PUBLIC DOCUMENT

MPUC Docket No. E-6472-/M-05-1993
OAH Docket No. 12-2500-17260-2

BEFORE THE
MINNESOTA OFFICE OF ADMINISTRATIVE HEARINGS
100 Washington Square, Suite 1700
Minneapolis, Minnesota 55401-2138

FOR THE
MINNESOTA PUBLIC UTILITIES COMMISSION
127 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

In the Matter of the Petition of Excelsior Energy Inc. and Its Wholly-Owned Subsidiary MEP-I, LLC For Approval of Terms and Conditions For The Sale of Power From Its Innovative Energy Project Using Clean Energy Technology Under Minn. Stat. § 216B.1694 and a Determination That the Clean Energy Technology Is Or Is Likely To Be a Least-Cost Alternative Under Minn. Stat. § 216B.1693

PREPARED REBUTTAL TESTIMONY AND EXHIBITS OF

EXCELSIOR ENERGY INC. AND MEP-I LLC

BAXTER JONES

OCTOBER 10, 2006

EXCELSIOR ENERGY, INC.

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

PREPARED REBUTTAL TESTIMONY OF

BAXTER JONES

Q Please state your name and business address.

A My name is Baxter Jones and I am Senior Vice President for ICF International, 9300 Lee Highway, Fairfax, Virginia 22031.

Q Have you previously provided testimony in this proceeding?

A Yes. On June 19, 2006, I filed Direct Testimony on behalf of MEP-I LLC and Excelsior Energy Inc. (collectively, "Excelsior") relating to the ICF Consulting's Final Report entitled Air Quality and Health Benefits Modeling: Relative Benefits Derived From Operation of the MEP-I/II IGCC Power Station (hereafter, the "Health Benefits Report"). *See* Exhibit TLO-2 to the Supplemental Testimony of Thomas L. Osteraas.

I. SCOPE AND SUMMARY

Q What is the purpose of your Rebuttal Testimony in this proceeding?

A The purpose of my rebuttal testimony is to respond to the Direct Testimony and Schedules of Northern States Power Company ("NSP"), d/b/a Xcel Energy witness Roger A. Clarke. Mr. Clarke raises issues concerning the following elements related to my Direct Testimony:

1. Concerns with respect to the differences noted between the emissions modeled by ICF in the health benefits analysis and emissions Excelsior set forth in the New Source Review Construction Authorization Permit Application submitted on June 28, 2006 to the Minnesota Pollution Control Agency (hereafter, the "PSD Permit Application").

2. The impact of such differences on the overall conclusions found in the Health Benefits Report.

I also testify herein to the potential added regulatory pressure that likely will be brought to bear on new sources of $PM_{2.5}$ precursors seeking permits in states like Minnesota, since these $PM_{2.5}$ precursors have been found to cause or contribute to violations of $PM_{2.5}$ National Ambient Air Quality Standards ("NAAQS").

Emissions Characterizing the IGCC and SCPC Power Stations

Q Please address the concern raised by Mr. Clarke regarding the difference between the annual emissions presented in ICF's Health Benefits Report and the annual emissions presented in Excelsior's PSD Permit Application?

A I have reviewed Mr. Clarke's direct testimony and determined Mr. Clarke's concern to be unwarranted.

Q Why is that so?

A ICF's model uses hourly emissions as input data, not annual emissions. Mr. Evans in his rebuttal testimony correctly identifies the differences between the hourly emissions modeled by ICF and the hourly emissions presented in the PSD Permit Application.

Q Given the differences noted by Mr. Evans between the hourly emissions modeled by ICF and the hourly emissions noted in the permit application, is there any need to alter the conclusions stated in ICF's Health Benefit Report?

A No. The difference in hourly emissions between the values used in ICF's modeling and the values in the PSD Permit Application do not justify concerns regarding the conclusions reflected in ICF's Health Benefit Report.

Q Why is that so?

A The differences between what ICF modeled and what is contained in the PSD Permit Application are small, relative to the emissions ICF modeled for the SCPC plant. That is, even without the 35 lb decrease (relative to the PSD permit application) in the hourly emissions for SO_2 modeled by ICF, the SO_2 emissions from the IGCC Power Station still would be substantially smaller than the SO_2 emissions from the SCPC plant, and the change that this difference causes in fine particulate matter should be at least partially offset by the 18 pound per hour increase (relative to the PSD permit application data) in hourly NOx emissions modeled by ICF. See Mr. Evans' testimony at pages 10 through 12. I should note that without additional detailed modeling, it is difficult to predict the precise degree to which the offset would occur.

Q Even so, do the conclusions of ICF's health benefits analysis remain intact?

A Yes, the conclusion that there would be significant health impact benefits and damage cost benefits attributable to Excelsior's proposed IGCC plant relative to an Alternative SCPC plant, remains well-supported and reasonable.

Regulatory Pressure to Reduce Fine Particulate Matter

Q Please briefly explain the environmental concerns over fine particulate matter and the regulations that have been put in place to deal with those concerns.

A As noted in the Health Benefit Report, fine particulate matter (otherwise known as $PM_{2.5}$) has been shown to more highly correlate with adverse health effects of ambient particulate matter exposures than do other measures of particulate matter exposure. As a result, the U.S. EPA has established National Ambient Air Quality Standards (NAAQS) for $PM_{2.5}$ (most recently updated in 2006) and begun the process of identifying sources that cause or contribute to ambient violations of these standards.

In addition, in 2005 the U.S. EPA promulgated the Clean Air Interstate Rule (CAIR) , which focuses on reducing emissions across broad geographical regions, in an attempt to reduce instances where the $PM_{2.5}$ standards are violated.

Q What has been the response of large electric generating units across the eastern U.S. in response to the requirements imposed under the Acid Rain Program and CAIR?

A Many facilities are in the process of reducing their emissions of SO_2 and NO_X (both being contributors to acid rain and precursors of fine particulate matter).

Q Based on the work you have conducted for Excelsior and other work that is not proprietary, do you believe that decreased emissions of SO_2 and NO_X will translate to health benefits?

A Yes. SO_2 and NOx are known to be important precursors of fine particulate matter, and reduced emissions of these compounds would result in lower ambient levels of fine particulates, which would be expected to translate into reduced health impacts (i.e., increased health benefits). This is a basic scientific underpinning of the SO_2 and NO_X emission reductions required by EPA's CAIR program.

Q Therefore, now that scientific evidence has shown a growing correlation between fine particulate matter and health impacts, and knowing that large, coal-fired electric generating units emit relatively large quantities of fine particulate precursors (e.g., SO_2 and NO_X), is it reasonable to presume that added pressure will be placed on proposed new electric generating units located within CAIR States to lower their SO_2 and NO_X emissions relative to what they would otherwise be required to do in the absence of the $PM_{2.5}$ regulations?

A Yes. CAIR states, including Minnesota, have restrictive emission budgets for fine particulate precursors under CAIR, and it is reasonable to presume that new coal-fired electric generating units will be under increased pressure to reduce emissions of such precursors.

Q Would it then be reasonable to suggest that a technology already having an emission profile exhibiting significantly lower emissions of $PM_{2.5}$ precursors (that is, capable of superior performance relative to other technologies' emissions of SO_2 and NO_X) could be considered to have already internalized the cost of complying with $PM_{2.5}$ regulations?

A In general, yes. Of course, I would have to know the specific location of the source and its SO_2 and NO_X emission rates before providing a definitive answer. In terms of the Minnesota circumstance of which I modeled, there would probably be added pressure to reduce the level of emissions from the Central Minnesota SCPC plant solely because of its $PM_{2.5}$ impacts on downwind receptors.

Q Does this conclude your testimony?

A Yes.