In Re: 06-1358-EL-BGN

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## BEFORE THE OHIO POWER SITING BOARD

FILE

In the Matter of

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In the Matter of the : Application of American :

Municipal Power - Ohio, Inc. for a Certificate

of Environmental : Case No. 06-1358-EL-BGN

Compatibility and Public Need for an Electric Generation Station and Related Facilities in Meigs County, Ohio.

**PROCEEDINGS** 

before Mr. Gregory A. Price and Ms. Kimberly W. Bojko, Hearing Examiners, at the Public Utilities Commission of Ohio, 180 East Broad Street, Room 11-C, Columbus, Ohio, called at 9:00 a.m. on Friday, January 4, 2008.

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Friday Morning Session,

January 4, 2008.

EXAMINER PRICE: Let's go on the record.

Good morning. The Ohio Power Siting Board has set

for hearing at this time and this place case number

06-1358-EL-BGN being In the Matter of the Application

of American Municipal Power - Ohio, Inc. for a

Certificate of Environmental Compatibility and Public

Need for an Electric Generation Station and Related

11 | Facilities in Meigs County, Ohio.

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My name is Gregory Price. With me is
Kimberly Bojko. We are the administrative law judges
assigned to preside over today's hearing.

Let's begin by taking appearances starting with the company.

MR. BENTINE: Thank you, your Honor.

Same appearances on behalf of the applicant, American Municipal Power - Ohio, Inc., the law firm of Chester, Willcox & Saxbe by John Bentine, April Bott, Steve Fitch, Nate Orosz, and Matt White.

EXAMINER PRICE: Intervenors.

MR. FISK: Shannon Fisk from the Natural Resources Defense Council on behalf of the citizen

groups.

EXAMINER PRICE: Staff.

MR. JONES: Good morning, your Honor. On behalf of the staff of the Ohio Power Siting Board, Marc Dann, Attorney General, William Wright and John Jones, assistant attorneys general, 180 East Broad Street, Columbus, Ohio. Mr. Wright will be joining us after a while.

MS. MALONE: Margaret A. Malone and Christina Grasseschi, 30 East Broad Street, Columbus, Ohio.

EXAMINER PRICE: The record will also reflect that Ms. Young did call and tender her address that she would not be able to attend the hearing today.

With that, Mr. Bentine, do we have any procedural issues?

MR. BENTINE: Just one item of note.

Yesterday we filed in Docketing our remaining required notices under the Board's rules. We served those only by paper since they probably would have choked everybody; the set of notices is the required notice for each landowner on the site, and those were filed yesterday, your Honor. And I'll move those

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   notices and have more to say about those later.
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                EXAMINER PRICE: Thank you.
3
                Anything else?
4
                MR. BENTINE: We have a copy here if
5
    anybody needs it. It would have choked anybody to
6
    send them --
7
                EXAMINER PRICE:
                                  Sure.
8
                MR. BENTINE: -- electronically.
9
                EXAMINER PRICE: Anything else?
10
                (No response.)
11
                EXAMINER PRICE: Mr. Bentine, call your
12
    first witness.
13
                MR. BENTINE: Yes, your Honor. At this
14
    time I would call on rebuttal Mr. Ivan Clark.
15
                EXAMINER PRICE: Let's go off the record
16
    for one second.
17
                 (Discussion off the record.)
18
                 (Witness sworn.)
19
                EXAMINER PRICE: Please be seated. State
20
    your name and business address for the record.
21
                THE WITNESS: Ivan Clark. My business
22
    address is 1801 California Street, Suite 2800,
    Denver, Colorado.
24
                EXAMINER PRICE: Mr. Bentine.
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MR. BENTINE: Thank you.

Your Honor, could we ask that the previously distributed copies of Mr. Clark's testimony, we have a nonconfidential version and a confidential version, I believe we're on No. 16, so perhaps we could mark these as AMP-O Exhibit 16 for the nonconfidential version and perhaps AMP-O Exhibit 16C, the "C" representing confidential, for the confidential version?

EXAMINER PRICE: It will be so marked.

(EXHIBITS MARKED FOR IDENTIFICATION.)

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## IVAN CLARK

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

## REBUTTAL DIRECT EXAMINATION

By Mr. Bentine:

- Q. Mr. Clark, do you have before you what has now been marked as AMP-Ohio Exhibits 16 and 16C?
  - A. Yes.
- Q. And could you tell us what those two documents are, please?
- A. Yes, I have Exhibit 16 and 16C. Those are my rebuttal testimony, and one is confidential

1 and one is not.

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- Q. Now, do you have any additions or corrections to that testimony as we sit here today?
- A. Yes. I'd like to make one minor correction. On page 2, the very last line --
  - Q. That's 16C?
- A. Yes, in 16C there's reference to an inflation rate of 2.4 percent.
- MR. BENTINE: For this correction it's not a confidential number.

EXAMINER PRICE: Okay.

THE WITNESS: It's just a number. In our analysis that we had supporting the testimony we used 2.3 percent, so I want to make sure that's correct.

EXAMINER PRICE: Thank you.

- Q. With that correction, Mr. Clark, if I were to ask you the questions contained in AMP 16 and AMP 16C today here as you're under oath, would your answers be as indicated in AMP-Ohio 16 and 16C?
  - A. Yes, they would.
- Q. And they would be true to the best of your knowledge and belief?
  - A. Yes.

MR. BENTINE: That's all I have for this

| witness.

I would indicate for the record and for your Honors' benefit, as I had indicated we would do if Mr. Fisk withdrew their objection to our putting on rebuttal, I did make my witnesses available for informal discovery and that took place on both Mr. Clark as well as Mr. Meier and Mr. Marquis yesterday by telephone for several hours, and also after our discussion on the telephone with your Honors we made available Mr. Clark's work papers to Mr. Fisk and the citizen groups.

EXAMINER PRICE: Thank you.

EXAMINER BOJKO: So, Mr. Fisk, are you withdrawing your objection to rebuttal?

MR. FISK: As we noted previously, we do not object to the concept of rebuttal, and we understand and realize that the Board allows for rebuttal testimony we believe by both applicants and intervenors.

We do maintain our objection with regards to not having discovery, full discovery, of the rebuttal testimony; we believe that that is not proper, that we are entitled to the right to do an actual deposition and do discovery, especially with

regards to Mr. Clark's testimony where there's a new cost analysis, and we haven't been able to fully evaluate the various assumptions in that testimony without having full discovery towards that.

And we also do maintain our objection with regards to the short period of time to prepare for cross-examination in terms of having three business days to address 40 pages of testimony.

EXAMINER BOJKO: But just so the record is clear, when we departed our last day of hearing before the Christmas break, the citizen groups were aware and did agree to a December 28th rebuttal testimony filing date and a January 4th hearing date; is that correct?

MR. FISK: Yes. Yes, your Honor, and I believe we did not, I guess we thought rebuttal testimony would have been much more limited and did not realize we would get 40 pages of testimony. It's almost as long as the direct in this proceeding. And to have only three business days given the length of that filing we believe is prejudicial.

EXAMINER BOJKO: But you were also aware at that time that there were three witnesses that were going to be presented.

MR. FISK: Yes, your Honor.

issue, just let me note again for the record that we did establish a discovery cutoff in this proceeding and that discovery cutoff was well into the past and, again, there's just no provisions for reopening discovery after that.

And with that we will let Mr. Fisk proceed with cross-examination.

MR. FISK: We do have one other issue to raise before cross. We object to the claim of confidentiality with regards to the updated cost analysis. We believe this is an updated cost analysis that was in the feasibility study that AMP's own members made public, this is an update of that cost analysis which, therefore, we believe there is not an entitlement to confidentiality on that.

We believe the public has a right to have this information, and we'd note that AMP does have the burden of demonstrating their entitlement to confidentiality. We'd be happy to brief that next week if you'd like, but we'd like to note that objection on the record.

EXAMINER PRICE: Mr. Bentine.

MR. BENTINE: Well, let me say a couple things about that. Number one, our estimates of costs of this AMPGS plant and alternatives including market power have great commercial value to us. To the extent that those that sell us power, and the record in this case is absolutely clear, we are on the market for massive amounts of power and a market that, at least we have indicated, and there's no evidence to the contrary, is one which is increasing and increasingly volatile.

So the idea that our numbers with regard to what we think the market prices are going to be and what generation alternatives we might build are going to cost would be available for everybody, including those people that are currently preparing EPC bids for the AMPGS, is highly, highly hurtful to us and I think falls squarely within the trade secret exception under Ohio law.

Secondly -- secondly -- I would point out that the citizen groups and those that are allied with them want to use this information to attempt to get every one of our city councils not to go along with this project, and that's really why they want it. They don't want it for this proceeding. They

want to be able to use it.

So I object. I believe clearly this information does fall within the confidential/trade secret exception for Ohio law for a number of reasons, and the fact that one or more of our municipalities chose to respond to massive public records requests and didn't get all of this redacted I don't think -- with regard to this follow-up study -- makes it in any way a public record.

I also may point out that that information was filed in this case without any contact with us to determine whether or not we still had a claim of confidentiality with regard to that.

NRDC and Sierra Club simply assumed that because it was released as a public record, that that broke all confidentiality, a position that I don't necessarily agree with.

There is inadvertent disclosures in this state and that could have been one, but we didn't get a chance to argue that. So for all those reasons I think that, if that was a motion to remove confidentiality, it should be denied.

EXAMINER PRICE: We will deny the motion at this time. The parties can raise this in their

briefs before the full board if we ever get to merit briefs, or when we get to merit briefs; the Board will take that up at that point.

MR. FISK: Thank you, your Honor.

EXAMINER BOJKO: Wasn't the feasibility study in part still under seal in this case?

MR. BENTINE: Yes.

MR. FISK: In this proceeding it was.

The part that was obtained from public records requests, this part, was not confidential.

EXAMINER BOJKO: In this proceeding, though.

MR. FISK: In this proceeding, yes.

EXAMINER BOJKO: It was deemed confidential. When you put it in the record, you marked it as confidential.

MR. FISK: I can't remember.

MR. BENTINE: The reason that both of us

I think are confused, there were portions of those
studies that were redacted even from the portion that
was the executive summary portion which was the
portion that was put in NRDC, Sierra Club, and OEC's
motions to intervene, so that had information
redacted from it in and of itself.

1 MR. FISK: And that was the portion we 2 got from the city councils. 3 MR. BENTINE: Yes. But we did claim 4 confidentiality on some of that same information that 5 was put in here I believe to be the case. 6 EXAMINER PRICE: All of which is why 7 we'll just deal with this on the briefs and that way we can make sure everybody can keep it straight. 9 That's not something I want to rule on from the bench 10 at this point. 11 MR. FISK: Okay. 12 MR. BENTINE: And it is confusing. 13 MR. FISK: Yes. Thank you, your Honors. 14 15 REBUTTAL CROSS-EXAMINATION 16 By Mr. Fisk: 17 Hello, Mr. Clark. If you could please 18

Q. Hello, Mr. Clark. If you could please turn to page 5 of -- I'm working off your confidential version, but it's not a confidential portion of your testimony. In that top paragraph you describe there what you called the difficulty in predicting cost of emission allowances in a cap and trade system, correct?

A. Yes.

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1 And you analogize the possible cost of 0. 2 CO2 emissions under a cap and trade system to the 3 cost of SO2 allowances under the SO2 cap and trade system, correct? 5 Α. Yes. And the initial cost estimates for an SO2 6 ο. allowance was in the range of \$300 per ton, correct? That's correct. Α. And you state that the cost of an SO2 Q. 10 allowance gradually declined to less than \$200 per ton and then as low as a hundred dollars per ton, 11 12 correct? 13 Δ. Yes. 14 And those prices were in the late-1990s, Ο. 15 correct? 16 That's correct. Α. 17 Q. And the price of an SO2 allowance today 18 is approximately \$580, correct?

A. I believe that's correct; the last I checked.

19

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- Q. So the price today is approximately double the initial SO2 allowance estimates, correct?
- A. Yes. Over 12 years it's increased, that's correct.

And if you could turn to page 2 of Ο. Exhibit 10. MR. BENTINE: This is confidential. EXAMINER PRICE: I don't believe we have anybody in the room that's not subject to the confidentiality agreement. We'll close the door and note in the transcript that we're now in the confidential portion. (CONFIDENTIAL PORTION EXCERPTED.) 

(OPEN RECORD.)

Q. (By Mr. Fisk) Page 11 of your testimony you reference that the EPC contract proposals will be received in late-January 2008, correct?

A. Yes. They're scheduled to be received this month, that's correct.

- Q. And on the basis of those contract proposals AMP will be issuing an updated cost estimate for the AMP coal plant in February 2008, correct?
  - A. That's the expectation, that's correct.
- Q. The February 2008 cost estimate will not be the final project cost estimate, correct?
- A. No, because the open-book design is still to be done, that will refine that cost estimate.

- Q. And the final project cost estimate won't be issued until early-2009, correct?
- A. Final cost estimate. I think that may be somewhat misleading to say the "final" cost estimate. To clarify there, we will have an estimated cost based on proposals from vendors this month, that will be evaluated, and we will provide an updated cost estimate for the project.

Then the open-book design phase is a eight-month process of doing a preliminary design that's approximately 30 percent of the design of the project. When you go through such detail, you're able, then, to refine the cost estimate for the project, and the expectation then is we will use that cost estimate for final contracting of the EPC contracting.

- Q. And that final contracting will not occur until early-2009?
  - A. That's correct.
- Q. So the final cost will not be determined until early-2009.
- A. Yes. And this is a typical process that you see for design of a facility of this type.

MR. FISK: No further questions.

1 EXAMINER PRICE: Thank you. 2 Staff? MR. JONES: No questions, your Honor. 3 EXAMINER PRICE: Mr. Bentine, redirect? 5 MR. BENTINE: If I might have one moment, your Honor. EXAMINER PRICE: Certainly. MR. BENTINE: A couple questions on 9 redirect if I might. 10 11 REBUTTAL REDIRECT EXAMINATION 12 By Mr. Bentine: 13 Mr. Clark, first of all, I want to take Q. 14 you to page 5 I believe it was. Mr. Fisk asked you a 15 couple questions about where the CO2 values were 16 today versus the numbers that are talked about in 17 your testimony on page 5. Could you talk about some 18 of the things that have happened since 1995 that 19 affects the SO2 allowance cost? 20 Α. In my testimony I noted there were Yes. 21 a variety of variables that affect a cap and trade program, and those are noted in the response on question 9 in my testimony.

What happened in 1995 in the cap and

trade program was existing facilities were issued allowances for their emissions, and some -- depending on the nature of, well, in this case in SO2, some facilities got more allowances than others, some facilities installed scrubbers, some did not, some used various alternatives to control their emissions, but the bottom line is the way the legislation, I'm sorry, the way the regulations were set up, the market responded by going lower, and that's just because of the mechanisms that were set up in the regulations.

That is very likely to be something similar to what we're going to see on CO2. We're going to see a variety of variables affecting the market price, how many allowances the individual sources would get, allowances that new facilities would get, credits for renewables, offset emissions by certain types of CO2 offsets, all of those are going to be variables that are going to be important to how the market responds.

I wanted to illustrate what happened on SO2 because it's the best example of why cap and trade works fairly effectively.

Now, I should comment, today you

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commented that today's price is 500. Well, it responded very quickly, in a matter of months, two years ago because of some declaration of different entities responding to new CAIR regulations. It stayed flat, though, for the last year and a half now, fairly flat, and that's probably because various sources are holding allowances in preparation for what occurs in 2010.

So it really is a very dynamic situation with a cap and trade program. So there's lots of variables that could affect pricing, and for us to predict how it's going to respond in the future for CO2 is extremely difficult.

O. What's CAIR?

- A. CAIR is the Clean Air Interstate Rule, that is a new regulatory program issued by EPA, a regulation by EPA that mandates existing power plants further reduce SO2 in 2010.
- Q. And what's the magnitude, approximately, of that reduction, if you know?
- A. It's 60 percent reduction from current levels, I believe.
  - Q. Mr. Clark --

MR. BENTINE: And this is going to be

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1
    confidential; if we could.
                 EXAMINER PRICE: Let's go on the
2
    confidential portion of the transcript.
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                 MR. BENTINE: And it will be pretty
    quick. I'll watch out for somebody at the door to
5
6
    save you the walk.
7
                 (CONFIDENTIAL PORTION EXCERPTED.)
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31 1 2 (OPEN RECORD.) 3 EXAMINER PRICE: Mr. Fisk, recross? 4 MR. FISK: Just a couple questions. 5 6 REBUTTAL RECROSS-EXAMINATION By Mr. Fisk: You referenced CAIR being more stringent 0. 9 than the initial SO2 cap and trade program, correct? 10 Α. That's correct. 11 So the fact that it was more stringent 12 has driven up the prices of allowances for SO2? It did affect the pricing of allowances, 13 Α. 14 that's correct. 15 And made them higher, correct? Q. 16 A. Correct. 17 Q. And turning to page 1 of IC-10. 18 MR. FISK: I guess we're back on 19 confidential. 20 EXAMINER PRICE: Let's go back on the 21 confidential portion of the transcript. 22 (CONFIDENTIAL PORTION EXCERPTED.) 23 24

In Re: 06-1358-EL-BGN

(OPEN RECORD.) EXAMINER PRICE: Nothing I say will reveal details, but on Exhibit IC-10, have portions of that previously been given to NRDC?

MR. BENTINE: IC-10 in terms of the numbers were given to NRDC the last day of hearing, and there are a couple of words changed on it; the only reason I say that. But in substantive form it was given to them that day.

EXAMINER PRICE: That's when it was given to them.

MR. BENTINE: And then, of course, the

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1
    few word changes that are on here, I think that it
2
    says "attorney requested work product" instead of
3
    "attorney work product" on this one, and there may be
    a couple page numbers added, but other than that,
5
    this was given to them that last day of hearing.
6
                EXAMINER PRICE:
                                  Okay.
7
                               In its entirety.
                MR. BENTINE:
8
                                  Not previously
                EXAMINER PRICE:
    discovered.
10
                MR. BENTINE: Not previously discovered.
11
    It was given voluntarily to NRDC and citizen groups.
12
                EXAMINER PRICE:
                                  Thank you.
13
                MS. MALONE: Could I just ask a
14
    clarifying follow-up question?
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                EXAMINER BOJKO: Yes, but you're going to
16
    have to speak up because the heater kicked in.
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                MS. MALONE:
                              Maybe we could just read
18
    back his last question and answer because -- maybe I
19
    heard it wrong.
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                EXAMINER PRICE: Let's have back the last
21
    question and answer.
22
                 (Record read.)
23
                MS. MALONE: Okay. And you could tell he
24
    was asking a question with regard to page 1 of the
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1
    exhibit?
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                MR. BENTINE: Yeah, that was clear.
3
                MS. MALONE: No questions.
4
                EXAMINER PRICE: I have no questions,
5
    Mr. Clark.
                You may step down.
6
                 (Witness excused.)
7
                MR. FISK: Can we go off the record?
                EXAMINER PRICE: Pardon me?
9
                MR. FISK: Can we go off the record?
10
                EXAMINER PRICE: Sure. Five-minute
11
    break.
12
                 (Recess taken.)
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                EXAMINER PRICE: Let's go back on the
14
    record.
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                Mr. Bentine, next witness.
16
                MR. BENTINE: Yes, your Honor, at this
17
    time we would call on rebuttal Mr. Larry Marquis,
18
    please.
19
                 (Witness sworn.)
20
                EXAMINER PRICE: Please be seated.
                                                      State
21
    your name and business address for the record.
22
                 THE WITNESS: Name's Larry Marquis,
23
    business address, 2600 Airport Drive in Columbus,
24
    Ohio.
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1 EXAMINER PRICE: Mr. Bentine, please 2 proceed. 3 MR. BENTINE: Yes. Mr. Marquis, would 4 you -- before we do that, could we have what we have in front of us and was previously distributed as Rebuttal Testimony of Larry Marquis marked as AMP-O 7 17, please? 8 EXAMINER PRICE: So marked. 9 (EXHIBIT MARKED FOR IDENTIFICATION.) 10 11 LARRY MARQUIS 12 being first duly sworn, as prescribed by law, was examined and testified as follows: 13 14 REBUTTAL DIRECT EXAMINATION 15 By Mr. Bentine: 16 Now that we have that marked, 0. 17 Mr. Marguis, do you have in front of you a copy of what has been marked as AMP-Ohio Exhibit 17? 18 19 Α. I do not. 20 Ο. You do? 21 Α. I do not. 22 Ο. Oh, you do not. 23 MR. BENTINE: If I might approach, your 24 Honor.

1	EXAMINER PRICE: You may.
2	MR. BENTINE: I told the witness not to
3	take anything to the stand with him and he believed
4	me.
5	Q. Now do you have a copy of what has been
6	marked as AMP-0 17?
7	A. I do.
8	Q. Thank you.
9	And what is that document, please?
10	A. A copy of my rebuttal testimony.
11	Q. And do you have any additions or
12	corrections to that testimony as we sit here today?
13	A. No, I do not.
14	Q. If I were to ask you the questions
15	contained in what has now been marked as AMP-0
16	Exhibit 17, Mr. Marquis, would your answers be as
17	contained in AMP-0 17?
18	A. Yes, they would.
19	Q. And would they be true to the best of
20	your knowledge and belief?
21	A. Yes.
22	MR. BENTINE: Mr. Marquis is available
23	for cross-examination.

EXAMINER PRICE: Mr. Fisk.

MR. FISK: Thank you.

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## REBUTTAL CROSS-EXAMINATION

By Mr. Fisk:

- Q. Good morning, Mr. Marquis.
- A. Good morning.
- Q. You testified that for wind generation and landfill gas generation, transmission and grid access can be expensive, correct?
  - A. I do.
- Q. Transmission and grid access can be expensive for coal-fired generation also, correct?
  - A. That's correct.
- Q. Transmission and grid access would not be expensive for energy efficiency alternatives, correct?
  - A. That's correct.
  - Q. And why not?
- A. Energy efficiency alternatives are affecting the end use of energy consumption and, therefore, should be reducing the reliance on the transmission system and distribution systems.
- Q. And for wind generation AMP-Ohio has only one operating wind farm, correct?

- A. That's correct.
- Q. And AMP is only directly involved in three other wind farms?
- A. That is the only wind farm that we currently have in operation.
- Q. AMP is currently involved in proposed wind farms, three other proposed wind farms?
  - A. That is correct.
  - Q. Are they currently operational?
  - A. No.

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- Q. Do you know when they will go on line?
- A. We are --
- MR. BENTINE: You're going to have to keep your voice up, Mr. Marquis, I think Mr. Fisk as well, because I think you two are having trouble hearing each other.
- A. We are working on one in Berlin,

  Pennsylvania, that should be on line in 2010, another

  one that may be on by that time, although we don't

  have a definite schedule for the other two, for the

  other two wind farms that we're working on.
- Q. And those other two are Great Lakes and Clyde?
- 24 A. Yes.

- O. And so those two are not definite.
- A. They are in the wind monitoring and project development phases right at the moment.
- Q. So it's still too early to tell if those two projects will go on line?
  - A. That's correct.

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- Q. And AMP-Ohio is not directly involved in any other wind projects?
  - A. Not directly involved.
- Q. So the other projects referenced in your testimony are being initiated by AMP's members?
- A. We have a number of AMP members that are monitoring for wind feasibility and are in various stages of that, yes.
  - Q. Those projects weren't initiated by AMP.
  - A. No, they were not.
- Q. And did you discuss renewables with R.W. Beck with respect to the proposed AMP coal plant?
  - A. No, I did not.
- Q. In your answer to question 5 of your testimony you stated that the purpose of your rebuttal testimony is, quote, "To rebut Mr. Schlissel's argument that AMP-Ohio has not considered 'other alternatives'"; is that correct?

A. That's correct.

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- Q. Is it your opinion that AMP has considered other alternatives?
- A. Not only have we considered other alternatives, we have them in operation.
- Q. And as part of your job are you -- you are responsible for energy conservation and energy efficiency for AMP-Ohio?
- A. For a portion of the activities that go on in AMP-Ohio related to energy efficiency.
- Q. And with respect to energy efficiency, you work with member communities in the industrial sector by making efficiency recommendations about lighting and compressed air; is that correct?
  - A. That's correct.
- Q. AMP-Ohio doesn't have an efficiency program for appliances, correct?
  - A. Not directly, no, we do not.
- Q. And AMP-Ohio doesn't currently have an energy efficiency incentive program for residential customers, correct?
  - A. No, we do not.
- Q. And with regards to energy efficiency, you haven't considered programs that other companies

are implementing, correct?

- A. Not at the present time, although we do have a study ongoing now with a consultant who is analyzing various energy efficiency and conservation options that we could offer our members who could offer that to their end-use customers.
- Q. And that program is just beginning right now?
  - A. Yes.
- Q. And for energy efficiency you haven't considered programs from the U.S. Department of Energy and U.S. EPA's National Action Plan on Energy Efficiency, correct?
  - A. Correct.
- Q. And for energy efficiency you haven't considered programs from the American Council for an Energy Efficient Economy, correct?
  - A. That's correct.
- Q. And once implemented, savings from energy efficiency programs begin immediately, correct?
  - A. Yes.

MR. FISK: Nothing further.

**EXAMINER PRICE: Staff?** 

MR. JONES: No questions, your Honor.

1 EXAMINER PRICE: Mr. Bentine. 2 MR. BENTINE: Yes. 3 REBUTTAL REDIRECT EXAMINATION 5 By Mr. Bentine: 6 You indicated in response to Mr. Fisk 0. 7 that AMP-Ohio had only one wind farm. How many utility commercial wind farms are there in Ohio 9 currently? 10 That's the only one. Α. 11 I want to ask a couple questions about, 12 you indicated in response to a question by Mr. Fisk, talked about landfill gas and wind can be expensive 13 14 to connect to the grid. Do you recall that? 15 Α. Yes. 16 On a per kW or per kWh basis, is that the

Q. On a per kW or per kWh basis, is that the relative expense that you were talking about in that answer?

A. Yes.

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Q. And could you expand on that as comparing, for example, the relatively small megawatt and megawatt-hours that one might get out of landfill gas versus a larger baseload generation such as a coal generation in terms of connecting to the grid

and the cost for transmission and distribution per kW or kWh?

A. Whereas with landfill gas, wind generation, those are typically smaller size of farms in terms of kilowatts, and at the same time their cost to interconnect to the transmission system is significantly less than it would be for a coal-fired power plant such as AMPGS.

When you have a large coal-fired power plant, you may spend tens of millions of dollars connecting to the system. For a smaller renewable project you may only spend a million or less, perhaps. But on a per-unit basis, per kilowatt the cost can be comparable, however, typically for a smaller unit, when you get smaller units, the transmission per unit is usually a little bit larger.

EXAMINER BOJKO: Are you saying that the equipment or the process to connect will be similar for a coal plant versus a wind or landfill gas, it's just because of the lower number of kilowatts the price per kilowatt is higher to connect?

THE WITNESS: Correct.

Q. Mr. Fisk asked you a couple questions about what your responsibilities were with regard to

conservation at AMP-Ohio; could you expand on what your responsibilities are in that regard?

- A. Within AMP-Ohio my department provides energy conservation -- energy efficiency audits for industrial customers and business customers of our member communities. As part of that we contact the industrial customers with our member communities, provide an energy audit that looks at their compressed air leaks, looks at their lighting, looks at their motors, and makes recommendations to those industries and businesses for efficiency improvements and thereby encouraging them to save energy by improving the efficiencies, and they also save money.
  - Q. Does AMP-O track those savings?
  - A. We do.

- Q. And can you tell us what, for example, the last -- give us some estimate of what those savings have been?
- A. In the last -- in about the last year our recommendations have shown that the industry could save about 3 million dollars from improving their energy efficiency.
- Q. Now, you're Vice President of Technical Services?

A. Correct.

- Q. And does your shop also do system improvements for our member systems?
  - A. We do.
- Q. And could you tell us what system improvements might have to do with energy efficiency?
- A. We are responsible for assisting our members with improving their systems by replacing old, worn-out conductors, for example, and transformers with perhaps larger conductors, better transformers that reduce their line losses within their systems. In doing so, you know, we can usually obtain a percent or 2 of energy efficiency improvement for our systems by making those improvements.
- Q. Now, does AMP-Ohio have any retail electric customers?
  - A. We have no retail customers.
- Q. And does AMP-O have the ability to directly contact retail customers of its members other than through its members?
- A. No, we do not. Our members definitely want us to work with our members in order to work with their customers.

1		EXAMINER BOJKO: And just to be clear,
2	the members	you're referencing are the actual
3	communities.	
4		THE WITNESS: Our member communities,
5	yes.	
6	Q.	Now, others at AMP-Ohio are responsible
7	for the none	commercial/industrial and nonmember system
8	improvement	kinds of energy efficiencies?
9	A.	Yes.
10	Q.	And that's not under your supervision?
11	A.	That is not.
12	Q.	So you can't testify as to some of those
13	other things	s as we sit here today.
14	A.	No, I can't.
15		MR. BENTINE: Just a moment.
16	Q.	Mr. Fisk asked you a couple questions
17	about whether	er or not a particular project was
18	initiated by	AMP-Ohio or its members. Do you recall
19	that?	
20	A.	Yes.
21	Q.	Is that uncommon for members to ask
22	AMP-Ohio to	help with projects that they believe are
23	appropriate	?

Our members don't necessarily contact

AMP-Ohio to investigate projects, especially within their local utilities that they want us to look at, although we are there to support them. If they do ask, we will certainly step up to help them.

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- Q. And that's true with landfill gas, wind, and other kinds of potential resources?
- A. Any kinds of services that we might offer to our members we're there to support them, yes.

MR. BENTINE: That's all I have.

EXAMINER PRICE: Mr. Fisk?

MR. FISK: Nothing further.

EXAMINER BOJKO: There were some questions asked by Mr. Fisk regarding energy efficiency and what AMP-Ohio is doing with regards to energy efficiency. In your opinion, could the load that is being expected to be fulfilled by this plant be met by energy efficiency, energy efficiency programs or any kind of energy efficiency efforts?

THE WITNESS: My opinion is it could not, definitely not, it's an important function, that there's just not enough there to supply a thousand megawatts of energy to our members.

EXAMINER BOJKO: And what about for wind, could using all wind meet that kind of capacity that

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    would be produced by the AMPGS?
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                THE WITNESS:
                               No.
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                EXAMINER BOJKO:
                                  That's all I have.
                EXAMINER PRICE: You may step down.
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                (Witness excused.)
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                MR. BENTINE: If we could have two
    minutes, Mr. Meier just showed up.
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                EXAMINER PRICE: We're going to go off
    the record for about five minutes.
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                 (Recess taken.)
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                EXAMINER BOJKO: Let's go back on the
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    record.
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                Mr. Meier has come up to the stand.
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    Mr. Meier, could you raise your right hand?
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                 (Witness sworn.)
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                EXAMINER BOJKO: Could you please state
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    your name and your address for the record?
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                THE WITNESS: Sure. My name is Phillip
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    E. Meier, and my business address is 2600 Airport
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    Drive, that's Columbus, Ohio 43219.
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                EXAMINER BOJKO: Mr. Bentine.
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                MR. BENTINE: Thank you.
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                Mr. Meier, I'm going to ask that the
24
    nonconfidential version of your testimony be marked
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49 1 as AMP-O Exhibit 18. 2 EXAMINER BOJKO: It will be so marked. 3 (EXHIBIT MARKED FOR IDENTIFICATION.) 4 MR. BENTINE: And ask that the 5 confidential version of your testimony be marked as 6 AMP-O Exhibit 18C. 7 EXAMINER BOJKO: It will be so marked. (EXHIBIT MARKED FOR IDENTIFICATION.) 9 10 PHILLIP E. MEIER 11 being first duly sworn, as prescribed by law, was 12 examined and testified as follows: 13 REBUTTAL DIRECT EXAMINATION 14 By Mr. Bentine: 15 Mr. Meier, do you have in front of you 0. 16 what has been marked as AMP-O Exhibits 18 and 18C? 17 Α. Yes, that's correct. 18 And what are those, please? 19 That's my direct testimony in regard to the rebuttal for this case. 20 21 Mr. Meier, do you have any corrections to 0. 22 this testimony? 23 Α. I do under just question 4Q, the last

sentence, I was with the Honeywell Corporation from

1	1985 to 1987-'88 time frame, I'm not exactly a	
2	hundred percent sure on the date which I ended there.	
3	EXAMINER BOJKO: And that would be the	
4	same for both your nonconfidential version as well as	
5	the confidential version?	
6	THE WITNESS: Yes.	
7	Q. With that modification to Exhibits 18 and	
8	18C, Mr. Meier, if I were to ask you the questions	
9	contained in those exhibits here on the stand while	
10	you're under oath today, would your answers be as	
11	contained therein?	
12	A. Yes, they would.	
13	Q. And would they be true to the best of	
14	your knowledge and belief?	
15	A. Yes, they would.	
16	MR. BENTINE: That's all I have on direct	
17	for Mr. Meier. He's available for cross-examination.	
18	EXAMINER BOJKO: Mr. Fisk.	
19	MR. FISK: Thank you, your Honors.	
20		
21	REBUTTAL CROSS-EXAMINATION	
22	By Mr. Fisk:	
23	Q. Good morning, Mr. Meier.	
24	A. Good morning.	

1 If you could turn to page 3 of your 0. 2 testimony, question 10 -- I'm working off the confidential one but it's a nonconfidential portion. 3 Α. Okay. 5 And you discuss here the environmental Q. 6 advantages of hydro resources, correct? 7 Α. Right. And if you flip the page to the top of Ο. page 4, you state that one of the advantages of hydro 10 generation is it did not produce any air emissions 11 such as SO2, NOx, or CO2, correct? 12 Α. Correct. And you testify that the lack of CO2 13 14 emissions from hydro, therefore, provides 15 environmental benefits, correct? 16 Α. Correct. 17 And one of the environmental benefits of 18 avoiding CO2 emissions is reducing global warming, 19 correct? 20 MR. BENTINE: Objection. 21 EXAMINER BOJKO: Basis? 22 MR. BENTINE: I don't think there's any 23 foundation that Mr. Meier is a global warming expert,

certainly nothing in his rebuttal on this. And I

might add that on rebuttal the scope of cross-examination is necessarily more narrow under Ohio rules than a direct witness. In other words, it's not "any" relevant evidence, it's limited to the scope of rebuttal.

EXAMINER BOJKO: Mr. Fisk.

MR. FISK: Mr. Meier's rebuttal testimony specifically states that the fact that hydro does not emit CO2 provides an environmental benefit, and I'm trying to determine what environmental benefit he's referring to.

EXAMINER BOJKO: I'm going to overrule the objection. I think that if Mr. Meier knows, he can explain more of what he meant by "environmental benefits."

- A. Sure. My testimony is that to the extent that there was a future impact associated with CO2, some other allowance impact that was associated with hydro, because it wouldn't produce any CO2, wouldn't be as impacted by that.
- Q. And when you say "impact," you're referring to cost impact?
- A. Cost or any other associated impact associated with it.

1	Q. But here you refer to environmental	
2	benefit, and so what environmental benefit are you	
3	referring to?	
4	A. Well, to the extent that there was a	
5	detriment caused by CO2 and the fact that the hydro	
6	didn't produce it, that would be the environmental	
7	benefit.	
8	Q. Do you know if there's an environmental	
9	impact or detriment caused by CO2?	
10	A. I do not.	
11	Q. Do you have an opinion as to whether	
12	there is one?	
13	MR. BENTINE: Objection.	
14	EXAMINER BOJKO: I think he just answered	
15	that question. Sustained.	
16	MR. FISK: Your Honor, he stated that	
17	there is an environment benefit.	
18	EXAMINER BOJKO: No. No. He just	
19	answered the question that he didn't know.	
20	Can you reread the question and answer,	
21	please?	
22	(Record read.)	
23	Q. Have you seen studies that suggest that	
24	there's an environmental impact of CO2?	

1	MR. BENTINE: Objection.	
2	EXAMINER BOJKO: I'm going to allow it.	
3	Overruled. If he knows. Or I think the question was	
4	"Have you seen studies."	
5	A. I have not.	
6	Q. Do you know anything about the	
7	environmental impacts of CO2 emissions?	
8	MR. BENTINE: Objection.	
9.	A. General knowledge that I	
10	MR. BENTINE: Objection.	
11	EXAMINER BOJKO: He can answer as to	
12	whether he knows; I think that was the question.	
13	Do you know anything about the	
14	environmental impacts of CO2 emissions?	
15	THE WITNESS: General public knowledge	
16	would be the extent of my knowledge of CO2.	
17	Q. And what is that general public	
18	knowledge?	
19	MR. BENTINE: Objection.	
20	EXAMINER BOJKO: What's your basis?	
21	MR. BENTINE: I think we've gone as far	
22	on this issue as we ought to go. Now, we've	
23	already he's indicated that the only thing that he	

might know is some general public knowledge, and he's

not here testifying on general public knowledge, he shouldn't, he's here testifying about hydroelectric.

I think we've gone as far as we ought to go on this. This witness has indicated he's not an expert, he doesn't know, and in answer to the last question the only thing he said he does know is what's general public knowledge about that, which I don't think that gets us anyplace in terms of this proceeding any more than a public witness testifying down in Meigs County in the public hearing.

EXAMINER BOJKO: Mr. Fisk, do you have a response?

MR. FISK: Your Honor, he stated that the fact that hydro does not emit CO2 provides an environmental benefit, in his testimony, and now he's saying that he doesn't --

EXAMINER PRICE: I understand, but,

Mr. Fisk, it seems to me all you're doing is

impeaching his credibility for making that statement,

and I'm not sure what benefit that does for your side

of the case.

MR. FISK: Well, I'm trying to figure out --

EXAMINER PRICE: If he wasn't qualified

to say it made CO2, then, you know, certainly you've impeached his credibility on that and the Board would consider that as the weight or the value of that particular portion of his statement, but I think that's all you're going to be able to do with it.

EXAMINER BOJKO: Let's ask Mr. Meier one more time. I think he said this.

What was the underlying premise for your statement that it would provide environmental benefit?

THE WITNESS: The fact that the plants don't produce SO2, NOx, or CO2, none of the hydro plants produce that, and to the extent that in the future there was some CO2 impact that came out or that was developed legislatively, that because the hydros don't produce that, that they would benefit as a result or provide that environmental benefit.

EXAMINER BOJKO: If you have another question based on his underlying knowledge of his statement, ask it, but other than that, I think we need to move forward.

MR. FISK: And as for the pending question regarding what the general public knowledge that he referred to is?

1	EXAMINER BOJKO: I'm going to sustain the
2	objection. I think you can ask him about his
3	knowledge of why he wrote that statement in his
4	capacity of his testimony.
5	EXAMINER PRICE: I'd like to go off the
6	record for one minute.
7	(Discussion held off the record.)
8	EXAMINER PRICE: Let's go back on the
9	record.
10	Q. (By Mr. Fisk) You testified that AMP has
11	negotiated leases for three hydro projects and is
12	pursuing two others, correct?
13	A. That's correct.
14	MR. BENTINE: Excuse me, leases or did
15	you say "leases" or "licenses"?
16	MR. FISK: I meant licenses.
17	A. Licenses, yeah.
18	Q. Okay. And AMP-Ohio didn't evaluate using
19	wind as a firming source in evaluating these hydro
20	projects, correct?
21	A. That is correct.
22	EXAMINER PRICE: I'm sorry, can I have
23	that question again please, and answer.
24	(Record read.)

Q. And AMP-Ohio didn't consider using natural gas as a firming source in evaluating hydro projects, correct?

- A. I think early on we looked at differing options for firming the hydro capacity, but in the end we decided that it probably wasn't economical to do that to the hydro facilities.
- Q. And natural gas was one of the options you considered as a firming source?
- A. You know, it's been long enough I don't recall if natural gas was.
- Q. And in evaluating the feasibility of hydro projects AMP did not factor in carbon costs, correct?
- A. I think it states that in the feasibility study, that we didn't project any carbon impact.
- Q. And the only discussions you had with R.W. Beck regarding hydro and the proposed AMP coal plant is that you provided R.W. Beck with cost estimates for the hydro proposals, correct?
- A. I provided them a cost analysis associated with the hydro projects, that's correct.
- Q. And you weren't involved in the planning process for the AMP coal plant, correct?

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1	Α.	That is correct.
2	Q.	You started serving as AMP's Director of
3	Information	Systems in 2000, correct?
4	A.	Yeah, within a year, that's correct.
5	Q.	You were in that position for three
6	years, corre	ect?
7	Α.	Yes.
8	Q.	And then your position changed to Chief
9	Information	Officer, correct?
10	Α.	That's correct.
11	Q.	And you served in that position until
12	July 2007,	correct?
13	A.	Correct.
14	Q.	And in those positions from 2000 to July
15	2007 you we:	re responsible for AMP's information
16	systems and	telecommunications, correct?
17	A.	That's correct.
18	Q.	And during that 2000 to 2007 time frame
19	you spent a	t best 5 percent of your time on hydro
20	projects, c	orrect?
21	Α.	Yeah, and that may be a little higher
22	percentage	as it got closer to the late-2006/
	ī	

And aside from your work at AMP-Ohio you

early-2007 time frame.

1 have no other past work experience in hydro power, 2 correct? 3 That is correct. And no other past experience with Q. 5 renewable energy, correct? 6 Α. That is correct. 7 And you're not a registered professional 0. 8 engineer in any state, correct? 9 Α. That is correct. 10 And you testified that hydro power is 11 less affected by inflationary pressure than most other types of generation, correct? 12 13 Α. That is correct. 14 And in making that statement do you 15 consider coal one of those other types of generation? 16 I would say that any other type of source A. that has a fuel component to it, that would be 17 18 correct. 19 And that would include coal? 20 Coal, yes. Α. 21 MR. FISK: Nothing further. 22 EXAMINER BOJKO: Mr. Bentine, redirect? 23 MR. BENTINE: Yes, your Honor.

I'm sorry.

EXAMINER BOJKO:

61 1 MR. JONES: No questions. MR. BENTINE: I'm sorry. 3 4 REBUTTAL REDIRECT EXAMINATION 5 By Mr. Bentine: 6 Mr. Meier, let's go at this a little ο. 7 Mr. Fisk asked you about your hydro backwards. 8 experience. 9 Α. Yes. In the last -- well, strike that. Let me 10 11 ask the question this way: Approximately how many 12 unconstructed licenses are there on the Ohio River 13 for hydroelectric facilities to be put in at existing 14 locks and dams? 15 There may be somewhere between 10 and 15 16 in various states of issuance. 17 And since 1990 how many of those have Ο. 18 been built? 19 One, only one, the Belleville hydro Α. 20 project. 21 And who was the project manager on the ٥. 22 Belleville hydro project? 23 Α. I was. 24 And could you expand a bit on what your Q.

experience was as the manager of the Belleville hydro project starting at its inception?

A. Yes. I started in late-'91/early-'92 on the environmental compliance side in the Federal Energy Regulatory Commission license aspect of it; from there we went into the marketing phase where we marketed to Ohio's municipalities; and then after the marketing phase we went through a 18- to 24-month design and engineering phase as well as FERC licensing phase; and then the construction phase lasted approximately four years.

And then in the postconstruction, preoperation, and early operation phases I was involved in that facility.

- Q. And what was the approximate budget of that project?
- A. It was approximately 153,415,000 I think was the last official statement.
  - Q. And you were project manager on that.
  - A. That is correct.
  - Q. And has that project been a success?
  - A. It has been, yes.
- Q. How do you define "success" when you answer that question?

- A. Success, I define it as the plant coming on line, producing its projected annual energy, and providing that to member communities throughout Ohio.
- Q. Can you tell me, with regard to firming up, to use Mr. Fisk's phrase, was there a firming up of the Belleville hydro project capacity?
- A. There was through backup generation that was provided as part of that project.
  - Q. And why was that done?
- A. The Ohio River hydro plants have an average annual capacity factor of between 50 and 60 percent, and with the plant being the run-of-the-river type of facility, there's times of extreme low flows and high flows when the plant is not generating, which amounts to that 45 percent of the time. The result is, is that the plant doesn't produce any output or produces a reduced output other than its capacity rating.

So the backup generation is to provide some firming of that when the plant is not producing its full capacity.

EXAMINER BOJKO: What type of generation? THE WITNESS: For the backup?

EXAMINER BOJKO: Yes.

THE WITNESS: It was diesel generating units.

- Q. At the time the Belleville project was constructed did AMP-Ohio own a lot of peaking generation?
- A. Early on in that time frame we had some peaking generation in Cuyahoga Falls, but it was small compared to the peaking generation we have today.
- Q. Now, as AMP-Ohio approached the current projects that you testify about in Exhibits 18 and 18C, you indicated that you did consider looking at some firming capacity for those projects, correct?
  - A. Correct.

- Q. Could you tell the administrative law judges in more detail exactly why AMP-O determined not to firm these three projects?
- A. Sure. The main reason was the hydros are pretty capital-intensive projects, and adding the additional cost of providing the firming for the hydro plants themselves would simply raise the entire cost of the project significantly and the result of which may have made some members choose not to participate because of the cost associated with it.

And we saw the hydros as maybe being a little bit more of an easier sell to our participants if it was just the hydro capacity itself.

EXAMINER BOJKO: What type of firming did you look into for those three?

THE WITNESS: The firming I recall looking at was some existing diesel units we had, and because AMP-Ohio had a lot of existing peaking generation already, there was some belief that maybe some of that peaking capacity could be used to provide that firming capacity for the hydro projects without purchasing new -- additional new backup or peaking capacity.

- Q. And that additional peaking capacity is diesel and natural gas?
  - A. Yes.

- Q. Now, Mr. Meier, other than simply your efforts as project manager for the Belleville project and as project manager for the ongoing projects, you have stayed in touch with hydro developments in the United States; have you not?
  - A. I have.
- Q. And during that time in which you were the chief information officer did AMP-O investigate

new or different technologies for hydro?

- A. We did, we looked at some concepts that were proposed by the manufacturer for, it was called Hydro Matrix, which was a lot of small microturbines placed in the plants and the resultant outcome that turned out to be not feasible.
- Q. And you were in charge of that even though your title was Chief Information Officer, correct?
  - A. Yes, that is correct.
- Q. Now, at least by his question Mr. Fisk has suggested that perhaps AMP-O should have looked at wind as a firming resource for the hydro; do you believe that that would be prudent?
  - A. No, I do not.

EXAMINER PRICE: Could you expand on why you don't think that would be prudent?

THE WITNESS: Yeah. We have four existing wind turbines in northwest Ohio and the annual capacity factor on those is about 25 percent. If you look at the hydros producing at 50 percent, the three plants combined are about 191 megawatts.

Well, the cost to put in that much wind capacity with only a 25 percent capacity factor on

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1 the plants really wouldn't have provided a 2 significant benefit for firming up the hydro capacity 3 itself. 4 The second factor is the wind wouldn't 5 necessarily be dispatchable because you couldn't 6 predict necessarily when the winds were going to 7 generate their full capacity amount. For those two 8 reasons it probably wouldn't be economical. 9 EXAMINER PRICE: So it is possible there 10 are times when neither resource would be available. THE WITNESS: That is correct. 11 12 And to follow up, Mr. Meier, neither the Ο. 13 hydro, run-of-the-river hydro as we have here in the 14 midwest, nor the wind is dispatchable, correct? 15 Α. That is correct. 16 MR. BENTINE: That's all I have for Mr. Meier. 17 18 EXAMINER BOJKO: Any recross, Mr. Fisk? 19 MR. FISK: Nothing. 20 EXAMINER BOJKO: Anything from staff? 21 MR. JONES: No. 22 EXAMINER BOJKO: I have a few questions. 23

## REBUTTAL EXAMINATION

By Examiner Bojko:

- Q. I'm not sure if you were here for the previous witness, Mr. Meier, but I'm going to ask you the same question. Could all hydro meet the load that's expected to be fulfilled by the new AMPGS plant?
- A. I don't think there's enough capacity in the midwest that could meet that need.
- Q. And turning specifically to page 3 of your testimony, the confidential version I believe --
  - A. Okay.
- Q. -- the answer to question 9, you reference studies and analyses described by Clark and Kiesewetter.
  - A. That's correct.
- Q. Were you just speaking generally about their testimony, or were you referencing specific studies?
- A. My recollection was R.W. Beck was hired to do a load study, a member study, so my recollection is that that was looked at in that study, but that's the extent of my knowledge.

EXAMINER PRICE: You're referencing the

power supply plans that they prepared.

THE WITNESS: Yes.

Q. Now I'd like to talk a few minutes about the FERC license process and the hydro licenses in general because I'm not quite as familiar with hydro. You talked about there were 16 licenses and that you're pursuing to try to obtain those or take those away from somebody else that currently owns them.

Explain to me, does FERC only issue so many at a time? Are there only 16 available? Or is it just at this time there are 16 available? What does that mean?

A. Sure. In 1989 the FERC looked at 16 hydro projects in the upper Ohio River basin --

MR. BENTINE: And could you keep your voice up, Mr. Meier?

THE WITNESS: Sure.

-- and when those 16 projects were issued, some of the projects went forward through marketing phases and some preliminary design phases, but in the early-'90s the only project that went forward was the Belleville project of those 16.

Various developers weren't able to market those to people that wanted the power, and so their licenses

kind of laid dormant.

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And then FERC more recently started terminating some of those licenses because nothing had happened with them for such a long time, and we didn't actively or aggressively try to acquire the licenses as much as developers approached us, had interest in selling us in marketing the capacity, and we proceeded with Smithland and Cannelton that way.

Recognizing the value here in the 2006 time frame, then we started seriously looking at those projects that the licenses had expired and were now available for development, and so we pursued one project, the R.C. Byrd project, which is at the Gallipolis lock and dam, and we are currently competing for the preliminary permit for that project as well.

- Q. But could you go and seek a new license from FERC, or are you saying all the areas basically that would be appropriate for this kind of facility already have licenses?
- A. Along the Ohio River there's a lot of projects that are in various stages, there may be an existing license but it's not a developed project, that may be held by another entity.

As an example, the city of New
Martinsville has the New Cumberland license, and so
while there is another licenseholder with that
project, you can't walk in as a developer and acquire
that unless FERC would allow that, and typically they
don't allow you just to take over a license.

Typically they want it to go through the whole licensing process and giving the existing licensee the opportunity to develop it, and then if they don't develop it in a certain time period, then they start moving to terminate the license and then you start the new application process and the new license acquisition process as a result.

- Q. But I guess my question is, is there an infinite number of licenses that can be obtained, or are there a finite number?
- A. No, there's a limited -- on the Ohio
  River there's maybe 16 to -- 16 sites, potential
  sites for hydro projects. We recently did the study
  to look at the top ten of those, and in our screening
  study we looked at those top ten and selected -right now we're involved in the acquisition of
  working with the current licenses or we are the
  licensees of the top five of those ten.

1 EXAMINER PRICE: So the 16 sites that --2 MR. BENTINE: I think, if I can ask a 3 question, I think I can get to what the administrative law judge is going for. 5 EXAMINER PRICE: You're okay? 6 MR. BENTINE: Is it okay if I ask a 7 question here? I think I can get to where you're going. EXAMINER BOJKO: Sure. MR. BENTINE: These licenses that you're 10 talking about, Mr. Meier, are all associated with 11 12 existing locks and dams on the Ohio River. 13 That is correct. THE WITNESS: 14 MR. BENTINE: And there is not available 15 licenses to build a whole new dam --16 THE WITNESS: No. 17 MR. BENTINE: -- that's not existing and 18 put in hydroelectric on the Ohio River, correct? 19 THE WITNESS: Absolutely correct. 20 EXAMINER BOJKO: Thank you. 21 clarifies it. 22 (By Examiner Bojko) Then given all that, 23 given the licenses being tied to the locks and dams, 24 on page 8 you talked about you're pursuing a non-FERC

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licensed project and I guess my question is what's the difference between -- I would have assumed all would have to be FERC licensed; is it the age or something that it didn't have to be and it's grandfathered in?
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A. No. There's a couple different types of projects that are FERC licensed. The one I was thinking of here was one on the Bluestone Dam, West Virginia, and it's not currently under FERC mandated jurisdictions, it was done with the U.S. -- it was coordinated with the U.S. Army Corps of Engineers and some legislative efforts in West Virginia to keep it out of FERC jurisdiction.

And then there's several smaller projects that are less than 5 megawatts that can be exempted from the FERC licensing process because of their size, so that would be another example of those that would be non-FERC regulated.

EXAMINER PRICE: And they would be, by definition, less than 5 megawatts.

THE WITNESS: I think that the regs say it is less than 5 megawatts.

EXAMINER PRICE: There's no potential for 55-megawatt licenses left.

1 THE WITNESS: Unless there was some 2 legislative workaround that happened, that is 3 correct. And what is the current output of the one Ο. 5 hydro plant that's operational? 6 It's currently 42 megawatts is the max Α. 7 capacity output rating on the units, and then the 8 annual energy average is around 245,000/246,000 9 megawatt-hours annually. 10 EXAMINER BOJKO: I think we have no 11 further questions for you. You may step down, 12 Mr. Meier. 13 (Witness excused.) 14 EXAMINER PRICE: Let's go off the record. 15 (Discussion off the record.) 16 EXAMINER PRICE: Let's go back on the 17 record. 18 Mr. Bentine, you have a motion? 19 MR. BENTINE: Yes, your Honor. I would 20 move at this time AMP-O Exhibits 16, 16C, being the 21 testimony nonconfidential and confidential versions 22 of Clark's rebuttal; AMP-O 17 which is Larry Marquis' 23 rebuttal; and AMP-0 18 and 18C being respectively the

rebuttal testimony nonconfidential and confidential

of Mr. Meier.

EXAMINER BOJKO: Any objections?

MR. FISK: Subject to the objections I made earlier, no other objections.

EXAMINER PRICE: Which we'll note. Okay, all five of those exhibits will be admitted.

(EXHIBITS ADMITTED INTO EVIDENCE.)

MR. BENTINE: And while we're moving, your Honor, just to get it on the record, although I'm not sure it is required, I would move the application and supplements that we have previously filed and formed the basis for this proceeding, and I would also move the notices that have all now been filed in Docketing into evidence including those individual notices that we filed yesterday.

With regard to those individual notices that were filed yesterday, those notices were inadvertently tardy by us and they're the individual notices to the individual property owners on site for the actual plant.

All of those property owners we have options with, and all of those property owners have executed waiver of any of those notices, so we would ask that under 4906-5-08 that those notices, along

with the other notices which there were no problems with, would be moved into evidence and that the ALJs would find substantial compliance with the notice requirements.

EXAMINER PRICE: Objections?

MR. FISK: No objection.

EXAMINER PRICE: Those notices will be admitted. Were you going to mark those or just move them in?

MR. BENTINE: I can, your Honor. Around here I've been in proceedings in which that kind of stuff was marked and that kind of stuff was --

EXAMINER PRICE: Let's go ahead and mark them AMP-Ohio 19, the notices; it's the next number.

MR. BENTINE: We have really three sets of notices, we've got the notices I will call A and B, which are the notices of the public hearings that we published in the newspaper twice, those were separate.

EXAMINER PRICE: I'm not worried about those.

MR. BENTINE: Then the later exhibits, and there were a bunch of them, there's 19 or 20 of those collectively, we can call those AMP 19, I'd be

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    happy to do that.
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                EXAMINER PRICE: They will collectively
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    be AMP 19, that's fine.
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                (EXHIBIT MARKED FOR IDENTIFICATION.)
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                EXAMINER BOJKO:
                                 And are they in two
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    categories? I thought I received two bundles. Are
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    they two categories?
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                MR. BENTINE: There's also a requirement
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    for letters to the local officials notifying the
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    local officials that you notified the property
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    owners, and that was included in that filing as well.
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                EXAMINER BOJKO: Okay.
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                EXAMINER PRICE: Just to clarify, AMP 19
    will be admitted.
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                (EXHIBIT ADMITTED INTO EVIDENCE.)
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                EXAMINER PRICE: And any objections to
    the admission of the application as supplemented? We
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    will go ahead and admit that at this time, too.
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                              One final matter then, your
                MR. BENTINE:
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            To the extent with the exception of AMP-O 14
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    and AMP-O -- we're not sure as to whether or not
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    AMP-O 4 was admitted. That was the original
23
    testimony of Ivan Clark. To the extent it wasn't, I
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would move it.

And AMP-O 14 is the only marked AMP-O exhibit that we did not move and are not going to move, but if we missed any of the AMP-O now 1 through 19, I would move them just to make myself safe at this time.

EXAMINER BOJKO: AMP-O Exhibit 4 was moved and admitted.

MR. BENTINE: Thank you, your Honor.

And one final matter, then, to the extent that any of our application, even though it has been held to be substantially complete already, would be found to be technically deficient in any way, I would put on the record at this time a motion to the administrative law judges and the Board to find good cause for waiver for any inadvertent technical defect that we had in our application and supplements thereto.

EXAMINER PRICE: We will note that, and the Board can take that up if it considers it necessary.

MR. BENTINE: That's all I have right now. Thank you, your Honor.

EXAMINER BOJKO: Mr. Fisk, do you have any administrative --

1 MR. FISK: No, no administrative matters. 2 EXAMINER PRICE: Let's break for 15 minutes, come back at 11:10 and we'll take up the 3 surrebuttal and rebuttal. 5 (Recess taken.) 6 EXAMINER PRICE: Let's go back on. 7 Let's begin with the outstanding motion 8 for surrebuttal filed by Mr. Fisk on -- Tuesday? Wednesday? 10 MR. FISK: Wednesday. 11 EXAMINER PRICE: Wednesday. 12 Mr. Fisk, if you'd like to briefly 13 summarize your argument, please. 14 MR. FISK: Certainly. Thank you, your Honor. We are moving to present surrebuttal 15 16 testimony from Mr. Schlissel in order to respond to 17 the new updated and additional analyses and 18 information that AMP-Ohio presented regarding costs 19 and alternatives in their rebuttal testimony from three witnesses. 20 21 We believe that such a request is 22 appropriate under Jackson County Power which states 23 that the proper response to an applicant getting 24 rebuttal testimony is for the intervenors to re-call

a witness in order to address those issues.

We think it's especially appropriate here, given that AMP-Ohio's witness, Mr. Clark, has specifically stated that he is using Mr. Schlissel's CO2 numbers to do an updated cost analysis and if he is going to use Mr. Schlissel's numbers, we think it's very appropriate for Mr. Schlissel to have the opportunity to respond to that and address the use of those numbers and the cost analysis that goes along with that.

In addition, there's been in AMP-Ohio's rebuttal testimony various other issues addressed regarding the use of natural gas, construction cost risks, and the pursuit of renewable energy that we think it is appropriate to allow Mr. Schlissel the opportunity to respond to.

EXAMINER PRICE: Mr. Bentine.

MR. BENTINE: Thank you, your Honor. Let me just say I think in this case, first of all, the reliance on Jackson County Power is completely misplaced. Jackson County Power was a situation in which the ruling was you should have raised this at trial and you should have asked to put on rebuttal witnesses. It does not in any way, shape, or form

stand for a right to put on surrebuttal, but simply says you blew it by not asking for it.

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So all that means is that from a procedural standpoint, as I read that Jackson County case, is that you waived your right, don't raise it on rehearing if you don't raise it at hearing.

So that's not the situation here. The situation here is they've raised it, so then the analysis goes to whether or not it is appropriate to put on surrebuttal testimony.

First of all, I think we've indicated as usual procedure here and in Ohio the party with the burden of proof has the right to both open and close, and what that means in this circumstance is what Mr. Fisk is asking for is really the right to close, either that or we're going to have some right to come back and argue that Mr. Schlissel's testimony is inappropriate and we would have sur-surrebuttal, I guess, since we would have the last bite at the apple.

But more importantly, surrebuttal testimony, at least as I understand it, is limited to matters which are first raised during rebuttal testimony. All of the matters that have been

discussed by our rebuttal witnesses were first raised by Mr. Schlissel; every one of them.

If we turn to Mr. Schlissel's testimony, which I had here just a moment ago, if we look first at Mr. Schlissel's testimony and look at page 3 where he begins his conclusions -- and while you're getting that out, your Honors, I would for my foundation for my point with regard to matters that were raised on rebuttal being appropriate for surrebuttal rather than matters that were raised earlier, I would cite to Morris versus Faurot, that's, F-a-u-r-o-t (1871) 21 Ohio St. 155 at 162.

What our testimony in rebuttal has done is answered and narrowly answered criticisms first raised by Mr. Schlissel, not first raised by us in our rebuttal testimony.

If you look at the conclusions that are discussed there, conclusion No. 2 is "The most significant uncertainties and risks associated with the proposed AMPGS are the potential for future federal restrictions on CO2 emissions and further increases in the project's capital cost."

No. 4, "In particular, it is important for AMP-O and its member communities to examine their

involvement in the AMPGS Project in light of coming federal regulation of greenhouse gas emissions. It would be imprudent for AMP-O and its members to continue their participation in the Project without fully considering the risk of significantly higher CO2 prices in its resource planning process. To reflect the uncertainties and risks, AMP-O should use a broad range of possible CO2 prices in resource planning such as the forecasts presented by Synapse in this Case"; exactly what we did.

No. 5, and I won't read all these into the record, but No. 5 talks about soaring power plant costs and that we didn't take those into account, we needed to update our numbers later on in this testimony.

No. 6, the methodology used by AMP-Ohio and R.W. Beck last winter to prepare, it used a single load forecast for CO2 prices and a year-old capital cost for the AMPGS project. Clearly, clearly -- and it goes on that we didn't consider other resources in looking at -- somewhere here I have some cites for that, throughout his testimony, but there are numerous places in his testimony where he says we didn't consider other alternatives, we

didn't consider other kinds of generation in coming up with this.

So all of these issues were squarely put in and brought into this case in the direct testimony and, to a lesser extent, cross-examination of Mr. Schlissel.

Our testimony by Mr. Clark addressed the construction cost -- increasing construction cost issues directly, it utilized Mr. Schlissel's midpoint of his range and found that the conclusions did not change. There was an opportunity for Mr. Fisk to ask all the questions he wanted about whether or not that was properly used, that is, in other words, did we use wrong numbers for Mr. Schlissel?

There wasn't one question about that, not one, on cross-examination. Not one. And now they want to bring on Mr. Schlissel to put on surrebuttal to further make arguments with regard to the original arguments that they raised which I don't think is appropriate surrebuttal.

Appropriate surrebuttal is if issues are raised for the first time on rebuttal. Obviously, we didn't do that, there wasn't an objection that it was inappropriate rebuttal and so, therefore, I think

that closes the door on whether or not there should be surrebuttal allowed.

EXAMINER BOJKO: Mr. Fisk, I was a little confused by your statement. Are you saying that your surrebuttal witnesses would be responding to all three of AMP-Ohio's rebuttal witnesses or just to Mr. Clark?

MR. FISK: We believe it would be appropriate that Mr. Schlissel would be able to respond to all three.

EXAMINER PRICE: And what matters were first raised on rebuttal that you would be responding to for all three?

MR. FISK: We believe that they have referred to, especially Mr. Clark, but have referred to providing new and updated information and additional analyses that had not been previously provided that, as a simple matter of fairness, Mr. Schlissel should be permitted to respond to.

Essentially, AMP has known since our intervention papers were filed CO2 costs and alternatives were going to be an issue in this proceeding, and they waited until rebuttal to provide a new CO2 analysis, cost analysis, that we then have

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no chance to respond to at all.
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EXAMINER PRICE: That's one of the three areas. What matters were first raised with respect to -- I mean, doesn't Mr. Bentine have a point?

Mr. Schlissel said AMP-Ohio didn't properly consider the alternatives, they put on two witnesses indicating the alternatives that they had considered, how is that first raised on rebuttal?

MR. FISK: Well, we believe that those alternative issues should have been raised in their direct and they saved it to rebuttal when we have no chance to respond, and we should have a chance to respond to that.

MR. BENTINE: Could I have that reread?

I missed the --

MR. FISK: I'm sorry.

EXAMINER BOJKO: Would you speak up,

18 please?

MR. FISK: We believe that those alternative issues were clearly at issue and should have been raised on direct, and instead they've been raised in rebuttal where we have no chance to respond to it. And that's most clear with regards to Mr. Clark's testimony, but we believe it also applies

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1 to all three.
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MR. BENTINE: If he's done, I would like a chance to respond.

MR. FISK: And I would also note when we spoke with Mr. Clark, you know, he seemed to be unaware of the details of much of his new cost estimate, so our ability to cross him on that was quite limited.

EXAMINER PRICE: Mr. Bentine.

MR. BENTINE: Very briefly, your Honor.

First of all, we didn't sandbag this. They raised this for the first time. We're allowed to put it on. If it was inappropriate rebuttal, they should have objected. They didn't object. So to argue now that this should have been in our direct and, therefore, they have a right for surrebuttal --

EXAMINER PRICE: Well, I think they did object to the idea of rebuttal, period.

MR. BENTINE: They withdrew that objection, your Honor.

EXAMINER PRICE: That's a good point.

Okay. Fair enough.

MR. BENTINE: So I think it inappropriate on the whole to argue that, well, it should have been

direct, your rebuttal was improper, I didn't object, and now -- so that I'm allowed to do that.

Secondly, I would say this, I think it wholly inappropriate to allow surrebuttal on issues that they didn't even cross on. They didn't ask any questions, so there's no ability to tell whether or not this witness could have answered the questions that he may have posed on any of the issues that he claims are new information. But it's not really new information, it's doing exactly what Mr. Schlissel suggested ought to be done with regard to the, quote, new and updated information.

EXAMINER PRICE: Doesn't he make a good point that it was a new analysis? It was a new analysis that Mr. -- leave aside the alternative issues, the one issue is the new run of numbers by Mr. Clark. Doesn't he make a good point that was a new analysis that was introduced on rebuttal?

MR. BENTINE: It was an analysis that used some new numbers.

EXAMINER PRICE: Okay.

MR. BENTINE: And I would suggest that if there is surrebuttal on that, it should certainly be strictly limited to you didn't use the right numbers

from my testimony. Anything else could have been asked on cross. And I'm not admitting that that ought to be correct, because I don't think so.

EXAMINER PRICE: I was about to ask if you were conceding that.

MR. BENTINE: I think that clearly we have only raised on our rebuttal case issues that were first raised in their case and, therefore, we have a right to rebuttal, and they aren't raising new issues, and absent raising new issues, they don't have any right to surrebuttal.

And I would also, again, point out that they had plenty of opportunity to cross-examine on these issues that now they want to bring

Mr. Schlissel in for and really didn't do it.

EXAMINER PRICE: I'm not sold on the idea that just because they didn't ask questions on cross-examination, that concludes the surrebuttal. I mean, if we allow rebuttal testimony, irrespective of whether or not they had actually asked questions on cross-examination on the direct, so I'm not sold that that's -- do you have any --

MR. BENTINE: That's a different standard, your Honor. We're talking about using your

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    discretion --
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                EXAMINER PRICE: I understand that.
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                MR. BENTINE: -- to allow surrebuttal,
    which is extraordinary. Surrebuttal, there's no
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    right to it. There's not a right to rebuttal.
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                EXAMINER PRICE:
                                 I certainly would agree
7
                                        I'm not
    that surrebuttal is discretionary.
    disagreeing with that at all.
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                EXAMINER BOJKO: Do you have the Morris
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    case for the Bench?
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                MR. BENTINE: No, but I can certainly --
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                EXAMINER BOJKO: That's the first I've
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    heard of that case.
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                MR. BENTINE: Well, it was the first I
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    heard of it too, until we started looking at it.
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                MR. FISK: The first I heard of it, too.
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                MR. BENTINE: We can certainly get a copy
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    of that right away for the Bench.
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                But, again, if the issue is they say
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    anything different on rebuttal, then you can always
    have surrebuttal. There has to be, I think,
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    discretion. I think discretion here clearly is that
    these issues were first raised by them, we're
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    entitled to rebut it. But I don't know how you would
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preclude us from doing sur-surrebuttal, then, on anything that Mr. Schlissel said.

EXAMINER PRICE: Well, again, I think it's a matter of discretion. The one thing --

MR. BENTINE: We're entitled to close, your Honor.

EXAMINER PRICE: The one thing you've convinced me of is that nobody's entitled to anything right now and everything is at the discretion of the administrative law judges.

MR. BENTINE: But we are entitled to close.

EXAMINER PRICE: I'm not sold about that either, on the sur-surrebuttal.

One second.

We're ready to rule on this. I think
we've heard enough on this topic. Again, I certainly
agree with the arguments that Jackson County doesn't
entitle anybody to anything, and I certainly, you
know, at this point we are within the discretion of
the administrative law judges, and I don't need to
address at this point questions of sur-surrebuttal
because you're not asking for that yet, but we will
grant surrebuttal, but it's going to be narrowly,

narrowly restricted to the new analysis that Mr. Clark testified on.

He had a new set of assumptions, there were new natural gas prices, there was new use of the Synapse, so surrebuttal is granted, but this is not the three issues that you asked for, it is solely the new analysis presented by Mr. Clark.

At the conclusion of surrebuttal if AMP-Ohio wants to move for sur-surrebuttal at that point, then we'll take it up at that point. I'm not totally sold that your right to close overrides our right to start limiting the scope of this hearing.

MR. FISK: Thank you, your Honor.

MR. BENTINE: I understand your ruling, your Honor.

MR. FISK: Thank you, your Honor.

MR. BENTINE: Can we talk about timing?

EXAMINER BOJKO: Let's rule on the other

motion first.

EXAMINER PRICE: We also have a motion for rebuttal testimony.

EXAMINER BOJKO: What is your basis for this motion, Mr. Fisk, summarized?

MR. FISK: Right. We have three bases,

the first is we believe it's directly responsive to testimony presented -- direct testimony presented by AMP's witness and the staff witness. Essentially, Kiesewetter, Meyer, Couppis, and the staff witness all testified that they determined the probable environmental impacts of the proposed AMP coal plant, all testified -- or they testified that it was minimum adverse environmental impacts.

been part of your direct case? If AMP-O has the right to open, and we don't know about the right to close, but they have the right to open, why would that not have been a part of your direct case? Why would you not have already had a witness that would speak to those issues? I do not understand that.

MR. FISK: We believe it became clear after these witnesses testified about the environmental impacts and that they had not considered CO2 impacts or climate change impacts.

EXAMINER BOJKO: Can you direct me to something specific that was said, because I'm struggling with that. The only testimony I recall is you questioning staff's witness about a sentence that we think you agree with.

1 MR. FISK: We also questioned 2 Kiesewetter, Meyer, and Couppis regarding their 3 statements that they have determined the 4 environmental impact and/or that they had determined it was a minimum adverse environmental impact, and we 5 6 asked them "In making that determination did you 7 consider CO2?" 8 EXAMINER BOJKO: And wasn't that in your -- weren't those statements in everybody's 10 direct testimony or in the Staff Report? 11 MR. FISK: The statements regarding the 12 environmental impacts were. The questions as to 13 whether they had considered the CO2 impacts in 14 making --15 EXAMINER PRICE: What would you be 16 rebutting even though they testified they did consider it? I don't understand that. 17 18 MR. FISK: We would be rebutting that 19 they had determined the environmental impacts of the 20 plant. They said --21 EXAMINER BOJKO: You'd be rebutting what? 22 I'm sorry. 23 MR. FISK: They say they've determined 24 the environmental impacts of the plant and that it's

a minimum adverse environmental impact. On our cross-examination we determined that they did not include CO2 impacts in that determination.

EXAMINER BOJKO: Okay.

MR. FISK: So we would be rebutting their statement that they had determined the environmental impacts.

EXAMINER BOJKO: Didn't you already rebut that statement via what you just said via cross-examination?

EXAMINER PRICE: Certainly impeached the witness.

MR. FISK: We've impeached, but evidence showing the environmental impacts of CO2 and climate change to rebut that.

it was clear what their position was. In the Staff Report, which was issued six weeks before the hearing, it was clear what the staff's position was. I'm struggling to understand what came out on direct that you're entitled to rebut.

MR. FISK: Direct made it clear that they had not considered those things, and I believe it's a matter of consistency. In our intervention motions

we made clear that CO2 costs and alternatives were at issue --

EXAMINER BOJKO: You should have put witnesses on to say that.

MR. FISK: -- and that AMP put on rebuttal witnesses to address those things.

EXAMINER PRICE: My understanding is you want to put a witness on, not about costs, we've had lots of witnesses about CO2 costs, my understanding is you want to put on a witness about global warming.

MR. FISK: Right. But I'm saying it's a matter of consistency. AMP knew from our intervention papers that CO2 costs --

EXAMINER PRICE: We're not talking about CO2 costs. We're talking about global warming.

MR. FISK: I'm just saying they knew that CO2 costs and alternatives were at issue and now they're presenting rebuttal witnesses to address those things. So our argument is that we're in the same position here.

EXAMINER BOJKO: They have the burden of proof in this case. You saw their application, you picked your witnesses that you would like to put on to refute their application --

EXAMINER PRICE: And the Staff Report.

EXAMINER BOJKO: -- and the Staff Report, and you could have brought in a witness on climate change. Granted, we would have had arguments, I'm sure, about relevancy and all those good things, and scope of the hearing, but you could have made that witness file direct testimony the same as all your other witnesses, and that should have been part of your direct case.

MR. FISK: I guess we believe it's a matter of consistency that we're entitled to rebut those statements.

EXAMINER BOJKO: Consistency to what?

MR. FISK: It's consistent with the

allowance of three rebuttal witnesses by AMP on

issues that were clearly relevant --

as to matters that your witnesses testified.

Schlissel testified X, that they hadn't studied,

properly studied renewable alternatives; we had two
witnesses today discussing what they had done on
renewable alternatives. Schlissel testified that
they hadn't adequately considered a new carbon cost;
they put on a witness today with a new carbon

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analysis.
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                           Right.
                MR. FISK:
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                EXAMINER PRICE: Those were absolutely
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    directly rebutting actual testimony.
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                MR. FISK:
                           Right.
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                EXAMINER PRICE: I don't know where
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    you're coming from on what testimony you want to
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    rebut.
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                MR. FISK: And their witnesses testified
    that they have determined the environmental impacts
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    of the proposed AMP coal plant.
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                EXAMINER BOJKO: And you knew that that's
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    what they were going to testify during prefiled
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    testimony which was filed before your testimony, so
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    then you should have put on your witness --
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                MR. FISK: They were filed at the same
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    time.
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                EXAMINER BOJKO: That's correct.
                                                   Well,
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    their application was filed.
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                EXAMINER PRICE: Again, what I'm
    struggling with is I don't recall anybody
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22
    disputing -- you're saying you want to put something
    not on cost, but on global warming and climate
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change.

MR. FISK: Impacts.

EXAMINER PRICE: And it seems to me that although Mr. Bentine argues that that's not relevant to the Board's determination, that AMP-Ohio has never testified that global warming is not happening and global warming is not being caused by carbon dioxide emissions. The staff in the Staff Report did not acknowledge that.

It seems to me you want to put on a witness to testify to an issue that's not in dispute whatsoever.

Mr. Bentine.

MR. BENTINE: Well, your Honor, very quickly, with regard -- I certainly, my first struggle was what is he rebutting and what are they asking to rebut, because I think, as your Honor just indicated, we didn't put into issue global warming and we didn't say that we did consider, quote, global warming in this. In fact, I think as the Bench knows, we have taken the position that global warming as an issue is irrelevant to this proceeding.

I would also point out that Mr. Fisk did try to put in some information on global warming in his testimony, and that testimony was stricken. So

this, in my view, is they've got it stricken the first time, so now they want a second bite at the apple to try to bring it in.

Clearly, if you look at their intervention, they raised issues with regard to global warming. In fact, that was the subject of one of our motions in limine in this proceeding was to make sure that all of that stuff that got put in there on global warming was not going to be part of the evidentiary record in this proceeding as opposed to whatever they had attached to their intervention.

So this one is completely out of line, in my view. There's nothing to rebut on this record, it is irrelevant on this record and, in fact, the attempt to put it in the first time in their direct, which is where it should have been if they were going to try to raise it, was stricken.

I may have had a tougher time had they brought an expert on global warming, and maybe you would have allowed that to be on, but the fact is there wasn't, there's nothing to rebut, and this ought to be denied quickly.

EXAMINER BOJKO: Mr. Fisk, if the point of this --

EXAMINER PRICE: Staff.

MR. JONES: Staff would just echo the same comments that Mr. Bentine has offered on behalf of AMP-Ohio, that their motion for doing rebuttal testimony is not appropriate.

EXAMINER BOJKO: Mr. Fisk, I think that you attempted to get a document in on global warming, that you could have very well have known that that was an exhibit you wanted to put into the record and that you could have had a witness support that document and you chose not to, you thought you could do it another way, and that didn't work because of the objections raised at the time of how you were attempting to use that document.

You knew that you wanted to use that exhibit, you should have brought somebody in to support that exhibit, and you did not, and it is inappropriate to try to do that at this late date.

The applicant puts on their witnesses, then you have a chance to put on your witnesses, and even though the order was a little mixed up in this case because we were trying to work around all of your experts and all your flight schedules and everything, that's how it usually ends up.

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1 EXAMINER PRICE: And constructively 2 that's how it is. 3 EXAMINER BOJKO: Right. 4 The Board will read EXAMINER PRICE: 5 their testimony in the proper order. 6 EXAMINER BOJKO: Right. So we are going 7 to deny your motion for rebuttal. EXAMINER PRICE: Move on to our next 9 motion. 10 MR. FISK: Okay. 11 EXAMINER PRICE: We have a motion for 12 reconsideration. I guess depending on how we come out on the motion for reconsideration it may make the 13 motion to strike moot, so let's go ahead and deal 15 with the motion for reconsideration. 16 EXAMINER BOJKO: Again, I think this was 17 Furman and I think that this stems from, if I may 18 quickly try to put us all on the same page, this 19 stems from motions that were granted with regard to 20 certain exhibits attached to Mr. Furman's testimony. 21 Is that right? 22 MR. FISK: Yes, your Honor. 23 EXAMINER BOJKO: Okay. Well, and then out of that stemmed AMP-Ohio's motion to strike 24

portions of his actual testimony that related to those exhibits.

MR. FISK: Yes, your Honor. And I was not clear if that motion had already been granted.

EXAMINER BOJKO: It's still pending. No.

No. It's still pending.

MR. FISK: Okay.

EXAMINER BOJKO: Then what in turn happened was AMP-Ohio then filed -- I think you filed? Did you actually file or just provide? -- the list of proposed sentences or line numbers that they would want to strike because we thought it would be too burdensome to do it orally at that time.

MR. FISK: Yes, your Honor.

EXAMINER BOJKO: So that's what they provided.

MR. FISK: Yes.

EXAMINER BOJKO: So I would take, first of all, your motion for reconsideration as really a memo contra the motions to strike. So I think it's more -- in part.

MR. FISK: Yes.

EXAMINER BOJKO: So I think it's more advantageous at this point to kind of separate the

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issues. They have not yet been granted motions to strike exact testimony except for one page that was granted during the hearing. They have not been either granted or denied those motions to strike with regard to certain lines of their testimony. We did exhibits, right, but this is based on testimony based on the exhibits.

Your second part is a motion for reconsideration of the actual exhibits.

MR. FISK: Yes.

EXAMINER BOJKO: So before we rule on striking the lines in the actual testimony that they're requesting be stricken because of the ruling on the exhibits, let's address the motion for reconsideration of the exhibits only because I think your motion was really two-fold.

MR. FISK: Yes, your Honor.

EXAMINER BOJKO: I just wanted to separate those out for clarity purposes. So first let's talk about the motion for reconsideration of striking Furman's exhibits.

MR. FISK: Okay. Thank you, your Honor. Yes, we are moving for reconsideration of the prior rulings to strike RCF-4, -7, -8, -12, -13, and

portions of -11. We believe they're admissible under two separate bases.

First, all of the exhibits at issue we believe are admissible under the expansive rule of evidence that's directly applicable in this proceeding. As we previously discussed, OAC 4906-7-09(A) provides that the ALJ shall admit all relevant and material evidence, except evidence that's unduly repetitious, even though inadmissible under the Rules of Evidence applicable to judicial proceedings.

The word "shall" in this rule is mandatory. The ALJs must admit evidence that is relevant and material. We believe all the exhibits are directly relevant to the proceeding as they address cost of emissions of an IGCC power plant which is an alternative to AMP's proposed coal plant.

With the exception of RCF-8, I believe all of the exhibits that we're referencing here were struck as hearsay and OAC 4906-7-09(A) does not require the exclusion of an exhibit as hearsay.

As for RCF-8, which I believe was struck on the grounds of relevance, and that is the exhibit that compares the cost of pulverized coal versus IGCC

plants burning petcoke in Florida, Ohio Rule of Evidence 401 states that evidence is relevant if it, quote, has any tendency to make a material fact more or less probable.

As I noted, RCF-8 demonstrates the advantage of an IGCC over a PC plant is the ability of an IGCC to burn petcoke rather than coal. The fact that it's a chart for Florida rather than Ohio isn't a ground for making it irrelevant, it simply goes to the weight of the evidence that should be given to this exhibit, but it doesn't make it irrelevant.

And I would note, for example, that AMP itself provided cost data from other states in Ivan Clark's Exhibit, I believe 1 with a map listing the cost of power and the cost of -- or the percentage of coal from every state in the country.

So we believe that this exhibit should be allowed back in because it is relevant.

EXAMINER PRICE: There you're just disagreeing with the original ruling. There's nothing new that you're adding to the record that you hadn't previously argued. I understand that you hadn't made an argument as to 4906-7-9(A) at the time

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1 of the hearing. 2 MR. FISK: Okay. 3 EXAMINER PRICE: But there's nothing 4 new --5 EXAMINER BOJKO: You did arque relevance. 6 EXAMINER PRICE: You did arque relevance That's simply -- you still don't agree with our decision on relevance. Aren't you being inconsistent, though? Ι 10 mean, at the hearing when Mr. Bentine's witnesses 11 were up, you moved to strike portions of their 12 testimony. So isn't it being inconsistent now to 13 come to us, having moved to strike and 14 successfully had some of their exhibits withdrawn or 15 stricken, to come to us now and say, "Hey, all 16 evidence has to come in"? 17 MR. FISK: I'm trying to remember what we 18 moved to strike. 19 EXAMINER PRICE: Mr. Colangelo moved to 20 strike one of his witness's testimony, one of his witness's exhibits, and Mr. Bentine withdrew the 21 22 exhibit on the motion to strike. 23 MR. FISK: I'm sorry. Could you refresh 24 which exhibit that was?

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1 EXAMINER PRICE: Couppis, I believe. It 2 might have been Couppis, it might have been Clark, 3 I'm not sure. MR. BENTINE: I don't recall. We can 4 5 find out real quick. I think it was Mr. Meyer. 6 EXAMINER PRICE: Oh, Mr. Meyer. 7 sorry. 8 EXAMINER BOJKO: I think it was 9 Mr. Meyer, actually. 10 EXAMINER PRICE: Mr. Bentine's 11 recollection is far better than mine. 12 MR. BENTINE: Let's don't give 13 Mr. Bentine credit for remembering that. 14 EXAMINER PRICE: It doesn't change the 15 fact that aren't you being inconsistent to come now 16 and say, after moving to strike their testimony, to come in and say all relevant evidence should come in? 17 18 EXAMINER BOJKO: It was Meyer RM-5. 19 MR. FISK: RM-5. I would have to refresh 20 my memory as to what the basis for --21 EXAMINER PRICE: Hearsay. 22 MR. FISK: -- moving to strike that was. 23 EXAMINER PRICE: Hearsay. 24 EXAMINER BOJKO: It was because he didn't

look at the numbers himself. He couldn't verify where the numbers came from.

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MR. FISK: We believe the rule is clear here, we had to -- given your ruling on our exhibits I believe we had to make that motion with regard to their exhibits, but we do believe that the overall rule of evidence here is very clear and that all relevant evidence shall be admitted.

EXAMINER BOJKO: So are you suggesting that we should now let Mr. Meyer's exhibit come in?

EXAMINER PRICE: We can always reconsider it sua sponte.

MR. FISK: I'm certainly not going to move to reconsider it. We believe that all of these are relevant and should be allowed in.

EXAMINER PRICE: Mr. Bentine.

MR. BENTINE: First of all, your Honor, I think motions of reconsideration are disfavored. In fact, I think your Honor has popped me on that in the past on filing a motion for reconsideration. So I don't think that's the appropriate way to do this under the Board's rules. I think you make the proffer and you go on with it.

With regard to the idea that all you have

to do is bring in a piece of coal or a bottle of CO2 and that can become an exhibit and evidence in this proceeding without more is ludicrous. At least in Ohio law the word "shall" doesn't mean shall. In fact, Ohio law says that "shall" must be interpreted as permissive or advisory, however, if it appears from the wording, sense or policy that in this case was discussing a statute, but it goes for rules as well, that the legislature so intended, and that's Woodman versus Tubbs Jones, a 1995 case out of the Cuyahoga County Circuit Court, 103 Ohio App.3d 577 at 581.

The idea that the administrative law judges have no discretion with regard to -- other than if it's cumulative or repetitive you can't keep it out, goes against the precedent at this Board and at the related Public Utilities Commission since at least 1973 when I first stepped my foot in the doors here.

It is absolutely ludicrous to think that all we have to do is establish by some iota, regardless of credibility, regardless of materiality, regardless of other admissibility, if it's relevant, it gets in and you folks have no discretion. I

think, as you pointed out, certainly the NRDC has taken that step in the past as well.

EXAMINER BOJKO: Just for the record, we need to add that we also struck some of Miss Young's exhibits for these very same reasons.

EXAMINER PRICE: We would argue at least we've been consistent regarding our principles here.

EXAMINER BOJKO: Staff, do you have anything to add?

MR. JONES: Nothing else to add.

EXAMINER BOJKO: We believe that citizen groups are reading the rule 4906-7-09(A) extremely broad and that it was never intended to be that broad, that you could bring anything under the sun into the record.

And we also feel that your interpretation of the federal Rules of Evidence and the Ohio Rules of Evidence is misplaced, there are specific provisions about learned treatises and expert testimony and what they can testify to versus what is actually brought in as evidence, and I think that citizen groups are misconstruing those rules and are not making the proper distinction between testimony and charts and documents that were not constructed by

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1 any witness or supported by any witness of what can 2 be brought into the record and what cannot be in the 3 record. At this time we are going to deny citizen groups motion to reconsider striking certain exhibits 5 6 to the testimony of Mr. Furman. And we would also note that the one exhibit, as you pointed out, was made based on relevancy, and we will affirm that decision as well. 10 So Exhibits RCF-4, RCF-7, RCF-8, RCF-12, 11 RCF-13 remain stricken from the record. I apologize, 12 if anybody can't hear me, my throat and a cough drop are not working well together today. 13 14 Now let's move to the second piece of 15 this which is actual testimony that AMP-Ohio moved to 16 I don't believe this was actually filed, strike. 17 Mr. Bentine. 18 MR. BENTINE: Your Honor, I think there 19 was one more. On RCF-11 there was a partial strike. 20 EXAMINER BOJKO: I'm sorry. Portions of 21 RCF-11, you're right. 22 MR. BENTINE: Thank you. 23 I think it was the EXAMINER BOJKO:

bottom portion, if I recall, of RCF-11, that that

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| would also remain stricken.

EXAMINER PRICE: And the crux of the ruling is the motion for reconsideration was denied, all of our previous rulings stay in place.

EXAMINER BOJKO: Okay. We're just going to have to go through these one by one.

MR. FISK: I believe, your Honor, they have a motion as to whether or not any of this should be struck that needs to be argued first.

EXAMINER BOJKO: No, I believe they moved to strike and we said provide the lines and the testimony and we will consider it one by one.

MR. FISK: So the motion to actually strike part of the written testimony has already been granted?

EXAMINER BOJKO: No. We need to read each one to determine whether that motion pertained to that specific testimony as granted or denied.

MR. FISK: We had in our motion for reconsideration, we had the argument that even if the exhibits are struck, the actual testimony should not be struck.

EXAMINER BOJKO: I understand that. And then you also did an alternative of you went through

each one. I want to go through each one and make that determination.

MR. FISK: Okay.

EXAMINER BOJKO: They did a broad motion to strike that they kind of deferred, I guess, until they produced actual lines to be struck, and we just have not yet ruled on that. So we need to go through each one and they're going to do little individual motions to strike for each one of these.

EXAMINER PRICE: I just don't think we're going to take any more arguments, though.

Are we?

EXAMINER BOJKO: Yes.

EXAMINER PRICE: Oh.

EXAMINER BOJKO: I'm sorry.

MR. BENTINE: Might I make one more point, then? Because I did have one other point that goes to these as opposed to the other stuff.

EXAMINER BOJKO: Okay.

MR. BENTINE: And that is this, in looking at this I would urge your Honors to keep in mind the difference between the federal rule relied on heavily by NRDC and the citizen groups and the Ohio rule with regard to appropriate testimony by

experts, and there's a case that I think falls right on point here on a couple points, Azzano versus O'Malley-Clements, it's a 1998 case, 126 Ohio App.3d at 368 -- at 374, this consistently I think states the difference between the Ohio Rules of Evidence and the federal rules, again, relied on heavily by the citizen groups.

And I'm quoting under this quote, "Ohio" rule, unlike Federal Rule of Evidence 703, "expert opinions may not be based on other opinions and may not be based upon hearsay evidence which has not been admitted."

Now, admittedly, experts in the course of proceedings such as this are not strictly held to this standard at this commission, our experts and their experts, so I'm not saying that that is the absolute rule for this proceeding, but what I am saying is that there is a much narrower Ohio rule on what experts can do.

And the reason I'm pointing it out now is to the extent that there is no support other than those exhibits that have been stricken within this testimony, at least the Ohio rule would say that testimony based on that hearsay, et cetera, ought to

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also be excluded. In other words, it can't independently exist. So that's the only point I wanted to make as we go through these.
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EXAMINER BOJKO: Except for I believe that there are hearsay objections that could -- you mentioned hearsay, they can't be based on hearsay, but there are hearsay exceptions. I'm sorry, I said "objections."

MR. BENTINE: Absolutely.

EXAMINER BOJKO: Hearsay exceptions to those rules.

MR. BENTINE: That is true in the rule that I cited as well.

EXAMINER BOJKO: Right.

MR. FISK: And I'd like to respond to that.

EXAMINER BOJKO: Sure.

MR. FISK: Mr. Bentine refers to us relying heavily on Federal Rules of Evidence. We've also quoted in our -- cited in our brief state cases and references to the state Rules of Evidence that we believe make it appropriate to preserve all of Furman's written testimony even if the exhibits are struck.

First of all, once again, the OAC 4906-07-09(A), specifically Ohio Supreme Court case State versus Solomon which says that an expert can testify as to facts or data received by him, and with regard to RCF-12 there's testimony in the record that Mr. Furman confirmed 50 percent of the numbers in that exhibit and, therefore, those are facts received by him.

And then thirdly, the case of Nilavar versus Osborn, which is 137 Ohio Appellate 3d 469 in which the Ohio appellate court made clear that Ohio Rule 703's requirement that testimony be based on facts or data perceived by the witness is limited to the facts or data in the particular case and that it's still appropriate for a witness to rely on charts and other things that have not been prepared by him and is not in evidence the case.

In Nilavar that involved an actuarial chart prepared by A.M. Gamboa that was not in evidence in the case, but that witness was allowed to rely on that actuarial chart for his written testimony and his written testimony stayed in.

EXAMINER BOJKO: Okay. I have thoroughly read your motions and your briefing of that issue, I

have thoroughly reviewed the rules, and I've heard Mr. Bentine's response on the general.

I think some of the issues that we're talking about go to specific sentences and that's why we need to go through it. I think you're using words of, you know, perceived by him while there's a question about whether he could state that this was valid or not.

I mean, that's why we need to go through each one and that's why we're not going to make a general ruling, we need to make specific rulings about each one.

MR. FISK: Okay. Could we go off the record?

EXAMINER BOJKO: Sure.

(Recess taken.)

EXAMINER BOJKO: We can go back on the record, and just to clarify now that I've heard some general oral arguments, we don't necessarily have to argue fully in length and at length about each and every one of these. Some of these are easy to rule on and we can do that quickly.

The first one I have, Mr. Bentine, is on page 3, line 17 through 19, the sentence that starts

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with "My testimony."
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MR. BENTINE: Yes, your Honor.

MR. FISK: Your Honor, could I request that we go by exhibit?

EXAMINER BOJKO: Well, some of these I'm not sure attach to necessarily an exhibit.

MR. FISK: Okay. I was just asking because I know AMP wrote their motion in terms of exhibit, we wrote our response, but --

EXAMINER BOJKO: We could do that. We could start with -- I think it will be clearer for the record if we just go through by pages.

MR. FISK: Okay. That's fine.

EXAMINER BOJKO: I'll reference back, I have both of your motions in front of me -- well, maybe AMP-O for this one can do a basis.

MR. BENTINE: RCF-13 was stricken and the reference here is "My testimony shows that an IGCC plant can eliminate between 40 and 93 percent of various air pollutants that the proposed PC plants will emit." That testimony was taken directly and relied upon Exhibit RCF-13 which has now been stricken. Absent that, it has no foundation in this and should be stricken as well.

I would also point out that there was an attempt on redirect to rehabilitate these numbers; that didn't work. So standing on its own I believe it has no foundation now and it needs to go out as RCF-13 did.

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EXAMINER BOJKO: This sentence, it

doesn't reference specifically RCF-13. I believe

that this could be his opinion, his expert opinion,

based on information he has reviewed in this process,

so the motion to strike with regard to the sentence

is denied.

The next one I have is on page 6.

MR. BENTINE: If I might, your Honor. I believe my cross-examination probably showed that this was tied to this exhibit.

EXAMINER BOJKO: But I think just because the exhibit is deleted doesn't mean an expert cannot study learned treatises and make his own expert opinions.

MR. BENTINE: I understand that, but I believe my cross-examination showed that he relied on RCF-13 to make this statement, and John Thompson did this. In other words, there was cross-examination on this that I don't think that we can simply say "Well,

he could have based this on something else." My belief is that my cross-examination showed that he relied on RCF-13 to come to this conclusion.

I agree it's not cited here. I think that's what my cross-examination did.

EXAMINER BOJKO: Mr. Fisk, do you have a response? I cannot see where the numbers even come from the exhibit.

MR. FISK: Your Honor, I believe, A: It is based on his expert opinion and could have come from other learned treatise or other knowledge he's gained as an expert; I believe it's also consistent with RCF-14 which discusses the comparison of the AMP-O plant versus the Taylorville plant.

I understand that you struck RCF-12, but I believe it's consistent with the permit levels there and that he, Mr. Furman, has testified that he verified that we presented those, so he has significant knowledge that he's even personally verified about the comparative emission rates of an IGCC versus a PC plant and that for all those reasons this line should stay in.

MR. BENTINE: We're going to try to find that in the testimony, your Honor. Maybe we can come

1 back.

EXAMINER BOJKO: We can come back to that

3 one.

EXAMINER PRICE: If you can find the

5 | cite.

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MR. BENTINE: I think a number of these

7 | may be like that.

EXAMINER BOJKO: That was on page 6.

MR. BENTINE: Page 6? I'm sorry.

EXAMINER BOJKO: Yes, page 6, lines 21 to

11 | 23, that sentence in that testimony presents

12 | comparisons, those comparisons no longer exist

because they were struck, so the motion to strike

14 them at issue will be granted.

MR. FISK: Your Honor, there is still the

comparison between the AMP coal plant and the

<sup>17</sup> Taylorville plant. In addition, I would note once

18 again that Mr. Furman verified 50 percent of the data

19 | in RCF-12.

MR. BENTINE: Is the new standard in Ohio

21 | 50 percent? If it's 50 percent, it's okay?

MR. FISK: Well, he's personally verified

23 that information and shown that and, therefore, that

24 | forms a basis for him to be able to compare IGCC

versus PC.

this one was asked to be stricken based on RCF-12 as the basis. My motion stands, this one is stricken, but I can see from counsel that this is not going to be easy to go through each one quickly, so I guess I will have to take a quick brief argument basis and a defense for each and every one and then I'm going to make my ruling and we're not going to continue to debate each issue as, again, I have reviewed this and I have looked through all the other things and I would like to move through this quickly.

So lines 21 through 23, the sentence starting with "My testimony" ending with "plants" will be struck. Motion is granted.

Let's move on to page 10. Maybe in your bases if you can say what table you thought it was referencing, Mr. Bentine, it will move this along quicker.

MR. BENTINE: I believe that the record shows that the language there was from RCF-4 and -12. I'm sorry. I'm sorry. Our motion had things identified by the exhibit number, not page number, so yes, I believe RCF-12 is what is being referred to on

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1 page 10, lines 11 through 15. 2 EXAMINER BOJKO: Mr. Fisk, do you have a 3 response? I would note that Mr. Furman MR. FISK: 5 in lines 12 through 15 actually presents a source 6 right there, the air construction application for Tampa Electric, which is RCF-12. And, once again, we believe that since Mr. Furman verified RCF-12, that it should stay in. 10 EXAMINER BOJKO: With this I think that 11 this one is in two parts. I think that he is an 12 expert and he can give his opinion, but there's a difference between allowing an unverified exhibit 13 14 into the record as evidence and him just drawing 15 conclusions based on his expertise. 16 So the sentence "The majority of recent 17 final permits for IGCC plants in the U.S. have 18 included SCR for lower NOx emissions," I think that's 19 his conclusion and that can stand because he is an 20 The source, however, will have to be expert. 21 stricken because that is reference to the exhibit. 22 EXAMINER PRICE: So we'll strike 23 everything on line 12 beginning with "Source" and

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ending with line 15.

EXAMINER BOJKO: Again, the rules are clear about hearsay exceptions and the difference between exhibits as evidence and testimony.

Down below we have another situation where there's a specific reference to Exhibit RCF-4 on line 19, page 10. Motion to strike will be granted. That portion that's highlighted "as shown in Exhibit RCF-4" will be stricken. The rest of the sentence remains.

I'm assuming I don't need arguments on that one.

Page 14, lines 12 through 24, I was a little confused about why this was necessarily tied to an exhibit. This was already granted, a motion to strike was already granted during the testimony, I believe it was based on numerous items, one being lack of expertise regarding health costs.

MR. BENTINE: I think you're right on that one, your Honor.

EXAMINER BOJKO: So lines 12 through 24 will remain stricken from the record as ruled upon during the hearing.

MR. FISK: Your Honor, I would just note that 15 through 17 does not rely on the exhibit that

was struck. It's simply his opinion.

EXAMINER BOJKO: Right, and that's the opinion that was struck because he didn't have expertise as to whether he -- health costs. We talked about this during the hearing.

MR. FISK: Right. But he's not saying, in lines 15 through 17 he's not stating what those health costs are, he's just simply stating his opinion that health costs should be considered.

EXAMINER BOJKO: Right. And there was an argument made it's not related, as I stated before, it's not related to any exhibit. I said I was confused as to why this was tied to an exhibit. The argument at hearing was that this should be stricken because he was not qualified as a health care expert, and that was granted, so that ruling will stand.

Next is the entire page 15. I think this is one we're going to have to take in parts.

Mr. Bentine, would you like to explain what this is tied to?

MR. BENTINE: Yes, your Honor. The question here is "Have you compared the cost of electricity produced from a new IGCC plant using petcoke with the cost of electricity from a new

pulverized coal plant?"

The answer is "Yes. I prepared Exhibit RCF-8" -- which has been stricken from this record, and then he goes on to talk about what RCF-8 shows. Again on line 10, "Exhibit RCF-8 shows," and more discussion of RCF-8. And then beginning on line 24, then, "Therefore," he finds, based on the above, et cetera.

So then beginning on line 9 on page 16 he starts discussing the sources of data, again, which was stricken for what's going on with regard to RCF-8 and obviously, then, simply repeating those sources on an item that has been excluded is not appropriate.

EXAMINER BOJKO: Mr. Fisk, I know you addressed this significantly in your motion.

MR. FISK: Right. And I guess we would just, you know, reiterate that, that only 5 through 12 on page 15 and 9 through 22 on page 16 actually rely on RCF-8. The rest is based on his expert opinion and knowledge regarding the use of petcoke in an IGCC plant.

EXAMINER BOJKO: I'm going to agree with both of you in part, so we are going to grant the motion to strike in part. The question and answer,

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1 lines 1 through 4, can stand, that is just whether 2 he's done something or not. That will remain. 3 Lines 5 through 12 with the sentence 4 ending "petcoke" will be stricken because that 5 discussion is based on Exhibit RCF-8. 6 The discussion starting on line 12 7 regarding petcoke is just a discussion about sources 8 or types of petroleum coke and that will be within his expertise, so that will stand. We will go all 10 the way through, I think that the conclusion that 11 Mr. Bentine mentioned can be made using his general 12 expertise, so we will leave in everything until line 13 25 ending with "to a pulverized coal plant." 14 And then, again, we're back to talking 15 about Florida plants which is --16 MR. BENTINE: I'm sorry, your Honor, I'm 17 not following you. At the bottom of page 15? 18 EXAMINER BOJKO: The part will remain 19 from line 12 beginning with "Petroleum coke" and it 20 will end with line 25, "coal plant." 21 EXAMINER PRICE: It will not be struck. 22 EXAMINER BOJKO: It will not be struck. The conclusion can be based on his expertise. 24 I understand that, your MR. BENTINE:

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1 Honor, but now what, again --
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EXAMINER BOJKO: I'm sorry if the question doesn't make sense now, but there is no other way that this could be done.

MR. BENTINE: How does, then, the statement "Therefore an IGCC plant utilizing petcoke is a lower cost alternative" now flow from what is left in here?

EXAMINER BOJKO: Well, it goes to the question, and he can make his expert opinion known about the plants.

MR. BENTINE: But it's clear it was all based on RCF-8.

EXAMINER PRICE: And you can make that argument as to the weight the Board should grant that because there's no proper foundation for his conclusions if you choose to make that.

MR. BENTINE: I understand. I'm sorry, I don't mean to argue. I guess maybe I do mean to argue, but I'll try to restrain myself --

EXAMINER BOJKO: I'd carefully considered all of your arguments before I came into this room and weighed --

MR. BENTINE: Yes, your Honor.

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1 **EXAMINER** BOJKO: -- both arguments. 2 MR. BENTINE: Zipping. 3 EXAMINER BOJKO: Starting with line 25, "For the past 10 years," we get back into a 4 discussion of Florida that I think goes back to 5 RCF-8, that will be stricken all the way from line 25 to line 4 on page 16 inclusively. Lines 5 through 8 is just a statement of 9 plans announced, that can stand. As an expert he 10 should know what the plans are. That will not be 11 stricken. 12 And then again starting with "The sources of data" on line 9 to the end of this question ending 13 14 on line 22, that will all be stricken. 15 Moving on, the next one I have is page 18. This is based on RCF-11, I believe, that's a 16 17 partial motion to strike granted in part, it is 18 partially stricken. Is there a basis for these last 19 two sentences? 20 The basis for the sentences? MR. FISK: 21 EXAMINER BOJKO: No. No. To strike. 22 MR. FISK: Oh, striking. Okay. 23 EXAMINER BOJKO: Seems to me that these 24 two sentences reference the first half of the chart

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1 which is in the record. 2 EXAMINER PRICE: And it's the U.S. EPA 3 report. 4 EXAMINER BOJKO: Right, it's the EPA 5 report. 6 MR. BENTINE: I will withdraw that. They 7 always say when you're run out of town, get out in 8 front and make it look like a parade. 9 EXAMINER BOJKO: Okay. And then the next 10 one I have is on the same page, 18, question and 11 answer starting on line 22 that goes clear over to 12 page 19 I guess -- no, to 20. So a long question and 13 answer, page 18 to 20. 14 Mr. Bentine. 15 MR. BENTINE: Yes, your Honor. This all 16 clearly is based on RCF-12. And -13. Miss Bott 17 points out Exhibit 13 as well. 18 EXAMINER PRICE: Significant cutting and 19 pasting on this. 20 EXAMINER BOJKO: This one we're going to 21 grant in part and deny in part the motion to strike. 22 I think that the question and answer 22 through 25 on page 18, lines 22 through 25, can stand, the question 24 and answer "Yes."

1 Going over to page 19, lines 1 through 3 2 reference RCF-12 and need to be stricken. 3 Lines 4 through 7 ending with "Kentucky)." will remain in the record. 4 5 Then the next sentence of the conclusion 6 with the numbers that are based on the chart will be 7 stricken, that sentence being the one starting on 7, 8 ending on 8. 9 Next paragraph, "As this table shows," 10 that will have to be stricken, but the conclusion --11 or, not the conclusion, but the statement after that 12 based on his expert opinion may remain. 13 And we go to line 13, the rest of that 14 sentence can stand. 15 Then the next sentence starting --16 MR. BENTINE: I'm sorry, your Honor. I'm 17 not going to argue with you --18 EXAMINER BOJKO: No; that was my fault. MR. BENTINE: -- although I think you 19 20 were wrong. 21 EXAMINER PRICE: No motions to 22 reconsider. 23 MR. BENTINE: Your Honors, 9 through 16, 24 can you go through those?

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1 EXAMINER BOJKO: Yes. I was unclear, I 2 apologize. The phrase "As this table shows" will be 3 stricken. The sentence will now read "A majority of the plants that have filed applications, " blah, blah, 5 blah. 6 MR. BENTINE: So all you're striking is 7 "As this table shows"? 8 EXAMINER BOJKO: Right. The rest of the 9 sentence remains. And then the next sentence 10 remains; "These include." 11 MR. BENTINE: Okay. 12 EXAMINER BOJKO: And then the next sentence, "Since the preparation of this table," that 13 14 can be stricken, but the remaining part of the 15 sentence stands. Just because he referred back to 16 his table to try to be helpful doesn't mean he couldn't have made the assertions as an expert on his 17 18 own. 19 And then the last sentence, the conclusion with the numbers will be stricken. 20 21 last sentence of that paragraph, I'm sorry, line 22 14 --23 MR. BENTINE: Starting on line 14? 24 EXAMINER BOJKO: -- "The" ending with

134 1 line 16, "gasifier." 2 MR. BENTINE: "Since the preparation of 3 this table," is that in or out? EXAMINER BOJKO: That is out. 5 Then the next paragraph --MS. MALONE: The sentence -- the other 6 7 part of the sentence is in. 8 EXAMINER PRICE: Yes. 9 MS. MALONE: Or is the whole sentence 10 out? 11 EXAMINER BOJKO: No. The rest of the 12 sentence remains. It's a fact. 13 MS. MALONE: I don't really want to be 14 argumentative because it's not even my motion, but I 15 have to say I'm confused how we can strike the 16 numbers which come out of the chart and not strike all the other information that comes out of the chart 17 18 which is why I'm kind of confused. 19 EXAMINER PRICE: Because there's no 20 indication he couldn't have testified to those based 21 on his own expertise. 22 EXAMINER BOJKO: He could have testified to recent applications without referencing the chart. 24 He was an expert. We all have to realize that nobody

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1 challenged his expertise in this matter. Well, you 2 may have impeached him or tried to cross, but you 3 didn't challenge whether he was an expert or not. MR. BENTINE: I would only be rearguing, so I'm not going to do that. 5 EXAMINER BOJKO: Just because an exhibit 7 is a hearsay exhibit does not mean that he couldn't testify about it as a expert. 9 I agree, your Honor, but he MR. BENTINE: 10 didn't. He said here's my exhibit, which was shown 11 to be hearsay, and then here are my conclusions, so 12 there's no foundation about how he came to these 13 conclusions because that stuff is gone. 14 EXAMINER PRICE: That's the argument you 15 can make on brief --16 MR. BENTINE: I understand. EXAMINER PRICE: -- as to the weight that 17 18 should be given to what's left of testimony. 19 EXAMINER BOJKO: Ideally, in a perfect 20 world, had we stopped and made these motions to 21 strike at the beginning -- I mean, in all fairness, 22 Mr. Bentine, if we would have made these motions to strike in the beginning before the witness even went

on the stand, which is a lot of times the course

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before this agency, then Mr. Fisk would have had the opportunity to ask the witness these exact things without that underlying foundation or he could have tried to make a foundation, and we didn't do that. The witness isn't here now, so we're trying to do the best that we can.

MR. BENTINE: I understand that, your Honor, and I take Judge Price's admonition, I am -- it's just hard for me, you know that.

MR. FISK: Your Honors, I would just like to note for the record with regards to the foundation here, and especially with regard to the lines with the specific numbers, Mr. Furman did testify that he personally verified at least half of the data in RCF-12, so he has a personal basis of knowledge for those numbers and for the information here. So we believe those lines shouldn't be struck.

EXAMINER PRICE: All you're saying is there's a 50/50 chance those numbers are correct, and I don't think that's sufficiently reliable.

EXAMINER BOJKO: Right.

MR. FISK: He verified half of that, so he verified a number of the permits in that to confirm that the information is correct and it shows

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1 that he has actually reviewed a number of those 2 permits. 3 EXAMINER BOJKO: The number is out, but 4 factual statements such as the Taylorville plant now 5 has a final permit is a fact that you can either 6 prove or disprove in your brief. 7 Starting with line 17, I believe that's 8 where we are, this paragraph deals with EPA's report and that paragraph on line 17 to 23 will remain. 10 The next paragraph begins on line 24 --11 MR. BENTINE: Your Honor, the "As this table shows" sentence? 12 13 **EXAMINER PRICE:** Oh, you're correct. 14 Line 22. 15 EXAMINER BOJKO: I'm sorry, I missed The last sentence should be stricken; that 16 that. 17 conclusion is based on the table. 18 MR. FISK: And I would just note my 19 continuing statement about RCF-12, that he 20 verified --21 EXAMINER BOJKO: Half. 22 MR. FISK: -- half of the data and, 23 therefore, has a basis for concluding that the 24 technology's moving faster than EPA would like it.

EXAMINER BOJKO: Just so the record is clear, we are leaving in lines 17 through 22 ending with "date," and then the last sentence in that paragraph, line 22 through 23, will be stricken. I apologize, I missed that one. Thank you.

The paragraph beginning on line 24 on page 19 and going over to line 4 on page 20 will remain in.

Now we have a new question and I believe this was referenced in a different exhibit.

Mr. Bentine, do you have a basis for the question beginning on line 5, page 20? RCF-13 it looks like.

MR. BENTINE: RCF-13, your Honor, this was prepared by John Thompson of the Clean Air Task Force, it wasn't verified by the witness, and it was stricken. The entire discussion there references that table. I would point out line 11, "Exhibit RCF-13 shows that," and then all of those conclusions clearly flow from an examination of RCF-13.

MR. FISK: I would just state that, you know, first we repeat our argument that the information should stay even if the table were stricken and, secondly, we definitely think that the sentence starting on line 9, "An IGCC plant" down to

139 1 "AMPS-Ohio," line 9 and 10 there should definitely 2 stay because that is expert opinion regardless of the 3 chart. EXAMINER BOJKO: And we can consider that 5 option, but I believe this is all conclusory based on RCF-13, so we're going to delete the whole question 6 and answer. Beginning on line 5 to line 22, the motion to strike is granted. 9 I believe that's all I have. Is that all 10 of it? 11 MR. BENTINE: Mercifully, I believe 12 that's correct, your Honor. 13 EXAMINER PRICE: That wasn't so terrible. 14 EXAMINER BOJKO: A little bit of 15 happiness and a little bit of anger going around, so 16 that means we did our job right. 17 EXAMINER PRICE: The last motion we have 18 is a three-part motion to strike part of 19 Mr. Schlissel's testimony, three particular phrases. 20 The three I have, and correct me if this is not 21 correct, is page 9, part of line 9 and all of line 22 10; page 15, line 6 and 7; and page 15, lines 20 and 21. Is that correct?

MR. FISK: What was the third one?

I'm

24

| sorry.

EXAMINER PRICE: Page 15, line 20 and 21 beginning with the phrase "combined with the growing scientific understanding of."

MR. BENTINE: Page 9. Can we go back to page 9?

EXAMINER PRICE: Sure. What I have is page 9, the phrase beginning at line 9 "given the reductions in CO2 emissions that will be necessary to stabilize atmospheric conditions."

MR. BENTINE: I'm sorry.

EXAMINER PRICE: The motion to strike on that one will be granted. He is not an expert on that particular field of climatology.

MR. FISK: And we note our objection from previously; we believe it's within his expertise.

EXAMINER PRICE: Noted. Thank you.

On page 15, line 6, the phrase "and the resultant widespread climate changes," we're going to deny the motion to strike.

Line 20, the phrase beginning -- yeah, the phrase "combined with the growing scientific understanding of," the motion to strike is going to be denied.

EXAMINER BOJKO: Did you have any further Did you have any additional ones? ones? MR. BENTINE: No. EXAMINER PRICE: Let's go off the record for one minute. (Discussion off the record.) EXAMINER PRICE: Let's go back on the We are adjourned for today. Thank you all. record. (The hearing adjourned at 1:13 p.m.) 

I do hereby certify that the foregoing is a true and correct transcript of the proceedings taken by me in this matter on Friday, January 4, 2008, and carefully compared with my original stenographic notes.

Maria DiPaolo Jones, Registered Diplomate Reporter and CRR and Notary Public in and for the State of Ohio.

My commission expires June 19, 2011.

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## **NON-CONFIDENTIAL**

## BEFORE THE OHIO POWER SITING BOARD

Amera Cer Comp Elect	e Matter of the Application of rican Municipal Power-Ohio, Inc., for tificate of Environmental patibility and Public Need for an ric Generation Station and Related ities in Meigs County, Ohio.	)	Case No. 06-1358-	EL-BGN	ر ام ام ام
	REBUTTAL TESTIMO	ONY O	F IVAN CLARK	て	EC 23
1Q.	Please state your name and business a	ddress.		0	PH 4: 35
A.	My name is Ivan Clark. My business Denver, Colorado 80202.	addres	ss is 1801 California S	street, Suite	2800,
2Q.	Are you the same Ivan Clark that prev	viously	testified in this case?		
A.	Yes.				
3Q.	What is the purpose of your testimony	today?	?		

A. At the request of AMP-Ohio's legal counsel we are providing "certain" testimony in response to the positions taken by Mr. Schlissel and to a lesser extent, Mr. Furman, including: (i) new and updated information concerning currently estimated power supply costs for alternative generation technologies and for the AMPGS Project assuming higher CO2 emission allowance cost assumptions; (ii) additional information concerning AMP-Ohio's on-going consideration of natural gas-fired combined cycle generation; (iii) testimony regarding the power supply plans AMP-Ohio has recommended to its Members; and, (iv) explanation of R.W. Beck's position regarding potential construction cost increases for AMPGS.

EXHIBIT

AMP-016

4Q. Have you analyzed the impact of CO2 emission cost assumptions in connection with the AMPGS Project that are higher than the R.W. Beck estimates contained in the AMPGS Feasibility Study that were criticized by Mr. Schlissel?

A. Yes.

#### 5Q. Please explain.

- A. To address the concerns expressed by Mr. Schlissel with respect to potential future CO2 emission allowance values, at counsel's request, R. W. Beck prepared an updated sensitivity analysis as follows:
  - Comparative projected bus bar cost analysis for four alternative generation technologies, 1) subcritical boiler (the current proposed AMPGS technology) coal plant, 2) supercritical boiler technology coal plant, 3) Integrated Gasification Combined Cycle ("IGCC") plant, and 4) natural gas-fired combined cycle plant;
  - The analysis assumed current projected capital costs for each technology;
  - Fuel costs were updated based the latest information secured by AMP-Ohio for coal costs in the region of the AMPGS project and R. W. Beck's most recent natural gas price forecast.
  - CO2 emission allowance costs were assumed to be consistent with Mr. Schlissel's
    mid-range projections for 2010-2037 as shown in Mr. Schlissel's Figure 3 of his
    testimony adjusted for inflation. Exhibit IC-10 (confidential) summarizes the
    assumptions and input parameters for the analysis and Exhibit IC-11 (confidential)
    illustrates the comparative bus bar costs for the four alternatives investigated.

#### **CONFIDENTIAL PORTION FOLLOWS:**

#### [REDACTED]

#### **NON-CONFIDENTIAL PORTION CONTINUES:**

## 8Q. Given that this updated sensitivity analysis uses Mr. Schlissel's CO2 values are you endorsing them?

A. No, and Exhibits IC-10 and IC-11 should not be construed as R.W. Beck's prediction or forecast of costs for AMPGS or the other alternatives.

### 9Q. Why not?

A. Actual CO2 values in a final cap and trade market may be considerably different from the values stated by Mr. Schlissel, due to variety of variables, including the final total emission cap, the allowance allocations to existing and new sources, price ceilings (if any are set), cost of technology to capture and sequester carbon, other fuel prices, and the cost of new technologies to replace conventional technologies. The experience of the electric power industry associated with the SO2 cap and trade system implemented under the Clean Air Act in 1995 illustrates the difficulty in predicting costs in a cap and trade system. At the initial start of the SO2 cap and trade program, SO2 allowance values were predicted to be in the range of \$300 per ton or more based on the estimated emission reduction costs at that time. Shortly after the program started the SO2 emission allowance values gradually declined to less that \$200 per ton and went as low as less than \$100 per ton. Clearly these allowance values were well below the actual control costs, but a range of market variables influenced the price.

## 10Q. What are your conclusions with respect to this updated bus bar analysis assuming Mr. Schlissel's CO2 cost estimates?

A. Overall, the results of the updated analysis on a relative basis are similar to the results included in the Initial Project Feasibility Study. As the cost of CO2 emissions increase, however the overall costs of the alternatives become closer. It must be remembered, however, that non-cost considerations, such as reliability and dispatchability, played important roles in AMP-Ohio's choice of pulverized coal technology utilizing Powerspan as a part of AMPGS' emission controls for AMPGS.

- 11Q. In your opinion, is it still prudent for AMP-Ohio to move forward with the AMPGS

  Project as proposed, considering uncertainty with respect the potential CO2
  emission regulations?
- A. Yes. AMP-Ohio and its Members' need for base load generation will remain regardless of the CO2 emission costs. To delay the decision to move forward with this Project will only serve to increase costs and subject the Members to additional higher power supply costs from the regional power market, which is projected to be adversely affected (i.e. higher costs) by any higher CO2 emission costs.
- 12Q. During previous testimony there have been suggestions that AMP-Ohio should consider natural gas-fired combined cycle generation to satisfy its power needs.

  Can you comment on AMP-Ohio's on-going investigations in this area?
- A. Yes, but initially I must explain why gas-fired combine cycle is not economical for base load purposes for AMP-Ohio at this time. Natural gas-fired combined cycle generation was considered as an alternative in the power supply plans prepared for the individual Members which was completed in February 2007. The bus bar analysis conducted as part of the power supply studies was updated in the Initial Feasibility Report completed in June 2007. These analyses considered CO2 emission costs. One conclusion of those analyses was that natural gas-fired combined cycle generation would have higher bus bar costs as compared to coal-fired base load generation, primarily because of higher fuel costs. This conclusion remains unchanged by the assumption of higher CO2 emission costs, as detailed above in this testimony and as illustrated in Exhibit IC-11.

While natural gas-fired combined cycle generation is not considered economical for base load generation in this region, it is a viable intermediate capacity and energy generation alternative ("5x16" as detailed in Mr. Kiesewetter's testimony). The power supply portfolio analysis investigated in the February 2007 Power Supply Report concluded that AMP-Ohio and its Members currently depend on the existing regional power market to

satisfy their intermediate power supply needs and are therefore subject to the existing power market price risks. Participation in or development of a natural gas-fired generation project was identified as a possible alternative to supply the Members intermediate power supply needs and to reduce their exposure to market price risks.

## 13Q. How is AMP-Ohio addressing these intermediate capacity and energy generation needs?

A. Because of the needs for intermediate capacity and energy generation, AMP-Ohio has investigated and evaluated the Fremont Energy Center Project. This project is located near Fremont, Ohio and is a partially completed natural gas-fired combined cycle project that Calpine Energy developed, but discontinued construction in 2004 due to the Calpine bankruptcy filing. The Fremont Energy Center is rated at 544 MW with an additional 163 MW of duct-firing capability for peaking generation. Construction of the project is roughly 50 percent complete. As part of Calpine's bankruptcy proceedings this asset is being sold "as is", with the purchasing entity taking on all the requirements and costs for completing construction and bringing the project to commercial operation. AMP-Ohio has offered a purchase price to Calpine in the bankruptcy proceeding. Based on that offer, the bankruptcy court has declared AMP-Ohio as the lead bidding party ("the stalking horse") to be considered for final purchase offers for the project sale. Additional bids from all interested parties are due on January 21, 2008, and final award of sale is anticipated to be January 31, 2008.

## 14Q. If AMP-Ohio is able to complete the purchase of the Fremont Energy Center, how will it affect its Member's on-going power supply costs?

A. If AMP-Ohio purchases the Fremont Energy Center, it is expected that it would provide AMP-Ohio Members a near term and long term intermediate power generation addition that would be more cost effective than capacity and energy purchases from the existing power market.

## 15Q. Would the purchase of the Fremont Energy Center affect the need for the AMPGS base load project?

A. No. As explained above the Fremont Energy Center would be used as an intermediate generation resource and would not be used as a base load generation resource. The addition of the AMPGS base load generation would still be needed regardless of whether the Fremont Energy Center is purchased.

## 16Q. Mr. Schlissel has indicated AMP-Ohio has not provided a least cost, least risk power supply plan to its Members. Do you agree?

A. No.

#### 17Q. Why not?

A. Detailed individual power supply planning and alternative evaluations were conducted for 119 AMP-Ohio Members as detailed in, for example, the February 2007 Cleveland Power Supply Plan (AMP-Ohio Exhibit 15). This included evaluation of generating resource options, including generic base load coal, natural gas-fired combined cycle generation, natural gas-fired peaking generation, the AMPGS Project, the Prairie State Energy Campus Project, AMP-Ohio hydroelectric plants along the Ohio River, and future wind generation. In preparing the power supply analysis for each Member, R. W. Beck utilized its Stochastic Econometric Regional Forecasting model, which provides projections of fuel and power prices, utility loads and corresponding power costs for multiple portfolios of power supply resources. As described in the analysis the majority of the power supply needs of the Members are currently being supplied by the aging Gorsuch coal-fired power plant which is scheduled to be retired or repowered more or less contemporaneously with the in service date of AMPGS, and from purchased power contracts many of which expire by 2012. The resulting need for future generating capacity over the period 2013 through 2027 is over 3000 MW. In developing the power supply plans for the AMP-Ohio Members both costs and risks were considered. As a result, the power supply plans include a diverse mix of resources which mitigate risks by avoiding reliance on any one type of fuel and/or technology. Additional Member beneficial use analyses were conducted which reflected updated AMPGS costs as part of the Initial Feasibility Study completed for the Project in June 2007. The updated bus bar analysis results discussed above further support the conclusions of the previous studies and investigations.

Finally, I would be remiss if I did not point out that in my opinion, the amount of "due diligence" AMP-Ohio, its Members and project partners, Blue Ridge Power Agency and Michigan South Central Power Agency, has undertaken with regard to the prudency of the AMPGS project is extraordinary. In addition to significant internal review and due diligence by AMP-Ohio, its Members and project partners, the number of recognized electric power consulting and engineering firms that have been involved in review of the project for AMP-Ohio, its Members and its partners is truly impressive. In addition to R.W. Beck, the following firms have been involved in the AMPGS project.

- Sargent & Lundy
- Black & Veatch
- Burns & Roe
- J.S. Sawvel & Associates
- Courtney & Associates
- GDS Associates
- Orbital Technical Solutions

To state or imply that the AMPGS project has not been well planned, that alternatives have not been appropriately evaluated, or that costs are not reasonably or appropriately estimated is simply not true.

- 19Q. Can AMP-Ohio require its Members to take or not take any particular power supply or power supply mix?
- A. No, it can only recommend.
- 20Q. Mr. Schlissel indicated that AMP-Ohio's and R.W. Beck's construction costs estimates did not properly take into account risks of rising construction costs. Do you agree?
- A. No.

#### 21Q. Why not?

- A. The recent trends associated with rising construction costs were considered and factored into the capital cost estimates prepared for AMPGS Project, including:
  - Major equipment procurement costs were estimated in-line with latest vendor estimates;
  - Equipment and commodity escalation were included at rates in-line with recent trends;
  - Labor escalation costs were estimated in-line with region labor markets;
  - Cost contingencies were included to account for procurement and construction uncertainties;
  - Assumption of conservative interest rates for the bond financing of the Project;
     and,
  - Inclusion of detailed owner's costs reflecting a thorough inventory of the overall Project development costs, interconnection costs, construction monitoring, testing and commercialization, initial inventories and operation funding and financing costs.

In addition, the plan for EPC contracting and early design provides an open and visible Project design and cost plan that the Members will be able to use to decide participation choices in the Project. The first step of this plan will be available in late January 2008 after receipt of EPC Contract proposals which will include updated cost estimates for design, equipment procurement and construction.

### 22Q. Does this conclude your rebuttal testimony?

A. Yes.

# CONFIDENTIAL EXHIBIT IC-10 REDACTED

# CONFIDENTIAL EXHIBIT IC-11 REDACTED

#### CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing American Municipal Power-Ohio, Inc.'s Rebuttal Testimony of Ivan Clark, for Case No. 06-1358-EL-BGN was served upon the following persons via electronic mail and/or via postage prepaid U.S. Mail on December 28, 2007:

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#### BEFORE THE OHIO POWER SITING BOARD

In the Matter of the Application of	)	
American Municipal Power-Ohio, Inc., for	)	Ę
a Certificate of Environmental	)	Case No. 06-1358-EL-BGN
Compatibility and Public Need for an	)	<i></i> .
Electric Generation Station and Related	)	
Facilities in Meigs County, Ohio.	)	C-*

#### REBUTTAL TESTIMONY OF LARRY MARQUIS

- 1 Q. Please state your name and business address.
- A. My name is Larry Marquis. My business address is 2600 Airport Drive, Columbus, Ohio 43219.
- 2 Q. By whom are you employed and in what position?
- A. I am employed by American Municipal Power-Ohio, Inc. ("AMP-Ohio"), the Applicant in this proceeding, as Vice President, Technical Services.
- 3 Q. What are your responsibilities regarding AMP-Ohio's power supply?
- A. In addition to other duties, I am currently responsible for project development for certain generation resources for AMP-Ohio and its Members, including landfill gas and wind generation.
- 4 Q. Please describe your educational and professional experience.
- A. I received both a Bachelor and Master of Science Degrees in Electrical Engineering from the University of Nebraska in 1970 and 1975, respectively. I have been with AMP-Ohio since 2003. Previously I served as the Administrator of the City of Columbus, Division

EXHIBIT

Amp-off 17

of Electricity and Vice Chairman of the AMP-Ohio Board of Trustees. I have held engineering positions with the Nebraska Municipal Power Pool, the Northern California Power Agency, the Lincoln (Nebraska) Electric System, and the Omaha Public Power District. I am a registered Professional Engineer in Nebraska and Ohio. My resume is attached as Exhibit LM-1.

### 5 Q. What is the purpose of your rebuttal testimony?

A. To rebut Mr. Schlissel's argument that AMP-Ohio has not considered "other alternatives" and options, including renewables, other than the proposed AMPGS as a part of a portfolio including "reasonable amounts...of renewable resources."

## 6 Q. Please describe AMP-Ohio's and its Members' efforts regarding landfill gas generation.

A. AMP-Ohio has been utilizing landfill gas generation since 1998 and recently entered into an agreement with Bio Energy Ohio, LLC to increase that capacity from 27.783 MW to 49.783 MW. Further, we are assisting a number of Member communities in the evaluation of over 100 MW of additional landfill gas, biomass and municipal solid waste energy projects.

### 7 Q. Can landfill gas generation be viewed as a base load resource?

A. Yes, although because gas production is variable throughout the life of the landfill and gas storage is not economically feasible, it is not dispatchable so the amount in a power supply portfolio must be limited.

## 8 Q. What factors affect the economics and availability of landfill gas generation in Ohio?

- A. (i) The gas is "dirty" and must be cleaned. Operating and maintenance expenses can be high.
  - (ii) Gas production is variable due to numerous environmental factors such as waste composition, landfill depth, moisture content, age of the waste and landfill design.
  - (iii) Generation can be limited as (a) the methane gas fuel may be limited by the age, size and design of the landfill, and (b) by the number of landfills that can be utilized.
  - (iv) The generation is usually available in smaller increments and is not dispatchable.
  - (v) Transmission/grid access can be expensive.

## 9 Q. Please describe AMP-Ohio's and its Members' efforts regarding wind generation.

A. AMP-Ohio developed, constructed and currently operates, on behalf of a subset of ten (10) of its Members known as OMEGA-JV6, Ohio's first, and to date only, utility scale commercial wind farm. That 7.2 MW facility consisting of four (4) wind turbine generators was constructed in two (2) phases beginning in 2003 and completed in 2004.

## 10 Q. What is the capacity factor of the OMEGA JV6 project?

A. Approximately 23.5% through November 2007, and it has been in the 21-23% range in prior years.

#### 11 Q. Is wind generation considered a reliable base load resource?

A. No, although it can provide energy during both on and off-peak periods, it cannot be counted on to be available when needed – it is not dispatchable.

## 12 Q. What factors affect the economics and availability of wind generation for AMP-Ohio in Ohio?

- A. (i) Lower average wind speeds resulting in lower capacity factors than some other regions;
  - (ii) Inability to dispatch;
  - (iii) Size of wind farms may be limited in more populous states like Ohio due to significant concerns of local land owners regarding siting of the farms;
  - (iv) Transmission/grid access can be expensive;
  - (v) Long lead times for delivery of wind generating equipment and materials;
  - (vi) Escalating capital cost of wind generating equipment;
  - (vii) The life-expectancy of wind generating equipment is much shorter than traditional generating equipment; and
  - (viii) Availability of tax credits. As a non-profit organization, tax credits are of little value to AMP-Ohio.

## 13 Q. What are AMP-Ohio and its Members doing regarding development of additional wind generation?

A. First, AMP-Ohio is working with a Member, the Borough of Berlin, Pennsylvania, to develop a 5.4 MW wind farm near Berlin, Pennsylvania. The wind monitoring studies, noise studies, and initial environmental impact studies have been completed. The PJM Interconnection studies are underway, and additional environmental studies are planned in the near future. AMP-Ohio has been awarded an allocation of \$3 million in Clean Renewable Energy Bonds for this Project from the Federal Government.

Second, AMP-Ohio has entered into a Memorandum of Understanding with JW Great Lakes Wind to develop up to an additional 49.5 MW of wind generation in the Wood County, Ohio area (the location of the OMEGA JV6 wind farm). JW Great Lakes is in the process of performing the feasibility study for the project.

Finally, wind monitoring studies are underway or have been completed in and around several other Member communities, including Wapakoneta, Bryan, Cuyahoga Falls, Oberlin, Elmore, Cleveland and Clyde, Ohio.

### 14 Q. Are there advantages to landfill gas and wind generation?

A. Yes, but there are also disadvantages. They are environmentally sound and can be a part of the diversified portfolio that AMP-Ohio recommends for its Members. Landfill gas can be an economic source of energy, but in Ohio wind usually remains an option that will result in higher costs to consumers at this time so one must be prudent about how much is added at one time to the power supply mix. In fact, the more low cost sources in the portfolio, the more wind or other higher cost resources may be prudently added. Neither landfill gas nor wind generation is dispatchable, and wind, with less than a 25% capacity factor in our experience, is not a replacement for a base load resource such as AMPGS.

#### 15 Q. Is AMP-Ohio pursuing other generation resources?

A. Yes. In addition to AMPGS, the Fremont Energy Center Natural Gas Combined Cycle generation discussed by Witness Clark, the hydroelectric generation discussed by Witness Meier, wind and landfill gas, AMP-Ohio is involved in confidential discussions regarding potential cogeneration applications with several entities.

16 Q. Do you have an opinion, based upon your knowledge, experience and qualifications, as to whether or not AMP-Ohio could prudently pursue and develop additional significant landfill or wind generation as base load resources at this time?

A. Yes.

#### 17 Q. What is that opinion?

A. AMP-Ohio has and will continue to pursue a portfolio of generation resources. The complexity of developing wind and landfill resources, in relation to the amount of MW available, their lack of dispatchability and their cost do not make them a substitute for a base load resources such as AMPGS. However, having lower cost, reliable, dispatchable resources such as AMPGS enhances AMP-Ohio's ability to make these kinds of resources available to its Members.

## 18 Q. Does this conclude your rebuttal testimony?

A. Yes.



## LARRY L. MARQUIS, P.E. VICE PRESIDENT – BUSINESS & TECHNICAL SERVICES

#### PROFESSIONAL EXPERIENCE

Nov. 2003 - Present

#### American Municipal Power-Ohio

Vice president - Business & Technical Services

Responsibilities include providing direction & guidance for AMP-Ohio Technical Services and Key Accounts Services to members including transmission and distribution engineering and mapping, substation and relay engineering, power plant engineering, construction management, field engineering, environmental affairs, power quality services and economic development.

2001 - Nov. 2003

## City of Columbus, Ohio Division of Electricity Administrator

Responsible for providing leadership and management of a municipal utility operating a transmission and distribution system serving retail customers including functions of transmission and distribution planning, engineering operation and maintenance, power supply planning, customer service and financial responsibility.

1970-2001

### Professional Public Power Experience

Primary responsibilities have included the following: relay and control system engineering; transmission & distribution engineering; power supply planning; power supply feasibility studies; design and construction of power supply facilities; energy control center operation; power supply and transmission service negotiations; legislative and regulatory activities; and joint action agency operation.

These responsibilities have been successfully fulfilled while serving in the respective capacity for the following public power utilities: Vice President of Energy Operations for AMP-Ohio, Executive Director of the Nebraska Municipal Power Pool (NMPP Energy), Manager of Engineering for the Northern California Power Agency, Chief Engineer for the Lincoln, Nebraska Electric System, and as Relay Engineer for the Omaha Public Power District.

**EXHIBIT** 

LM-1

Larry L. Marquis, P.E. Page Two

### **EDUCATION**

Bachelor of Science in Electrical Engineering, University of Nebraska

Master of Science in Electrical Engineering, University of Nebraska

Registered Professional Engineer - Nebraska & Ohio

### PROFESSIONAL ACTIVITIES

Institute of Electrical and Electronic Engineers National Society of Professional Engineers American Public Power Association Committees Ohio Fuel Cell Coalition

ND: 4825-7939-3282, v. 1

#### CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing American Municipal Power-Ohio, Inc.'s Rebuttal Testimony of Larry Marquis, for Case No. 06-1358-EL-BGN was served upon the following persons via electronic mail and/or via postage prepaid U.S. Mail on December 28, 2007:

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## **NON-CONFIDENTIAL**

## BEFORE THE OHIO POWER SITING BOARD

In the Matter of the Application of	)	
American Municipal Power-Ohio, Inc., for	)	
a Certificate of Environmental	)	Case No. 06-1358-EL-BGN
Compatibility and Public Need for an	)	
Electric Generation Station and Related	)	
Facilities in Meigs County, Ohio.	)	75.

#### REBUTTAL TESTIMONY OF PHILLIP E. MEIER

- 1 Q. Please state your name and business address.
- A. My name is Phillip E. Meier. My business address is 2600 Airport Drive, Columbus, Ohio 43219.
- 2 Q. By whom are you employed and in what position?
- A. I am employed by American Municipal Power-Ohio, Inc. ("AMP-Ohio"), the Applicant in this proceeding, as Assistant Vice President Hydro Development.
- 3 Q. What are your responsibilities regarding AMP-Ohio's power supply?
- A. I am responsible for overall development of hydroelectric resources for AMP-Ohio and its Members. This includes identification of potential resources, evaluation of the same, overseeing outside consultants, responsibility for Federal Energy Regulatory Commission ("FERC") relations and compliance and project management duties relating to land acquisition, required modeling and other studies, preparation of construction related documents and eventual construction.



#### 4 Q. Please describe your educational and professional experience.

A. I received a Bachelor of Science Degree in Electronic Engineering Technology from the DeVry Institute of Technology in 1985. I have been with AMP-Ohio since 1989 and served in various capacities including the project manager of the Belleville Hydro Project for nearly 6 years of my career. I also served as AMP-Ohio's Chief Information Officer until I began my full time hydroelectric development duties again in June of 2007. In my previous role as the Chief Information Officer at AMP-Ohio, I was responsible for all of AMP-Ohio's information systems. This included all software, hardware, telecommunications, and supervisory and control of data acquisition systems. I supervised a staff of network administrators and application developers. I have also been a Project Development Manager for AMP-Ohio where I was responsible for new project development. From 1985 to 1989, I was with the Honeywell Corporation, my last position being a software specialist.

#### 5 Q. What is the purpose of your rebuttal testimony?

A. To rebut Mr. Schlissel's argument that AMP-Ohio has not considered "other alternatives" and options, including renewables, other than the proposed AMPGS as a part of a portfolio including "reasonable amounts...of renewable resources."

#### 6 Q. Please describe the Belleville Hydroelectric Project.

A. The Belleville Hydro Project is a 42 MW run of the river hydroelectric power plant on the Ohio River near Belleville, West Virginia. The Project included the construction of a concrete enclosed powerhouse with two 21 MW hydro turbine/generator sets at the existing Belleville Locks and Dam operated by the U.S. Army Corps of Engineers ("USACE"). This over \$150 M project also included 26.5 miles of 138 kV transmission and fossil fuel fired back up generation. The Belleville Project was developed on behalf of a subset of 42 AMP-Ohio Members known as OMEGA JV5. The Bellville Project is a Federal Energy Regulatory Commission ("FERC") licensed project that had to constructed, operated and maintained in strict compliance with the FERC license

("License") for that project, as well as the requirements of the USACE.

#### 7 Q. What were your responsibilities as Project Manager on the Belleville Hydroelectric?

A. I began the planning phases of the Belleville Project regarding FERC license acquisition and compliance and continued as the Project Manager through the design, engineering and construction of the Project. I was responsible for all contracts and for primary inhouse construction management duties of that Project up until commercial operation.

After commercial operation, I retained responsibility for continuing warranty and FERC License compliance issues related to the Project after commercial operation.

### 8 Q. How has AMP-Ohio approached development of hydroelectric generation?

A. Beginning in the early 2000's, AMP-Ohio's CEO and Board recognized (i) the need for additional generation resources and the desire to diversify those resources; (ii) the environmental desirability of hydroelectric generation; (iii) the limited opportunities for hydroelectric generation in this region; and, (iv) the potential for future regulation of CO2 emissions. As a result, AMP-Ohio began an active and aggressive effort to identify, analyze and acquire potential hydroelectric resources.

#### 9 Q. How was the overall need for diversified resources established?

A. Through a number of studies and analyses described by Witnesses Clark and Kiesewetter.

## 10 Q. What does AMP-Ohio believe are the environmental advantages of hydroelectric resources?

- A. Hydroelectric resources available in our region have a number of advantages including:
  - (i) The primary available resources are "run of the river" projects to be located at existing locks and dams on the Ohio River, thereby lessening the environmental impact of the construction and operation of these facilities;

- (ii) Hydroelectric generation does not produce any air emissions such as SO2, NOx or CO2 and therefore provides environmental benefits. It also tends to increase the dissolved oxygen content in the Ohio River. Additionally, the FERC License procedures require License holders to undertake environmental and wildlife studies that many state agencies could not independently afford. Those studies yield data and reports gathered and financed by AMP-Ohio, to the benefit of those agencies and the environment; and
- (iii) There are limited potential renewable projects that are currently developable and economically viable. There simply are not enough economically feasible renewable projects in the Midwest. As discussed by Witness Marquis, wind generation is limited due to the lack of sufficient and consistent wind, and landfill gas is limited, among other things, by the size and age of the landfill. Today, in the Midwest, AMP-Ohio believes hydro is the best renewable resource.

### 11 Q. What is meant by "run of the river"?

A. The USACE controls all water flows on the Ohio River for flood control and navigation. The amount of water flow through each dam, including any hydroelectric facilities, is strictly regulated with navigation and flood control as the top priorities. The USACE determines how much water can be put through the hydroelectric portion of each dam with such a facility. Whatever run of river water flow there is that is made available by the USACE can be used when and as available to make electricity. "Pooling" water to make additional generation when needed is not an option. These kinds of facilities are not, therefore, dispatchable.

### 12 Q. Can hydroelectric generation produce cost advantages as well?

A. Yes, although hydroelectric projects are very capital intensive and expensive to construct, our experience has shown a well planned and constructed hydroelectric project can trend below market prices within 5-10 years of commercial operation. The end result is that

hydroelectric projects can be attractive from a power supply cost basis. Hydroelectric generation does have inherent construction risks that must be carefully managed, however.

#### 13 Q. What are those advantages?

#### A. Advantages include:

- (i) The expected life of hydro generation is extremely long, well over 50 years, providing lower cost output after debt service is paid off;
- (ii) With no fuel costs, lower relative operating and maintenance costs, and fixed debt service, the cost of the output of hydroelectric projects over time are much less affected by inflationary pressure than most other types of generation;
- (iii) Special funding can be available for hydroelectric facilities. For example, AMP-Ohio has applied for and obtained special Clean Energy Renewable Bonds ("CREBs"). AMP-Ohio has already been allocated over \$15 M in such bonds for our hydroelectric projects; and
- (iv) Finally, hydroelectric generation will help hedge the potential impact of CO2 or other emissions costs on our Members as part of their overall power supply portfolio.

## 14 Q. What are the limitations on the availability and economics of hydroelectric generation in this region?

A. Absent new dam construction or creation of pumped storage, both of which involve numerous environmental impacts, cost and other feasibility issues, the hydroelectric generation available in this region principally consists of a number of licenses issued by the Federal Energy Regulatory Commission ("FERC") on the Ohio River that remain undeveloped. The FERC issued 16 Licenses in 1989. Only one of those 16 have been

built, Belleville, and AMP-Ohio and its Members are pursuing to the development of 5 others. Additionally, as mentioned above, hydroelectric generation in this region is very capital intensive and for the most part, non-dispatchable. Also, the capacity factors are low - in the 50-60% range - compared to coal-fired generation.

#### 15 Q. What has AMP-Ohio done to pursue those licenses?

A. A number of things. Initially, AMP-Ohio identified certain FERC licenses that were held or controlled by a private developer and successfully initiated negotiations to purchase those licenses in order to develop them. Concurrently, AMP-Ohio engaged one of the nation's foremost hydroelectric engineering firms, Montgomery Watson Harza ("MWH"), to evaluate the technical and economic feasibility of 10 potentially available, undeveloped Ohio River licenses. That Study is a confidential document, the confidential conclusions of which is marked as Exhibit PM-1 attached hereto. That report was undertaken and completed under my direction and supervision.

#### **CONFIDENTIAL PORTION FOLLOWS:**

#### [REDACTED]

### NON-CONFIDENTIAL PORTION CONTINUED:

- 17 Q. What has AMP-Ohio done with regard to development of the available and technically and economically viable licenses?
- A. On behalf of its Members, AMP-Ohio has acquired control of the following FERC licenses and is pursuing development and construction of the same.
  - (i) Cannelton, Hydroelectric Project (FERC License No. 10228) an 81 MW project located at the Cannelton Locks and Dams. This License was acquired from the previous license holder that had not undertaken adequate development;

- (ii) Smithland, Hydroelectric Project (FERC License No. 6641) a 73 MW project located at the Smithland Locks and Dams. This License was acquired from the previous license holder that had not undertaken adequate development; and
- (iii) Willow Island, Hydroelectric Project (FERC License No. 6902) a 37 MW project located at the Willow Island Locks and Dams. This License was held by AMP-Ohio Member, the City of New Martinsville, West Virginia, and the License will eventually be transferred to AMP-Ohio for development on behalf of its Members, including New Martinsville.

These Projects total 191 MW and are currently under development. Preliminary site work has begun on these Projects and the initial requests for proposals for manufacture of the eight (8) turbine generators for the three (3) Projects have been issued. The FERC Licenses required hydraulic modeling studies and that has been contracted for and the models are being constructed. Testing will begin on these models in late January and early February. Bid specifications for the remaining site preparation and civil construction and installation are being prepared.

#### 18 Q. Have AMP-Ohio's Members contracted for these projects?

A. Yes, over 67 Member municipalities, including 61 in Ohio, have executed agreements for construction and operation of the projects. Additional Members may also join the Projects over the next few months. In fact, we are already over-subscribed, that is we have greater demand for the projects' capacity (197 MW) than what is currently available (191 MW).

#### 19 Q. What are the estimated capital costs of those three Projects?

A. AMP-Ohio's consulting engineer, J.S. Sawvel & Associates ("J.S. Sawvel"), estimates approximately \$760 M. The development of these Projects is outlined in our confidential consulting engineers feasibility report by J.S. Sawvel, the Executive Summary containing

the conclusions of which are attached as Exhibit PM-2. That report was undertaken under my direction and supervision.

#### 20 Q. What other hydroelectric projects are AMP-Ohio and its Members pursuing?

A. AMP-Ohio Member, City of Hamilton, Ohio, with AMP-Ohio's support, is pursuing the FERC License for the Meldahl Hydroelectric Project, a 105 MW project at the existing Captain Meldahl Locks and Dams on the Ohio River. AMP-Ohio expects a portion of that Project will be available to other AMP-Ohio members. Hamilton also owns and operates the 70.2 MW Greenup Hydroelectric Project. AMP-Ohio and its Member, the City of Wadsworth, Ohio, are also pursuing the FERC License for the R.C. Byrd Hydroelectric Project, a 48 MW project located at the R.C. Byrd Locks and Dams near Gallipolis, Ohio. AMP-Ohio is also pursuing one additional non-FERC licensed hydroelectric project at an existing dam of approximately 25 MW, currently controlled by three municipalities, one of which is an AMP-Ohio Member.

#### 21 Q. Is there competition for those FERC Licenses?

A. Yes. A private utility also filed for the Meldahl License but has since abandoned that effort. Two Kentucky communities are competing with AMP-Ohio and its Member, the City of Wadsworth, Ohio for the R.C. Byrd License. That is still being litigated. Brookfield Power has filed a permit for the Olmstead Project. There was additional competition for other licenses.

#### **CONFIDENTIAL PORTION FOLLOWS:**

#### [REDACTED]

#### **NON-CONFIDENTIAL PORTION CONTINUED:**

23 Q. Do you have an opinion, based upon your knowledge, experience and qualifications, as to whether or not AMP-Ohio could prudently pursue and develop additional significant hydroelectric generation at this time?

A. Yes.

#### 24 Q. What is that opinion?

A. Given the economic and technical aspects of the additional potential developments, the significant financial commitment represented by the 5 projects being pursued and the different logistics of developing multiple projects, it would not be prudent. Before pursuing additional potentially available hydroelectric projects of any size, the projects currently being developed or pursued should be moved significantly toward completion or a determination that one or more should not, for some reason, be further pursued or developed. Only then should AMP-Ohio pursue additional hydroelectric projects.

### 25 Q. Are there others that are developing hydroelectric projects in this region?

A. Not that I am aware of in this region and of comparable size. There have been many developmental attempts, but none that are at the stage of AMP-Ohio's projects.

## 26. Q. Does this conclude your rebuttal testimony?

A. Yes.

# EXHIBIT PM-1 REDACTED

# EXHIBIT PM-2 REDACTED

#### CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing American Municipal Power-Ohio, Inc.'s Rebuttal Testimony of Phillip E. Meier, for Case No. 06-1358-EL-BGN was served upon the following persons via electronic mail and/or via postage prepaid U.S. Mail on December 28, 2007:

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