

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

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In the Matter of the :  
Commission Review of the :  
Capacity Charges of Ohio : Case No. 10-2929-EL-UNC  
Power Company and Columbus:  
Southern Power Company. :

- - -

PROCEEDINGS

before Ms. Greta See and Ms. Sarah Parrot, Attorney  
Examiners, and Commissioner Andre Porter, at the  
Public Utilities Commission of Ohio, 180 East Broad  
Street, Room 11-A, Columbus, Ohio, called at 10:00  
a.m. on Wednesday, May 9, 2012.

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VOLUME X

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20                   - - -

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1 Wednesday Morning Session,

2 May 9, 2012.

3 - - -

4 EXAMINER PARROT: Let's go on the record.

5 Good morning, everyone. This is the  
6 continuation of Case No. 10-2929-EL-UNC. Before we  
7 get started let's take brief appearances, names only,  
8 beginning with the company.

9 MR. NOURSE: Thank you, your Honor. On  
10 behalf of the Ohio Power, Steven T. Nourse, Daniel R.  
11 Conway, and Christen M. Moore, Matthew J.  
12 Satterwhite.

13 EXAMINER PARROT: And let's just continue  
14 around the table.

15 MS. McALISTER: Thank you, your Honor.  
16 On behalf of the Ohio Manufacturers Association, Lisa  
17 McAlister.

18 MR. PETRICOFF: Thank you, your Honor.  
19 On behalf of the Constellation NewEnergy,  
20 Constellation Commodities, Exelon Generation, and  
21 Retail Energy Supply Association, M. Howard Petricoff  
22 and Lija Kaleps-Clark.

23 MR. HAYDEN: Good morning, your Honor.  
24 On behalf of FES, Mark Hayden and Jim Lang.

25 MS. KINGERY: Good morning, your Honor.



1 On behalf of Duke Energy Retail and Duke Energy  
2 Commercial Asset Management, Jeanne Kingery and Amy  
3 Spiller.

4 MR. DARR: On behalf of the Industrial  
5 Energy Users-Ohio, Frank Darr, Sam Randazzo, and Matt  
6 Pritchard.

7 MR. KURTZ: For the Ohio Energy Group  
8 Mike Kurtz.

9 MR. YURICK: Mark Yurick and Zachary  
10 Kravitz on behalf the Kroger Company.

11 MR. CAMPBELL: For IGS, Andrew Campbell  
12 and Melissa Thompson.

13 MS. KERN: On behalf of the OCC, Kyle  
14 Kern and Melissa Yost.

15 MR. JONES: On behalf of staff, Steve  
16 Beeler and John Jones.

17 EXAMINER PARROT: Any other parties  
18 present in the room that are not at the table?

19 All right. Very good. We have one  
20 pending procedural matter to address before we get  
21 started with our witness today. On May 4,  
22 FirstEnergy Solutions filed a motion to modify the  
23 procedural schedule that was set pursuant to Attorney  
24 Examiner entry issued on May 3. The company has  
25 filed its response to that motion. And at this time

1 the Bench is going to deny the motion to modify the  
2 schedule. We will proceed as outlined in the May 3  
3 entry.

4 Are there any other procedural matters  
5 this morning to address before we get started?

6 All right. Seeing none, staff may call  
7 its witness.

8 MR. JONES: Thank you, your Honor. Staff  
9 would call Emily Medine.

10 - - -

11 EMILY S. MEDINE

12 Being first duly sworn, as prescribed by law, was  
13 examined and testified as follows:

14 DIRECT EXAMINATION

15 By Mr. Jones:

16 Q. Could you please state your name for the  
17 record, please.

18 A. It is Emily S. Medine.

19 Q. And where are you employed?

20 A. I'm employed by Energy Ventures Analysis.

21 Q. What is your job title and  
22 responsibilities?

23 A. My title is principal, and I'm  
24 responsible for our clients -- a number of clients in  
25 the energy, electricity, and coal sectors.

1           Q.    And are you a consultant under contract  
2           with the Commission to testify on behalf of staff in  
3           this proceeding?

4           A.    I am.

5           MR. JONES:  Your Honor, at this time I  
6           would like to have marked for identification the  
7           direct testimony of Emily S. Medine on behalf of  
8           staff that was filed in this docket on May 7, 2012,  
9           as Staff Exhibit 105.

10          EXAMINER PARROT:  So marked.

11          (EXHIBIT MARKED FOR IDENTIFICATION.)

12          MR. JONES:  Thank you.

13          Q.    Ms. Medine, do you see the document  
14          before you that's marked as Staff Exhibit 105?

15          A.    Yes.

16          Q.    Would you please identify that document  
17          for the record, please.

18          A.    It is my direct testimony to be submitted  
19          in this proceeding.

20          Q.    And was your testimony prepared by you or  
21          at your direction?

22          A.    Yes.

23          Q.    And, Ms. Medine, do you have any  
24          corrections or changes to make to your testimony?

25          A.    No, I do not.

1           Q.    And if I were to ask you the same  
2           questions contained in Staff Exhibit 105, would your  
3           answers be the same?

4           A.    Yes.

5           Q.    And what is the purpose of your testimony  
6           today?

7           A.    I have two objectives with the testimony,  
8           both of which are designed to provide a full record  
9           to the Commission in making their decision in this  
10          case.

11                   The first objective is to clarify the  
12          description of the model inputs, and the second is to  
13          correct an inadvertent error in the aggregation of  
14          the results.

15          Q.    And when were these errors discovered?

16          A.    The error related to the aggregation was  
17          actually discovered during the last hearing when  
18          Mr. Harter testified and produced workpapers. It was  
19          through the workpapers that the error was discovered.  
20          The errors in terms of the description regarding the  
21          model inputs were discovered during his testimony.

22          Q.    And did you rerun the Aurora model to  
23          account for any adjustments?

24          A.    The Aurora model at run was fine. We did  
25          rerun it simply to fine tune two of the retirement

1 decisions. But those had very, very little impact on  
2 the results. The work that was done was primarily in  
3 reaggregating the results.

4 Q. And why are you here today to testify  
5 instead of Mr. Harter?

6 A. When I asked Mr. Harter to testify, I  
7 thought the focus of the hearing would actually be on  
8 the operation of the model of which he is our  
9 resident expert. Having worked with Aurora before,  
10 he came to EVA, and having installed the Aurora model  
11 at EVA, it became clear that the issues were related  
12 to the inputs and the aggregations, and I felt that I  
13 was a better witness for those two areas.

14 MR. JONES: Your Honor, the witness,  
15 Ms. Medine, is available for cross-examination.

16 EXAMINER PARROT: Thank you, Mr. Jones.

17 I believe we have a pending motion to  
18 strike portions of Ms. Medine's testimony that was  
19 filed yesterday by the company.

20 MR. NOURSE: Yes, your Honor.

21 EXAMINER PARROT: Mr. Jones, are you  
22 prepared to respond to the motion at this point?

23 MR. JONES: Yes, your Honor.

24 EXAMINER PARROT: Let's go ahead and  
25 address that before we get started.

1           MR. JONES: Your Honor, the staff  
2 testimony, there is no change in the methodology.  
3 There is no change here as to any issues being  
4 addressed. These are all the same issues, the  
5 same -- same model, same methodology. And we are  
6 here to clarify inputs to the model, what changes  
7 were made as a result of the errors that were  
8 discovered, you know, going back and addressing those  
9 inputs to make sure they were properly characterized  
10 and described for purposes of having a complete  
11 record in this proceeding.

12           And that's what Ms. Medine has done  
13 through her testimony. She has been familiar in  
14 working on this model in this project with Mr. Harter  
15 and she is familiar with the inputs and will be able  
16 to better characterize and describe those inputs and  
17 to describe how those errors were corrected as far as  
18 the ownership of plants of AEP Ohio and retirements  
19 of plants and the rerunning of that model for the  
20 reasons that were stated by the witness. And we  
21 think this is proper and appropriate to establish a  
22 complete record to address these errors and what  
23 other inputs may have been affected or not affected  
24 by those errors and that was done here.

25           And so the motion to strike is addressing

1 model inputs, the summary of model inputs, while we  
2 want to make clear that, you know, what the errors  
3 are, the scope of those errors, and to properly  
4 characterize the inputs that concern delivered coal  
5 price forecasts, natural gas price forecasts, the  
6 emission allowance price forecasts, the bulk heat  
7 rate assumptions, and also that the way the staff had  
8 used the member load ratio and shopping, that none of  
9 those components have changed as a result of the --  
10 of the analysis and these errors that were  
11 discovered.

12 So we're putting in proper context in the  
13 aftermath of those errors being discovered, and like  
14 I said, the whole goal here was to have a complete  
15 record from which the -- for the Commission to review  
16 and to act in this proceeding.

17 MR. NOURSE: Your Honor, may I briefly  
18 respond?

19 EXAMINER PARROT: You may.

20 MR. NOURSE: First of all, the company  
21 doesn't oppose correcting errors and we stated that  
22 last week in our response and we stated that again in  
23 our motion to strike. We've got a motion to strike  
24 that's directed at testimony that is clearly  
25 attempting to rehabilitate staff's prior witness.

1 I think this witness has already  
2 indicated that it's because of Mr. Harter's lack of  
3 knowledge about issues relating to the inputs and the  
4 data that was used which was part of his testimony  
5 that are being shored up through this testimony.

6 I don't think a 20 piece -- 20-page piece  
7 of testimony is necessary to correct what Ms. Medine  
8 has characterized as a smaller or that had virtually  
9 no effect in the model, and that's clearly not what  
10 this testimony is about.

11 As company stated in their motion to  
12 strike, I believe this is -- violates the due process  
13 of the company and the procedure that's set forth in  
14 this case that all parties, including the staff, were  
15 to follow the schedule and the process that was  
16 established. That's the basis for our motion to  
17 strike.

18 EXAMINER PARROT: Anything else,  
19 Mr. Jones?

20 MR. JONES: No, your Honor. Just to  
21 reemphasize there is no new approach here.

22 EXAMINER PARROT: All right. Thank you  
23 very much, both of you.

24 Upon consideration of Ohio Power's motion  
25 to strike portions of Ms. Medine's testimony, the



1 Bench is going to grant in part and deny in part the  
2 motion to strike.

3 We will grant the motion with respect to  
4 the sentence at page 14, lines 8 to 9, which we agree  
5 is a hearsay reference. Otherwise the motion to  
6 strike is denied.

7 The Bench believes that it's imperative  
8 for the Commission to have the complete and accurate  
9 record in this matter as we've stated several times  
10 throughout the course of these proceedings. And on  
11 that basis, we will deny the remainder of the motion.

12 Ms. Kern, let's proceed with  
13 cross-examination.

14 MS. KERN: No questions, your Honor.

15 EXAMINER PARROT: Mr. Campbell?

16 MR. CAMPBELL: No questions.

17 EXAMINER PARROT: Mr. Yurick?

18 MR. YURICK: No questions, your Honor.

19 EXAMINER PARROT: Thank you, Mr. Yurick.

20 Mr. Darr?

21 MR. DARR: Brief, your Honor.

22 - - -

23 CROSS-EXAMINATION

24 By Mr. Darr:

25 Q. Good morning, Ms. Medine. I am here on

1       behalf of the Industrial Energy Users of Ohio.

2               You indicated in your direct testimony  
3       that you are a principal with EVA. Could you  
4       describe what it means to be a principal of EVA?  
5       What does that title stand for?

6               A.    It just means that I own a piece of the  
7       company, an equity status.

8               Q.    And you were also the signatory party on  
9       the contract with the Commissioner for this  
10      particular project; is that correct.

11              A.    Yes.

12              Q.    Did you engage in any discussions with  
13      Commission staff with regard to the scope of the  
14      project prior to the March 21 signature that you  
15      placed on the contract?

16              A.    Yes.

17              Q.    And in those discussions, did you have --  
18      address the scope of the contract, that is, the range  
19      of activities that would take place?

20              A.    The discussion was focused on what our  
21      proposed methodology was, and we basically said if we  
22      were given this engagement, this is how we would  
23      approach it.

24              Q.    Do you recall when that discussion took  
25      place?

1           A.    It was actually I believe the day of the  
2           signature of the contract. I'm sorry, excuse me. It  
3           was a couple of days before the signing of the  
4           contract.

5           Q.    And subject to check, you apparently  
6           signed the contract on March 21 so this would put it  
7           around March 19, 2012?

8           A.    Correct, something like that.

9           Q.    Now, in your discussions with the staff,  
10          did you discuss the regulatory structures that would  
11          apply to this particular arrangement? I'm speaking  
12          now of the capacity pricing.

13          A.    So just to review, Ralph Smith of Larkin  
14          & Associates had received a call asking of his  
15          interest to do this work and relayed the  
16          consideration to me.

17                We were jointly working together on a  
18          fuel audit at the time, and in our discussions we  
19          decided if we were to work together, the approach  
20          that we would use is that Larkin & Associates would  
21          do the capacity -- that we felt the right way to do  
22          it, the way we were accustomed to doing it, was to  
23          look at what the capacity cost was and justify the  
24          energy credit. So the two of us agreed that would be  
25          the approach. Larkin is the firm that handled the

1 capacity.

2 Q. In your discussions with the staff, were  
3 you advised as to any statutory provisions that  
4 should be reviewed for purposes of guiding your  
5 analysis?

6 A. On the capacity side?

7 Q. Yes.

8 A. I believe that Mr. Smith was, but he  
9 would be the right person to ask, and I think that  
10 was covered in his testimony.

11 Q. Were you advised as to anything that  
12 would -- any statutory provisions that would affect  
13 the energy credit?

14 A. Not that I can recall.

15 Q. Were you pointed to any administrative  
16 rules, Ohio Administrative Rules, that should -- that  
17 you were requested to review or analyze in terms of  
18 directing your review of the energy credit?

19 A. Is there something in particular you have  
20 in mind? I don't recall that, but it's not  
21 impossible.

22 Q. At this point you don't recall being --  
23 the staff or someone on behalf of the Commission  
24 directed you towards any statutory or regulatory  
25 requirements?

1           A.    I'm just trying to think of what  
2           statutory requirements you would have in mind in  
3           terms of --

4           Q.    Any.

5           A.    None that I can think of.

6           Q.    Were you asked to review any of the  
7           FERC-approved rates for Minden, Louisiana, or  
8           Prescott as to Arkansas?

9           A.    In terms of what Mr. Smith referenced in  
10          his testimony?

11          Q.    Either that or the energy credit  
12          referenced in your testimony.

13          A.    No.

14          Q.    Did you -- and when I'm speaking of you,  
15          I'm speaking of EVA, did EVA on its own make any  
16          review of the energy credits in those -- in those  
17          contracts?

18          A.    In those two contracts, no.

19          Q.    And, again, I believe other witnesses  
20          have addressed this but since you are being called  
21          here to address what -- at least what Mr. Harter  
22          addressed, I need to ask you this question: Are you  
23          addressing in any way the merits for adopting the  
24          formula or cost-based approach -- policy merits of  
25          adopting the cost-based or formula-based approach

1 that is being presented by AEP Ohio in this case?

2 A. What we were asked to do was come up with  
3 our methodology as to how we would approach it. So I  
4 guess you could argue by having a different approach  
5 we are addressing it, but we were basically providing  
6 our best estimate of how to value the capacity.

7 Q. And, again, are you presenting anything  
8 in terms of whether it's right or correct to use the  
9 formula-based or cost-based approach to value  
10 capacity here in Ohio?

11 A. In terms of Ohio policy, no, we are not  
12 addressing that. We are just addressing it in terms  
13 of how you would value capacity.

14 Q. In your direct testimony with Mr. Jones a  
15 few minutes ago, you referred to the term  
16 "aggregations." Could you define for us what you  
17 mean by "aggregations"?

18 A. Sure. I know they have different  
19 meanings in different jurisdictions. In this  
20 particular case it's simply taking the model outputs  
21 and summing them according to AEP ownership as  
22 opposed to AEP operations, so the initial results  
23 were summarized by the plants that AEP operated.

24 The subsequent and what I presented in my  
25 testimony are based on their ownership of both what

1       they operate and the other plants.

2               Q.     So you are not talking about customer  
3       aggregation?

4               A.     Not at all.

5               Q.     And I take it from your testimony you are  
6       not proposing anything in the way of a new  
7       methodology or something different than what  
8       Mr. Harter presented a week ago?

9               A.     Not at all.

10              Q.     Beginning at page 14, starting at line 19  
11       and then going through page 16, line 3, you provide a  
12       list of the plants owned or operated by Columbus  
13       Southern Power or Ohio Power.

14              A.     Did you say "owned"?

15              Q.     Owned or operated.

16              A.     Yes, yes. Except I think with the  
17       exception I don't know who technically operates  
18       Lawrenceburg but with that exception, yes.

19              Q.     That's fair. Lawrenceburg is a different  
20       sort of contractual relationship.

21              A.     Correct.

22              Q.     There were some questions that were  
23       addressed to Mr. Harter with regard to whether or not  
24       there was a review of this list of plants in regard  
25       to the PJM commitments made under the fixed resource

1 requirements obligations of AEP Ohio. In your  
2 testimony I don't see anything with regard to  
3 addressing that question; is that correct?

4 A. There is nothing in my testimony  
5 addressing that question because it's not relevant to  
6 the calculation of the energy credits.

7 Q. Okay. And your understanding of why it's  
8 not relevant is what?

9 A. Just the methodology, as long as we are  
10 properly accounting for the ownership share, whether  
11 it's fixed resources or RPM, it's not relevant to the  
12 calculation.

13 Q. And did you use the same materials that  
14 Mr. Harter used to identify the plants, that is, the  
15 2010 or 2011 long-term forecast provided by Ohio  
16 Power or Columbus Southern Power?

17 A. Mr. Harter used that for the capacity  
18 numbers. It's the same list. I can't say that I  
19 used that, but it's the same list. I'm not sure on  
20 that list actually they provide percentages or just  
21 megawatts.

22 Q. Are you aware that the numbers are part  
23 of reviews that have not been completed by the  
24 Commission? The long-term forecasts are part of  
25 reviews that have not been completed by the



1 Commission?

2 A. No.

3 MR. DARR: I have nothing further. Thank  
4 you.

5 EXAMINER PARROT: Ms. Kingery?

6 MS. KINGERY: I have no questions, thank  
7 you.

8 EXAMINER PARROT: Mr. Lang?

9 MR. LANG: Thank you, your Honors. Just  
10 a few.

11 - - -

12 CROSS-EXAMINATION

13 By Mr. Lang:

14 Q. Good morning. I am here representing  
15 FirstEnergy Solutions.

16 A. Good morning.

17 Q. At the bottom of page 15 of your  
18 testimony on line 5 you referred to the Amos and  
19 Mitchell plants being excluded. Can you just tell me  
20 what you mean there?

21 A. In the calculation of -- of retained  
22 earnings and all that goes into that, those plants  
23 are -- generation from those plants are not included.

24 Q. So the generation from those plants are  
25 not -- do not contribute to the energy credit?

1           A.     Correct.

2           Q.     Now, on page 18 of your testimony you  
3     state that the member load ratio or MLR adjustment  
4     was continued throughout the period and do you mean  
5     continued through the end of May, 2015?

6           A.     Yes.

7           Q.     If the MLR sharing under the pool  
8     agreement were to end on January 1, 2014, what impact  
9     would that have on the energy credit?

10          A.     All other -- all other things being  
11     constant?

12          Q.     Yes.

13          A.     So there is no change in the capacity or  
14     change in anything but -- but the fact that the MLR  
15     is now zero?

16          Q.     Yes.

17          A.     On the energy side it would increase the  
18     energy credit.

19          Q.     Have you performed a calculation -- do  
20     you have an estimate of what impact it would have on  
21     the energy credit?

22          A.     Again, assuming all other things are  
23     constant, it's not hard to calculate because we  
24     delete the MLR so we would just be adding it back in,  
25     but I don't know what that number is right now.

1           Q.    Using your Exhibit ESM-1, is there a  
2   way -- is there a way to say how we would do that --  
3   how would you do that calculation using the numbers  
4   shown on your exhibit?

5           A.    I don't think it -- I am not sure if it  
6   would be exact but basically what you would be doing  
7   is you would be taking the margin on the off-system  
8   sales which is now provided for 40 percent and that  
9   would be increased to 100 percent.

10          Q.    I think the problem, you know, it's a  
11   little bit more complicated --

12          A.    I think you could probably get close. I  
13   am not sure you could get exact.

14          Q.    All right. Is that an estimate you can  
15   do on the stand?

16          A.    I would prefer not to do it on the stand.  
17   You know, I think if I'm going to be testifying about  
18   it, I would prefer not to do it on the stand. As I  
19   said, I don't think -- it's a complicated calculation  
20   so I think if you are in a quiet room, sat there with  
21   a computer, you could probably get pretty close.

22               MR. LANG: Your Honor, that's all I have.  
23   Thank you.

24               EXAMINER PARROT: Mr. Petricoff?

25               MR. PETRICOFF: No questions.

1 EXAMINER PARROT: Ms. McAlister?

2 MS. McALISTER: No questions, your  
3 Honors.

4 EXAMINER PARROT: Mr. Nourse?

5 MR. NOURSE: Thank you, your Honor.

6 - - -

7 CROSS-EXAMINATION

8 By Mr. Nourse:

9 Q. Good morning, Ms. Medine.

10 A. Good morning, Mr. Nourse.

11 Q. Let me first ask you about your  
12 background a little bit and I believe I'm familiar  
13 with some of it but perhaps not all. Do you have any  
14 experience in computer modeling and programming?

15 A. What do you mean by "experience"? I am  
16 not a computer modeler since I have been -- since I  
17 have been a principal. Obviously I use computer  
18 modeling quite a bit both in terms of the execution  
19 of projects --

20 Q. I'm sorry, go ahead.

21 A. No, to answer your question, I don't  
22 physically run models. That's why Ryan was engaged  
23 to actually physically run the model.

24 Q. And that continues with your testimony,  
25 you did not run the model. The modeling that you

1 talked about earlier in your direct examination, you  
2 relied on Mr. Harter; is that accurate?

3 A. That's correct.

4 Q. Now, you served as an auditor in fuel  
5 cases for AEP Ohio?

6 A. I think the verb is actually current.

7 Q. You currently serve, that's correct. And  
8 you actually spend a fair amount of time in your  
9 testimony here talking about that, your experience  
10 and your role as the auditor; is that true?

11 A. I discuss it.

12 Q. Yeah, in multiple places in your  
13 testimony you refer to that?

14 A. Okay.

15 Q. Okay. Is that accurate?

16 A. I think in two but maybe there are more.

17 Q. Okay. What are you the two you are  
18 thinking of?

19 A. My experience and the fact that I did not  
20 use the results from the audit to do the analysis.

21 Q. That last statement refers to Q and A 20?

22 A. Yes.

23 Q. So even though you don't really mention  
24 the auditing role in Q and A 20, that's what you were  
25 referring to when you said information you've been

1 given access to on a confidential basis. You are  
2 referring to your role as auditor?

3 A. Yes.

4 Q. Okay. So your answer there is "No,  
5 unless it's the same as data received on a  
6 nonconfidential basis." What did you mean by that?

7 A. As you know, that's the standard language  
8 in any kind of confidentiality agreement that the  
9 information only has to be held confidential if it's  
10 not been received from public sources.

11 Q. So does that mean you may have gotten  
12 information through the audit but then you could go  
13 out and search in public databases and find that  
14 information and then use it; is that what you're  
15 talking about?

16 A. That's not what I'm talking about.

17 EXAMINER PARROT: Ms. Medine, would you  
18 please turn your mic to the other side.

19 A. That's not what I was talking about.

20 Q. Go ahead and explain what you were  
21 talking about.

22 A. I was saying that I wasn't taking the  
23 price data that I received through an audit and  
24 putting into our delivery price forecast.

25 Q. So you rely in your testimony, do you

1 not, on your knowledge and experience in fuel  
2 procurement matters?

3 A. Correct.

4 Q. Okay. So is there something, some switch  
5 you are able to switch and disregard all your  
6 knowledge and experience that you've obtained through  
7 your fuel auditing role when you do your testimony  
8 here?

9 A. Of course not.

10 Q. Okay. So you actually do -- you are  
11 saying you relied on that knowledge and experience in  
12 developing your testimony, correct?

13 A. Well, I would like to pars that a little  
14 bit if you are going to try to put it into a box.  
15 When I'm saying I've received confidential contract  
16 information, price information, information about  
17 what scrubber specs are, information about particular  
18 retirement dates, I would not include that in the  
19 model.

20 If I -- you know, I'm in the business  
21 24/7 for 30 years so I know a lot about what's going  
22 on in the industry via LMP and I can guarantee you I  
23 am not learning other than the specific data really  
24 confidential information.

25 Q. But a lot of your experience is related

1 to fuel audits, is it not?

2 A. I wish it were more actually. I think  
3 there was a 10-year gap in your fuel audits that we  
4 did not do, so I've actually been involved in all  
5 sides of the industry for, as I said, 30 years.  
6 Actually more than 30 years but we'll stop counting.  
7 So -- so -- and it's --

8 Q. Yes. And you state on page 3 that EVA  
9 performed 32 management/performance audits in the  
10 last 27 years. Is that what you are referring to?

11 A. I'm saying in that particular page that  
12 EVA has performed 32 performance audits for the  
13 Public Utilities Commission of Ohio. We've also  
14 performed audits for other parties as well as the  
15 Public Utilities Commission of Ohio.

16 Q. You believe your experience and your  
17 status as the auditor adds credibility to your  
18 testimony today?

19 A. I believe I have 30 years of collective  
20 experience of which that is a part.

21 Q. Which that's a significant part, is it  
22 not?

23 A. As I said, I wish it were more  
24 significant. It's not that significant.

25 Q. More significant than 32 audits in 27



1 years?

2 A. As I said, there was a period of 10 years  
3 where there were no audits and really it is -- it is  
4 important work. I think I do it well, but I also do  
5 other things in the industry.

6 Q. Okay. So does being an auditor require  
7 you to be independent or objective?

8 A. As you know, we are a little different  
9 from most auditors in that we work for producers,  
10 consumers, regulatory agencies. And one of the  
11 things that we pride ourselves on is that we are  
12 independent and sort of regardless of who hires us  
13 will have the same opinions.

14 We're not -- we're not results driven in  
15 our analysis. We try to represent what we believe to  
16 be the answer, so in this particular case when we  
17 were using Aurora, we don't change the inputs when we  
18 are working for an investments house, when we are  
19 working for a utility, when we are working for a  
20 Commission. The model represents our best knowledge  
21 at that moment and that's what we're using and it's  
22 not intended to be biased in any way.

23 Q. So you believe you can be independent and  
24 objective as well as being an advocate; is that -- is  
25 that what you're saying?

1           A.    I'm not -- I'm saying I can be  
2 independent, objective, and have conclusions. I  
3 don't believe that I'm being an advocate.

4           Q.    You don't believe your testimony today  
5 you are being an advocate?

6           A.    No.

7           Q.    Are you being an auditor in your  
8 testimony today?

9           A.    We were asked in this particular  
10 engagement to come up with as a team, Larkin and EVA,  
11 it's a team, to evaluate the capacity payment. Our  
12 portion of that was to do the energy credit.

13                As I mentioned and I believe Mr. Harter  
14 mentioned, this is a standard investment approach to  
15 valuing capacity. This is what we would do if we  
16 were working for a Wall Street firm, we were working  
17 for a utility trying to sell an asset, this is the  
18 standard approach.

19                In fact, it's the approach PJM uses when  
20 they value CONE. They don't give you a gross CONE.  
21 They give you a net CONE taking away the energy. So I  
22 don't believe I'm being an advocate. I am saying  
23 analytically this is the approach that makes sense  
24 that we've adopted

25           Q.    Are there constraints, Ms. Medine, on EVA

1 being an auditor in one case and flipping to being an  
2 advocate in another case?

3 A. First of all, that's up to the person  
4 that hires us and we always do full disclosure.  
5 Second of all, we don't call ourselves advocates. We  
6 call ourselves analysts.

7 And -- and so being an analyst in a fuel  
8 case, being an analyst in this case versus  
9 representing a coal producer, we're asked for our  
10 intellectual capabilities.

11 Q. Okay. Are there any -- is there a code  
12 of ethics or any constraints on your role as an  
13 auditor on the one hand and your role as a hired  
14 analyst to take a position on the other hand if you  
15 don't want to call it advocacy?

16 A. I think as I've mentioned earlier that --

17 MR. JONES: Your Honor, I'm going to  
18 object to this line of questioning. She's already  
19 testified she is not here wearing the auditor hat for  
20 this proceeding and this line of questioning then  
21 continues to repeat itself.

22 MR. NOURSE: I don't think so, your  
23 Honor. I didn't ask that question before and I'm  
24 asking her about the two roles and I asked her if  
25 there's a code of conduct or any constraints on her

1 firm undertaking those roles.

2 MR. JONES: I object on relevance grounds  
3 to that question.

4 EXAMINER PARROT: The objection is  
5 overruled.

6 A. We don't have a formal code of conduct,  
7 but we will on many occasions decline work because we  
8 think it's a conflict of interest. And as I said, we  
9 would not use data that we received through an audit  
10 as an input into our model.

11 Q. (By Mr. Nourse) Did your -- your conflict  
12 policy, did that come up when you decided to have  
13 Mr. Harter testify initially?

14 A. Are you asking me if that's why  
15 Mr. Harter testified?

16 Q. I'm asking if that came up in the  
17 decision to have Mr. Harter testify.

18 A. Not initially.

19 Q. Okay. Now, so what's your involvement  
20 been prior to being asked to testify?

21 A. So I -- as I mentioned, described  
22 earlier, Ralph Smith of Larkin & Associates got the  
23 initial call from staff asking of their interest and  
24 availability. We discussed it and agreed that the  
25 appropriate -- what our methodology would be and

1       that's when we proposed to go to staff.

2               We met with staff while we were in  
3       Columbus for other reasons, and we were awarded the  
4       contract. I participated on a number of conference  
5       calls. I received copies of the -- most of the  
6       discovery. I can't guarantee it was all of the  
7       discovery produced by the company. I was involved in  
8       calls with -- with Ryan and with Ralph. And so I had  
9       a general level of involvement.

10              I did review his draft testimony. I did  
11       coach him, practice a little bit for his testimony.  
12       And then I obviously jumped in after that.

13              Q.     Okay. And why did you jump in? Why is  
14       Mr. Harter not here correcting his own errors?

15              A.     As I said, Mr. Harter is the modeler and  
16       I think really if you go through the testimony, that  
17       wasn't the focus of much of your questions and there  
18       were no errors there really.

19              The focus was -- of your questions and  
20       the uncertainty was related to the model inputs, and  
21       as he notes in his testimony, he is the recipient of  
22       the model inputs. He does not design them, so it  
23       doesn't seem useful or productive for him to come  
24       back again and say the same thing.

25              I would rather be the one coming in and

1 explaining in more detail why we used the model, how  
2 the inputs are defined, what -- how we ensure that  
3 the model is model ready, run ready at any one time,  
4 and that we don't change our inputs based upon our  
5 client unless we are doing scenario analysis.

6 Q. Okay. Well, would you agree that the  
7 model and the data go together? That's an integrated  
8 process, isn't it?

9 A. Yes and no. Obviously the key in our  
10 world was the dispatch. There were no problem with  
11 the data. He just wasn't describing it properly.

12 Q. Well, we will get to that but, you  
13 know -- you know, I asked him a lot of questions  
14 about the model and you can say that there were no  
15 errors, that's fine, but I want to talk to you about  
16 the model.

17 A. Sure.

18 Q. You are here defending the model and the  
19 data here today, aren't you?

20 A. Yes.

21 Q. Did you review Mr. Harter's transcript?

22 A. I did.

23 Q. Cross-examination? Do you agree with  
24 everything he said in the transcript?

25 A. No, I don't. That's why I'm here.

1 Q. What things do you disagree with?

2 A. Most of the ones that I felt were  
3 relevant I addressed in my testimony. I'm not  
4 prepared to go line by line unless.

5 Q. Well, we may do a little bit of that.

6 A. That's fine.

7 Q. Nothing sticks out in your mind as  
8 disagreeing -- that he said you disagree with?

9 A. There are a number of things, you know,  
10 not the least of which were the origin of the fuel  
11 price data I think he didn't properly describe but  
12 there are a number of things.

13 Q. Is that one of the corrections you  
14 mentioned earlier as being corrected today?

15 A. There was no correction. It was just  
16 better explanation. I was -- excuse me. I was  
17 describing the description. I wasn't correcting the  
18 data.

19 Q. Well, okay. But that would be correcting  
20 a statement that he made under oath --

21 A. Yes.

22 Q. -- that you believe is incorrect.

23 A. Well, in fact, if you pars his testimony,  
24 he said by the time you asked him the sixth time he  
25 said I really don't know. You have to talk to the

1 coal team so the coal team is here.

2 Q. But the modeling team is not here.

3 A. The modeling team is partially here.

4 Q. Okay. So you mentioned earlier that the  
5 only aspect of the modeling that was changed and your  
6 new reason was to I think you said tweak the  
7 retirements or adjust retirement assumptions that  
8 were -- that were plugged in; is that accurate?

9 A. So I like to think of it as three parts,  
10 the inputs, the actual Aurora run, and then the  
11 aggregation of the outputs. So with respect to step  
12 No. 2 the only thing that was tweaked was the  
13 retirement dates, correct.

14 Q. Okay. And you stated earlier that the  
15 errors were discovered in reviewing workpapers?

16 A. I believe that you brought that up  
17 through your questions about why there was not a  
18 workpaper consistency with some numbers in the  
19 report.

20 Q. You are referring to the generation data?

21 A. Yes, I am.

22 Q. Okay. So, again, that's the only error  
23 you're thinking of that exists and you came in to  
24 help out with?

25 A. I'm just thinking it through. As far as



1 I believe that's the case. I may have slipped  
2 something by.

3 Q. Okay. When did you review his transcript  
4 cross-examination?

5 A. It was early last week.

6 Q. Did you discover errors reviewing the  
7 transcript as well?

8 A. The same things we just discussed.

9 Q. Well, you didn't really have a list.

10 A. I don't have a list, but basically I  
11 noted there were some errors related to some  
12 assumptions.

13 Q. Okay. If we look at your testimony,  
14 you've got your answers numbered which is handy. Can  
15 you -- can you tell me which questions and answers  
16 relate to errors Mr. Harter made and you are  
17 correcting here today?

18 A. I start on question No. 15 unless you see  
19 something before that.

20 Q. How about 12, 13, and 14?

21 A. It's a little hard for me to think about  
22 his answers as errors. I would say that he was not  
23 involved in the decision to bring in the Aurora model  
24 so he was -- and I don't know that you specifically  
25 asked him why we started using the Aurora model. And

1 I don't think you asked him the types of projects we  
2 were using for the Aurora model.

3 Q. Well, didn't he testify he was the person  
4 that had been working with the model for EVA and had  
5 done whatever customization was done?

6 A. Yes and no. Basically that we made a  
7 decision, as the principals of EVA made the decision,  
8 a couple of years ago to move in this direction. We  
9 brought in the Aurora model. We selected the Aurora  
10 model for a variety of reasons.

11 We had heard good things about the model.  
12 We knew that AEP was using the model. We knew other  
13 Ohio utilities were relying on the model. I think  
14 that during Mr. Harter's testimony that you provided  
15 a list of what I would call -- you called  
16 consultants, I would call our competitors, that were  
17 using the model so we knew that was an area that we  
18 wanted to move to.

19 So we had decided to bring in Aurora. We  
20 brought it in on a trial basis to see if that was  
21 something we could use as part of the initial trial.  
22 We determined that we needed a full-time Aurora  
23 operator, so to speak.

24 We actually went back to EPIS and asked  
25 them if they knew of some parties that might be

1 qualified to do that. At the time a former AEP  
2 employee Dave Bellman was there working for Aurora,  
3 and he recommended Ryan. He thought he would be a  
4 perfect candidate for EVA, so we went and hired him  
5 because we wanted a full-time competent person with  
6 experience to be running Aurora.

7 Q. Okay, so --

8 A. So that was a long answer to your --

9 Q. That was.

10 A. -- question that basically said, no, he  
11 was not involved in the decision to bring in Aurora,  
12 and he was not involved in the initial  
13 implementations of Aurora.

14 Q. But -- okay. But when you say he wasn't  
15 involved, you mean wasn't involved in the decision or  
16 the implementation? I thought you said he was the  
17 person you hired to bring --

18 A. So we brought it in -- just do the math,  
19 we brought --

20 Q. He changed jobs? That was an  
21 involvement, wasn't it?

22 A. Yeah. I'm not diminishing his role. I'm  
23 just saying the reason he was brought in was a  
24 recognition that -- to fully utilize the capabilities  
25 of the model, we wanted someone with experience and

1     that we got a recommendation from somebody that  
2     you're familiar with, that we're familiar with that  
3     said that, you know, they could help -- he could help  
4     us do that. So we weren't bringing in a guy that had  
5     no experience in this area.

6             In the meantime we had already started  
7     doing some implementation of our own areas in the  
8     model. So the answer is he may not have known  
9     exactly what had been done before he arrived.

10            Q.    Okay. How many employees at EVA -- first  
11     of all, how many employees does EVA have?

12            A.    Somewhere around a dozen.

13            Q.    It's more than 10?

14            A.    You know, I have to count. Every time I  
15     go back -- every time I go back there there is  
16     another 30-year-old, so I don't know.

17            Q.    Okay. Well, how many employees at EVA  
18     are involved with working full time on Aurora?

19            A.    Mr. Harter is the only one working full  
20     time on Aurora.

21            Q.    Okay. All right. Now, a couple of  
22     answers ago you mentioned your competitors being on  
23     the list of Aurora certified consultants.

24            A.    The list that you provided, I am not  
25     exactly sure what that's a list of but the list that

1       you provided.

2               Q.     Now, NERA is one of those?

3               A.     Yes, I believe so.

4               Q.     You are familiar with NERA. Why do you  
5       call them a competitor?

6               A.     Well, I actually was thinking of a couple  
7       of the others when I was thinking of competitors. So  
8       periodically, just as an example, Duke -- on an  
9       annual basis Duke does a fundamentals forecast which  
10      they hire third parties to do. We periodically bid  
11      on it. And two years ago when we bid on it, they  
12      called basically to say you guys have the best  
13      fundamental knowledge of the different energy  
14      sectors, but we insist upon using somebody that has  
15      Aurora model to do our analysis, and they awarded the  
16      contract to one of the parties on that list.

17              Q.     So not doing Aurora was a shortcoming of  
18      EVA in the past?

19              A.     Yes and no. The world has changed, as  
20      you are, I'm sure, aware of. In the coal side of the  
21      business we didn't really have to worry about  
22      dispatch beyond hydro and nuclear because coal was  
23      always No. 3 and the world has changed quite a bit as  
24      a result of the changing of the relative price of  
25      natural gas and it's because of the RPS standards.

1 Q. Okay.

2 A. So we felt to improve -- to approve the  
3 accuracy of both coal and demand forecasts we needed  
4 an 8760 model to capture that.

5 Q. Do you believe that EVA now has completed  
6 that transition and is an expert in Aurora modeling?

7 A. As I've learned over 30 years, you can  
8 always get better.

9 Q. Do you think six months is enough time to  
10 become an expert with one full-time employee?

11 A. He came in with -- with Aurora  
12 experience. And as I said, we rely on people. Dave  
13 Bellman is doing consulting. We use him occasionally  
14 so we have used others as well.

15 Q. Okay. Well, we will get back to some of  
16 that a little later.

17 Can you continue with your perusal of  
18 your testimony on the areas. You mentioned Q and A  
19 15. So what's the error you were correcting in Q and  
20 A 15?

21 A. I don't know that he was as expansive as  
22 I was regarding all the different areas where we've  
23 customized the inputs. But I wanted to make clear  
24 what inputs we actually, in fact, customized and  
25 which ones we didn't, so this is the major areas

1       which we did customize.

2               Q.     And so Mr. Harter testified as to what  
3       that's different than this?

4               A.     I don't specifically recall.

5               Q.     Did he recall the heat rates were  
6       customized?

7               A.     He did.   Excuse me, I thought you were  
8       talking about the actual five items that were on the  
9       list.   He did include heat rates which were not on  
10      the list and were not customized.

11              Q.     So that was an error when he said the  
12      heat rates were customized?

13              A.     It was a mistake.

14              Q.     EVA had been working on customizing heat  
15      rates?

16              A.     I think what he was referring to was that  
17      we had contemplated it at one point and we had done  
18      analysis as to whether we should or we shouldn't and  
19      we ultimately concluded we should not so I think -- I  
20      think his confusion was he did recall the debate but  
21      he wasn't certain of the outcome.

22              Q.     Okay.   But his statement that heat rates  
23      were customized by EVA was incorrect.

24              A.     I explained the origin of that, yes.

25              Q.     And -- well, I was just asking for a

1 direct answer. That's all. I understand your  
2 explanation.

3 So what else in your bullet point list  
4 here was incorrect, Mr. Harter did not cover  
5 correctly?

6 A. I'm not sure whether he mentioned the  
7 first point or not or the third point. I just don't  
8 recall that being part of his testimony, written or  
9 oral.

10 Q. Okay. Why don't you explain the third  
11 point, what you mean by the proper load  
12 characteristics.

13 A. So each -- each PJM, each dispatch area  
14 has its own load shape and so actually this is within  
15 an area we relied on that third-party assistance to  
16 help figure out the proper shapes of those curves and  
17 where to access that data.

18 Q. Okay. What's your next correction for  
19 Mr. Harter in your testimony?

20 A. I would say 17 where we actually put  
21 those dates in for those two units. I don't know  
22 that he spoke to those specific dates, but we wanted  
23 to make those clear.

24 Q. Well, in fact, the retirement dates  
25 was -- what you said earlier was changed in the



1 modeling for the second run --

2 A. Right.

3 Q. -- which you are supporting here. Now,  
4 is that something -- were you involved with the  
5 review of the data that was input into Mr. Harter's  
6 first run model?

7 A. I think as Mr. Harter testified and is  
8 the case, that we maintain an active list of  
9 retirements based upon our analysis of announced  
10 retirements and where we think plants will be retired  
11 based upon our analysis for market.

12 Q. So was this an error that you committed?

13 A. We don't -- we -- actually in our  
14 retirement data we are not stating it has to be  
15 exactly the same thing that the utility states so,  
16 for example, you know, in our data, think of another  
17 utility, I don't want to cause any concern here but  
18 there might be a power plant in another utility,  
19 let's call it Cutchins, for example, where they  
20 haven't announced a retirement but based upon our  
21 knowledge of the industry we may or may not -- we may  
22 announce a retirement or include a retirement for the  
23 plant.

24 Q. Okay. But you -- in your testimony here  
25 you found it necessary to make that change, whereas,

1 Mr. Harter said he relied on others at EVA including  
2 yourself. Your name came up --

3 A. I saw that.

4 Q. -- during the hearing.

5 So it's correct that Mr. Harter relied on  
6 you in the data that he used in the first run?

7 A. He used our standard retirement file. If  
8 that's your question.

9 Q. Yeah. But did you -- he relied on you.  
10 Did you review the data that he used --

11 A. I also used the standard retirement file,  
12 it's updated constantly. I mean, obviously when we  
13 thought CSAPR was going to go into effect this year,  
14 we had some additional retirements that were reversed  
15 so it's updated on a daily basis. I mean, you know,  
16 it's updated. Sometimes an announcement will be  
17 made, and we won't even need to update it because  
18 we've already assumed that.

19 Q. So who made this error? Was it  
20 Mr. Harter? Somebody else at EVA?

21 A. I'm trying to say I don't consider it an  
22 error.

23 Q. But you corrected it.

24 A. No. We corrected it to be consistent  
25 with what you were saying what we had in there. I

1 didn't necessarily consider it to be an error. It  
2 was what we were -- it was our representation as to  
3 what we thought retirement dates were and, of course,  
4 you know, these two plants are very small and operate  
5 at margins so the net impact is relatively small.

6 Q. Okay. So you don't believe it was an  
7 error but you changed it?

8 A. Again, I think you're trying to  
9 characterize it. What I'm telling you, we used our  
10 best judgment. We were happy to continue doing that,  
11 but for purposes of this hearing since it became an  
12 issue, we felt we should represent what's been  
13 announced.

14 Q. Okay. What's the next error you  
15 corrected?

16 A. So 18, 19, and 20 address -- and to some  
17 extent 21 address the matter we discussed whether  
18 that information comes from the audit. You had asked  
19 him whether it came from the audit, and he basically  
20 eventually said he didn't know, but at some point  
21 along the way he thought it might have. So that's  
22 just correcting any un -- lack of clarity about that.

23 Q. Okay. So does -- do those questions that  
24 you just referenced, are you explaining what goes  
25 into your FUELCAST service and the data used?

1           A.    Not specifically.

2           Q.    Okay.  But your forecasts that you use  
3 are based on public information is what you're saying  
4 here, right?

5           A.    Our forecast is based upon public  
6 information and analysis.

7           Q.    Is it based upon your FUELCAST  
8 proprietary database as well?

9           A.    I know the terminology has been used, but  
10 we don't really have something called a FUELCAST  
11 database.  I would call -- we have a database that  
12 contains, you know, lots of information for a variety  
13 of different topics.  So that's my pause.

14          Q.    Well, I mean, Ms. Medine, you refer to  
15 FUELCAST in your testimony and Mr. Harter referred to  
16 that.  It's in all caps.  It's not a regular word,  
17 right?  Isn't it a title for something?

18          A.    I will explain to you FUELCAST is --  
19 FUELCAST is a multi-client service and had been for  
20 about 20 years, where we would produce semi-annual  
21 reports, short-term report in the beginning of the  
22 year, a long-term report in the middle of the year,  
23 and subscribers who bought the entire service we  
24 called it FUELCAST.  It dealt with electricity, coal,  
25 natural gas, oil, and then we used to refer to the

1 fifth division -- the fifth fossil fuel as emission  
2 allowances.

3 We also have a COALCAST service which  
4 just goes to our coal clients, so the data that we  
5 publish in that, that goes to those clients we refer  
6 to as our FUELCAST service or FUELCAST database.  
7 That was what Mr. Harter was referring to it as.

8 Q. Is that all based on public information?

9 A. As I said, it's based upon -- it starts  
10 with public information, and it's based upon  
11 analysis.

12 Q. In your experience --

13 A. That's correct, there is a lot of  
14 analysis that goes into it so, for example, now, our  
15 transportation rates literally, you know, are per  
16 mileage rates for each routing, logical routing, to  
17 each power plant.

18 Q. Has it been disclosed anywhere? Is it  
19 something you provided in your workpapers?

20 A. The report?

21 Q. The data that came from FUELCAST that you  
22 used.

23 A. The delivered price data I believe was  
24 provided for the different units.

25 Q. So the delivery price data was influenced

1 by the -- determined in part by the FUELCAST data  
2 service?

3 A. Again, that's not what we call it but its  
4 equivalence. Given the number of clients that run  
5 Aurora or run other types of dispatch models, that we  
6 provide, deliver fuel -- deliver fuel prices on a  
7 quarterly basis.

8 So that is something that we do. As I  
9 said, we don't refer to it as a FUELCAST service.  
10 They have a specific contract for that purpose.

11 Q. Okay. What's your next error that you  
12 correct of Mr. Harter?

13 A. I believe 22, 23, 24 were correct and  
14 what -- consistent with what Mr. Harter testified to  
15 and I just wanted to make the record complete on all  
16 the inputs. So beginning on 26 is the discussion  
17 about heat rates and that goes on through 29.

18 Q. Okay. So let's talk about 26 through 29  
19 briefly and what you're saying here and what  
20 Mr. Harter said that you are correcting. Can you  
21 explain that?

22 A. I think we've already discussed it.

23 Q. I discussed it?

24 A. Yeah. That he represented that we  
25 customized them and I'm telling you we didn't

1 customize them.

2 Q. Okay. And that's all you're saying in  
3 those answers.

4 A. That's correct.

5 Q. All right. We'll come back to that. All  
6 right. What else?

7 A. I don't -- I would need the testimony to  
8 be reminded of some of the specific answers, but the  
9 intent was to address -- to clarify perhaps more than  
10 correct certain answers.

11 Q. Okay. So you can't tell by looking  
12 through your testimony --

13 A. The intent was -- I chose the areas to  
14 discuss in my testimony based upon the areas that I  
15 felt needed clarification based upon what he  
16 provided.

17 Q. Okay. Let me ask you to turn to page 15,  
18 you had a couple of questions about this table  
19 earlier. So is it your belief that this table of  
20 generation sources -- first of all, this represents  
21 the full list of generation sources that you  
22 attribute to AEP Ohio and used in your model; is that  
23 true?

24 A. With the addition of Lawrenceburg.

25 Q. Well, Lawrenceburg is on here.

1           A.    Right.  It's on there because of the  
2   contract relationship, and it's not owned by AEP  
3   Ohio.

4           Q.    Okay.  All right.  With the additional  
5   explanation about Lawrenceburg, okay.  Is it your  
6   understanding that Amos -- that AEP Ohio owns any of  
7   Amos 1?

8           A.    Yes.

9           Q.    And what about Amos 2 or 3?

10          A.    No.

11          Q.    Okay.  Are you aware of OVEC's  
12   contractual entitlements since you mentioned  
13   Lawrenceburg?

14          A.    We did not include those.

15          Q.    Are you aware of them?

16          A.    Possibly.

17          Q.    What's your understanding?

18          A.    I don't recall.

19          Q.    Okay.  Now, prior to your engagement with  
20   staff in this case and EVA's engagement, have you  
21   been aware of the, I'll say, debates in Ohio over the  
22   last couple of years about the appropriate capacity  
23   charge for AEP Ohio to charge for shopping load?

24          A.    Yes.  Yes.

25          Q.    How were you aware of that?



1           A.    As you know, I do quite a bit of work in  
2   Ohio.  And I read publications that discussed it.

3           Q.    Okay.  So just water cooler  
4   conversations, not any direct involvement?

5           A.    In terms of this round?

6           Q.    Case work.

7           A.    Obviously I worked for the OCC in the  
8   last case related to this issue.  There may be parts  
9   that are relevant to the fact and we've audited  
10   Dayton and AEP Ohio in the last -- AEP this will be  
11   the third year and Dayton for the last two years.

12          Q.    Okay.  Now, you said you worked for OCC  
13   in the last case related to those issues.  You are  
14   referring to the ESP I proceeding?

15          A.    I think that's what you call it.

16          Q.    Okay.  Is it your understanding that was  
17   an issue in that case?

18          A.    Well, as you will probably recall, my  
19   testimony was focused on POLR and on some  
20   fuel-related issues.

21          Q.    Okay.  Okay.  Are you aware of the  
22   current RPM price?

23          A.    What the number is?

24          Q.    Yeah.

25          A.    That you are being paid?

1 Q. The current RPM price for AEP Ohio.

2 A. The term price.

3 Q. Yes.

4 A. I did know those numbers at one point. I  
5 believe there are two numbers, but I would not  
6 testify to what they are.

7 Q. You have no idea what it is?

8 A. I do but I'm not -- I'm surely wrong and  
9 so I would rather pass. Again, the focus was -- on  
10 our side was on the energy credit.

11 Q. Okay. Now, when you looked -- you looked  
12 at the results of the initial run and obviously of  
13 the second run of the model, correct?

14 A. Are you talking about the Aurora model?

15 Q. Yes.

16 A. Yes.

17 Q. And were you surprised that Ohio Power  
18 ended up calculating a credit of more than \$200 a  
19 megawatt day for Ohio Power?

20 A. No.

21 Q. So that result is a -- seems in line with  
22 what you expected?

23 A. I'm sorry, the \$200 is the energy credit?

24 Q. Yeah.

25 A. Obviously Ohio Power has relatively cheap

1 generation, and so I'm not surprised that they -- you  
2 know, that their units dispatch very well and that  
3 reflects, you know, on the size of the  
4 competitiveness of their units, so I wasn't  
5 surprised, A, about that amount, or B, surprised by  
6 the relatively smaller amount for CSP.

7 Q. Were there any results of the model, the  
8 first run model, that was presented to the  
9 Commission, Mr. Harter presented, that caused you to  
10 want to go back and calibrate or tweak any of the  
11 data or run it again?

12 A. No.

13 Q. And is it your understanding that it's --  
14 is it a best practice in the industry to run a model  
15 like this once and not -- and not go back and do any  
16 calibration or benchmarking?

17 A. It depends on exactly what you're doing  
18 it for. The model may have been run once to  
19 calculate the initial data, but the model is being  
20 run dozens of times before it was run for this case.  
21 So I have worked on an engagement for the federal  
22 government using Aurora, and we must have run the  
23 model -- you know, we exercised the model quite a bit  
24 so let's put it that way.

25 So saying it's only been run once is a

1 misstate. We keep the model hot, so to speak, with  
2 our latest assumptions so ultimately it only needs to  
3 be run for that -- if there's no change in the  
4 assumptions and we agree that we were not going to  
5 pick and choose inputs to bias the results in any  
6 way, we were -- basically the model was hot, it was  
7 free to run it for this analysis, and so there wasn't  
8 a need to do multiple runs on the analysis.

9 Q. When you say the model is hot, you are  
10 talking about your customization efforts you've done?

11 A. Right. And for a number of projects that  
12 we have been using Aurora for, the model has been run  
13 many, many times.

14 Q. Okay. But you've only been licensed for  
15 six months, correct?

16 A. Well, as I said, we have six months  
17 before that, but we have been using it quite a bit.

18 Q. Okay. So have you -- what calibration  
19 and benchmarking have you done?

20 A. Ryan would probably be the best person to  
21 ask about that, but the project for the government we  
22 just -- it was a complicated regulatory rate impact  
23 analysis and we just had to make sure that -- that  
24 also incorporated scenarios so we did a number of gas  
25 cases, we did a number of capacity cases, we did a

1       number of air -- air regulation cases.

2               Q.     Did you check the model's market prices  
3       against actual market prices?

4               A.     I believe so.

5               Q.     And you believe that compares accurately  
6       and favorably?

7               A.     I believe that it produces a justifiable  
8       LMP, yes.

9               Q.     Did you check the modeled fuel costs  
10       against actual costs of plants?

11              A.     It depends on the purpose.   The fuel  
12       costs it's a forecast.   It's not based upon trying to  
13       do backcasts, so to speak, so it's a forecast so it  
14       is based upon what our best guess is of knowing what  
15       fuel costs are going to be in the future.

16              Q.     So are you saying you don't think it's a  
17       best practice or appropriate to check the model with  
18       actual prices?

19              A.     We're starting with actual prices to use  
20       of the 923 data to the extent that's accurate.   And  
21       then we add to that our understanding and we are  
22       actively involved in both buying and selling coal  
23       assistance for parties so we know what current market  
24       prices are.

25                      We do very detailed analyses to determine

1 future market prices both in supply and demand so,  
2 yes, I think it has a level of accuracy that we can  
3 support.

4 Q. Why not use actual forward prices that  
5 are out there for this kind of a short term?

6 A. Because forward prices, you know, are  
7 forward prices. They're not forecasts and so there  
8 is a relationship between a forecast and a forward  
9 price but a forward price is simply what you or I  
10 would agree to do today to buy power or coal or  
11 whatever two years from now.

12 And we believe it's more accurate to use  
13 a fundamental forecast rather than a forward price  
14 curve for any kind -- anything but sort of the prompt  
15 period and if you do the analysis of the forward  
16 price curves, you know that forward price curves you  
17 know move on a dime. If the forward price today is  
18 \$50, you know, prompt year plus one will be 52, 54,  
19 and a month from now it will go to 60, 62, 64. They  
20 go up and down with the wind, with the weather, with  
21 everything. So we just don't believe that the  
22 prompt -- excuse me, that the forward price curve is  
23 the way to go.

24 Q. Okay. But those do represent actual  
25 contracts among actual parties that are agreeing in

1 the market, in the open market, to pay those prices  
2 during the applicable period, correct?

3 A. Well, so -- so as I understand, and I  
4 believe that Mr. Nelson's testimony speaks to sort of  
5 the standard practice of buying gas, you are buying  
6 it on the prompt basis, you are not buying it three  
7 years forward so, yes, it may -- it would represent  
8 what you could buy for today but that's not, in fact,  
9 what you're doing or most people are doing. You are  
10 buying it more on a prompt basis.

11 Q. But it is a market price that's --

12 A. Today.

13 Q. -- transparent and publicly available, is  
14 it not?

15 A. It's not a forecast and I think if you  
16 talk to --

17 Q. I understand.

18 A. Okay. When you do an analysis of what's  
19 going to happen in a future period, obviously a  
20 forward price curve affects your forecast but it is  
21 not any better. In fact, we think it's worse using  
22 the actual forecast and, you know, we had a period in  
23 2007 where coal prices tripled and that forward price  
24 curve, you know, stayed high for the entire period  
25 going forward.

1           It may have been a little bit backward  
2     dated, but basically it stayed high, and as soon as  
3     the prices fell down, the forward price curve  
4     changed. As an analyst, you would say, you know,  
5     \$150 for a ton of Central Appalachian coal is not  
6     sustainable. I can't tell you if it's going to be  
7     two months or six months, but it's not stainable. So  
8     I would rather use an analyst's judgment as to what's  
9     going to happen with future prices than rely solely  
10    on a forward price curve.

11           Q.    Okay. So you did not consider using  
12    actual forward prices --

13           A.    They are forward prices but we did not  
14    use a forward price. It does influence our analysis  
15    but does not form our forecast.

16           Q.    Okay. And did you consider using the  
17    forward prices in the Aurora model and having plants  
18    dispatched -- modeled on that basis?

19           A.    Maybe you guys have modeled it that way.  
20    We didn't model it for this purpose. You obviously  
21    can. It's not a complicated process to put in a new  
22    set of Henry Hub prices. We did a fundamentals  
23    forecast. We were not engaged to do dozens of  
24    scenario analyses. You know, with the tool you can  
25    do that, certainly.



1           Q.    That is -- that is something you can do  
2 under Aurora, correct?

3           A.    You could do it. We could do it.

4           Q.    But you didn't do it. You didn't  
5 consider it, correct?

6           A.    No. We were hired -- we discussed what  
7 scenario, and the agreement was we're not trying to  
8 adjust any -- any input to come up with a certain  
9 output. It was not a results-oriented analysis. The  
10 analysis was, say, take your model which is ready to  
11 run which is, you know, on standby all the time in  
12 case the phone rings and somebody wants an Aurora  
13 run, we are ready to go, go ahead and do this  
14 analysis and but then we keep it ready.

15                   As we generate new delivered price for  
16 coal for our many clients that get that forecast  
17 every quarter, we put that in Aurora. Gas prices, we  
18 put that in. We get a new emissions price, we put  
19 that in Aurora.

20           Q.    Okay. So in short though you are  
21 rejecting the idea of using actual forward data and  
22 your preference is to rely on analysts fuel --

23                   MR. JONES: I'm going to object, your  
24 Honor. It's been asked and answered.

25                   EXAMINER PARROT: I agree, Mr. Jones.

1           Q.    Okay.  Ms. Medine, I think a wise person  
2           once said that "People who use crystal balls end up  
3           being crushed glass."

4           A.    I believe I've said it.

5           Q.    Yes.  What did you mean by that?

6           A.    Obviously forecasting is a dangerous  
7           business and there are multiple factors, some of  
8           which you can predict, some of which you can't.  So  
9           for example, could we have predicted that there was  
10          no winter this year?  Probably not.  Could we have  
11          predicted Fukushima?  Probably not.

12                So, you know, you always caution your  
13          forecasts with qualifications, and you do what  
14          appears to be at that moment based upon years and  
15          years of experience and analysis what you consider to  
16          be a reasonable forecast and accept those results  
17          as -- as where you start from.

18          Q.    And your forecast produces \$15 megawatt  
19          hour margins for AEP Ohio.

20          A.    It produces what produces it.  It was not  
21          obviously -- you know, you can change some factors  
22          that would make the number higher, some factors that  
23          would make the number lower.  That was what came out  
24          of the model realm with the set of assumptions that  
25          were in there.

1           Q.    Mr. Smith used actual data when he  
2 developed the demand charge, did he not?

3           A.    Right, and we were doing -- he is doing  
4 his cost based, and we are trying to come up with an  
5 energy credit so they are different analyses.

6           Q.    They don't use the same method even  
7 though you are netting them against each other,  
8 correct?

9           A.    Correct.

10          Q.    Okay.

11          A.    And, again, similar to what is being used  
12 by PJM with gross CONE and net CONE.

13          Q.    Okay. Are you familiar with the MRO  
14 test, market rate offer test?

15          A.    Vaguely.

16          Q.    Okay. Is it your understanding that the  
17 Commission -- well, let me ask you what has the  
18 Commission done in -- to your knowledge about forward  
19 pricing in that context?

20          A.    I will not testify on that. I do not  
21 know.

22          Q.    Do you know if they have relied on  
23 forward projections forecasts by analysts?

24                MR. JONES: I'm going to object, your  
25 Honor. She answered she doesn't know.

1           A.    I don't know.

2                   MR. NOURSE:  I'm just trying to explore  
3   if she recalls, so she said she didn't know.  Thank  
4   you.

5           Q.    Okay.  Did you look at the actual margins  
6   like under the cost-based approach Mr. Smith used in  
7   the 2010 data, do you have any idea what the actual  
8   margins are?  I think you may because you said you  
9   read the transcripts.

10          A.    I read the transcript, but I'm not  
11   prepared to discuss that.

12          Q.    Well, do you recall, was it around \$5?

13          A.    I recall that -- that Dr. Pearce did a  
14   calculation that resulted in about that, but his  
15   calculation was apples to oranges from what we do.

16          Q.    You don't know what Mr. Smith's  
17   calculation would be based on cost or actual --

18          A.    I don't recall.  If you want to point to  
19   that, it might refresh my memory.

20          Q.    Do you recall it's in the \$15 range?

21                   MR. JONES:  Objection.  She said she  
22   doesn't know, your Honor.

23          A.    I said I don't recall.  If you want to  
24   provide the testimony, I reread it this morning.

25                   MR. JONES:  Objection.

1 THE WITNESS: Sorry.

2 EXAMINER PARROT: She said she doesn't  
3 know. Let's move on.

4 MR. NOURSE: I got the answer, thank you.

5 Q. So did you coordinate with Mr. Smith and  
6 Larkin -- and Larkin & Associates to develop your  
7 final answer? I mean, was it an iterative process  
8 between the two of you?

9 A. No.

10 Q. So you worked independently?

11 A. We participated in a number of calls  
12 together but the scope was very clear and discrete  
13 and they did their work and we did ours.

14 Q. Was there any part of that exercise where  
15 you determined whether costs that he did not include  
16 in the fixed costs demand charge were reflected in  
17 your energy credit?

18 A. No.

19 Q. So you don't know whether there is any  
20 trapped costs that were in either category?

21 A. I don't believe there would be.

22 Q. Why do you believe that if you didn't  
23 check?

24 A. Because we -- what -- we were doing two  
25 different things. If you read -- you read his

1 testimony, you can see it's a very cost-based  
2 analysis, and ours was a market-based analysis.

3 Q. So is it possible that the costs that he  
4 did not capture in the demand charge are also not  
5 captured in your energy charge?

6 A. I'm not aware of any, but of course, it's  
7 possible.

8 Q. And if that's the case, the margins that  
9 you come up with would be overstated, correct?

10 A. Or understated.

11 Q. If trapped cost --

12 A. No, if trapped costs but I'm saying they  
13 are -- there's assumptions on both sides. There are  
14 some assumptions that would increase the energy  
15 credit and some that would reduce it.

16 Q. So do you believe that your margins that  
17 you've calculated will actually be experienced by AEP  
18 Ohio in the period to which this would apply?

19 A. Assuming -- I mean there are a lot of  
20 assumptions in there. Obviously they could be  
21 greater than -- excuse me, they could be less than  
22 what AEP fully experiences given the retail rates are  
23 above the MLR rates, and this analysis is based on  
24 MLR rates.

25 They could be less than if CSAPR doesn't

1 go into effect or gas prices are very, very low, so I  
2 think they are offsetting differences. It's within  
3 the range but there are obviously things that could  
4 change the numbers.

5 Q. So you think AEP could experience margins  
6 greater than \$15 during this period?

7 A. Yes, yes.

8 Q. Has that happened in the past?

9 A. No. I look to you for that.

10 Q. Okay. Now, one of the things Mr. Harter  
11 said, was it not, that he -- that your modeling was  
12 to reflect the real world and as it applies to the  
13 AEP pool, that the modeling should capture actual  
14 operation of the AEP pool, correct?

15 A. That's what he said, yes.

16 Q. Okay. Was that an error?

17 A. I think the goal of any type of analysis  
18 like this is to -- to obviously try to reflect the  
19 real world. I think his -- his overenthusiasm  
20 reflects his age as much as anything. I think we  
21 would all caveat it a little bit when we were talking  
22 to that.

23 Q. Okay. So, now, you're here. Are you  
24 saying that the model reflects the real world, real  
25 operation of the pool?

1           A.    I'm saying this is a very good analytical  
2    tool coming up for actually trying to generate a  
3    power cost and coming up with a sense as to what the  
4    economics or the value of the energy credit would be.  
5    Is it going to be exactly right?  Probably not.  
6    Almost assuredly not.  But it's an attempt to try to  
7    find a number that is reasonable that makes sense.  
8    To ignore it -- the alternative being to ignore it or  
9    to develop, you know, sort of a proxy that doesn't  
10   make any sense is worse in my mind.

11                It's better to have a number based upon  
12   as much good information as possible and, again, I  
13   have to assume that you have also done the  
14   calculation.  There is an energy value there.  To  
15   ignore it doesn't make sense to us.

16           Q.    Okay.  Well, you mentioned ignoring the  
17   pool.  If you ignored the pool in the energy credit,  
18   then you would also have to ignore it in the demand  
19   charge as well, right?

20           A.    I'm not sure what your point is.

21           Q.    Doesn't Mr. Smith have a sizable credit  
22   reflecting the capacity payment?

23           A.    You are talking about allocating the  
24   interim agreement?

25           Q.    -- payments.



1           A.     There are lots of changes that would  
2     happen if you didn't have the agreement and the  
3     reality is according to your own documents we don't  
4     know what those changes would be. It could be  
5     bilateral agreements. It could be capacity  
6     exchanges. We don't know.

7           Q.     Okay. But I'm asking you you mention in  
8     your answer a no pool scenario and you said that  
9     wasn't the best way to do it, but if you excluded the  
10    pool impacts and the energy credit, all I'm asking is  
11    that it -- wouldn't it be correct that you would have  
12    to go back and recalculate the demand charge that  
13    Mr. Smith sponsors?

14          A.     So I think you misunderstood what I was  
15    saying. I was just -- I wasn't going into the pool  
16    in that answer. I was just simply saying when you  
17    value capacity, you can't ignore the fact that it  
18    generates revenue. That's an offset. That's my  
19    point. So I wasn't talking about the pool agreement  
20    or not, but if you have a question, I would be happy  
21    to answer it, but that's what my answer addressed.

22          Q.     I did have a question. Do you want me to  
23    repeat it?

24          A.     Sure.

25          Q.     If the pool were ignored in the energy

1 credit analysis that you're sponsoring, would it also  
2 be true that the demand charge would have to be  
3 recalculated under a no pool scenario?

4 A. So your question is if the agreement goes  
5 away, there is no MLR, what changes would need to be  
6 made; is that your question?

7 Q. Yeah.

8 A. And the answer is, and that's the reason  
9 we did, is we don't know because it's not going to be  
10 simply the agreement goes away. There are other  
11 pieces that move. So I don't -- I didn't see anybody  
12 that suggested what was going to happen after it goes  
13 away. I think that's still in flux and rather than  
14 make some assumptions about what happens we just  
15 basically said let's just hold it constant.

16 Q. Okay. And what I'm getting at,  
17 Ms. Medine, simply if you are going to reflect the  
18 pool, then you have to reflect all the pool, correct?

19 A. I mean, obviously with the parts that we  
20 clearly include were related to the capacity  
21 equalization payments and the sharing of the  
22 off-system sales. There may be other parts of the  
23 pool that I might not agree with you on. I don't  
24 know the answer.

25 Q. So conceptually though --

1           A.     Conceptually.

2           Q.     And based on Mr. Harter's prior testimony  
3     which I think you may have tried to clarify but you  
4     didn't say was an error, the modeling is intended to  
5     simulate the actual operation of the pool, correct?

6           A.     Correct.

7           Q.     And so either -- you have to do that and  
8     incorporate all the provisions of the pool  
9     consistently with the energy credit and the demand  
10    charge, correct?

11          A.     I'm not saying correct to that because I  
12    don't know what every provision of the agreement  
13    would be, so some may be material and some may not be  
14    material so I don't know that.  An immaterial  
15    component of the deal changes the analysis.

16          Q.     So with that clarification of if it's  
17    immaterial, then it wouldn't have to be implemented,  
18    that's your answer?

19          A.     If there is something particular -- I am  
20    not trying to be evasive.  I am not aware of what  
21    else you're thinking of.

22          Q.     I know you're not but I'm asking a  
23    conceptual question and I'm trying to clarify what  
24    you stated you agreed that Mr. Harter testified and I  
25    want to get your answer.

1           A.    My answer is -- the answer is I don't  
2    know.

3           Q.    Okay. Did you in your modeling reflect  
4    the primary energy sales under the pool? Do you  
5    understand what that is?

6           A.    I just read -- that interchange I think  
7    it's just your retail sales; is that what it is?

8           Q.    Well, do you have an understanding what  
9    it is?

10          A.    I don't recall exactly how you used it.

11          Q.    So you don't know that the -- then the  
12    model did not incorporate that if you don't  
13    understand it, right?

14          A.    No. That doesn't mean that.

15          Q.    Okay. Who can answer that question?

16          A.    So I think the model deals with wholesale  
17    sales so if that's your question, that's the answer,  
18    the wholesale energy market.

19          Q.    Do energy transactions among members of  
20    the pool occur?

21          A.    Yes.

22          Q.    And are those based on costs or market?

23          A.    My understanding it's based on cost.

24          Q.    And so if that occurred, that could  
25    affect the energy that you use in your model,

1 correct?

2 A. Right. In fact, we do reflect that in  
3 the calculation of the MLR for the combined, the  
4 merged company.

5 Q. Well, the MLR -- okay. The MLR you  
6 simply use that as a way of allocating off-system  
7 sales, correct?

8 A. Correct.

9 Q. Okay. And off-system sales are not among  
10 member companies, are they?

11 A. No.

12 Q. Okay.

13 A. But the presumption of the analysis is  
14 when CSP is short, it's provided by Ohio Power.  
15 Obviously with the merged company it's irrelevant.  
16 But basically in the analysis we mimicked that.

17 Q. And I'm talking about members other than  
18 AEP Ohio.

19 A. Correct.

20 Q. Okay. So that's not reflected in your  
21 modeling.

22 A. Not to the -- my understanding, correct.

23 Q. Okay.

24 A. I should say or to the extent, you know,  
25 the presumption is related to Mitchell 1 and 2 and

1 Amos.

2 Q. What was your presumption there?

3 A. That those -- that those are totally  
4 basically allocated to -- at fuels. I guess Mitchell  
5 has a -- there is a portion going to Kentucky Power.  
6 I don't remember. But those are totally allocated  
7 and they don't blow through at all so it's not a zero  
8 consideration of the relationship.

9 Q. So you excluded those in your energy  
10 credit?

11 A. Correct.

12 Q. Did Mr. Smith exclude them in his demand  
13 charge?

14 A. I believe so.

15 Q. That's your understanding?

16 A. That is my understanding.

17 Q. Okay. All right. Can you turn to your  
18 Exhibit ESM-1. You just mentioned the MLR so let's  
19 talk about that a little bit. So in your exhibit we  
20 can use -- let's just use the top line as an example.

21 A. Sure.

22 Q. June through December, 2012, so the 19  
23 percent MLR for Columbus Southern Power here was --  
24 was only applied to the off-system sales column  
25 labeled "Off-System Sales"?

1           A.     Correct.

2           Q.     Okay.  And then that result was used to  
3     reduce the gross margin to the retained margin,  
4     correct?

5           A.     Correct.

6           Q.     Okay.

7           MR. NOURSE:  Your Honor, I would like to  
8     mark Exhibit 132, AEP Exhibit 132.

9           (EXHIBIT MARKED FOR IDENTIFICATION.)

10          Q.     Ms. Medine, you have the document I just  
11     handed you.

12          A.     Yes.

13          Q.     Okay.  Find my copy.  Okay.  So let's --  
14     let's go through this chart a little.  It's a diagram  
15     attempting to illustrate how staff's energy margin  
16     credit was calculated relative to the issue I was  
17     just exploring in the MLR.  So on the left side we  
18     have the bar with three components?

19          A.     Yes.

20          Q.     And the shopping load that you assumed in  
21     your modeling was 26 percent, correct?

22          A.     Correct.

23          Q.     Okay.  So that leaves 74 percent for  
24     nonshopping load, correct?

25          A.     Correct.

1           Q.    And you assumed in your modeling, did you  
2 not, that the 26 percent, the energy associated with  
3 the 26 percent shopping, was additional off-system  
4 sales. It would be MLR, correct?

5           A.    I don't think so.

6           Q.    What's incorrect?

7           A.    So the way it was, as you know, there was  
8 some proprietary data in the analysis and the  
9 proprietary data was the hourly load that was  
10 provided by AEP. And the hourly load curve was  
11 adjusted by the 26 percent and then the generation.  
12 So some of that generation potentially went to  
13 off-system sales and some of it didn't. So it was  
14 the hourly load curve that was adjusted.

15          Q.    Okay. So you're saying a portion of that  
16 26 percent adjustment went to additional off-system  
17 sales?

18          A.    It could be, it could be a portion, I  
19 can't you exactly, but basically the methodology was  
20 to reduce the hourly load curve to run the  
21 generation, reduce the hourly and system  
22 requirements, and the difference was off-system  
23 sales. Whether that went to shopping or to some  
24 other type of off-system sale, I can't speak to.

25          Q.    Okay. Well, would it have been retained



1 in the nonshopping load, or would it be part of an  
2 off-system sales?

3 A. This would be part of the off-system  
4 sales but I can't say it's the entire 26 percent,  
5 which is what you're reflecting on this table.

6 Q. Okay. Well, and then in the top bar this  
7 is traditional off-system sales margin which --

8 A. I'm saying we can't differentiate  
9 between -- all -- I can affirm the way the shopping  
10 was handled. I can't affirm that this turned out to  
11 be actually the split in generation.

12 Q. That's fair. Okay. So let's just -- we  
13 can mark out the 26 percent right there, okay, if  
14 that makes you more comfortable. The top two bars  
15 are the -- are the total of what you're considering  
16 off-system sales in your model.

17 Part within -- part of the capacity  
18 basket was filled with traditional off-system sales  
19 and part of the basket was filled with these  
20 additional off-system sales related to your shopping  
21 assumption.

22 A. Right. And we can't differentiate on the  
23 off-system sales what is related to shopping and what  
24 is related to off-system sales.

25 Q. Okay. So the top -- the top portion both

1 categories of off-system sales, in other words,  
2 everything above the 74 percent that was retained for  
3 nonshopping and attributable to retail nonshopping  
4 load would be off-system sales margins under your  
5 model, correct?

6 A. Correct, but, again, there is no  
7 guarantee that the generation works out to be 74/26.

8 Q. Well, I understand you're saying the 26  
9 is maybe a different number, but the 74 is correct,  
10 is it not?

11 A. The 74 is correct. So, again, how it was  
12 done, you got the load from you by hour, by utility.

13 Q. Okay.

14 A. And basically reduced it by 26 percent,  
15 rounded the generation demand, the portion that  
16 wasn't required for load was assumed to be off-system  
17 sales.

18 Q. So the margin in the top two boxes, the  
19 total off-system sales, that's what you MLRed back to  
20 the retained margins, correct?

21 A. Correct.

22 Q. So for an AEP-Ohio basis 40 percent of  
23 the -- of the off-system sales were retained and  
24 that's -- that's shown in your ESM-1 exhibit under  
25 the "Retained" column, right, retained margin?

1 A. Well, the retained margin includes both.

2 Q. Yes. That's what I will get to next.

3 A. Okay.

4 Q. That does include all the off-system  
5 sales which you show in this example for 2012, June  
6 through December, 822,462 megawatt hours for Columbus  
7 Southern is -- that would represent the top two  
8 positions, the 822,000 for Columbus Southern for that  
9 period, right?

10 A. I'm sorry, where is the 822,000?

11 Q. In ESM-1 in the top line of numbers, June  
12 through December, 2012?

13 A. Yes, I see. Sorry. Yes.

14 Q. So the 822,000 megawatt hours would be --  
15 for that period Columbus Southern would be the top  
16 two boxes, right?

17 A. Right. But, again, the merged numbers  
18 are slightly different.

19 Q. Okay. Fair enough. And I'm just using  
20 that just to understand the math in your chart and  
21 try to illustrate it with this picture, okay?

22 A. Fair enough.

23 Q. Okay. So then the other thing that's in  
24 retained margin and also in gross margin and not  
25 taken out is the margin associated with nonshopping

1 load, correct?

2 A. Correct.

3 Q. Okay. So you've attributed a  
4 market-based margin in your modeling to not all the  
5 nonshopping load and then you've --

6 A. MLRed.

7 Q. -- put that in the energy credit,  
8 correct?

9 A. Yes.

10 Q. I'm sorry, we may have talked over each  
11 other. And you MLRed the bottom part?

12 A. No.

13 Q. Okay. Because we were talking about --  
14 let me finish -- the 74 percent nonshopping load  
15 you've taken a -- your modeling you've taken a  
16 market-based margin and taken 100 percent of that for  
17 the nonshopping load and included that in the energy  
18 credit.

19 A. And what I was trying to say, yes, that  
20 plus the 40 percent of the off-system sales.

21 Q. That's why both errors -- errors --  
22 arrows, excuse me, Freudian slip, both arrows go into  
23 the box called "CRES," right?

24 A. Okay.

25 Q. And that means that both categories of

1 margins were used in your energy credit to offset the  
2 net capacity charge that CRES providers pay for --  
3 for their shopping load, correct?

4 A. Correct.

5 Q. Okay. Now, you assumed 26 percent  
6 shopping throughout the entire three-year period?

7 A. Correct.

8 Q. How does that compare to current shopping  
9 levels? Do you know?

10 A. That was the current -- that is the  
11 current number is our understanding.

12 Q. You believe that is the current one as  
13 you sit here today?

14 A. That was the number that -- that was the  
15 information the company provided to EVA as the  
16 current number. I can't tell you as we sit here.

17 Q. Recently but not today.

18 A. Probably not today.

19 Q. Okay. So do you expect as a forecasting  
20 analyst that the shopping levels are going to stay  
21 right where they're at for the whole three-year  
22 period?

23 A. I can guarantee you they won't.

24 Q. Okay. Do you think they will go up or  
25 down?

1           A.    Somewhat jokingly if you are successful  
2    in your capacity rates, they will go down.

3           Q.    What do you mean by that?

4           A.    That rates are so high that there will be  
5    fewer shoppers.

6           Q.    Okay.  At 355 a megawatt day, is that  
7    what you're talking about?

8           A.    Yes.  But the answer -- that was somewhat  
9    tongue in cheek and I apologize for that.  I think  
10   the ultimate decision will depend on what the  
11   capacity rate is that the CRES suppliers pay.

12          Q.    Okay.  And so if the -- if the shopping  
13   goes up, the energy credit actually goes down, right?

14          A.    Right.  And if the shopping goes down,  
15   the energy credit would go up.

16          Q.    Right.  So if the shopping goes up, the  
17   energy credit goes down, that means a CRES -- the  
18   CRES charge would be more?

19          A.    Can you repeat, please?

20          Q.    The net -- the net capacity charge --

21          A.    The energy credit goes up, the payment  
22   would be less, the energy payment goes down, the CRES  
23   payment would be more.

24          Q.    Okay.  I'm just trying to connect the  
25   beginning part with the last part.  If there's

1 increased shopping, then CRES providers would pay  
2 more for capacity under your approach, right?

3 A. If that were the only change?

4 Q. Yes.

5 A. CRES suppliers would pay more, correct, I  
6 think.

7 Q. Now, are you -- are you recommending a  
8 floating rate or formula rate?

9 A. No, I'm not.

10 Q. So you're recommending a static rate.

11 A. No, I'm not.

12 Q. Why don't you explain.

13 A. I'm not recommending. I am saying based  
14 upon our analysis this is what we calculated the  
15 energy credits are. We are not recommending a  
16 floating or static.

17 Q. Okay. So you don't just address that  
18 issue of whether it would be a formula rate it would  
19 be periodically updated or whether it would be a  
20 static rate that would be established and in place?

21 A. That was not part of our scope to provide  
22 that recommendation.

23 Q. Okay. And is that what you meant or is  
24 that what you intended to address in your testimony  
25 when you kind of addressed those directional

1 indications of here is what would happen if shopping  
2 goes up, here is what would happen if shopping goes  
3 down, page 19?

4 A. Yes.

5 Q. Okay. And you do that with other factors  
6 in your analysis too, right?

7 A. Yes.

8 Q. Okay. So your analysis would accommodate  
9 a floating rate or a formula rate that would be  
10 updated periodically?

11 A. You know, our analysis is based upon  
12 forecasts -- forecasted LMP so I'm not sure how you  
13 would actualize that number. That's --

14 Q. Good point. Okay. But your -- the  
15 reason you put those things in your testimony was to  
16 inform the Commission, was it not, in the event there  
17 would be a floating rate?

18 A. I think that dealt -- that addressed more  
19 the assumptions than the outcome.

20 Q. Okay.

21 A. So if the Commission wanted to assume,  
22 you know, 25 percent shopping, that could be  
23 accommodated in this analysis or 30 percent shopping  
24 that could be accommodated in this analysis. It  
25 wasn't -- it wasn't a recommendation to actualize or



1 to do anything else other than to suggest that if  
2 there was a different assumption that was to be made,  
3 it could be made.

4 Q. Okay. And would that be easy to do then  
5 under -- under ESM-1?

6 A. No. Because it -- it's tied to the load  
7 duration curve of hourly load data so you would have  
8 to rerun Aurora. No, you would recalculate --  
9 reaggregate the results using a different number so  
10 it's not hard. It's just you can't do that by  
11 looking at this table.

12 Q. So we wouldn't know what the rate would  
13 be, and it would have to be an additional either  
14 compliance run or additional run to determine what  
15 the rate would be --

16 A. With a different assumption.

17 Q. With a different shopping assumption.  
18 Okay. Now --

19 A. Again, I don't think it's a run. I think  
20 it's an aggregation.

21 Q. Okay. Thank you. So with reference to  
22 the 26 percent assumption though, what's your basis  
23 for that? How would you justify saying it's going to  
24 stay that level during the whole period?

25 A. The -- it was the current number and we

1 had no opinion -- we had not forecasted whether it  
2 was going to go up and down. So like MLR we felt  
3 that the most conservative approach was just to use  
4 the current number and apply it across the system.

5 Q. Well, okay. The MLR has been --  
6 historically been pretty stable, has it not?

7 A. I believe that to be the case, yes.

8 Q. Do you believe shopping levels have been  
9 stable --

10 A. No.

11 Q. -- for AEP Ohio?

12 A. I know they have not.

13 Q. Okay. You said like the MLR. I  
14 thought --

15 A. I meant freezing a number is what I  
16 meant.

17 Q. Okay. That's the result, that's not the  
18 rationale.

19 A. The rationale is we didn't have a better  
20 number to use.

21 Q. Did you look into that or you just -- you  
22 personally -- nobody at EVA had a better number?

23 A. And we talked about it with -- with Ralph  
24 Smith as well.

25 Q. Is he -- is he an expert on the

1 competitive shopping -- retail shopping in Ohio?

2 A. I think you would have to ask him that.

3 Q. Have you reviewed any other testimony of  
4 other parties regarding shopping levels that are  
5 projected?

6 A. No. Obviously I'm familiar with some of  
7 the shopping in other jurisdictions such as Dayton so  
8 it's something that we were very aware of during our  
9 recent back audit.

10 Q. Well, talk about AEP Ohio, so you didn't  
11 have any information, you didn't pursue it.

12 A. To the extent that it was discussed in  
13 the documents that we had been provided during  
14 discovery, I reviewed that.

15 Q. Well, you didn't ask for a projection,  
16 did you? You asked for current connected load?

17 A. I don't remember the specific request but  
18 we did get back information on the current shopping.

19 Q. Did you ask the company for shopping  
20 projection or any information regarding that?

21 A. I don't recall.

22 Q. Now, isn't it somewhat counterintuitive  
23 under your model the fact that more switching means  
24 less margin and higher capacity charge?

25 A. I'm sorry, are you still talking about

1 shopping?

2 Q. Yes.

3 A. Okay. Switching usually refers to fuel.

4 MR. JONES: I object, I object to the  
5 structure --

6 MR. NOURSE: I'm sorry, Mr. Jones?

7 MR. JONES: I object to the structure of  
8 the question.

9 MR. NOURSE: Okay.

10 Q. Well, I think you used the term  
11 "switching" and got me hooked into doing that because  
12 normally we refer to it as shopping but same thing,  
13 right? Customer switches from AEP Ohio to a CRES  
14 provider or they shop and go get service from a CRES  
15 provider.

16 A. And your -- I forgot what your question  
17 was.

18 Q. I'm agreeing on terminology first.

19 A. Okay. That's fine.

20 Q. My question is isn't it counterintuitive  
21 to suggest that more switching would mean a higher  
22 capacity charge and less retained margins?

23 MR. JONES: Your Honor, again I object to  
24 the structure of the question.

25 MR. NOURSE: I couldn't hear you.

1                   MR. JONES: I object to the structure of  
2 the question.

3                   MR. NOURSE: Okay. I'm not sure what  
4 that means.

5                   EXAMINER PARROT: Overruled.

6                   MR. JONES: He throws in  
7 counterintuitives to premise his question.

8                   EXAMINER PARROT: The objection is  
9 overruled.

10                  A. I think it has to do with the MLR so I  
11 don't know why it's counterintuitive. It's pretty  
12 intuitive.

13                  Q. So under the pool if there's --

14                  A. Off-system sales the MLR is applied.

15                  Q. You said --

16                  A. It reduced the retained earnings.

17                  Q. The MLR is applied but it's applied to a  
18 larger pool of earnings of margins, is it not, and  
19 doesn't that increase the retained margins?

20                  A. No, because you've lost your retail  
21 sales.

22                  Q. Well, I'm talking about --

23                  A. You are taking 100 percent of that so  
24 more shopping may increase your off-system sales  
25 margins, but it doesn't increase your total margins.

1           Q.    Okay, so it goes back to the fact you've  
2 retained 100 percent in our picture?

3           A.    Correct.

4           Q.    You have -- in our picture you've  
5 retained 100 percent of the retail margin that you  
6 model based on a market price.

7           A.    Correct.

8           Q.    Okay. So let me clarify that since you  
9 mentioned that again. Is that -- is that margin that  
10 you attribute to the nonshopping customer, do you  
11 think that's reflective of the actual margin that's  
12 in the company's accounting and books?

13          A.    I think you've already asked that. Our  
14 focus is on what we think the MLR will be net the  
15 costs and that's how we come up with the energy  
16 margin. I think the numbers that I saw the  
17 accounting was done differently, so I can't speak to  
18 that.

19          Q.    But, again -- well, do nonshopping  
20 customers get charged a market rate?

21          A.    The presumption is that everyone -- the  
22 MLR is applied to everybody and we feel that  
23 assumption is correct as long as that number is below  
24 the retail rates and based on our analysis it's below  
25 the retail rates.

1           Q.    I thought you said the MLR was only  
2 applied to the off-system sales and not to the  
3 nonshopping load.

4           A.    I'm sorry, did I say MLR?  MLR -- LMP, I  
5 apologize.

6           Q.    Okay.  So you're imputing a margin to  
7 nonshopping customers that doesn't actually exist,  
8 aren't you?

9           A.    To nonshopping?  No, I think we are  
10 trying to calculate the gross margin and we have a  
11 methodology to calculate that which I think is  
12 extremely conservative based upon our understanding  
13 of what the rates are versus the LMP.

14          Q.    Okay.  But are nonshopping customers  
15 charged market-based rate?

16          A.    They are charged retail rates which are  
17 higher than the LMP so our analysis is conservative.

18          Q.    Okay.  Is your -- but, again, your model  
19 assumes this market price, this model?

20          A.    Yes, correct.

21          Q.    And that increases in the future.

22          A.    Correct.

23          Q.    How much does it increase over the time  
24 period?

25          A.    You know, I don't have that exhibit in

1 front of me, but I believe that was provided to you  
2 as part of the workpapers.

3 Q. Can you check on that?

4 A. That I was provided?

5 Q. Can you check on the answer? Do you have  
6 materials?

7 A. I believe you have that.

8 Q. Okay.

9 A. If you want to show it to me.

10 Q. Well, let's do that now. We have got  
11 some workpapers here. I can find it.

12 MR. NOURSE: Okay, your Honor, I would  
13 like to mark 133.

14 Q. I believe these are the workpapers you  
15 provided, Ms. Medine.

16 A. Excuse me. They do contain confidential  
17 information, did you know that?

18 Q. These do?

19 MR. NOURSE: Let's go off the record for  
20 a moment. Can we, your Honor?

21 EXAMINER PARROT: Yes. Let's go off the  
22 record.

23 (Discussion off the record.)

24 EXAMINER PARROT: Let's go back on the  
25 record.



1 MR. NOURSE: I appreciate Ms. Medine  
2 pointing out there is one page on here that was part  
3 of a larger workpaper and that page reflects one day  
4 of data that would be part of a larger set.

5 Q. It's a sample essentially, correct?

6 A. It's entirely up to you. You called it  
7 confidential.

8 Q. And that's what you are referring to and  
9 I appreciate you pointing that out.

10 A. Yes.

11 MR. NOURSE: And the company is willing  
12 to present this here, the one sample portion of that  
13 workpaper. Okay. So that will remain on the public  
14 record.

15 (EXHIBIT MARKED FOR IDENTIFICATION.)

16 Q. Okay. So, Ms. Medine, you do have the  
17 document --

18 A. I do.

19 Q. -- I just handed to you? This is your  
20 workpapers that you provided in conjunction with your  
21 testimony Monday?

22 A. Yes.

23 Q. Okay. So does this help you answer the  
24 question?

25 A. So I believe what you were asking me

1 about relates to the third page of the -- excuse me,  
2 the fourth page of the document?

3 Q. Uh-huh. These are the increases that --

4 A. These are the pricing.

5 Q. The pricing that you are modeling.

6 A. Yes.

7 Q. And it goes up over time generally?

8 A. It goes up and down but, remember, there  
9 are constant dollars.

10 Q. It goes down a little bit but mostly goes  
11 up, correct?

12 A. You know, you might be better than I am,  
13 but I think it goes up and down.

14 Q. Well, I guess look at the beginning  
15 point. There's only a couple of entries that are  
16 lower than \$33.32, correct?

17 A. Right.

18 Q. There is several up in the 40s.

19 A. It probably trends up, but it doesn't go  
20 up every month.

21 Q. All right. Now, is that -- even setting  
22 aside the fact that nonshopping customers are charged  
23 a tariff rate that's not based on market price, would  
24 you expect that the tariff charge for nonshopping  
25 customers would increase by a similar magnitude that

1 this market price trend is that you're showing?

2 A. Maybe, not necessarily.

3 Q. Okay. And if they don't, if the tariff  
4 rates for nonshopping customers don't increase, then  
5 that fact alone would suggest that the margin you are  
6 contributing 100 percent toward retained margins is  
7 overstated, would it not?

8 A. I think. I told you what the methodology  
9 was which I'll repeat, it's not based upon tariff  
10 rates. It's actually based upon the LMP, and the  
11 tariff rates from our investigation are significantly  
12 higher so this understates the energy credit.

13 It doesn't overstate the energy credit  
14 and there's enough room between the two if there is a  
15 little bit of up or a little bit of down, I think  
16 it's more than covered.

17 Q. I understand it's your opinion it's  
18 conservative. I was just asking you that one aspect  
19 and what the impact would be.

20 A. One number goes up and one number doesn't  
21 go up?

22 Q. Yes.

23 A. Difference over time, yes.

24 Q. And that would result in overstating the  
25 margin you've attributed 100 percent to the energy

1 credit, correct?

2 A. But as I said, we know, for example, or  
3 we know that one of the assumptions of the model is  
4 that emission allowance costs actually go down over  
5 time so that's one component that goes down over  
6 time.

7 The gas prices themselves are not  
8 necessarily efficient or the coal prices necessarily  
9 driven solely by escalation. There are market  
10 fundamentals that affect those numbers so, yes, there  
11 are some that escalate over time but I would say in  
12 this particular period I wouldn't assert that those  
13 costs are necessarily going to go up or down  
14 depending on -- depending upon -- on other factors.

15 Q. Okay. So the -- so the margin that is  
16 associated with what you call margin nonshopping  
17 customers and is attributed 100 percent to -- to  
18 the -- reduce the bill to the CRES providers, would  
19 it be fair to consider that a subsidy?

20 A. I wouldn't call it that. As I said, I  
21 will call it the value of the capacity. You can call  
22 it what you want.

23 Q. Okay. Well, it doesn't relate to margins  
24 that actually occur, does it?

25 A. It relates to an estimation of what we

1 think the margin should be or could be or would be.

2 Q. But that estimation has nothing to do  
3 with the authorized charges for the nonshopping  
4 customers, correct?

5 A. I can't speak to that.

6 Q. Right. So you have no idea whether the  
7 margins you attributed to nonshopping customers would  
8 actually exist?

9 A. I think I just said that based upon our  
10 analysis our MLR -- M -- LMPs, excuse me, would be  
11 lower than actual retail rates. That would be  
12 conservative.

13 Q. Okay. Let me just clarify that. When  
14 you're talking about what's collected in the SSO  
15 rates or the nonshopping tariff rate, are you  
16 referring to what's collected for energy only?

17 A. No. I was referring to the retail rate.

18 Q. That would include capacity?

19 A. I don't know that. The number that I was  
20 given I am not sure what it includes.

21 Q. Okay. All right. So you don't know?

22 A. I don't recall.

23 Q. Okay.

24 Okay. I would like to talk more about  
25 the Aurora model.

1           A.    Okay.

2           Q.    Ms. Medine, can you -- can you explain to  
3 me what are the inputs to the model?

4           A.    What are the inputs that EVA provides or  
5 what are all the inputs?

6           Q.    What are the -- all of the inputs  
7 generally speaking?

8           A.    You know, I couldn't possibly go through  
9 the entire list. Obviously it's an 87 dis -- 60  
10 dispatch model so it includes power generation and it  
11 includes transmission information. It includes fuel  
12 cost, emission allowance price, it goes on and on, so  
13 there is an enormous amount of information that's  
14 included.

15          Q.    Okay. So can you summarize the  
16 categories of information that go into the model?

17          A.    Again, it's power plants, it's fuel, it's  
18 transportation, it's transmission, it's power plant  
19 characteristics, it's assumptions regarding RPS.  
20 It's very -- it's curve -- wind curves, it's power  
21 curves. It's a very complex model.

22          Q.    Yes.

23          A.    So, again, you know, you all have a  
24 license, you would know what's in there, but it's a  
25 very complex model.

1 Q. Okay. We can agree on that.

2 So let's talk about the scope of the  
3 model a little bit. Any idea how many -- first of  
4 all, you ran the model on the zonal mode -- mode and  
5 not the nodal mode, correct?

6 A. We don't license the nodal; we only  
7 license the zonal model.

8 Q. Okay. And that reflects basically the  
9 Eastern interconnect, the whole Eastern interconnect?

10 A. It reflects a lot of things and divides  
11 everything into zones rather than nodes.

12 Q. Okay. So that includes a whole list of  
13 more than 10 RTOs, right?

14 A. I believe it's about that. I don't know  
15 exactly.

16 Q. Okay. And do you know how many  
17 generating units are in your model?

18 A. I do not.

19 Q. Is it more than 10,000?

20 A. I do not -- I know that it has all the  
21 coal units and I know that one of the things we did  
22 customizing was disaggregate the gas units so they  
23 had -- the default there is a sort of a combined  
24 resource and we just disaggregated that. I don't  
25 know what the count is.

1 Q. Do you know how many market zones?

2 A. I do not.

3 Q. In the model, do you know if it's more  
4 than 100?

5 A. I do not.

6 Q. Do you know how many transmission  
7 interconnection paths there are?

8 A. I am not -- I believe that these  
9 questions were asked of Mr. Harter. I do not know  
10 the interworkings of the model, so you can keep  
11 asking.

12 Q. He didn't ask those questions.

13 A. Well, it's too bad because he would be  
14 the one that would answer them.

15 Q. Well, you are here defending the model  
16 today.

17 A. I absolutely am. I'm defending the  
18 model.

19 Q. And what I want to focus on, Ms. Medine,  
20 about your testimony, what's been done to calibrate  
21 your -- what you call your hot model, okay? Do you  
22 know what the reserve margin was that was used in the  
23 model?

24 A. I think it was about 18 percent, but I  
25 don't recall specifically.



1           Q.    Okay.  Now, when you referred earlier to  
2   the fact that your model is hot and ready to go,  
3   you're -- you're suggesting, I'd like to explore  
4   this, that you've calibrated the model from when you  
5   obtained it off the shelf.

6           A.    Correct.

7           Q.    Okay.  And help me understand what --  
8   exactly what you've done to calibrate and benchmark  
9   the outputs and has that been relative to historical  
10  market performance or clearing prices.

11          A.    I can't speak to everything we've done, I  
12  can really only speak to the engagement, of course,  
13  I've used Aurora so it will be an incomplete answer  
14  but we have looked at -- obviously we've looked at  
15  the results, whether they make sense.

16                We've done for another engagement, as I  
17  mentioned, we did multiple runs of the Aurora, and we  
18  did sensitivity analyses using alternative gas  
19  prices, alternative coal prices, alternative emission  
20  allowances, so we were able to spend a considerable  
21  amount of time looking at the results and assessing  
22  their -- assessing the -- assessing, you know, how  
23  accurate we felt they were, and we did make some  
24  changes as part of that.

25          Q.    Okay.  You mentioned this other project a

1 couple of times. Why don't you go ahead and tell us  
2 about what that was. That was a government project?

3 A. I would love to but I'm not allowed.

4 Q. Oh, okay. Well, I would ask you not talk  
5 about it any more then.

6 A. That's fair enough.

7 Q. Okay. So did you calibrate the model  
8 with implied heat rates from actual experience?

9 A. Our focus in that analysis -- no, no, we  
10 used the exact same heat rates. Basically, I know we  
11 used the same heat rates. What we varied were coal  
12 prices in that particular analysis that you asked me  
13 not to talk about, coal prices and gas prices and  
14 electricity rates.

15 Q. Okay. Did you calibrate it with any  
16 differences between rate zones that might reflect  
17 congestion?

18 A. This particular application which, again,  
19 I am not supposed to talk about it was -- it was more  
20 of a macro analysis.

21 Q. I am asking you about the model you used  
22 for this case --

23 A. No, we did not.

24 Q. -- to calibrate it.

25 A. It was not recalibrated. It may have

1     been calibrated along the way for some other  
2     projects.

3             Q.     You don't know if it was or it wasn't?

4             A.     As I said, my partners and I were very  
5     comfortable with the way it was performing and  
6     willing to offer services for this work, for work  
7     related to investments, for work we worked recently  
8     with a major utility that was looking to sell a piece  
9     of its position and used this model to do exactly  
10    what we did here, which was to value the energy  
11    aspects of the generation.

12            Q.     Okay. I appreciate that you were  
13    comfortable. I think I understand that, but what I'm  
14    trying to explore is why and whether you looked at  
15    implied heat rates. We can get back to that later.

16            A.     Obviously I looked at the implied heat  
17    rates in this case and I provided the results, what I  
18    found, and they are in my testimony.

19            Q.     But let me ask you a simple direct  
20    question here: Are the heat rates used in the model  
21    the off-the-shelf default heat rates that come with  
22    Aurora in the software?

23            A.     Yes.

24            Q.     Okay. Now, how about the outputs of the  
25    model, Ms. Medine? Can you tell me what comes out of

1 the model?

2 A. I can tell you what I provided you was  
3 the relevant outputs. This is not a complete list of  
4 the outputs but this is the outputs we thought were  
5 relevant for your review and what it includes is the  
6 generation. It has the component costs as well as  
7 the power prices.

8 Q. You are referring to the workpapers?

9 A. Yes.

10 Q. Yeah, okay. What other outputs come out  
11 of the model?

12 A. Obviously there is quite a bit of  
13 outputs, and I don't have a list.

14 Q. Okay. I may be able to help you with  
15 that.

16 A. Okay.

17 MR. NOURSE: Your Honor, I would like to  
18 mark Exhibit 134.

19 (EXHIBIT MARKED FOR IDENTIFICATION.)

20 Q. Does this look familiar?

21 A. Reasonably. I this from your running of  
22 the model? I should ask you, what are the origins of  
23 this document?

24 Q. Yeah. This is a sample -- sample output  
25 table so we don't need to -- I am not going to ask

1     you about the values.

2             A.     Okay.

3             Q.     Just the table, the format, and how it  
4     works together.   Okay.   So have you reviewed a  
5     printout like this?

6             A.     Typically I will get a processed printout  
7     to review.

8             Q.     What do you mean by "processed"?

9             A.     Something similar.

10            Q.     Summarized?

11            A.     Yes.   Thank you.

12            Q.     Okay.   So but as you look through the  
13     pages here, the categories at the top do reflect on a  
14     plant basis, do they not, the data that's out --  
15     comes out of the model for each one of the headings  
16     at the top of the page?

17            A.     That's my understanding, yes.

18            Q.     Okay.   Now --

19            MR. JONES:   Your Honor, I'm going to  
20     object to this exhibit.   There's no foundation for  
21     this.   There's -- don't know who has compiled this  
22     information and the witness doesn't have any  
23     familiarity with this table.   So I don't know where  
24     it's even coming from.   There is no foundation for  
25     this, these questions based on this table.

1 MR. NOURSE: Okay. Your Honor, I think  
2 she's already authenticated it and indicated it does  
3 represent the outputs that come out of the model.  
4 She's familiar with the format. I do want to get  
5 into her exhibit next and tie that in with what was  
6 done in this case.

7 MR. JONES: Your Honor, this is the  
8 company's run. This isn't the witness's run of the  
9 model.

10 MR. NOURSE: Your Honor, I have indicated  
11 on the record itself the data can be ignored. This  
12 is the format. I asked her about the headings and  
13 the categories and output in the model.

14 MR. JONES: Your Honor, I still object.  
15 There has been no authentication.

16 EXAMINER PARROT: The objection is  
17 overruled.

18 Q. Okay, Ms. Medine, one second.

19 Okay. I do need to show you something  
20 else and then -- so I can tie it in with your  
21 exhibit, so if you can put that exhibit on hold for  
22 just a minute.

23 MR. NOURSE: I would like to mark Exhibit  
24 135, your Honor.

25 (EXHIBIT MARKED FOR IDENTIFICATION.)

1           Q.    Ms. Medine, do you have the exhibit I  
2           just handed you? And does -- with the exception of  
3           the shaded boxes, the three shaded boxes on the  
4           right, does this represent your -- the first page of  
5           your workpaper and essentially your Schedule ESM-1?

6           A.    It appears to.

7           Q.    Okay. And the part that was added on the  
8           right, the average margin dollar per megawatt hour,  
9           that's a simple calculation based on the information  
10          that's already in your exhibit, correct?

11          A.    The energy credit?

12          Q.    You got the energy credit already in your  
13          exhibit. What I'm asking you is the shaded boxes on  
14          the right, the average margin expressed in dollars  
15          per megawatt hour, do you see that?

16          A.    I have no idea where those numbers are  
17          from.

18          Q.    I just said we added them, and I want to  
19          ask you to verify them. So if you look at the energy  
20          credit dollars per megawatt day that's in your  
21          exhibit, let's take the top line once again for CSP  
22          June through December, 2012, you've got a \$57.27 per  
23          megawatt day energy credit, right?

24          A.    That's what it says, yes.

25          Q.    Okay. And I want to ask you to verify

1 this and represent that the average margin of \$6.22  
2 per megawatt hour is equivalent to that expressed in  
3 dollars per megawatt hour.

4 MR. JONES: I'm going to object, your  
5 Honor. He is going to ask the witness to make that  
6 calculation on the stand. I object to that. She  
7 didn't prepare these -- the forecasted average  
8 margin, the company did, and it's improper to ask her  
9 questions about something they generated, not the  
10 witness generating and doing that calculation.  
11 That's not fair to have the witness do that on the  
12 stand.

13 MR. NOURSE: Well, your Honor, it's a  
14 very simple calculation based on her exhibit, and I  
15 think it is fair. It's simply a different way to  
16 express the same. It's an equivalent dollar amount  
17 and that's where I want to get back to the outputs  
18 and try to explain how they were calculated.

19 MR. JONES: Your Honor, again, they are  
20 asking her to verify their calculations, and she  
21 doesn't have -- she has not had the opportunity to do  
22 that independently and would be unfair for her to  
23 force her to do it here in this proceeding on the  
24 stand.

25 EXAMINER PARROT: The objection is



1       overruled. She may respond if she's able to.

2           Q.     (By Mr. Nourse) Ms. Medine, if you take  
3     the gross margin and divide it by total generation  
4     in your top line of this exhibit, does that equal  
5     the \$6.22, subject to check?

6           A.     I don't have a calculator.

7           MR. JONES: I just want to make a  
8     continuing objection on the record, your Honor.

9           EXAMINER PARROT: Noted.

10          MR. NOURSE: Your Honor, I will hand the  
11     witness I think this is an attorney calculator so it  
12     might actually work.

13          A.     Math is correct. I think you should  
14     point out what the math is, that it is the gross  
15     margin divided by the total generation. I am not  
16     sure what the number relates to, but the math is  
17     correct. It does not provide an energy credit per  
18     hour -- per megawatt hour. It simply takes the gross  
19     margin and divides it by the generation based upon  
20     the first number.

21          Q.     Well, it's listed as an average margin,  
22     right?

23          A.     I'm not sure what it's representing  
24     because we do a retained margin calculation.

25          Q.     So you're not familiar with dollar per

1 megawatt hour margin?

2 A. I am but I'm not sure what utility this  
3 is. What this table was designed to do was produce  
4 the energy credit per megawatt day. It doesn't  
5 produce -- and what you've done is not consistent  
6 with that. It doesn't produce basically the  
7 retained -- it doesn't convert the energy credit per  
8 megawatt day, energy credit per megawatt hour.

9 Q. Okay. Well, you have a retained margin  
10 sticking with the same line 1 --

11 A. Correct.

12 Q. -- of 50.9 million, correct?

13 A. Correct.

14 Q. And can you tell me what the average  
15 margin would be for the 50.9 million aggregated  
16 number that you have there?

17 A. So the way the retained margin is -- the  
18 energy credit is calculated I think is the more  
19 relevant calculation because it takes the retained  
20 margin and it divides it by the number of days in the  
21 period and then by the five-day coincident peak so  
22 it's not exactly apples to apples and I would  
23 uncomfortable doing that conversion on the stand  
24 other than the simple math I have just done.

25 Q. Okay. So I want to get the exhibit I

1 handed you before, the output table, Exhibit 134.  
2 Can you tell me how your energy credit is calculated  
3 based on the output data?

4 A. Sure. These pages aren't numbered so if  
5 you went to the generation page, that would provide  
6 the cumulative generation by power plant in the  
7 system based upon the Aurora run.

8 Q. Which page is that?

9 A. As I said, it's the one that's headed  
10 "Generation." I think it's No. 5. It's my fifth  
11 page -- I'm sorry, I'm looking -- maybe I'm looking  
12 at the wrong exhibit.

13 Q. It's this one here.

14 A. I can explain it if I use the workpapers.

15 Q. Multi-step, we can do it that way.

16 A. Go to the workpapers.

17 Q. Go to your workpapers first, okay.

18 MR. DARR: Are we talking about Exhibit  
19 133?

20 THE WITNESS: Yes.

21 Q. Did you not understand the question?

22 A. Are you ready for me?

23 Q. Yeah, go ahead, I'm sorry.

24 A. So we start with generation which is  
25 produced by the model by Aurora based upon the

1 relative costs. Now, from using that generation we  
2 calculate what the off-system sales were by taking  
3 the AEP load adjusted for shopping by hour so you end  
4 up with total generation and generation for  
5 customers. And the balance of generation is assigned  
6 to off-system sales. So those are the first two  
7 steps.

8 And then to calculate the energy credit  
9 what you are going to be doing, you are taking the  
10 LMP and multiplying that by the sales and the  
11 generation and sub -- with an adjustment for the MLR  
12 and you will be subtracting from that the costs of  
13 generation which are fuel, VOM which is usable  
14 operating open maintenance, and costs.

15 Q. Hang on right there, if you don't mind.  
16 You are talking about the costs which are what I want  
17 to focus on, so could you point in the Exhibit 134 to  
18 what categories of outputs feed into your workpapers?  
19 I thought that's what you were going to do. You just  
20 mentioned variable O&M, fuel costs.

21 A. The -- obviously the variable load costs  
22 load into that and the fuel costs. I am not exactly  
23 sure where the emission costs are.

24 Q. You are not sure where they are on the  
25 exhibit, on this output in 134?

1 A. Yeah.

2 Q. Okay. So which -- which -- which  
3 headings or outputs would feed into the -- into the  
4 energy costs?

5 A. As I said, I outsource that function.

6 Q. Okay. All right. So you don't -- you  
7 don't know --

8 A. I don't take the raw output and convert  
9 it.

10 Q. Match this to your workpapers, okay. And  
11 were the workpapers provided to you by someone else,  
12 Mr. Harter or somebody else?

13 A. Yes.

14 Q. Okay. Because he handled the model.

15 A. Correct.

16 Q. Okay. So let me ask you on -- back to  
17 the outputs exhibit, if you turn in five pages, the  
18 page I thought you were on before. Actually let me  
19 try to shortcut it here. If you turn in like seven  
20 pages, there's one that says "Value" in the  
21 right-hand side and "Spinning Reserves" on that page  
22 as well.

23 A. Yes.

24 Q. Do you know what the value --

25 A. There is emission cost.

2222

1 Q. I'm sorry?

2 A. I just saw the emission costs now, sorry.

3 Q. Okay. You found it, okay. Do you know  
4 what the Value column represents there? Is that like  
5 a total?

6 A. I would not be able to speak to that  
7 right now.

8 Q. Okay. All right. One more question  
9 about this, turn back two pages, it would be the  
10 fifth page in. There's a heading called "Capacity  
11 Revenue," do you see that?

12 A. Three pages in?

13 Q. I'm sorry. It's five pages in from the  
14 front, two back from where we were.

15 A. Maybe not.

16 Q. "Capacity Revenue," do you know what that  
17 represents?

18 A. No, I do not.

19 Q. Okay. Well, given that this is an output  
20 of the model would you expect that that reflects  
21 capacity revenue that was modeled?

22 A. I would like to see the formula. I  
23 wouldn't testify one way or the other without seeing  
24 the formula.

25 Q. Do you know if the modeling that you did,

1       whether capacity revenue as an output was included or  
2       excluded?

3             A.    I do not believe it was included but,  
4       again, based upon the workpapers and my understanding  
5       of what -- what we agreed to as the methodology, it  
6       was not included. I believe we also provided you in  
7       the workpapers the exact numbers that were included.

8             Q.    Well, I understand the result. I'm  
9       trying to figure out how the result was reached  
10       within the box of the model.

11            MR. NOURSE: Let me mark Exhibit 136.

12            (EXHIBIT MARKED FOR IDENTIFICATION.)

13            Q.    Okay. Ms. Medine, in your testimony you  
14       included some language and references from the Aurora  
15       help menu, right?

16            A.    Yes.

17            Q.    Okay. Now, this is labeled as being from  
18       the output table column definition. Does this look  
19       familiar to you?

20            A.    Specifically, no, but I can read what it  
21       says.

22            Q.    Okay. Now, would you accept, subject to  
23       check, that this is from the output table column  
24       definition for Aurora?

25            A.    Sure.

2224

1           Q.    Okay.  Now, does this indicate the Value  
2   column that I asked you about before, calculated as a  
3   total revenue less total cost?

4           A.    I see that, yes.

5           Q.    Okay.  And total revenue includes, among  
6   other things, capacity revenue here, right?

7           A.    It also includes ancillary services.

8           Q.    Right.  Okay.  And the total cost  
9   includes -- well, I will just read them, "Total Fuel  
10  Costs," No. 2 is "Total Start-Up Costs," and  
11  optionally No. 3 "Total Variable O&M," No. 4 "Total  
12  Fixed O&M," and No. 5 "Total Emission Costs."  Do you  
13  see that?

14          A.    Yes.

15          Q.    Now, which of these costs in those five  
16  categories that are reflected here were captured in  
17  your energy costs used to calculate your energy  
18  credit?

19          A.    The fuel costs, the variable O&M, and the  
20  emission costs, and that information was provided to  
21  you.

22          Q.    Okay.  So it did not include the start-up  
23  costs?

24          A.    It did not, correct.

25          Q.    I'm sorry, or fixed O&M?



1           A.    That's my understanding, correct.

2           Q.    Okay. Did Mr. Smith's analysis capture  
3 either start-up costs or fixed O&M?

4           A.    I don't -- I believe that was not the  
5 focus of his analysis. It was on the capacity  
6 charge.

7           Q.    Okay. But you excluded or you did not  
8 include fixed O&M, right? So you don't know whether  
9 it was reflected in the demand charge Mr. Smith  
10 developed?

11          A.    I don't believe so, but subject to check.  
12 On the revenue side we didn't include either in this  
13 calculation, as I said, the ancillary services.

14          Q.    Okay. Now, did your workpapers -- it's  
15 fair to say that was a select summary of the outputs  
16 of the model, correct?

17          A.    It wasn't -- I mean, as I said, it's our  
18 standard methodology for evaluating capacity. So we  
19 were not doing anything selectively for this  
20 analysis.

21          Q.    Well, what I meant is it's a subset  
22 clearly of the outputs of the model, correct?

23          A.    Yes. As I said, that's our approach,  
24 but, yes.

25          Q.    Okay. So your workpapers don't show

1 sales by units by year; is that correct?

2 A. No. That's incorrect. It doesn't  
3 calculate that number but if you look, there is  
4 enough information on the workpapers to calculate  
5 that number. It shows the generation by year -- by  
6 unit, excuse me, by year.

7 Q. And?

8 A. And we use the LMP to calculate the  
9 revenues.

10 Q. And did you provide the LMPs in your  
11 workpapers?

12 A. I believe that's on item -- on page 4.

13 Q. Okay. And -- and in your exhibits, we  
14 verified this earlier, but you didn't represent or  
15 calculate the margin, the average margin?

16 A. The average margin megawatt hour?

17 Q. Yes.

18 A. Correct.

19 Q. Okay. And you're familiar with the  
20 cross-examination of Mr. Harter where we had an  
21 exhibit admitted into the record that did the same  
22 calculation that we were trying to go through with  
23 you. Mr. Harter affirmed those calculations and that  
24 was admitted in the record. Did you recall looking  
25 at that?

1           A.    Could you provide exactly what you're  
2 speaking about?

3           Q.    Okay.  It was Exhibit 126.  I can produce  
4 you a copy.  Counsel should have it already.  It has  
5 been admitted into the record.  And that exhibit has  
6 the original RTH-1 on the top and in the Revised  
7 RTH-1 in the bottom and then the average margins were  
8 added out to the side.  Do you see that?

9           A.    I believe it's the same thing you did  
10 today, yes.

11          Q.    But you were not able to confirm  
12 my calculations today.

13          A.    No, I was able to confirm you divide and  
14 get that number.  All I was saying I wasn't going to  
15 represent that it was the -- that it equated to the  
16 energy credit because that's not how the energy  
17 credit is calculated.

18          Q.    Okay.  But it is --

19          A.    The math is the -- it looks to me like  
20 the math is the same.  Again, I am not going to  
21 comment on that methodology because that's not  
22 obviously what we did, and it seems to me that it  
23 doesn't get to the heart of what we are trying to do  
24 here.

25          Q.    Okay.  So with that clarification then

1 the average margin that I did show you out to the  
2 side a moment ago you're agreeing in Exhibit 135 that  
3 the average margin is mathematically correct based on  
4 your data in your Exhibit ESM-1?

5 A. What I'm saying I am not calling it an  
6 average margin. If you want to say it's the gross  
7 margin divided by total generation, I will agree with  
8 those numbers.

9 Q. Okay.

10 MR. JONES: Your Honor, I'm sorry to  
11 interrupt. I was wondering how much more cross we  
12 have, or is it a good time to take a break for this  
13 witness? She has been on the stand for more than --

14 MR. NOURSE: Absolutely. It's fine to  
15 take a break.

16 We don't need to talk about it since you  
17 did the math.

18 EXAMINER PARROT: So you still have a  
19 ways to go, Mr. Nourse?

20 MR. NOURSE: Yes. We can take a break  
21 any time you like.

22 MR. JONES: Your Honor, if I may propose  
23 maybe it's a good time to have a lunch break.

24 EXAMINER PARROT: We're talking about  
25 that.

2229

1                   At this point we'll take a 45-minute  
2       break for lunch and let's come back, give you a  
3       little, let's come back at 1:15.

4                   (Thereupon, at 12:36 p.m., a lunch recess  
5       was taken.)

6                                   - - -

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1 Wednesday Afternoon Session,  
2 May 9, 2012.

3 - - -

4 EXAMINER PARROT: Let's go back on the  
5 record.

6 Mr. Nourse?

7 MR. NOURSE: Thank you, your Honor.

8 - - -

9 EMILY S. MEDINE

10 being first duly sworn, as prescribed by law, was  
11 examined and testified as follows.

12 CROSS-EXAMINATION (Continued)

13 By Mr. Nourse:

14 Q. Ms. Medine, earlier we were discussing  
15 how under your method for the energy credit that you  
16 attribute a market-based margin associated with the  
17 nonshopping load toward increasing the energy credit,  
18 correct? Do you recall that?

19 A. Towards increasing energy credit or  
20 towards calculating the energy credit?

21 Q. Well, doesn't the retain -- increases the  
22 retained margins and increases the energy credit.

23 A. I'm sorry. So to include the  
24 nonshopping, yes.

25 Q. To include 100 percent. Okay. And I

1 think you said that the company collected LMP prices  
2 energy through the PJM market?

3 A. The analysis assumed those pricing, yes,  
4 correct.

5 Q. Right. And is it also the case that the  
6 company also bids its load into the same energy  
7 market, PJM? The energy market?

8 A. In the future or currently? I'm not sure  
9 of your question.

10 Q. Well, as an FRR entity, you talked  
11 earlier about how you're familiar with that. Is it  
12 true that the load is bid in and the company -- well,  
13 I'm sorry. Forget about the FRR example. I'm trying  
14 to back up and explain.

15 So the energy, the daily energy markets,  
16 all the energy, all the load is bid in, all the  
17 energy is purchased at LMP, right?

18 A. Right. But I'm not providing any  
19 testimony about the mechanics of that market.

20 Q. Okay. But when we were talking about  
21 what rate AEP collects for nonshopping customers for  
22 energy, you indicated that under your approach you're  
23 using essentially an LMP or projected LMP to  
24 calculate this margin.

25 A. Correct.

1           Q.    You're attributing to the nonshopping  
2   load and including to increase the energy credit,  
3   right?

4           A.    I struggle with your word "increase." My  
5   methodology is to use the LMP to calculate the  
6   revenue.

7           Q.    I'm just trying to clarify that. The  
8   daily basis what happens, so the load is bid in, the  
9   LMP price is paid, and that basically washes for  
10  nonshopping customers. The company collects tariff  
11  rates that pay for the energy provided, correct?

12          A.    That is my understanding.

13          Q.    Okay. Now, another thing we talked about  
14  earlier in connection with this same topic of the  
15  energy margin for nonshopping customers that you  
16  attributed included in the energy credit calculation  
17  and I believe you said that that represents the  
18  market value of capacity and the energy that's  
19  provided -- I'm sorry, strike capacity. You said  
20  that was the market value of the energy provided; is  
21  that accurate?

22          A.    I'm sorry, I got lost in capacity. Could  
23  you repeat?

24          Q.    Yes. Earlier we were talking about the  
25  same topic, the method that you used to attribute a



1 hundred percent of nonshopping, the margin you  
2 calculate, you include that in the energy credit, and  
3 I was asking about in difference between tariff rates  
4 that are paid by nonshopping customers and your use  
5 of market rates to produce a -- compute a margin, do  
6 you recall that?

7 A. Yes.

8 Q. And I believe you said that the market  
9 price represented market value for providing that  
10 energy and using the capacity to produce that energy.  
11 Is that what you said?

12 A. You've paraphrased it. I don't think I  
13 would have said it exactly that way.

14 Q. Can you answer the question again then so  
15 that you can clarify?

16 A. So I can explain the methodology again.

17 Q. Are you using a market-based calculation  
18 to create a market-based margin even though  
19 nonshopping customers pay a tariff rate?

20 A. Because a it's proxy. It's a proxy for  
21 that. And as I explained earlier, in our mind it's a  
22 conservative proxy because based on the numbers that  
23 we're aware of, the retail rates are in fact higher  
24 than the LMP. So this is a conservative approach for  
25 calculating it. But it's a proxy.

1           Q.    Okay, but then that part of the  
2           discussion I thought we concluded that you weren't  
3           sure what retail rates you were comparing that to,  
4           whether it included energy and capacity.

5           A.    I'm told that the comparison for the  
6           proper rates, that they're higher. But I personally  
7           don't know that.

8           Q.    Is that something that you learned over  
9           lunch?

10          A.    No.

11          Q.    Okay. You've been told by whom?

12          A.    I think I had mentioned that, that it was  
13          part of I believe the cross and there was some  
14          information that came out I believe over the last  
15          couple weeks. I don't remember, but from a couple  
16          sources.

17          Q.    But the theory of your energy credit, is  
18          it not to say the energy associated with capacity  
19          being paid for under this charge represents one of  
20          the value streams associated with the capacity?

21          A.    Net of costs, yes.

22          Q.    Net of costs. And that value associated  
23          with the capacity is what your transferring through  
24          to the nonshopping customers a hundred percent  
25          allocation, you're transferring that value through to

1       reduce the CRES capacity charge, are you not?

2               A.     As we've discussed, the entire retail  
3       base as well as the MLR adjusted off-system sale base  
4       included to calculate the energy credit, yes.

5               Q.     If you could turn to page -- excuse me,  
6       question 26, it's about page 10 of your testimony.  
7       You briefly mentioned this earlier as one of the  
8       errors that you were going to correct and address.  
9       Questions 26 through 29 dealing with the use of the  
10      default heat rate in modeling, do you recall that?

11              A.     Yes.

12              Q.     I want to explore that with you. Now,  
13      you stated earlier I believe that the part of the  
14      reason EVA purchased Aurora was because you'd be  
15      behind the times or you wouldn't be up with current  
16      conditions of market if you didn't have a tool like  
17      Aurora, correct?

18              A.     I said it a little bit differently, but,  
19      yes.

20              Q.     Okay. And part of the current market  
21      conditions would be the relatively low gas prices and  
22      impact that has on coal unit operations, correct?

23              A.     Correct.

24              Q.     And in that context coal units are not  
25      necessarily on all the time, they're not fully base

1 load units perhaps in all cases like they have been  
2 historically, correct?

3 A. Their average utilization has been lower,  
4 correct.

5 Q. So they're not in a pure sense base load  
6 units that are on all the time, are they?

7 A. No. I think the question is though when  
8 they are running, are they running full out.

9 Q. So there's a lower level of full output  
10 that happens and we call that minimum operation,  
11 minimum run?

12 A. I wouldn't call it that but you're  
13 welcome to.

14 Q. What would you call it?

15 A. Less than full output.

16 Q. All right. And when does that happen?

17 A. It's based upon the fuel requirements in  
18 the market.

19 Q. And so they cycle down --

20 A. Coal plant -- I would defer to actual  
21 plant operators, but my understanding is that coal  
22 plants don't cycle very well.

23 Q. But when you say "cycle," are you saying  
24 going from full output to something less or to full  
25 output to off?

1           A.    I'm saying following load up and down.

2           Q.    Okay.  Now, would you agree that when we  
3 talk about heat rates, that -- so a unit basically  
4 has not only full output but also a lower level of  
5 operation which changes the heat rate, right?

6           A.    Changes the average heat rate, right.

7           Q.    Average heat rate.  And at the time it's  
8 running lower, it's a different heat rate than full  
9 output.

10          A.    Still not the average, but correct.

11          Q.    But the average is the combination of  
12 everything.

13          A.    Correct.

14          Q.    Okay.  So I was getting to that, but so  
15 that's the second -- besides full output there's less  
16 than full output, there's also a different heat rate,  
17 correct?

18          A.    Correct.

19          Q.    And then there's times when the unit is  
20 down and when that happens, it has to start back up,  
21 right?

22          A.    Correct.

23          Q.    And when it's in start mode, that  
24 actually has a third type of heat rate, third level  
25 of heat rate for that unit, correct?

1           A.    A short-lived, but, yes.

2           Q.    Short-lived depending on how many starts,  
3   how long it takes to start up --

4           A.    But typically a large unit won't be  
5   brought online for a day.  So it's in terms of  
6   percent of production or percent of utilization, it's  
7   a relatively small period.

8           Q.    And just to be clear, Ms. Medine, I'm not  
9   talking necessarily about -- only about coal units in  
10   this particular part of the discussion or even large  
11   coal units, I'm talking about all units that exist on  
12   the model.  So far are you with me?  We have three  
13   different modes of operation that have three  
14   different heat rates for all units, correct?

15          A.    Yes.

16          Q.    Now, in your model I think you indicated  
17   clearly in your testimony that you're not using  
18   historic realized heat rate or an average heat rate  
19   for a period, you're using the most efficient or the  
20   optimal heat rate throughout your Aurora model,  
21   correct?

22          A.    Correct.  Those are the default numbers.

23          Q.    Right.  And in your calibration and your  
24   experience with the model, you haven't adjusted that  
25   default heat rate setting or the values.

1           A.    For production runs we have not.

2           Q.    And such as the production run in this  
3 case.

4           A.    Correct.

5           Q.    Okay, now, running at full tilt, full  
6 output, is not what really happens in reality, is it?

7           A.    Do people have a capacity factor of a  
8 hundred percent, is that your question?

9           Q.    Well, not people.  I certainly don't.  
10 But plants.

11          A.    Aren't power plants people?

12          Q.    Yes.  They're named after people usually.

13                Okay, so power plants don't have a  
14 hundred percent capacity factor.

15          A.    Correct.

16          Q.    And they don't exhibit the same heat rate  
17 during the three different modes we talked about,  
18 which would be reflected in the average heat rate,  
19 correct?

20          A.    It depends on how it's calculated.  I  
21 think you can see in this table that I presented that  
22 even on the two baseline numbers are different  
23 numbers.  So there's some discretion in the  
24 calculation, but in theory you're correct.

25          Q.    When you say "baseline numbers," you're

1 referring to the table on page 12, correct?

2 A. I am.

3 Q. You're referring to the EIA column and  
4 the FERC Form 1 column?

5 A. Correct.

6 Q. Now, would you agree that those two  
7 columns that do reflect the actual experience are  
8 generally pretty close together, comparable numbers?

9 A. They're similar but they're not exact, I  
10 guess is my point.

11 Q. And whereas the default Aurora heat rates  
12 you used are universally all lower than the actual  
13 heat rates.

14 A. Yeah, as I pointed out in my testimony,  
15 that the correlation is the higher the utilization,  
16 the closer the actual heat rate is to the most  
17 efficient heat rate, which is again not surprising  
18 since that's what the intent of the most efficient  
19 heat rate is. And the further, the less -- lower  
20 capacity factor, the less is the case.

21 Q. Okay, well, that's a correlation, but the  
22 reality is that the default heat rates don't reflect  
23 an actual experience or an actual expected  
24 operational reality, do they?

25 A. I think the point is that when the unit



1 is up and running, they are approaching the most  
2 efficient heat rate. It's the averaging in of the  
3 down period, so it's a question -- I think there are  
4 two questions:

5 One is a question of how you dispatch,  
6 which as I testified I do feel fairly comfortable  
7 with that, and I assume the next set of questions is  
8 are those costs properly affected, which is where I  
9 assume you're going.

10 Q. Well, I mean both are relevant, but  
11 again, what I'm asking you is that the heat rates you  
12 used don't match up with actual operational  
13 experience or even how we've already agreed power  
14 plants are operated.

15 A. I don't think I've agreed to either of  
16 those. So I basically said that what's presented  
17 here are the average annual heat rates. And again,  
18 there's some discretion of how they're calculated.  
19 The point on a dispatch is when you operate your  
20 plant, what is your heat rate? And we don't have  
21 segment data that specifically deals with that  
22 question.

23 And so what we're saying is since the  
24 purpose of the model is the dispatch, that's where  
25 it's critical to get that proper number.

1           Q.    I agree it's critical, but the ones  
2    you're using are optimal heat rates that are simply  
3    not experienced in the real world, are they?

4           A.    Again, as I said, I think that that's not  
5    the case. I think that when the plants are operating  
6    full out, the heat rates are closest to the optimal  
7    numbers. And remember, most of the generation from  
8    AEP Ohio is coming from the large coal plants with  
9    high capacity factors.

10          Q.    Okay. Which --

11          A.    And that situation actually will change  
12    over time to even a greater extent because as the  
13    smaller plants are retired, you're going to be  
14    increasing your capacity factors on your higher  
15    users.

16          Q.    And as gas prices are lower, those  
17    plants are not run as often either, correct?

18          A.    No. No. Again, getting into the  
19    forecasting world, but the reality is at some point  
20    with the massive retirements of coal plants including  
21    the 4,600 megawatts that AEP announced, you're going  
22    to have a shrinking base of coal generation. And the  
23    remaining plants which are fully scrubbed and  
24    fully -- the full pollution controls will operate at  
25    an either capacity factor simply to meet load because

1 we'll have lost so much generation.

2 Q. Are you saying the reason you used  
3 default heat rates is because of the retirements that  
4 are projected?

5 A. No.

6 Q. Okay, well, do you agree that a  
7 relatively small heat rate difference can make a  
8 significant difference in the actual cost of the unit  
9 and margins experience?

10 A. No.

11 Q. Why not?

12 A. Remember, everything is calculated using  
13 these heat rates. So the MLR is calculated -- excuse  
14 me, the ML -- I get confused, LMP is calculated using  
15 these heat rates so those numbers flow through the  
16 entire model. So if you have a higher heat rate,  
17 you're going to have higher costs and higher LMP. So  
18 if you were to change that, it doesn't get just  
19 changed in isolation.

20 Q. Right. But if using inaccurate heat  
21 rate, it produces inaccurate results of all those  
22 things, doesn't it?

23 A. Well, again, we don't think so. One  
24 thing we think the accuracy is enhanced in terms of  
25 the dispatch. Secondly, as I was saying, that number

1 flows through the entire calculations.

2 So if I were to just change AEP's to  
3 average historical, or even worse, historical,  
4 whatever number you would want, it would change -- it  
5 wouldn't be accurate because the other systems aren't  
6 done in the same manner.

7 So you need to be consistent if you're  
8 going to calculate an LMP for the area. So I hear  
9 what you're saying, I do think there's some --  
10 potentially some issues, but I'm saying it's not the  
11 magnitude you're suggesting because those heat rates  
12 flow through the entire calculation.

13 Q. Well, I know they do but you're saying in  
14 order to -- if the heat rates are inaccurate, they  
15 will affect other things other than the cost and if  
16 they were inaccurate, you just have to rerun the  
17 model and see what happens. You haven't done that,  
18 have you?

19 A. I'm not saying they're inaccurate.  
20 You're misquoting me.

21 Q. I'm saying if they were.

22 A. Obviously if any input was inaccurate,  
23 you have to rerun the model. So it's not specific to  
24 heat rates. I mean the goal is to have as close to  
25 the right set of numbers as possible.

1                   So heat rates are not inaccurate in my  
2 mind because they reflect the most efficient  
3 operation mode which we acknowledge is not -- every  
4 plant is not always operating at the most efficient  
5 but the big generators are. And that's where the  
6 bulk of your generation comes from. We can't simply  
7 just change -- the answer is yes, we have one.

8                   Q.    I didn't -- didn't ask you to change just  
9 one factor. I'm asking you about the accuracy of  
10 these heat rate numbers which I agree flow through  
11 the modeling and have impacts, multiple impacts.  
12 You've not done any other modeling that uses  
13 different heat rates in connection with this case,  
14 have you?

15                  A.    Not formally.

16                  Q.    And when you talk about the big units  
17 that run all the time, I think was the phrase you  
18 used, what units are you talking about?

19                  A.    Well, in this year which was 2011 Gavin  
20 was -- as Gavin? I'm sorry, Zimmer and Carhill and  
21 Gavin all had above 80 percent capacity factor.  
22 Those are my calculations which may be different than  
23 anybody else's.

24                  Q.    So 20 percent of the time they were not  
25 operating, is that correct?

1           A.    That's correct, some combination of  
2   forced average. And it could be less than full load.

3           Q.    And using the default heat rates does not  
4   capture either the downtime or the start process  
5   associated with that or the non-full output hours for  
6   those plants, correct?

7           A.    Right. Using average heat rate versus  
8   the most efficient. I think again the point of the  
9   analysis is to try to capture the dispatch. And  
10   that's based on the most efficient.

11          Q.    Okay. But again, all the units, not just  
12   what you're calling the big plants that run all the  
13   time, are lower default heat rates than the average  
14   heat rates in your table, were they not?

15          A.    By definition.

16          Q.    By the way, you said 2011, I think you  
17   meant 2010.

18          A.    I did. Thank you for the correction.

19          Q.    But in any event, you've not done the  
20   modeling to carry that through or to use anything  
21   approaching an average heat rate, correct?

22          A.    No. As again, we did a quick run to see  
23   what kind of impact would there be.

24          Q.    Okay, unless you're going to provide --

25          A.    I'm not going to provide.

1           Q.     -- I don't want you to talk about that.  
2     And so I'm asking you what's been presented here and  
3     supported by workpapers. That's not reflected, is  
4     it?

5           A.     No. Again, we -- we set one model run  
6     with the base assumptions and this is what the  
7     results are.

8           MR. NOURSE: Your Honor, I'd like to mark  
9     AEP Exhibit 137.

10           (EXHIBIT MARKED FOR IDENTIFICATION.)

11           Q.     Ms. Medine, do you have the exhibit which  
12     is marked 137?

13           A.     I do.

14           Q.     Okay, now this, as indicated here, is  
15     FERC Form 1 data for 2010 and '11, and it's an  
16     average in there under the megawatt hour generation  
17     column, and the column marked Staff Workpaper is your  
18     data that you used in the modeling. I think this is  
19     from your workpapers for the year 2013. Do you have  
20     your workpapers?

21           A.     I do.

22           Q.     Do you want to confirm that?

23           A.     So I can't confirm all of them sitting  
24     here right now because some of them need to be added.  
25     So the ones that are the whole plant I can confirm.

1           Q.    So you can confirm those subject to  
2   check?

3           A.    I can tell you which ones I can confirm.  
4   I can confirm Cardinal and Zimmer.

5           Q.    Okay.  Do you need to borrow a  
6   calculator?

7           A.    No.  I'm just saying I can't -- I am not  
8   going to -- my numbers are not subtotaled.  I  
9   don't -- I can't confirm it.  But subject to check  
10  I'll assume you're correct.

11          Q.    Now, if you use the megawatt assignment  
12  for each plant that's in the left column and  
13  calculate the capacity factor through use of the MWH,  
14  that's a simple calculation, right?

15          A.    Simple, but as I pointed out, a lot of  
16  people have different results but, yes.

17          Q.    And the same calculation for your EVA is  
18  the staff workpaper 2013.  And accepting this subject  
19  to check, you can see that the difference in the  
20  capacity factor is, in all cases is either equal or  
21  the capacity factor used by EVA is higher in the '10  
22  and '11 average.  Does that surprise you?

23          A.    Not at all.

24          Q.    Okay.  So you would acknowledge and  
25  recognize that's the case that the capacity factors



1 you've used are higher than the actual experience in  
2 recent years?

3 A. Sure. Would you like me to explain why?

4 Q. Sure. Why don't you.

5 A. I think as was discussed that our  
6 analysis assumed CSAPR which for you who don't know  
7 is the cross-states air pollution rule coming in  
8 effect 1/1/13 which dispatch for a number of  
9 utilities and improves gas for both gas plants and  
10 fully equipped coal-fired plants.

11 So we're not surprised to see a higher  
12 utilization of those but you have included on this  
13 table some of the other units that are not  
14 controlled. Muskingum and Kammer you would actually  
15 see a decline in the capacity factor. So I assume  
16 that you deliberately selected the plants that were  
17 either scrubbed or gas.

18 Q. I don't know. I didn't prepare the  
19 exhibit but I appreciate your comment.

20 A. Thank you.

21 Q. So did you actually -- so your  
22 attributing that to the CSAPR scenario that you've  
23 described. Did you actually compare the actual  
24 capacity factor and then make an adjustment based on  
25 Kammer or are you just saying it doesn't surprise --

1           A.    You said Kammer; you meant CSAPR.

2           Q.    CSAPR.  You made an adjustment based on  
3 CSAPR or you're just saying the result doesn't  
4 surprise us because of CSAPR?

5           A.    CSAPR is reflected in the analysis  
6 through the initial allowance cost.  So you have an  
7 increase in the initial allowances so in '13, '14,  
8 and still a higher price in '15.  So the result, it's  
9 not a forced result, it's a model result based on the  
10 dispatch assuming a higher SO<sub>2</sub> price and NO<sub>x</sub> price.

11          Q.    Now, so let's look at Cardinal.  You  
12 mentioned Cardinal, one of the large units that runs  
13 a lot.  802 percent capacity factor in your chart.  
14 Now, if you look at the Aurora default heat rate  
15 9,000, and then you look at the average heat rate  
16 data, pretty darn close, 9,505 and 9,525.  You see  
17 that?

18          A.    I do.

19          Q.    So the average heat rate approximately  
20 9,500 is 5 percent greater than the 9,000 default  
21 value, correct?

22          A.    Correct.

23          Q.    And would you agree that a 5 percent  
24 difference can make a significant impact on cost of a  
25 unit and margins realized?

1           A.    Again, it's not -- I can't look at that  
2           in isolation. It does change both the costs as well  
3           as what the expected price would be. And I did note  
4           that if it goes up to 88 percent, I would expect a  
5           better heat rate as well.

6           Q.    Now, in the Aurora model one of the  
7           things you can do is look at plants individually to  
8           see how many times they started, stopped and started,  
9           and what their relative less than full output values  
10          were, correct?

11          A.    Sounds like you know the answer. So,  
12          yes. I'm not familiar with that feature.

13          Q.    Does your modeling include any starts of  
14          units, any full costs associated with the starts?

15          A.    I assume that's part of it. I assume we  
16          used the default numbers for that. But again, I  
17          can't speak to the specifics of the startups.

18          Q.    I'm sorry, you used default numbers for  
19          fuel costs?

20          A.    The amount of fuel consumed in the  
21          startup. And then we would have our own fuel inputs  
22          to support that.

23          Q.    So you're saying the fuel volume is used  
24          from the default, fuel cost is used from your  
25          customization?

1           A.    I'm going to stop.  I'm just speculating.

2           Q.    Who can answer that question?

3           A.    That would be probably your team on  
4   Aurora or probably could look it up fairly quickly.  
5   As you know, startup costs are a de minimus portion  
6   of the plant operation, and as we forecast those  
7   numbers for the fuel costs, that's not a very large  
8   number.

9           Q.    Well, they're not de minimus for low  
10   capacity charge units, are they?

11          A.    No, but they are low capacity units.  
12   Relatively small part of your total fuel cost also.

13          Q.    And whatever the costs are, you didn't  
14   consider them in your modeling, correct?

15          A.    The calculation of the energy credit just  
16   includes the deductions for emission costs, variable  
17   O&M, and fuel costs.

18          Q.    But as we discussed, the heat rates you  
19   used did not reflect start -- the separate heat rate  
20   that's associated with the start function or the  
21   separate heat rate that's associated with less than  
22   full output function, correct?

23          A.    As we discussed, it's use of the most  
24   efficient heat rate.  It's not an annual average.

25          Q.    I'd like to direct your attention to the

1 heat rate, the default value for Darby, Darby unit.

2 Do you see that?

3 A. I do.

4 Q. It's 9,000?

5 A. I do.

6 Q. Do you know what kind of a turbine is  
7 used at Darby?

8 A. I should know but I don't recall right  
9 now.

10 Q. Let me show you a document, see if I can  
11 help with that. I'm not going to make this an  
12 exhibit. I want you to take a look at it. I'll give  
13 your counsel a copy.

14 If you could take a look at that  
15 document, Ms. Medine. And I direct your attention to  
16 page 18. Would it refresh your recollection if I  
17 told you that the Darby plant has a 7EA simple cycle  
18 turbine?

19 A. No.

20 Q. So you don't recall --

21 A. At this moment I can't recall  
22 specifically.

23 Q. And you don't have any workpapers or data  
24 with you that would refresh your recollection?

25 A. I'll, subject to check, accept your 7EA,

1       that's fine.

2               Q.     What's the heat rate that's given there  
3     for under the -- under this --

4               A.     Under which column?

5               Q.     GE gas turbines.

6               A.     The two heat rates.

7               Q.     60 hertz.

8               A.     It's 10,430.

9               Q.     Do you know when Darby was constructed?

10              A.     I can't say that I remember. I think it  
11     was purchased from a third party, but I can't  
12     remember.

13              Q.     Well, is 9,000 BTU heat rate something  
14     that has been available for gas turbines of this  
15     nature for a long period of time or more recently  
16     available?

17              A.     I would actually say that the heat rate  
18     in this manual is closer to 9,000 than what you've  
19     suggested the average is. So I really don't know the  
20     answer.

21              Q.     But in any event, you don't know whether  
22     the 9,000 even the default most optimal heat rate for  
23     Darby is correct?

24              A.     I represented where the state came from,  
25     it's certainly possible that Darby was an aggressive

1 number. As you know, it produces, you know, very  
2 little generation and has a very modest impact.

3 Q. Okay. But is it possible that it's  
4 simply an error?

5 A. It is possible.

6 Q. You intended to include and you would  
7 expect that the default value under Aurora would be  
8 the correct heat rate for the most efficient rating,  
9 correct?

10 A. We would expect and have found that they  
11 have considerable thought in terms of what they  
12 provided.

13 Q. So as your calibration or your  
14 benchmarking of the model involved any confirmation  
15 of data, that's in the default databases?

16 A. I'm sure it has. We're in regular  
17 communications with the Aurora folks.

18 Q. But you don't know whether heat rate data  
19 for and which units was scrubbed --

20 A. I know that we talked to them about the  
21 heat rate data. I don't know that we've actually  
22 isolated the Darby heat rate as a particular issue.  
23 Again, our intent was not to change anything for this  
24 analysis.

25 Q. Would you agree that the costs model are

1 understated if the start costs and minimum run costs  
2 are not reflected through the use of the default heat  
3 rates?

4 A. As are the LMPs.

5 Q. So let me ask you, in your testimony you  
6 rely on EIA data?

7 A. Among other sources.

8 Q. Okay. And you talk about EIA data on  
9 page 7, page 8, and you talk earlier in your  
10 testimony about how you're relying on publicly  
11 available data, correct? In connection with fuel  
12 costs.

13 A. That's a component of it, yes.

14 Q. So I've got a couple EIA documents here  
15 I'd like to talk to you about. I'm going to try to  
16 save time here and hand you three documents. I'll  
17 mark them first. Okay. They'll be Exhibits 138,  
18 139, and 140.

19 (EXHIBITS MARKED FOR IDENTIFICATION.)

20 A. Steve, I can't see this.

21 Q. No reading glasses today?

22 A. (Shakes head.)

23 Q. Let me show you something, Ms. Medine,  
24 that if you can accept, that's fine. This is an  
25 excerpt from your -- I don't have any copies,



1 Mr. Jones, but she can confirm this, I think, excerpt  
2 from your management performance report.

3 A. You gave me a bunch of copies.

4 Q. I'm sorry, I gave you the whole stack.

5 A. Uh-huh.

6 Q. Okay, I do have copies. Not sure I need  
7 to make this an exhibit.

8 Do you recognize that as an excerpt from  
9 your management performance report?

10 A. I know it was from last year, not this  
11 year.

12 Q. 2010. Yes.

13 A. 2010 or 2011?

14 Q. Well, I think --

15 A. 2011 for 2010.

16 Q. Yes. And you rely on data from EIA for  
17 coal purchases here, right?

18 A. In the audit report? Typically I rely on  
19 company-produced data. But if you read the footnote,  
20 you can see that that data was not provided last year  
21 in time to be used so I ended up using for July 23  
22 data.

23 Q. And that's the EIA data?

24 A. And it's a form that utilities are  
25 required to file with EIA.

1 Q. Right. And it's made publicly available?

2 A. Correct. That being said, the form, the  
3 information is only as good as what the utilities  
4 filed.

5 Q. Okay. Well, like you're comfortable with  
6 your information, we're comfortable with our  
7 information.

8 A. Good.

9 Q. So the document I handed you earlier  
10 that's the 8-1/2 by 14 page.

11 A. Yes.

12 Q. Up in the left-hand corner it states U.S.  
13 Department of Energy, the U.S. Energy Information  
14 Administration -- I'm sorry, U.S. Energy Information  
15 Administration, 2011 December EIA Monthly Time Series  
16 File, Fuel Receipts and Cost, Source EIA-923  
17 Schedules 2. Does that sound like the same similar  
18 data for a subsequent period you relied on in your  
19 audit report?

20 A. Yes.

21 Q. Okay. And if we can look at what's  
22 marked as Exhibit 140, it's called Comparison of  
23 Staff Fuel Costs to EIA Form 923 Fuel Cost. You see  
24 that?

25 A. Yes.

1           Q.    And on that document the far right column  
2 attributes the numbers there to 2011(EIA), correct?

3           A.    Yes.

4           Q.    And so those numbers come off a page that  
5 has the small numbers that I guess you can't read  
6 right now, but I'd like to ask you to accept those  
7 and that it's right there, you can check it. Are you  
8 able to see it any better?

9           A.    Coming into focus. No, I don't --

10          Q.    This is a sample from that report. Okay,  
11 if you can look at the middle column there, the fuel  
12 costs, it's got dollars per MMBtu, you see that?

13          A.    Yes.

14          Q.    And that's actually a calculation derived  
15 from your workpapers, if you have your workpapers  
16 still out there, don't you?

17          A.    I do. Is it a heat rate adjusted  
18 calculation?

19          Q.    Yes. But in your workpapers you have  
20 fuel costs for 2012 through 2015, correct?

21          A.    Correct.

22          Q.    So those numbers in the fuel costs column  
23 where it says Staff Final Workpaper 3, 2012, match up  
24 with your workpapers.

25          A.    I haven't done the calculations for the

1 heat rate adjustment so I can't confirm or not.

2 Q. Okay. And those -- but those workpapers  
3 are in the record already, correct?

4 A. Correct.

5 Q. What you have fuel costs and there's a  
6 column for fuel costs MMBtu 2012, '13, '14, '15.

7 A. Which heat rates did you use?

8 Q. This says 2012.

9 A. And which heat rate is used in the  
10 adjustments?

11 Q. The heat rates in your workpapers. I  
12 believe on your -- okay.

13 A. They don't look exactly like my  
14 workpapers. But again --

15 Q. Did I hand you the document that looks  
16 like this? I'm sorry, this is actually part of your  
17 workpapers. Do you have your Exhibit 133, the  
18 workpapers?

19 A. I do.

20 Q. It concerns the page fuel costs.

21 A. That's what I'm saying, it just doesn't  
22 look like the proper adjustment was made for heat  
23 rate.

24 Q. You know what, let's just skip this, I'll  
25 withdraw the exhibits. I think it was 138, 139, and

1 140. Okay? We can move on.

2 Can I ask you to turn to page 13 of your  
3 testimony?

4 A. Yes.

5 Q. And Q and A30 -- I'm sorry, I think we've  
6 already covered this.

7 A. Okay.

8 Q. Does the Aurora model tell you how many  
9 times a particular unit sets the margin?

10 A. I don't know.

11 Q. Okay. So that's not something that you  
12 talked about with Mr. Harter and others in connection  
13 with implementing Aurora?

14 A. No.

15 Q. We may have confirmed this earlier but I  
16 want to clarify. We talked about the sort of the  
17 various modes that units can operate under and the  
18 fact that there may be a different heat rate  
19 associated with those various modes. Do you recall  
20 that?

21 A. That's not really -- you described it as  
22 three, in fact there's a heat rate curve for various  
23 operation levels.

24 Q. Okay. And let me just throw out a couple  
25 of categories to see if you agree these are actual

1 conditions that occur during operation of plants. So  
2 one category is when the unit ran in the money,  
3 profitable hours, correct?

4 A. Correct.

5 Q. And another category is where it's out of  
6 the money and it's unavoidable, unprofitable hours.  
7 So out of the money but still running?

8 A. Let me ask a question, is it running for  
9 PJM's request?

10 Q. I think it would be running because you  
11 can't turn it down. It costs more to turn it down.

12 A. So you're talking about a forced  
13 basically operating decision. So overall it's  
14 running economically but for a particular hour it may  
15 not be.

16 Q. Okay, but that can occur, right?

17 A. Sure.

18 Q. And if you were an owner, you wouldn't  
19 shut it down if it cost more.

20 A. It's an economic decision. Correct.

21 Q. Okay. And another category is that it's  
22 offline in the money. So it's an unattainable hour?

23 A. What would be the circumstances?

24 Q. If you're offline.

25 A. You mean like a forced outage or an

1       unforced outage?

2               Q.     Let's use those.

3               A.     Sure.

4               Q.     That happens, right?

5               A.     (Witness nods head.)

6               Q.     And another category is offline and out  
7       of the money, that's avoidable hour, right?

8               A.     It's a nondispatched hour.

9               Q.     Now, at least three of those categories I  
10      just mentioned actually reduce margins, correct?

11              A.     For the last three categories? Which  
12      three are you referring to?

13              Q.     Well, we can go through them again and  
14      we'll see which category you put them in. If it  
15      increases or reduces margins, okay?

16                     So the first category was in money and  
17      ran so it's a profitable hour, correct, and that  
18      increases margins, correct?

19              A.     Correct.

20              Q.     Second category is out of the money,  
21      unavoidable, unprofitable, that would reduce margins,  
22      right?

23              A.     It depends on why it was running. If it  
24      was running for an overall economic decision and that  
25      particular hour was off, it could increase margins.

1 Q. Okay. You say the hour was off?

2 A. If you had a period eight hours where you  
3 were losing money but overall you were making money,  
4 could still be profitable.

5 Q. I'm going by hourly prices and hourly  
6 conditions.

7 A. But obviously power plants as you know  
8 don't operate like that. You're not going to bring  
9 it on for an hour and shut it down for an hour. If  
10 it's on, you need to keep it on for other reasons and  
11 you're not going to bring it off and on it's going to  
12 be an economic decision over the time the plant was  
13 online.

14 Q. But if you look at each hour, it's going  
15 to fall into a different category each hour if it's  
16 profitable, right?

17 A. I don't know where you're headed, so keep  
18 going. Go ahead.

19 Q. I'm just asking you about real life  
20 operating conditions and you agreed that these all  
21 occur and I'm just clarifying --

22 A. So a real life operating condition  
23 wouldn't be per hour, that's what I'm trying to tell  
24 you.

25 Q. So a single decision could certainly



1 involve multiple hours but each of the hours would  
2 fall into one of these categories, right?

3 A. One of the four categories.

4 Q. Yeah.

5 A. Potentially.

6 Q. And each of the categories for each hour  
7 would either increase or reduce margins, right?

8 A. I can't -- I haven't thought about it  
9 this way so I'm not sure I'll be able to answer, but  
10 go ahead.

11 Q. So let's just finish the list. Offline  
12 and in the money, unattainable hours, so that  
13 doesn't -- does not add to margins, does it?

14 A. Correct.

15 Q. And finally the offline and out of the  
16 money avoidable hours, so that doesn't increase  
17 margins, does it?

18 A. Unless it -- it doesn't reduce margins.

19 Q. Doesn't reduce margins, okay. So all  
20 right. Covered that.

21 Let me ask you a couple more questions  
22 about your table on page 12. Let's look at Muskingum  
23 River, would you consider that a high capacity  
24 factor?

25 A. So Muskingum 5 should be. It's a super

1 critical unit. Muskingum -- the small units of  
2 Muskingum are generally not high capacity factors.  
3 There's an older boiler but the higher heat rate. So  
4 this is a -- and you can see those are the heat rate  
5 numbers.

6 Q. And would you consider the difference  
7 between the average heat rates and this all to be  
8 significant?

9 A. Yeah, and in this particular year the  
10 plant did not operate full out. Obviously in 2010  
11 the number of coal plants were not realizing what  
12 prior capacity factors had been.

13 Q. And that's a function of the model  
14 results?

15 A. No. This was actual.

16 Q. I'm sorry. So in your Aurora modeling  
17 case though the Muskingum has a lower heat rate than  
18 Gavin, so it's Aurora capacity factor, shouldn't that  
19 be in the 80s?

20 A. No, because the fuel costs are much  
21 higher for Muskingum than they are for Gavin.  
22 Muskingum is a rail delivery only. Gavin gets coal  
23 on the river. Gavin can take pretty much anything.

24 Q. Now, you would agree, would you not, that  
25 gas units typically set the margin?

1           A.    Depends on where, but in the current  
2 market certainly has not always been the case.

3           Q.    But as you look forward during this  
4 period, you would agree with that?

5           A.    You know, again, as you probably pointed  
6 out, you could figure it out exactly what's setting  
7 the margin at each point in time. But I would say as  
8 a rule, we would expect that.

9           Q.    I think you said earlier you didn't  
10 really look at that.

11          A.    I did not look at that.

12          Q.    But you would agree to the extent they do  
13 set the margin, getting heat rates right would be  
14 critical?

15          A.    More critical than for coal plants? Why  
16 do you think that?

17          Q.    Well, don't small changes in heat rates  
18 affect -- significantly affect the margins for gas  
19 units more so?

20          A.    Because of the higher fuel -- well, it's  
21 a low fuel cost now.

22          Q.    Because they set the margin, it's going  
23 to be tighter, isn't it?

24          A.    I'm just thinking through your logic,  
25 that's all.

1                   Obviously -- ready?

2                   Q.    I'm sorry.

3                   A.    Obviously there's two types of gas plants  
4 we're talking about combined cycle and the peakers.  
5 So there's a difference I think you're referring to  
6 the combined cycle plants?

7                   Q.    Yes.

8                   A.    And so it's important for all plants to  
9 have an accurate capacity factor and the forecast I  
10 am sure shows increased utilization of the combined  
11 cycle plants in the future based upon the market, but  
12 I'll check it.

13                   So Waterford is projected to go more than  
14 double in 2012 and to increase to 2015, and  
15 Lawrenceburg, I don't know what the Lawrenceburg  
16 capacity factor is in 2010. But, yes, it's important  
17 for everybody. But again, as I pointed out, if you  
18 increase the heat rate, you're also going to increase  
19 the price.

20                   Q.    Now, let me ask you to switch topics.  
21 Talking about forward gas prices. What were your  
22 assumptions in modeling for forward gas prices?

23                   A.    So we do a fundamental analysis for gas  
24 like we do for coal which takes into account  
25 literally do a well-by-well kind of analysis, and I

1 believe they were around \$4.

2 Q. Do you know what gas price you used for  
3 the Darby unit or Waterford is?

4 A. I would look at the workpapers.

5 Q. Yes.

6 A. I can't convert off the top of my head.

7 Q. This fuel cost divided by the heat rate,  
8 is that?

9 A. Right, but then you have to also back out  
10 the pipeline transportation to get to Henry Hub.

11 Q. So you don't have -- nothing in your  
12 workpapers or your testimony indicates what the gas  
13 prices are for Darby or Waterford; is that correct?

14 A. That's correct. Nothing shows the  
15 underlying cost components, the actual prices in our  
16 workpapers.

17 Q. So who would be able to answer that  
18 question?

19 A. We can find out. It was -- we were asked  
20 to provide our delivered fuel prices. It's not a  
21 hard question. If you asked for all the data, you  
22 know, we need a whole room.

23 Q. I'm not sure who was asking you. Are you  
24 talking about when you created your workpapers?

25 A. Yes.

1           Q.    And that's a discussion you had with  
2   staff or staff counsel?

3           A.    I would guess.  I don't remember the  
4   exact sequence.

5           Q.    You didn't decide what you put in the  
6   workpapers?

7           A.    We did.

8           Q.    Okay.

9           A.    We provided the fuel price information by  
10   plant.

11          Q.    So where is the gas price used for Darby  
12   and Waterford?

13          A.    Underneath there in a formula.  I don't  
14   have the formula is what I'm saying.

15          Q.    So you can't tell me.

16          A.    I told you it was about \$4, Henry Hub.  I  
17   don't have the pipeline transportation information at  
18   my fingertips.  As you pointed out, there's a lot of  
19   plants out there.

20          Q.    Let me go back and show you a couple of  
21   exhibits.  These are already in the record.  
22   Everybody should have them.  Exhibit 118, 120.  
23   You've already reviewed them based on what you said  
24   earlier.

25               MR. DARR:  Just a point of inquiry, whose

1 118? Whose 118 and whose 120?

2 MR. NOURSE: AEP 118 and AEP 120.

3 MR. DARR: Thank you.

4 MR. NOURSE: Certainly.

5 Q. So do you have AEP Exhibit 118?

6 A. I do.

7 Q. And you may recall from reviewing Mr.  
8 Harter's transcript we talked to him about this as  
9 well. The AEP zone price in the middle was confirmed  
10 to be his workpaper numbers produced in model. That  
11 would not have changed with your testimony, would it?

12 A. The actual numbers changed slightly but  
13 what it is is no different.

14 Q. And that column is actually a page in  
15 your workpapers, right?

16 A. Correct.

17 Q. So it would be a slight difference than  
18 what's reflected there.

19 A. Correct.

20 Q. And then the right column is the SNL  
21 Energy, the AEP Dayton Hub, the --

22 A. I see that's what you've represented. I  
23 did try to confirm that and was not able to.

24 Q. You couldn't confirm what exactly?

25 A. The AEP Dayton Hub pricing.

1 Q. What do you mean you couldn't confirm it?

2 A. When I went on to SNL heat rate  
3 adjustment to pull up that same information, I was  
4 provided two charts; one was peak and one was  
5 off-peak, and I was not provided a round-the-clock  
6 chart. So I don't know what's assumed in this. I  
7 didn't see that they produced a number like this.

8 Q. You didn't see a round-the-clock price on  
9 that website?

10 A. Correct.

11 Q. Okay. Did you compare what you did see  
12 with what's here?

13 A. Sure. The off-peak number was lower.  
14 Its on-peak number was higher. So you are in the  
15 middle.

16 Q. And you're familiar with taking peak and  
17 off-peak and creating --

18 A. I'm not sure what you did.

19 Q. You didn't try to do that.

20 A. Did not replicate it. I wasn't sure  
21 whether you used 18, 16. I don't know what  
22 methodology you used to do the conversion. I'm just  
23 saying you represented the data that's on there, and  
24 I didn't find that kind of data on the website.

25 Q. Okay.



1           A.    That being said, as we explained earlier,  
2           there's a difference between a forward price curve  
3           and actual prices. A forward price forecast and this  
4           is forward price.

5           Q.    And you reject the using the forward  
6           price curves because you believe your forecast is  
7           better, right?

8           A.    As a rule. And secondly, these numbers  
9           become annual numbers beginning in 2014. And  
10          obviously the monthly variations, hourly variations  
11          for that matter are very integral to forecasting both  
12          LMP as well as off-system sales.

13          Q.    But the monthly data is here for the  
14          period -- the entire period that's covered in this  
15          case, correct?

16          A.    No.

17          Q.    Why not?

18          A.    Because there's no -- because it's -- the  
19          monthly isn't annual average. All you've done is  
20          repeat the monthly numbers. So 36, 37 for every  
21          month of the period is not a monthly forecast. Or  
22          for price purposes. Annual number, that's just  
23          repeated every month.

24          Q.    You're saying you think the data 2013 and  
25          the monthly data is not correct?

1           A.    No.  I'm saying it's an annual forecast  
2           that you put the numbers in for every single month.  
3           So if you notice on the Aurora based forecast for  
4           2014, look at 2014, some months are -- goes as low as  
5           \$35 and high as 42.57.

6           Q.    Right.

7           A.    And so you'll have different results  
8           using monthly data than you would have using just one  
9           annual number put in for every single month.

10          Q.    So you're saying on the right column that  
11          may have been done for 2013 and '14.

12          A.    I'm saying I'd bet the house on it.

13          Q.    That's fine.  Earlier you said you didn't  
14          understand --

15          A.    No, I'm just saying if a number is the  
16          same number every month, it's not -- it would be a  
17          miracle if it was not an annual forecast that was  
18          just spread out.

19          Q.    So the other exhibit you have is AEP  
20          Exhibit 120.  This is the NYMEX Henry Hub natural gas  
21          futures.  And, again, you've probably seen this.  Did  
22          you check this one out?

23          A.    Did not try to recreate it.  I would  
24          certainly comment that it's probably different today  
25          than it was on April 25 and it was probably different

1 in March than it was in April. It continues to move  
2 on a daily basis, on an hourly basis, those numbers  
3 change. But that's the nature of the forward price  
4 curve.

5 Q. What is the vintage of your fuel  
6 forecast?

7 A. It would have been about three months.

8 Q. Three months ago?

9 A. Yes.

10 Q. So any changes that occurred since then  
11 are not reflected.

12 A. Correct, because we, as we mentioned,  
13 froze the inputs at that time.

14 Q. I'd like to mark Exhibit 141. We'll  
15 leave those numbers in there even though we're  
16 withdrawing those.

17 (EXHIBIT MARKED FOR IDENTIFICATION.)

18 Q. 141, this is an excerpt, I'm going to  
19 give you the full copy in case you want to look at  
20 any other pages of an EIA Short-Term Energy Outlook,  
21 just came out yesterday. You were just commenting  
22 about the most current information. This is an EIA  
23 document would be the kind of document that you --  
24 public information you rely on, right?

25 MR. JONES: Excuse me, counsel, can I get

1 clarification? I thought you withdrew a couple of  
2 exhibits that you had introduced here. 139 -- 138,  
3 139, 140. Did you withdraw those exhibits?

4 MR. NOURSE: I did because she couldn't  
5 confirm the numbers.

6 MR. JONES: So now we're starting with  
7 141, or do you want to use those numbers again?

8 MR. NOURSE: What's the Bench's  
9 preference? We can mark it however you like. Want  
10 go back to 138?

11 EXAMINER PARROT: We already marked them  
12 so we're going with 141.

13 MR. JONES: Thank you.

14 Q. (By Mr. Nourse) So, Ms. Medine, and I  
15 handed to you the full copy. We have an excerpt  
16 just to mark an exhibit of this a Short-Term Energy  
17 Outlook. And can I direct your attention to the  
18 first page. First of all, are you familiar with  
19 this stuff? You look at it periodically, right?

20 A. Yes.

21 Q. And so you're familiar with this  
22 information in the format it's used and what it  
23 means?

24 A. Yes.

25 Q. So can you read the last full sentence on

1 the first page, please? Read it out loud, please.

2 A. "EIA expects that Henry Hub spot prices  
3 will average \$3.17 per MMBtu in 2013." Is that what  
4 you wanted?

5 Q. I'm sorry. I meant the last two, my  
6 apologies.

7 A. "EIA's average 2012 Henry Hub natural gas  
8 spot forecast is \$2.45 per million British thermal  
9 units, a decline of \$1.55 per MMBtu from the 2011  
10 average spot price. EIA expects that Henry Hub spot  
11 prices will average \$3.17 per MMBtu in 2013."

12 Q. Is that 2013, is that consistent with  
13 your forward gas production?

14 A. No, I told you like EIA, we have revised  
15 ours down as well.

16 Q. You revised it down?

17 A. Correct.

18 Q. What's your new --

19 A. I don't know the exact numbers but I know  
20 it's been revised down.

21 Q. Okay. So it would be similar to this  
22 number?

23 A. I don't have the numbers with me.

24 Q. If you could turn to page 8, there's a  
25 topic "U.S. Natural Gas Prices."

1 A. Yes.

2 Q. And can you read the last two sentences  
3 in that paragraph please? Out loud.

4 A. "EIA expects the Henry Hub natural gas  
5 price will average \$2.45 per MMBtu in 2012, a small  
6 downward revision from \$2.51 per MMBtu expected in  
7 last month's Outlook. EIA revised its forecast for  
8 2013 down to \$3.17 per MMBtu, from \$3.40 per MMBtu in  
9 last month's Outlook."

10 Q. So is the similar decline here something  
11 you would reflect in your current forecast?

12 A. We input new gas prices, yes.

13 Q. Since the time you did the modeling for  
14 this testimony?

15 A. As I mentioned, we continue to update our  
16 numbers and so anytime we have a new forecast, it  
17 goes into forward so it's model ready. What's  
18 interesting about these is of course now we're seeing  
19 downward adjustments that are fairly significant.

20 There were periods of time where we've  
21 seen upwards fairly significantly. So I'm not  
22 disputing. There are a lot of moving pieces in this  
23 analysis of which fuel prices is one.

24 Q. But as we sit here today and look at the  
25 forward gas projections, the numbers you used in this

1 modeling are, you would agree, are too high.

2 A. They're higher than we would currently  
3 have the model, correct.

4 Q. And if you could turn to the table, I  
5 think there's just two tables at the end of that  
6 document. I have the full one but there's a table  
7 Short-Term Energy Outlook - May 2012?

8 A. Yes.

9 Q. You have that one?

10 A. No.

11 Q. Yeah. There is a tab on it I think to  
12 help you out there.

13 A. Got it.

14 Q. And what's the Henry Hub spot price for  
15 2012?

16 A. Which quarter?

17 Q. I'm sorry, I was looking at the year  
18 column. If you could look to the right, the annual  
19 2012 figure.

20 A. 2.52.

21 Q. And the 2013 figure?

22 A. Wondering why the 2.52 doesn't correspond  
23 with what they've written earlier.

24 I'm sorry, what was the question?

25 Q. I just was asking you what the 2013 value

1 was?

2 A. It says through 3.27 but I will note that  
3 the average was over \$4.

4 Q. No, but you'll note that.

5 A. Just to make sure it's clear for the  
6 record that these are the Henry Hub prices that the  
7 delivery prices are different than transportation as  
8 well.

9 Q. Back to your testimony, please, just to  
10 clarify a couple things. If you look at page 13,  
11 question 30, you're indicating here that -- you may  
12 have made a passing reference to this earlier, but  
13 your EVA is only licensed for the zonal version of  
14 Aurora?

15 A. Correct.

16 Q. So therefore that's what you used here.

17 A. Correct.

18 Q. Now, I believe Mr. Harter testified that  
19 he agreed that the nodal mode would be more accurate  
20 relative to being closer to the LMP price in a  
21 constrained market. Would you also agree with that?

22 A. Yes.

23 Q. And the --

24 A. Excuse me, I think he used the word  
25 "congested," not "constrained."



1 Q. Okay. A congested market?

2 A. Yes.

3 Q. Does the nodal mode, the nodal version of  
4 Aurora cost more? Do you have to buy a separate  
5 package?

6 A. That's my understanding.

7 Q. And does it take longer to calibrate and  
8 to return?

9 A. That's my understanding. My further  
10 understanding is that in an area that there's not  
11 much congestion the results will be very similar.

12 Q. Okay. Do you -- is it your understanding  
13 that there's congestion as between AEP Dayton Hub,  
14 the AEP zone --

15 A. That congestion is handled in the zonal  
16 model. The issue is within the zone whether there's  
17 congestion.

18 Q. Well, that was my question. So you're  
19 saying the model reflects the zonal congestion; is  
20 that what you said?

21 A. No, I'm saying that between zones the  
22 zonal model will capture the congestion. It's within  
23 the zone if there's congestion where there will be  
24 less accuracy.

25 Q. So you may have said interzonal.

1           A.    Intrazonal.  The congestion within the  
2    zone is the issue.  Not between the zones.

3           Q.    Congestion within the zone is the issue  
4    that's not covered by the --

5           A.    The zonal model.

6           Q.    The zonal model?

7           A.    Correct.  And our research showed that  
8    there was not a congestion issue within AEP zone  
9    which I confirmed with the PJM market monitor.

10          Q.    Is there -- in your experience or  
11    understanding is there a difference, intrazonal  
12    difference between AEP generation Hub and AEP zone?

13          A.    I'm not sure.

14          Q.    But it wouldn't be captured in Aurora if  
15    it exists?

16          A.    It's not necessarily relevant if there's  
17    not congestion is the point.

18          Q.    Let's talk about variable production  
19    costs.

20          A.    Okay.

21          Q.    That EVA used in modelings, can you tell  
22    me what the average production cost was that you used  
23    for AEP Ohio?

24          A.    No.

25          Q.    What can you tell me?

1           A.    I can tell you that we used our inputs on  
2   fuel and emission, and we used the Aurora numbers for  
3   the variable operating maintenance costs.

4           Q.    And --

5           A.    And I did confirm that the fixed O&M is  
6   in the capacity charge.

7           Q.    The fixed O&M that we talked about  
8   earlier output?

9           A.    Yes.

10          Q.    Did you determine anything about the  
11   capacity revenue we discussed earlier?

12          A.    No.

13          Q.    So did you use the same cost to determine  
14   whether the plan is dispatched versus the margin  
15   calculation, the same cost data?

16          A.    Yes.

17          Q.    The model used the same cost data for  
18   both of those?

19          A.    Yes.

20          Q.    Can I find the margin by unit per year in  
21   your testimony or workpapers anywhere?

22          A.    No; it doesn't appear to be here but I  
23   think it could be calculated. Not that you would  
24   want to.

25          Q.    I'm sorry. Can you walk us through that?

1           A.     Sure, you have the generation by unit and  
2     you have the deducts, the fuel costs, the emission  
3     costs and the variable O&M, and you have the LMP --  
4     ML -- heat rate adjustment LMP.

5           Q.     The --

6           A.     You also have the -- on the confidential  
7     worksheet you have what the off-system sales are as  
8     well.

9           Q.     Okay, well, you gave us the AEP zone  
10    price that you're referring to as the LMP monthly in  
11    your workpaper, but the other information you  
12    referenced that's needed to make that calculation is  
13    not given monthly, correct?

14          A.     That's correct.

15          Q.     So monthly margin by unit is not possible  
16    to calculate which you provided in workpapers or  
17    testimony?

18          A.     Correct. As I said, there's information  
19    about the off-system sales by hour so those could be  
20    calculated monthly, but you're correct, there's not  
21    information to provide everything.

22          Q.     Need the generation load shape throughout  
23    the year, not just annual numbers, right?

24          A.     You are the one that provided us the load  
25    shapes. You have the load shapes that was provided

1 in the workpapers.

2 Q. I'm sorry, I misspoke. It's the  
3 generation that --

4 A. You have the generation by month. Even  
5 by hour. That was what you provided to us.

6 Q. And you said the company gave you  
7 generation by month --

8 A. No, the company gave us the load.

9 Q. Okay.

10 A. The month hourly load from which we  
11 calculated the generation.

12 Q. Yeah.

13 A. And off-system sales by hour. And that  
14 information you have.

15 Q. Okay, but do we or do we not have the  
16 ability to do the monthly unit margin calculation?

17 A. With the data you have you do not. You  
18 can do an annual calculation.

19 Q. I have one more exhibit I want to talk to  
20 you about, Ms. Medine, it's -- this is Exhibit 124,  
21 AEP Exhibit 124 that was previously admitted. Here  
22 is a copy I can hand you.

23 Discussed this with Mr. Harter. Just  
24 want to clarify a couple things to sort of update  
25 your testimony. Are you familiar with this exhibit?

1           A.    I am.

2           Q.    So the -- if we were to update this for  
3 your testimony, the two things that would change  
4 would be the, we'll get into the details here, but  
5 the 2012 staff column, which is slightly different in  
6 your testimony, correct?

7           A.    Yes.

8           Q.    And then that would reduce the percentage  
9 that's on the right, that could change the percentage  
10 on the right?

11          A.    I would expect it to be small.

12          Q.    You agree with that?  Okay.

13                So, and is it accurate that the Gavin  
14 \$13.14 under the Staff column is still accurate?

15          A.    Again, I think that that's a -- I don't  
16 know if you did a correct conversion from dollars to  
17 megawatt hour to dollars per million BTU.  Subject to  
18 that, it looks to be correct.

19          Q.    And can you use your workpapers to  
20 confirm?  It is dollars per megawatt hour.

21          A.    And the other numbers I believe  
22 everything is dollars per megawatt hour.  Sorry, I  
23 apologize.  I'm so used to seeing fuel I thought it  
24 was per BTU, I apologize.

25          Q.    So Gavin is still 13.14.  Now, using your

2287

1       workpapers would you agree that for Conesville Unit 4  
2       the rate is \$23.92 using your updated workpapers?

3             A.    Yes -- no, actually it's actually 23.82,  
4       correct.

5             Q.    Yes.   And for Kammer it goes to \$26.63.

6             A.    Okay.

7             Q.    Is that correct?

8             A.    I can't tell.   It's done by unit.   And  
9       I'd have to --

10            Q.    Total the units?

11            A.    Total the unit, close enough.

12            Q.    Yeah.   Now, I want to -- I'll take a risk  
13       here, I'm going to ask you an open-ended question.

14                    The Gavin unit shows the actual cost  
15       average of \$20.34 and then your projection uses  
16       \$13.14.   Big difference.

17            A.    Right.

18            Q.    Big unit runs a lot, right?

19            A.    (Witness nods head.)

20            Q.    Can you explain that?

21            A.    Sure.   I can't explain everything because  
22       I don't know everything that was part of this, but a  
23       large part of the differences are due to some  
24       nonrecurring event and this is where I need to be a  
25       little careful since they're not all public.

1           But with my -- I can cite the redacted  
2 version but basically there were additional payments  
3 made to a supplier in 2009 that some of which carried  
4 over to 2010 that were a one-time event. But they  
5 were very significant. And beginning in 2010 there  
6 was a very significant undershipment of coal which  
7 also would be a material change in the fuel costs and  
8 those were -- I believe some of those events carried  
9 over into 2011.

10           But clearly at Kammer, as you may  
11 remember, in second half of 2007/the first half of  
12 2008, coal prices tripled and some purchases were  
13 made for periods of one, two, three years, at the  
14 very high prices that are now expired subsequent to  
15 this period. So that's one of the reasons why the  
16 anomalous prices at Gavin, Kammer.

17           At Conesville 4 -- where to start. At  
18 Conesville 4 there's an -- I'm trying to be careful  
19 so if I stray, let me know. There's some costs  
20 related to the preparation which was idled in January  
21 of 2012 that would have significantly affected the  
22 fuel costs at Conesville certainly in 2011 and  
23 possibly back to 2010.

24           In addition in 2010, there was issues  
25 related to --



1           Q.    I only asked you about Gavin.  So I  
2    appreciate especially since you're -- as I understand  
3    your answer, all the information you gave was  
4    confidential you obtained during the audit you're  
5    using that here to explain your testimony?

6           A.    No.  So on the Conesville obviously  
7    public information --

8           Q.    I just asked you about Gavin.

9           A.    On Gavin I believe that the discussion is  
10   not redacted in the audit report.  What's redacted is  
11   the name of the supplier and the amount of the  
12   payment.

13          Q.    And you already gave your answer for  
14   Gavin.

15          A.    Right.

16          Q.    So is it your testimony then that you  
17   believe if those events were normalized, you believe  
18   the \$13 rate for Gavin fuel cost is accurate  
19   historically and going forward?

20          A.    Well, it's certainly aggressive.  So  
21   the -- but I think the presumption was a softening  
22   coal market with a very attractive supply situation.

23          Q.    And if it's too low, then the margin is  
24   too high, correct?

25          A.    If it is too low, the margin for Gavin

1 would be too high, correct.

2 MR. NOURSE: I was going to ask you to do  
3 another calculation but you've been very kind so  
4 thank you, Ms. Medine, that's all I have.

5 EXAMINER PARROT: Any redirect?

6 MR. JONES: If I could just have a  
7 minute, please.

8 EXAMINER PARROT: Sure.

9 (Off the record.)

10 EXAMINER PARROT: Let's go back on the  
11 record.

12 Any redirect, Mr. Jones?

13 MR. JONES: Your Honor, I have no  
14 redirect questions.

15 EXAMINER PARROT: Thank you very much.

16 Thank you very much, Ms. Medine, you're  
17 excused.

18 Mr. Jones, would you like to move your --

19 MR. JONES: At this time I move for the  
20 admission of Staff Exhibit 105.

21 EXAMINER PARROT: Are there objections to  
22 Staff Exhibit 105?

23 MR. NOURSE: No, your Honor.

24 EXAMINER PARROT: Hearing none, Staff  
25 Exhibit 105 is admitted.

1 (EXHIBIT ADMITTED INTO EVIDENCE.)

2 EXAMINER PARROT: Mr. Nourse?

3 MR. NOURSE: We've got a few exhibits,  
4 your Honor. We started with 132 through 137, I'm  
5 moving for admission, skipping/withdrawing 138, 139,  
6 140, and I'm moving for admission AEP Exhibit 141.

7 EXAMINER PARROT: Very good. Are there  
8 any objections to admission of AEP Exhibits 132  
9 through 137, or 141?

10 MR. JONES: Yes, your Honor.

11 MR. DARR: Yes, your Honor.

12 EXAMINER PARROT: Mr. Jones?

13 MR. JONES: Thank you. Your Honor, staff  
14 is objecting to the admission of AEP Exhibits 132,  
15 134, and 135.

16 MR. NOURSE: Do you want me to respond or  
17 was there a basis?

18 MR. JONES: The basis would be that these  
19 exhibits weren't properly authenticated and there's  
20 no proper foundation laid for them.

21 Ms. Medine had testified on AEP  
22 Exhibit 132 that that diagram was not correct as to  
23 her calculations and her analysis.

24 And the same on Exhibit 134, even counsel  
25 mentioned that using this exhibit saying that

1 don't -- ignore the values represented in that  
2 exhibit for his questioning. Again, that there's no  
3 foundation or authenticity for that.

4 And then as it pertains to AEP  
5 Exhibit 135, the forecasted average margin, witness  
6 did agree that's what the numbers represent. There  
7 were in addition to that exhibit that's the  
8 calculations using total generation and gross margin  
9 and that's not what the calculation was made by this  
10 witness.

11 MR. NOURSE: Okay, your Honor, were there  
12 other -- go ahead.

13 EXAMINER PARROT: Mr. Darr?

14 MR. DARR: Join in the objections of 132,  
15 134, and 135. Add with regard to 135 that the only  
16 thing this adds, it doesn't add much, is the last  
17 column and the witness testified very specifically,  
18 A, she wouldn't do it this way, and B, she didn't  
19 know what it represented.

20 If AEP wants to sponsor this, they ought  
21 to sponsor it through their own witness. A witness  
22 they tried to get it in through clearly is not  
23 providing any support for it.

24 I would add to that that Company  
25 Exhibit 137, most of this information has not been

1 connected, in that table has not been connected to  
2 anything that's in this record a series of  
3 calculations which have not been developed.

4 MR. LANG: And, your Honors, FES would  
5 join in the objections on the same exhibits. On  
6 Exhibit 132 the witness testified that it is  
7 inaccurate and it's simply an illustration drawn up  
8 by AEP. It's not evidence that should be admitted in  
9 the record.

10 On Exhibit 134, Mr. Nourse said that I  
11 think everything except for the table heading should  
12 be ignored. So I think he's seeking only to try to  
13 admit the table heading and the witness said she was  
14 not familiar with the table heading so when he asked  
15 her specifically at least about one of the table  
16 headings, she said she was not familiar with it. So  
17 the Exhibit in its entirety should not be let in.

18 Same objections on Exhibit 135, the only  
19 thing that's added is the last column which the  
20 witness said was inaccurate and to the -- since it is  
21 misleading it should not be admitted into the record.

22 And we join Mr. Darr's objection for the  
23 same reasons on Exhibit 137.

24 MR. JONES: Your Honor, staff will join  
25 in the objection on 137 for the same reasons provided

1 by other counsel.

2 EXAMINER PARROT: Any other objections?

3 Mr. Nourse?

4 MR. NOURSE: Thank you, your Honor. Let  
5 me start with 132. What counsel has stated is  
6 inaccurate. The witness took issue with one number,  
7 the 26 percent, and we agreed to strike that and we  
8 talked at length about what this exhibit represents  
9 and how it squares with staff's position.

10 And so her one objection was dealt with  
11 and we agreed to strike 26 percent and had an  
12 extensive discussion about the meaning, and I think  
13 the record's very clear.

14 The fact that it's a diagram produced by  
15 AEP is immaterial. It's an illustration and she got  
16 to have extensive discussion about it and with her  
17 one correction and explained multiple times her  
18 perspective on that issue, I think it's very clear.  
19 I think it does facilitate understanding the staff's  
20 margin and she agreed with that.

21 Exhibit 134, she did state that she was  
22 familiar with this as a template. The fact that we  
23 said this was plug data could be ignored. The point  
24 of the exhibit and the whole discussion that was had  
25 around it was that it was an output from the model

1 and the headings and the type of data that was  
2 produced under the model.

3 Again, several questions were asked about  
4 various columns and what they represented and she did  
5 agree that this is the type of output report that  
6 comes out of the model. So I think it's probative of  
7 the discussion we had about it.

8 The 135, you know, what happened with  
9 this exhibit is that she couldn't replicate the  
10 calculation right away. But then I went to  
11 Exhibit 126 that's identical relative to Mr. Harter's  
12 exhibit and had the same column that she discussed at  
13 length and was admitted.

14 She then indicated that she understood  
15 the calculation and what it was and she merely  
16 clarified that it was not equivalent to the energy  
17 credit, it was a different -- it was a different  
18 value. And so she agreed and I stopped asking  
19 questions about 126, withdrew it on that basis as she  
20 confirmed that that's how the calculation would be  
21 and that's what it is.

22 137, your Honor, again, the witness had  
23 no trouble with this. She confirmed that the staff  
24 workpaper data was from her 2013 total generation  
25 workpaper. Simple math calculations on this exhibit

1 for capacity factor.

2 She agreed, subject to check, and stated  
3 that they're all higher than the ones based in the  
4 actual data. So we had a little discussion about  
5 that and she addressed her perspective on it, so I  
6 think it's perfect for inclusion in the record.

7 Did I miss any? Okay, thank you, your  
8 Honor.

9 EXAMINER PARROT: Thank you.

10 All right. At this time AEP Exhibits 132  
11 through 137 and 141 are admitted into the record.

12 (EXHIBITS ADMITTED INTO EVIDENCE.)

13 MR. NOURSE: Thank you, your Honor.

14 EXAMINER PARROT: Is there anything else  
15 to come before us today?

16 MR. JONES: Your Honor, I do have a  
17 motion to strike an exhibit that's already been  
18 admitted into evidence, AEP Exhibit 118, and the  
19 basis for the motion to strike that exhibit is based  
20 on Ms. Medine's testimony that she actually went back  
21 and checked the site SNL Energy for the information  
22 AEP Dayton Hub that was provided on that exhibit.

23 Of course, at the time when this was  
24 originally presented to Mr. Harter, he didn't have  
25 the computer in front of him where he could verify



1     that information but we could -- he asked the  
2     question of Ms. Medine and she did answer the  
3     question but she did check this website and this is  
4     information that's not provided in that website.  
5     They had the lows and the highs.

6             Obviously AEP did their own calculation  
7     to come up with -- they came up with for this  
8     exhibit. So that's not an accurate representation as  
9     to when they presented this exhibit and when they had  
10    it admitted. So I'd like the Bench to revisit this  
11    exhibit, and I ask the Bench to strike the exhibit  
12    for that reason.

13            MR. NOURSE: Your Honor, I think what she  
14    said was she went to the website and this calculation  
15    was not on there but she had seen off-peak and peak  
16    data which certainly can be combined to do a  
17    round-the-clock calculation.

18            She said she didn't do that calculation  
19    so I don't think she indicated that this information  
20    was inaccurate but she said she didn't do the  
21    calculation.

22            And beyond that I think it is something  
23    that Mr. Harter did discuss and answer questions  
24    about. I would say the record is clear and these  
25    points go to the weight the exhibit would be given.

1       So I don't think it's appropriate to strike it at  
2       this point.

3                   EXAMINER PARROT:   The motion to strike is  
4       denied.

5                   MR. JONES:   Your Honor, could I then have  
6       the exhibit revised then to reflect the company  
7       actually did a calculation to come up with the  
8       numbers they presented in that exhibit?

9                   EXAMINER PARROT:   I think we're going to  
10      allow the Commission to give the exhibit its proper  
11      weight based on the testimony that's been offered  
12      both by Mr. Harter and Ms. Medine.

13                  MR. JONES:   Thank you.

14                  EXAMINER PARROT:   If there's nothing else  
15      to come before us today, we will reconvene on Monday,  
16      May 14, at 10 a.m., following the call and  
17      continuance in Case No. 11-346.  We are adjourned.

18                  (Off the record.)

19                  (Thereupon, the hearing was adjourned at  
20      3:15 p.m.)

21                               - - -

2299

## 1 CERTIFICATE

2 I do hereby certify that the foregoing is  
3 a true and correct transcript of the proceedings  
4 taken by me in this matter on Wednesday, May 9, 2012,  
5 and carefully compared with my original stenographic  
6 notes.

7  
8 

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Karen Sue Gibson, Registered  
Merit Reporter.

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10 

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Julieanna Hennebert, Registered  
11 Merit Reporter.  
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13 (KSG-5522)

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Summary: Transcript of Commission Review of the Capacity Charges of Ohio Power Company and Columbus Southern Power Company hearing held on 05/09/12 - Volume X electronically filed by Mrs. Jennifer Duffer on behalf of Armstrong & Okey, Inc. and Gibson, Karen Sue Mrs.