customers but to understand of those 19 customers, who had identified a renewable goal, just 20 to be able to quantify that and the magnitude of that 2.1 interest. 2.2 Are you familiar with the concept of bias 23 in the context of a customer survey? 24 Α. Yes.

And what is bias?

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Q.

A. It can manifest in -- in the form of a predetermined opinion or outcome.

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- Q. So you would agree then that your two-step targeted approach for this analysis was biased, correct, under that definition?
- A. I would agree that -- that in this section of the -- our analysis, the goal was to quantify the magnitude of interest in renewables and not to look at the overall population but to quantify the interest in renewables among companies that had already identified that interest.
- Q. So you created a list of companies that said they like renewables and then you asked them if they like renewables; is that a fair characterization of this?
- A. In -- in this section of our analysis in section 3.1 that you've identified, Navigant identified what we were qualifying as large customers. We then identified if those customers had made an affiliation with one or more of sustainability organizations and made a commitment to those organizations and quantified their -- their interest, the magnitude of -- in the aggregate those companies' interests. We did not ask all of those companies in the questionnaire what they thought

about renewable generation. We followed up with a questionnaire for some of those companies.

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Q. On page 14 of your report, the last paragraph, you state that the "outreach should not be considered statistically representative of AEP Ohio's C&I customer base or even of its largest corporate customer base due to the targeted sample selection approach and relatively limited number of responses."

Given that broad limitation of the usefulness of this analysis, wouldn't you agree that the PUCO shouldn't rely on it if it's trying to determine what AEP's customers, large C&I customers, in general, believe about renewable energy?

MR. NOURSE: Your Honor, I just object to asking the witness whether you know the extent to which the customer should weigh the evidence. You know, these statements were affirmatively disclosed in the purpose of the section. She's already explained it was different from the general survey stuff, so it sounds like a legal question to me, your Honor. I object.

MR. HEALEY: Your Honor, I am asking the witness to tell me what she thinks the usefulness of this section of her testimony is. She included it in this report. She obviously thinks it's important and

relevant, and I am asking her how she -- how and why she thinks it's important.

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MR. NOURSE: Thank you, I appreciate that rephrasing. Thank you.

EXAMINER SEE: I am going to allow the witness to answer the question with any explanation she deems necessary.

A. The purpose of Section 3, in general, of the report is to do two things. One is to -- as I said earlier, quantify and give -- give a sense of the order of magnitude of the previously demonstrated interest among AEP Ohio's large C&I customer base what the renewable -- what the interests in renewable generation has been to date and what that may represent.

Second, the analysis included in Section 3 of the report is included really to provide full transparency into the different segments of work that Navigant did in order to provide a robust view into the Voice of the Customer perspectives overall in -- among AEP Ohio's customer base.

Q. So if I were to take your large customer analysis and then say I conclude from that that AEP's large C&I customers support the development of renewable energy, that would not be a reasonable

conclusion, based on this report, since it is not significantly significant, correct?

A. The contact that Navigant had with AEP Ohio customers as part of the questionnaire, as we've said in the report, was not statistically significant in terms of a survey and in terms of the program and initiative that we understood AEP Ohio to be undertaking.

The purpose of this section of the report is, as I said, to not necessarily arrive at a conclusion about what large C&I customers believe about the initiative that AEP Ohio was pursuing. But to provide a sense of overall -- of what AEP Ohio large C&I customers have done to date and some of the drivers and motivators for their renewable actions to date.

- Q. Let's turn to page 10 of your report, please. In Footnote 10, you reference "Navigant, Ohio Renewable Energy Manufacturing & Company Establishment Analysis, December 13, 2017." Do you see that?
  - A. I do.
- Q. Do you believe that this report prepared by your company is accurate and reliable?
  - A. I do.

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- Q. Do you have a copy of it in front of you?
- A. I do not.

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MR. HEALEY: Your Honor, I am going to mark, as OCC Exhibit 4, a copy of the report identified in Ms. Horner's testimony, Exhibit TH-1, Footnote 10. May I approach, please?

EXAMINER SEE: Yes.

(EXHIBIT MARKED FOR IDENTIFICATION.)

- Q. Ms. Horner, you cited this report in your testimony, so I assume you have read it, correct?
  - A. I was briefed on it.
  - Q. You did not read it?
  - A. Not in the entirety.
  - Q. Did you read any of it?
- 15 A. Yes.
  - Q. Let's turn to page 12 of this 2017

    Navigant report, please. In this 2017 report there
    is a Figure 3-3 at the top entitled "Solar Jobs per
    Capita versus Solar Strategies." Do you see that?
- 20 A. Yes.
- Q. And there is a dotted line there which is intended to show the correlation between the number of solar jobs in each state and the state's strategy framework score using Navigant's analysis; is that a fair description of this figure?

A. Yes.

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- Q. And you see pretty close to the middle there is Ohio, and you see Ohio's dot is above that dotted line quite a bit, correct?
  - A. Yes.
- Q. So you would agree, based on Navigant's analysis in this 2017 report, Ohio already has more solar jobs than you would expect based on Navigant's analysis of Ohio policy; isn't that right?
- A. I was not part of this study, and I  $\operatorname{\mathsf{I}}$  can't draw any conclusions from looking at one  $\operatorname{\mathsf{I}}$  one dot on one graph.
- Q. I assume you trust your colleagues at Navigant did a thorough and accurate job in preparing this report, correct?
  - A. I do.
- Q. Let's turn to page 19 of this 2017 report, please. On this page, Navigant is making recommendations that workers take to transition from traditional energy jobs to jobs in renewable energy. Do you see that? It's titled "Career Transition"?
  - A. Yes.
- Q. Do you know how long it would take for one to get up to speed, get the education required to transition from a traditional energy job to a

renewable energy job?

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- A. I have not studied that.
- Q. Let's turn to page 23 of this report,
  please. And Table 6-2 is where Navigant makes
  recommendations for AEP. None of these
  recommendations is that monopoly distribution utility
  customers should subsidize the building of solar and
  wind facilities, correct?

MR. NOURSE: Your Honor, I object to the characterization that Mr. Healey is using here. I don't think the report addresses that topic at all. He is just using it to get in his argument, I guess.

MR. HEALEY: I'll move on, your Honor.

- Q. (By Mr. Healey) Let's turn back to your own report from this case. And page 5, please. Now, you mention here that the survey was done online which means that it was sent to customers by e-mail, correct?
- A. You are referring to the small C&I and residential survey?
  - O. Correct.
- 22 A. Yes.
- Q. And you understand that not all AEP Ohio customers have an e-mail address associated with their account?

A. Yes.

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- Q. In fact, a substantial portion of them do not, isn't that right?
- A. Our understanding is that a majority of AEP Ohio residential and small C&I customers have e-mails on file at AEP Ohio.

MR. HEALEY: Your Honor, if I may mark as OCC Exhibit 5, this is Ohio Power's response to OCC Interrogatory 12-131. May we approach?

EXAMINER SEE: Yes.

(EXHIBIT MARKED FOR IDENTIFICATION.)

- Q. Ms. Horner, a moment ago, you testified it was your understanding a majority of AEP's customers, residential and small C&I, have an e-mail address associated with their account. Isn't it true, based on this document, that roughly two-thirds of small C&I customers do not have an e-mail address associated with their account?
- A. This response does indicate that that is true. Our understanding in the aggregate was that the e-mail sample population at AEP -- of AEP Ohio's customers, had -- the majority of them did have e-mails.
- Q. But that understanding is obviously incorrect as it pertains to small C&I customers,

correct, because 35 percent have an e-mail address and that would not be a majority, would it?

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MR. NOURSE: Your Honor, I just object to the characterization. Her prior answer was talking about the sample population, not the C&I customers.

MR. HEALEY: I'll rephrase, your Honor.

EXAMINER SEE: Okay.

- Q. (By Mr. Healey) You understand, now, a majority of small C&I customers, under your definition, do not have an e-mail address associated with their account, correct?
- A. I do. And our -- again, our understanding was that it -- in general the aggregate overall population that we were targeting in the residential and small C&I customer survey, that the -- that that population was represented -- represented a majority with e-mail addresses.
- Q. And you didn't do any analysis to determine whether customers with e-mail addresses compared to customers without e-mail addresses were a similar population for purposes of the survey, did you?
- A. We did not for purposes of this survey.
  We had no reason to think that customers with e-mail
  addresses on file at AEP Ohio would -- were any

different from customers without e-mail addresses on file.

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- Q. You had no reason to think but you also had no reason to think they were the same, correct?
- A. Absent a reason to think otherwise, we believed that was a reasonable reflection of AEP Ohio's residential and small commercial customer base.
- Q. You believed that, despite not having done any analysis comparing those with an e-mail address to those without an e-mail address?
- A. We did, because, again, we had no reason to think that the two populations were different.
- Q. Sure. You would agree, when you are doing a statistical analysis, "we had no reason to believe" is not a statistically-valid assumption, correct? That's the whole point of doing statistical analysis is to determine whether what we believe is true based on the data; isn't that right?
- A. Yes. And Ms. Fry can address some of those questions that -- and some of the controls that we put in place to assure ourselves that the sample population was consistent, the overall AEP Ohio customer population.
  - Q. Independent of that, though, you would

agree that any customer that did not have an e-mail address was not allowed to participate in the survey, correct?

A. That is correct.

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- Q. Why didn't you send the survey to those customers by mail, snail mail?
- A. The survey was designed to be a -- an electronic survey, and it was designed to be efficient, and we didn't believe that we needed to send the -- the survey to every single customer of AEP Ohio. We believed that the -- the population with e-mail addresses represented a more-than-adequate-sized sample for us to -- to use.
- Q. So you don't think -- you don't think that customers without e-mail addresses deserve to be heard in this survey?
- MR. NOURSE: Your Honor, I object. You know, that's pejorative, argumentative. She's already answered the factual answer to this and he's just, you know, being argumentative.
- MR. HEALEY: Your Honor, I am trying to get at the reason that decision was made. We know that the decision was made. We have yet to hear why that decision was made.
- MR. NOURSE: She just explained, in a

whole paragraph, the reason. He just wants to be pejorative. I don't think that's appropriate.

MR. HEALEY: I can move on, your Honor.

EXAMINER SEE: Move on then, Mr. Healey.

- Q. Did doing the survey by e-mail make it more cost-effective rather than sending it by mail? It's cheaper to send an e-mail than a letter?
- A. We didn't -- we didn't analyze the different costs between sending a letter via snail mail versus e-mail. I can't really answer that question.
- Q. Does it cost more to send a thousand e-mails than 100 e-mails when you are doing a survey like this?
- A. That's a question that Ms. Fry will be able to answer. There is a cost for every -- every e-mail survey sent. I don't know off the top of my head what that cost is.
- Q. Let's look at page 15 of the report, please. Now, when you sent the e-mail to the -- the e-mail survey to the small C&I and residential customers, it was sent to a randomly-selected population of those customers, correct?
  - A. Yes.

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Q. You didn't send the e-mail to every

single residential and small C&I customer with an e-mail address, correct?

> Α. Correct.

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- Navigant did not decide which e-mail Ο. addresses to send the survey to, did it?
  - Α. That's correct.
  - Q. That decision was made by AEP?
- Α. Yes. AEP Ohio pulled the random sample from their database.
- 10 And what steps did AEP take to ensure the Ο. 11 selection it made was truly random?
- 12 Α. Navigant was not part of that process, 13 so.
  - You didn't ask? Ο.
  - Α. We did ask that it be a random sample and we were told that it was a random sample.
- 17 But you didn't ask AEP what steps it took Q. to ensure randomness, correct? 18
  - I was not personally involved in any of those conversations.
- Ο. Let's look at Table 1 on page 16 of the survey report. There is a Footnote No. 23 next to "Target Sample Size Requirement" which states "Navigant designed the sample size requirements to achieve 90 percent confidence and 10 percent 25

precision assuming a coefficient of variation of 1.0." Do you see that?

A. I do see that.

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- Q. Can you explain for me, in statistical terms, what a "coefficient of variation" is?
- A. Witness Fry is responsible for that definition and can explain it.
  - Q. So you don't know?
- A. I think she's better equipped to explain that in the context of this survey she designed.
- Q. Sure. Whether she is better equipped, my question is do you know the answer?

MR. NOURSE: Your Honor, I think, you know, the witness has already deferred to the next witness that's appearing. It's already been explained how they jointly worked together to design and implement this survey, that they have different -- different parts that they contributed to, so she is deferring to Ms. Fry.

MR. HEALEY: And, your Honor, with all due respect, this exhibit is attached to Ms. Horner's testimony; she is sponsoring it. Ms. Fry does not sponsor this exhibit. This is different. The Economic Development Study, which we are going to see later, is sponsored by both AEP witnesses. This is

exclusively a Ms. Horner exhibit. So I don't want to hear, when I get to witness Fry, "This is not my exhibit. You should have asked Ms. Horner that kind of thing." Because this is not a Fry exhibit; she does not sponsor this exhibit.

MR. NOURSE: Again, your Honor, you are not going to hear that. We've got both witnesses here. They have different contributions. That's already been explained and she's deferring to Ms. Fry on this technical statistical issue which is clearly within the scope of Ms. Fry's testimony.

MR. HEALEY: With that commitment, I am happy to ask Ms. Fry those questions, your Honor.

- Q. (By Mr. Healey) Let's move to page 22 of the report. And specifically Table 3 at the top.

  Let me know when you get there. This table summarizes, according to your survey, the "Small C&I Willingness to Pay Totals," correct?
  - A. Correct.

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- Q. And when a customer says they are not sure if they are willing to pay, you would not then conclude that they are, in fact, willing to pay, correct?
  - A. Can you repeat the question?
    - Q. Sure. There's -- maybe let's take a step

back.

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There's four different answers here: Not willing to pay anything, not sure, willing to pay something but less than maximum, and willing to pay maximum range. Do you see those four categories?

- A. I do.
- Q. And obviously if someone said "not willing to pay anything," you would conclude they are not willing to pay for renewable energy, correct?
- A. Yes, I would conclude they are not willing to pay for the -- in the context and for the projects as were defined in the survey.
- Q. Sure. And with respect to the "not sure" answer, it would be unreasonable to conclude that anyone that said "not sure" is willing to pay for renewable energy, correct?
- A. I think -- I think "not sure" means they are unsure. They don't know if they are willing to pay. They may be or they may not be. They're not sure.
- Q. And you would agree that with respect to the far right column, there's 33 percent not willing to pay anything and 25 percent not sure, so that's 58 percent who have not expressed a willingness to pay for renewable energy, correct?

- A. I would agree that there are 58 percent who are not willing to pay anything or are not sure.
- Q. And this survey -- excuse me. Let me start again.

This table reflects there were 664 answers to this survey, correct?

- A. For the small C&I customer population, yes.
- Q. And did you provide any aggregate numbers on how many of those 664 were either willing to pay something but less than the maximum or willing to pay maximum range?
  - A. Can you repeat the question?
- O. Sure.

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There's -- there's the two rows: Willing to pay something less than maximum and willing to pay maximum range.

- A. Yes.
- Q. Did you calculate how many of the 664 respondents fell within one of those two categories?
- A. Yes. We have the raw survey data that provided those numbers.
- Q. And that data shows that less than half
  of those 664 responded in those two categories,
  correct?

A. Correct.

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- Q. And so if less than half of small C&I customers responded they were willing to pay something but less than the maximum or willing to pay maximum range, wouldn't you conclude from that that there's not majority support among small C&I customers?
- A. Can you repeat the question please?

  MR. HEALEY: Can I have that reread,
  please.

11 (Record read.)

MR. HEALEY: I am going to withdraw that question and move on. Thank you, your Honor.

EXAMINER SEE: Okay.

Q. Let's turn to page 26 of the report, please.

MR. HEALEY: Your Honor, at this point, I am going to renew my hearsay objection on a more limited basis with regard to this section in particular. The previous sections presented the witness's summary of responses largely to multiple choice questions. This section is providing summaries of open-ended questions responded to by customers and the comments those customers made in open-ended questions. This is much more obvious

hearsay where they are reporting customers said this, customers said that, customers think this, customers think that. This is hearsay. This is inadmissible. And so I would renew my objection on a more limited basis with respect to pages 26 of 41 through page 36 of 41 on the grounds of hearsay.

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MR. NOURSE: Yeah, your Honor, let's assume certain people join and certain people oppose. But I would like to respond. Yeah, this section does not contain the actual statements that were made, and we are not repeating these here or putting them in the exhibit. They actually were provided in discovery but that's not what's being offered here; it's not what has been included in the report.

And so these are, you know, these are generally-categorized attitudes that were conveyed through the survey, you know, into these -- into these four categories and, again, all the data that supported that was provided in discovery and provided to OCC and any other parties. But it's not what's being conveyed here. These are -- these are attitudes and expectations that were -- they were drawn out in the survey and they were categorized in these general categories as another data point and, again, as Ms. Horner said earlier, you know, in the

spirit of transparency and fully disclosing all the data that was obtained by Navigant through this survey process. I don't think it's hearsay.

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MR. HEALEY: I would just respond briefly, your Honor, that hearsay does not have to be a direct quote. If a witness sits on the stand and says, "Bob told me he likes apples," even if Bob didn't say those precise words, that's still hearsay.

These are categorizations and summaries of what customers were saying to Navigant in response to a survey question. These customers are not here to be cross-examined. I have no ability to ask customers whether these category -- these categorizations and summaries are accurate, whether they mean X, Y, or Z, about anything that's said here. This is obvious hearsay. This witness is testifying on what customers told her.

MR. NOURSE: Well, your Honor, again, that is the same argument made for the survey in its entirety and it's the same character. This section no more repeats customer name, customer comments than any of the rest of the survey and, to that end, it is the same argument that was made at the outset of Ms. Horner's testimony.

MR. DOVE: Your Honor, I support

opposition to this motion. I think it's disappointing that a consumer advocate seems to be wanting to block the opinion of its clientele from entering the record.

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I also would like to note that at the public hearing, when there were members of the public here and testifying on the record, OCC did not avail themselves of the opportunity to cross. So the argument that they're not here to be crossed doesn't seem to hold much weight.

MR. HEALEY: Your Honor, I move to strike Mr. Dove's apparent testimony here about what did or did not happen and also move to strike his unnecessarily disparaging remarks about the Consumers' Counsel. Thank you.

EXAMINER SEE: Anyone else weighing in on either side?

MS. PIRIK: Your Honor, MAREC supports the opposition.

MS. WHITFIELD: Your Honor, just briefly, I would support OCC's position. If you think about it, this is different than what the initial -- the hearsay for the entire report is. They are submitting these open-ended comments for the truth of the matter asserted and they've characterized them

and we are supposed to assume that those comments are true and they fit within support mixed with oppose or neutral. So that is classic hearsay that they are trying to submit as truth here and should be stricken. Thank you.

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MR. NOURSE: Your Honor, just a final point. There's been complaints about this survey, the main survey, about bias or that you led customers into these conclusions. This is open-ended. It was an open-ended opportunity for customers to comment and say whatever they wanted to say on this topic without any guiding, without any questions, without any, you know, the things that intervenors are complaining about here.

So, again, for purposes of transparency and the whole data points that resulted from Navigant's efforts and activities in trying to solicit customers' demands and needs for future expectations and service, this is part of it, and it certainly adds value and is not inappropriate hearsay either way.

MR. WHITT: Your Honor, if I may, I am going to take a contrary view here. Direct and RESA made their case on why they don't think the report should come in and we still believe that, but our

position is that if the report comes in -EXAMINER SEE: Use the mic.

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MR. WHITT: If the report comes in, let the report in, because if we start parsing pieces out of it, then I'm concerned about a lack of completeness and the lack of ability, potentially, to give context to other parts of the report. I don't know if I am supporting or opposing the objection, but I guess that's my 2 cents. If it's in, it's in. If it's out, it's out. Let's not slice and dice the thing.

EXAMINER SEE: In the course of the discussions regarding this portion of the exhibits attached to Ms. Horner's testimony, representation has been made that the actual comments for this section of the report are available; is that correct?

MR. NOURSE: Yes. I believe they were

provided in discovery, the actual, like, raw data.

EXAMINER SEE: Are you willing to make those available at this point and mark it as an exhibit, Mr. Nourse.

MR. NOURSE: Am I? If the Bench would like, we are happy to do that. Yeah, I don't know how fast we can get that to you. We can probably e-mail quicker than trying to reproduce it. I think

it's a large Excel spreadsheet. I would say I don't recall, I think we marked it confidential.

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I do know that we -- Ms. Horner can also speak to this that it's -- part of the survey, of course, was not to disclose, you know, it's an anonymous survey, and so I don't know -- I don't recall the extent to which that spreadsheet is associated with an e-mail or will otherwise identify the customer. I do think that some of the comments did have data that would disclose the customer-specific identity, so I would want to offer that caveat if you are considering doing that.

EXAMINER SEE: At this point, I am going to reserve a number as an exhibit and we'll -- once you have an opportunity to review the information, we'll talk more about what will be put into the record. But with that, the motion to strike page 26 of 41 of Exhibit TH-1 is denied.

MS. BOJKO: Your Honor, for my bookkeeping records, what kind of number are you going to reserve? Is it AEP Exhibit?

EXAMINER SEE: It would be an AEP Exhibit 7.

MS. BOJKO: Thank you, your Honor.

MS. WHITFIELD: And, your Honor, just for

clarification as well, that was -- the subject of the motion to strike was pages 26 to 36. You are talking about that entirety.

EXAMINER SEE: I'm sorry. Yes, just those pages of the attachment to Ms. Horner's testimony which is Exhibit TH-1, pages -- I'm sorry. Let me make sure I have the right pages. Pages 26 of 41 to page 36 of 41.

MR. NOURSE: Yes.

EXAMINER SEE: Mr. Healey.

MR. HEALEY: Thank you.

- Q. (By Mr. Healey) Ms. Horner, let's look at page 26 of the report near the top. The second sentence says that "The research team analyzed these comments, categorizing each of the comments as supportive, mixed, neutral/unclear, and opposed." Do you see that?
  - A. Yes.

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- Q. And just so we can get the context back, this is the open-ended section of the survey where customers were allowed to provide whatever comments they wanted, correct?
  - A. Correct.
- Q. And this refers to category -- categorizing each of the comments; that

categorization was done by a human being, correct, not a machine?

- A. That is correct.
- Q. And so, that person or persons who did that analysis would have to exercise some subjective judgment in categorizing their responses?
- A. Yes. The categorization was done by a single person, of all of the comments, who exercised their judgment.
  - Q. And that person was not you, correct?
- 11 A. That is correct.
- 12 Q. And it was not witness Fry either?
- 13 A. That is correct.
- Q. And who was that person?
- 15 A. It was one of our colleagues at Navigant.
- 16 I believe the name was provided in discovery.
- Q. Yes. Malika Jayaraman; does that sound familiar.
- 19 A. Yes.

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- Q. She is not testifying in this case; is that correct?
- 22 A. That's correct.
- Q. And so, since she did the analysis, you can't personally verify that you agree with her categorization of the responses, correct?

- A. I don't -- I don't have any reason to disagree with them. The overall conclusions or results of the analysis were consistent directionally with the other multiple-choice-related questions of the survey, so I don't have any reason to -- to disagree with them.
- Q. You say you don't have any reason to disagree. Is it your testimony, therefore, that you affirmatively agree with all the -- all the decisions she made in categorizing these comments?
  - A. I do.

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- Q. And you can speak to the reasons that she decided on each particular comment how it would be categorized?
- A. I believe she used consistent judgment to categorize these comments, and so I would agree with that judgment that's used.
- Q. But given that she's not here, the Commission won't have an opportunity to -- let me start again.

Given that she's not here, the Commission is not going to have an opportunity to know what she was considering when she made these decisions, correct?

A. She -- she is not here and witness Fry

- can elaborate on the criteria that was used by the reviewer to categorize the responses.
- Q. I am going to turn to page 37 of the report which is Appendix A. This appendix includes the actual questions that customers were asked in the survey, correct?
  - A. Correct.
- Q. And at the bottom of this page 37 on your Exhibit TH-1, there's a subheading called "Attitudes." Do you see that?
  - A. Correct.
- Q. And it says "AEP Ohio currently obtains
  4.5 percent of its electricity from renewable sources
  such as wind and solar." Do you see that sentence
  there?
- 16 A. I do.

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- Q. And that sentence was included in the survey that was sent to customers?
- A. Yes.
- Q. And the reference to "its electricity" in that sentence, what does that mean?
- 22 A. The electricity of AEP Ohio.
- Q. So does that mean that 4.5 percent of all electricity that AEP Ohio delivers to its

energy?

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- A. It means that -- that AEP Ohio currently obtains 4.5 percent of its electricity from renewable sources.
- Q. Right, that's what it says. I am trying to understand what about that means. So AEP Ohio is a distribution utility. Do you understand that?
  - A. Yes.
- Q. And so it delivers electricity through wires to its customers, correct?
  - A. Correct.
- Q. Are you saying that 4.5 percent of the electricity delivered to customers through AEP's wires was sourced from renewable energy?
- A. Yes. 4.5 percent is the number that AEP Ohio provided to us.
- Q. And when you're using that 4.5 percent number, does that include Standard Service Offer customers and shopping customers?
- A. It includes the customers of AEP Ohio, so it does not include shopping customers.
- Q. So it's your testimony that when AEP
  provides generation to service -- generation service
  to SSO customers, it's ensuring that 4.5 percent of
  that electricity is sourced from renewable energy?

MR. NOURSE: Your Honor, I just object.

She answered what the survey said, what it meant.

Now, I think we're being -- getting into the finer points of SSO supply and, again, Ohio regulatory details which Ms. Horner is not here to testify about. So I think it goes beyond the scope of her testimony and she's already explained the extent of her understanding of what the 4.5 percent means as it relates to nonshopping load.

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MR. HEALEY: Your Honor --

MS. BOJKO: Your Honor --

MR. HEALEY: The witness is trying to use this survey to tell us what customers believe about renewable energy. This is information they provided to customers. If we can't ask the person responsible for the survey what that means, then how can we possibly interpret this survey to mean that customers understand what it means? So I am trying to ask her if she understands what this sentence means and what it conveys to customers that she asked questions to through her survey.

 $$\operatorname{MR.}$  NOURSE: And she already answered that question, your Honor.

EXAMINER SEE: Ms. Bojko.

MR. NOURSE: I am not even sure of the

distinction Mr. Healey is making at this point.

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isn't the right person.

MS. BOJKO: Your Honor, during

Mr. Allen's cross-examination, I asked him about this same subject matter and I believe at that time Mr. Nourse also objected to me asking Mr. Allen those questions, and stated that these questions were better asked of the Navigant folks that performed the survey. So now we're here, asking the person that performed the surveyed, and he is objecting that this

MR. NOURSE: No. She already answered the question I think at least three times with the nuisances that she could. And I'm not sure what additional detail Mr. Healey is even pushing for, but it sounds like he's making some distinction based on nuances of SSO supply. I don't know. But I think she's already answered it.

EXAMINER SEE: Move on, Mr. Healey.

MR. HEALEY: Yes, your Honor.

- Q. (By Mr. Healey) Are you familiar with statutory renewable mandates in the State of Ohio?
- A. I am  $\operatorname{\mathsf{--}}$  I am generally familiar with them.
- Q. Are you aware that in 2018 there was a 4.5 percent mandate for electric distribution

utilities under the law?

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- A. Yes.
- Q. And so, is that what this 4.5 percent is referring to?
- A. The 4.5 percent is referring to the amount of AEP Ohio's electricity from renewable sources that Navigant received from AEP Ohio. We did understand that that is consistent with and compliant with the statutory requirements.
- Q. Do you know what AEP does to satisfy its mandates under the law?
- A. Navigant did not examine that as part of this analysis.
  - Q. So you don't know whether AEP generates its own renewable energy, signs REPAs, purchases RECs, you don't know?
  - A. We're generally aware those are some of the options but we did not study what the specific generation sources are.
  - Q. Did your survey ask -- let me start over.

    Did your survey inform customers that they already
    pay for renewable energy through their distribution
    bills to AEP?
- A. The survey did not include a question in terms of what customers already pay for. The

reference to 4.5 percent in this -- in this sentence was provided in order to provide some context for customers so that they understood, when we were asking would -- would they support AEP Ohio's efforts to develop -- or pursue development of 900 megawatts of wind and solar, they would understand that it was "more than what." So the 4-1/2 percent is provided to provide some context, and I think it's reasonable to think that customers understand that they are paying for the 4-1/2 percent, that number that is being provided here.

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MR. HEALEY: Your Honor, I am going to move to strike. My question was a very simple question, did your survey include information telling customers that they already pay for renewable energy through their distribution bills. It had nothing to do with the 4.5 percent. It had nothing to do with this question and the witness went on a very long tangent, after saying no, about unrelated issues to my direct and simple question about whether the survey included certain information.

MR. NOURSE: Your Honor, if the record is already clear and Mr. Healey has the entire survey, if he really just wanted to know whether his question that's not in the survey was not in the survey, he

didn't need to ask that. She's -- she's explaining no and here is why not because customers already understand what they paid for and we don't provide free service and that 4-1/2 percent is the baseline upon which you are asking whether customers think we should do more, "more than what." That's what she explained.

EXAMINER SEE: The question will -- the answer will stand. Move on, Mr. Healey.

MR. HEALEY: Thank you, your Honor.

At this point, I would like to mark OCC Exhibits 6 and 7. The first one is from the PUCO website. It's Renewable Portfolio Standard/Rate Impacts for Second Quarter 2018, and then the second one is for Third Quarter 2018. May we approach, your Honor?

EXAMINER SEE: Yes.

(EXHIBITS MARKED FOR IDENTIFICATION.)

Q. (By Mr. Healey) Ms. Horner, I have just handed you what's been marked as OCC Exhibit 6 which is a summary of Renewable Portfolio Standard/Rate Impacts for Second Quarter 2018, and OCC Exhibit 7, Renewable Portfolio Standard/Rate Impacts for Third Quarter 2018. Do you have those in front of you?

A. Yes.

2.1

Q. With regard to OCC Exhibit 6, can you turn to the second page, please.

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MR. NOURSE: Your Honor, I am going to object to using this information with this witness. Again, she's not here testifying about Ohio regulatory requirements or Ohio statutory requirements or bill impacts or the cost of renewables. Anything -- anything like that. So I think this is outside the scope of her testimony. It does not relate to Navigant's formulation or conducting of the survey.

MR. HEALEY: Your Honor, this witness is testifying regarding customers' willingness to pay for renewable energy, regarding the accuracy of the survey that they provided. I think I should be entitled to ask her why she did or did not include additional information in that survey which would have informed, potentially, customers' opinions and their responses to the exact questions that they were asked.

The omission of information from that survey is highly relevant in demonstrating that customers were not necessarily making an informed response to the biased questions from Navigant. That is the purpose of this cross-examination and it

directly refutes what is in the survey.

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MR. NOURSE: Well, your Honor, first of all, the "Willingness to Pay" questions and the dollar amounts included, she's already indicated that was provided by the Company, and she had no opinion, no information and certainly not offering herself as an expert about the renewable costs or the level of renewable costs for AEP Ohio or certainly any other Ohio utility.

And secondly, Mr. -- Mr. Healey can certainly ask her whether certain things were included or not included in the survey, but that's not the same as dumping in other information that's out there that OCC's own witnesses could sponsor if they want to or they could bring in through a, you know, a witness that is knowledgeable about those topics. But this is not the witness.

MR. HEALEY: Your Honor, I haven't actually asked a question about this, so I think any objections are premature.

MR. NOURSE: Well, I did wait until he asked his first question.

MR. HEALEY: My first question was can you turn to page 2. The objection is to that question, apparently.

EXAMINER SEE: Go ahead, Mr. Healey. I'm sorry, the witness, I don't think she responded to whether she had turned to page 2 yet, which is the only issue.

- Q. (By Mr. Healey) Ms. Horner, can you please turn to page 2 of what's been marked OCC Exhibit 6, pleases.
  - A. Yes.

2.1

- Q. And do you see on this exhibit that the PUCO has published an average monthly bill impact for Ohio Power Company of \$2.07 for alternative energy?
  - A. Yes.
- Q. And you would agree that that amount is higher than all of the "Willingness to Pay" amounts used in your survey, correct?

MR. NOURSE: I object. Again, Ms. Horner doesn't understand what this is. She hasn't been asked about any of that and, again, it goes beyond her testimony. The "Willingness to Pay" amounts in the survey, as she said, were provided by the Company and they relate to the additional — the increased renewable. They do not relate to what customers currently pay under their rates on their bills that they get every month and are already aware of. This has no bearing on the survey.

examiner see: The objection is overruled. Ms. Horner, you can answer the question.

THE WITNESS: Can you read the question?

(Record read.)

A. So the survey amounts used a different unit for each of residential or small C&I. The -this amount here on this page is higher than for the residential increments that Navigant used in our survey. It is higher than those. Those were the incremental costs associated with the AEP Ohio's estimated cost of this initiative that was provided to us. I can't speak to this number and what that number includes or how comparable they may be.

For C&I -- small C&I customers the increment was provided in terms of percentages and so there's no way to know for each individual customer whether this is higher or lower than increments that we used.

- Q. Now, we discussed before, you are aware of the State solar mandates generally in Ohio, correct?
  - A. Yes.
- Q. And you are aware that in 2018, AEP was required to meet a 4.5 percent mandate?
- 25 A. Yes.

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Q. And that that number goes up by 1 percent every year through 2026 and, if you don't remember off the top of your head, it is on page 9 of the Navigant report near the bottom, last sentence, in fact.

A. Yes.

2.1

- Q. And you would agree that, all else equal, meeting a 12.5 percent mandate costs more than meeting a 4.5 percent mandate, correct?
- A. We haven't looked at the costs of what that would require as a part of overall efforts to meet mandates that far out. The only costs that we included in the survey were -- were the estimates that AEP Ohio provided to us as part of this initiative.
- Q. So your survey did not inform customers that the mandate that AEP is required to meet and for which they pay will be going up every year for the next eight years, correct?

MR. NOURSE: Your Honor, now, it's -- I object. I think he's assuming some things not in evidence. This witness is not, you know, has said she hasn't looked at it and is not prepared to discuss. It's one thing to say "All else equal, let's assume this." But then to make the allegation

being that we didn't inform customers in the survey, it then becomes, again, a factual predicate that's not in evidence. So I object to that.

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MR. HEALEY: Your Honor, the report specifically references these mandates, and all I asked was did your survey tell customers the exact information that they included in their report.

MR. NOURSE: No. He said why didn't we inform customers that it's going to be more expensive, and that's an assumption that's not --

MR. HEALEY: Your Honor, I would like to have my question reread. It didn't say anything about why and it didn't say anything about costs.

MR. NOURSE: Can we have a new question, your Honor?

EXAMINER SEE: Let's reread the question and the witness can answer the question.

(Record read.)

A. The survey did not include information about the -- the future renewable portfolio requirements over time. Or the costs of those. The survey was focused on the information that we had about initiatives being planned at the time to provide customers with the information that we had about AEP Ohio's current initiative.

- Q. Let's move to page 38 of the report, please. And I would like to discuss the "Willingness to Pay" questions. Under the heading, "Willingness to Pay" here in the survey, there is a paragraph. Were customers shown this paragraph when they received the survey?
- A. Customers, except PIPP customers, were shown this portion of the survey.
- Q. And that's because PIPP customers didn't get the "Willingness to Pay" questions at all, correct?
  - A. Correct.

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- Q. In this paragraph, looks like fourth -third sentence, it says "By -- the third sentence -"By developing utility-scale renewable generation in
  Ohio, AEP Ohio can reduce the environmental impact of
  electricity generation while creating skilled green
  energy jobs in Ohio and stimulating the local economy
  with additional tax revenue." What's the basis for
  the statement that AEP Ohio can reduce the
  environmental impact on electricity generation?
- A. The basis is the generally-accepted concept that renewable-generation sources provide less impact on the environment in the form of -- of less greenhouse gas emissions, for example.

Q. Less impact than what? You have -- you are comparing renewable energy to something else.
What is that something else?

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- A. Less than traditional fossil generation.
- Q. So for the renewable projects to reduce the impact, the environmental impact, they would have to displace fossil fuel generation; is that your view?

MR. NOURSE: I just object to the term "displace generation." I think it's ambiguous. It's not clear whether you are asking about plants closing or just producing less electricity.

- Q. Either/or, Ms. Horner.

  EXAMINER SEE: Take another shot.
- Q. To reduce the environmental impact of electricity generation, its renewable energy would have to cause a reduction in the amount of energy produced through fossil fuels, correct?
- A. In general, yes, or be used as the next increment for additional load growth instead of fossil fuels.
- Q. And what evidence do you have that AEP's proposed renewable projects would, in fact, either cause a reduction in the amount of energy generated through -- by fossil fuels or replace future

generation that would come from fossil fuels?

- A. Navigant hasn't studied the specific projects that AEP Ohio would be -- would be pursuing as part of this. So I can't offer specifics on that beyond the general -- generally-accepted premise that they -- renewable resources are generally less impactful from an environmental perspective.
- Q. Isn't it possible that if AEP were to develop these renewable projects, it would cause displacement either through reduction in generation or shutting down of other renewables as opposed to fossil fuels?
  - A. Can you repeat the question?
- Q. Sure. Let's think about it this way:

  AEP -- these new facilities will generate energy,

  correct?
  - A. Correct.

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- Q. And when that energy is bid into the PJM energy market, if it clears, then some other energy is not clearing, correct?
  - A. Correct.
- Q. And that other energy that's not clearing could be renewable energy; isn't that right?
- A. Correct.
  - Q. And in that instance there would be no

environmental impact for that amount that AEP's project simply replaced another renewable project, correct?

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- A. In general that may be correct. I think it's whether and how much environmental impact is achieved is -- is highly dependent on specific resources, which resources are -- are dispatched instead of -- instead of others.
- Q. The sentence I read on page 38 of the report also mentions stimulating the local economy with initial tax revenue. What's your basis for believing that to be true?
- A. Our basis of that is, again, premised on the general observation and our experience with renewable projects is that they do stimulate the development of -- of a different kind of skill set and jobs. It is premised on the -- the report that Navigant had pursued to which you referenced earlier.
- Q. Why did you include, in the survey, information about environmental impact, job creation, and tax revenues immediately before the "Willingness to Pay" questions?
- A. The paragraph before the "Willingness to Pay" questions is provided to -- to contextualize the questions that follow that this is what's being

proposed. These are some of the things that will result from what's being proposed, and this is the impact, Customer, that it may have on you. So, with that information, we -- we would like your opinion about the following questions.

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- Q. And you don't think that by leading the "Willingness to Pay" questions with a long list of what's great about renewable energy, impacted customers' potential responses to these questions?
- A. I don't think it's a long list. I think it's a -- as I said, it's one sentence to contextualize what is being proposed. One sentence to talk about the benefits that may result and one sentence that talks about the costs that may result and the direct customer impacts that may result.
- Q. Do you believe, based on your experience with surveys, that if this information were not included, the responses to the "Willingness to Pay" questions would have been the same?
- A. I don't have any reason to think that they would be different if it were tee'd up. All we have is the responses to the question that's asked, but we don't have any reason to think they would be different.
  - Q. So if the answers would be the same

whether you included this information or not, then that makes that information irrelevant, correct?

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- A. I think that, again, this paragraph is important context for a customer to be able to evaluate for him or herself the questions that follow.
- Q. So that paragraph is intended to encourage customers to answer the -- the following questions in a certain way, correct?
- A. I think that the paragraph is intended to provide customers with the information to allow them to make the choices, make informed choices, from their own perspective, but given the stated plans, some of the potential benefits, and some of the potential costs.
- Q. Let's turn to page 39 -- actually let's stay here for a minute. Let's look at Question 6. This is the first "Willingness to Pay" question. Here, you included a different range of willingness to pay for each residential customer, correct, somewhere from 50 to 75 cents on the low end and then a \$1.25 to \$1.50 on the high end, correct?
  - A. Correct.
- Q. And AEP suggested those ranges to you, correct?

A. Correct.

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- Q. If Navigant is supposed to be doing an independent third-party analysis here, wouldn't it have made more sense for Navigant to choose the "Willingness to Pay" ranges instead of relying on AEP?
- A. Our goal here was to provide customers with an as accurate and transparent glimpse into AEP Ohio's initiative as possible. And AEP Ohio is -- is the entity that had that information. So in an effort to be as accurate and transparent with a customer as possible, given that, you know, Navigant had no -- no insight into AEP Ohio's procurement plans, the details of those processes, we -- we thought it best to use the information that was provided from AEP Ohio.
- Q. Let's turn to page 39. Starting at the bottom of the survey, there were various questions about demographics. Do you see that section?
  - A. Yes.
- Q. And Question 13 says "Do you own or rent your home?" Correct?
  - A. Correct.
- Q. And nothing in your report tells us what those responses to that question were, does it?

A. Correct.

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- Q. And, in fact, neither AEP nor Navigant did anything to analyze the responses to this question, correct?
- A. So Navigant, once the responses to the survey were in, Navigant did do an analysis of the -- the results against certain of the demographic data that was provided in the survey just to assure ourselves that the responses were consistent with the information that AEP Ohio had as part of our analysis of the survey.
  - Q. Okay.

MR. HEALEY: Your Honor, I would like to mark OCC Exhibit 8. This is AEP's response to Interrogatory 12-135. May we approach?

EXAMINER SEE: Yes.

(EXHIBIT MARKED FOR IDENTIFICATION.)

- Q. (By Mr. Healey) Ms. Horner, do you have in front of you what's now been marked OCC Exhibit 8?
  - A. Yes.
- Q. And you see that this interrogatory refers to the question I was just asking you about whether customers own or rent their home, correct?
  - A. Yes.
  - Q. And the response is "Neither AEP Ohio nor

Navigant has performed analysis of the Voice of the Customer survey responses based on whether the customer owns or rents their home." Do you see that?

A. I do.

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- Q. In light of that response, would you like to amend your previous response that that analysis was, in fact, done?
- A. No. Witness Fry, I think, can provide more details about the specific interrogatory response, but we did not do any -- any weighting or -- of the survey results based on whether a customer owns or rents their home and -- but we did do some analysis to assure ourselves that, based on the answers to that, among other questions, that we had captured a representative sample in the survey.
- Q. So the sentence in this OCC Exhibit 8,

  "Neither AEP Ohio nor Navigant has performed an
  analysis of the Voice of the Customer survey
  responses based on whether the customer owns or rents
  their home," is that statement false?

MR. NOURSE: Your Honor, I object. I think Ms. Horner has already indicated what Navigant did in terms of the sanity check she described. The discovery response is one prepared by Ms. Fry, and Ms. Horner has already deferred to her and the

details of this, so I think it's more appropriate witness Fry take up this matter.

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MR. HEALEY: Your Honor, that brings up an important issue that I would like to raise. We sent this discovery out weeks ago, months ago at this point, got responses from AEP; and on Tuesday, immediately before the beginning of this hearing, we got a document from the Company changing nearly every discovery response that Ms. Horner had previously responded to, to witness Fry.

So to say that Ms. Horner can't respond to this, when, as of four days ago, she was the responsible witness for this, at the time these were received by OCC, the answers came from her, not from witness Fry. So it's a very last-minute change from AEP to try to deflect these types of questions away from witness Horner to witness Fry, and I object to the last-minute change. I can provide documentation of that change if my word is not good enough.

MR. NOURSE: Yeah, you know, I object to deflecting anything or some bad faith here. There was an administrative error. It wasn't all. It was about half because there were two witnesses from Navigant and there was an administrative error that labeled all the Navigant witnesses' Navigant

discovery responses as Ms. Horner when about half of them were actually Ms. Fry. We caught that administrative error and corrected it as soon as we -- as soon as we caught it. So, you know, I apologize for the inconvenience. There's no -- there's no deflecting or strategy here.

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But the bottom line is she's already answered to the best of her ability, deferred Ms. Fry, and it is -- it is labeled as a response Ms. Fry can answer and she is here today and is able to answer those questions. So there's no, you know, prejudice or anything like that to OCC.

MR. HEALEY: Where are we, your Honor? I think I had a question pending and there was an objection.

EXAMINER SEE: Move on, Mr. Healey.

MR. HEALEY: Thank you, your Honor. I would like to make a motion to strike any of the questions that I asked regarding Question 13 of the survey to which Ms. Horner responded and then I was not allowed to impeach her with this interrogatory. I would therefore move to strike her response given that I was not able to ask her follow-up questions to that response. She is deferring to witness Fry, so let's keep the record clean and let Fry be the only

witness on these questions and I will ask her when the time comes.

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MR. NOURSE: I don't object. It's up to the Bench.

EXAMINER SEE: Sorry?

MR. NOURSE: I don't object, but it's up to the Bench if you want to go to that length obviously.

EXAMINER SEE: Your question to strike
Ms. Horner's testimony is denied. Feel free to ask
Ms. Fry same or similar questions so.

- Q. (By Mr. Healey) Ms. Horner, Navigant did not make any attempt to confirm the sample of customers included in this survey was geographically representative of AEP's service territory, did it?
- A. Navigant did compare some of the demographic information received as part of customers' responses, including several of the ones identified here in the survey relative to owning, and age, and income levels but, no, not any geographic, demographic information.
- Q. And did Navigant screen the e-mail addresses it received to ensure that AEP Ohio employees were not responding to the survey?
  - A. No. Navigant did not receive information

other than the demographic information requested about the identity of respondents to the survey.

Q. So, to the best of your knowledge, if an AEP Ohio employee received the survey, they were free to respond and were included in the survey results, correct?

A. Yes.

MR. HEALEY: That's all, your Honor.

Thank you very much, and I appreciate your patience through the long cross.

11 Thank you, Ms. Horner.

12 EXAMINER SEE: Thank you.

13 Let's go off the record for a minute.

(Discussion off the record.)

15 (Recess taken.)

16 EXAMINER SEE: Let's go back on the

17 record.

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18 Ms. Whitfield.

MS. WHITFIELD: Thank you, your Honor.

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21 CROSS-EXAMINATION

22 | By Ms. Whitfield:

Q. Good afternoon, Ms. Horner.

A. Good afternoon.

Q. I want to talk to you a little bit about

your background. Now, you testified that you were at the California Public Utilities Commission from 1991 to 2004. Do you recall that?

A. Yes.

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- Q. And in your role at the CPUC, did you -- you didn't design customer surveys, did you?
  - A. Correct.
- Q. And in -- while you were there at the CPUC, you did not implement any customer surveys, did you?
- A. No, I didn't.
- Q. And while you were at the CPUC, you didn't analyze any customer surveys, did you?
- 14 A. Not that I recall.
- Q. When did you join Navigant again?
- 16 A. 2016.
- Q. And prior to Navigant, you were at Pacific Gas & Electric Company, correct?
- A. Prior to Navigant, I was an independent
  consultant and, prior to that, I was at Pacific Gas &
  Electric Company.
- Q. Okay. Well, when -- your testimony
  doesn't say anything about the independent
  consulting. When does your -- when did you leave
- 25 Pacific Gas and Electric Company?

A. 2014.

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- Q. Okay. And just for clarity, were you asked to resign from Pacific Gas and Electric Company?
- A. I'm hesitating because I don't know the extent to which that information -- I am able to share that information.
- 8 MR. NOURSE: Based on a confidentiality 9 agreement?
- THE WITNESS: Based on a confidentiality agreement. Thank you.
  - Q. Fair enough. I'll move on from that.

    Now, you referenced you did independent
    consulting. Was that with the TAH Associates?
    - A. Yes.
- 16 Q. And what is TAH Associates?
- 17 A. That's my -- those are my initials.
- Q. Okay. And who -- what type of consulting did you provide? During this -- it was approximately two years in 2014-2016?
- A. Yes. General regulatory strategy and filings before the California Public Utilities
  Commission.
- Q. Did you work always on behalf of the utility companies?

A. No.

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- Q. And while you were at TAH Associates, did you design, implement, or analyze any customer surveys?
  - A. No.
- Q. And when you were at Pacific Gas & Electric Company, did you design or implement any customer surveys during that time period?
  - A. I did not design them, no.
  - Q. And did you not implement them?
- 11 A. No.
- Q. I believe you testified earlier -- well,
  let me ask you a little bit more about it. TAH

  Associates, can you identify who were your clients
  during that one- to two-year period? Categories.

  You don't need to give me names, but just . . .
  - A. Yes. I worked for competitive market providers as well as electric utilities during that period.
  - Q. And generally what did you do for the competitive market providers?
- A. Analyzed the effects of utility proposals on their initiatives. I crafted comments, pleadings, filings on their behalf.
- Q. Okay. And I apologize if I already asked

you this, but just for clarification, while you were at TAH Associates, doing work for competitive market providers or electric utilities, you did not do anything regarding designing, implementing, or analyzing customer surveys, correct?

- A. That is correct.
- Q. I believe you testified earlier, you have a BA in International Relations and Finance; is that correct?
- A. Correct.

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- Q. In doing that coursework, did you take any classes dedicated to the design, implementation, or analysis of customer surveys?
  - A. I don't recall. I don't think so.
- Q. Now, if you look at page 2 of your testimony -- actually, at the top of page 3 really. The question about "Was the VOC report prepared by you or under your direction?" And your initial response is "Yes." Do you see that?
  - A. Yes.
- Q. And you did not personally draft this report, did you?
- A. I personally drafted portions of this report.
- Q. Okay. Which portions did you draft? We

- can just turn to Exhibit TH-1 which is attached to your testimony.
  - A. I personally drafted portions of the Executive Summary, Section 1, Section 2, and Section 3.
- Q. Did you do the entirety of Sections 1, 2, and 3?
  - A. No.

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- Q. Who else drafted portions of Section 1?
- A. I don't recall specifically who wrote different parts. I recall certain individuals Brian Dickman and Andrea Romano being involved with Sections 1, 2, and 3.
- Q. And what was the other name? Brian Dickman and?
- A. Andrea Romano. Both of them are
  Associate Directors at Navigant.
- Q. And was Ms. Fry involved in all of the drafting of this report?
- 20 A. Can you restate the question?
- Q. Did Ms. Fry participate in the writing of this report that you're sponsoring?
- 23 A. Yes.
- Q. Do you know what sections that she participated in drafting?

- A. Ms. Fry drafted Section 4 of this report and contributed to portions of Section 3.2 of this report.
- Q. Now, just so the record is clear, you had no involvement in the design of the survey that serves the basis for your report, correct?
- A. I was involved with the -- in the conversations internally as Navigant drafted the original survey, and I participated in the conversations in the development of it --
  - Q. And those conversations were with --
  - A. -- thereafter.
    - Q. I'm sorry.

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- A. Sorrv. Thereafter.
- Q. And those conversations were with Mrs. Fry or Ms. Fry?
- A. Those conversations were with Ms. Fry as well as members of her survey development team, and I also participated in conversations with AEP Ohio during that time.
- Q. Now, with respect to AEP Ohio, the purpose of this survey was to assess commercial and industrial and residential customer interest in and attitudes toward renewable energy generated in Ohio, correct?

A. Correct.

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- Q. So you were looking at their interest and what they wanted, correct?
- A. Yes. We were looking at their interests in renewables, trying to be as specific as possible with regard to what we understood AEP Ohio to be intending to pursue.
- Q. And for the participants in the survey, those were randomly selected by AEP Ohio, correct?
- A. Yes. They were randomly selected among their population of customers for whom they had e-mail addresses.
- Q. And do you know the total population of how many they had e-mail addresses for?
  - A. I believe it is -- it was about 700,000, but subject to check. I think Ms. Fry may have a more precise number for you.
  - Q. Are you aware that AEP Ohio has approximately 1.1 million residential non-PIPP customers?
    - A. That is my understanding.
- Q. And you sent this survey -- or Navigant sent the survey to 120,000 of those roughly 1.1 million, correct?
- A. Correct.

- Q. And of those 1.1 million residential non-PIPP customers, only 7,498 completed the survey, correct?
- A. Yes, that is the number that -- that responded of our -- of our 120,000 who were invited to participate.
- Q. But the entire universe of that class of customers is 1.1 million, approximately, correct?
  - A. Yes.

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- Q. So there was approximately .6 percent of the residential non-PIPP customers responded to your survey?
- A. The customers who responded to the survey, we believe, represented a statistically-significant response to the population that we sampled, and exceeded the number of respondents that we needed in order to achieve a statistically-significant sample. We didn't ever intend to sample the entire 1.1 million residential non-PIPP customers.

MS. WHITFIELD: Your Honor, I would move to strike the entirety of her answer as completely nonresponsive. I asked her if .6 percent of residential -- residential non-PIPP customers responded to the survey. It's really a simple math

question.

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MR. NOURSE: Well, I think, your Honor, the line of questioning was contesting, and she used the word, you know, only these many, this number of customers responded, and she is asking about the sample. So I think Ms. Horner is entitled to explain that the responsive sample was more than what they needed to achieve a statistically-significant and representative sample, so that's part of a complete answer.

EXAMINER SEE: Ms. Horner, I need you to answer the question that was posed to you.

MS. WHITFIELD: Can you reread the question for her, please?

(Record read.)

- A. .6 percent is not a number that Navigant calculated as part of the -- our survey and analytics. I understand that the math is -- is doable. I can certainly do it. But it's not a number that I, you know, can confirm sitting here right now.
- Q. Okay. Well, let me ask you this:
  Subject to check on my math, would you agree that
  with 7,498 residential non-PIPP customers responding
  to your survey, out of the entire customer universe

- of those -- that class of 1.1 million, that represents .6 percent of the residential non-PIPP customers, subject to check?
- A. I would agree that is a -- subject to check -- that .6 percent is the result among all of AEP Ohio's customers. That is not the number of customers that were -- that were sampled. And of those sampled, the percentage was much higher.
- Q. And with respect to the residential PIPP customers, are you aware that there are approximately 100,000 AEP Ohio customers in that class?
  - A. Yes, subject to check.
- Q. And out of that, you received 660 completed surveys from members of that residential PIPP class?
- 16 A. Yes.

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- Q. And for the small C&I single-meter customers, are you aware there are approximately 150,000 AEP Ohio customers in that class?
  - A. Subject to check, yes.
- Q. And of that, you received survey responses from 664?
- 23 A. Yes.
- Q. Now, with respect to my client, for example, Kroger, that has over 130 facilities in AEP

1 Ohio's service area, if we received the survey, would

2 | we count as 130 responses? Because you said, I

believe in response to Mr. Healey earlier, that

each -- each location would be treated separately.

5 They were not aggregated.

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MR. NOURSE: Ms. Whitfield, can I clarify your hypothetical? Are you saying 130 Kroger stores received and responded to the survey?

MS. WHITFIELD: Well, I don't know. That's a good question.

- Q. When you sent the survey out, did it go to each individual account location or did it go to the headquarters of these small C&I single-meter customers?
- A. I believe the accounts were consolidated.

  I would defer to witness Fry for a more-precise

  answer to that hypothetical.
- Q. I want to just ask one more question. So you think, subject to Ms. Fry checking, but you think that with respect to Kroger, that has 130 facilities in AEP's service area, that all of their service -- all of their facilities would have been consolidated or aggregated for purposes of determining whether they were eligible for the survey?
  - A. I would have to defer to Ms. Fry.

Q. The survey excluded any customers in the GS-2 customer class, correct?

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- A. The survey -- the survey was sent to small C&I customers. I'm not aware of the specific customer class breakdown in terms of who was included or excluded.
- Q. And did -- I believe you testified earlier that AEP Ohio set the focus of this being the residential PIPP and non-PIPP and the small C&I single-metered customers, those being the focus of the survey; is that correct? That was a poorly-asked question. Let me ask it again.

I believe you testified earlier that AEP
Ohio set for Navigant the focus of the survey that it
was going to be on residential non-PIPP, residential
PIPP, and small C&I single meter, correct?

- A. I don't recall saying that specifically. I'm maybe misrepresenting. I don't recall saying that specifically.
- Q. Okay. Well, let me just ask you, is it true that AEP Ohio determined for Navigant or set for Navigant that you were supposed to look at customer interests for customers in the residential PIPP and non-PIPP and the small C&I single-meter customers?
  - A. AEP Ohio provided the -- the overall

objective of -- of gauging their customers, their opinions and attitudes about renewable energy. I think we worked together with AEP Ohio to, in terms of the survey, to identify the best means to gauge those attitudes and expectations for each customer class.

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- Q. All right. Now, you just said you were charged with -- Navigant was charged with gauging the attitudes or interests of the customers; is that fair? Is that what you just said?
  - A. With regard to renewable energy.
- Q. Okay. And you didn't, as part of the survey, measure each customer's actual demands for energy, did you?
- A. No. As part of the survey, we didn't look at each -- we didn't ask a question about each customer's individual demand.
- Q. And you also didn't ask customers about their actual usage, correct?
- A. No. The survey did not include a question about specific customer usage.
- Q. And the survey also did not include any question about whether the customers needed renewable energy; isn't that true?
- A. Well, the survey was geared toward asking

customers and gauging their support for renewable energy as it was presented in the survey to customers.

- Q. But my question, Ms. Horner, is you did not ask whether the customers needed any renewable energy; isn't that true?
- A. The survey did not include the question about whether customers need renewable energy. It asked about their support for and expectations for renewable energy.
- Q. You understand there's a difference between customer preference and a customer need, correct?
  - A. Yes.

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- Q. Can you tell me what is -- tell me what you think that distinction is.
- A. I think what this -- what our survey focused on was and report focused on was customers', again, expectations and desires around renewable energy. How that -- how that feeds into their customer need is not an issue that we explored in the survey.
- Q. To your knowledge, can customers of AEP
  Ohio get renewable energy right now if they want to?
  - A. I'm aware that customers in Ohio have

options to receive -- to access renewable energy other than through AEP Ohio.

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- Q. They can choose to install rooftop solar, for example, correct?
  - A. Yes; if they can afford it.
- Q. And in doing your survey or your analysis of the survey, did you access the PUCO's Apples to Apples website to see the renewable options available to customers there?
- A. The survey was designed to be as transparent with customers about the specific initiative that AEP Ohio -- we understood AEP Ohio to be pursuing; so, in that context, it was not necessary to access that specific website to look at other options and we did not do that.
- Q. You are not offering testimony here today that the PJM wholesale markets are inadequate in supplying capacity for AEP's customer load, correct?
- A. My testimony does not address anything related to the PJM market.
- Q. And you are not offering testimony today that sufficient resources do not currently exist to meet AEP Ohio projected load, correct?
- A. Correct.
  - Q. And based on your education and

experience, do you have a general understanding of supply and demand?

A. Yes.

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- Q. You have a finance degree, correct?
- A. Correct.
- Q. In your -- you're not offering any opinion here that AEP Ohio does not have enough supply to satisfy the demands of its customers, correct?
  - A. Correct. We did not study that.
- Q. Do you know what a resource planning projection is?

MR. NOURSE: Your Honor, I object. As we've dealt with earlier, this witness is not here to talk about Ohio's statutes or Ohio's regulations.

And so, I think that specific term that's used in that statute is unique to this case and is beyond the scope of her testimony.

MS. WHITFIELD: Well, your Honor, I am not asking her to interpret the statute. I didn't ask her about a statute at all. I asked her if she knows what resource planning projections are. Just because the statute defines "need" as having to be based on resource planning projections, that wasn't my question to her. I just asked if she knows what

they are.

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MR. NOURSE: Well, again, your Honor, it is not just a random question. It's a phrase that's uniquely used in that statute and it's a key issue in this case from an Ohio statutory and regulatory standpoint which is beyond this witness's testimony.

EXAMINER SEE: I'll allow the question and the witness can give her -- the witness can respond to the question.

- Q. (By Ms. Whitfield) I'll ask the question again. Do you know what resource planning projections are?
  - A. In general, yes.
  - Q. And what is your understanding of that?
- A. That they are a projection or forecast of -- of resources available or needed.
- Q. And just so we're clear, this survey and the report that you base that survey on were not part of any, to your knowledge, resource planning projections, correct?

MR. NOURSE: Your Honor, you know, I am going to object again. I mean, if there is any purpose to this question, it only relates to the legal and regulatory issues unique to Ohio law that are pertinent and, you know, essential to this case.

And it doesn't relate to the survey that was presented and she stated earlier and we excluded other questions about how her survey would be applied in the context of Ohio law and regulations. And that can only be the relevant potential purpose of this question. And that's why it's objectionable.

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MR. HEALEY: Well, your Honor, I would like to weigh in on Mr. Nourse's objection. Again, we sought to exclude this witness on the grounds that her testimony has nothing to do with need. We're asking her questions about need and Mr. Nourse is saying no, need is outside the context of her testimony. AEP wants it both weighs.

MR. NOURSE: No, it's not both ways at all, your Honor, it's how her testimony fits into our case. It has already been argued in the motion in limine and several, many times, during this hearing that those are two different things. She is not here to talk about Ohio statutes or Ohio regulatory matters. Whether the evidence that's presented in the survey, you know, makes or breaks or is a critical component of those Ohio regulatory statutory legal issues, that's for debate of the parties after the evidence is in. And was already debated in the motion in limine and the ruling on that.

1 MS. WHITFIELD: And, your Honor, we lost 2 that motion in limine, and AEP Ohio is using 3 Ms. Horner's testimony and her report to allegedly show some type of need, and the statute says need has 4 5 to be based on resource planning projections, so I am 6 asking her whether her report and her testimony and 7 the survey are part of those resource planning 8 projections.

MR. NOURSE: Yeah, her testimony is part of our filing in this case, but she doesn't have to address the ultimate issues of the case.

EXAMINER SEE: The objection is sustained.

MS. WHITFIELD: Thank you, your Honor.

- Q. (By Ms. Whitfield) Ms. Horner, were you involved at all in the drafting of the letter that accompanied the survey?
- A. No. I don't -- I don't recall being involved in the drafting of the letter that was sent to customers. That was done by Ms. Fry.
- Q. Did you -- did you review that letter at all?
- 23 A. I did.

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MS. WHITFIELD: Your Honor, may I approach?

EXAMINER SEE: Yes.

MS. WHITFIELD: I'm handing the witness what's been marked as Kroger Exhibit 6. And I apologize, but some other ones, the earlier ones were premarked, have already been marked as evidence, so there's that.

EXAMINER SEE: Just a moment.

- Q. Now, for purposes of the record, I have handed you what's been marked as Kroger Exhibit 6.

  And it's an answer to interrogatory, it says interrogatory, but it is OCC-RPD-03-010. Did I read that correctly?
  - A. Yes.

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Q. Okay.

EXAMINER SEE: Ms. Whitfield, you are going to leave this as Kroger Exhibit 6? Do you want me to change it to 1?

MS. WHITFIELD: Okay, I guess I'll change that to Exhibit 1.

EXAMINER SEE: Okay.

(EXHIBIT MARKED FOR IDENTIFICATION.)

- Q. Okay. I want to turn your attention to the three documents that are attached to that. Do you see those?
- 25 A. I do.

- Q. And the first one is the residential invite. It includes AEP Ohio's logo, does it not?
  - A. Yes.

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Q. And it starts out, the first sentence is "AEP Ohio is looking to make investments to increase the percentage of electricity from wind and solar."

Doesn't "make investments" imply that AEP Ohio is undertaking the costs for those increases in the percentage of wind and solar?

MR. NOURSE: Your Honor, I object. She already said she's not involved in the drafting of this cover letter, and it's an AEP Ohio document.

MS. WHITFIELD: Well, your Honor, her report is interpreting the data that came from the surveys that were accompanied by these letters, and I'm wanting to explore with her -- she said she saw the letter -- whether the letter makes implications to the customers that could have put them in a mindset that AEP Ohio was making these investments, not their own dime.

MR. NOURSE: Well, your Honor, I think that's a rather patently-unreasonable interpretation of the word "investment" but . . .

EXAMINER SEE: I am going to allow the witness to answer the question.

THE WITNESS: Can you please read the question?

MS. WHITFIELD: I can ask it again if you would prefer.

- Q. (By Ms. Whitfield) The first sentence in this letter says AEP Ohio is looking to, quote, make investments. Do you see that "make investments" language?
  - A. I do.

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- Q. Okay. Would it be reasonable for customers to believe that the "make investments" that AEP was looking to do, was going to be something AEP was funding? Does that make sense to you?
- A. I think it would be reasonable for a customer to think, based on this one sentence, that the -- that investments would be treated as any other investments that AEP Ohio makes and that costs would be treated as any other investments that AEP Ohio makes.
- Q. Well, nowhere in the invitation letter does it notify the customers that AEP Ohio wants that customer to fund or pay for the investments that AEP Ohio is looking to make, does it?
- A. The survey itself is quite clear in the "Willingness to Pay" questions on that topic. We

didn't get into that level of detail in the invitation simply because we wanted the invitation to be as concise as possible.

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- Q. But don't you think who's going to pay would be something the customers would want to know up front?
- A. I do think that it's important to find out from customers what they're willingness to pay is and that they are -- that they clearly understand that their bills would be impacted by these initiatives, and I believe the survey made that clear.
- Q. But -- oh, I'm sorry. Finish your answer if you were still going.
- A. There's information in -- in this cover survey invitation letter that we believed was necessary to convey to encourage the customer to participate, focusing instead on things like how long it would take them to complete, and so we thought that we could be more -- more clear and direct on that particular question in the survey text itself.
- Q. So your answer is that the invite does not include any references to who is going to pay for those investments AEP is looking to make, correct?
  - A. As I said, I think if customers had

thought about the word -- the word "make investments," they would interpret that potentially based on their knowledge of how AEP operates. They could potentially interpret that as they would be paying, if they thought about and analyzed those two particular words in -- in an e-mail invitation to take a survey.

- Q. Ms. Horner, in your testimony you indicated that you have filed testimony before FERC, correct?
- 11 A. Correct.

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- Q. Have you ever, in any other instance, served as an expert witness?
  - A. Not in a regulatory proceeding.
  - Q. And for the cases outside of a regulatory proceeding that you are an expert witness, was that relating to -- well, strike that.

MS. WHITFIELD: I will just leave her answer at that. Thank you, your Honor. I'm done.

EXAMINER SEE: Mr. Whitt.

MR. WHITT: Thank you, your Honor.

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23 CROSS-EXAMINATION

24 By Mr. Whitt:

Q. Good morning, or I guess it's technically

1 | afternoon.

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- 2 A. Good afternoon.
- Q. Let me start by asking, when did you learn that AEP was going to be making the filing in this case?
  - A. I don't recall.
    - Q. When approximately -- well, how did you become involved in this case?
- 9 A. I became involved in this case in mid-July of 2018.
- 11 Q. And who was it that contacted you?
- A. One of the other consultants at Navigant
  who had been involved in this case consult -- or
  contacted me.
- Q. Okay. Was it a consultant that you understood was already involved in the case that sought to bring you into the matter?
- A. Yes. I became -- that consultant made me aware of the case.
- Q. Who was -- I'm sorry. Who was that person?
- 22 A. Andrea Romano.
- Q. Okay. How did Ms. Romano get involved in the case?
- A. I don't know.

Q. What were you asked to do?

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- A. I was asked about my opinion about how to present the various pieces of analysis that Navigant had undertaken to gauge the support of AEP Ohio's customers for renewables, and how to -- how to present that into a report for this regulatory proceeding.
- Q. Was it your understanding, when you were first contacted by Ms. Romano, that Navigant had already done some sort of analysis or work for AEP?
- A. Yes. I had been on a brief leave and had -- from the company, and had returned, and so I was brought up to speed on what the analysis had -- that had been undertaken so far was.
- Q. Okay. So Navigant had been working on a project for AEP and you were brought into the project in July of 2018; is that right?
  - A. That's correct.
- Q. And at the time you were brought into the project, was it your impression that AEP had already determined that it was going to be making a regulatory filing involving renewable energy?
- MR. NOURSE: Your Honor, I am going to object here. You know, I don't really think this line of questioning is probative but he is now

starting to get into, I think, attorney work product and the way this case was developed and what sequence of preparation led to another sequence of preparation and how that came about in the filing. I don't -- I don't think it's relevant or probative but, you know, certainly the further he gets into this, it is getting into the details of the interaction in preparing the case with the legal team and into attorney work product.

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MR. WHITT: Well, if I may respond, your Honor, there is no attorney-client privilege for any communications with a testifying expert. Nor am I asking any questions about attorney work product. I am asking the witness what she knows and what she understood she was involved in.

MR. NOURSE: First of all, it's false that there is no attorney-work-product privilege for outside experts or experts generally as Mr. Whitt said.

Secondly, again, if, you know, if he wants to ask questions about what steps she took toward the survey or what time frame that was and that kind of thing, but he's actually getting into well your -- here is what was happening with these people and then you worked toward the preparation and

filing of the case in this way. Those are different matters and I think that gets into the -- into the attorney-work-product area.

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MR. WHITT: Your Honor, I think the Commission is entitled to know whether AEP decided it was going to make this filing before or after the surveys were done. That's where this line of questioning is going.

MR. NOURSE: I don't understand the probative value of that.

EXAMINER SEE: To the extent the witness knows, she can answer the question. You can answer the question.

THE WITNESS: Can you restate the question?

MR. WHITT: Sure.

- Q. (By Mr. Whitt) At the time you were brought into this case in July of 2018, was it your understanding that AEP was already planning to make a regulatory filing involving renewable energy projects?
- A. At the time I was brought into this, this project, my understanding was that AEP Ohio had engaged Navigant to do an independent survey and an assessment overall of its customers' support for, and

attitudes about, renewable energy. It was -- I was aware that -- that they were interested in having

Navigant be available to sponsor that -- that report in a regulatory proceeding potentially. But I don't recall the timing of that.

- Q. Well, why was Navigant or AEP interested in what customer attitudes were about renewable energy? I mean, did you have some context for what you were doing?
- A. Yes. The context that we had was that they had committed to -- to pursue development of 900 megawatts of renewable energy in a separately-approved regulatory proceeding, and they wanted to gauge their customers' attitudes and opinions about that, in order to inform, you know, that pursuit.
- Q. Okay. And the actual surveys were conducted in mid-August of 2018, correct?
  - A. Correct.

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- Q. About a month after you got involved in the proceeding; is that correct?
  - A. Correct.
- Q. And by the time the survey was prepared and before it was actually sent out, you knew, by that time, that AEP had made this commitment to

pursue development of 900 megawatts of renewable generation, correct?

- A. Correct.
- Q. And, in fact, the survey itself, if we look at page 31 of your report, tells customers that AEP is working on the development of 900 megawatts of renewables, correct? I will give you a minute to get there. Under the "Willingness to Pay" heading. Do you see that?
- 10 A. Oh.

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- EXAMINER SEE: So, Mr. Whitt, are you looking at the page numbers on the bottom of the survey or at the top?
- MR. WHITT: Oh, sorry, I didn't realize
  they were different. I was looking at the number on
  the bottom.
- EXAMINER SEE: Could you please use the reference at the top.
- MR. WHITT: Exhibit TH-1.
- 20 EXAMINER SEE: Page 38 of 41?
- MR. WHITT: Yes.
- Q. Under the "Willingness to Pay" heading,
  the survey itself lets customers know that AEP is
  working on a development of this 900 megawatts of
  renewable generation, correct?

A. Correct.

- Q. And the survey, more or less, is trying to figure out what customers think about this plan, correct?
  - A. The survey, yes.
- Q. And it's fair to say, isn't it, that the survey could not have factored into AEP's decision about whether to pursue this development because -- because that decision had been made before you sent the survey?
- MR. NOURSE: Again, your Honor, you know, the decision to make a filing and when that happens or what -- at what point in the development of, you know, marshaling of facts and information and supporting data is -- is -- I don't think it's probative of anything. I don't think it -- she can ask -- she can be asked whether any of that sequence --
- MR. WHITT: I am going to cut this off -EXAMINER SEE: Wait just a minute,
- 21 Mr. Whitt.
- MR. WHITT: -- because I haven't heard a legal objection.
- 24 EXAMINER SEE: Wait just a minute,
- 25 Mr. Whitt.

MR. WHITT: I'm tired of the speaking coaching.

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EXAMINER SEE: Wait just a minute. You were allowed to speak. Hold on.

MR. NOURSE: I did, I said it was not probative, it's not relevant of anything to get into these things, and it's -- and it's touching on attorney work product when you're talking about decisions to make filings, at what point and based on which testimony or what exhibits you plan to do and whether that taints -- I mean, I don't understand how this is probative or relevant of anything. That's my objection.

MR. WHITT: AEP has put the matter at issue by sponsoring a report and making a filing saying we need to pursue this development because customers have told us that's what they want. They have put — that is their assertion. I am seeking to rebut the assertion by pointing out, not as a matter work product or anything else, but as a matter of logic and common experience, that the survey could not have been the basis for a decision that had been previously made.

MR. NOURSE: Your Honor, again, the basis

of our decision to file and whether it was based on 1 2 Exhibit 1 or Exhibit 2 or Exhibit 3 is beside the 3 point. And certainly saying that we did a survey 4 that supported what we already wanted to do, that 5 doesn't take away from the survey, it doesn't affect any testimony that supports -- that's put in, in 6 7 support of an application, is developed with the idea 8 of making the filing and so, you know, it's just 9 beside the point. It's not probative of anything. 10 It's not relevant to get further down into this 11 rabbit hole.

MR. WHITT: Your Honor, it's the very point.

EXAMINER SEE: Just a minute.

The motion is overruled. Ms. Horner can answer the question.

Do you need it read back to you,

18 Ms. Horner?

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THE WITNESS: Please.

(Record read.)

A. I don't have insight into at what point AEP Ohio made the decision to make this regulatory filing. What I can say is that the survey itself is part of a larger set of analysis that is included in the overall report that Navigant undertook earlier

but then the survey was -- was sent to customers, and the survey development also was initiated well before August when it was sent out to customers.

- Q. Right. But you can't know what customers think until you send the survey, correct?
  - A. Correct.
  - Q. That's why you do the survey, right?
  - A. Yes.

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- Q. So no one can make any determination about customer attitudes until the survey is completed, the results tallied, and the data analyzed, correct?
- A. We can't know what the survey results are going to be, the results of the specific survey before the survey is sent. I don't -- I can't speak to what AEP Ohio knew, via other means, about its customers' desires or support or attitudes about renewable energy outside of the survey results.
- Q. And you haven't seen any surveys, other than the one, that you've sponsored, that would speak to any of those issues, have you?
- A. Beyond what's covered in our report that analyzed what large C&I customers, the magnitude of their commitment to renewable energy and the questionnaires, we -- and our overall awareness of

support for renewables across the country, no, we did not examine specific studies.

- Q. Okay. But you knew that AEP had determined there was a need for 900 megawatts of renewables and Navigant then prepared a survey and subsequent report gauging customer sentiment about those plans, correct?
- A. We knew they had committed to pursue development of 900 megawatts of renewable resources in a separate proceeding.
- Q. And the purpose of the survey was to gauge customer attitudes about this new renewable development, correct?
  - A. That regulatory directive, yes.
- Q. You're not aware of some regulatory directive that said AEP has to build 900 megawatts of renewable, are you?
- A. No; just the regulatory approval of that -- of the settlement in which they agreed to pursue development --
  - Q. Okay.

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- A. -- of 900 megawatts.
- Q. Okay. Now, I'm assuming that you wanted to make sure -- that Navigant wanted to construct the survey in such a way as to maximize the response

rate; would that be correct?

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- A. I think it's correct to say Navigant wanted to ensure a robust response as to ensure that the response rate would be statistically significant at a minimum.
- Q. So the more responses, the better, as far as surveying is concerned, correct?
- A. I think that question is probably a better one for Ms. Fry. She's the -- an expert in terms of survey response.
- Q. I don't know if that requires an expert opinion, but Navigant sent surveys by e-mail to 120,000 people, correct?
  - A. Correct.
  - Q. And I would assume that it was Navigant's hope for as many people as possible to respond to the survey; would that be fair?
    - A. I think that's fair.
  - Q. Okay. And to get people to respond, I'm assuming Navigant wanted to make sure the questions were clear; fair to say?
    - A. Yes.
- Q. And that the process for responding would be simple, correct?
- 25 A. Yes.

Q. And the letters we looked at a little bit ago, I think they referenced the fact that the survey was expected to take 5 minutes. Do you recall seeing that in the letters?

A. I do.

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- Q. So you wanted the process to be -- well, the shorter and easier the process, the more likely people would be to respond, correct?
- A. I think that is a factor that can influence whether a customer participates.
- Q. Okay. And the way Navigant put together its survey, the respondents don't even have to really type, do they? They can just click boxes, correct?
- A. For some questions. For others, if they cared to offer an opinion, in the open-ended questions, there would be some typing involved.
- Q. But that was optional, wasn't it, the typing out?
  - A. Yes.
- Q. Okay. So someone -- it was Navigant's hope that when they sent this survey, people would take 5 minutes to read the questions, click their responses, leave comments if they were so inclined, and hit a button to submit the survey, correct?
- A. Correct.

Q. And by allowing people to just hit a button to submit the survey, people wouldn't have to type in some e-mail address to get the results back, correct?

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- A. I believe that is true. Ms. Fry will be able to confirm that.
- Q. Okay. So a lot of effort was made to put together a survey that was quick, easy, understandable, and would maximize the response rate; would that be fair?
- A. Those were some of our key objectives.

  We wanted to make sure that customers understood the specific initiative that was being pursued, that they understood AEP Ohio's current generation percentage of renewables; so we wanted to provide context so that customers would have that in mind, you know, when answering questions.
- Q. Okay. And despite all of those efforts, over 95 percent of the people that received this e-mail survey didn't even bother to respond to it, correct?
- A. I believe the response rate was slightly higher for certain -- for certain groups, but in general that is, you know, in the aggregate about approximately the response rate that we received.

And about -- it met and, in fact, exceeded our -- our targets in terms of the response rate.

- Q. 120,000 surveys went out, correct?
- A. Correct.

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- Q. 7,500, approximately, responses came in, correct?
  - A. Correct.
- Q. So 100 -- well, anyone, except me, can do the math, but the vast majority of people didn't respond to this request to take a survey, correct?

  MR. NOURSE: Asked and answered; objection.
- EXAMINER SEE: Move on, Mr. Whitt. It's been answered.
- Q. (By Mr. Whitt) Is it fair to assume that the people -- the small percentage of people who took the time to respond to the survey, have stronger feelings about the topics raised, than the vast majority of people who ignored the survey?
- A. We don't have any reason to think that customers who responded to the survey feel strongly in either direction about the topic of the survey.

  And -- and, in general, the response rate is pretty consistent with what we have seen in our practice with other general population surveys. So that leads

us to believe that there's no reason to think that they feel more strongly or positively or negatively about the topic.

- Q. So the response rate suggests nothing to you about any predisposition that the respondents may have had? That's not a factor?
- A. No, we don't have any reason to think that it reflects any disposition one way or the other.
- Q. All of the percentages and figures that are in the report pertain to the 7,500 survey responses; is that correct? For example, on Figure 6 -- let me find that. Exhibit TH-11, page 17 of 41, Figure 6.
  - A. Yes.

2.1

- Q. It says, for example, 52 percent of residential non-PIPP survey respondents thought it was very important that AEP Ohio make greater use of renewable energy, correct?
- A. Correct. And that is 52 percent of the 7,498 residential non-PIPP.
- Q. Right. And that's not 52 percent of AEP
  Ohio's million-plus non-PIPP residential customers,
  correct?
- 25 A. This survey -- the results that are

presented in the attachment to my testimony are -are the results of this survey which we believe to be
representative, but it is not a survey of all of
their customers.

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- Q. Correct. And even though most customers who are asked these questions disregarded them and didn't respond, is it your position that the responses of the 5 percent or so of folks who did respond represent the views of everyone?
- A. We believe that the -- there's -- based on the -- the sample methodology and size that we performed, and our assessment of some of the demographic information that we collected against AEP Ohio's own demographic information, we don't have any reason to think that it's not representative of AEP Ohio's overall customer population that they support renewables.
- Q. Well, I am willing to be proven wrong here, but I didn't see -- I didn't read anywhere in the report where Navigant claims that the survey results represent anything other than a numerical calculation of the answers that they got from respondents and that the results should generally be applied to all customers. That's not in the record, is it?

- A. The report focuses on the results of the survey.
  - Q. You had talked briefly about your work at PG&E. And that's Pacific Gas & Electric, right?
    - A. Correct.

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- Q. And I think it's, at least this company, it's fairly well known that PG&E is having some tough times right now, correct?
  - A. Correct.
- Q. They are being blamed for the wildfires we've had out in California, correct?
  - A. I have read that.
- Q. I am not saying they did it, but other
  people are saying. And PG -- PG&E is on the verge
  of, if not in, bankruptcy, correct?
- MR. NOURSE: Objection, relevance.
- MR. WHITT: I'll tie it up.
- 18 EXAMINER SEE: Get to it.
- MR. WHITT: Did she answer that question?
- 20 EXAMINER SEE: Answer the question,
- 21 Ms. Horner, if you know.
- A. I can't speak to PG&E's plans to file for bankruptcy.
- Q. But you are aware, at least anecdotally from the news, PG&E is in trouble financially,

correct?

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- A. I have read the news stories about PG&E.
- Q. Okay. And given the blame that is being lodged at PG&E for the wildfires, would it be fair to say that PG&E's customers don't hold it in very high regard right now?

7 MR. NOURSE: Objection. Relevance, 8 speculation, calls for speculation.

9 MR. WHITT: I have one question after 10 this that ties it up.

EXAMINER SEE: The objection is sustained.

- Q. Would you -- your work currently involves matters of regulatory policy, does it not?
- 15 A. Yes.
  - Q. And your work at PG&E involved regulatory policy as well, did it not?
    - A. It did.
- Q. Would you believe it would be a sound regulatory policy for the California PUC to decide what it should do to address PG&E's current situation by sending a list of options to PG&E customers and asking them what they think?

MR. NOURSE: Objection.

Q. Does that sound reasonable to you?

1 MR. NOURSE: Objection. Relevance.

There is no relevance. And, again, this has no comparison to anything in this case.

EXAMINER SEE: The objection is sustained. Move on, Mr. Whitt.

Q. Other than -- other than a report being submitted that asserts need based on customer preferences.

EXAMINER SEE: The objection is sustained. Move on.

- Q. (By Mr. Whitt) Were you -- when we were fighting about the survey this morning, it was -- I think it was Mr. Kurtz who had mentioned J.D. Powers and how their surveys are routinely admitted in regulatory proceedings. Did you hear that?
  - A. Yes.

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- Q. And I would assume, as somebody in the survey business, that you know who J.D. Powers is?
  - A. I'm aware of J.D. Power.
- Q. And does J.D. Powers, in your view, have a reputation for fairness and accuracy?

MR. NOURSE: I would object to relevance and there is no basis for this -- this observation, or it doesn't relate to any specific J.D. Power's work or has no context or relevance.

MR. WHITT: These are foundation questions.

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EXAMINER SEE: You want to give me some idea where you are going?

MR. WHITT: Well, I am going to take out a survey -- actually, yeah, I am going to show -- I am going to have admitted into this record other surveys from AEP's customers showing that they are third from the bottom in J.D. Power's annual survey of major electric utilities and that information is relevant because the Company is planning a proposal that we believe would displace my clients from a market that they want to enter, and customer attitudes about customer service and other aspects of AEP Ohio is something the Commission should know about before it approves a policy that would allow that to happen.

Again, I -- you're preaching to the choir on this whole survey issue, but the precedent was set this morning that we can let that stuff in. If we are going to let in surveys about AEP customer attitudes, then let's let in surveys.

MR. NOURSE: Yeah, your Honor, there is no comparison to pulling a survey out of wherever Mr. Whitt got his surveys and having a customer

survey done by an independent expert and sponsored in testimony in this case.

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Obviously that does not suggest anything about what any other party can do in the record, especially absent testimony supporting the survey and being subject to extensive discovery, cross-examination, et cetera. So there's no comparison.

And Mr. Whitt, if he had wanted to do something like that, he could have at least had his own witness try to present evidence like that and we could deal with it, but he's certainly not entitled to testify about anything -- any of the hearsay he just mentioned or use that as evidence in this case.

MR. WHITT: Your Honor, I am asking a witness, who is involved in regulatory policy and who is sponsoring a survey herself, whether she's familiar with an internationally-known organization that doesn't do surveys because they get paid; it does them as a -- as a business.

MR. NOURSE: Your Honor, that's like -are you done? That's like saying an expert witness
should always be able to sponsor some other nonparty,
non-witness's opinions just because they've heard of
them or run across them in their business. That --

that, you know, that's a joke.

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I mean, we have a witness here that has established credibility, has sponsored and conducted, overseen a valid survey that has direct application. It's not some general viewpoint. It's directly applicable to the issues in this case. It's been developed and presented appropriately within the Commission's rules for presenting evidence and subject to discovery and cross-examination that — and he can't use my witness to try to bootstrap some general credibility of a third party that's not here and not related to any witness's testimony that's going to be subjected to discovery or cross-examination. It's inappropriate.

MR. WHITT: Again, I was asking foundational questions. If she's never heard of J.D. Powers, doesn't know what I am talking about, then we'll move on.

MR. NOURSE: That's beside the point,
your Honor. We know where it's headed because he's
already said that. He already tried to summarize --

MR. WHITT: If your witness doesn't know who J.D. Powers is, she's not qualified to testify on what she is testifying about.

EXAMINER SEE: Mr. Whitt, just -- the

parties can hold their comments.

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The objection is sustained.

(EXHIBIT MARKED FOR IDENTIFICATION.)

MR. WHITT: Your Honor, I would like to make a proffer, Direct Exhibit 1. I will hand out copies momentarily. Press release from J.D. Power, July 11, 2018, a month before the Navigant folks did their survey.

MR. NOURSE: Your Honor, excuse me. I object. He is going to read stuff in before he distributes it or talks about it?

MR. WHITT: Okay. Direct Exhibit 1 -
MR. NOURSE: He doesn't get to simply

summarize --

MR. WHITT: Direct Exhibit 1 is a document that has the name "J.D. Power" on the left. And we respect the Bench's ruling, to preserve the record, we are making a proffer of an exhibit which is a press release and slides from J.D. Power, summarizing the results of its residential electric utility customer satisfaction survey. And we believe that had we been permitted to proceed with the line of questioning, we would have established a foundation with this witness to identify the press release and the attachments. And the information, in

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     our view, is relevant to a broader range of customer
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     attitudes than presented -- excuse me, than presented
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     by the Company.
                 So, with that, I will pass it around.
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     The proffer is made, and I'm done.
                 EXAMINER SEE: You're going to -- and
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     you've completed your cross-examination, Mr. Whitt?
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                 MR. WHITT: Yes, your Honor.
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                 EXAMINER SEE: With that, we are going to
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     take a half-hour lunch break. We will resume at
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     1:45.
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                 We're off the record.
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                 (Thereupon, at 1:13 p.m., a lunch recess
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     was taken.)
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677 1 Thursday Afternoon Session, 2 January 17, 2019. 3 4 EXAMINER SEE: Let's go back on the 5 record. Mr. Nugent. 6 7 MR. NUGENT: Yes. EXAMINER SEE: You can go ahead and start 8 9 your cross-examination, please. 10 11 TRINA HORNER 12 being first duly sworn, as prescribed by law, was examined and testified as follows: 13 14 CROSS-EXAMINATION 15 By Mr. Nugent: 16 Good afternoon, Ms. Horner, welcome back. Q. 17 Α. Good afternoon. 18 Earlier, this morning, you provided some Q. 19 testimony regarding your professional background and 20 your work experience. For the record, you are the 2.1 Director of Navigant's Energy Practice, correct? 2.2 Α. I am a Director in Navigant's Energy Practice. 23 24 And you have been employed with Navigant Ο. 25 for a little over two years, correct?

A. Yes.

- Q. Okay. Possibly earlier this morning you indicated to Ms. Whitfield that you personally prepared, in your words, portions of the original report entitled "AEP Ohio Voice of the Customer: Attitudes and Expectations for Renewable Energy," correct?
  - A. Correct.
- Q. Okay. I believe you also indicated that two of your colleagues, Andrea Romano, and a gentleman by the name of Brian, which I can't read my notes, prepared portions of that report as well, correct?
  - A. Yes; Brian Dickman.
  - Q. Thank you.
  - Did anyone at AEP Ohio, the parent company of American Electric Power, or its subsidiaries, assist you in drafting or preparing the report?
- 20 A. No.
- Q. Okay. Did anyone else at Navigant assist you in preparing the report?
- A. As I mentioned, Nicole Fry prepared portions of the report as well.
- Q. Okay. And am I correct Navigant surveyed

679 a total of 160,000 customers in the AEP Ohio service 1 2 territory prior to performing its assessment? 3 We sampled, yes, 160,000 customers total. Α. And the Navigant assessment is based on 4 Ο. 5 the 8,822 total survey responses it received, 6 correct? 7 I'm sorry, can you repeat the question? 8 Q. Sure. 9 MR. NUGENT: Could you reread the 10 question, please? 11 (Record read.) 12 Α. The survey assessment is based on that 13 total --14 Ο. Okay. 15 Α. -- of responses. And that's approximately a 5-percent 16 Q. 17 response rate, correct? 18 Approximately. Α. 19 Okay. And do you have a copy of your Ο. 20 testimony in front of you? 2.1 Α. T do. 22 Q. Okay. Do you also have a copy of the 23 report with you? 24 Α. I do. 25 Q. Okay. I would like to direct your

attention to page 4 of your testimony, lines 1 through 3, if I could. Okay. There you say that "Results from the online survey indicate that a strong majority of customers believe it is important that AEP Ohio makes greater use of renewable energy above current levels." Do you see that?

A. I do.

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- Q. Okay. And those results you referenced are based on the responses provided to Question 2 of the survey, correct?
  - A. Corrected.
- Q. Okay. And am I correct that Question 2 makes no mention of, or reference to, AEP Ohio when asking customers to assess the importance that the energy they receive in the future make greater use of renewables?
- A. That is correct. The statement above it, which is contextual, does reference AEP Ohio, but the question itself does not.
- Q. To be clear, Question 2, itself, does not reference AEP Ohio.
- A. Yes, I think it could be inferred from the statement above it but Question 2 does not include that.
- Q. Thank you.

So it would be fair then to say that based on the results of Question 2 to the survey, a strong majority of AEP Ohio customers believe it's important that the energy they receive in the future make greater use of renewables regardless of the energy provider?

A. Could you repeat the question, please?

MR. NUGENT: Could you please reread the question?

(Record read.)

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- A. I think it's fair to say that absent the context from the statement immediately preceding it. However, given that the statement immediately preceding Question 2 refers to "AEP Ohio" twice, I'm not -- I wouldn't be able to characterize how the answer to Question 2 would be interpreted if the contextual statements preceding it weren't there.
- Q. Sure. But I didn't ask you about the contextual statements. I just asked about the question itself and the question itself speaks very generally about customer interests in renewable, energy, correct?
  - A. Yes.
- Q. So it would be fair then to say the response is also very general in that while customers

may be optimistic about renewable energy, their optimism, it's not AEP Ohio that's providing the energy, it's -- they are more interested in receiving renewable energy regardless of who provides that energy, correct?

- A. Question 2 doesn't, by itself, address who provides the energy, so --
  - Q. Correct.
- A. I think it's fair to say Question 2, by itself, indicates that customers believe it's important to make greater use of renewable energy.
  - Q. In a general sense, correct?
  - A. If it's taken by itself.
  - Q. Thank you.
- Staying with that report, if you could turn to page 19. I'm looking at Figure 8.
- A. Okay.

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- Q. And am I correct, of the small C&I customers that responded to the survey, 45 percent indicate that it is moderately important, slightly important, or not important that AEP Ohio provide renewable energy that's produced within Ohio?
- A. Yes.
- Q. Moving down the page to Section 4.2.4, am
  I correct that residential non-PIPP customers were

randomly shown a monthly pricing range increase to

determine whether those customers will be willing to

support AEP Ohio's proposed renewable development

4 projects?

5 MR. NOURSE: Could I get the reference 6 again?

7 MR. NUGENT: Sure. Page 19, Section

8 4.2.4.

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MR. NOURSE: Thank you.

THE WITNESS: Could you please read the

11 question again?

12 (Record read.)

13 A. Yes.

Q. Thank you. And to clarify, it's actually 4.2.4.1. I cited 4.2.4, but the information I was looking for is provided in that section.

Ms. Horner, that pricing range that we are referring to started at 50 cents per month and increased to as much as \$1.75 per month, depending on the answers customers provided, correct?

- A. Correct, for residential non-PIPP customers.
- Q. Thank you. And to be clear, not every customer surveyed was provided with the same monthly pricing increase information, correct?

A. The -- correct. The starting price provided to residential non-PIPP customers was randomly selected.

Q. Okay. Thank you.

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If you could please turn to the following page, page 20. Looking at the first paragraph on that page. The assessment -- or the report, pardon me, states "The results show that the level of customer support for bill increases is relatively consistent across the dollar amounts tested, suggesting that the difference between a 75 cents a month and \$1.75 a month increase may be insignificant for the customers who are willing to pay more." Do you see that?

- A. Yes.
- Q. Okay. So would you agree that Navigant's assessment assumes that because customer attitudes related to bill increases are consistent, a customer that indicated a willingness to support a billing increase at the lowest end of that range would also support an increase at the range maximum?
- A. I think that is a factor in reaching that conclusion.
- Q. For my next question, for transparency, I am looking at both your testimony and the report.

The testimony, if you could turn to page 4, lines 4 to 5.

A. Yes.

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- Q. Okay. You indicated that "many small C&I customers are willing to pay some additional amount on their electricity bills for AEP Ohio investments in renewable energy." Do you see that?
  - A. I do.
- Q. Okay. If you could, turn to page 21 of the report. I am looking at Figure 10. Let me know when you're there.
  - A. Yes, I'm there.
- Q. Am I correct that based on the information provided in Figure 10, an average of 51 percent of all small C&I customers that responded to the survey indicated they are either unwilling or not sure of their willingness to pay a monthly bill increase?
  - A. Yes, I believe that is true.
- Q. And small C&I residential, non-PIPP, and residential PIPP customers were asked in the survey to indicate their level of agreement, either with AEP Ohio's increased investment in wind and solar energy, or maintaining their current energy bill amount, correct? I believe those are Questions 11 and 12.

- A. Yes. The question was phrased in two ways.
- Q. If you could turn to page 25 in the report.
- 5 A. Okay.

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- Q. Pardon me, page 24. And I am looking at Figure 12. Am I correct that 62 percent of small C&I customers that responded to the survey are either neutral or in agreement that maintaining current bill amounts is more important than AEP Ohio's investment in renewable energy?
- 12 THE WITNESS: I'm sorry. Could you read
  13 the question again, please.

14 (Record read.)

- A. That is true. Depending on how the question is framed, C&I customers' perspectives differed slightly.
- 18 Q. But could you answer the question I 19 asked?
- MR. NUGENT: Could you reread the question, please?
- MR. NOURSE: The answer, you mean? She
  did answer it. Can we reread the answer, too, if you
  are going to read the question?
- MR. NUGENT: That's fine.

(Record read.)

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- Q. But those customers were either neutral or in agreement or strongly agreed that maintaining current bill amounts is more important than AEP Ohio's investment in renewable energy, correct?
- A. Yes, that is what Figure 12 says. And when the question is framed differently in the opposite approach, C&I customers generally were neutral, agreed, or strongly agreed that wind and solar energy is more important than maintaining current bill amounts.

MR. NUGENT: Could you read the answer back, please?

(Record read.)

MR. NUGENT: Your Honor, I would move to strike everything after the answer to my question which I believe was a "Yes."

MR. NOURSE: Your Honor, I think the witness is simply -- I thought the foundation was covered earlier that Questions 11 and 12 were related, and flipped the question as, I guess, as a survey control, so he is asking about Figure 12, and she agreed to what Figure 12 said, but I believe she was referring to Figure 13, on the next page, to round out the statement about how customers responded

1 | when the question was flipped.

2 MR. NUGENT: That wasn't my question, 3 your Honor. I was asking exclusively about the

4 information provided on Figure 12.

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MR. NOURSE: Yeah, I think she provided a full answer that explained the whole -- how the whole line of questioning ties together.

8 EXAMINER SEE: And the answer stands.
9 Move on, Mr. Nugent.

10 MR. NUGENT: Thank you.

Q. (By Mr. Nugent) If you could, Ms. Horner, please turn to page 33 of the report. Are you there?

Okay. Of the open-ended comments submitted by small

C&I customers in Figure 23, 67 percent were

categorized either mixed, neutral/unclear, or opposed to AEP Ohio's development of renewable energy, correct?

THE WITNESS: Could you reread the question, please.

(Record read.)

A. Figure 23 shows that 26 percent were neutral or unclear, 46 were opposed, and 65 percent were mixed.

MR. NOURSE: I'm sorry. Could you reread the answer?

(Record read.)

- Q. Staying on that same page and moving down to Figure 24, am I correct that the top supportive theme provided by small C&I customers indicated that those customers are generally supportive of renewables?
  - A. Yes.

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- Q. And what does that mean? How do you define "generally"?
- A. In that category, customers support renewables, the idea of renewables, renewables generally, not specific types.
- Q. Pardon me. Would it be fair then to say that they support the idea of renewables, regardless of the provider?
- A. Well, again, I think the question in isolation, yes, the survey is coming from AEP Ohio with the context that it's AEP Ohio who's developing them or proposing to. But, in isolation, yes.
  - Q. Thank you.

And based on this assessment and your review of the -- information and the responses provided in the report, would you agree that the outcome of the survey would have been the same had the survey questions substituted any reference to AEP

Ohio with, hypothetically, IGS Solar or some other third-party renewable-energy provider?

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- A. I can't speculate as to how customers would have reacted to that. There are other variables that are unknown that may have factored into answers.
- Q. Based on the information provided, what is your opinion?
- 9 MR. NOURSE: Objection. That calls for speculation and she just indicated she couldn't do that.
- EXAMINER SEE: The objection is sustained.
- Q. Ms. Horner, am I correct you previously indicated you reviewed the written comments to the survey?
- A. I reviewed some of them. I did not review all of them.
- Q. Okay. But you did review the survey responses, correct, the written responses the customers submitted?
- MR. NOURSE: Sorry, I object. Can you

  clarify? Are you asking about the raw survey data or

  what -- are you asking whether she reviewed every

  cell of data or what are you asking?

- Q. Can you clarify for me how many comments you actually did review? And to be clear, I am referring to the survey responses themselves, yeah, the written comments?
- A. The written comments to the survey, I didn't count them. Maybe a couple hundred.
- Q. Okay. That's quite a few. So based on your review of the comments, would you agree there were several hundred that indicated they were strongly opposed to AEP Ohio's proposal?
- A. Sorry. Are you asking if I read several hundred that were strongly opposed to AEP Ohio's proposal?
- Q. In reviewing those comments, would you agree there were several that indicated -- several hundred customers that indicated they were opposed to AEP Ohio's proposal?
- A. In reviewing the comments, I did read some that were from C&I customers that were opposed to AEP Ohio's proposal, yes. There were -- the comments that I reviewed, spanned the -- the gamut of potential support or opposition.
- Q. What about the residential PIPP and non-PIPP customers? Did you review their comments?
  - A. Yes.

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Q. Okay.

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- A. Some of them.
- Q. Sure. And of those that you reviewed, were there any that indicated opposition to AEP Ohio's proposal?
- A. Yes. Again, there were some in the residential group that I reviewed that opposed AEP Ohio's proposal just as there were some that supported it.
- Q. Do you have a ballpark or an estimate for the number of comments you reviewed that were opposed?
- 13 A. I don't recall.
- MR. NUGENT: Okay. Your Honor, I would
  like to mark IGS Exhibit 3 and that exhibit contains
  an excerpt of those comments.
- MR. NOURSE: Are these the open-ended comments?
- MR. NUGENT: Yes.
- MR. NOURSE: Okay. Before we talk about these, I would like to review this for
- 22 confidentiality.
- MR. OLIKER: As far as we know, the document was not marked confidential.
- MR. NOURSE: We indicated earlier, when

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     this came up, some of the comments identified
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     customers specifically and would be considered
     confidential. I don't know whether the document that
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     was just handed to me has that -- has any
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     confidential. I just said I would like to review it
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     with that concern before we proceed or get a
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     representation from counsel that they are not going
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     to ask about any comments that disclose individual
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     customers.
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                 MR. OLIKER: No. The expletives are also
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     taken out as well.
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                 MR. NOURSE: You redacted the document or
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     was it --
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                 MR. OLIKER: The -- where an expletive
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    was used, we just put a bracket.
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                 MR. NOURSE:
                              So you redacted what the
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     Company produced in discovery?
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                 MR. OLIKER: We took out swear words to
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     avoid putting them in the docket.
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                 MR. NOURSE: I am actually asking
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    Mr. Nugent. I think he is handling this witness, but
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     if I can get a representation whether it's what we
     provided or whether it was redacted and --
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                 MR. NUGENT: The exhibit contains the
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responses themselves, no customer-identifying

information, to the best of our knowledge.

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MR. NOURSE: Thank you. I just ask that we proceed with caution on that confidentiality issue. Thank you.

EXAMINER SEE: Okay. And you want -- this is marked as IGS 3?

MS. BOJKO: I am sorry, I didn't hear you, your Honor.

EXAMINER SEE: And this is marked IGS Exhibit 3.

(EXHIBIT MARKED FOR IDENTIFICATION.)

- Q. (By Mr. Nugent) So, Ms. Horner, what my colleague referred to, does this look like some of the comments that were included in response to the survey?
  - A. It does.
- Q. Okay. If I could draw your attention to the middle of the first page. I want to read some of those comments to you. It says "To the average AEP distribution customer, this survey conflates the role of the AEP utility with the...AEP power supplier. Is the provision of renewable energy only limited to the standard service offer, or would there be some mechanism at the utility level, such as a rider, which would apply to customers taking power through a

competitive supplier? This survey does not feel
'right' and is potentially misleading."

Did you have an opportunity to previously read that comment?

A. I don't recognize this.

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Q. Okay. Moving further down the page, about three-quarters of the way down, there is a comment that starts in caps, "I do not," it goes on to say, "want to pay for higher cost unreliable electricity so that some environmentalists can sleep at night. These folks are not even AEP customers who want renewables, let them pay extra."

MR. NOURSE: Your Honor, I am going to object. I mean, we earlier had a discussion that this data, the open-ended question data was potentially going to be marked as an exhibit per the Bench's direction.

And I will say, as I said before, it's a very voluminous document, but I guess I don't -- obviously IGS has excerpted and modified the thing that we provided in discovery, and so this is a highly-selective, carefully-chosen list, apparently, and so I want to know if we are going to make that larger set of data an exhibit, then I have no problem with this. Otherwise, I think it's, you know, it's

manipulated the data that was provided and it's prejudicial in the sense that they are being highly selective about reading things into the record here.

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MR. NUGENT: Well, and to be clear, your Honor, this is actually included in Matthew White's testimony as Exhibit 2. Our feeling is AEP could have included this in their testimony but they chose not to which is why we are submitting it now.

MR. NOURSE: We didn't get a chance to file rebuttal yet, but I'm just going back to the Bench's ruling on what you talked about as an exhibit and I guess I just want to make sure if we are going to do that, that's fine. We can all read selected portions if we want to.

EXAMINER SEE: Mr. Nourse, are you indicating that what's been marked as IGS Exhibit 3 is a portion of a larger exhibit that you were directed to provide earlier this morning and agreed to do so?

MR. NOURSE: Yes, I believe that's my best understanding. The witness may be able to verify or clarify but that it's a subset of what we provided in discovery that, you know, has also -- had some modifications done to it but it's, you know, it's a subset.

EXAMINER SEE: Okay. And you are still going to provide that information so that we would have what --

MR. NOURSE: That's what I wanted to confirm we are still going to do that.

EXAMINER SEE: Okay. Yes. I expect you to provide what we reserved to be AEP Exhibit 7 earlier this morning.

MR. NOURSE: Thank you.

MR. NUGENT: Was there a pending

question?

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(Record read.)

- Q. (By Mr. Nugent) Is that comment familiar to you?
- A. I don't recall seeing that in my review of the comments; and the customers who received the survey are AEP Ohio customers.
- Q. Okay. But would you agree that the document before you contains roughly several hundred comments that are opposed to AEP's proposed development?
- A. I agree that the document in front of me appears to be a subset of the write-in responses to the survey that reflect either opposition to or are mixed or neutral or unclear. I see some comments in

here that, to my eye, seem unclear in where they stand on renewables.

- Q. Well, would you agree of the 8,000-plus customers that actually responded to this survey, only a small subset actually provided comment?
- A. Approximately a quarter of the customers, I believe over 2,000 submitted written comments out of the 8,000-plus who responded.

9 MR. NUGENT: Thank you, Ms. Horner. No 10 further questions.

11 EXAMINER SEE: Ms. Bojko.

MS. BOJKO: Yes, your Honor. Thank you.

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## CROSS-EXAMINATION

15 By Ms. Bojko:

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- Q. Good afternoon, Ms. Horner.
- 17 A. Good afternoon.
- Q. I want to clarify a couple of statements
  that you said earlier today in response to questions.

  You used the word "statistically significant." Do
  you recall that?
  - A. Yes.
- Q. Do you have a quantitative value for what "statistically significant" means?
- 25 A. I think it -- the absolute value depends

on the circumstances and what's being sampled, and I would suggest that witness Fry is -- was involved determining and deriving the numbers required for significance in this study.

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- Q. Okay. And I can talk to Ms. Fry about this when she's on the stand, but you used that term in response to some questions, and I'm trying to understand, to you, what is statistically significant. Is 50 percent, 51 percent significantly -- statistically significant, or is 1 percent statistically significant?
- A. Statistically significant in terms of how I was thinking and using the term earlier simply means that it receive -- that it represents a number that -- at which we were able to have confidence in the survey results.
- Q. And at what percentage is that number?
  What percentage of the whole would you believe to be statistically significant?
- A. So that varies for each -- each question and, again, I would refer you to Ms. Fry.
- Q. But, Ms. Horner, I'm confused. You are deferring me to Ms. Fry when you use the phrase in response to questions. So from your perspective -- you are being offered as an expert here today; is

that correct?

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- A. Yes.
- Q. And you are being offered as an expert in the preparation of a report regarding a survey that Navigant prepared and conducted for AEP Ohio, correct?
  - A. Correct.
- Q. And as an expert in the field that's relying on this report, you used the term "statistically significant," and I want to know, in your opinion, what is statistically significant? What percentage?
- A. I did not have in mind a specific number in making that reference.
  - Q. And in your work with Navigant, you don't have in mind a specific value to what, in your expert opinion, is deemed to be statistically significant?
  - A. I am not an expert in developing the survey, design or implementation or analysis, and that is why we relied on witness Fry for -- for those calculations. However, I understand that the -- that the responses that Navigant designed the survey to elicit and, in fact, received, allowed us to have confidence in the survey results.
    - Q. You stated, I believe, that you are

responsible for at least portions of the report that is attached to your testimony; is that correct?

- A. That is correct.
- Q. And this is your exhibit attached to your testimony. Coming in today, it was your understanding that you were supporting this exhibit, correct?
  - A. Yes.

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Q. Okay. And if the report uses the term "statistically significant" or "statistical significance," you are sitting here today telling me you don't know how that's defined, correct?

MR. NOURSE: Your Honor, I object. I don't think she's asked any questions about references in the report to statistical significance or that Ms. Horner had the response Ms. Bojko just stated.

MS. BOJKO: Well, your Honor, she did state -- she did use the term in response to other questions earlier this morning or earlier this afternoon. It is actually in the report. If counsel is asking for a reference, it's on page 15 of 41 in Exhibit TH-1.

And I would also note that I can ask the questions of an expert that I want. It doesn't have

to be tied to her report. If she is claiming to be an expert in the field and is put on the stand as one, she can answer the questions that an expert in that field would answer or be able to answer.

MR. NOURSE: Yeah. The only question I objected to was the one that was just stated referencing the report and stating that she already answered that question which didn't happen.

MS. BOJKO: Can we have the question reread? I don't believe that's what I said.

(Record read.)

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MR. NOURSE: I'm sorry, I thought
Ms. Bojko was going to rephrase, but if that's not
the case, I renew my objection.

EXAMINER SEE: Do you wish to rephrase,

16 Ms. Bojko?

MS. BOJKO: I can say it another way, your Honor.

- Q. (By Ms. Bojko) You -- you are the expert responsible for the report attached to your testimony and you also drafted your own testimony; is that fair?
- A. I am sponsoring the report attached to my
  testimony. I was responsible for drafting portions
  of that testimony and I relied on the expertise of

others, including Ms. Fry, to craft other portions of that testimony -- or that report, rather, in order -- including the design and analysis of the survey as it related to our confidence level and its statistical significance.

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- Q. So as an expert that's supporting this report and that submitted testimony in this case, do you have a definition of statistical significance?
- A. I do not. I relied on the judgment and expert experience of Ms. Fry.
- Q. And sitting here today, you do not know what that judgment of Ms. Fry entailed or what value would be associated with her definition of statistically significant, correct?
- A. I believe that it applies differently.

  There isn't one numerical number that is applicable to all of the questions in the aggregate.
- Q. Okay. But you reference Ms. Fry in different scenarios in talking about the survey, and you don't know, whatever scenario that you are referring to in your response, you don't know at which point in time which value Ms. Fry was attaching to statistical significance, correct?
- A. Well, as we say in the report, we designed the sample size requirements to achieve 90

- percent confidence. At -- and 10 percent precision.

  And so that is the -- that was the goal of the sample.
  - Q. So 90 percent in one situation was statistically significant and 10 percent was statistically significant in another scenario?
    - A. No. That's -- that's not what I said.
  - Q. Okay. Well, I asked you -- it was -- I asked you what you believed to be statistically significant and it's my understanding you don't have an opinion of what is statistically significant; is that correct?
    - A. I relied on Ms. Fry --
    - Q. Thank you.

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- A. -- for that.
- Q. And in some prior questions, I was a bit confused about who this survey went to. Did this survey only go to Standard Service Offer customers, SSO customers, or did it go to all non-PIPP residential customers?
- A. The survey went to a -- a random sample of non-PIPP, PIPP, small C&I customers, for whom AEP Ohio had e-mail addresses.
- Q. Okay. And I am asking you if those customers, that small subset you just referenced,

were Standard Service Offer customers?

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- A. It could have gone to Standard Service Offer customers as part of that random sample.
- Q. And it could have also gone to shopping customers?
- A. If they are customers of AEP Ohio with an e-mail address, then they could have received the survey.
- Q. Okay. You do understand that all of the customers would be customers of AEP Ohio for distribution service, correct?
  - A. Correct.
- Q. So the survey could have gone to any AEP Ohio distribution customers? Is that your testimony?
  - A. Yes.
- Q. And was it -- in response to a question you said -- to counsel that asked you questions previously you -- you responded with the term "AEP Ohio customers." So, in your mind, when you use the term "AEP Ohio customers," you mean all AEP Ohio distribution service customers?
  - A. Yes.
- Q. And in sending this to all AEP Ohio distribution customers, you recognize that some of those customers could be receiving their generation

supply from a competitor; is that correct?
Competitive supplier?

A. Yes.

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- Q. And did the survey ask those that are receiving generation from a competitive supplier, whether they are currently receiving renewable generation from their existing generation supplier?
- A. The survey did not include any questions about where a customer is receiving their generation supply because that goal of the survey was to get insight into customer's perspectives about the initiative that AEP Ohio was pursuing.
- Q. And the initiative that you are referencing is that AEP Ohio, the distribution utility, would be supplying generation to the customers from a renewable source?
  - A. Correct.
- Q. And with the clarification that "AEP Ohio customers" means "all distribution customers," you didn't poll all -- all AEP Ohio distribution customers to ask them whether they wanted a renewable generation source supplied by either AEP Ohio or the competitive retail electric supplier, correct?
- A. The survey asked customers what they thought about renewable generation being pursued for

development by AEP Ohio because that was the new initiative that we wanted customers' perspectives on.

- Q. So the answer to my question is no?
- A. Correct.

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- Q. Did the surveys ask whether customers were currently offsetting their energy usage by on-site renewable energy?
  - A. Can you repeat the question?
- Q. Did the surveys ask whether customers were currently offsetting their energy usage by on-site renewable energy?
- A. No. As I said before, the survey didn't ask -- include questions around customers' own options to supply on-site energy, as we assumed customers already were aware of those options.
- Q. Well, did the surveys ask whether customers were currently offsetting their energy usage by purchasing renewable energy credits or environmental attributes to meet the customers' desires?
- A. No. The survey was designed to ask about a new program that AEP Ohio was offering and did not focus on the other options in the market that presumably customers were aware of.
- Q. Did the survey generally ask whether

customers had already purchased or entered into agreements to purchase renewable energy?

A. No.

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- Q. And the survey did not inquire as to whether customers could break current contracts to enter into an agreement with AEP Ohio to provide green energy to them?
  - A. Could you restate the question, please?
  - O. Sure.

You explained earlier to me that the questions centered around whether AEP Ohio could provide green energy generation to the customers, and I am asking if there was a question as to whether that was possible from a legal standpoint -- well, possible from a contractual standpoint of whether those customers could break their contracts to do what you're suggesting?

MR. NOURSE: Your Honor, this might be a good time, I was going to offer to stipulate that the survey did not ask any question that's not listed in the Appendix A to TH-1, of which the universe is endless and unlimited, and we will be happy to stipulate that, you know, and that's different from if she had a question of why didn't ask this or something like that, but we're just going to say it

asked A through Z. We will offer that stipulation to save time.

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MS. BOJKO: Your Honor, I think my question is off of a response she gave to me previously which is not in the list in the Appendix. I wanted to know if AEP asked whether they could actually enter into a contract with AEP Ohio to provide green generation to them.

MR. NOURSE: Well, that's the point of my offer, your Honor. It's any question that's not in the Appendix was not asked in the survey.

MS. BOJKO: Your Honor, I will rephrase.

How about that?

EXAMINER SEE: I appreciate the stipulation. Go ahead with your question and -- MS. BOJKO: Thank you.

Q. (By Ms. Bojko) For the customers that responded that they would be open to having AEP Ohio provide green generation to them, did -- did Navigant or AEP follow up with those customers to inquire as to whether that was a possibility with regard to current contracts that customer may have?

MR. MENDOZA: Asked and answered. The stipulation covers that question.

MS. BOJKO: It does not.

EXAMINER SEE: The witness can answer the question if she knows.

A. No.

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MS. BOJKO: Your Honor, I believe the rest of my questions have been asked. Thank you. No further questions. Thank you.

EXAMINER SEE: Mr. Collier?

MR. COLLIER: No questions.

EXAMINER SEE: Mr. Darr?

MR. DARR: Thank you, your Honor.

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## 12 CROSS-EXAMINATION

By Mr. Darr:

Q. It's fair to say Navigant did not quantify the local demand for renewable generation mentioned on page 9 of 41 of TH-1, except for the calculation that we find on page 14 of TH-1, correct?

MR. NOURSE: Could I have the question

EXAMINER SEE: Yes.

Q. Is it fair to say Navigant did not quantify the local demand for renewable generation in Ohio which is referenced on page 9 of 41 of TH-1, except as set out on page 14 of 41 of TH-1?

25 A. Yes.

reread, please?

- Q. And the calculation on page 14 of 41 found in Exhibit TH-1, basically takes the 75 companies that Navigant identified in the large customer survey, large commercial and industrial customer survey, and basically takes those companies' loads and estimates what that would translate into in terms of total gigawatt-hours for those companies, correct?
- A. Yes. That -- that calculation is provided in order to, as I said, present the magnitude of the load and what it represents of the customers who had made -- the large C&I customers who had made a commitment to one of the four sustainability organizations or were mentioned in the Ohio report.
- Q. But in context, basically what you did was a math problem, correct? You took customer load, multiplied it by the load factor, came up with a total number of gigawatt hours, and said here is a number, right?
- A. Yes. Each for wind and solar capacity.

  Is that the number you are referring to?
  - Q. Yes.

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Now, you were also aware, at the time, that at least eight of those referenced companies had

constructed or planned to construct on-site solar distributed generation, correct?

A. I don't know if it was eight, but we were aware that some -- some companies had already installed on-site DG.

MR. DARR: May I approach, your Honor?

EXAMINER SEE: Yes.

- Q. You were asked a question in discovery concerning your 75 referenced companies, correct?
  - A. Yes.

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MR. DARR: Can I have this marked as I believe it's IEU Exhibit 9. It's Interrogatory IEU-INT-6-001. 8 was the one with administrative notice.

## (EXHIBIT MARKED FOR IDENTIFICATION.)

- Q. Do you have in front of you what's been marked as IEU Exhibit 06-001? For purposes of pinning down this answer, take a look at your response to Part a. which says "Identify the number of companies that have constructed or have announced plans to construct on-site solar generation." Does that help refresh your recollection?
  - A. It does.
  - Q. And it's eight, correct?
- A. Correct.

Q. And you were also aware that at least one of the companies in this set that you include in the 75 referenced companies had indicated that it had begun to -- or was considering the construction of wind generation, correct? I believe there is a typo in your answer to b.

A. Yes.

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- Q. And the response was that at least one was considering or had constructed wind generation, correct?
  - A. Correct.
  - O. Set that aside for a second.

Now, with regard to the survey for large customers, that was essentially a seven-question survey, correct? Speaking now of the large C&I.

That was a seven-question survey, correct?

A. Sorry, the large C&I. I believe so.

MR. DARR: Can I have a document marked as IEU Exhibit 9 -- or excuse me, 10.

I am having -- permission to mark it as 10, your Honor?

EXAMINER SEE: So marked.

(EXHIBIT MARKED FOR IDENTIFICATION.)

Q. Do you have in front of you what has been marked as IEU Exhibit No. 10?

A. Yes.

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- Q. And would you agree with me this is the sheet summarizing the questions and results of the large C&I customer survey?
- A. This is the sheet that summarizes the results of the large C&I customer questionnaire that we reference in the report, yes.
- Q. And for reference, there are, in fact, seven questions that were included on the survey, correct?
- 11 A. Correct.
  - Q. Now, in the survey, did Question 2 branch off of Question 1? Were customers for example -- let me be more specific. Were customers that answered "Yes" to Question 1, then directed to answer Question 2? If you know.
    - A. I am not certain. Ms. Fry helped to administer that survey --
  - Q. Yes, and the reason why I ask that is if you look at Question 1, it has 29 respondents of which 14 answered "Yes." If you look at Question 2, it has 14 respondents; a dropoff of 15. Question 3, however, has 2 respondents. And then, again, there is a dropoff for the next two questions.
    - So, again, my question, are you familiar

enough with the survey to know whether or not there was a branching that took place between Question 1 and Question 2 and Question 3 and Questions 4 and 5 respectively?

- A. I am not certain --
- Q. Okay.

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- A. -- if there was a branching. That is a question for Ms. Fry.
- Q. Now, with regard to your report, now I am looking at page 14 of 41 of Exhibit TH-1, Section 3.2, second bullet. In that second bullet you state a majority of the respondent companies indicate they preferred that a portion of their renewable supply be based on local/regional projects in Ohio, assuming there is -- assuming no significant difference in price. Do you see that statement?
  - A. Yes.
- Q. Now, if I go to IEU Exhibit 9, the survey results, and I go to Question 5, it states "Presuming there was no significant difference in price, would you prefer that a portion of your renewable supply be based on local/regional projects that create jobs and economic impacts in Ohio?"
- Is that statement the source of your -- are the responses to that fifth question, the source

for your statement of a majority of respondents indicated this preference?

EXAMINER SEE: Mr. Darr, you are referring to IEU Exhibit 9 or Exhibit 10?

MR. DARR: Exhibit 10, I'm sorry. It was unclear.

- A. Yes, I believe this characterization is related to the fifth question.
- Q. Okay. And in the response to the fifth question, there are 9 who state they would prefer local or region -- local or regional project to create jobs and economic impacts in Ohio, correct?
  - A. Correct.

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- Q. Now, with regard to the way this struck -- this survey was conducted, there was a -- at least a two-step process by which you identified companies that were -- that would receive the survey, correct?
- A. Yes. Navigant identified large C&I customers to receive the -- the questionnaire and some of which were included in the filtering process described in Section 3.1.
- Q. Right. And the first step was first to identify companies that met a threshold in terms of amount of electric use, correct?

A. Correct.

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- Q. And then the second step was to cross-reference those companies with organizations that those companies had identified themselves with, to demonstrate that they were supportive of the use of renewable electric resources, correct?
- A. Yes. Either identified themselves with or affiliated themselves with one of four organizations, or were identified in the Powering Ohio report.
- Q. Now I'd like to direct your attention back to the summary of the results of the Navigant large C&I -- large customer C&I survey or large C&I customer survey, excuse me. And let's go to question No. 1. Now, these are, again, you've identified companies that have already made a commitment to the use of renewable resources, correct?

MR. NOURSE: Can I object? Are you asking made a commitment with their affiliation or made a commitment to develop their own behind-the-meter or -- I'm not clear on the question.

MR. DARR: Again, I am using the language out of the report. The report states that their membership in or affiliation with a sustainability organization that demonstrated the company commitment

to sustainability or interests in accessing renewable generation as part of their energy supply. That's -- MR. NOURSE: Thank you.

- Q. That was that first step, correct, or the second step of your filtering process.
- A. Yes. But I'm -- and what I'm saying is that the outreach to sustainably-minded large customers through the questionnaire that we reference in Section 3.2, that included some of the customers identified through the filtering process but it included others as well.
- Q. You're saying that none of the -- that there are, among the 75 customers identified by you through this filtering process, some of them are not affiliated with or linked to or made commitments to those four or five organizations?
  - A. No, that's not what I'm saying.
  - Q. Okay.

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- A. I'm sorry, I'm being unclear.
- Q. Every one of those companies is -- was identified because they were affiliated with an organization and had made either a commitment to renewable resources or some sort of sustainability commitment, correct?
- 25 A. That is correct.

Q. Okay. As long as we are all on the same page.

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Now, let's take a look at the response to the first question. "Does your company currently have goals related to carbon emissions?" And I believe this is on IEU 10. And the response to that first question is that 11 of these do not, and 4 do not know, correct?

- A. That is what that results of that -- to that particular questionnaire indicate. What I am suggesting is the outreach to sustainably-minded customers went to more than the 75 customers identified in Section 3.1.
- Q. I'm -- again, I'm buffaloed. The 29 that actually responded to your survey are part of that -- are a subset of the 75 companies that you identified in the -- in the filtering process, correct?
- A. Not necessarily because -- what I'm saying is that the -- in Section 3.1, we identified a filtering process and we quantify -- through that filtering process, we quantify the load of 75 customers identified through the filtering process to identify the -- just the magnitude of those customers who had aligned themselves with the same sustainability-minded organization. The

questionnaire that was described in Section 3.2 did go to some of those 75 customers; it went to others as well.

- Q. So the first statement in that paragraph that Navigant reached out to the large C&I customers identified through the filtering process to better understand their perspectives; what you're saying is that it went to the 75 that are affiliated and a whole bunch more that weren't?
- A. Yes. What I am saying is that the outreach to the large C&I customers, through the large C&I customer questionnaire, went to some of the 75 customers as well as to others. In other words, there's some overlap between the two sets of analysis and data-gathering for customer actions and perspectives, but the two sets of customers are not completely aligned, do not completely match up.
- Q. Given that that's the case, it's fair to say that less than half of the customers -- customers that you surveyed had carbon emission commitments, correct? Or didn't know?
  - A. Yes.

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Q. And it's fair to say that more than half of the customers that you surveyed did not have goals with regard to the procurement of renewable power,

either solar or wind, correct?

- A. Which question are you referring to?
- Q. 3.

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- A. Yes. And these responses, generally the 29 customers who responded to the questionnaire was a relatively small proportion of the customers that we received. We note in the report that it's -- the outreach shouldn't be considered to be representative of the overall large C&I customer population. We did include it here in an effort to be transparent and to show the various methods by which Navigant attempted to gather data about AEP Ohio's customers' perspectives on renewables.
- Q. Yes, I understand from prior examination you've already indicated and the report indicates the results of this survey are not statistically significant, correct?
  - A. Correct.
- Q. And in terms of the question with regard to preference for local or regional power, 9 of the 29 respondents, or less than a third, indicated that preference, correct?
  - A. Which question are you referring to?
- 24 | O. 5 again.
- 25 A. Yes, 9 customers expressed a preference

for local over regional projects.

- Q. And with regard to the scope of the large C&I survey, the survey did not ask any of the respondents whether or not they had been denied electric supply with renewable attributes, correct?
  - A. Can you repeat the question, please?
  - Q. Sure.

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With regard to the large C&I customers surveyed, the survey does not ask any of the respondents whether it -- it -- any respondent, whether it had sought and been denied electric supply with renewable attributes, correct?

- A. Correct.
- Q. And Navigant has no information with regard to the number of companies that have entered into or have announced plans to enter into purchase power agreements for wind generation, correct? And if it will help refresh your recollection, if you turn to IEU Exhibit 9, your response to d.
- A. Uh-huh. Yes, that was outside the scope of the perspectives we wanted to gather.
- Q. Navigant has not identified the number of companies that have entered into or have announced plans to enter into purchase power agreements for solar generation, correct?

A. Correct.

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- Q. And further, you have not identified the number of companies that have constructed or have announced plans to construct renewable generation other than wind or solar generation on-site, correct?
  - A. Yes.
- Q. And Navigant further has not collected or identified any information of the number of companies that have entered into or have announced plans to enter into purchase power agreements for renewable generation other than wind or solar, correct?
  - A. Correct.
- Q. And just to close the circle, Navigant has not assessed whether or how AEP Ohio's customers' energy demands are being supplied in Exhibit TH-1, has it?
  - A. That's correct.
- MR. DARR: Thank you. I have nothing further.
- 20 EXAMINER SEE: Mr. McNamee?
- MR. McNAMEE: No questions. Thank you.
- 22 EXAMINER SEE: Mr. -- Mr. Nourse, any
- 23 redirect?
- MR. NOURSE: Could we have a brief moment
- 25 to confer? I don't think we need to break --

724 1 EXAMINER SEE: Sure. 2 MR. NOURSE: -- too much. 3 (Discussion off the record.) 4 EXAMINER SEE: Are you ready, Mr. Nourse? 5 MR. NOURSE: Yes. 6 7 REDIRECT EXAMINATION 8 By Mr. Nourse: 9 Ο. Just a couple of questions, Dr. Horner. 10 Can you -- can you recall some questions earlier 11 about whether Navigant did anything to screen AEP 12 employees out of the survey process? 13 Α. Yes. 14 And as I recall, your response is that 15 Navigant did not screen AEP employees or take any 16 efforts to screen AEP employees out of the survey 17 process, correct? 18 Α. Correct. 19 And have you evaluated whether that 20 impacted the survey validity or the results, and can 2.1 you address that? 2.2 Α. Yes. After the survey was complete, 23 Navigant requested that AEP Ohio investigate how many 24 of the random sample of customers who did receive the

survey were former or current AEP Ohio customer --

employees. That number turned out to be less than 500. I believe it was 484 current or former employees. And that number, in the context of the 7,498 non-PIPP residential customers, comprises, you know, approximately 7 percent. We do not believe that that materially impacts the conclusions that we drew from our report.

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- Q. And can I clarify two things about your answer? First of all, you said "AEP Ohio employees." Is it your understanding that the analysis that you requested encompassed all AEP employees? Not just the AEP Ohio division?
  - A. Yes. I'm used to saying "AEP Ohio."
- Q. Yep. And, secondly, the 484 figure that you mentioned, was that of the responses or of the total random sample pool?
- A. The 484 were the customers of AEP Ohio who are AEP employees or former employees who received the survey. We do not know who actually filled out the survey and so our -- the 484 number really -- we -- even if we were to assume that all 484 of those filled out the survey, which we don't know, but if they did, that would comprise approximately 7 percent of the overall responses.
  - Q. Okay. And just to make -- make this

perfectly clear, Navigant did not exclude employees of other stakeholders in this process, like IGS, who is headquartered in AEP Ohio's territory, none of those employees were excluded either, correct?

- A. That's correct. The sample was random.
- Q. Okay. And then second area I wanted to cover briefly. You had questions earlier, from Mr. Whitt, about the timing of the survey as compared to, I guess, the filing of -- the decision to file this case.

Can you tell us whether -- whether AEP had decided to file this case before you did the survey or whether they decided to file the case on September 19 when they actually did file it, did that affect -- did the timing of that decision affect the survey in any way?

A. No. We believe that the survey would have been run and implemented and analyzed, and the results, regardless of when it was issued, we believe would have come up with the -- with the same results.

MR. NOURSE: Thank you. That's all I have, your Honor.

EXAMINER SEE: Recross, Mr. Dove?

MR. DOVE: No, your Honor.

EXAMINER SEE: Mr. Mendoza?

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727 1 MR. MENDOZA: No, your Honor. Thank you. 2 EXAMINER SEE: Ms. Leppla? 3 MS. LEPPLA: No, your Honor. 4 EXAMINER SEE: Ms. --5 MS. COHN: Cohn. No, your Honor. EXAMINER SEE: Ms. Cohn. 6 7 MS. COHN: No, your Honor. Sorry. 8 EXAMINER SEE: Mr. Healey. 9 MR. HEALEY: Nothing further, your Honor. 10 Thank you. 11 EXAMINER SEE: Mr. Whitt. 12 MR. WHITT: No, your Honor. Thank you. 13 EXAMINER SEE: Mr. Nugent? 14 15 RECROSS-EXAMINATION 16 By Mr. Nugent: 17 Q. One question, Ms. Horner. Can you tell me, did you perform an analysis of the likelihood 18 19 that AEP Ohio employees provided their employer with 20 their personal e-mail address? 21 Α. We did not. 22 Q. Thank you. 23 So same question but just to broaden it 24 now, with not just AEP Ohio but the parent company as 25 well?

728 1 Α. Can you repeat the question. 2 Q. Sure. 3 So did you perform an analysis of the likelihood that the parent company, AEP Ohio's 4 5 employees provided their employer their personal 6 e-mail? 7 Α. No. 8 MR. NUGENT: Thank you. Nothing further. 9 EXAMINER SEE: Ms. Bojko. 10 MS. BOJKO: Nothing further, your Honor. 11 EXAMINER SEE: Ms. Whitfield. 12 MS. WHITFIELD: No further, your Honor. 13 EXAMINER SEE: Mr. Collier. 14 MR. COLLIER: No, your Honor. Thank you. 15 EXAMINER SEE: Mr. Darr. 16 MR. DARR: No questions. 17 EXAMINER SEE: Mr. McNamee. 18 MR. McNAMEE: No questions. Thank you. 19 20 EXAMINATION 2.1 By Examiner See: 22 Ms. Horner, the survey that you conducted for Navigant, it was an online survey? 23 24 Α. That's correct. 25 Q. And it was exclusively online, correct?

A. That is correct.

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- Q. Why -- why did Navigant elect to conduct the survey exclusively online by e-mail?
- A. In our experience, that was the most-efficient way to reach the most customers and in an effort to get a robust survey response.
- Q. You indicated, in response to questioning earlier today, that PIPP customers did not -- did PIPP customers receive any of the "Willingness to Pay" questions or see any of that section?

MS. BOJKO: I'm sorry, your Honor, I couldn't hear. Could I have your question reread?

EXAMINER SEE: Sure.

- Q. You indicated, in response to questions presented to your earlier today, that PIPP customers, residential PIPP customers, did not see either a portion of the "Willingness to Pay" section or all of it? I want clarification as to what portion of that -- portion of the survey -- survey they received, the "Willingness to Pay" section. Let me try that again.
  - A. So --
- Q. Go ahead.
- A. So PIPP customers did not see Questions

  6, 7, 8, or 9 in the survey.

- Q. Okay. Or the leading -- the paragraph leading into that section, the "Willingness to Pay."
- A. I am not certain of that. Ms. Fry would have the answer to that question. I cannot answer definitively.
- 6 EXAMINER SEE: Okay. Thank you. You may 7 step down.
- MR. NOURSE: Your Honor, we would renew the motion to admit Exhibit 6.
- EXAMINER SEE: Are there any objections to the admission of AEP Exhibit 6?
- MR. DARR: No, your Honor.

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- MR. HEALEY: None other than the many that have been addressed by the Bench, so.
- 15 MS. WHITFIELD: Your Honor, I would just 16 actually -- Mr. Healey said the other -- the ones referenced earlier, but I do want to point out and 17 18 move again, under Rule 702, if you recall one of 19 Mr. Nourse's responses to my objection that 20 Ms. Horner was not qualified as an expert to offer 2.1 opinion testimony on customer surveys was that it was 22 premature and there had been no voir dire or any 23 questioning about her -- her qualifications. So we 24 did that on -- on cross-exam and there's been no 25 testimony that she has any specialized knowledge,

skill, experience, training, or education regarding customer surveys and the analysis of those, and so we would move, pursuant to Rule 702, that both her testimony and her report be stricken. Thank you, your Honor.

EXAMINER SEE: Okay.

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MR. DARR: Your Honor, again, I would join in the several motions to strike the testimony based on a variety of reasons including, most prominently, relevance. With regard to TH-1 which is the attachment to the Horner testimony, it appears that that testimony is based in large part on the testimony of Ms. Fry. Since she is also a co-sponsoring witness, I would think it would be premature at this point to move that into evidence prior to Ms. Fry's testimony.

MR. NOURSE: Your Honor, anybody else?

I have no problem with holding off on

TH-1 until after Ms. Fry testifies, but as to the -as to Kroger's motion, I am not going to repeat my

other arguments I made earlier, but the one point I

was making about no deposition and no voir dire

was -- was definitely a sequence and timing issue,

it's certainly too late to try to do that now after

all the testimony has been in the record, all the

questioning about this testimony, so I think it's untimely at this point and also should just be rejected for the same reasons we talked about -- the other reasons we talked about before.

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EXAMINER SEE: AEP Exhibit 6 is admitted into the record.

(EXHIBIT ADMITTED INTO EVIDENCE.)

EXAMINER SEE: Mr. Healey.

MR. HEALEY: Yes, your Honor. OCC would seek the admission -- moves for the admission of OCC Exhibits 3, 4, 5, 6, 7, and 8.

MR. NOURSE: And, your Honor, we have no objection to 4, 5, and 8. I would like to address Exhibit 3 and 6 and 7.

So on Exhibit 3, I think the witness challenged some of the statements that were made in this article. She did answer all the questions posed about the circumstances of her employment with PG&E, and I think answered all the questions that -- any counsel posed about that. And so I think the record is clear on that point. And I would oppose the admission of Exhibit 3 as being unnecessary and being disputed by the witness.

EXAMINER SEE: First, let me start with the ones that you were -- 4, 5, and 8 you are okay

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2 MR. NOURSE: Yeah.

3 EXAMINER SEE: Those are admitted into

4 the record.

5 (EXHIBITS ADMITTED INTO EVIDENCE.)

EXAMINER SEE: And you're opposing 3.

MR. NOURSE: Opposing 3, and I don't know if we want to talk more about that, or you want me to go on to Exhibits 6 and 7?

EXAMINER SEE: As to OCC Exhibit 3, it is also admitted into the record.

(EXHIBIT ADMITTED INTO EVIDENCE.)

MR. NOURSE: Thank you, your Honor.

On Exhibits 6 and 7, excuse me, I think these are -- this is information the witness is not familiar with. It did not -- it does not bear on the values used in the "Willingness to Pay" section regarding future incremental costs associated with the proposal in this case.

These figures relate to selected material about the Company's AER, the Advanced Energy Rider, which is not at issue in this case, and I think it's -- it's confusing to try to put this in when it has no bearing and is a different -- completely different set of costs and rates than what the

witness -- what the survey addressed in the "Willingness to Pay" section.

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MR. HEALEY: Your Honor, if I may respond?

EXAMINER SEE: Go ahead, Mr. Healey.

MR. HEALEY: These exhibits include information about what customers actually pay for renewable energy which is certainly relevant to what they would be willing to pay, and it goes to the veracity and accuracy of the survey which asks customers questions about their willingness to pay without providing this data.

I would also note that while Mr. Nourse did object to these documents generally, I did ask Ms. Horner several questions about the rates in these exhibits, and those questions were not specifically objected to at the time. So for purposes of keeping a clear record, I was asking a question about an exhibit, she responded. If we don't have the exhibit in the record, then there's a hole.

I would also note that these documents come from the PUCO's own website and, therefore, would potentially be -- or should be subject also to administrative notice which the Attorney Examiners routinely do for PUCO-sourced documents.

MR. NOURSE: And I would be happy to agree to administrative notice of AER rates, you know, for a longer period of time -- pardon me -- than the two selected quarters that were presented in Exhibits 6 and 7. For example, the fourth quarter of '18 and the first quarter of '19 is also available on the website, on the PUCO's website, and involves rates that are lower, and the most-recent information is not used to do this, you know. This, again, is a rabbit trail in my view, but. So if we want to take a broader notice of the Company's AER rates, we can do that. I could also offer those quarters that I just mentioned, at least, to give a fuller view of more recent data for the AER.

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MR. HEALEY: Your Honor, I would be fine with supplementing these with the two most-recent quarters. The reason I included these was because they were the quarter in which the survey was taken and the one immediately preceding, but I am happy to add the two most-recent to the administrative notice request if that helps Mr. Nourse.

EXAMINER SEE: OCC Exhibits 6 and 7 are admitted into the record and we'll take administrative notice of the more-recent periods of the same information of the first quarter of 2019.

736 1 MR. NOURSE: Thank you, your Honor. 2 Appreciate it. (EXHIBITS ADMITTED INTO EVIDENCE.) 3 4 MS. BOJKO: I'm sorry, your Honor. Is 5 your ruling in addition to the ones? 6 EXAMINER SEE: Yes. 7 MR. NOURSE: We are happy to mark these 8 as exhibits, too, your Honor, I just don't have extra 9 copies right now, of the fourth quarter 2018 and 10 first quarter of 2019. 11 EXAMINER SEE: Okay. You want to mark 12 them as an exhibit and we'll add them? 13 MR. NOURSE: We do have copies. Thank 14 you. So would you like me to mark these, too, as exhibits? 15 16 EXAMINER SEE: That's fine. 17 MR. NOURSE: We have copies, at least some copies. So the fourth quarter of 2018 will be 18 19 AEP Exhibit 8 and the first quarter of 2019 will be 20 AEP Ohio Exhibit 9. 2.1 (EXHIBITS MARKED AND ADMITTED.) 2.2 EXAMINER SEE: Ms. Whitfield. 23 MS. WHITFIELD: Yes, your Honor. I would 24 move for the admission of Kroger Exhibit 1 which is 25 the response to OCC-RPD-3-10 including the

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1 attachments thereto.
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EXAMINER SEE: Any objection to the admission of Kroger Exhibit 1?

MR. NOURSE: One second, your Honor. Oh, no.

6 EXAMINER SEE: Kroger Exhibit 1 is 7 admitted into the record.

(EXHIBIT ADMITTED INTO EVIDENCE.)

MS. WHITFIELD: Thank you, your Honor.

EXAMINER SEE: IGS Exhibit 3.

MR. NUGENT: Your Honor, IGS moves to admit IGS Exhibit 3 into the record.

MR. NOURSE: And I would just note we don't object to this, provided we're submitting the larger set of data in which this is a subset.

EXAMINER SEE: And that is the understanding of the Bench that you would be submitting that information and marking it.

MR. NOURSE: And on that point, can I ask your Honor if it's okay to distribute that by e-mail? It is, as I think hinted earlier, it's several hundred pages. Is it okay to circulate that to the reporter, the Bench, and the parties by e-mail rather than printing copies? It's voluminous, quite voluminous.

738 1 EXAMINER SEE: We are going to need at 2 least one paper copy and everybody else can get a copy. That one print copy should go to the court 3 reporters. 5 MR. NOURSE: Got it. Thank you. 6 EXAMINER SEE: With that, IGS Exhibit 3 7 is admitted into the record. 8 (EXHIBIT ADMITTED INTO EVIDENCE.) 9 EXAMINER SEE: And Mr. Darr? 10 MR. DARR: Move admission of IEU 9 and 11 10. 12 MR. NOURSE: No objection. 13 EXAMINER SEE: Any objection to the admission of IEU 9 and 10? 14 IEU 9 and 10 are admitted into the 15 16 record. 17 (EXHIBITS ADMITTED INTO EVIDENCE.) 18 MR. NOURSE: Thank you, your Honor. 19 EXAMINER SEE: Just a moment, Mr. Nourse. 20 MR. NOURSE: Okay. 2.1 EXAMINER SEE: Okay. Let's go off the 22 record for a minute. 23 (Recess taken.) 24 EXAMINER PARROT: Let's go back on the 25 record.

739 1 Mr. Nourse. 2 MR. NOURSE: Yes. Thank you. 3 EXAMINER PARROT: Call your next witness. 4 MR. NOURSE: AEP calls Nicole Fry to the 5 stand. 6 (Witness sworn.) 7 EXAMINER PARROT: Thank you. 8 9 NICOLE FRY 10 being first duly sworn, as prescribed by law, was 11 examined and testified as follows: 12 DIRECT EXAMINATION 13 By Mr. Nourse: 14 Good afternoon, Ms. Fry. Ο. 15 Α. Good afternoon. 16 Q. Can you state and spell your name for the 17 record? 18 Nicole Fry, N-i-c-o-l-e F-r-y. Α. 19 By whom are you employed and in what Ο. 20 capacity? 2.1 Navigant Consulting. I am an Associate 22 Director in the Process Evaluation and Customer Engagement Team. 23 24 And were you engaged by AEP Ohio to Ο. 25 present testimony in this case?

740 1 Α. I was. 2 Excuse me. And did you cause to be filed Q. direct testimony on September 19, 2018 in this case? 3 Α. Under my name, yes, I did. 4 MR. NOURSE: And, your Honor, I would 5 6 like to mark AEP Ohio Exhibit 10, Ms. Fry's prefiled 7 testimony. EXAMINER PARROT: So marked. 8 9 (EXHIBIT MARKED FOR IDENTIFICATION.) 10 Ms. Fry, do you have the document we just Q. 11 marked as AEP Ohio Exhibit 10? 12 Α. Is that my testimony? 13 Q. Yes. And that was prepared by you or 14 under your direction? 15 Α. Yes, it was. And do you have any changes, corrections, 16 Ο. 17 or additions to that? 18 Α. I do not. 19 Ο. So if I were to ask you the same 20 questions today under oath, your answers would be the 2.1 same? 2.2 Α. They would. 23 MR. NOURSE: Thank you. 24 Your Honor, I move for admission of 25 Exhibit 10, subject to cross.

741 1 EXAMINER PARROT: Thank you. 2 Mr. Mendoza? 3 MR. MENDOZA: No cross, your Honor. 4 EXAMINER PARROT: Ms. Leppla. 5 MS. LEPPLA: No cross, your Honor. 6 EXAMINER PARROT: Ms. Cohn. 7 MS. COHN: No cross. No cross, your 8 Honor. 9 EXAMINER PARROT: Mr. Healey, are you 10 ready? 11 MR. HEALEY: Yes, I am, your Honor. 12 EXAMINER PARROT: All right. Go ahead. 13 14 CROSS-EXAMINATION 15 By Mr. Healey: 16 Ms. Fry, do you have in front of you a 0. 17 copy of the report that was attached to Ms. Horner's 18 testimony? A. I do. 19 20 Q. Can you turn to page 5 of 41 of that 2.1 report, please. 22 A. Would you mind using the numbers at the 23 bottom of the page. The version that I have is --24 Q. How about I give you a copy that has the 25 page numbers at the top?

A. That's fine.

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Q. Because I think that's what we've been doing so far.

MR. HEALEY: May I approach, your Honor? EXAMINER PARROT: You may.

THE WITNESS: Thank you.

- Q. (By Mr. Healey) Okay. So we're on page 5 of 41 of Exhibit TH-1 which is the Navigant report. You defined small C&I customers, for purposes of this report, as those using less than 1 million kilowatt-hours per year, correct?
  - A. That's correct.
- Q. And so, any customer that used more than 1 million kilowatt-hours per year would not have received a copy of the survey and been asked to respond to it, correct?
  - A. That's my understanding, yes.
- Q. And when defining small C&I customers under this definition, you considered each meter a different customer, correct?
  - A. Yes.
- Q. And so, for example, if a corporate
  entity had five locations in the AEP service
  territory, each with its own meter, that would be
  counted as five small C&I customers, correct?

- A. Yes, though we did try and make a distinction between single meter and multi-meter accounts. So if those meters were tied to a single account, we did not -- we excluded them from the sample in an effort to capture the single-meter small businesses.
- Q. And can you show me where, in the report, it states you did that?
- A. "To develop the sample of small C&I customers in AEP Ohio territory," -- excuse me, I am looking at page 5 of 41, the footnote -- "Navigant defined small C&I as single meter customers with annual metered consumption less than 1 million kWh per year."
- Q. Okay. So let's use McDonald's as an example. McDonald's has many locations within the AEP Ohio's service territory. I assume we can agree on that, correct?
  - A. That's correct.

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- Q. And so you -- you excluded each of those locations from your survey?
- A. If they were all tied to one account, we did.
  - Q. And what do you mean by "account"?
  - A. There was -- if they were all associated

with the same account number, implying that a single person perhaps paid those bills or was responsible for the bills of that account, it was excluded.

- Q. And is it your understanding that AEP Ohio aggregates accounts on a corporate basis like that for small C&I customers?
- A. It is my understanding that for some they do.
  - O. But not all of then?

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- A. I can't speak for how McDonald's, for example, organizes their accounts and how their bills are paid, but what we wanted to do was capture individual businesses and at the level where those decisions and bills are paid.
- Q. Sure. A minute ago you said for some customers the accounts are aggregated which would mean for some they are not, correct?
- A. I'm not aware of how all those accounts are organized.
  - Q. So the answer is you don't know?
  - A. I do not for sure.
- Q. Let's turn to page 39 of 41 of Exhibit
  TH-1, please. Actually, rather, page 40. And
  starting with Question 14, there are several
  questions in the survey that are related to

demographics for residential customers, correct?

A. That's correct.

MR. HEALEY: Your Honor, if I may mark as OCC Exhibit 9, AEP's response to OCC Interrogatory 12-136. May I approach, please?

6 EXAMINER PARROT: You may and it is so marked.

## (EXHIBIT MARKED FOR IDENTIFICATION.)

- Q. Ms. Fry, do you have in front of you now what's been marked OCC Exhibit 9?
  - A. I do.

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- Q. And this is a discovery response for which you are the respondent, correct?
  - A. That's correct.
  - Q. And the response provided by you is that "Neither AEP Ohio nor Navigant has performed analysis of the Voice of the Customer survey responses based on the customer's age." Do you see that?
    - A. I do see that.
    - O. Is that an accurate statement?
  - A. What that statement implies is that we did not analyze the survey results to determine whether there was a difference in willingness to pay based on someone's age. So that would be, for example, a cross-tab analysis where we assessed

willingness to pay based on an age. We analyzed the results together as the residential class; so that statement is accurate with that intent.

Q. Thank you.

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MR. HEALEY: Your Honor, I would like to also mark two at once because they will be quick, if that's all right, OCC Exhibits 10 and 11. OCC Exhibit 10 is the response to Interrogatory 12-137, and OCC Exhibit 11 is the response to OCC Interrogatory 12-138. May I approach, please?

EXAMINER PARROT: You may, and they are so marked.

(EXHIBITS MARKED FOR IDENTIFICATION.)

- Q. Ms. Fry, you have now in front of you what's been marked OCC Exhibit 10 which is the response to OCC Interrogatory 12-137. You are the respondent for this discovery response, correct?
  - A. That's correct.
- Q. And the response is "Neither AEP Ohio nor Navigant has performed analysis of the Voice of the Customer survey responses based on the customer's approximate average electric bill." Is that a true statement?
- A. In line with my previous statement, that's correct.

- Q. And moving on to OCC Exhibit 11 which is the response to OCC Interrogatory 12-138, you are again the respondent, correct?
  - A. That's correct.
- Q. And the response here is "Neither AEP
  Ohio nor Navigant has performed analysis of the Voice
  of the Customer survey responses based on the
  customer's total household income." Is your response
  the same for this one as well?
- A. Yes, it is.
- 11 MR. HEALEY: Thank you, your Honor.
- 12 | That's all I have.
- MS. WHITFIELD: Thank you, your Honor.
- 14 EXAMINER PARROT: Ms. Whitfield.
- MS. WHITFIELD: I'll go ahead if that's
- 16 okay.

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- 18 CROSS-EXAMINATION
- 19 | By Ms. Whitfield:
- Q. Ms. Fry, I want to follow up on a couple things. You just said, a few minutes ago, that you excluded multi-metered customers from the survey. Do you recall saying that?
- 24 A. I do.
- Q. Okay. And where does it say in the

report that's attached to Ms. Horner's testimony that that exclusion occurred?

- A. It is implied in the definition of small C&I customers where we stated -- let me find the reference. It goes back to page 5 of 41, Footnote 1.

  "To develop the sample of small C&I customers in AEP Ohio territory, Navigant defined small C&I as single meter customers with annual metered consumption less than 1 million kWh per year."
- Q. Okay. But nowhere in this report did it disclose that multi-meter customers, commercial customers, were excluded, correct?
- A. No, I don't believe it was explicitly stated that way.
- Q. Or what about, did you exclude commercial customers with single meters at multiple locations?
- A. If they were tied to one single account number, as I described previously, then they would have been excluded but not if they are on different accounts.
- Q. And did that exclusion occur before the random sample or after the surveyed results?
  - A. Before.

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Q. So whenever -- so before AEP gave you the random sampling, those exclusions already occurred?

- A. We decided to exclude those customers before any sampling, survey pooling, customer pooling was done.
- Q. But if I remember the testimony from your colleague earlier, she testified that AEP did the random sample, correct, Navigant did not?
- A. They pooled the random sample from the sample of small C&I customers that were single meter.
- Q. So, for example, if -- for my client Kroger, if we have 130 facilities in AEP's service area, each with its own account number, would we be counted as 130 small C&I customers?
  - A. I believe so.

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- Q. Ms. Fry, do you report to Ms. Horner?
- A. Not officially through our performance management organization, no.
- Q. And you -- your testimony, you said that you are in the Process Evaluation and Customer Engagement Team; is that -- did I say that correctly?
  - A. That's correct.
- Q. And is that within the energy practice or that something --
  - A. It is. It is within energy.
- Q. Is that a new change since -- that was not included in your testimony so is that a new

- change since you submitted your testimony in September of 2018?
- A. I was being more specific. So organizational levels within Navigant, so there's Navigant, there's the Energy Practice. Within the Energy Practice, I'm part of Clean Energy Programs; and as part of Clean Energy Programs, I'm part of the Process Evaluation and Customer Engagement Group.
- Q. Now, up until March of 2018, you were a Managing Consultant for Navigant, correct?
  - A. That's correct.
- Q. And I'm assuming moving up to Associate Director was a promotion; is that fair?
  - A. Yes.

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- Q. And was this survey that you worked on for AEP Ohio, the first survey you had done for AEP Ohio?
- A. Yes. Wait. I also was participating in the C&I questionnaire, so if you call that a survey, that would count as well, but those are the only two for AEP.
- Q. So just for clarification, everything that is at issue with the report attached to

  Ms. Horner's testimony, that was your first work with AEP Ohio, correct?

A. That's correct.

MS. WHITFIELD: That's all I have, your

3 | Honor. Thank you.

EXAMINER PARROT: Mr. Whitt.

5 MR. WHITT: Thank you, your Honor. I

6 just have a few questions. I'll stand kind of in the

7 corner.

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## 9 CROSS-EXAMINATION

10 | By Mr. Whitt:

- Q. Ma'am, where did you get the e-mails that you used for sending the surveys?
  - A. AEP Ohio had the e-mail addresses.
- Q. Do you know how AEP Ohio obtained those e-mail addresses?
- A. I am not aware of how AEP Ohio obtained those e-mail addresses.
  - Q. Did you talk to anyone about whether
    AEP's tariff and the PUCO's rules allowed AEP to use
    customer e-mails for the purpose in which Navigant
    used them?
- A. We never had that discussion. I would
  like to clarify that the e-mail invitation that went
  out for the survey was issued by AEP Ohio as we
  described in the report. Navigant never had those

e-mail addresses.

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- Q. Understood. But you didn't -- you aren't aware of any discussions, during the course of your work in this case, whether AEP could send e-mails to customers for purposes of conducting surveys?
  - A. No. We never had such a discussion.
- Q. Okay. And on Exhibit TH-1, page 40 of 41, if you have that in front of you, it asks some demographic questions, doesn't it?
  - A. It does.
- 11 Q. It asks customers to disclose their age 12 by various ranges, correct?
  - A. That's correct. Sorry.
  - Q. Okay. And it asks for information about the survey respondent's electric bill, correct?
    - A. That's correct.
  - Q. And there's also information solicited about household income, correct?
  - A. Correct.
    - Q. And that type of information would be valuable to someone who wished to market products or services, wouldn't it?
- A. I'm not a marketer, but I suppose it might.
- Q. And you've probably picked up a magazine

and one of those little postcards falls out and it asks for this type of information. Or when you buy a product, to register for a warranty, it asks you to fill out a bunch of information. Have you seen things like that before?

- A. I have.
- Q. Is it your understanding that typically people that sell goods and services ask for that information because the responses provide value to them for purposes of targeted marketing?
- A. Among other reasons, yes, it's possible.

  MR. WHITT: Thank you. No further

  questions.
- 14 EXAMINER PARROT: Mr. Nugent.
- MR. NUGENT: Thank you.

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# 17 CROSS-EXAMINATION

18 | By Mr. Nugent:

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- Q. Good afternoon, Ms. Fry.
- 20 A. Good afternoon.
- Q. You worked at Navigant for about five years, correct?
- A. About that.
- Q. Okay. And your responsibilities with
  Navigant include managing the design, implementation,

and/or analysis of customer and stakeholder research efforts, correct?

- A. Largely, yes.
- Q. Okay. And during your five years with Navigant, you've personally been involved with, say, approximately a dozen customer and stakeholder research efforts, correct?
  - A. That's right.
- Q. So it comes out to maybe a little more than two a year?
- A. A little more than two a year?
- 12 Q. Yeah.

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- A. Two or three. Some of those are ongoing, so they are less effort. I spend probably more than 50 percent of my billable time on customer surveys and research.
  - Q. Okay. Thank you.

And turning your attention now to the residential small customer survey that's labeled as Appendix A in Exhibit TH-1 of Ms. Horner's testimony. Am I correct you personally designed that survey?

- A. With a colleague, yes. I helped in the design of that survey.
- Q. And who is that colleague?
- 25 A. Jane Hummer.

Q. Okay. And was the survey designed at the direction of AEP Ohio, its parent company, American Electric Power, or any of its subsidiaries?

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- A. They were our client, but we designed the survey.
- Q. Okay. Did anyone at AEP Ohio, its parent company, American Electric Power, or its subsidiaries participate in the survey's design?
- A. They provided input to ensure that the survey was factual in the questions we were presenting to the customers. For example, as mentioned previously, the 4.5 percent baseline renewable percentage, the "willingness to pay" amounts and what would be appropriate there. And the initiative, the description of the initiative, so the 900 megawatts of wind and solar. Their input was primarily factual.
- Q. And their input was limited to those criteria only?
- A. Largely, yes. I mean, Navigant was -- had responsibility for the survey and its design in its entirety and had control over that.
- Q. Okay. To be clear, the survey was designed exclusively to assess customer attitudes and interests toward AEP Ohio's use of renewable energy

- generated in Ohio and delivered by the utility, correct?
  - A. The -- that is not incorrect. The introduction states the objectives of the survey in bullet form and that's a more complete summary. You can pull that up if you would like to see.
- Q. That's not necessary. But I am correct that the scope of customer participation in Navigant's survey was limited to AEP Ohio's residential PIPP customers, residential non-PIPP customers, and small commercial/industrial customers only, correct?
  - A. Small commercial/industrial, single-meter, under a million kWh per year?
    - Q. Yes.

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- 16 A. Yes, correct.
  - Q. Okay. And were you aware that AEP Ohio also serves large commercial customers in its service territory at the time the survey was designed?
    - A. Yes, I was aware.
    - Q. Okay. And just to clarify, large commercial customers in the AEP Ohio service territory were not surveyed.
- A. That's correct.
- Q. Okay. Did AEP Ohio provide you or any

member of your team with any direction regarding the scope of the customer groups to be surveyed?

A. Not that I recall. I believe it was
Navigant's recommendation, upon discussion with our
client, Navigant's recommendation to not survey large
C&I customers for a couple reasons. One of which was
we had issued the C&I questionnaire to a subset of
large C&I customers and we prefer not to burden
customers with too many surveys at one time; they
don't like that.

And also, large C&I customers are complex, their decision-making is usually more nuanced, and Navigant's customer research team usually opts for different methodologies such as in-depth interviews and other techniques to gain the complex prospectus of that customer class.

Q. Thank you.

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MR. NUGENT: Could I have the answer read back, please?

(Record read.)

MR. NUGENT: Thank you.

Q. (By Mr. Nugent) Am I correct that of the 160,000 customers that were surveyed, Navigant identified 484 AEP employees that would have received the survey?

A. That is my understanding.

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- Q. Okay. Can you tell me whether or not you specifically counted the number of employees or did you use an algorithm to identify the number of employees, AEP employees, that received the survey?
- A. I had no role in that analysis. Navigant had no role in that analysis. That was an AEP Ohio analysis based on information that they had about their customers.
- Q. Okay. But am I correct, of the roughly 8,800 responses that Navigant received, Navigant is unable to quantify the number of responses submitted by current or former American Electric Power employees?
- A. They are, and I would refer to my colleague's testimony about the impact of that sample in an absolute worst case. In my professional opinion, it's unlikely to change the general conclusions of the report.
- Q. Okay. But would it be reasonable to conclude that given their status as American Electric Power employees, those 484 survey recipients would be motivated to respond to the survey?
- A. In my opinion, I don't believe that that's reasonable.

- Q. Ms. Fry, can you tell me whether or not you're aware of the compensation structure for Ohio Power Company?
  - A. I am not.
- Q. Okay. Do you have your testimony in front of you?
  - A. I do.

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- Q. If you can please turn to page 3, please.

  And I am looking at lines 12 through 14.
  - A. Yes.
- Q. There you indicated that "Navigant screened Survey participants to exclude anyone who stated that they were not a current AEP Ohio customer at the time of the Survey." What was the definition of "AEP Ohio customer" that Navigant used for purposes of the survey?
  - A. Sure. If you go to Appendix A.
  - Q. Uh-huh.
- A. Page 37 and 41. Question No. 1, "Are you a customer of AEP Ohio at your [current residence or place of business]?" -- Depending on whether it was a business or residential customer -- "In other words, do you receive any AEP Ohio bills (either in the mail or electronically)?"
- 25 Anyone who said "Yes" or -- excuse me,

- anyone who said "No" or "Not Sure" was terminated from the survey, screened out.
- Q. I see. So if you received an AEP Ohio bill, for purposes of the survey, you were counted as an AEP Ohio customer then, correct?
  - A. That's correct.

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- Q. Okay. So it's possible then, for purposes of the survey, participants could take supply from a competitive retail electric provider and still be included in the definition of "AEP Ohio customer," correct?
  - A. That's correct.
- Q. Okay. And how many of those customers that responded to the survey obtained their electric supply from a competitive electric service provider?
  - A. We don't know.
- Q. Okay. So am I correct you are unable to provide a breakdown of those respondents that obtained their electric supply from CRES providers by customer class?
  - A. Yes, that's correct.
- Q. Okay. If you could turn to page 4 of your testimony, looking at lines 5 to 6.
- 24 A. Yes.
- Q. Okay. There you indicated that the

survey asked customers "about their tradeoff preferences for AEP Ohio investments in renewable versus maintaining current bill amounts." Do you see that?

- A. I'm sorry, I was looking at page 4 of my testimony. Can you refer me, again, to the page?
- Q. Yeah. Lines 5 -- page 4, lines 5 through 6.
  - A. Yes. Thank you.

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- Q. Okay. And am I correct that in that portion of your testimony you indicated that the survey asked customers "about their tradeoff preferences for AEP Ohio investments in renewable versus maintaining current bill amounts"?
  - A. That's correct.
- Q. Okay. Did the survey ask customers whether they would be willing to pay some additional amount on their electric bill for AEP Ohio's investment in renewable energy even if the customer does not participate in AEP Ohio's renewable program?
- A. I'm going to break this down to make sure I understand what you want to ask.
  - Q. Sure.
- A. So this line 5 and 6 relates to, in the survey, Questions 10 -- I'm sorry -- it's Questions

11 and 12 on page 39 and 41.

O. Uh-huh.

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- A. Those are the tradeoff questions, what's more important, maintaining current energy bill amounts or investing in wind and solar. So the respondent was either asked 11 or 12. It was random, a random showing.
- Q. Okay. But nowhere else in the survey was a question, like the one I just presented to you, asked?

MR. NOURSE: Can I have that question read again, the question you are asking about?

MR. NUGENT: Sure.

Could you please reread?

THE WITNESS: Yes.

(Record read.)

MR. NOURSE: Yeah, objection. I don't know what you're referring to when you say when they don't participate in the renewable program.

MR. NUGENT: Sure.

Q. And to clarify, a customer of a, I'll say a competitive electric supplier. So I'm asking about willingness to pay an increased amount on their electric bill to support AEP's program, would they be willing to do so even if they are, say, a customer of

a competitive retail electric supplier? Was that question asked or questions?

- A. The competitive retail electric supplier customers were included in the sample of respondents invited to take the survey. We don't know how many of the respondents who answered the "Willingness to Pay" questions were CRES customers. So it's possible that a CRES customer also was willing to pay for this initiative. We don't know.
- Q. But am I correct the survey made no mention of the renewable energy products and services currently available through the competitive market here in Ohio?
- A. That's correct; the surveys focused on the initiative described to the customers.

MR. NUGENT: Thank you, Ms. Fry.

I have nothing else.

EXAMINER PARROT: Ms. Bojko.

MS. BOJKO: No questions, your Honor.

Thank you.

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21 EXAMINER PARROT: Mr. Collier?

MR. COLLIER: No questions, your Honor.

EXAMINER PARROT: Mr. Darr?

MR. DARR: Just a couple of areas of

25 | concern, your Honor.

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## CROSS-EXAMINATION

By Mr. Darr:

- Q. Do you have in front of you what was previously marked as IEU Exhibit 10? It's the C&I survey results and questions.
- A. I believe I do. Just one second while I dig that up. I do. Thank you.
- Q. I asked a question earlier this afternoon concerning whether or not Question 1 branched to Question 2. Is it -- was that the indication in the survey?
  - A. Yes, that's my understanding.
- Q. So those individuals that answered -those respondents that answered Question No. 1,
  "Yes," then were asked a second question. That
  second question was not presented to any other
  respondents; is that correct?
- A. That's correct. If they didn't have goals related to carbon emissions, we did not ask how committed they were to those goals.
- Q. And with regard to Question 3, then that branched to Questions 4 and 5; is that correct?
  - A. That's my understanding, yes.
  - Q. And what was the branching question there

or branching response? What triggered the branch?

- A. Question 3, "Does your company currently have goals related to the use or procurement of renewable power?
- Q. And if the respondent answered "Yes," then they were given Questions 4 and 5; is that correct?
  - A. That's correct.
- Q. Was this a paper survey or an electronic survey?
- 11 A. This was an electronic survey.
- Q. And so, similar to the small customer and small C&I -- or residential and small C&I, the customer would have been directed to a website, correct?
- 16 A. That's correct.

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- Q. How many invitations were sent out to customers? How many customer invitations were or -- let me rephrase.
- 20 How many customers were contacted with -21 with a request to take the survey?
  - A. I believe -- I believe around 150.
- Q. So twice the number identified by the first -- by the two-step filtering process?
- 25 A. That's right.

Q. And how -- in terms of the customers that were contacted, how were those identified, out of the large customers which you identify, I think in the Navigant report, as somewhere nearly 11,000?

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A. I believe that that correspondence also included customers for which AEP Ohio was either aware that they had distributed generation on-site, or they were I believe in the -- potentially part of the top 100 load, or there may have been other criteria that allowed that list.

And the reason I am less precise about this is because, as clarified in the report, this was never meant to be a representative, high-quality, robust survey. It was meant to help understand the perspectives of people that we were -- the client believed was inclined to have goals related to renewable energy so.

- Q. So in terms of confidence levels, there is no 90-percent confidence level associated with this, correct?
  - A. That's correct. By design.
- Q. And were all of the 75 customers, identified by the two-step filtering process, provided an invitation?
- A. No, they were not. And not on purpose.

These exercises were done at different times. It was never meant to be a direct link to the exercise that Trina Horner described previously.

- Q. So if we go to Exhibit TH-1 on page 14 of 41, and look at the first sentence in the paragraph identified as 3.2, the filtering process referred to there was only the first step, not the two-step filtering process; is that correct?
- 9 A. Yes. It's not the exact same filtering 10 process.
- MR. DARR: That's all I've got. Thank
  you.
- EXAMINER PARROT: Mr. McNamee?
- MR. McNAMEE: No questions, your Honor.
- 15 Thank you.

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- 16 EXAMINER PARROT: Any redirect,
- 17 | Mr. Nourse?
- MR. NOURSE: Could we have a moment, your
- 19 Honor?
- 20 EXAMINER PARROT: You may.
- 21 (Pause in proceedings.)
- MR. NOURSE: Your Honor.
- 23 EXAMINER PARROT: Ready when you are.
- MR. NOURSE: Just a couple of questions.
- 25

### REDIRECT EXAMINATION

2 By Mr. Nourse:

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- Q. Ms. Fry, you were just discussing, with Mr. Darr, the concept of 90-percent confidence interval. Do you recall that?
  - A. I do.
- Q. And how does the confidence interval concept relate to the statistical significance concept in relation to these surveys?
  - A. Separate from --

MR. DARR: Objection, your Honor. The question concerning confidence interval related only to the first survey, not the second. The question asked as to both. It's outside the scope.

MR. NOURSE: Well, your Honor, that's fine, I could limit it to the survey that Mr. Darr -- I don't think there is any difference in the concept but I can ask as a follow-up question.

MR. DARR: Move to strike the comment, your Honor, because now he is testifying to the confidence interval of the other survey.

MR. NOURSE: No. Your Honor, I was following up on exactly what Mr. Darr asked about, and the witness can explain any differences if she needs to.

EXAMINER PARROT: I think you offered to limit the question, Mr. Nourse, so let's go ahead and do that.

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MR. NOURSE: I will restate if you would like.

EXAMINER PARROT: Yep, go ahead.

Q. (By Mr. Nourse) With respect to the 90-percent confidence interval concept you were just discussing with Mr. Darr, how does confidence interval relate to the concept of statistical significance?

MS. BOJKO: Objection, your Honor.

Beyond the scope of re -- beyond the scope of re -cross. Beyond the scope of cross. Sorry, long day.

No questions were asked of this witness about the
statistical significance. That was a prior witness.

And Mr. Nourse is not able to attempt to rehabilitate the prior witness through this witness through
redirect.

MR. NOURSE: Well, your Honor, I am not attempting to rehabilitate. Certainly the prior witness deferred that concept to this witness. But this idea of confidence interval was a new concept that was mentioned and I want to make sure the record is clear about what that means.

1 MR. DARR: Actually, it wasn't.

Ms. Horner referred to 90-percent confidence interval in her response to questions from Ms. Bojko earlier today. That's why I asked the question be limited.

MR. NOURSE: Again, your Honor, this witness has been held out as the expert on these kind of statistical things, so if she is talking about a 90-percent confidence interval during her cross-examination, I'm entitled to ask her to elaborate on what that -- what that concept means in the area of her expertise.

EXAMINER PARROT: The objection is overruled.

Go ahead, Ms. Fry.

THE WITNESS: Can you repeat the

question?

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MR. NOURSE: Yes.

- Q. (By Mr. Nourse) Regarding the concept that you mentioned of confidence interval, how does that concept relate to the concept of statistical significance?
- A. So I'll explain it as clearly as I can. When a result is statistically significant, we are at a confidence and precision level, it tells us how -- how close we believe the estimate is to the true

value. And so if we are -- if we set our, say, a target survey level of 300 which is pretty common for residential surveys, we assume that the -- it's based on a confidence level and precision assuming a certain variability in the data.

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And so, for example, if I am designing a robust survey like one that we did for the residential class, I want to know, you know, what's the sample size that I need to be 90-percent sure that the answer is -- falls within 10 percent of the actual value. And so, if we hit that 300 number of surveys, we can be assured that that is statistically significant. And that's how we design our samples and that's the basis for work that we do that is related to survey design.

MR. DARR: Move to strike the last portion of the answer that begins if we set a -- I believe if we set a sample level of 300, as we did, to provide a robust survey of the residential survey. All that is nonresponsive to the restriction on the question.

MR. NOURSE: Your Honor, I asked her about the concepts and how they relate and -- but I've got a follow-up question. Go ahead.

MS. WHITFIELD: Well, actually,

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EXAMINER PARROT: Motion to strike is denied. The answer stands.

Go ahead, Mr. Nourse, next question.

Q. (By Mr. Nourse) My follow-up is simply:
So with the example, again, that you use with
Mr. Darr of 90-percent confidence interval in the way
you just explained it, and the 10 percent, I guess,
margin of error, if I can use that term, correct me
if I am wrong, does that suggest in the survey that
you were discussing with Mr. Darr that if an answer
was -- if an answer was 80 percent, then you would
have 90-percent confidence that it's accurate in the
range of 70 percent to 90 percent?

A. That's correct.

MR. NOURSE: Okay. Thank you. That's all I have.

EXAMINER PARROT: Mr. Mendoza?

MR. MENDOZA: No questions, your Honor.

EXAMINER PARROT: Ms. Leppla?

MS. LEPPLA: No questions, your Honor.

EXAMINER PARROT: Ms. Cohn?

MS. COHN: No, your Honor.

EXAMINER PARROT: Mr. Healey?

MR. HEALEY: Yes.

#### RECROSS-EXAMINATION

2 By Mr. Healey:

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- Q. You just provided your description of confidence intervals. There is no confidence interval for the large C&I customers because it's not intended to be statistically significant, correct?
  - A. That's correct.

MR. HEALEY: Thank you. That's all.

EXAMINER PARROT: Ms. Whitfield?

MS. WHITFIELD: No questions, your Honor.

EXAMINER PARROT: Mr. Whitt?

MR. WHITT: No questions.

EXAMINER PARROT: Mr. Nugent?

MR. NUGENT: No questions, your Honor.

EXAMINER PARROT: Ms. Bojko?

MS. BOJKO: No questions, your Honor.

EXAMINER PARROT: Mr. Collier?

MR. COLLIER: No questions, your Honor.

EXAMINER PARROT: Mr. Darr?

MR. DARR: No questions.

EXAMINER PARROT: And Mr. McNamee?

MR. McNAMEE: No questions.

EXAMINER PARROT: Thank you very much,

Ms. Fry.

25 THE WITNESS: Thank you.

EXAMINER PARROT: All right. Mr. Nourse,

I believe you have already moved for the admission of

Company Exhibit 10. Are there any objections?

MS. WHITFIELD: I would just note my

objection on the relevance arguments that we've been making numerous times just for the record. Thank you.

EXAMINER PARROT: Noted.

MR. HEALEY: Same here for all the same reasons we objected to Horner's testimony, we will object as well.

MR. COLLIER: Join, your Honor.

MR. DARR: IEU joins as well.

MS. BOJKO: So does OCC.

MR. NUGENT: IGS and IGS Solar so joins.

EXAMINER PARROT: So noted.

MR. NOURSE: Do I have any friends left?

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19 EXAMINER PARROT: All right. With that,

20 | Company Exhibit 10 is admitted.

21 (EXHIBIT ADMITTED INTO EVIDENCE.)

22 EXAMINER PARROT: Mr. Healey.

MR. HEALEY: Yes, your Honor. OCC moves

24 for the admission of OCC Exhibits 9, 10, and 11.

MR. NOURSE: No objection.

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                 EXAMINER PARROT: OCC Exhibits 9, 10, and
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     11 are admitted.
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                 (EXHIBITS ADMITTED INTO EVIDENCE.)
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                 EXAMINER PARROT: Let's go off the
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     record.
                 (Discussion off the record.)
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                 EXAMINER PARROT: Let's go back on the
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     record. Mr. Nourse, call your next witness.
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                 MR. NOURSE: Thank you, your Honor. AEP
10
     calls Karl Bletzacker.
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                 (Witness sworn.)
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                 EXAMINER PARROT: You can have a seat.
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                       KARL R. BLETZACKER
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    being first duly sworn, as prescribed by law, was
     examined and testified as follows:
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                       DIRECT EXAMINATION
    By Mr. Nourse:
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19
            O. Good afternoon.
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            A. Good afternoon, Mr. Nourse.
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                 Mr. Bletzacker, can you spell and --
            Q.
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     state and spell your name?
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                 My name is Karl with a K, and last name
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     is Bletzacker, B-l-e-t-z-a-c-k-e-r.
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            Q. Can you pronounce it one more time just
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to maybe help everybody?

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- A. Bletzacker.
  - Q. Thank you.
  - And, Mr. Bletzacker, did you file prefiled direct testimony in this case?
    - A. Yes, sir, I did.
- Q. And let me back up and ask you: By whom you are employed and in what capacity?
  - A. Thank you. I'm employed by American Electric Power Service Corporation. And I am the Director of Fundamentals Analysis.
- MR. NOURSE: Your Honor, I would like to
  mark Mr. Bletzacker's prefiled testimony as AEP Ohio
  Exhibit 11.
- 15 EXAMINER PARROT: So marked.
- 16 (EXHIBIT MARKED FOR IDENTIFICATION.)
- MR. NOURSE: And we are going to be providing the court reporter a copy of that momentarily.
- Q. Mr. Bletzacker, do you have the document we just marked as AEP Ohio Exhibit 11 in front of you?
- 23 A. Yes, sir, I do.
- Q. Is this your testimony you prepared or under your direction?

777 1 Α. Yes, sir, it is. 2 Do you have any changes or additions or Q. corrections to the testimony at this time? 3 No, I don't. 4 Α. 5 Q. And if I were to ask you the same 6 questions under oath today, would your answers be the 7 same? 8 A. Yes, they would. 9 MR. NOURSE: Your Honor, I move for the 10 admission of Exhibit 11, subject to 11 cross-examination. 12 EXAMINER PARROT: Thank you. 13 Mr. Mendoza? 14 MR. MENDOZA: No questions, your Honor. EXAMINER PARROT: Ms. Leppla? 15 MS. LEPPLA: No questions, your Honor. 16 17 EXAMINER PARROT: Mr. Kurtz? 18 MR. KURTZ: Just a couple. 19 20 CROSS-EXAMINATION By Mr. Kurtz: 2.1 22 Q. Good afternoon -- good evening, Mr. Bletzacker. 23 24 A. Good evening. 25 Q. Page 9 of your testimony, your CO-2

forecast.

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- A. Yes, I see that.
- Q. Okay. So you're projecting that in 2028, it will be a cost of \$15 per ton and that would escalate at 5 percent per year thereafter?
- A. That's correct. We typify that as our proxy for impending carbon mitigation.
  - Q. When would the 5 percent escalation end?
- A. That goes on for the length of our forecast which is out to 2050.
- Q. Okay. How long has that been in your Fundamentals Forecast or similar CO-2 forecasts? Is that something new or has that been in there a while?
- A. That's interesting. We've had a CO-2 proxy for the last 14 years. And this particular value is different from our last forecast because the last forecast contemplated that CPP, the Clean Power Plan. So the \$15, of course, is a new number but the concept has been there for quite a while.
- Q. Okay. Have you presented this long-term forecast to other state commissions within the CO-2 forecast, I guess?
- A. The answer is yes, and the context of that is I have the privilege really to give presentations to IRP stakeholder meetings and they've

been presented in the state of Oklahoma, state of Arkansas, maybe another one, but that's all that I can recall.

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Q. This isn't intended to be flippant. Let me ask. You know, with the election of President Trump, he is not a big fan of this. Did you change your forecast. Do you change it with political considerations?

MS. BOJKO: Objection. First of all, your Honor, I think the commentary about what the President may or may not be in favor of is outside the scope of this case. Irrelevant. And I think some people would say mischaracterizes the administration.

MR. MICHAEL: I'll join that objection, your Honor.

MR. KURTZ: I'll rephrase.

EXAMINER PARROT: Go ahead, rephrase.

- Q. (By Mr. Kurtz) In order to be a CO-2 tax or a CO-2 cap and trade, there has to be a new law, right? Or a new regulation like the Clean Power Plan.
- A. That's one way to achieve carbon mitigation, so you're correct with that.
  - Q. Okay. So do you -- do you take political

1 considerations into your long-term Fundamentals 2 Forecast about CO-2?

MR. MICHAEL: I would object, your Honor.

I don't think there has been any foundation for

Mr. Bletzacker, notwithstanding how talented he may

be, to forecast political winds or anything of that

nature, and I don't think he's qualified to answer

such a question.

MR. KURTZ: I am not asking him to forecast the politics, who is going to win the election. I'm asking --

EXAMINER PARROT: If it does.

MR. KURTZ: -- if it does.

14 EXAMINER PARROT: If he factors in.

15 Overruled.

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Go ahead, Mr. Bletzacker.

THE WITNESS: Thank you, your Honor.

A. You bring up something very interesting and that is that AEP has a Washington office and a very talented environmental group and it is that group and in Washington office that does come up with and describe our future carbon policy and they have for many years.

But to your earlier point and that is that this carbon proxy can't just be concerned about

the nearby events. It has to -- it has to cause the carbon mitigation that you would expect due to many factors, that can be some political factor, it could be a natural evolution of coal plants leaving the supply stack. It could be an aggregation of many states' RPS standards that then cause that to happen.

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But to impose that particular carbon, I like to call it carbon burden, that carbon burden on the dispatch order, it is meant to replicate those many things that could cause that to happen.

Q. That's a good point. The RGGI states -the states created a carbon policy for themselves
voluntarily. That would be another way for this to
come into play, right?

MR. MICHAEL: Objection, your Honor.

Friendly cross-examination. Mr. Kurtz is obviously trying to bolster additional costs that

Mr. Bletzacker included in his forecast for which there is no basis.

MR. KURTZ: We have not taken a position, your Honor. We do not have -- no. I'm trying to understand and build the record so I can make a recommendation and presumably so the Commission can have a full understanding of this important policy question.

EXAMINER PARROT: Overruled. Go ahead.

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A. Well, I want to point out that we also produce a no carbon forecast.

MR. DARR: There is no question pending, your Honor.

MR. KURTZ: No. I asked him if RGGIS, which means the Regional Greenhouse Gas Initiative States in the northeast, who voluntarily, the states voluntarily got together and created a carbon policy, wouldn't that be another way for CO-2 costs to come into play?

- A. Yes, sir, it would.
- Q. Okay. Do you look at the IRPs and the forecasts of other utilities as part of your normal business?
- A. Not thoroughly. I certainly am aware of them and, of course, we are active in so many different jurisdictions, so many different states.

  Those IRPs in those states get in front of us quite a bit and, of course, we are in front of the stockholders all the time so, to that extent, yes. I may not be an expert on what goes on in IRPs in other states outside of our jurisdiction.
  - Q. One last question. Do you see carbon costs forecasted in the IRPs or the long-term

783 forecasts of other utilities that you do review? 1 2 Α. Oh, yes, I do. 3 MR. KURTZ: Okay. Thank you, your Honor. 4 No more questions. 5 EXAMINER PARROT: Mr. Michael. 6 MS. BOJKO: Your Honor, may I have that 7 last question and answer read back? 8 (Record read.) 9 MS. BOJKO: Thank you. 10 EXAMINER PARROT: Go ahead, Mr. Michael. 11 MR. MICHAEL: Thank you, your Honor. 12 13 CROSS-EXAMINATION 14 By Mr. Michael: 15 Q. Mr. Bletzacker, AEP, at the state level, 16 lobbies against carbon burdens, correct? 17 Α. I don't know. 18 And AEP, at the federal level, lobbies Q. 19 against carbon burdens, correct? 20 Α. I really don't know. 2.1 Ο. You testified in the State of Oklahoma 22 regarding the -- the renewable project that AEP was 23 proposing out there, correct? 24 I believe you are referring to the Wind 25 Catcher Energy Connection Project?

784 Yes, sir. 1 Q. 2 Α. That's correct. 3 And you also testified in the State of Q. Arkansas regarding that project, correct? 4 5 Α. That's correct. As well as Texas. 6 Q. And in? 7 Α. And Louisiana. 8 Q. In Oklahoma, the Commission rejected your carbon burden forecast, correct? 9 10 Α. I didn't come away with the fact they 11 rejected my carbon burden forecast. 12 In the State of Arkansas, they reject Q. 13 your carbon burden forecast, correct? 14 Α. Not that I've taken note of. 15 Q. State of Texas rejected it? 16 Not that I'm aware of. Α. 17 State of Louisiana reject it? Q. 18 Again, that's not been my experience. Α. 19 Mr. Bletzacker, in your testimony you Ο. 20 talk about two different what I will call 2.1 "forecasts," correct me if I am wrong, one is the 2.2 long-term load forecast, correct? 23 Α. No. 24 Ο. You --

That's not correct.

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Α.

Q. You forecast load on AEP's system, correct?

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- A. No, I don't. Actually, I'm responsible for the long term, so that means 2015 and beyond, northern American, so that's not just United States, that's southern Canada and some Mexico, energy markets forecasts. And that is agnostic to its uses. It's distributed equally across the company and used for competing purposes. But I don't do any forecasting for AEP.
- Q. Okay. And then the Fundamentals

  Forecast, is that something different than the

  long-term energy market forecast?
  - A. I consider those synonyms, yes.
- Q. Okay. Was the price of energy a variable in that forecast?
- A. No. It's not an input. It's actually an output of the modeling that we use for those forecasts.
  - Q. Okay. Mr. Bletzacker, low natural gas prices, entry of new gas-fired generation, and lack of load growth have led to relatively stable energy prices over the past few years in western PJM, correct?
- 25 A. I don't know that I can say that those

all would be contributing factors to relatively stable prices. So I would need more context with that.

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- Q. But you would agree that the prices have been stable in western PJM in the past few years, correct?
- A. "Stable" is an interesting word. I mean, we don't like -- generally we don't like volatility as consumers. And prices can be very volatile even, in PJM, even in western PJM, when you look at it on a closer time frame; consider the polar vortex.

MR. MICHAEL: Your Honor, I move to strike the response. I asked him that he would -- if he would agree that prices have been relatively stable over the last few years in western PJM and his answer was nonresponsive.

MR. NOURSE: I disagree, your Honor. His answer, in part, provided that the prices can be volatile and he cited an example, the polar vortex, to support his observation, in response to the question about whether -- the broad statement that prices are stable.

EXAMINER PARROT: Your motion is denied, Mr. Michael.

Q. (By Mr. Michael) Your projection for

energy prices and natural gas prices, Mr. Bletzacker, are substantially higher than forward prices in the year 2021 and later years, correct?

A. That observation is correct. But I would like to remind you that forward prices aren't a substitute for these model-driven, long-term energy market forecasts.

MR. MICHAEL: I move to strike everything after that's correct, your Honor.

MR. NOURSE: Your Honor, I'm sorry, I am trying to read the question again. Could I have the question reread?

(Record read.)

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MR. NOURSE: Right. So Mr. Michael is making the comparison between Mr. Bletzacker's forecasted prices and the forward market prices, so part of his answer was to reject the comparison.

MR. MICHAEL: I don't think it rejected it at all. He said I was correct.

MR. NOURSE: But in his own polite way. He was saying that forward prices are not comparable and he rejected the premise.

MR. MICHAEL: If you would like to do that on redirect, that's fine, but I think his answer was nonresponsive after he said I was correct.

THE WITNESS: I said you are correct in your observation --

EXAMINER PARROT: Hang on,

Mr. Bletzacker. One moment.

Hang on.

Motion is denied, Mr. Michael.

MR. MICHAEL: Thank you, your Honor.

- Q. (By Mr. Michael) Mr. Bletzacker, your forecast projects increases in energy and capacity prices, correct?
- A. I need to review my forecast, but I would like to remind you that the capacity price forecast is a discrete output of that model and that that model creates a fleet that is optimized and you can't necessarily draw a conclusion about prices that would be higher or lower depending on particular energy prices.
- Q. Okay. So your forecast projects higher capacity and energy prices, correct?
- A. You will have to give me a time frame.

  Over the continuum of the forecast, generally it's true about energy. I can't connect capacity to that.
- Q. What part of the time frame do you project increased capacity prices?
  - A. I would have to look at the forecast.

Q. Please do.

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- A. I don't have it in front of me. It would be in one of your data requests.
- Q. Okay. And you can't testify today as to the forecast you relied on in your testimony?
- A. You typified it as the forecast I relied on. We created the forecast.
  - Q. Correct.
- A. And I want to do my very best job for you, I really do, and I need to look at my forecast to verify over what periods those capacity prices are rising. Sometimes they fall.
- Q. So sometimes, under your forecast, capacity prices do increase, as well as energy prices, correct?
  - A. Let's separate energy and capacity.
  - Q. Absolutely.
- A. Energy is kind of easy to follow. Over time, it tends to go up, especially when you consider the difference between real dollars and nominal dollars.
  - Capacity prices aren't as -- aren't as intuitive because they're a discrete output of that model and they depend on more things than just they rise or they fall.

So in order to help you, I would love to see my forecast which is an exhibit, and I can repeat back to you over what period they rise and over what periods they fall. And it's very self-evident though.

Q. Sure. The --

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MR. OLIKER: Could I have a clarification? Did the witness say "my forecast which is an exhibit"?

THE WITNESS: It was -- it was responded to in a Data Request if you care to act on that.

MR. OLIKER: Thank you.

- Q. And for present purposes, Mr. Bletzacker, I think you answered this, but the fact is that for some periods of time in your forecast, energy prices and capacity prices increase in tandem, correct?
- A. Because capacity prices and energy prices aren't necessarily in lockstep, I can't verify that. But the forecast will answer that question for you exactly.
- Q. Mr. Bletzacker, you would agree there's been substantial entry in PJM over the last -- entry of generation over the past several years, correct?
- A. Yes. And in our modeling, the way we recognize that, is when a new unit has been added in

PJM, that then enters our model.

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- Q. Okay. And any increase in energy prices would draw -- tend to draw even more to an entry, correct?
- A. I don't understand your question. Will you please try to say that a different way?
  - Q. Certainly.

Energy prices increase. That would tend to have a positive influence on new entry into the generation market, correct?

- A. You can't say that; no, that's not correct. There are examples that would go both ways.
- Q. What exactly can you give me,
  Mr. Bletzacker, where energy prices increase but
  would not draw new entry?
- A. Well, we could have a fleet that has a -- an abundant supply of capacity and that new -- that higher energy prices then bring units into the dispatch stack or they are called on more. Okay? So that doesn't have to have a new entry, that can just have existing units being called on more when they weren't -- when they were not before.
- Q. And let me ask you the same question about capacity prices. Would you agree that higher capacity prices would tend to draw new entry?

A. Again, not necessarily. And the reason that I answer it that way is that when you ask -- if I could use the word "availability" kind of in tandem with "capacity." In order to ask a unit to be available, if you pay its -- it's an older unit -- its fixed cost to stay around to be available, and there are units that are there to be paid to be available and serve as capacity, then -- then -- then they will.

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- Q. Okay. But generators in PJM make their money predominantly off of energy and capacity, correct?
  - A. That's a good typification.
- Q. And the more money that a generator can make, happens when energy prices or capacity prices are higher, correct?
- A. Of course it all depends where they are on the supply track, but I generally agree with you that the capacity values can't help if they are not making money on energy.
- Q. You would agree, therefore, on a fundamental level to the degree energy and capacity prices rise, then people looking to make money in that market would have a greater degree of tendency to enter the market versus when prices were low,

correct?

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- A. Yes. But let's talk about my modeling that I do; and that is when the model, as it optimizes the fleet, will pick the most cost-effective unit to add and it will pick units to retire. So there's a lot of dynamics that go on as the fleet is optimized going forward because the ultimate response is to have the most cost-effective capacity values and most cost-effective fleet to react to the fuel prices and other inputs, so there are a lot of moving pieces and parts. But those are the things that go on -- that goes on in those answers.
- Q. How does your model account for new entry?
- A. The model makes the decision to make a new entrant based on, one, its installation costs, whether it will make money in its optimized capacity output, and it will make money on energy. It also may open up this supply stack because of some retirements that it deemed necessary, the model that is. So there are a lot of dynamics that take place.
- Q. Okay. So if I heard you correctly, your own model forecast that there will be new entrants getting higher energy and capacity prices? Correct?

A. I don't necessarily know that they will be getting higher capacity prices. They are likely to get higher energy prices. It all depends on where they sit in the supply stack. But if the model adds it, it means that it's economic.

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- Q. Okay. And would new entry have a tendency to drive down energy prices, Mr. Bletzacker?
- A. Well, I can give you an example where it would and that is when you have units that have a zero fuel cost, you end up with more units at that left end of the supply stack, that would tend to drive down energy prices. As I heard Mr. Ali's testimony, I think he did some work in that direction to show that. So that's an example of where they would drive down the energy prices. But the thing that really affects energy prices is fuel prices. So you have to couple the two. They are not mutually exclusive.
  - Q. Okay. Energy is a commodity, correct?
- A. I assume you are talking about electric energy?
  - Q. Yes, sir, yes, sir.
  - A. I would consider it a commodity, yes.
- Q. Yeah. And the basic laws of supply and demand say supply goes up, price goes down, right?

- A. That's correct and that's illustrated in the supply stack.
- Q. Would you -- is capacity -- capacity is also a commodity, correct?
- A. I have -- I recognize that it is a payment that units receive. And I realize that in the PJM auction it feels like a commodity. But in the modeling that we do, that is a payment that's given, after you've optimized this fleet, that's a payment that's given to have units available who likely aren't making much money on energy --
  - O. And --

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- A. -- to justify their existence.
- Q. And to the extent capacity is treated as you said, Mr. Bletzacker, as a commodity in PJM, once again, fundamental economics would say as you increase supply, price goes down, correct? Just as you said with energy.
- A. See, I can't connect the two, and that's where I hope I can help you on this. And that is that because there are units retiring and new units coming on, and depending on whether load is growing or -- heaven help us in a situation where load is falling, you may have capacity values that drop quite a bit if load forecasts are falling going

into -- going into the future. So there again, there are a couple of buttons there that are being pushed to come up with that general conclusion.

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- Q. And would you agree, Mr. Bletzacker, one of the predominant buttons are -- is the supply of capacity?
  - A. I think to some degree I would.
- Q. Okay. And, Mr. Bletzacker, you would agree that technological advances, for example, horizontal drilling, would also have a tendency to drive down the price of energy, correct?
- A. Yes, but. And that "but" is that the fact that you can have lower finding costs for natural gas and lower lifting costs, production costs for natural gas, it certainly is a wonderful thing, but that isn't what sets the price of natural gas, right? It's that marginal, that last unit through the meter, whatever that is, that's what sets the price for natural gas. So a whole bunch of cheap gas because of some great advances in a particular area such as the Permian, doesn't mean that that low price is going to be a price we all see. So you can't come to your conclusion as firmly as it seems you are.
- Q. Well, I am just asking questions,
  Mr. Bletzacker. Reserving the right to come to

conclusions after the hearing, but. And I just want to make sure I was clear that I used drilling as an illustrative example.

My predominant question was I think it's consistent with your testimony that technological advances in the energy field will have a tendency to drive down the price of energy. You would agree with that?

- A. I would agree with that with the addition that lower-priced gas generally results in lower-priced power. And to the extent that you do have lower-priced gas, set the margin, your power prices will be less.
- Q. Mr. Bletzacker, you forecast peak load, correct?
  - A. I -- we forecast on-peak energy prices.

    Nowhere in our forecast do we show peak load.
  - Q. Okay. And is peak loads one of the inputs, then, into the forecast?
    - A. The -- not directly. So let me help.
    - Q. Uh-huh.

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A. The forecast has load and, of course, generation is built to meet the load. There is a vector -- there are vectors, they are called, that go ahead and shape that load, so we know load now on an

hourly basis. I don't give it that shape to go ahead and talk about load at an hour on peak or load on an hour off peak. Those are vectors that are within the model. That's supplied by the vendor.

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- Q. And within the model, does the peak load remain relatively close to current levels over time?
- A. I think I understand your question. So let me -- let me try this answer. When the model is used to backcast rather than forecast and actuals are put in, its results, prices, are very close. That's something the vendor is very proud to put in front of you. That's the analysis they go through. So that would be -- that would be the case. The model is very capable of doing that, yes.
- Q. Okay. And would you agree,
  Mr. Bletzacker, that the trend in peak load has been
  down over the last five years?
- A. On the one hand you would have to tell me where, but on the other hand I don't know. I would have to -- I would have to look deeper.
  - Q. If I told you where, would you know?
- A. My follow-up would be I would have to look deeper.
- Q. Did you do any adjustment,

  Mr. Bletzacker, for the load figures based on

potential expansion by large customers?

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- A. So, yes, in that those load forecasts that are provided to us from our load forecasting department, not AEP, but nationwide, those loads would include the likelihood of expansion from those industrial customers. It would also include EE and other things in that as differences in load.
- Q. It didn't include adjustment for any potential contractions, though, correct?
- A. It includes all of those factors that is in the load forecast. That's -- those are all components of the load forecast.
- Q. So expansion and contraction are both part of the load forecast?
  - A. As positive and negative. Positive and negative load growth.
- Q. If you turn to page 3 of your testimony,
  please, Mr. Bletzacker, and specifically lines 7
  through 8.
  - A. Yes, sir.
- Q. And that's where you're discussing the
  Fundamentals Forecast. Do you personally prepare the
  Fundamentals Forecast?
- A. Well, I have a group that we all do this together. We all have our -- our contributions to

make. But I am very involved in the distribution of that forecast. And your reference to line 7 and 8 is identifying the fact that we distribute this forecast ubiquitously to all of our operating companies and to all of our other affiliates for their use. And they all use it. And I get lots of feedback from them and I have lots of interaction with them about the use of the forecast.

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- Q. And before the forecast is made available to the -- the Company in its entirety, do you personally have to approve that forecast before it goes out?
- A. Yes. But I work with experts and it is -- I consider it to be more of a consensus.

  Ultimately I am responsible for its content.
- Q. Is Mr. Torpey one of the experts with whom you might consult on the Fundamentals Forecast?
- A. No. He is one of the, we will call him customers of the forecast. He's someone that would use the forecast.
- Q. Okay. Did you talk with Mr. Torpey at all about the Fundamentals Forecast as it relates to his testimony in this case?
- A. No. I have interaction with so many different folks about their uses of the forecast,

accountants, it can be tax folks, it can be EE folks about all of this, that my primary responsibility is to make it available and, of course, point to the relevant places where they can find the information they need. How they use it, I am not usually that connected to.

- Q. Before the Fundamentals Forecast was made available to the Company in its entirety, did
  Mr. Torpey see a draft of it?
- 10 A. No. It's not done until it's done. When it's done, I release it.
  - Q. Since August 1, 2018, Mr. Bletzacker, have you checked the Fundamentals Forecast and compared it to actual results in the market?
  - A. "Actual results," you mean actual gas prices or actual power prices?
    - Q. Correct.

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A. I don't know that I've checked it because there is a very critical piece of analysis you must go through in order to compare the two -- otherwise, they can't be compared -- and that is you have to remove the effect of actual weather from the forecast because it's a weather-normalized forecast. While there's a lot of things I can do with forecasting, I can't tell you whether it's going to be warmer or

colder than normal next year. So we make this assumption that the load associated with 30-year averages is what we'll see in our forecast.

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- Q. Did you do any analysis, Mr. Bletzacker, regarding whether actual weather was consistent with the normalized weather in your forecast report?
- A. To some degree, yes. For instance, over the last several years, since 2011, weather has been incredibly warmer than normal, all but for that polar vortex year.

I mean out of 124 years, since 1895, so I guess 62 would be halfway between that, the 124, we've had the first-warmest winter, we have had the third-warmest winter, we've had the fourth-warmest winter since 2011, and but for the polar vortex, all of them have been similar to 2-plus standard deviations warmer than normal.

Of course, we recognize that warmer -- we see this in our homes -- when weather is warmer than normal, our bills are a little lower; our usage is a little lower. If you are a marketer, your volume risk would be a little -- a little higher maybe because it's not what you expect perhaps, and that analysis let's me know directionally that if you are to look at actual prices versus forecast prices,

directionally you would expect the actuals to be obviously lower and that they would -- they would be normalized backed up.

Q. How frequently is the Fundamentals Forecast prepared, Mr. Bletzacker?

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- A. History would show that it's -- it's been, for the 13, 14, 15 years that I've been doing it, about once a year.
- Q. Is it prepared on a regular schedule, like by a date certain you want your fundamentals forecast ready?
- A. Yes, I can perhaps see some advantages of doing it on a date certain, but what's -- what causes it to be prepared is a -- is a significant change in the drivers that affect those prices. I'll give you an example.

The last forecast, the one prior to this one, contemplated a carbon value that was related to compliance with the Clean Power Plan. Those were some big numbers; big burden numbers. That triggered a change when that was no longer in the picture and we went to our \$15 a metric ton that you see here.

As well as we lowered some gas prices because of some of the advances that we're seeing in the shale revolution and the changes in the supply stack, so to

speak, of natural gas. So it's those major drivers that trigger another forecast. And when you see another forecast, there will be major drivers to talk about that triggered it.

- Q. And what were the major drivers for the August 1, 2018, Fundamentals Forecast?
- A. That was the change in the carbon price. So you went from CPP-type carbon price and the burdens on the dispatch stack associated with that and the lowering of the natural gas. That's what I was alluding to before in my previous statement.
- Q. I wasn't sure if that was a general statement or specific to the August 1, 2018.
  - A. I'm sorry if that was confusing.
  - Q. That's all right.

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Turn to page 8 of your testimony, if you would, Mr. Bletzacker, I want to focus on the question beginning on line 12.

- A. Yes, I am there.
- Q. And on lines 20 through 22, you discuss abundant, relatively low-cost natural gas, correct?
  - A. Yes, I do.
- Q. And productive capacity continuing to grow domestically and globally, correct?
- 25 | A. That's correct.

Q. And as a result of what you're discussing there, your expectation would be that natural gas prices would go down, correct?

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A. Yes, but let's describe what "down" is.

When you look at our real price forecast -- be sure

we all remember that there's real and nominal; one

has inflation in it, the other one doesn't. So while

we are used to the prices of things going up when you

adjust for the effect of inflation, of course, that

brings those prices down.

I'll -- our natural gas price forecast which is on the next page, 9. You see in the outer years, on a real-dollar forecast, meaning that inflation is taken out, that 2 percent you get hit with every year where your dollar becomes less valuable, it's, roughly speaking, reasonably flat going forward. So that is attributed to that shale gas and other gas, those abundant natural gas resources that will be available to us for not much more money. So not going down, but certainly staying flat on a real dollar basis.

Q. And to the extent it were to stay flat on a real dollar basis, you would expect, Mr.

Bletzacker, that energy prices, too, would stay relatively flat on a going-forward basis?

- A. Yes. To bolster that, if you were to do a plot between gas prices and power prices, you would see a strong correlation.
- Q. On page 9 of your testimony,
  Mr. Bletzacker, if you would please turn there.
  - A. I am there.
- Q. How did you come up with the 5 percent figure?
- A. Please point me to 5 percent. 5 percent per annum?
- 11 Q. Yes, sir.

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- A. That was -- that was --
- Q. That was it.
- A. Yes. That's the advice of our -- I have a lot of respect for these folks at our Washington office and our environmental and policy folks.

  That's their view. That's the company view.
- Q. And do you know what underlies their view, how they arrived at the 5 percent figure?
- A. Well, we do talk about a lot and I have come to appreciate it. The underlying view is that if you -- our previous discussion -- if you consider inflation to keep chewing away at 2 percent of our paycheck every year, in essence that 5 percent is only 3 percent above inflation.

So it's escalating at 3 percent and this whole notion of the carbon burden is a proxy for many things that could take place. So while there isn't a taxman standing there in 2028, taking your money from you exactly, there may be many different ways to have the effect of reducing national carbon dioxide emissions and this creates that effect.

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Now, in order to help them with that, we will have discussions about what affects different carbon levels have on national CO-2 and that -- in our past forecasts where we had the CPP values, which, by the way, were about \$35 a ton, not this \$15 a ton, that dropped carbon values quite a bit.

- Q. And I appreciate that, Mr. -- that answer, Mr. Bletzacker, but I still don't understand why your environmental people and people in Washington said that they expected it to be 5 percent per annum. What was the rationale when arriving at that number?
- A. My understanding is that -- we always have -- we seem to always have growth. There's always more consumers, electric demand goes up, things go up, CO-2, then production goes up and up and up. So if that was held flat, rather than being held at 3 percent above inflation, you begin to lose

ground again, you would be putting more CO-2 in the atmosphere. So we wanted to have a burden that increased to try to moderate that increase in CO-2 output that just comes with growing population, growing demand, that sort of thing.

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- Q. But that burden doesn't exist right now, correct?
- A. Well, it doesn't exist right now. It's a proxy for what could exist.
- Q. And I'm still trying to understand what was the rationale as to what could exist?
- A. Well, it's like a pendulum. You see where you have -- not that long ago you have the CPP and that very-seemingly burdensome \$35 or so per ton burden. You could see the pendulum swinging the other way and you have unknown -- no worries about burdens. It's trying to find a carbon proxy for what's likely to happen.

And 2028 is many Presidential terms away, 2028 is far enough away to where you can't connect it to anything nearby, but you know something needs to be done to address it. But I also want to underscore, we have a no-carbon case too. You can see exactly what carbon costs you by comparing the two cases and that's very insightful.

Q. But you didn't rely on the no-carbon case.

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- A. I relied -- I produced it, so I rely on it quite a bit.
- Q. But then why is 5 percent in your testimony then? Why did you add that on there?
- A. Well, we -- we provide a suite of forecasts. And I'll be the first to say there's no one right forecast; this is the one and this is the only one. So we produced this range of forecasts. We have a low band and we have a high band and we have this base in between and then we have one with no carbon to try to identify this kind of credible range, and you see that credible range and how that sits with other folks who forecast things the same way that are a lot like the EIA, Department of Energy and others, and it's that whole band that leads you to forecast that can be useful in analysis for whatever project you are looking at, be it EE or installing a new scrubber or building a new unit, whatever you are fixing to do.
- Q. So is that 5 percent in that credible band or is that a separate forecast from the zero-carbon-burden forecast?
  - A. Oh, I see your point. So I wish I had in

front of you the -- since we are so close to PJM here, the PJM AEP Gen Hub forecast for electricity, for power, and you saw the low band, you saw the high band. Let's just call it "low case" and "high case." The word "band" maybe is confusing.

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You see the base case and then the no-carbon is a separate case. You wouldn't be surprised, though, if you saw that between now and 2028, the base case and the no-carbon case looked exactly the same because it is, because carbon doesn't come on until 2028. So consider them to be four separate cases that create this, call it just the credible band.

- Q. And the 5 percent is one of the separate cases, correct?
- A. That is the base case. That's what's in the base case.
- Q. What's the impact on the forecast if that 5 percent doesn't materialize, Mr. Bletzacker?
  - A. You mean it's greater than that?
  - O. I mean it's less than that.
- A. Well, if you were to look at the graph, we have this fictional graph of the PJM power prices as I described --
- Q. Are you referring to your Fundamentals

Forecast report when you call it "fictional"?

- A. Well, I am describing something that I can't show in front of you. So we are imagining that we have the forecast of prices in front of us; we have no carbon, after 2028 of course; we have the base case that has your 5 percent escalation in it; and you are asking -- you are proposing if it's less than 5 percent, what would that do?
  - O. Correct.

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- A. The answer would be it's somewhere between the no-carbon and the base case.
- Q. Would the effect on energy prices be they would be lower?
  - A. Yes. And if it was gone, it would be a no-carbon case.
  - Q. Okay. And -- and equally if the -- if the burden was 10 percent, then energy prices would increase; is that your hypothesis?
  - A. That's right. And in order to enhance some understanding, that's -- that number is in addition to what's in the dispatch, is in addition to your -- it's like an additional variable cost to the dispatch stack, so it changes the merit order.

    Changing the merit order probably changes price.
    - Q. Okay. And in the -- in the forward DIMP,

I don't know if you were using this as an illustrative example or not, but you reference four cases, one of which would be a zero-based carbon burden, one was 5 percent, and then there could be two other scenarios, correct?

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A. No, that's not correct. So let me help. There's four cases: A low case that's described in here; a high case; we have a base case, one right down the middle; and the no-carbon case is -- is obviously produces lower prices than the base case does, but 5 percent is the escalation. So we have two components, right, we've talked about the \$15 a ton but then it's the escalation of that \$15. So if you do the forecast, you would see \$15 times 1.05 times 1.05 times 1.05. There's escalation and there's the ultimate value. So it's not a separate case; it's a component of the case.

MR. OLIKER: Your Honor, I have to interject for a second. The record has contained a lot of statements from the witness about multiple cases including a base case, a low case, it's also in his testimony, but I'm not sure that's a fact that's in evidence in this case or whether it was relied upon by any witness for purposes of the analysis that was done. So we're talking about a lot of things

that are simply irrelevant. It needs to be stricken and so should the transcript, all the discussion to it.

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MR. NOURSE: Your Honor, I think it's pretty clear in response to questions by the OCC that Mr. Bletzacker is explaining the four components of his Fundamentals Forecast. I am not going to recap what he said, but obviously he's describing four different -- essentially the four different forecasts that go into the band of reasonableness and he's accurately described each of the four in responding to questions of Mr. Michael, so.

MR. OLIKER: Your Honor, it's not established that any of the other forecasts are in evidence and relied upon in this case. He mentions this very tenuously in his testimony. Mr. Torpey says he used one case, the base Fundamentals

Forecast, and that's the one we should be talking about and everything else should be stricken. Unless he can refute that and I don't believe he can, your Honor.

MR. NOURSE: Yeah, I mean all these cases were explained in response to questions by the OCC, and Mr. Bletzacker is transparently explaining all the components that go into his Fundamentals Forecast

that was prepared and used by Mr. -- Mr. Torpey, and certainly all these supporting workpapers and details of each of the four were all the data was included and brought to all the parties in discovery, through workpapers, and it has been available to the extent they have questions like Mr. Michael has today.

MR. OLIKER: Your Honor, I still have not heard that Witness Torpey used anything in his analysis other than the base fundamental forecast.

That has not been refuted.

EXAMINER PARROT: You will be free to ask him that question when you are up, Mr. Oliker. Your request to strike this line of questioning is denied.

MR. MICHAEL: I have no further questions. Thank you, Mr. Bletzacker.

THE WITNESS: Thank you very much.

EXAMINER PARROT: Ms. Whitfield.

MS. WHITFIELD: I have no questions for this witness.

EXAMINER PARROT: Ms. Glover.

MS. GLOVER: No questions.

MR. OLIKER: I can go, your Honor.

EXAMINER PARROT: Mr. Oliker.

MR. OLIKER: Thank you.

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CROSS-EXAMINATION

2 By Mr. Oliker:

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- Q. Good evening, Mr. Bletzacker.
- A. Good evening, Mr. Oliker.
- Q. It's good to see you.
- A. The pleasure is all mine.
- Q. So let's start with your background. Am

  I correct that you started working for a division of

  American Electric Power in 2005?
- 10 A. That's correct.
- Q. And, prior to that, you were with Honda or a division of Honda.
- A. That's correct. I was the North American

  Energy Manager for Honda.
  - Q. And the "energy" world was very different in to 2005, was it not?
- A. It was, and it will be different 10 years from now too, I'm sure.
- Q. From 2000 to 2005, it was typically a period of rising energy prices due to rising fuel prices?
- A. Yes. We saw an over-rise really
  beginning in 1997 is when it really started to go
  away from \$2.00 to something more than that. And, of
  course, we had Hurricane Katrina and Rita, and that

really made things very expensive.

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- O. Those were both in 2005?
- A. Not 2005. Hurricane Katrina -- yes, Hurricane Katrina was late in 2005.
  - Q. So was Rita, was it not?
  - A. Yes, absolutely.
- Q. And from 2005 to 2008, that fundamental of rising energy prices continued, did it not?
- A. Well, remember, I'm describing where prices had dropped. Just to make the record clear, they were very high during Hurricanes Katrina and Rita for about a six-month period, they dropped, and then they rose after that, so just consider that 2005 an exception.
- Q. For example, coal prices were very high from 2007 to 2008, correct? And so were natural gas prices?
- A. I'll go you with on that, but it -- it's really a relative term. You know, back in the old days, we had some high gas prices. So it's a relative statement to say they were very high.
- Q. They were higher than they are today, correct.
  - A. Higher than they are today, certainly.
  - Q. And at the time there was rising demand

on the electric grid, correct, from 2000 to 2008?

A. Yes.

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- Q. It was a steady line, was it not?
- A. Certainly.
- Q. Okay. And on page 3, you say that the Fundamentals Forecast is relied upon for purposes of fixed asset impairment accounting. Are you referring to an analysis that would be performed under Accounting Standards Codification 980?
- A. I don't know, but I know one of the users of the forecast is the accounting group. I also report to the auditors as they -- as they make whatever use of the fundamentals they need, but it's exact application I'm not -- not that close to.
- Q. Is -- okay, from a high level, would you agree that a fixed asset impairment occurs when the projected revenues associated with an asset do not cover the asset's carrying costs?
  - A. My answer is I don't know.
- Q. How do you use the term "fixed asset impairment" in your testimony?
- A. That comes from my direct experience in working through with our auditors which was Deloitte at the time, and looking at the Ohio assets, for instance, I believe was what they were looking at,

and looking at our -- our Fundamentals Forecast, again, it's used ubiquitously around the company for many different reasons, and they were applying it in the ways that they do. They just wanted to have that explained and that was my understanding of how it was being used. Your takeaway should be it's used for a wide variety of things.

- Q. I'm sorry. When you just referred to "they" in your answer, who is they?
  - A. Deloitte.

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- Q. So let's talk about the process with Deloitte. Do they make a request to you for an internally-prepared forecast?
- A. They request a meeting and ask for a -it's a rather informal meeting but they ask for a
  presentation of our latest view of energy market or
  the energy market.
  - Q. And is there a trigger for the meeting?
- A. I've not experienced that to be a regular event. It's happened occasionally. So I don't know that I could say there's a trigger, but whenever any customer of the forecast needs to talk about it, I'm there to do that.
- Q. Okay. And when you have a meeting with Deloitte, would one example be if they have questions

of whether the book value of an asset needs to be reduced to reflect more-accurate market conditions?

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- A. No. They are only asking me questions about the major drivers of the forecast. They also have their experts that will join the meeting, if not in person, by phone, to kind of put into context their views of inputs of energy market fundamentals going forward and -- they want to know if -- what differences there may be. And how they apply that, I am not familiar with.
- Q. So I understand your answer, Deloitte has its own views of future energy market fundamentals, correct?
- A. Yes, they do. And they also run the same models we do.
- Q. And if Deloitte doesn't agree with your fundamental forecast, they may, from an accounting standpoint, determine that an asset needs to have its book value revised, correct?
- A. Unfortunately, I have never been involved in any of those discussions after my presentation of the fundamentals. Again, your takeaway here should be it's used for a wide variety of somewhat seemingly competing purposes.
  - Q. But the key is, for purposes of an

accounting standpoint, the internal AEP Ohio forecast does not have the last say?

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- A. I tried to follow you there, Mr. Oliker. You said "AEP Ohio." AEP Ohio -- everyone has my forecast, and they get it all on the same day and they can use it any way they like.
- Q. From an accounting standpoint, Deloitte or your accountants may have to utilize a different forecast than the one you prepared, correct?
- A. I never experienced that, but really I don't know. They would like to have a meeting to discuss it and I am there to do that.
- Q. Well, I guess my question is: Are you familiar that -- first, you know that Ohio Power Company once owned generating assets?
  - A. Yes, I do know that.
- Q. And those assets were transferred to an affiliate, correct?

MR. NOURSE: I am just going to object here. I think Mr. Bletzacker has answered to the best of his ability and substantiated his one phrase that he used in the list of items about how the fundamental forecast is used by internal and external customers of AEP, his customers and, you know, I think, getting into specific examples in the past.

He's already explained he's not aware -- he's already answered all of Mr. Oliker's questions. So I think it goes beyond anything that's helpful for the purposes of this case.

MR. OLIKER: Your Honor, I don't know how Mr. Nourse could know all the questions I am going to ask, but --

MR. NOURSE: I think I have an idea.

EXAMINER PARROT: The objection is overruled with respect to the question that's pending.

MR. OLIKER: Karen, could you read it back, please?

(Record read.)

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- A. There was a lot going on at that time. I do know that I was a witness in case -- cases to transfer those assets to other operating companies. But I'm really not in a position to know those things. That's not what I do.
- Q. Did the auditors ask you to answer any questions about your forecasts as they relate to the Cardinal, Conesville, Stuart, and Zimmer plants around the -- prior to the impairment that was filed with the SEC?
- 25 A. I have no involvement in any of that. I

would like you to take -- your takeaway here is this was a collegial discussion about long-term energy market forecasts and that's all they needed from me. What they did beyond that was beyond my scope.

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- Q. I guess my question is: Did you have to sit down with the auditors, such as Deloitte, to talk about your forecast as it may relate to the power plants I just referenced?
- A. I heard nothing in the conversation related to those particular power plants. We just had a collegial discussion about long-term energy market fundamentals and then I was dismissed.
- Q. And what time frame was that that you are referring to the collegial discussion?
- A. Well, I've had several. Typically, they are at year end. So let's say that I have had four or five in the last eight, nine years. And typically around the February, March period. Maybe January.
- Q. Did you have a discussion with the auditors around November 1, 2016? Or anywhere within 60 days prior to that time?

MR. NOURSE: Your Honor, I object. I object. This is not relevant. It goes way beyond the very limited purpose that he mentioned impairment accounting in his testimony and he's explained the

scope of that many -- several times already this evening.

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MR. OLIKER: And, your Honor, I am simply trying to determine whether the \$2 million economic impairment that was filed with the SEC was based on one of Mr. Bletzacker's fundamental forecasts or if AEP's companies actually used different forecasts.

MR. NOURSE: Well, your Honor, again, he already indicated that he provides some input, one-way street, give them some input on future prices. They, in conjunction with the Company's management, make decisions about accounting -- about impairments, about writeoffs, and Mr. Bletzacker has already indicated he hasn't been a part of that discussion or the decision that happens after they get his energy -- after they get his forecast as one of X number of things they consider in making that decision.

MR. OLIKER: If the witness wants to provide those answers, that's one thing, but I can't cite to Mr. Nourse's statement as evidence.

MR. NOURSE: He's already answered those questions. That's why I'm reciting them. We've already been through the extent of his knowledge on those points.

MR. OLIKER: I haven't been able to ask the questions, your Honor.

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MR. NOURSE: It's unfair to ask him to speculate about what an auditor did or what the Company's management did for a complex decision that he wasn't part of, and he's already indicated that.

EXAMINER PARROT: Mr. Bletzacker, to the extent you're able to, answer the question that's pending, please. Do you need us to reread it?

THE WITNESS: Certainly. Thank you very

(Record read.)

- A. My answer is not that I recall.
- Q. Okay. And to follow-up on your counsel's discussion, am I correct that management of AEP's subsidiaries make decisions based upon other forecasts than the ones provided by you?
  - A. I've never experienced that.
- Q. But we did establish that you are not specifically involved in determinations to take an economic impairment to an asset?
- A. I'm involved in providing my forecast. I see it used ubiquitously. That's the extent that I can comment on that.
- Q. And on page 4, line 6, your testimony

1 states "To complement the Base Case Fundamentals 2 Forecast, three associated cases are also created: 3 The Lower Band, the Upper Band, and Status Quo cases. 4 The associated cases were designed and generated to 5 define a plausible range of outcomes surrounding the 6 Base Case Fundamentals Forecast." Now, first, I 7 would like to go back to witness Torpey's testimony. 8 Have you read it?

A. To this point, I've just skimmed it, so not thoroughly, no.

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- Q. So do you not know, one way or the other, whether or not witness Torpey used all of your various forecasts that you describe on page 4, line 6?
- A. I am very confident he can answer that question, but I don't have any knowledge about what he referred to or how he used it.
- Q. Your testimony states that the lower band reflects lower demand for electric generation and fuels and, consequently, lower and higher fuels prices. Am I correct that the lower case assumes that there will be a carbon burden in place?
- A. Well, first of all, you didn't read the sentence correctly. I know that was an accident, so let me read it for you.

Q. Sure thing.

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- A. It says "The Lower and Upper Band forecasts consider lower and higher North American demand for electric generation and fuels and, consequently, lower and higher fuels prices. You left out one of the bands.
- Q. Sorry, I didn't mean to interrupt you,
  Mr. Bletzacker. Let's come back to the lower case.
  - A. Sure.
- Q. That case assumes a carbon burden in 2028, correct?
  - A. That's correct.
  - Q. And as you describe I believe in your testimony and to Mr. Kurtz, the burden that you assumed was approximately \$15 per ton of CO-2 emissions?
  - A. It was exactly \$15 a ton, and it escalates at 5 percent per year thereafter, through the length of the term of the forecast.
  - Q. And based upon what you say on page 8, I can extrapolate that a \$15 burden per ton can be translated to a cost for a coal unit of \$15 per megawatt-hour, correct?
- A. That's right. There is math behind that, but that's a good approximation.

- Q. And with the 5 percent increase per year, that scales out to \$15.75 per megawatt-hour and then \$16.50 cents per megawatt-hour and so on?
- A. That's right. And then you take inflation out of it to see what the real effect is, so it's actually a lower number.
- Q. Okay. For example, it you go all the way out to 2040, it goes up to \$24.44 a megawatt-hour approximately?
- A. Well, I have to see where you are citing that from, but assuming you are looking at a forecast and those are nominal dollars and it's a quote from our forecast, I would -- I would acquiesce if you stipulate to that.
- Q. Okay. And I will stipulate that I was reading that from your forecast.
  - A. Perfect.

- Q. We'll get into that maybe later.
- A. Wise man.
- Q. You also talk about the fact that the CO-2 burden that we've been discussing would fall disproportionately on coal assets; is that correct?
- A. Yes. Because coal has a greater emission rate than gas would, it is going to have to, you know, change the dispatch order and it is the unit

that does, well say, suffer the most.

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- Q. Okay. And we see the impact of that in your forecast with the flipping of the dispatch order. What happens is natural gas plants are utilized more which increases demand for natural gas, correct?
  - A. That's correct.
- Q. And as a result of that, in 2028, you have the impact of the carbon burden on coal plant dispatch but also an increase in natural gas prices, correct?
- A. That's correct. And to elaborate on that, because there is less coal demand there is greater natural gas demand, as you said, and that is very visible in our forecast, you see right there at 2028, the natural gas price rises up because there is that feedback. Greater demand means greater prices. I refer to that also as elasticity.

MR. OLIKER: Now, could we go off the record for one minute, your Honor?

EXAMINER PARROT: Yes.

(Discussion off the record.)

EXAMINER PARROT: Let's go back on.

MR. OLIKER: May I approach, your Honor?

EXAMINER PARROT: You may.

MR. OLIKER: I am going to hand two documents to the witness. They are excerpts given that these come from Excel spreadsheets. And the first document, I believe, relates to the on-peak and off-peak PJM pricing as well as Henry Hub nominal natural gas and also CO-2 prices, which is IGS Exhibit 4. EXAMINER PARROT: So marked. (EXHIBIT MARKED FOR IDENTIFICATION.) MR. OLIKER: And the second document I would like to mark is IGS Exhibit 5. It would be, I believe, the PJM on-peak and off-peak pricing and natural gas prices and CO-2 prices for the low case as IGS Exhibit 5.

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EXAMINER PARROT: So marked.

(EXHIBIT MARKED FOR IDENTIFICATION.)

MR. OLIKER: To be clear, these are excerpts of the larger forecast.

- (By Mr. Oliker) And, Mr. Bletzacker, let's start with what's been marked as IGS Exhibit 4. And I apologize, they look very similar except for the numbers?
- That's right. And I've marked Exhibit 4 Α. as the base case and Exhibit 5 as the low case.
  - Q. Okay. And having looked at, first, IGS

Exhibit 4, does this appear to be a clear and accurate excerpt of your Fundamentals Forecast?

- A. It does appear that way, yes.
- Q. And, likewise, does IGS Exhibit 5 appear to be a clear and accurate excerpt of your low case forecast?
  - A. It does, yes.

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- Q. Okay. Now, let's first go to the base case. We see the impact of the CO-2 burden you have described in 2028, is that correct, in the very far right of the document?
  - A. Yes, that's correct.
- Q. And that's the number we talked about before that escalates up to 2024, to 24.44. My question is: Is that metric tons?
- A. You'll see in the heading on Exhibit 5 and it applies also to Exhibit 4, that those are dollars per short ton.
- Q. Thank you for that clarification.

  And as we look at the on-peak and off-peak pricing between 2027 and 2028, there is a

price increase of north of \$10 a megawatt-hour,

- correct, both the on-peak and the off-peak?
- A. Yes, very close to that.
  - Q. And in 2027, you are predicting Henry Hub

- natural gas prices of \$5.41 cents per MMBtu, correct?
- 2 A. That's correct. I'm projecting those
- 3 prices.

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- Q. Okay. And then that jumps to approximately \$6 per MMBtu in 2028?
- 6 A. Yes. 5.99 exactly.
- Q. Okay. Now, if I could turn your attention to the low case.
  - A. Yes, I'm there.
- Q. Now, in 2027, the low case reflects if we were to average the on-peak and off-peak energy prices, that would be about \$35 a megawatt-hour, right?
- A. I assume you are doing that as just a basic average as opposed to an around-the-clock kind of calculation?
- 17 Q. Yes.
- A. Certainly.
- Q. Your around-the-clock calculation would not be entirely different, would it?
- 21 A. Not terribly.
- 22 Q. In the \$35 range?
- 23 | A. But I would have noticed it.
- Q. But it wouldn't be more than a dollar off of that, would it?

- A. No, sir, it wouldn't.
- Q. Okay. So what we're seeing is we also see carbon prices take effect in 2028, correct?
  - A. Correct.

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- Q. And that's what causes the low case to go from, on the on-peak, \$39 a megawatt-hour, to almost \$50 a megawatt-hour?
- A. Well, rounding, we would say \$49, but I'm with you.
- Q. And that's the on-peak. In the off-peak, it goes from \$30.72 to \$41.99?
  - A. That's correct.
  - Q. And that price increase is driven by both the CO-2 burden that we established on the right side, the \$13 -- or, yeah, \$13.61 per short ton, coupled with an increase in natural gas prices from \$4.68 to \$5.18, correct?
  - A. Correct. But the major driver in those prices is, of course, the rearrangement of the fleet. When the coal burden hits or as it is about to hit, coal plants and some inefficient natural gas plants begin to retire. So the fleet looks entirely different through that period. Not entirely different but somewhat different.
    - Q. So, and that's -- that's one of my

questions is you never ran a low case without carbon, right?

> Α. No.

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- But in the absence of carbon regulation Ο. in 2028 under the low case, am I correct that the around-the-clock price is under \$45 a megawatt-hour?
- To make sure I've gotten your question, you are saying if that low case didn't have a carbon burden, that's what the number would be?
  - Q. Yes.
- Well, of course, I don't know exactly. Α. But it wouldn't be out of the realm of possibility to come and draw parallel to what you see between the base case and the no-carbon case, that the low case would also have that same drop in prices that the base case saw. If -- if there were something that I didn't create which is that low carbon -- or low case, no carbon.
- And, again, as we discussed in the base case, you see approximately \$11 a megawatt-hour price jump in 2027 to 2028?
- Well, I see on-peak from 45 to 56, and I Α. see 37 to 47; so approximately, yes.
- And in every other year before that, the Ο. 25 price increase was about a dollar, right?

- A. Yes.
- Q. So --

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- A. Roughly.
- Q. -- can we say if we assume in the absence of carbon regulation under the low case, you'll see a dollar increase from 2027?
- A. Well, we don't even have to guess about that. You need to just look at the no-carbon forecast and you'll know exactly what that price is and that's been provided in this case.
- Q. But again, you have not provided a no-carbon forecast with a low case, right?
- A. I have not, but please be careful because when you have lower fuel prices and then the addition of carbon burden, the fleet will change even in different ways than what you see here; so be careful drawing really definitive conclusions.
- 18 Directionally, I appreciate your point.
- Q. Okay. You have talked about winter
  temperatures, correct? And whether or not they were
  warm winters or cooler winters from a really high
  level; is that correct?
- A. Yes, in earlier cross-examination I
  talked about the winter heating degree days and their
  position relative to normal.

Q. Would you agree that 3 of the 10 winter PJM peaks occurred in the winter of 2014, '15? If you know?

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- A. Well, I don't know, but please recognize I'm looking at natural gas on a national basis. And whether in North Dakota or in Georgia, it would have no effect on -- on that -- or it wouldn't -- is a subset that is -- is not relative to my analysis of natural gas prices.
- Q. Did we not have a declining-price environment in January through March of 2015? If you know what I mean by that terminology.
- A. Oh, I certainly know what you mean by that terminology, but I would need to see it to be able to verify it.
- Q. Was gas trading below \$3 in March and February of 2015 for the Henry Hub?
- A. Again, I don't recall, but it's a very objective matter.
- Q. Now, earlier I think you said this, that it's a reasonable and sensible thing to do to have multiple cases in a forecast?
- A. We do provide a range of forecasts and I think it is a reasonable thing to do, yes.
  - Q. And relying upon just one forecast could

lead to unintended results?

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- A. Well, my discussion about that was to identify that there's no -- not necessarily -- there isn't one right forecast but you provide a range of forecasts which define plausible limits and that's why we provide those four forecasts.
- Q. And you referred to the "CPP." That stands for the Clean Power Plan, correct?
  - A. That's correct.
- Q. To your knowledge did Ohio sue the EPA
  over the Clean Power Plan?
- A. I don't recall. I don't know. I know we modeled it.
- Q. You don't know if the Attorney General of
  Ohio filed a lawsuit against the EPA, alleging that
  it was unlawful?
- 17 A. I don't recall.
- Q. And do you know if that individual is now the Governor of Ohio?
- MS. LEPPLA: Objection, your Honor.
- 21 Relevancy.
- MR. NOURSE: Objection. Relevance, lack
- 23 of.
- MR. OLIKER: Your Honor, it's relevant in
- 25 as much as --

EXAMINER PARROT: He already said he is not aware. Move on.

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- Q. (By Mr. Oliker) And I believe you said this, Mr. Bletzacker, that carbon regulations would have to result from some type of action either by the Federal Government or a state government, correct?
- A. Oh, no, you didn't hear that correctly. I identified that as a proxy for things that could happen and there are many things that could happen including some sort of a governmental intervention but also voluntary actions. A general clamoring for or desire for renewables that would result in the lowering of prices and the reduction of carbon footprint. These numbers were typified as a proxy for what the result would be.
  - Q. Let's be clear. These numbers were entered into a model that -- correct?
  - A. That's correct. And the reason those numbers are entered in is I can't enter in people's intentions in the model, I can't enter in those -- those subjective things. It ends up needing to be a number that achieves an effect. So there is a carbon reduction in the United States associated with that particular number which we believe would typify what the -- what could happen at that particular time.

- Q. Okay. The model is intended to mimic possible dispatch of generating units within the PJM footprint, is it not?
  - A. It is, yes.

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- Q. And if you are a coal generator, you can't decide that you want to emit less carbon and bid a different price, can you?
- A. Repeat that for me, please.

  MR. OLIKER: Can you repeat the question,

  Karen?

(Record read.)

- A. I thought I heard the word "bid," that's why I wanted it to be repeated. I don't understand the word "bid." And you can decide to emit less carbon; you just don't generate as much.
- Q. Right, but there are specific bibbing parameters into the PJM market, correct?
  - A. Yes, there are.
- Q. And the data you provided or intend to mimic the way you would have to bid given a cost imposed on them through a carbon regulation, correct?
- A. Yes. I'm adding this dispatch burden to generation to be a proxy for what we expect to happen and the resulting CO-2 mitigation is modeled and it -- and it delivers results and it is not intended

to say that bidding strategy in a PJM construct is -is going to be affected some particular way. It's
showing the output of that; it's showing the result
of that burden.

- Q. And to be clear, I think you said this earlier, you do not know which political party will be in power over the next eight years, correct?
- A. That's correct. And I don't know what the weather will be like next year.
- Q. And you don't know the outcome of any of the General Assembly races in Ohio over the next year, correct?
- A. That's right. And I don't know what the economy will look like next year either.
- Q. But you do know that today there is no burden on carbon, correct?
  - A. That's correct.
- MR. OLIKER: Thank you. Those are all the questions I have, your Honor.
- MS. BOJKO: Your Honor, Mr. Pritchard has agreed to go next.
- 22 EXAMINER PARROT: All right.
- Mr. Pritchard.

## CROSS-EXAMINATION

By Mr. Pritchard:

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- Q. Good evening, Mr. Bletzacker.
- A. Good evening, Mr. Pritchard.
- Q. Before we get back into the Fundamentals

  Forecast, I just want to back up more to a high

  level. If someone, whether it's a customer, internal

  departments in AEP, a supplier, wanted to get

  information on what future energy market prices might

  be, what type of resources are available where they

  could go out and look at that kind of information?
- A. Well, fortunately, our forecasts are not listed as confidential. They're available on many utility -- or many utility commissions' websites.

  But if you wanted it, probably the best first place to go it would be the EIA. Energy Information

  Administration Division of the Department of Energy.
- Q. And another place someone might look would be an exchange such as NYMEX, correct?
- A. Oh, absolutely not correct. The NYMEX is not a suitable substitute for a long-term model-driven forecast. And one of the first layers of proof of that is that the EIA, energy consultancies such as SERA, PIRA Energy Group, Wood MacKenzie and a host of others, they don't reference

the NYMEX in their long-term forecasts at all.

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- Q. So I understand that, your testimony is that the NYMEX would not provide any indication of future market prices for someone?
- energy market forecasts and it's not suitable for several reasons, one that I mentioned already, but also because the participants are either hedging or speculating. And one component of that hedging -- as a matter of fact, 44 percent of the participants, last November, were listed as spreading. And what "spreading" means is that if they are trying to lock down the spread between, oh, say, propane and natural gas because they have a fractionation plant, that's called a "fractionation spread," that's of interest to them. If it's natural gas and electric generation, that's a spark spread.

Those folks have storage fields and they are worried about a summer/winter spread. Perhaps they make money at \$2. They don't care whether it's \$2 in the summer and \$4 in the winter, or \$10 in the summer and \$12 in the winter. They just want that \$2. So when they enter the market that particular day, they are not giving you any indication of what future prices will be.

Q. So a party looking to enter into, say, a futures contract, might consider the future-year price propositions identified by the NYMEX or ICE exchange and that would provide a rough indication on prices, correct, of future prices?

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A. I hate to even call it a rough indication of much of anything other than what you can find, a counterparty that's willing to go ahead and buy your contract or sell the contract for delivery or -- at the Henry Hub, or to trade out, before it goes to delivery.

And the thing that's important to remember is that the liquidity, the number of counterparties, drops off rapidly after three years and the term only goes out for the NYMEX contract for 12 years. So you can't practically buy a large sum of natural gas futures contracts, if you so desired, out into those — into that later period of time. It just — it just isn't — it isn't used as a forecasting tool and it provides no value because the participants aren't there thinking that the price will stay the same. They are there because they think it's going to change and that's why they are buying or selling their contract.

Q. So your answer to my question was no?

- Given your long -- the caveat of your long explanation?
- A. Well, my answer stands. It needs those clarifications so that you have a better picture.
- Q. So your answer was no, correct?

  MR. NOURSE: Your Honor, I think

  Mr. Bletzacker gave his answer and his best answer,

  so it shouldn't be recharacterized against his will.
- Q. Mr. Bletzacker, you had mentioned earlier that you had testified regarding, I'm not sure you mentioned the specifics of it, but you testified before this Commission in 14-1693 which dealt with an AEP affiliate purchase power agreement, correct?
- A. I did mention it before. That's the Ohio PPA case?
- 16 Q. Yes.

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- 17 A. The answer is yes.
- MR. PRITCHARD: Your Honor, may I approach?
- 20 EXAMINER PARROT: You may.
- Q. While your counsel is taking a minute to
  pull up their own copy, will you take a minute to
  read the first couple pages and than I'll commence my
  questions in a second.
- MR. COLLIER: Your Honor, while we are

doing that, may I ask, what is your intent, how long we will be going this evening?

MR. NOURSE: Mr. Pritchard, can you give us the page reference?

MR. PRITCHARD: I will be going to pages 4157 and -58 here in a second.

MR. NOURSE: Thank you.

EXAMINER PARROT: While they are doing that, let's go off the record.

(Discussion off the record.)

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

- Q. Mr. Bletzacker, will you turn to the -let me ask. In front of you is a deposition -- or,
  not a deposition -- a hearing transcript, Ohio Power
  Company, Volume XVII, from Case 14-1693, correct?
  - A. That's correct.
- 18 Q. Will you turn to page 4157.
  - A. I'm there.

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Q. And will you look to line 22, the question starting there, and let me know if I read this question starting there, and the answer that continues on to the next page.

"Question: And the one thing you would -- a party looking to enter into a futures

contract might consider is the future year price propositions identified by NYMEX or the ICE exchange, for example, correct?

"Answer: You said they might consider, yes, they would see that as a -- they would see that as a rough indication."

Did I read that correctly?

- A. You read it correctly.
- Q. Thank you.

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And a minute ago, you had mentioned another thing that people that were looking to get future-year price certainty might do, would enter into a futures contract on the NYMEX exchange, correct?

- A. Yes. Futures contracts serve the wonderful purpose of allowing you to hedge and knowing exactly what your fixed price will be in the future.
- Q. And another thing someone could do is enter into a bilateral transaction, correct?
  - A. Yes. Also known as swaps.
- Q. And in your prior -- prior to coming to AEP, you worked for Honda, located in -- the manufacturing plant located in Marysville, correct?
  - A. That's correct. I was their North

American Energy Manager.

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- Q. And in your prior role, prior to AEP, you purchased short- and long-term natural gas supplies from major and independent producers and marketing companies, correct?
  - A. That's correct.
- Q. And you have personally monetized arbitraged opportunities using NYMEX futures, local and contract storage, pipeline imbalances, local distribution banks, correct?
  - A. That's correct.
- Q. And while working for Honda, you've implemented hedging strategies utilizing NYMEX natural gas futures contracts, correct?
  - A. Yes, I did.
- Q. And you've personally entered into bilateral contracts of 10 years or longer in the energy market to lock down future price certainty, correct?
  - A. That's correct.
- Q. And you are aware other parties in the market have entered into long-term contracts that might be in excess of 10 years on bilateral contracts, correct?
- A. Yes. I venture to say it's a very common

practice for industrials, in order to have budgeting certainty, that they will lock in prices for a long period of time and build a portfolio of prices over time.

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- Q. Now, turning back to your Fundamentals

  Forecast. If a customer were concerned that future
  energy prices were going to rise to the level
  contained in your Fundamentals Forecast, that
  customer has the ability to enter into a transaction
  now for physical delivery in the future at whatever
  the negotiated price would be, correct?
  - A. Yes, they can do that.
- Q. And along the same lines, a customer could do the same thing, but instead of a physical delivery contract, it could just be a financial transaction, correct?
  - A. That's correct.
- Q. And the greater the spread between price forecast, for example your Fundamentals Forecast and what's on NYMEX, that would indicate a greater potential for profit savings or -- for profit or customer savings, depending on which part of that transaction, correct?
- A. Well, there's several components here that I just don't want to brush by and that is that

someone who wants to have a fixed price for natural gas, for instance, in the future, can buy futures contracts. They then have to have those either delivered or take the financial benefits or losses from those contracts and apply them to its physical prices. But that's only for a delivery of an equal amount each and every day.

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Whereas in, like, the electric generation world, you have different volume requirements from day-to-day and usually you have higher demands on the days when prices are higher and less demand when prices are lower within the month; so the two don't compare as far as NYMEX hedging for an industrial and what would happen for an electric generator and as illustrated in our future -- in our Fundamentals Forecast.

- Q. Maybe I didn't artfully ask my prior question, but sort of big picture. If you have one forecast that projects gas in 10 years at \$8 and another forecast, whether it's your view or someone else's, and you think gas is going to be \$3, the greater the price spread, the greater the potential for profit or savings, correct?
- A. I hear what you're saying generally, but I want to make sure you understand those are two

different products. One would project the average of spot prices. The futures contract delivers an equal amount during the same -- during the same period. So there's a difference between that -- between those two different products.

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- Q. I understand. But generally speaking, regardless of whether you are looking at NYMEX futures or two different Fundamentals Forecasts, the greater the spreed between those two forecasts, the greater potential for savings, for increased costs, for profit, correct?
- A. Both -- picking up from the comment about weather deviations. When you have lower prices because weather is low and you think weather will continue to stay low and you're going to totally discount the weather risk, making prices goes higher? You can make speculative, all the speculative decisions you would like to make.
- Q. Let me ask this it this way: If I thought gas was going to be \$8 in 10 years, and someone offered me a contract for 10 years out, for all the gas I need, at either \$6 or at \$3; if I locked in my price at \$3, I would save more than if I had locked it in at \$6, correct?
  - A. That's true. And the expectation is you

would be happy with that decision you made. And if for some reason it went down to \$1.50 and you lost money on that decision, you wouldn't be bothered by that either. That's the nature of hedging. You are happy with the price that you locked in.

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- Q. And so there's a break-even analysis in this case, correct?
  - A. I am unaware. I don't know.
- Q. Okay. Hypothetically, if one assumed that you were comparing two products among the levelized market price of \$50 and a option for a long-term contract with a levelized price of \$45, if you thought the market price was really going to be \$50 and you could lock in at \$45, same terms, you would think that's a good deal because you're saving \$5, correct?
- A. I am just so concerned that that phrase starts off with "you think" and also has the outcome of you could be wrong. And as long as you are happy with the fact that you could be wrong and prices could go even, you know, lower, then, you know, those are consequences you'll have to live with. But a hedge is a hedge. If you like the price, then you can take it.
  - Q. Okay. Let me state this differently. If

we -- if we had a forecast of market price of \$50 and someone offered you the ability to lock in at \$45 and someone offered you the ability to lock in at \$30; from a customer's perspective, locking in at the lowest price would be the most beneficial from the long-term hedging strategy, correct?

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- A. If your concern is that it would be higher and you can lock in with something that's lower, that would be advantageous to you in your mind.
- Q. So hypothetically, of those two products
  I mentioned, customers are going to take the
  lower-priced product, correct?
- A. I can only speak to the fundamentals that I create. I can't get into the mind of what customers will like. I have had considerable experience working with industrials on hedging plans and policy, what they would like to do, and there's many things that enter into it. Some of it isn't trying to beat the market. A lot of it is trying to meet a budget expectation. So I can't comment about what customers would like. I know what industrials tend to like to do and that doesn't match up with your scenario.
  - Q. All right. Turning to your Fundamentals

Forecast in your testimony. You indicate that it was finalized August 1, 2018, correct?

A. That's correct. That's when it was distributed.

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- Q. And with regards to your prior fundamentals as well as this one, you have a naming convention for the files that includes the year the forecast was completed, correct?
- A. In the old days we used to identify when the last model run was. That's not when the forecast is completed. We no longer do that.

MR. PRITCHARD: Your Honor, I would like to mark an exhibit as IEU Exhibit 11. Your Honor, I'm passing out a number of exhibits that are alligator clipped. The individual exhibits I am going to mark are each individually stapled within the whole packet.

Well, I guess rather than mark each one individually, since I don't believe any of the Fundamentals Forecasts have actually been marked yet, I think I can just mark the whole package as one exhibit, if that's all right with your Honors. There are multiple versions of Fundamentals Forecasts within the packet.

If the Bench has no preference, I will

1 | just mark the whole packet as IEU Exhibit 11.

2 EXAMINER PARROT: Just so it's clear,

3 Mr. Pritchard, this is the Company's response to

4 | IEU-RPD-01-001? Is this the entire response or just

5 | excerpts of what was provided by the Company?

MR. PRITCHARD: The documents I am going to go through are in response to RPD-1 and RPD-2, and then I am going to have the witness identify what follows behind that.

EXAMINER PARROT: Okay. Thank you. The set of documents has been marked IEU Exhibit 11.

(EXHIBIT MARKED FOR IDENTIFICATION.)

- Q. (By Mr. Pritchard) Mr. Bletzacker, do you have the package of documents that we just handed out in front of you?
- 16 A. Yes, sir, I do.

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- Q. On top of that there's a request for production of documents titled IEU-RPD-1-001, correct?
- 20 A. That's correct.
- Q. And the request asks for a copy of the long-term energy market forecasts, the Fundamentals Forecast referred to in your testimony in this case, correct?
- 25 A. That's correct.

- Q. And then the response says "See" and there is a big file name for an Excel file that was provided, correct?
  - A. Correct.

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- Q. And then within that file name we have a "2018H2." Does the "2018" reference the fact that it was completed in 2018?
- A. Yes. It was distributed in 2018 and completed.
- Q. And the "H2" signifies the second half of the year?
- 12 A. That's correct.
- Q. And then if we look at the second page of the response to IEU-RPD-1-002, that was a request for prior Fundamentals Forecasts prepared by AEP Service Corp. from 2008 to 2018, correct?
- 17 A. Oh. I see 2009 to 2018.
- 18 | O. The --
- A. Oh, I beg your pardon. I now see 2008 now, yes.
  - Q. The response is identified as a -- eight attachments, each with -- references a year within those file names for those Excel files, correct?
- A. Yes, that's correct.
- Q. And in those Excel file names, for

example, the first one has a 2008 and that references the 2008 Fundamentals Forecast, correct?

- A. Yes, that's correct.
- Q. Likewise, the second one, 2H2009, represents a Fundamentals Forecast from the second half of 2009, correct?
  - A. Yes, that's correct.
- Q. And the file name description for the rest follow accordingly, correct?
- A. That's correct.

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- Q. And the documents that follow, there are file names at the bottom of each document.
- 13 Mr. Bletzacker, these are the annual price
- 14 Fundamentals Forecasts pages from the 2008, 2009,
- 15 | 2010, 2011, 2013, 2015, 2016, and 2018 Fundamentals
- 16 Forecast identified in IEU-RPD-1 and 2, correct?
- A. That's correct. You may have missed the 2012 that's here also.
- Q. It's identified on the discovery
  response, but it's not in my attachments. So, yes, I
  did copy 2012 when I was referring to these
  documents, the annual price forecasts.
  - A. Yes, that's correct.
- MR. PRITCHARD: Your Honor, I would like to mark as IEU Exhibit 12, a compilation exhibit that

extracts Henry Hub data from each of these Fundamentals Forecasts as IEU Exhibit 12.

EXAMINER PARROT: So marked.

(EXHIBIT MARKED FOR IDENTIFICATION.)

- Q. Mr. Bletzacker, do you have in front of you what's been marked as IEU Exhibit 12?
  - A. Yes, I do.

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Q. And just so we can confirm that my compilation exhibit that I've prepared correctly corresponds to your exhibit, let's just go through and compare the first column here with the reference to the 2008 forecast to what -- for the 2008 forecast contained in IEU Exhibit 11.

MR. NOURSE: Your Honor, I am going to object to this. Mr. Bletzacker has already indicated why it's inappropriate to try to do backcasting and comparing, you know, actual market prices from the past to prior Fundamentals Forecasts and why that's an apples and oranges and an inappropriate comparison. So I object on relevance and think it's an attempt -- it's an attempt to be prejudicial, and the information is not comparable.

MR. PRITCHARD: I would agree with one thing, that it is an attempt to be prejudicial but -MR. NOURSE: Unduly prejudicial.

MR. PRITCHARD: -- the reliability of future forecasts, one thing that is going -- this forecast in this case -- may be the best indicator of his ability to forecast accurately is the accuracy of his prior forecasts, and if Mr. Nourse wants to ask the witness to explain away the differences he just offered in his objection, that's grounds for redirect, but it doesn't make my exhibit or question -- the pending question, which is confirming the data is correct, any less accurate or any less relevant.

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MR. OLIKER: Your Honor --

MR. NOURSE: Your Honor, I don't think this is probative of accuracy, and I am sure Mr. Bletzacker will also explain that, but I don't -- I don't even think it's probative or relevant, worth admitting, because, once we talk about it in the record, it will be in, regardless of whether we talk about the records being admitted later.

MR. OLIKER: Your Honor, it's also probative given that you start to see when you look at these forecasts, what happens once you get out two years. The deltas between the forecasts and what really happened become really big and that is very probative to how this forecast may be relied upon

- 1 | going out to 20 years.
- MS. BOJKO: Your Honor, if I may be
- 3 heard?
- 4 EXAMINER PARROT: I've heard enough. Go
- 5 | ahead, Mr. Pritchard, but I will say that
- 6 Mr. Bletzacker will be permitted to give a full
- 7 response. So go ahead.
- 8 Q. (By Mr. Pritchard) Mr. Bletzacker, I will
- 9 rephrase the pending question.
- 10 Could you just reference the 2008
- 11 | forecast that was included as Attach -- in IEU
- 12 | Exhibit 10 and just compare that to what's in IEU
- 13 | Exhibit 12 -- or, sorry, 11 and 12. Just make sure
- 14 | the compilation exhibit correctly transcribes those
- 15 | Henry Hub gas price numbers.
- MR. NOURSE: Well, in that regard, can I
- 17 | inquire why Attachment 5, as listed on the front, is
- 18 | not included in the packet of the documents that were
- 19 provided?
- MR. PRITCHARD: I would be happy to
- 21 | explain off the record, but it's not a question I
- 22 | have pending for the witness.
- MR. NOURSE: You want to explain off the
- 24 record why you eliminated that year?
- MR. PRITCHARD: It's not a question I am

asking the witness.

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MR. NOURSE: Okay. All right. I just wanted to inquire to make sure we weren't, you know, going to have to come back to this later. Go ahead.

- A. I understand the question you have in front of me, and I have looked at the Henry Hub prices for 2008 against your compilation exhibit and they appear to be the same.
- Q. And will you accept, subject to check, that I correctly copied and pasted the Henry Hub values from the other years?
- A. I will -- I will accept that you put your best efforts, so subject to me seeing something later, yes, I'll accept that.
- Q. All right. And turning to the compilation exhibit, I want to focus on 2018. In your 2008 Fundamentals Forecast, you forecasted natural gas at the Henry Hub at \$9.43, correct?
  - A. That's correct.
- Q. And that's stated in dollars per MMBtu, correct?
  - A. That's correct.
- Q. And in the 2009 Fundamentals Forecast, you forecasted 2018 natural gas at the Henry Hub at \$7.69, correct?

A. Correct.

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- Q. And in 2010, you forecasted 2018 natural gas at the Henry Hub at \$6.64, correct?
  - A. That's correct.
- Q. And in 2011, you forecasted Henry Hub gas between -- for 2018, \$6.32, correct?
  - A. That's correct.
- Q. And in 2013, Fundamentals Forecast, you forecasted Henry Hub gas at \$6.12, correct?
  - A. That's correct.
- Q. And the 2013 Fundamentals Forecast is the Fundamentals Forecast that your testimony in the AEP PPA case, Case No. 14-1693, was based on, correct?
  - A. I don't recall. I don't believe so.
- Q. If I showed you a copy of your testimony from Case 14-1693, might that refresh your recollection on which year's forecast you used in that case?
  - A. Well, of course, it would, yes.
- Q. Mr. Bletzacker, have I handed you what appears to be your testimony from Case 14-1693?
  - A. Yes, you have.
- Q. And will you take a minute and review your testimony on page 3 -- or, sorry, page 4?
- 25 A. Yes, I have that. And it identifies the

fourth quarter of 2013.

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- Q. Does that refresh your recollection of whether you used your -- which forecast you used in that case?
  - A. Yes, it does. Thank you very much.
  - Q. And which forecast did you use?
    - A. The 2H2013 forecast.
  - Q. Thank you.
  - A. Thank you.
- Q. And turning back to the compilation exhibit, the 2015 Fundamentals Forecast forecasted 2018 natural gas at the Henry Hub at \$5.40, correct?
  - A. Correct.
- Q. And the 2016 Fundamentals Forecast 2018
  Henry Hub natural gas was \$4.89, correct?
- 16 A. That's correct.
  - Q. And your Fundamentals Forecast in this case, 2018 Henry Hub gas was \$3.22, correct?
    - A. That's correct.
  - Q. And when you prepared your Fundamentals

    Forecast in this case, you had the balance of

    information from 2018 already available, correct?
- A. That's a good point. When it was put out in August, I already had eight months of data.
- Q. So it's fair to say --

A. Actuals.

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- Q. -- your projection here at \$3.22, the actuals for the year are going to be relatively close to natural gas at the Henry Hub around \$3.22, correct?
- A. Because it is an average of the spot prices in this particular year and certainly I include the actuals, the history that's already taken place.
- Q. So the answer to the question is: The actuals for calendar year 2018 are going to be very close to \$3.22, correct?
  - A. Yes.
  - Q. Thank you.
- MR. PRITCHARD: Your Honor, may I have just one second?
- Q. One final line of cross, Mr. Bletzacker.

  Earlier there was discussion about your
- base case and your low case and perhaps which case
- 20 Mr. Torpey relied upon, correct?
- A. I didn't offer any opinion as to what he used. I don't know what he used, but I do recognize those cases exist, of course.
- Q. Correct. So if Mr. Torpey has, for example, listed annual capacity prices, we could

- compare those to the 2018 forecast I just handed out.

  If they match up exactly, we are going to know he

  used your base case, correct?
  - A. Well, please ask him but there is some logic in matching up the numbers.
  - Q. Yeah. For example, your -- your other cases don't have the exact same numbers as your base case, correct?
    - A. That's correct.
- 10 MR. PRITCHARD: I have nothing further.
- 11 | Thank you.

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- 12 EXAMINER PARROT: Ms. Bojko?
- MS. BOJKO: Thank you, your Honors.
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- 15 CROSS-EXAMINATION
- 16 By Ms. Bojko:
- Q. Good evening, Mr. Bletzacker.
- 18 A. Good evening, Ms. Bojko.
- 19 Q. Hopefully just a few minutes of questions
- 20 for you. The 2018 forecast is the last forecast
- 21 that's been performed; is that correct?
- 22 A. That's correct.
- Q. And the prior fundamental forecast was
- 24 | finalized October 27, 2016; is that correct?
- 25 A. That's correct.

- Q. And typically you have been producing forecasts on an annual basis; is that correct?
- A. Roughly I think the exhibit that was presented earlier shows that production forecast.
- Q. There were two exceptions. Year 2014 and year 2017 there was no forecast produced; is that correct?
  - A. That's correct.
  - Q. And why not?

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- A. Well, it would go back to whenever a change in fundamental drivers worthy of updating the forecast or creating a new forecast. I mentioned carbon mitigation being the driving factor between the 2016 forecast and 2018 forecast. I don't recall about the forecast before that.
- Q. And the driving -- you would agree that the driving difference between this 2016 forecast and '18 forecast was the carbon value that you attached or the value you attached to carbon?
- A. Yes. That was one of them as well as the installation costs of renewables and a few other things.
- Q. You would -- but you do still have a value associated with carbon in the 2018 forecast, correct?

- A. That's correct. But it's widely different than what was in the 2016 forecast.
- Q. And you talked about your policy people in D.C. that you discuss the assessment of the value of the carbon. Do you recall that?
- A. Yes. I'd really rather call them -- we have a policy group here in Columbus, we also have a Washington office, so the collection of those folks.
- Q. And you stated earlier that you are involved in those conversations?
- A. I was involved in, you know, accepting and understanding the price that they see as an appropriate proxy going forward.
- Q. And you stated that you -- those people and you -- or, the discussions are what's likely to happen with regard to carbon, correct?
- A. Yes.

- Q. And wouldn't the Company's advocacy efforts affect AEP's carbon policy decisions?
- A. I am not involved in the Company's
  advocacy efforts, so I really don't care to speak to
  it. I really don't know.
  - Q. You don't think that would be an important determination in what's likely to happen?
    - A. I think that's a big step that

- advocacy -- it depends on the success, doesn't it?

  It depends on that outcome, so I just don't know.
- Q. And both the 2016 and 2018 fundamental forecasts use the Aurora model, correct?
  - A. Oh, yes.

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- Q. And, sir, isn't it true that you have provided the 2016 forecasts in two cases last year, seeking cost recovery for acquiring 225 megawatts of renewable facilities?
- A. It was used for many things last year.

  I -- you may be referring to some activity in

  Virginia and West Virginia. If so, I do recall that.
- Q. And isn't it true, sir, that in both of those cases, both Commissions found that the fundamental forecasts were inflated and aggressive?
- A. I think the Commission found that -- that did -- well, I don't recall what the Commission found.
- Q. Do you recall that one Commission questioned the Company's projection of the carbon impact and inclusion of the carbon impact in its forecast?
- MR. NOURSE: Your Honor, I object. I
  mean, we're talking about some other case
  unidentified in some other jurisdiction that had a

different record, different circumstances. I don't know how this is supposed to be probative or relevant to this proceeding and what this Commission should find based on this record.

MS. BOJKO: Your Honor, I think I established that the fundamental forecasts were very similar, and the witness distinguished the two forecasts that were used, so it's very relevant. If the witness is going -- and AEP is going to put forth a fundamental forecast that we are supposed to rely upon, it is within the cross-examination purview to be able to challenge that forecast and challenge the credibility of the forecast. And the witness did identify the cases, and the witness does know the cases that I am speaking of. He said that.

MR. NOURSE: I am not discussing Ms.

Bojko's right to challenge anything, but using

another Commission's findings in another case with a

different record I think is inappropriate.

EXAMINER PARROT: Overruled.

- Q. (By Ms. Bojko) Do you need the question read back, sir?
  - A. Please.

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MS. BOJKO: May we have it read back? (Record read.)

- A. No, I don't recall specifically.
- Q. And, sir, just -- I think you said this, but just so I'm clear, the 2018 fundamental forecast that you used in this case does include a cost associated with carbon even though there are no current carbon regulations?
- A. It does in all cases except the no-carbon -- what's called the status quo case.
  - Q. And I wasn't clear on your comment to Mr. Pritchard. You do believe that Mr. Torpey used the base case that does include carbon?
- A. I know that the base case does include carbon. I don't know what Mr. Torpey used.
- MS. BOJKO: Okay. Thank you, your Honor.
- 15 | I have no further questions.
- 16 Thank you, sir.
- 17 THE WITNESS: Thank you.
- 18 EXAMINER PARROT: Mr. Stock?
- MR. STOCK: No questions. Thank you.
- 20 EXAMINER PARROT: Mr. McNamee?
- MR. McNAMEE: No, thank you.
- 22 EXAMINER PARROT: Let's go off the
- 23 record.

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- 24 (Discussion off the record.)
- 25 EXAMINER PARROT: Let's go back on the

1 record.

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2 Any redirect, Mr. Nourse?

MR. NOURSE: No, thank you.

4 EXAMINER PARROT: Thank you,

5 Mr. Bletzacker.

6 THE WITNESS: Thank you very much.

7 EXAMINER PARROT: All right. Are there

8 | any objections to Company Exhibit 11?

Hearing none, it is admitted.

10 (EXHIBIT ADMITTED INTO EVIDENCE.)

11 EXAMINER PARROT: Mr. Oliker.

MR. OLIKER: Your Honor, subject to the

13 | motions to strike earlier, regarding the statements

14 regarding the low case, high case, and the bands

15 which are not relevant to this case given that

16 Witness Torpey did not rely upon, and they are simply

17 | irrelevant discussions for matters not at issue

18 | before the Commission.

MR. NOURSE: Well, your Honor, Mr. --

20 Mr. Bletzacker has already explained fully, in

21 response to a bunch of questions, including questions

22 by Mr. Oliker about these various cases, and it would

23 | certainly confuse the record, to say the least, to

24 try to strike that testimony.

25 EXAMINER PARROT: I've already admitted

870 1 the testimony. It's noted again for the record. 2 Mr. Oliker, I was asking if you wished to move your exhibits. 3 MR. OLIKER: I would move IGS Exhibits 4 4 5 and 5.6 EXAMINER PARROT: Are there any 7 objections, Mr. Nourse? 8 MR. NOURSE: No. EXAMINER PARROT: IGS Exhibits 4 and 5 9 10 are admitted. 11 (EXHIBITS ADMITTED INTO EVIDENCE.) 12 EXAMINER PARROT: Mr. Pritchard. 13 MR. PRITCHARD: Yes. I move for the admission of IEU Ohio Exhibit 11 and Exhibit 12. 14 15 EXAMINER PARROT: Any objection? 16 MR. NOURSE: I'll just renew my objection 17 to relevancy and the probative nature of especially 18 Exhibit 12. 19 EXAMINER PARROT: Noted. 20 IEU Exhibits 11 and 12 are admitted. 2.1 (EXHIBITS ADMITTED INTO EVIDENCE.) 2.2 EXAMINER PARROT: Let's adjourn for 23 today. We will reconvene tomorrow at 9:00 a.m. 24 (Thereupon, at 7:42 p.m., the hearing was 25 adjourned.)

CERTIFICATE I do hereby certify that the foregoing is a true and correct transcript of the proceedings taken by me in this matter on Thursday, January 17, 2019, and carefully compared with my original stenographic notes. Karen Sue Gibson, Registered Merit Reporter. Carolyn M. Burke, Registered Professional Reporter. (KSG-6678) 2.0 2.4 

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Case No(s). 18-0501-EL-FOR, 18-1392-EL-RDR, 18-1393-EL-ATA

Summary: Transcript in the matter of the Long-Term Forecast Report of the Ohio Power Company hearing held on 01/17/19 - Volume III electronically filed by Mr. Ken Spencer on behalf of Armstrong & Okey, Inc. and Gibson, Karen Sue Mrs.