



Energy Facility Permitting  
85 7th Place East, Ste 500  
Saint Paul, MN 55155-2198  
Minnesota Department of Commerce

June 23, 2006

Burl W. Haar  
Executive Secretary  
Minnesota Public Utilities Commission  
127 7<sup>th</sup> Place East, Suite 350  
St. Paul, MN 55101-2147

RE: Comments and Recommendations of the Minnesota Department of Commerce Energy  
Facility Permitting Staff  
**Docket No. E6472/GS-06-668**

Dear Dr. Haar:

Attached are the comments and recommendations of the Minnesota Department of Commerce (DOC) Energy Facility Permitting (EFP) Staff in the following matter:

In the Matter of the joint LEPGP Site, HVTL Route and Pipeline Route Permit Application for the Mesaba Energy Project (a 1,200-Megawatt IGCC power plant in Itasca County) submitted by Excelsior Energy. The Joint Permit Application was filed on April 19, 2006.

The Department is providing you with DOC EFP staff:

- A. Comments and Recommendations;
- B. Flow-chart schematic of the Full Permitting Process and the Partial Exemption Pipeline Routing Process;
- C. Draft EIS Scoping Document;
- D. General location maps of the Mesaba Energy Project (west range and east sites).

The Department EFP staff recommends acceptance of the Joint Permit Application with the understanding that any additional information necessary for processing the application will be provided promptly.

Staff is available to answer any questions the Commission may have.

Sincerely,

William Cole Storm  
DOC EFP Staff

Enclosures



Energy Facility Permitting  
85 7th Place East, Ste 500  
Saint Paul, MN 55155-2198  
Minnesota Department of Commerce

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BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

COMMENTS AND RECOMMENDATIONS OF THE  
MINNESOTA DEPARTMENT OF COMMERCE  
ENERGY FACILITY PERMITTING STAFF

DOCKET NO. E6472/GS-06-668

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Meeting Date: July 6, 2006.....Agenda Item #

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Company: Excelsior Energy

Docket No. PUC Docket Number: E6472/GS-06-668

In the Matter of a Joint LEPGP Site Permit, HVTL Route Permit and Pipeline (Partial Exemption) Route Permit Application for the Mesaba Energy Project, a 1,200-Megawatt, IGCC power plant proposed by Excelsior Energy in Itasca County.

Issue(s): Should the Minnesota Public Utilities Commission accept or reject the Joint Permit Application? Should the Commission authorize a citizen's advisory task force at this time? The selection of a public advisor by the Commission. Should the PUC approve electronic copies of the Joint Permit Application to affected landowners of the proposed pipeline route?

DOC Staff: William Cole Storm.....651-296-9535

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The enclosed materials are work papers of the Department of Commerce Energy Facility Permitting (DOC-EFP) Staff. They are intended for use by the Public Utilities Commission and are based on information already in the record unless otherwise noted.

This document can be made available in alternative formats (i.e., large print or audio tape) by calling (651) 201-2202 (Voice) or 1-800-627-3529 (TTY relay service).

**Relevant Documents** (in Commission Packet).

Excelsior Energy's Joint Permit Application and Excelsior Energy's Environmental Supplement dated June 16, 2006 (received June 19, 2006).

**Documents Attached**

1. Flow-chart schematic of the Full Review LEPGP/HVTL Permitting Process;
2. Flow-chart schematic of the Partial Exemption Pipeline Routing Process
3. Draft EIS Scoping Document.
4. General site location map (West Range Site).
5. General site location map (East Range Site).

(Note: Relevant documents and additional information can be found on eDockets (E6472/GS-06-668) or the PUC Facilities Permitting website <http://energyfacilities.puc.state.mn.us/Docket.html?Id=16573>)

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**Statement of the Issue**

Should the Public Utilities Commission (Commission) accept or reject the Joint Permit Application for the Mesaba Energy Project filed by the Applicant for a large electric power generating plant (LEPGP), a high voltage transmission line (HVTL) and a natural gas Pipeline (Partial Exemption) to be located on the iron range in northern Minnesota.

Should the Commission authorize an advisory task force at this time?

The selection of a public advisor.

Can the applicant submit electronic copies, in lieu of paper copies, to the affected landowners along the proposed pipeline route?

**Introduction and Background**

Excelsior Energy, Inc (Excelsior) is proposing to construct and operate a coal-feedstock Integrated Gasification Combined Cycle ("IGCC") power plant. The proposed power plant will be constructed in two phases; each phase will be capable of producing approximately 606 MW (net) of baseload power.

The U.S. Department of Energy (DOE) selected the Mesaba Energy Project under the Clean Coal Power Initiative Round 2 solicitation for negotiation of a Cooperative Agreement. Under the Cooperative Agreement DOE would provide financial assistance for the proposed project. On October 5, 2005, DOE published a Notice of Intent (NOI) to prepare an Environmental Impact Statement in the Federal Register (70 FR 58207). It is DOE's intent to prepare, in cooperation with the Minnesota Department of Commerce and the Minnesota Public Utilities Commission, an EIS that will fulfill the requirements of both the Federal and State environmental review processes

Excelsior Energy filed a Joint Permit Application for a LEPGP site permit, a HVTL routing permit and a pipeline (partial exemption) routing permit on June 16, 2006. (See items in Relevant Documents)

The project is scheduled to begin construction in the second half of 2008 and to be in service in 2011.

### ***Project Description***

In the E-Gas<sup>TM</sup> gasification process, coal, petroleum coke, or blends of coal and petroleum coke are crushed, slurried with water, and pumped into a pressurized vessel (the gasifier) along with purified amounts of oxygen. In the gasifier, controlled reactions take place, thermally converting feedstock materials into a gaseous fuel known as synthetic gas, or syngas. The syngas is cooled, cleaned of contaminants, and then combusted in a combustion turbine (CT), which is directly connected to an electric generator. The assembly of the CT and generator is known as a combustion turbine generator (CTG). The expansion of hot combustion gases inside the CT converts thermal energy to rotational energy that spins the generator and produces electricity. The hot exhaust gases exiting the CTG pass through a heat recovery steam generator (HRSG), a type of boiler, where steam is produced. The resulting steam is piped to a steam turbine that is connected to an electric generator. The expansion of steam inside the steam turbine spins the generator to produce an additional amount of electricity. When a CTG and a steam turbine generator (STG) are operated in tandem at one location to produce electricity, the combination of equipment is referred to as a combined cycle electric power plant. Combining the gasification process with the combined cycle design is known as integrated gasification combined cycle (IGCC).

Each phase consists of two CTG (approximately 220 MW each) and one STG (approximately 300 MW). Three gasifiers, two on-line and one off-line during operation, will supply the CTG with syngas. Power generated from the project will be interconnected to the regional electrical grid via high voltage transmission lines, either at the Blackberry or Forbes substations depending on which site (i.e., West Range or East Range, respectively) is selected.

### ***Regulatory Review Process***

In accordance with the Power Plant Siting Act a site permit and a route permit are required before a large electric power generating plant (LEPGP) and high voltage transmission line (HVTL) can be constructed. The power plant siting act requirement became law in 1973 in Minnesota Statutes, 116C.51 through 116C.69. The rules to implement the permitting requirement for LEPGP and HVTL are in Minnesota Rules Chapter 4400. (See item #1 under the attached documents)

A LEPGP is defined as any electric power generating equipment and associated facilities designed for or capable of operation at a capacity of 50,000 kilowatts or more. A HVTL is defined as a conductor of electric energy and associated facilities designed for and capable of operating at a nominal voltage of 100 kilovolts or more either immediately or without significant modification.

A pipeline route permit from the Public Utilities Commission is required for the construction of certain pipelines (Minnesota Statutes 116I.015). (See item #2 under the attached documents) The PUC has jurisdiction over pipelines that are designed to carry natural gas and be operated at a pressure of more than 275 pounds per square inch. However, the PUC's authority does not apply to interstate natural gas pipelines regulated under the federal Natural Gas Act and to pipeline owners or operators who are defined as a natural gas public utility under Minn. Stat. Sec. 216B.02.

The application will be reviewed under the Full Review Process (Minnesota Rules 4400.1025 to 4400.1900) of the Power Plant Siting Act (Minnesota Statutes 116C.51 to 116C.69). For LEPGPs and HVTLs under the full permitting process the applicant is required to submit two sites and/or routes (i.e., a preferred and an alternate) for consideration. An alternate route is not required for the pipeline, since it is being reviewed under the partial exemption process.

As part of the permitting process, the Department of Commerce (DOC) is responsible for certain procedural requirements (i.e., public notice and meetings), issuing the Environmental Impact Statement (EIS) Scoping Decision and the preparation of an Environmental Impact Statement (EIS). A contested case hearing will also be conducted following completion of the draft EIS. The PUC has up to one year from the time the application is accepted to complete the process and make a final decision; that decision includes a determination on the adequacy of the EIS and the determination whether to grant the requested permits, as well as, site/route selection and permit conditions.

In preparation for the initial public information/EIS scoping meetings, the DOC Energy Facility Permitting (EFP) staff has developed a Draft Scoping Document (See item #3 in the attached materials).

The official process begins with the determination by the PUC that the application is substantially complete.

Minnesota Rule 4400.0675, Joint Processing, allows an applicant to combine applications for a LEPGP site permit, a HVTL route permit and a pipeline route permit into a single, joint filing. Excelsior Energy has filed a Joint Permit Application pursuant to this provision and has agreed to follow the longer timeline contained in Minnesota Rule Chapter 4400 (as opposed to the shorter process found in the pipeline partial exemption procedure in Minnesota Rules 4415.0035) for the pipeline routing process.

### ***Alternative Sites***

Applicants submitting a LEPGP site or HVTL route application under the full permitting process must provide a proposed and an alternative site and/or route for consideration. The applicants have proposed two separate LEPGP sites and two HVTL routes for each of the LEPGP sites.

The two LEPGP sites under consideration are located on the Iron Range. (See item # 4 and #5 in the attached documents) The applicant's preferred site, referred to as the West Range site (approximately 1,260 acres) is located just north of the city of Taconite in Itasca County, Minnesota. The alternative site, referred to as the East Range site (approximately 825 acres) is located about one mile north of the city of Hoyt Lakes in St. Louis County, Minnesota.

In the case of the West Range site, the generating facilities would connect to the power grid via new and existing high voltage transmission line (HVTL) corridors to a substation near the unincorporated community of Blackberry. In the case of the East Range site, the generating facilities would connect to the grid via existing HVTL corridors that lead to a substation near the unincorporated community of Forbes. The project would require reconstruction and/or reinforcement of the HVTL infrastructure within the final corridors selected.

In conjunction with both phases, additional network reinforcements would be required within other existing HVTL corridors leading to load centers and/or at substations down-network of the existing substations identified.

If the east range site (i.e., alternative site) is selected through the Power Plant Siting Act procedures, the natural gas pipeline would be constructed, owned and operated by Northern Natural Gas Company (Northern) pursuant to the provisions of Northern's blanket certification (FERC Docket No. CP82-401-000). In such an instance, no pipeline permit would be required from the PUC.

### ***Public Advisor***

Upon acceptance of an application for a site and/or route permit, the Commission shall designate a staff person to act as the public advisor on the project. (Minnesota Rule 4400.1450) The public advisor is someone who is available to answer questions from the public about the permitting process. In this role, the public advisor may not act as an advocate on behalf of any person.

The Commission can authorize the Department to name a staff member from EFP staff as the public advisor. Otherwise, the Commission could assign a PUC staff member as the public advisor.

### *Advisory Task Force*

The Commission has the authority to appoint an advisory task force (Minnesota Statutes 116C.59, Subdivision 1). The PUC can charge the task force with identifying additional routes or with identifying particular impacts to be evaluated in the environmental impact statement. The Commission may establish additional charges, including a request that the task force express a preference for a specific route if it has one. However, by statute, an advisory task force expires once the scope of the EIS is finalized.

The Commission is not required to assign an advisory task force for every project. There are possible reasons in this case why the Commission may find a task force is unnecessary.

Public awareness of the project is high. The 2003 legislature, in Article 4 of the Laws of Minnesota 2003, special session chapter 11, (known as the "Prairie Island 2" bill) provided for a number of regulatory incentives for an "innovative energy project" on the Iron Range. The Iron Range project at the heart of this public discussion was the IGCC generation facility known as the "Mesaba Energy Project" that creates a synthetic gas from coal (coal gasification).

In addition, the public has had and will have numerous opportunities to participate in and have input into the process. On October 25 and 26, 2005, the DOE held two initial public informational and EIS scoping meetings; one in Taconite and one in Hoyt Lakes. The Department EFP staff will also be holding a pair of public information and EIS scoping meetings in the area in August, 2006. This essentially gives the public an additional opportunity to comment on the project and have input into the scoping process.

Later in the permitting process the public will have opportunities to provide input and comments at the draft EIS meeting, tentatively scheduled for December, 2006, and at the contested case hearing, tentatively scheduled for March, 2007.

Naming an advisory task force can potentially improve the level of public participation and involvement in the permitting process. Local input can help identify location specific site/route information. Historically, the Environmental Quality Board Chair has named an advisory task force in several instances involving major transmission projects. However, the Commission would need to decide if charging a task force with identifying additional sites/routes is practical or necessary.

In lieu of establishing an advisory task force, the Commission could direct the Department to establish a working group of affected local units of government (LUG) to provide input on local impacts and possible mitigation measures during EIS preparation. The working group could

participate by reviewing the relevant documents (i.e., draft EIS scope through final EIS) and providing local government perspective. In preliminary discussions the Arrowhead Regional Development Commission (ARDC) has expressed interest in partnering with DOC in such an effort.

The decision on whether to assign an advisory task force does not need to be made at the time of accepting the application. However, as guided by the rule and considering the efficiency of process, the Commission should make the determination as early in the process as possible. If the Commission does not name a task force, the rule (subp. 2) allows for a citizen to request that they do so. The Commission would then need to determine at their next meeting if a task force should be appointed.

### **EFP Staff Analysis and Comments**

DOC EFP staff has completed a review of the applicable rules and the Applicant's Joint Permit Application for completeness. The Applicant must provide the information required by Minnesota Rules 4400.1150 and 4400.3150, and Minnesota Rules 4415.0115 to 4415.0170. This includes, but is not limited to, route descriptions and the potential impacts on the environment, the economy, health and human resources, and natural resources.

Minnesota Rule 4400.1250, subpart 3, states that the Commission can reject the application for deficiencies. However, the Commission can not find the application deficient if the required information can be provided by the applicant within 60 days and the lack of the information will not interfere with the public's ability to review the proposed project.

EFP staff has concluded the application is complete and that the Commission should accept the application with the understanding that if additional information is requested by the Department EFP staff these requests will be addressed promptly. The Applicant has indicated that they will comply with requests for additional information from the Commission, the Department, or other interested persons. Application acceptance allows the applicant and staff to initiate the requirements of the rules.

EFP staff believes that there is adequate opportunity for citizen participation within the Full Permit Review process and that a citizen advisory task force is not necessary to provide further input to EIS scoping. However, there does appear to be value in establishing a working group of affected LUGs.

The pipeline routing rules (Minnesota Rule Chapter 4415.0035, Subpart 2, Item C) require that an applicant applying for a partial exemption-pipeline routing permit provide a copy of the application to any affected landowner. Given the volume of the Joint Permit Application, and the fact that much of that material deals with the LEPGP sites, and the HVTL sites (both east and west range sites), the applicant has requested that this requirement be fulfilled with electronic copies of the Joint Permit Application in lieu of paper copies. Any affected landowner wishing to have a paper copy will receive one upon request.

## **Commission Decision Options**

### ***Application Acceptance***

- 1a Accept the Joint Permit Application submitted by Excelsior Energy for the Mesaba Energy project, including the request for a LEPGP Site Permit, a HVTL Route Permit and a Pipeline (Partial Exemption) Route Permit. Accepting the Joint Permit Application marks the start date for the one year process and allows the DOC EFP Staff and the Applicants to initiate the actions required by Minnesota Rules 4400.1035 to 4400.1900 and Minnesota Rule Chapter 4415. These actions include providing project descriptions to landowners, publishing notice of information meetings, and initiating the scoping and EIS process required under the rules.
- 1b Reject the application as incomplete and issue an order indicating the specific deficiencies to be remedied before the application can be accepted.

### ***Public Advisor***

- 2a The Commission authorizes the Department to name a public advisor for the project.
- 2b The Commission appoints a PUC staff to be public advisor for the project.

### ***Advisory Task Force***

- 3a The Commission authorizes the establishment of a citizen advisory task force and authorizes DOC staff to develop and implement a proposed structure and charge for the task force.
- 3b The Commission authorizes the establishment of a local unit of government working group and authorizes DOC staff to develop and implement a proposed structure and charge for the working group.
- 3c The Commission does not elect to appoint a citizen advisory task force or LUG working group.

### ***Application Dissemination***

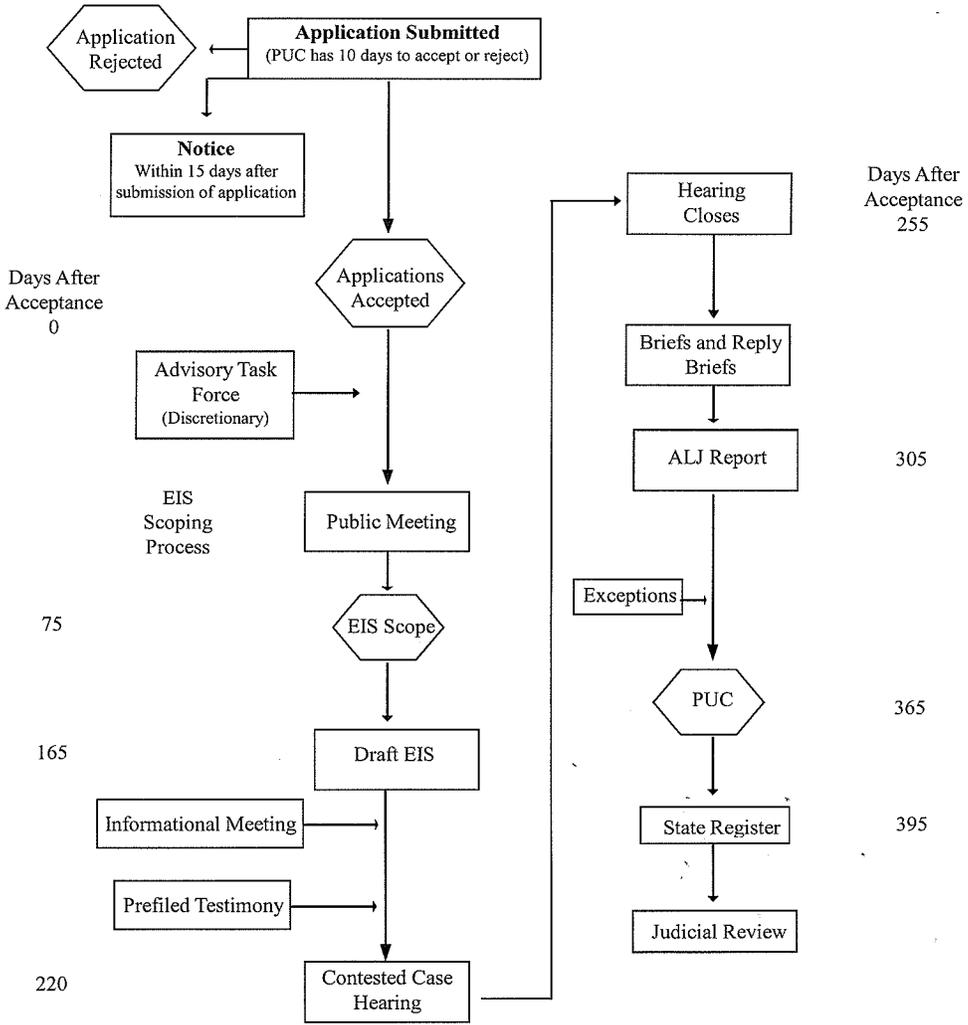
- 4a The Commission approves the dissemination of electronic copies of the Joint Permit Application to affected landowners of the proposed pipeline route, in lieu of paper copies, with the understanding that paper copies will be provided to any landowner that request such.
- 4b The Commission requires the applicant to comply with Minnesota Rule 4415.0035, Subpart2, item C, by submitting a paper copy to any affected landowner along the proposed pipeline route.

***Other***

- 5 Make some other decisions deemed more appropriate.

**EFP Staff Recommendation:** Staff recommends option numbers 1a, 2a, 3b and 4a.

HVTL Route and Power Plant Site  
 Full Permitting Process  
 Minn. Rule 4400.1000 to 4400.1900





MINNESOTA  
DEPARTMENT OF  
COMMERCE

# Partial Exemption From Pipeline Route Selection Procedures

Minnesota Rules  
4415.0035

PUC Energy Facility  
Permitting

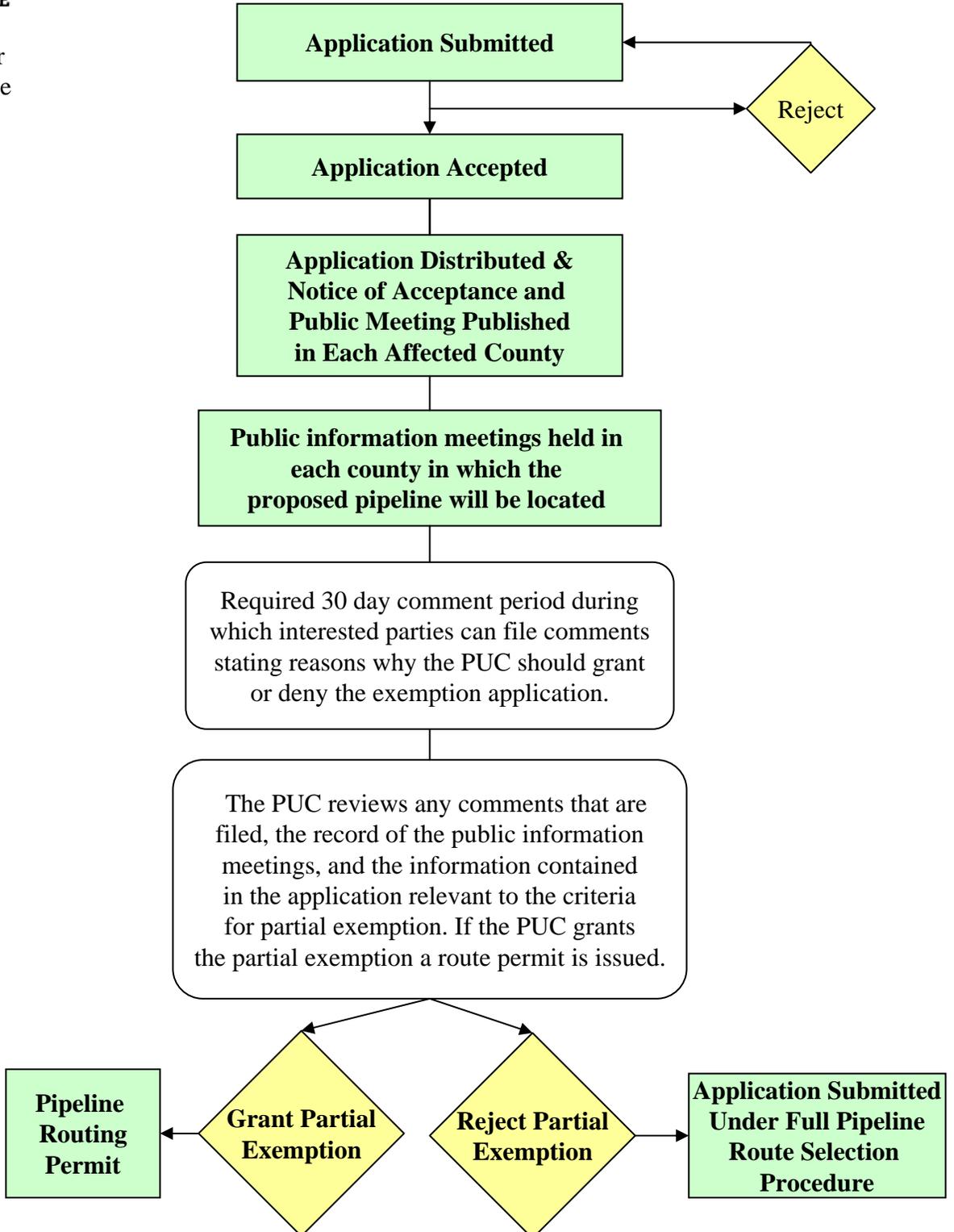
Days After  
Acceptance

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15

45

90



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**ENVIRONMENTAL IMPACT STATEMENT**  
**SCOPING DOCUMENT**

**EXCELSIOR ENRGY, INC.**  
**MESABA ENERGY PROJECT**  
**PUC DOCKET #E6472/GS-06-668**

**Prepared by the Staff of the**



85 7<sup>th</sup> Place East  
Suite 500  
St. Paul, MN 55101

**June 23, 2006**

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## 1.0 INTRODUCTION

Excelsior Energy, Inc (Excelsior) is proposing to construct and operate a coal-feedstock Integrated Gasification Combined Cycle (“IGCC”) power plant. The proposed power plant will be constructed in two phases; each phase will be capable of producing approximately 600 MW (net) of baseload power.

The project is scheduled to begin construction in the second half of 2008 and to be in service in 2011.

In accordance with the Power Plant Siting Act a site permit and a route permit is required before a large electric power generating plant (LEPGP) or high voltage transmission line (HVTL) can be constructed. The power plant siting act requirement became law in 1973 in Minnesota Statutes, 116C.51 through 116C.69. The rules to implement the permitting requirement for LEPGP are in Minnesota Rules Chapter 4400.

A LEPGP is defined as any electric power generating equipment and associated facilities designed for or capable of operation at a capacity of 50,000 kilowatts or more. A HVTL is defined as a conductor of electric energy and associated facilities designed for and capable of operating at a nominal voltage of 100 kilovolts or more either immediately or without significant modification.

A pipeline route permit from the Public Utilities Commission is required for the construction of certain pipelines (Minnesota Statutes 116I.015). The PUC has jurisdiction over pipelines that are designed to carry natural gas and be operated at a pressure of more than 275 pounds per square inch. However, the PUC’s authority does not apply to interstate natural gas pipelines regulated under the federal Natural Gas Act and to pipeline owners or operators who are defined as a natural gas public utility under Minn. Stat. Sec. 216B.02.

Minnesota rule Chapter 4400.0675, Joint Processing, allows an applicant to combine applications for a LEPGP site permit, a HVTL route permit and a pipeline route permit into a single, joint filing. Excelsior Energy, filed a Joint Permit Application for a LEPGP site permit, a HVTL routing permit and a pipeline routing permit on June 19, 2006.

The permit will be reviewed under the Full Review Process (Minn. Rule Chapter 4400) within the Power Plant Siting Act. Under the full permitting process the applicant is required to submit two sites and/or routes (i.e., a preferred and an alternate) for consideration. As part of the permitting process, the Department of Commerce is responsible for certain procedural requirements (i.e., public notice and meetings), issuing the EIS Scoping Decision and the preparation of an Environmental Impact Statement (EIS). A contested case hearing will also be conducted following completion of the draft EIS. The PUC has up to one year from the time the application is accepted to complete the process and make a final decision; that decision includes a determination on the adequacy of the EIS and the determination whether to grant the requested permits, as well as, site/route selection and permit conditions. A flow-chart outlining the Full Permitting Process can be viewed at:

<http://energyfacilities.puc.state.mn.us/documents/Fullpermitprocessfinal.pdf>

The official process begins with the determination by the PUC that the application is substantially complete. On July 6, 2006, the PUC during a regularly scheduled meeting will determine whether the Joint Permit Application is complete and issued an order to that effect on June xx, 2006.

The U.S. Department of Energy (DOE) selected the Mesaba Energy Project under the Clean Coal Power Initiative Round 2 solicitation for negotiation of a Cooperative Agreement. Under the Cooperative Agreement DOE would provide financial assistance for the proposed project. On October 5, 2005, DOE published a Notice of Intent (NOI) to prepare an Environmental Impact Statement in the Federal Register (70 FR 58207). It is DOE's intent to prepare, in cooperation with the Minnesota Department of Commerce and the Minnesota Public Utilities Commission, an EIS that will fulfill the requirements of both the Federal and State environmental review processes.

## **2.0 PROJECT DESCRIPTION**

In the E-Gas<sup>TM</sup> process, coal, petroleum coke, or blends of coal and petroleum coke are crushed, slurried with water, and pumped into a pressurized vessel (the gasifier) along with purified amounts of oxygen. In the gasifier, controlled reactions take place, thermally converting feedstock materials into a gaseous fuel known as synthetic gas, or syngas. The syngas is cooled, cleaned of contaminants, and then combusted in a combustion turbine (CT), which is directly connected to an electric generator. The assembly of the CT and generator is known as a combustion turbine generator (CTG). The expansion of hot combustion gases inside the CT converts thermal energy to rotational energy that spins the generator and produces electricity. The hot exhaust gases exiting the CTG pass through a heat recovery steam generator (HRSG), a type of boiler, where steam is produced. The resulting steam is piped to a steam turbine that is connected to an electric generator. The expansion of steam inside the steam turbine spins the generator to produce an additional amount of electricity. When a CTG and a steam turbine generator (STG) are operated in tandem at one location to produce electricity, the combination of equipment is referred to as a combined cycle electric power plant. Combining the gasification process with the combined cycle design is known as integrated gasification combined cycle (IGCC).

Each phase consists of two CTG (approximately 220 MW each) and one STG (approximately 300 MW). Three gasifiers, two on-line and one off-line during operation, will supply the CTG with syngas. Power generated from the project will be interconnected to the regional electrical grid via high voltage transmission lines, either at the Blackberry or Forbes substations depending on which site (i.e., West Range or East Range, respectively) is selected.

## **3.0 EIS SCOPING PROCESS**

The purpose of the EIS scoping process is to reduce the scope and bulk of the EIS by identifying the potentially significant issues and alternatives requiring analysis. In accordance with Minnesota Rules, part 4400.1700, subpart 4, the scoping decision shall, at a minimum, address the following:

- The issues to be addressed in the EIS;
- The alternative sites to be addressed in the EIS; and
- The schedule for completion of the EIS.

In determining the scope of the EIS the DOC solicits the input of the public on the appropriate issues and alternatives to address.

DOC will conduct two public scoping meetings in which agencies, organizations, and the general public is invited to present oral comments or suggestions with regard to the range of alternatives and environmental issues to be considered in the EIS.

The scoping meetings are tentatively scheduled to be held at the Taconite Community Center, 26 Haynes Street, Taconite, Minnesota and at the Hoyt Lakes Arena, 106 Kennedy Memorial Drive, Hoyt Lakes, Minnesota during the week of August 21, 2006. The meetings will be scheduled for 7:00 in the evening, with an informal “poster” session at each location beginning at 4 p.m. on the date of each meeting, during which the applicant, DOC, PUC and DOE personnel will be present to discuss the proposed project and the EIS process. Displays and other forms of information about the proposed project and the regulatory review process will be made available to the public for examination.

The public will also have a 10 day public comment period following the meetings to submit written comments to the DOC on the scope of the EIS. Written comments should be mailed to Bill Storm, Minnesota Department of Commerce, 85 7<sup>th</sup> Place, Suite 500, St. Paul, Minnesota 55101-2198.

The final scoping decision will be made by the Commissioner of the DOC. That decision will be made shortly after the close of the public comment period. Persons who want to be advised of the Commissioner’s scoping decision can register their names with the PUC at the public meeting or contact Bill Storm at (651) 296-9535. The final scoping decision will also be posted on the PUC webpage:

<http://energyfacilities.puc.state.mn.us/Docket.html?Id=16573>

This EIS scoping document is intended to advise the public of the scoping process and the process for the preparation of an Environmental Impact Statement and to identify for the public the issues and alternatives that the DOC staff has determined are appropriate for inclusion in the EIS. This document also identifies certain issues that will not be included in the EIS.

DOE held two public scoping meetings during the Federal EIS scoping period: one on October 25, 2005 at the Taconite Community Center in Taconite, MN; and one on October 26, 2005 at the Hoyts Lake Arena, Hoyts Lake, MN. Twenty-nine individuals presented oral comments and six comment sheets were submitted at the meetings. In all, 18 comments were submitted via e-mail, 5 letters were received by mail, 4 comments were received by fax, and 2 comments were received by telephone. Comments were posted on the PUC website for the project (<http://energyfacilities.puc.state.mn.us/Docket.html?Id=16573>). All these comments will be considered in preparation of the EIS.

## **4.0 DRAFT SCOPING OUTLINE**

The Environmental Impact Statement on the Mesaba Energy project will address the following matters:

Cover Page  
Executive Summary  
Table of Contents (Including List of Figures, List of Tables)  
Acronyms and Abbreviations  
Glossary

1. Purpose and Need for the Proposed Action
  - 1.1 Introduction  
(Lead Agency, Cooperating Agencies, Project Proponent, Location)
  - 1.2 Clean Coal Power Initiative (Background and project selection)
  - 1.3 Proposed Action (Brief synopsis distinguishing between DOE's Proposed Action and project proponent's Proposed Action)
  - 1.4 Purpose and Need for the Proposed Action
    - 1.4.1 Purpose of the Proposed Action
    - 1.4.2 Need for the Proposed Action
      - 1.4.2.1 DOE Need
      - 1.4.2.2 Minnesota DOC and PUC Role
      - 1.4.2.3 Project Proponent Need
  - 1.5 Regulatory Framework
    - 1.5.1 National Environmental Policy Act
    - 1.5.2 Minnesota State Requirements
      - 1.5.2.1 Minnesota Rules, Chapter 4400
      - 1.5.2.2 Minnesota Statute 216B.1694 Innovation Energy Project
      - 1.5.2.3 Minnesota Rules, Chapter 4415/18 CFR Part 157 of the Natural Gas Act
      - 1.5.2.4 Minnesota Environmental Policy Act
      - 1.5.2.5 Taconite Tax Relief Area
      - 1.5.2.6 Other State Requirements and Permits
  - 1.6 Scoping of the Environmental Impact Statement
    - 1.6.1 NEPA Scoping Process
    - 1.6.2 Minnesota Rule 4400.1700, subpart 2
    - 1.6.2 Public Comments Received
    - 1.6.3 Special CCPI Considerations under NEPA
    - 1.6.4 Region of Influence
    - 1.6.5 Connected Actions (Phase II Power Plant, County Hwy 7 Realignment)
  - 1.7 Associated Actions
    - 1.7.1 Related NEPA Compliance Actions (Including Final Programmatic EIS, Clean Coal Technology Demonstration Program, DOE, November 1989)
    - 1.7.2 Related DOE CCPI Activities
    - 1.7.3 Related Regional Activities
2. Proposed Action and Alternatives
  - 2.1 Description of the Proposed Action (Non-site-specific description and general features of the Mesaba Energy Project)
    - 2.1.1 Technology Selection and Process Description
      - 2.1.1.1 Technology Selection (Including discussion of lessons learned from Wabash River Coal Gasification Repowering Project)
      - 2.1.1.2 Gasification Combined-Cycle Technology
      - 2.1.1.3 Process Components and Major Equipment

- 2.1.1.4 Plant Utility Systems
- 2.1.2 Resource Requirements (Inputs)  
(General needs for the plant that affect site selection and help frame the later discussion of how site alternatives were selected and how sites were eliminated)
  - 2.1.2.1 Feedstock and Flux Requirements
  - 2.1.2.2 Natural Gas Requirements
  - 2.1.2.3 Process Water Requirements
  - 2.1.2.4 Infrastructure Requirements
  - 2.1.2.5 Transportation Requirements
  - 2.1.2.6 Land Area Requirements
- 2.1.3 Discharges, Wastes, and Products (Outputs)
  - 2.1.3.1 Air Emissions
  - 2.1.3.2 Water Effluents
  - 2.1.3.3 Liquid Wastes
  - 2.1.3.4 Solid Wastes
  - 2.1.3.5 Marketable Products
  - 2.1.3.6 Toxic and Hazardous Materials
  - 2.1.3.7 Pollution Prevention, Recycling, and Reuse
- 2.1.4 Construction Plans
  - 2.1.4.1 Construction Staging and Schedule
  - 2.1.4.2 Construction Materials and Suppliers
  - 2.1.4.3 Construction Labor
  - 2.1.4.4 Construction Safety Policies and Programs
- 2.1.5 Operation Plans
  - 2.1.5.1 Test Plans
  - 2.1.5.2 Operational Plans
  - 2.1.5.3 Operational Labor
  - 2.1.5.4 Health & Safety Policies and Programs
  - 2.1.5.5 Worst-case Operating Scenario
- 2.2 Alternatives
  - 2.2.1 Alternatives Available to DOE
    - 2.2.1.1 Proposed Action (Proceed with the cooperative agreement)
    - 2.2.1.2 No-Action Alternative (Do not proceed with the cooperative agreement)
  - 2.2.2 Alternatives Sites Considered
    - 2.2.2.1 Preferred West Range Site (Including HVTL & Pipeline corridors)
    - 2.2.2.2 Alternative East Range Site (Including HVTL & Pipeline corridors)
    - 2.2.2.3 Alternatives Eliminated from Detailed Evaluation
  - 2.2.3 Alternatives Available to Minnesota PUC
    - 2.2.3.1 Approve Permits for Preferred West Range Site
    - 2.2.3.2 Approve Permits for Alternative East Range Site
    - 2.2.3.3 Disapprove the Permit Application
- 3. Affected Environment (Note: This section will contain the described information for both the West Range Site and the East Range Site)
  - 3.1 Introduction
  - 3.X Resource Subject (Note: This “X” outline applies to all resource subjects listed below)
    - 3.X.X.1 Regional and Local Conditions
    - 3.X.X.2 Site-specific Conditions

3.X.X.3 Corridor-specific Conditions

- 3.2 Aesthetics (daytime and nighttime)
  - 3.2.1 Physical Setting
  - 3.2.2 Viewshed
  - 3.2.3 Scenic Resources
- 3.3 Air Quality and Climate
  - 3.3.1 Local and Regional Climate
  - 3.3.2 Air Quality Regulations
  - 3.3.3 Local and Regional Air Quality
  - 3.3.4 Sources of Air Pollution
  - 3.3.5 Sensitive Receptors (Including Class I Areas)
  - 3.3.6 Air Quality Management Plans
- 3.4 Geology and Soils
  - 3.4.1 Geology
  - 3.4.2 Mineral Resources and Mining
  - 3.4.3 Seismic Activity
  - 3.4.4 Soils
  - 3.4.5 Prime Farmland
  - 3.4.6 Potential Formations for Geologic Sequestration of CO<sub>2</sub>
- 3.5 Water Resources
  - 3.5.1 Groundwater
  - 3.5.2 Surface Water
- 3.6 Floodplains
  - 3.6.1 Local Hydrology and Drainage
  - 3.6.2 Flood Hazard Areas
- 3.7 Wetlands
- 3.8 Biological Resources
  - 3.8.1 Terrestrial Ecosystems
  - 3.8.2 Aquatic Ecosystems
  - 3.8.3 Protected Species and Habitats
- 3.9 Cultural Resources
  - 3.9.1 Archeological Resources
  - 3.9.2 Historic Resources
  - 3.9.3 Native American Cultural Resources
- 3.10 Land Use
  - 3.10.1 Existing Land Use/Human Settlement
  - 3.10.2 Zoning Ordinances
  - 3.10.3 Local and Regional Land Use Plans
- 3.11 Socioeconomics
  - 3.11.1 Demographics
  - 3.11.2 Housing
  - 3.11.3 Employment and Income
  - 3.11.4 Business and Economy
- 3.12 Environmental Justice
  - 3.12.1 Minority Populations
  - 3.12.2 Low-Income Populations
- 3.13 Community Services
  - 3.13.1 Law Enforcement

- 3.13.2 Fire Protection
- 3.13.3 Emergency Response
- 3.13.4 Parks and Recreation
- 3.14 Utility Systems
  - 3.14.1 Water
  - 3.14.2 Wastewater
  - 3.14.3 Energy
  - 3.14.4 Telecommunications
- 3.15 Traffic and Transportation
  - 3.15.1 Local Roads and LOS
  - 3.15.2 Rail Access
- 3.16 Materials and Waste Management
  - 3.16.1 Construction Materials
  - 3.16.2 Coal and other Feedstock
  - 3.16.3 Landfills
  - 3.16.4 Recycling Facilities
- 3.17 Safety and Health
  - 3.17.1 Occupational Safety Considerations
  - 3.17.2 Community Health Issues
  - 3.17.3 Local and Regional Receptors/Health Risk Assessment
  - 3.17.4 Electromagnetic Fields (EMF) (Including Henshaw effect)
- 3.18 Noise
  - 3.18.1 Local Ordinances
  - 3.18.2 Existing Sources of Noise
  - 3.18.3 Local and Regional Receptors
- 3.19 Light and Glare
  - 3.19.1 Local Ordinances
  - 3.19.2 Existing Light Sources
  - 3.19.3 Local and Regional Receptors
- 4. Environmental Consequences (Note: This section will contain the described information for both the West Range Site and the East Range Site)
  - 4.1 Introduction (Including categories of relative impact)
  - 4.X Resource Subject (Note: This “x” outline applies to all resource areas listed)
    - 4.X.1 Approach to Impacts Analysis
      - 4.X.1.1 Region of Influence
      - 4.X.1.2 Method of Analysis
      - 4.X.1.3 Criteria of Impacts
    - 4.X.2 Common Impacts of Proposed Action (Including construction and operation, Phases I & II)
    - 4.X.3 Site-specific Impacts (Including construction and operation, Phases I & II)
      - 4.X.3.1 West Range Site
      - 4.X.3.2 East Range Site
    - 4.X.4 Corridor-specific Impacts (Including construction and operation, Phases I & II)
      - 4.X.3.1 West Range Transmission, Pipeline, and Transportation Corridors
      - 4.X.3.2 East Range Transmission, Pipeline, and Transportation Corridors
    - 4.X.5 Impacts of No-Action Alternative
    - 4.X.6 Mitigation of Adverse Impacts
  - 4.2 Aesthetics

- 4.3 Air Quality
  - 4.4 Geology and Soils
  - 4.5 Water Resources
  - 4.6 Floodplains
  - 4.7 Wetlands
  - 4.8 Biological Resources
  - 4.9 Cultural Resources
  - 4.10 Land Use/Human Settlement
  - 4.11 Socioeconomics
  - 4.12 Environmental Justice
  - 4.13 Community Services
  - 4.14 Utility Systems
  - 4.15 Traffic and Transportation
  - 4.16 Materials and Waste Management
  - 4.17 Safety and Health
  - 4.18 Noise
  - 4.19 Light and Glare
- 5. Summary of Environmental Consequences
    - 5.1 Comparative Impacts of Alternatives
    - 5.2 Potential Cumulative Impacts
    - 5.3 Unavoidable Adverse Impacts and Mitigation
    - 5.4 Irreversible and Irrecoverable Commitments of Resources
    - 5.5 Relationship between Short-term Uses of the Environment and Long-term Productivity
  - 6. Regulatory Compliance and Permit Requirements
  - 7. Agencies and Individuals Contacted
  - 8. Distribution List
  - 9. References
  - 10. List of Preparers (Including Conflict of Interest Certification)
  - 11. Index

Appendix

## **5.0 ALTERNATIVES TO BE ADDRESSED IN THE EIS**

The two sites under consideration are located on the Iron Range. The applicant's preferred site, referred to as the West Range site (approximately 1,260 acres) is located just north of the city of Taconite in Itasca County, Minn. The alternative site, referred to as the East Range site (approximately 825 acres) is located about one mile north of the city of Hoyt Lakes in St. Louis County, Minn.

In the case of the West Range site, the generating facilities would connect to the power grid via new and existing high voltage transmission line (HVTL) corridors to a substation near the unincorporated community of Blackberry. In the case of the East Range site, the generating facilities would connect to the grid via existing HVTL corridors that lead to a substation near the unincorporated community of Forbes. The project would require reconstruction and/or reinforcement of the HVTL infrastructure within the final corridors selected. In conjunction with both phases, additional network reinforcements would be

required within other existing HVTL corridors leading to load centers and/or at substations down-network of the existing substations identified.

The DOC staff is not recommending that any additional sites be evaluated in the EIS.

## **6.0 ISSUES OUTSIDE THE SCOPE OF THE EIS**

In 2003, the legislature passed Laws of Minnesota 2003, special session chapter 11, known to some as the “Prairie Island 2” bill. The legislation consisted of four articles.

The fourth article provided for a number of regulatory incentives for an “innovative energy project” on the Iron Range, which would generate electricity by using “coal as a primary fuel in a highly efficient combined cycle configuration with significantly reduced sulfur dioxide, nitrogen oxide, particulate, and mercury emissions” when compared with traditional technologies. The regulatory incentives include:

- an exemption from demonstrating need for the facility or associated transmission facilities;
- a grant of eminent domain authority for transmission routes approved by the Environmental Quality Board; and
- the possibility of entering into a power purchase agreement with Xcel Energy to provide 450 megawatts of capacity and energy, subject to the approval of the PUC.

The Iron Range project at the heart of this issue is an IGCC generation facility known as the "Mesaba Energy Project" that creates a synthetic gas from coal (coal gasification).

Because the legislature has exempted this facility from demonstrating need and that this facility qualifies as an “innovative energy project” the DOC energy facility permitting staff is precluded from considering issues related to the need, size or type of the facility. Such issues are not within the scope of the EIS. The DOC will not, as part of this environmental review, consider whether a different size or different type plant should be built instead. Nor will the DOC consider the no-build option.

## **7.0 SCHEDULE FOR COMPLETION OF EIS**

The Draft Environmental Impact Statement is tentatively scheduled to be completed by December 6, 2006.

Upon completion of the Draft EIS, the DOC will notify those persons who have asked to be notified of the completion. In addition, the DOC will publish notice of the availability of the Draft EIS in the EQB Monitor (the bi-weekly newsletter of that agency). The Draft EIS will be made available for review and will be posted on the PUC webpage.

The DOC will schedule another public meeting in the Taconite and Hoyt Lakes areas to provide an opportunity for the public to ask questions and to comment on the draft EIS. The public will also have a period of time (at least 10 days) after the meeting to submit written comments.

The DOC will respond in writing to the substantive comments that are submitted. The Draft EIS, the public comments, and the response to comments will constitute the Final Environmental Impact Statement. The DOC will publish notice in the EQB Monitor of the completion of the Final EIS.

The PUC will schedule a hearing before an administrative law judge as the final EIS is being completed. Once the Final EIS is finished and the hearing is over, the matter will come before the PUC for a final decision on the Joint Permit Application. The PUC will also determine whether the Final EIS is adequate. The PUC will make a final decision on a site permit application within 60 days after receipt of the report of the administrative law judge's report.

## 8.0 IDENTIFICATION OF PERMITS

The Environmental Impact Statement will include a list of permits that will be required for the project proposers to construct this project. The following permits have been identified as potentially required:

<b>Preliminary Permitting Requirements</b>		
<b>Agency</b>	<b>Permit/Approval</b>	<b>Regulated Activity</b>
<i>FEDERAL</i>		
COE	Section 10/ Section 404 Permits	Construction activities in navigable water of the US.
EPA	Risk Management Plan	Potential accidental releases of hazardous chemicals that are used or stored onsite in greater than threshold quantities (Title III of CAAA).
DOE	Alternate Fuels Capability Certification	Baseload facility using natural gas.
FAA	Notice of Proposed Construction or Alteration	Construction of an object which has the potential to affect navigable airspace (height in excess of 200' or within 20,000' of an airport).
FERC	Exempt Wholesale Generator Status	Selling electric energy at wholesale to a utility or other generator.
<i>STATE</i>		
MPCA	Air Pollution Control Construction Permit	Construction, installation or alteration of an air contamination source.
MPCA	Title IV Acid Rain Operating Permit	Title IV of CAAA, applicable to fossil fuel fired units > 25 MW.
MPCA	Title V Operating Permit	Title V of CAAA or Federally Enforceable State Operating Permit for significant air emission sources.
MPCA	Hazardous Waste SQG Registration	Generation of small quantities of hazardous waste.
MPCA	Section 401 Water Quality Certification	State approval for federal action impacting state waters.
MPCA	NPDES Stormwater Construction Permit	Discharge of storm waters during construction of facility.
MPCA	NPDES Stormwater Operation	Discharge of storm waters during operation of facility.

	Permit	
MPCA	Archeological and Historical Review	Activities that could potentially affect archeological or historical resources.
DNR	Water Appropriation Permit	Pump surface/groundwater to the plant
DNR	Public Waters Permit	Projects constructed below the ordinary high water level (OHWL)
<i>LOCAL</i>		
City/County/Tsp	Site Plan Approval	Establishment of power generation facilities as a permitted use.
City/County/Twp	Building Permit/Architectural Review/Fire Safety Approval	Construction of facility.
City/County/Tsp	Soil and Sedimentation Control Permit	Control of soil erosion.
City/County/Tsp	Individual Septic Treatment System	Design, construction and discharge of sanitary wastewater.
City/County/Tsp	Certificate of Occupancy	License to operate facility

# ATTACHMENT #4 WEST RANGE SITE

