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FILE

BEFORE THE
OHIO POWER SITING BOARD

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 Facilities in Meigs County, Ohio.	))))))	**Case No. 06-1358-EL-BGN**

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REBUTTAL TESTIMONY OF IVAN CLARK

1Q. Please state your name and business address.

A. My name is Ivan Clark. My business address is 1801 California Street, Suite 2800, Denver, Colorado 80202.

2Q. Are you the same Ivan Clark that previously 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.

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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

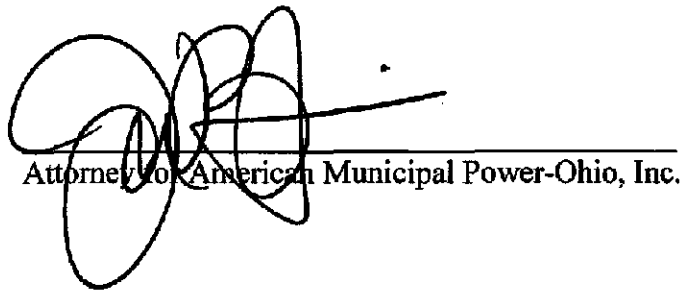
REDACTED

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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