Mesaba Energy Project, PUC Docket No. E6472/GS-06-668

DOE Draft EIS for the Mesaba Energy Project (DOE/EIS-0382D)
Comments on Draft EIS

Submitted by: Citizens Against the Mesaba Project

The draft EIS is incomplete in that it does not address the entire scope of the MEP. The intent of the entire MEP is to build a total of six IGCC plants o up to three locations.

Of particular concern as described in the initial legislation Minn. Stat. § 216B.1694, Subd. 2 Regulatory Incentives (a), (2) "once permitted and constructed, is eligible to increase the capacity of the associated transmission facilities without additional state review." It is unclear in the legislation if this pertains to HVTL and/or generating facilities and could be argued either way.

Because of the lack of clarification and the intent to build six facilities, the EIS should include environmental, health and socio-economic impacts of all six proposed IGCC facilities.

Innovative Energy Project

In Appendix A2 the summary conclusion states; "Carbon capture and sequestration is not considered feasible for the Mesaba Energy Project at this time." "Without an order from the PUC that incorporates the costs associated with CCS within the power purchase agreement, the Mesaba Energy Project would not be economically viable."

Since it has been determined that CCS is not a viable option for the MEP, it can not be considered to be better than more traditional technologies in terms of emitting carbon. The MPCA has testified to the MPUC that the Mesaba Project's emissions are not inherently improved over traditional technologies. The Administrative Law Judge ruled that the Mesaba Project does not qualify as an Innovative Energy Project. The MPUC has ruled that the project does qualify,

but so far they are the only entity besides Excelsior that believe so. Minnesota Power has filed with the court of appeals arguing that the project does not qualify as an Innovative Energy Project. To say this project qualifies as an IEP is premature.

5.1.2 Impacts of Commercial Operation

"The demonstration of the Mesaba Energy Project for the CCPI Program would be considered successful if the results indicate that the continued operation of the gasifier would fully meet the fuel needs of the combined-cycle unit and would be economically and environmentally feasible (i.e., the project would achieve commercially competitive performance in terms of availability, thermal efficiency, emissions, and cost of electricity). However, if the fuel needs of the combined-cycle unit would need to be met or supplemented by using natural gas for continued commercial operation, then the demonstration of synthesis gas (syngas) production by coal gasification would be considered unsuccessful."

In reference to the paragraph above, the MPUC has found the MEP would not be the least cost resource even without factoring in transportation of CO2 and CCS. Therefore, the project cannot be considered as economically successful.

Excelsior Energy has no definitive plans for CCS, which is commented on in Appendix A2. Therefore, this project cannot be considered environmentally successful.

The administrative law judges determined that this project would not significantly reduce emission as compared to Super Critical Pulverized Coal (SCPC) plants. Therefore, this project cannot be considered environmentally successful nor an innovative energy project.

Since the MEP cannot be found to be environmentally successful, it cannot qualify as a clean energy technology under the Clean Coal Power Initiative (CCPI).

In order for the MEP to be environmentally successful, CCS should be required at time of start up. All potential impacts should be studied, quantified and included in the EIS.

CCS and EOR

On page 5.1-8 of the draft EIS, it is mentioned that "standard industry practices result in permanent underground storage of 33 percent of CO2 injected, employing advanced technologies could result in Enhanced Oil Recovery (EOR) with 60 percent of the CO2 stored." This would amount to only 1,049,400 million tons (33%) of the 3,180,000 million tons of CO2 proposed to be captured from Phases I/II of the MEP. That's less than 1% of the total 10,600,000 million tons emitted annually. And would be 1.8% or 1,908,000 million tons per year sequestered with the advanced technology of 60%.

How is this cost effective or beneficial to the environment when the vast majority of the CO2 emitted is not sequestered?

The other factor not clearly identified in EOR/CCS is that the estimated 8.7 million barrels of oil recovered annually would be responsible for (conservatively) CO2 emissions of 4,350,000 million tons, (approximately 1000 lbs of CO2 per 42 gallon barrel). This clearly indicated that CCS is not the answer to reducing global warming CO2. Any economic benefits would solely go to the oil industry.

Referring to mitigation measures of CO2 contamination mentioned on page 5.1-9 it is not clearly outlined how CO2 contamination can be prevented, located within the injection site or stopped.

How can the exact location of a CO2 leak be identified and what can be done to stop the contamination. These questions must fully be answered before any more sequestration takes place to protect valuable water resources.

5.2 Potential Cumulative Impacts

The data, particularly for the West Range site, should be re-evaluated in its entirety since the final EIS has been released for Minnesota Steel Industries (MSI). There are gross errors in the information provided for the MSI project and this EIS. To fully address potential cumulative impacts all information submitted for the MSI EIS should be included in the MEP EIS.

5.2.3 Air Inhalation Health Risk

Air emissions data and permits have been issued for MSI. Air emission for the power generation planned through the Nashwauk Public Utilities for MSI was not submitted and should be included in the overall impact. The air emissions for MEP EIS should be re-evaluated to be all inclusive. Mesothelioma and other mining related cancers from airborne sources need to be addressed as cumulative.

5.2.3.2 West Range Site

It is stated that a sub-chronic hazard index was not calculated for the MSI facility in the MSI Human Health Screening-Level Risk Assessment; therefore a cumulative sub-chronic hazard index could not be evaluated.

It is unacceptable for MSI to not disclose its sub-chronic hazard information. As a result the cumulative non-carcinogenic and carcinogenic results data are inaccurate and incomplete.

The sub-chronic hazard information from MSI needs to be included particularly since Mesothelioma and asbestos like cancers are now being documented across the Iron Range.

5.2 Data Refinements (pg 5.2-13)

The air emissions from any new source of power generation (i.e. Nashwauk PUC) for MSI was not included in this EIS. All emissions for MSI need to be re-

evaluated because of this omission.

5.2.4.1 West Range – Water Resources
Mercury deposition is of great concern to the MN Dept. of Health, so much so that legislation has been passed to reduce mercury emissions. It is not conducive to state guidelines to be adding mercury to the environment from the many proposed industrial scale projects slated for this region. It is a known fact that minute amounts of mercury are damaging to developing fetuses and young children. And have cumulative health affects on the general population as a whole.

It is noted in Appendix D1 Tables 1 and 2 have mercury emission omissions from several sources. How can the cumulative mercury output be accurately analyzed if there are significant amounts of data missing?

With tighter restrictions on mercury emissions all sources should be included in this EIS.

5.2.4.1 Water Quality – West Range (pg 5.2-15)
It is false to say that the MEP wouldn't add any mercury to water discharges. Air emissions also have an affect on water quality. The JPA mentions Phases I & II of the MEP as emitting 54 lbs of mercury annually, with highest concentrations closest to the location of the proposed plants, (see Mercury Deposition Map).

These emissions will greatly impact all of our water resources with those nearest becoming contaminated faster and more concentrated then they are currently. The 720 lakes identified in the Mercury Deposit Zone all need to be tested for current levels of mercury to determine if they would be at risk to additional levels of mercury deposition. This should include MSI emissions from the operational plant and whatever power source is agree upon and built by Nashwauk PUC.

5.2.6 Wildlife Habitat

The information in this section is grossly inaccurate. It does not contain the total amount of habitat lost due to the MSI project.

In table 5.2.6-2 it states a total of 307 acres lost due to MSI. The data given in the final EIS for MSI indicated a total of 4,719 acres affected. (See Minnesota Steel Project Final EIS pg 6-10.)

This section needs to be corrected to reflect accurate information to determine habitat loss.

5.3.2 Additional Mitigation Options

5.3.2.1 Cooling Water Discharge Options at West Range Site

Zero Liquid Discharge (ZLD) should be implemented from the start of operations at the proposed West Range site. As water resources become acutely more important to our community and society it should be a requirement for the proposed MEP to utilize ZLD. It is unacceptable to not impose ZLD on the proposed MEP no matter where it might proposed to be constructed.

5.3.2.2 Mitigation Options for Visibility Impacts to Class 1 Areas – Enhancement of Existing Design Basis.

The 1st paragraph mentions MEP's current design status. It also states; "Excelsior could be required to enhance its current design basis to produce further SO2 and NOX emission reductions to reduce modeled visibility impacts." Since it is in the public interest to reduce emissions as much as possible, the MEP should be required to enhance its current design basis to further reduce SO2 and NOx emissions.

5.5 Relationship Between Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity.

It is stated that the MEP would be demonstrating innovative coal power technologies that can provide the US with clean, reliable, and affordable energy.

The MEP is not innovative. The technology was introduced during WWII when Germany needed fuel. It is neither clean nor affordable. Coal is not clean. The proposed MEP would still emit over 10 million tons of CO2 annually and would add SO2, NOx, PM10, PM2.5, Hg and VOCs that do not currently exist. The administrative law judges have determined that IGCC does not significantly reduce the above mentioned emissions over a SCPC system. The MN PUC has determined that the electricity produced would be far too expensive and is not the least cost resource and as a result is not in the public interest. It should be noted that the MN PUC findings on cost do not include the necessary transmission upgrades, CCS or transport of CO2 and its related costs.

This sections states; “The Proposed Action would also support the objectives of the Mesaba Energy Project proponent to provide a source of electric power for the State of Minnesota and the national electric grid, as well as provide economic revitalization for the Taconite Tax Relief Area and Arrowhead Region of Minnesota.” There are six bullet points that outline potential long-term benefits to the region:

• The generation of 1,212 MWe to help alleviate the need within Minnesota for 3,000 to 6,000 MWe of new baseload power generation over the next 15 years (Section 1.4.1.1).

The above bullet point mentions that Minnesota will have a need of 3,000 to 6,000 MWe of new baseload power in the next 15 years, this is what Excelsior Energy claims. Any reference to electrical need by the public was omitted in this EIS because of the legislation that was passed exempting the MEP from the Certificate of Need. Since the public was forbidden to comment on the need for electricity then Excelsior Energy should not be able to promote their claim of electrical need. Excelsior Energy has not had to prove the need for electricity so

any mention of needed baseload power should be stricken from the EIS.

The next six bullet points refer to economic benefits to the region. Excelsior Energy submitted an economic benefit analysis that was conducted by UMD's Labovitz School of Business and Economics, Bureau of Business and Economic Research. The information supplied for the study came from Excelsior Energy. A true economic picture should be obtained by conducting a Cost Benefit Analysis study. This has been requested, but has not been conducted. The results of a Cost Benefit Analysis should be included in this EIS. If a Cost Benefit Analysis is not to be performed then the economic benefit study submitted by Excelsior Energy should be omitted.

The sixth bullet pertains to the Canisteo Mine Pit water level stabilization. The water levels could easily be stabilized by siphoning water to Trout Lake. This scenario has been studied and is ready to be implemented upon securing funds. The estimated cost of this siphoning project was approximately $3 million, considerably less that the estimated $2.2 billion for the MEP.

It is not right to overlook the impacts of the Long-Term Productivity on environmental and human health, the costs of which are significant, and should be included in this summarization.