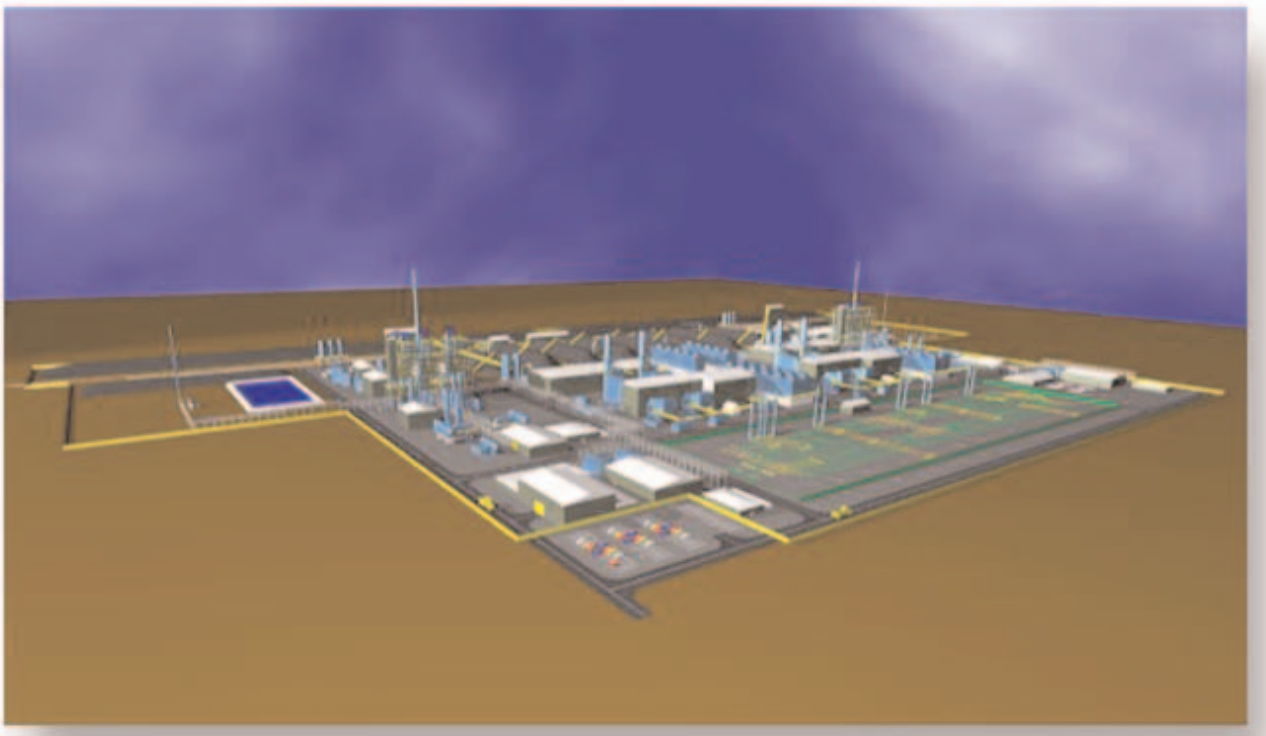
U.S. Department of Energy
in cooperation with
Minnesota Department of Commerce

MESABA ENERGY PROJECT

DRAFT ENVIRONMENTAL IMPACT STATEMENT
VOLUME I

DOE/EIS-0382D
MN PUC DOCKET # E6472/GS-06-668



NOVEMBER 2007

Office of Fossil Energy
National Energy Technology Laboratory

1. PURPOSE AND NEED

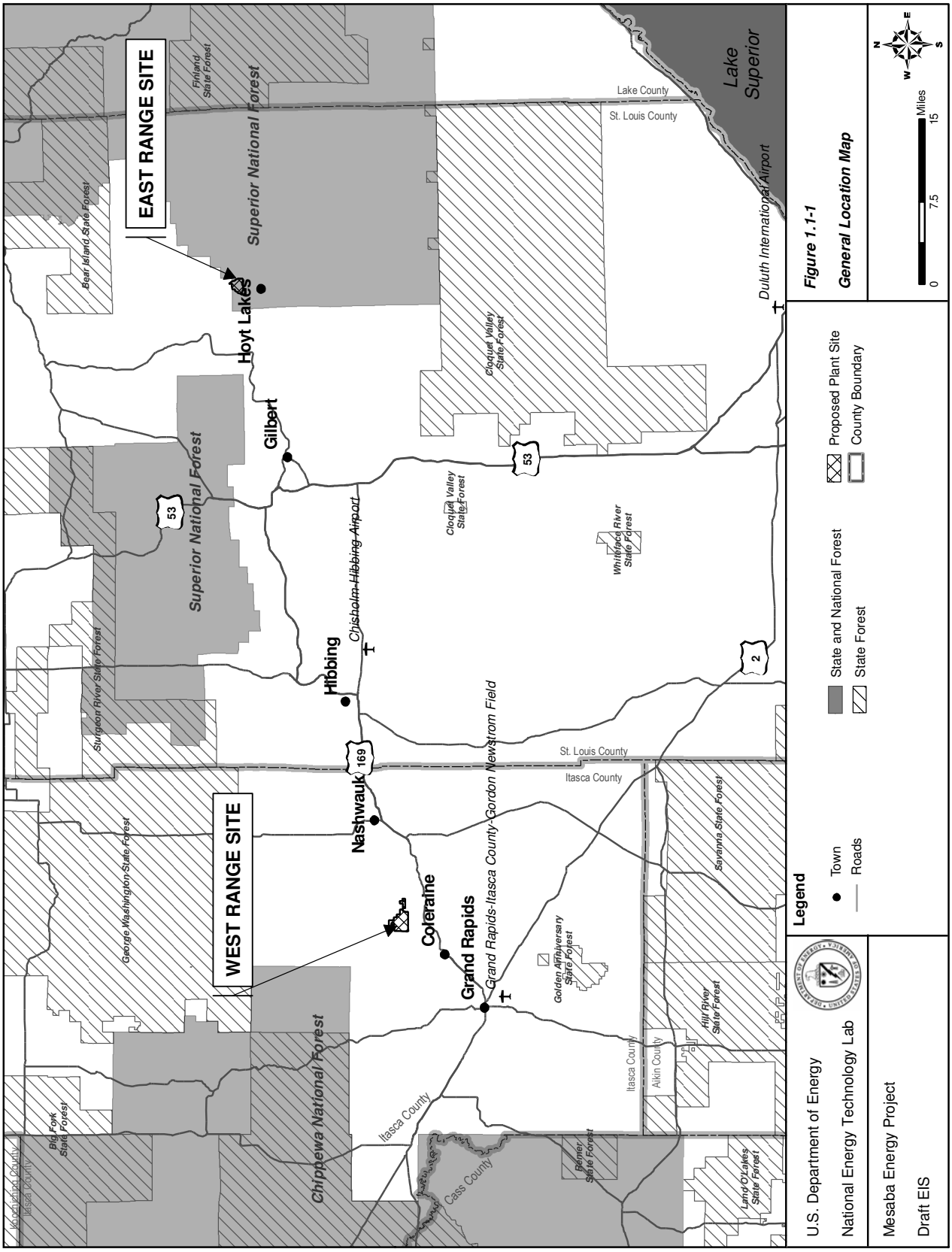
This chapter introduces the purpose, need, and scope of the Environmental Impact Statement (EIS) for the Mesaba Energy Project. The chapter also summarizes the project background and other aspects, including the site and surrounding area description, the project components and objectives, a description of technologies associated with the Proposed Action, an explanation of the National Environmental Policy Act (NEPA) process, an explanation of relevant Minnesota environmental review and permitting processes, an overview of Federal and state public scoping comments, and a description of associated actions.

1.1 INTRODUCTION

The U.S. Department of Energy (DOE) has prepared this EIS in cooperation with the Minnesota Department of Commerce (MDOC) to evaluate the potential environmental impacts of the Mesaba Energy Project, which is a two-phased nominal 606 megawatt electricity ($MWe_{(net)}$) per phase (1,212 $MWe_{(net)}$ total) Integrated Gasification Combined Cycle (IGCC) power plant (NETL, 2006a) proposed to be located in northeastern Minnesota (Figure 1.1-1). In IGCC, coal is gasified to synthesis gas (syngas), which is fed to combustion turbine generators (CTGs) to generate electricity. A combined-cycle electric power plant is one that uses both a steam turbine generator (STG) and a CTG at one location to produce electricity. The project proponent, Excelsior Energy, Inc. (hereafter referred to as Excelsior), is an independent energy development company based in Minnetonka, Minnesota.

The EIS has been prepared in compliance with the NEPA of 1969 as amended (42 USC 4321 et seq.) and with the Minnesota Power Plant Siting Act (Minnesota Statutes Chapter 216E). The lead Federal agency for the EIS is DOE. The lead state agency for the EIS is the MDOC, which has purview over the state site permitting process. Under the Minnesota Power Plant Siting Act, a site permit is required from the Minnesota Public Utilities Commission (PUC) to build a large electric power generating plant (LEPGP), defined as a power plant and associated facilities capable of operating at a capacity of 50 MWe or more. The PUC has up to one year from the time the application is accepted to hold a contested case hearing and complete the process and make a decision on the permits. Since the state EIS requirements under the Minnesota Power Plant Siting Act are comparable to those for NEPA, DOE has prepared this EIS in cooperation with the MDOC to fulfill the requirements of both laws.

A Federal, state, tribal, or local agency having special expertise with respect to an environmental issue or jurisdiction by law may be a cooperating agency in the NEPA process. The U.S. Army Corps of Engineers (USACE) (St. Paul District, Brainerd Office) and the U.S. Department of Agriculture (USDA) Forest Service (Superior National Forest, Laurentian District) have participated as cooperating agencies for the EIS. A cooperating agency has the responsibility to assist the lead agency by participating in the NEPA process at the earliest possible time, by participating in the scoping process, by developing information and preparing environmental analyses including portions of the EIS for which the cooperating agency has special expertise, and by making staff support available at the lead agency's request to enhance the lead agency's interdisciplinary capabilities. USACE agreed to be a cooperating agency because the placement of dredged or fill material in waters of the U.S., including wetlands, associated with the proposal would require its authorization pursuant to Section 404 of the Clean Water Act (CWA). In its role as a cooperating agency, USACE staff has provided input regarding potential aquatic resource impacts and related regulatory requirements. As a Federal Land Manager, the USDA Forest Service has an affirmative responsibility to protect air quality-related values of wilderness areas. Accordingly, the USDA FOREST SERVICE, as a cooperating agency, provides technical expertise in the review of air quality impacts.


EAST RANGE SITE
WEST RANGE SITE
Hoyt Lakes
Gilbert
Hibbing
Nashwauk
Coleraine
Grand Rapids
Lake Superior
Superior National Forest
Chippewa National Forest
Finland State Forest
Bear Island State Forest
Sturgeon River State Forest
George Washington State Forest
Big Fork State Forest
Cloquet Valley State Forest
Whiteface River State Forest
Golden Anniversary State Forest
Savanna State Forest
Hill River State Forest
Remer State Forest
Lang O'Lakes State Forest
Chisholm-Hibbing Airport
Grand Rapids-Itasca County-Gordon Newstrom Field
Duluth International Airport
Lake County
St. Louis County
Itasca County
Aitkin County
Cass County
53
169
2
Legend
Town
Roads
State and National Forest
State Forest
Proposed Plant Site
County Boundary
Miles
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15
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Figure 1.1-1
General Location Map

1.2 CLEAN COAL POWER INITIATIVE (CCPI)

Coal accounts for over 94 percent of the proven fossil energy reserves in the U.S. and supplies over 50 percent of the electricity vital to the nation's economy and global competitiveness. Nearly half of the nation's electric power generating infrastructure is over 30 years old. These aging facilities are or will soon be in need of substantial refurbishment or replacement. Additional capacity must also be put in-service over the next several decades to keep pace with the nation's ever-growing demand for electricity. Given heightened awareness of environmental stewardship, while at the same time meeting the demand for a reliable and cost-effective electric power supply, it is clearly in the public interest for the nation's energy infrastructure to be upgraded with the latest and most advanced commercially viable technologies to achieve greater efficiencies, environmental performance, and cost-competitiveness. However, the conservative nature of the electric power generation sector, stemming from its traditional status as a "public good," causes it to be generally hesitant to adopt innovative and less familiar technologies in the absence of strong economic incentives or firm legal requirements. Therefore, the ability to showcase an operating commercial-scale facility rather than a conceptual or engineering prototype provides persuasive, necessary stimulus to foster technology acceptance and replication.

Public Law 107-63, enacted in November 2001, first provided funding for the Clean Coal Power Initiative (CCPI), which is a multi-year program to accelerate the commercial readiness of advanced multi-pollutant emissions control, combustion, gasification, and efficiency improvement technologies to retrofit or re-power existing coal-based power plants and for deployment in new coal-based generating facilities. CCPI implements national energy policy to advance the nation's energy security and energy independence by overcoming technical, environmental, and economic challenges associated with coal so that the nation can continue to rely on its abundant domestic reserves of coal for electric power generation (NETL, 2006b). Clean coal technologies emerging from the program contribute toward satisfying the following national technological and environmental initiatives:

At current consumption levels, it is estimated the U.S. has about 240 years of recoverable coal reserves.

- Clear Skies Initiative to cut nitrogen oxides (NO_x), sulfur dioxide (SO_2), and mercury (Hg) emissions by 70 percent over the next 15 years;
- Global Climate Change Initiative to cut greenhouse gas intensity 18 percent by the year 2012;
- Hydrogen Fuel Initiative to reverse the growing dependency on foreign oil by developing the technologies and infrastructure to produce, store, and distribute hydrogen (H_2); and
- FutureGen Initiative to establish the technical feasibility and potential economic viability of co-producing electricity and H_2 fuel from coal while capturing and sequestering carbon dioxide (CO_2) and greatly reducing other air emissions.

Accelerating commercialization of clean coal technologies also positions the U.S. to supply advanced coal-based power generation and pollution control technologies to a rapidly expanding world market.

Congress provided for competitively awarded demonstration projects in the CCPI. These are not Federal projects seeking private investment; they are private projects seeking Federal financial support. Under the CCPI solicitation, private entities propose projects that meet their needs and those of their customers and also further national goals and objectives embodied in the CCPI program. Projects accepted into the CCPI portfolio become private-public cost-sharing partnerships that satisfy a wide set of industry and government needs. Industry satisfies its short-term need to retrofit or re-power a facility or develop new power generating capacity for the benefit of its customers. By providing financial incentive for emerging clean coal technologies, the government supports the verification of commercial readiness

leading toward the long-term objective of transitioning the nation's existing fleet of electric power generating plants to the next generation of more efficient, environmentally sound, and cost competitive facilities (NETL, 2006b).

Project applications are evaluated against programmatic criteria which were developed by DOE specifically for CCPI projects. These criteria include the following:

- Technical Merit – Scientific and engineering approach, data and other evidence to support technology claims, readiness of the technology, and potential benefits such as improved system performance, reliability, environmental performance, and costs;
- Project Feasibility – Appropriateness of proposed site, including availability and access to water, power transmission, coal transportation, facilities and equipment infrastructure, and permits; the ability of the proposed project team to successfully implement the project; and the soundness and completeness of the statement of work, schedule, test plan, milestones, and decision points;
- Commercialization Potential – Commercial viability relative to the scale of the project, potential for broad market impact and widespread deployment, and soundness of the commercialization plan, including experience of the project team;
- Adequacy of the Financial and Business Plan – Financial condition and capability of proposed funding sources, priority placed by management on financing the project, and adequacy of the applicant's financial management system; and
- Adequacy of the Repayment Plan – Ability to repay the government co-funding.

Consistent with the Council on Environmental Quality (CEQ) NEPA regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508) and DOE regulations (10 CFR Part 1021), DOE reviews preliminary environmental, health, safety, and socioeconomic information during the selection process, particularly with respect to technical merit and feasibility. This is the first of two principal elements within the overall strategy under the CCPI for satisfying NEPA requirements. Program policy factors are also considered to ensure that the portfolio of projects selected represents the most appropriate mix to achieve program objectives. These factors include program budget constraints, technological diversity, diversity of U.S. coals, and representation from a broad geographical cross-section of the country. No two projects are alike and they, therefore, cannot be evaluated on an "apples-to-apples" basis.

As the second element of the overall CCPI NEPA compliance strategy, once a project application has been selected for negotiation, the applicant must prepare detailed technology- and site-specific environmental information (10 CFR 1021.216). This environmental information serves as the source material for analyses and preparation of NEPA documentation. As industry-led projects, the industry participants are responsible for project definition as well as design, construction, and operation of the facilities. DOE is responsible for (1) ensuring that the industry participants execute projects pursuant to the terms and conditions established in the cooperative agreements; (2) monitoring project activities; (3) reviewing project performance and documentation; (4) providing technical advice to ensure that critical programmatic issues are addressed; and (5) ensuring that project costs are allocable and allowable. The government also participates in decision-making at major project junctures.

DOE conducted its CCPI funding in a series of "rounds," or solicitations, for proposed projects. DOE issued the first CCPI co-funding opportunity announcement (Round 1) in March 2002. A second co-funding opportunity announcement (Round 2) was issued in February 2004. These solicitations emphasized advanced coal-based power generation, including gasification, efficiency improvements, optimization through neural networking, environmental/economic improvements, and Hg control. Future announcements are expected to emphasize IGCC, Hg control, and carbon capture and sequestration.

Thirteen project applications were received in response to Round 2. Two applicants proposed archetypal IGCC projects. Four applications were selected, including the two archetypal IGCC projects, one of which was the Mesaba Energy Project (NETL, 2006a). The selections were based on individual merit. The selected projects were believed to represent the mix of technologies with the best potential to demonstrate progress toward DOE's objectives for CCPI Round 2. These objectives as stated in the Financial Assistance Announcement DE-PS26-04NT42061 were as follows:

IGCC technology meets the goals of the Clean Coal Power Initiative by utilizing an estimated 240-year domestic supply of reliable, low-cost coal in an environmentally acceptable manner.

(1) demonstrate advanced coal-based technologies that have progressed beyond the research and development stage to a point of readiness for operation at a scale that can be readily replicated into commercial practice within the electric power industry; and

(2) accelerate the likelihood of deploying the demonstrated technologies for widespread commercial use within the electric power sector.

Two technology priorities for this solicitation (Round 2) were gasification-based power generation systems and mercury control technology. The two IGCC projects that were selected involve the demonstration of different gasifier types, which is important in achieving a diversity of technology approaches and methods in the CCPI program. They also involve different coals, operating environments, and environmental considerations, all of which enhance the potential for widespread commercialization of IGCC technology in the marketplace. The unique technological features of the Mesaba Energy Project include the following: integration of the air separation unit and the combustion turbine to improve efficiency; demonstration of full slurry quench for added efficiency improvements; the potential for demonstration of high availability and reliability needed for commercial acceptance of the technology; and the application of lessons learned through optimization studies conducted at a previous clean coal demonstration project.

For the Mesaba Energy Project, DOE has determined that the proposed Federal action to provide, through a cooperative agreement with Excelsior, co-funding the design and operation of the one-year demonstration project constitutes a major Federal action. DOE may also provide a loan guarantee pursuant to the Energy Policy Act (EPAct) of 2005 to guarantee a portion of the private sector financing of the project. Therefore, DOE has prepared this EIS as a record of its analysis of the potential impacts of the Proposed Action and reasonable alternatives available to DOE. DOE has considered information prepared by Excelsior and its team, as well as additional sources available from government agencies and other entities. The EIS has been prepared in accordance with Section 102(2)(C) of NEPA, as implemented under regulations promulgated by the CEQ (40 CFR Parts 1500-1508), and as provided in DOE regulations for compliance with NEPA (10 CFR Part 1021).

1.3 PROPOSED ACTION

1.3.1 Project Proponent Proposed Action

Excelsior proposes to design, construct, and operate the Mesaba Energy Project, which is a two-phased nominal 606 $MWe_{(net)}$ per phase (1,212 $MWe_{(net)}$ total) IGCC power plant to be constructed as an "innovative energy project" under Sections 216B.1693 and 216B.1694 of Minnesota Statutes and located in the Taconite Tax Relief Area (TTRA) of northeastern Minnesota. As planned by Excelsior, Phase I would become operational in the fourth quarter of 2011 and Phase II would become operational in 2014.

1.3.2 DOE Proposed Action

DOE's Proposed Action is to provide a total of $36 million in co-funding, through a cooperative agreement with Excelsior, for the design and one-year operational demonstration testing period for Phase I of the proposed two-phased Mesaba Energy Project. This first phase would be a nominal 606 $MWe_{(net)}$ IGCC power plant with an estimated cost of $2.16 billion. Phase II, which would be an identical, co-located 606 MWe plant, would be privately financed and not involve co-funding by DOE.

A portion ($22,245,505) of the total funding has been made available for cost-sharing in the first budget period under the cooperative agreement, prior to completion of the NEPA process. The activities eligible for cost-sharing during the first period allow for the development of information (such as project definition, preliminary design, and environmental studies and permitting) that provide the basis for this EIS, consistent with DOE requirements and those of the MDOC, USACE, and USDA FOREST SERVICE. This is typical both in the amount of funding and the types of allowable activities for a CCPI project of this scope. Making these funds available does not prejudice DOE's ultimate decision on the proposed action and is consistent with DOE and CEQ regulations (10 CFR 1021.211 and 40 CFR 1506.1, respectively), which restrict DOE from taking action that would have an adverse environmental impact or limit the choice of reasonable alternatives until the ROD has been issued.

DOE may also provide a loan guarantee to Excelsior pursuant to EPAct of 2005 to guarantee a portion of the private sector financing of the project; however, this potential loan guarantee is not part of DOE's Proposed Action. This EIS considers the impacts of both phases of the Mesaba Energy Project as connected actions, consistent with NEPA policy, even though only Phase I would be co-funded under the CCPI Program.

1.3.3 State Proposed Action

The Proposed Action for the State of Minnesota is to approve, through the PUC as supported by the MDOC, the pre-construction joint permit application submitted by Excelsior for the construction of the Mesaba Energy Project as an "innovative energy project" within the TTRA.

1.4 PURPOSE AND NEED FOR ACTION

1.4.1 Purpose of the Agency Action and Proposed Project

1.4.1.1 Project Proponent Purpose

Excelsior envisions the Mesaba Energy Project to be a long-term commercially viable operation that satisfies enabling Minnesota Statutes § 216B.1693, "Clean Energy Technology," and § 216B.1694, "Innovative Energy Project." These statutes establish incentives for the development of electric power generating projects within the TTRA. Excelsior intends to bring renewed economic vitality to northeastern Minnesota by creating new jobs on the Iron Range and making it a regional production center for state-of-the-art, clean, affordable energy. The project also addresses the need within Minnesota for new base load power generation over the next 15 years. The need for additional base load power has been documented in resource plans filed with and approved by the PUC. See Appendix F1 for a list of resource plans and PUC docket citations. Base load generation provides a steady flow of power that is independent of demand by the electrical grid.

In consultation with USACE regulatory staff, Excelsior has developed a purpose and need statement to satisfy USACE NEPA and CWA Section 404 requirements. The project purpose, provided in Appendix F1 and stated below, will be carried into the CWA Section 404 permit evaluation, and will be the basis for the alternatives analysis required by USACE regulations. The purposes of the Mesaba Energy Project from a public perspective include the following:

- Confirm the commercial viability of generating electrical power by means of IGCC technology in a utility-scale application;
- Help satisfy Minnesota's need for additional sources of baseload power;
- Implement the state's energy policies, including:
    - Ensure safe, reliable, and efficient utility services at fair and reasonable rates;
    - Enhance competition in the wholesale electric power market within Minnesota;
    - Develop facilities that make use of innovative generation technology utilizing coal as a primary fuel in a highly efficient combined-cycle configuration;
    - Develop solid fuel baseload technologies with significantly reduced emissions of priority pollutants;
    - Decrease the state's growing dependence on natural gas for power generation;
    - Develop solid fuel baseload generation technologies which can capture and sequester carbon emissions;
    - Develop technologies and facilities capable of using flexible fuel stocks and capable of producing hydrogen, synthetic gas and other fuels to provide energy supply hedges for Minnesota users;
    - Support the development of energy systems which enhance national security;
    - Fulfill the state's mandate for proposing large electric power generating sites capable of accommodating future capacity expansions; and
- Utilize the incentives established by the State of Minnesota (see Minn. Stat. §§216B.1693-.1694) and the United States Government (see 42 U.S.C. §16513(c)(1)(C)) for the construction and operation of an "innovative energy project."

1.4.1.2 DOE Purpose

With respect to the Mesaba Energy Project, the purpose of the DOE's action is to stimulate and verify the commercial-readiness of the ConocoPhillips E-Gas™ gasification technology in a fully integrated and quintessential IGCC utility-scale application. The technical, environmental, and financial data generated from the design, construction, and operation of the facility would result in a commercial reference plant for the technology.

The specific technology that would be deployed in the Mesaba Energy Project represents a significant advancement on the base design of the smaller-scale 262 $MWe_{(net)}$ Wabash River Coal Gasification Re-Powering Project in Terre Haute, Indiana, which was a project completed under the DOE Clean Coal Technology Program, a predecessor to the CCPI. The advancements would include enhanced environmental performance, greater capacity, increased efficiency and availability, as well as fuel flexibility and enhanced integration of IGCC plant systems.

1.4.1.3 State Purpose

The mission of the PUC (supported by the MDOC) is to create and maintain a regulatory environment that ensures safe, reliable, and efficient utility services at fair and reasonable rates (PUC, 2006). The commission conducts its mission by:

- Emphasizing the production and consumption of energy resources that will minimize damage to the environment;
- Encouraging conservation;
- Implementing the state's energy policies, which include the provision of incentives for the construction of "innovative energy projects" within the TTRA;
- Establishing rules related to safety and quality of service; and
- Encouraging the development and appropriate implementation of new technologies and services for the public.

1.4.2 Need for the Agency Action and Proposed Project

1.4.2.1 Project Proponent Need

Excelsior's stated need is to (1) help satisfy the need within Minnesota for 3,000 to 6,000 MW of new base load power generation over the next 15 years; (2) satisfy Minnesota Statutes that provide incentives to develop electric power generating projects within the TTRA (Iron Range) of northeastern Minnesota; and (3) bring jobs and economic development to the Iron Range. The corporate vision is to bring power generation and increased economic development capabilities to Minnesota while achieving greater environmental stewardship through the application of innovative and advanced energy technologies.

The Mesaba Energy Project qualifies as an "innovative energy project" in accordance with Minnesota Statutes § 216B.1694 and is thus entitled to sell 450 MWe under a power purchase agreement with a public utility company that owns a nuclear generation facility located in Minnesota by meeting five specific statutory criteria:

- Provide economic development benefits to the state;
- Use abundant domestic fuel sources;
- Provide price stability of output;
- Have the potential to contribute to a transition to H_2 as a fuel resource; and
- Achieve emissions reductions compared to other solid fuel baseload technologies.

The project is intended to bring renewed economic vitality to the Iron Range by making it a regional production center for state-of-the-art, clean, and affordable energy. The project is expected to create 600 to 1,000 or more local construction jobs over the three-year construction period and 107 to 182 direct, permanent jobs when placed in commercial operation. The project would also provide economic and employment stimulus in surrounding communities as documented in an Economic Impact Analysis completed by the Bureau of Business and Economic Research at the University of Minnesota, Duluth (BBER, 2006).

1.4.2.2 DOE Need

The principal need addressed by the DOE's Proposed Action, pursuant to Public Law 107-63 and subsequent legislative appropriations, is to accelerate the commercialization of clean coal technologies that achieve greater efficiencies, environmental performance, and cost-competitiveness (see Section 1.2). The proposed project was selected under the CCPI Program as one of a portfolio of projects that would represent the most appropriate mix to achieve programmatic objectives and meet legislative requirements.

1.4.2.3 State Involvement

The PUC has the responsibility for siting power plants having the capacity to operate at 50 MWe or greater (i.e., LEPGPs) and transmission lines designed or capable of operation at a voltage of 100 kilovols (kV) (i.e., high voltage transmission lines [HVTLs]). The Minnesota legislature directed the PUC to designate sites that minimize adverse human and environmental impacts while ensuring electric power system reliability and integrity and ensuring that electric energy needs are met and fulfilled in an orderly and timely fashion. Minnesota Rules Chapter 4400 establishes the requirements for submitting and processing a permit application. In the application, the applicant must identify the preferred site for the power plant and one alternative site. As part of the permitting process, the MDOC prepares an EIS on the project and holds a contested case hearing. The PUC has up to one year from the time the application is accepted to complete the process and make a decision on the permit.

The Mesaba Energy Project has been assigned PUC Docket Number E6472/GS-06-668. Documents submitted by Excelsior in conjunction with the state permitting process, including the Joint Application (Excelsior, 2006a) and the Environmental Supplement (Excelsior, 2006b), as well as other documents relating to the state review process, can be accessed at the PUC website (http://energyfacilities.puc.state.mn.us/Docket.html?Id=16573; "Mesaba Energy Project"). Generally, a Certificate of Need is required from the PUC before a site permit for a proposed LEPGP can be issued (Minnesota Statutes § 216B.243). The certification proceedings require the applicant to show that the demand for electricity cannot be met more cost-effectively through energy conservation and load-management measures and that the applicant has otherwise justified its need. However, the Mesaba Energy Project is exempt from Certificate of Need proceedings for all generation and transmission infrastructure, because it qualifies as an "innovative energy project" under Minnesota Statutes § 216B.1694. To qualify for this status, it must utilize innovative clean coal technology and be located in the TTRA. The project would also have the power of eminent domain, which would be limited to a site as approved by the PUC within the TTRA and routes approved by the PUC. The project, otherwise, remains subject to all applicable environmental review and permitting procedures.

1.5 REGULATORY FRAMEWORK

The following sections summarize the principal Federal and state regulations affecting the permitting process and required environmental documentation for the Mesaba Energy Project. The project would be subject to additional Federal, state, and local regulations and permit conditions in Chapter 6.

1.5.1 National Environmental Policy Act (NEPA)

NEPA requires Federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of, and reasonable alternatives to, their proposed actions. For major Federal actions that have the potential to cause significant adverse impacts on the environment, NEPA requires sponsoring agencies to prepare an EIS. DOE determined that providing financial assistance for the design and operational demonstration of the proposed Mesaba Energy Project constitutes a major Federal action that may significantly affect the quality of the natural and human environment. Therefore, DOE prepared this EIS for use by decision-makers in determining whether or not to provide assistance.

CWA Section 404 authorization is required for the proposed project, because its construction would require discharges of dredged and/or fill material into waters of the U.S. As a cooperating agency in the preparation of the EIS, and the agency responsible for determining whether to issue a permit for wetland impacts associated with the proposed project, it is the USACE's intention to adopt the EIS as part of its

permit evaluation. Also, the USDA FOREST SERVICE has an affirmative responsibility to protect air quality-related values of wilderness areas as a Federal Land Manager and is providing technical expertise in the review of air quality impacts as a cooperating agency. This EIS assesses the potential impacts on the natural and human environment of the Proposed Action and reasonable alternatives within the scope of the CCPI Program. The NEPA process and opportunities for public input are illustrated in 1.5-1. The scoping process for this EIS is discussed in Section 1.6.

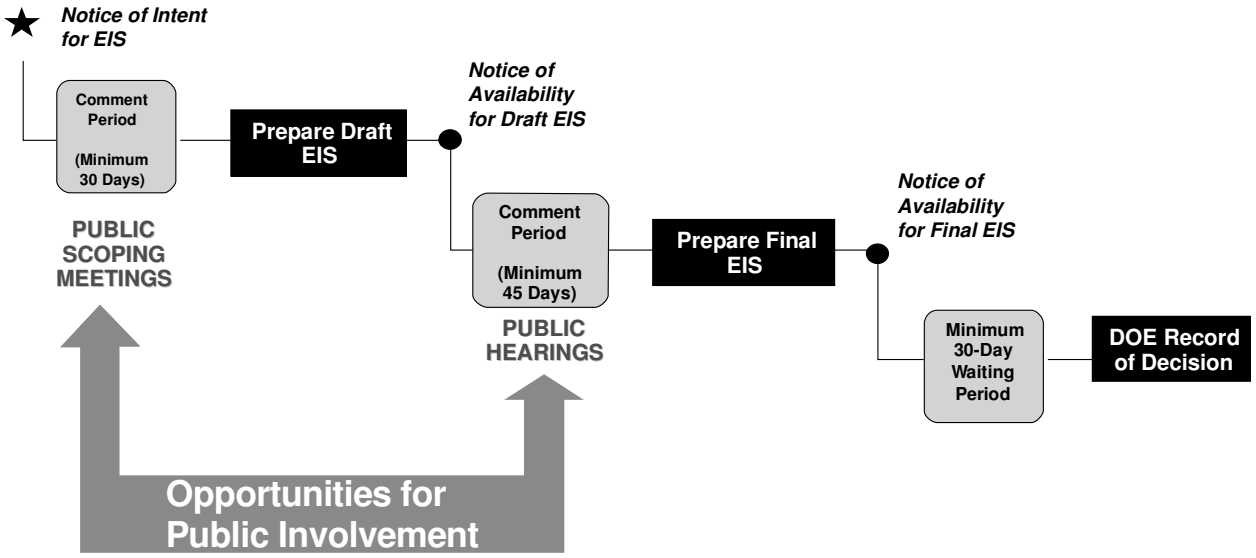

Figure 1.5-1. The NEPA Process

1.5.2 State Requirements

1.5.2.1 Minnesota Power Plant Siting Act

The Mesaba Energy Project is considered a Large Electric Power Generating Plant subject to the Minnesota Power Plant Siting Act, which requires the preparation of a state-equivalent EIS.

Because the proposed Mesaba Energy Project is considered a LEPGP and also includes a HVTL, it is subject to the Minnesota Power Plant Siting Act (Minnesota Statutes Chapter 216E), which requires the preparation of a state-equivalent EIS. Figure 1.5-2 illustrates the process to be undertaken by the state in producing the EIS. Section 1.5.2.2 discusses the requirements for compliance with the Minnesota Power Plant Siting Act in accordance with Minnesota Rules Chapter 4400. Section 1.5.2.4 provides further information about the Minnesota Environmental Review Program.

1.5.2.2 Minnesota Rules Chapter 4400

Minnesota Rules Chapter 4400 implements and regulates the Power Plant Siting Act. The intent of the Act and Chapter 4400 is to ensure that LEPGPs are sited and HVTLs are routed in an orderly manner compatible with environmental preservation and the efficient use of resources. In accordance with this policy, the PUC must choose locations that minimize adverse human and environmental impacts while ensuring continuing electric power system reliability and integrity and ensuring that electric energy needs are met and fulfilled in an orderly and timely fashion. The PUC is also required to provide for broad spectrum citizen participation in conjunction with these rules.

LEPGP Site Permit

In accordance with Minnesota Rules 4400.1150 Subpart 1, an application for a site permit for a LEPGP must contain the following information:

- A statement of proposed ownership of the facility as of the day of filing and after commercial operation;
- The precise name of any person or organization to be initially named as permittee or permittees and the name of any other person to whom the permit may be transferred if transfer of the permit is contemplated;
- At least two proposed sites for the proposed LEPGP and identification of the applicant's preferred site and the reasons for preferring the site;
- A description of the proposed LEPGP and all associated facilities, including the size and type of facility;
- Environmental information (see subsection below);
- The names of the owners of the property for each proposed site;
- The engineering and operational design for the LEPGP at each of the proposed sites;
- A cost analysis of the LEPGP at each proposed site, including the costs of constructing and operating the facility that are dependent on design and site;
- An engineering analysis of each of the proposed sites, including how each site could accommodate expansion of generating capacity in the future;
- Identification of transportation, pipeline, and electrical transmission systems that will be required to construct, maintain, and operate the facility;
- A listing and brief description of Federal, state, and local permits that may be required for the project at each proposed site; and

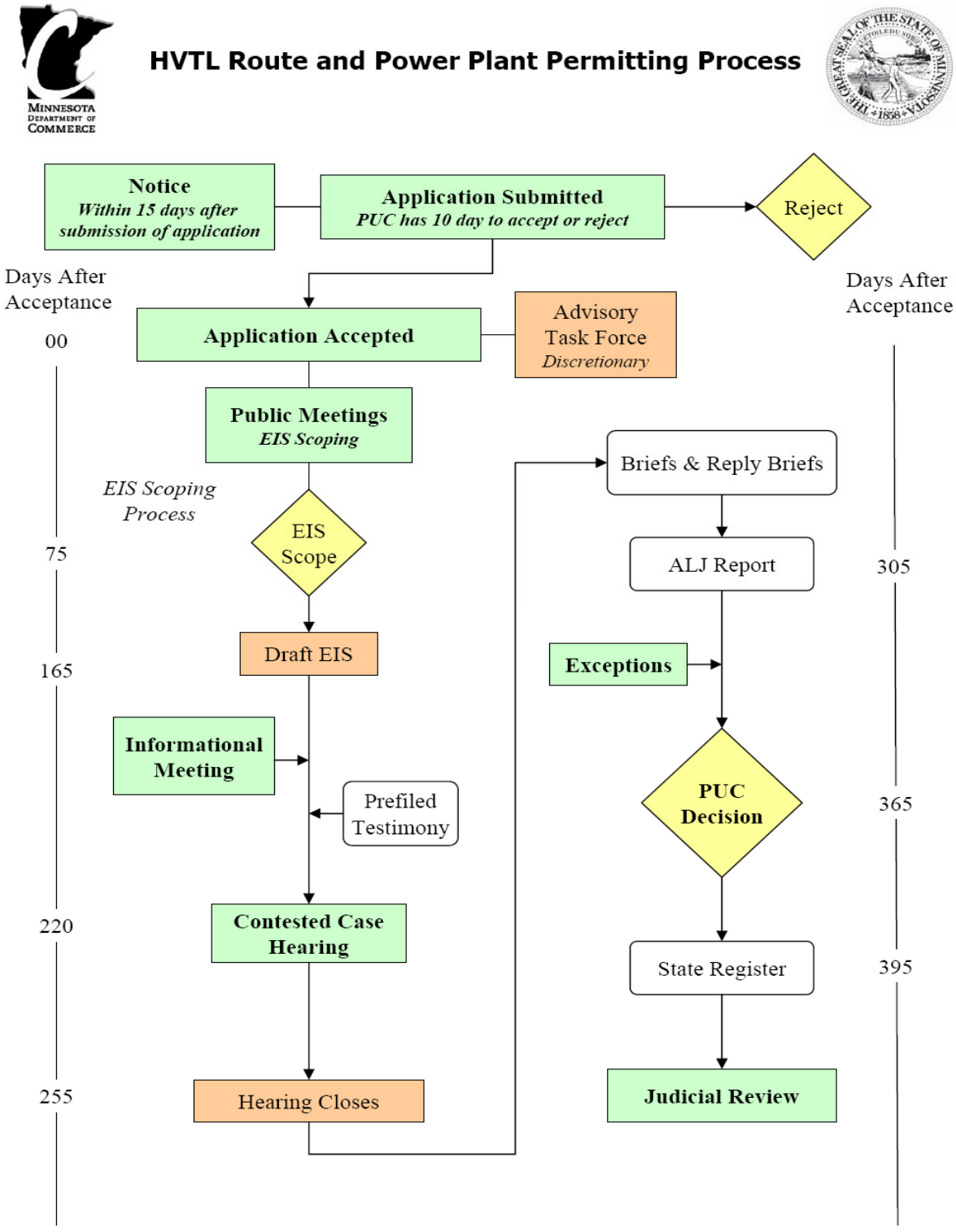

Figure 1.5-2. Minnesota Power Plant Siting Process

- A copy of the Certificate of Need for the project from the PUC or documentation that an application for a Certificate of Need has been submitted or is not required.

HVTL Route Permit

In accordance with Minnesota Rules 4400.1150 Subpart 2, an application for a route permit for a HVTL must contain the following information:

- A statement of proposed ownership of the facility at the time of filing the application and after commercial operation;
- The precise name of any person or organization to be initially named as permittee or permittees and the name of any other person to whom the permit may be transferred if transfer of the permit is contemplated;
- At least two proposed routes for the proposed HVTL and identification of the applicant's preferred route and the reasons for the preference;
- A description of the proposed HVTL and all associated facilities including the size and type of HVTL;
- Environmental information (see subsection below);
- Identification of land uses and environmental conditions along the proposed routes;
- The names of each owner whose property is within any of the proposed routes for the HVTL;
- U.S. Geological Survey (USGS) topographical maps or other maps acceptable to the state authority showing the entire length of the HVTL on all proposed routes;
- Identification of existing utility and public rights-of-way (ROWs) along or parallel to the proposed routes that have the potential to share the ROW with the proposed line;
- The engineering and operational design concepts for the proposed HVTL, including information on the electric and magnetic fields of the transmission line;
- The cost analysis of each route, including the costs of constructing, operating, and maintaining the HVTL that are dependent on design and route;
- A description of possible design options to accommodate expansion of the HVTL in the future;
- The procedures and practices proposed for the acquisition and restoration of the ROW, construction, and maintenance of the HVTL;
- A listing and brief description of Federal, state, and local permits that may be required for the proposed HVTL; and
- A copy of the Certificate of Need or the certified HVTL list containing the proposed HVTL or documentation that an application for a Certificate of Need has been submitted or is not required.

Environmental Information

A site permit or route permit application shall include the following environmental information for each proposed site or route to aid in the preparation of an EIS:

- Environmental setting for each site or route;
- Effects of construction and operation of the facility on human settlement, including, but not limited to, public health and safety, displacement, noise, aesthetics, socioeconomic impacts, cultural values, recreation, and public services;
- Effects of the facility on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;
- Effects of the facility on archaeological and historic resources;

- Effects of the facility on the natural environment, including effects on air and water quality resources and flora and fauna;
- Effects of the facility on rare and unique natural resources;
- Identification of human and natural environmental effects that cannot be avoided if the facility is approved at a specific site or route; and
- Measures that might be implemented to mitigate the potential human and environmental impacts and the estimated costs of such mitigative measures.

Factors to be Considered

In determining whether to issue a permit for a LEPGP or HVTL, the state authority shall consider the following factors:

- Effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values, recreation, and public services;
- Effects on public health and safety;
- Effects on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;
- Effects on archaeological and historic resources;
- Effects on the natural environment, including air and water quality resources and flora and fauna;
- Effects on rare and unique natural resources;
- Application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity;
- Use or paralleling of existing ROWs, survey lines, natural division lines, and agricultural field boundaries;
- Use of existing LEPGP sites;
- Use of existing transportation, pipeline, and electrical transmission systems or ROWs;
- Electrical system reliability;
- Costs of constructing, operating, and maintaining the facility that are dependent on design and route;
- Adverse human and natural environmental effects which cannot be avoided; and
- Irreversible and irretrievable commitments of resources.

Joint Application Process

Under Minnesota Rules, the applicant for a LEPGP can apply for the permits for the plant, transmission lines, and pipelines under one application.

Per Minnesota Rules 4400.0675, the proponent of a LEPGP that will require a HVTL may elect to apply for both a site permit for the plant and a route permit for the transmission line in one application process. The PUC also may elect to combine two pending applications if it is appropriate to consider both projects as part of one proceeding. Furthermore, an applicant may combine an application for a pipeline routing permit with a site permit if a natural gas or petroleum pipeline to a new LEPGP will be required.

1.5.2.3 Minnesota Pipeline Routing Rules

A pipeline routing permit from the PUC is required for the construction of certain pipelines (Minnesota Statutes § 216G.02). The PUC has jurisdiction over pipelines with a diameter of 6 inches or more that are designed to transport hazardous liquids like crude petroleum and those 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 or to a pipeline owner or operator who is defined as a natural gas public utility under Minnesota Statutes § 216B.02. The procedures are explained in detail in the Pipeline Routing Rules (Minnesota Rules Chapter 4415).

For the Mesaba Energy Project, a natural gas pipeline would be required and would be subject to the Pipeline Routing Rules. The pipeline routing permit would supersede and preempt all zoning, building, or land use rules, regulations, or ordinances adopted by regional, county, local, or special purpose governments, as provided in Minnesota Statutes § 216G.02 Subdivision 4. As an "innovative energy project," the Mesaba Energy Project would have the power of eminent domain limited to routes approved by the PUC.

1.5.2.4 Minnesota Environmental Policy Act (MEPA)

The Minnesota Environmental Review Program is based on the Federal NEPA law. The Minnesota Environmental Policy Act (MEPA) was enacted in 1973 (Minnesota Statutes § 116D) to (1) declare a state policy that will encourage productive and enjoyable harmony between human beings and their environment; (2) promote efforts that will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of human beings; and (3) enrich the understanding of the ecological systems and natural resources important to the state and to the nation.

MEPA established a formal process for reviewing the environmental impacts of major developmental projects. The purpose of the review is to provide information to units of government on the environmental impacts of a project before approvals or necessary permits are issued. After projects are completed, unanticipated environmental consequences can be very costly to undo, and environmentally sensitive areas can be impossible to restore. Environmental review creates the opportunity to anticipate and correct these problems before projects are built.

MEPA is regulated by Minnesota Rules Chapter 4410. However, as stated in Minnesota Rules 4400.1700 Subpart 12, the requirements of Chapter 4410 do not apply to the preparation or consideration of an EIS for a LEPGP or HVTL. Instead, the requirements for preparation of an EIS under the Minnesota Power Plant Siting Act are specified in Minnesota Rules 4400.1700, which embodies and implements the general intent of MEPA.

1.5.2.5 Taconite Tax Relief Area (TTRA)

The TTRA is a geographic area in northeastern Minnesota that encompasses approximately 13,000 square miles and stretches from Crosby, Minnesota across the state's Cuyuna, Mesabi, and Vermilion iron ore ranges to the north shore of Lake Superior. This area was the site of some of the largest iron mines in the world, but is now economically depressed. Pursuant to the "Innovative Energy Project" Statute, Excelsior's project siting efforts centered on sites within the TTRA. Excelsior focused particularly on potential sites within the Mesabi Iron Range due to the existing infrastructure system developed in response to earlier industrial mining activities. The TTRA is discussed in Section 2.1.2.2.

1.6 SCOPE OF THIS EIS

Because the EIS for the Mesaba Energy Project has been prepared as a joint Federal and state document to satisfy the requirements of NEPA and the Minnesota Power Plant Siting Act, the scoping requirements of both Federal and state legislation were applicable. The Federal public scoping process – including two public scoping meetings – was conducted early in the process as required by NEPA regulations. However, as required under state regulations, MDOC could not conduct public scoping meetings until after receipt of the joint permit application. Therefore, separate DOE and MDOC scoping meetings and scoping periods were held. However, representatives from DOE and MDOC attended all scoping meetings, and the EIS considered scoping comments received during both scoping periods.

1.6.1 Federal NEPA Scoping Process

1.6.1.1 The Notice of Intent

DOE published the Notice of Intent (NOI) to prepare this EIS in the *Federal Register* on October 5, 2005 (70 *FR* 58207) and sent copies to Federal and state agencies (DOE, 2005). Publication of the NOI initiated the EIS process with a public scoping period (40 CFR 1501.7) for soliciting public input to ensure that (1) significant issues would be identified early and properly studied; (2) issues of minimal significance would not consume excessive time and effort; (3) the EIS would be thorough and balanced; and (4) potential delays that could result from an incomplete or inadequate EIS would be avoided. The Federal EIS scoping period extended through November 14, 2005.

The scope of issues to be addressed in this EIS, and the significant issues related to the action, were determined through several means including:

- The preliminary identification of issues by DOE as a part of the early project planning and internal scoping;
- Additional issues identified by DOE as a result of state and Federal agency consultation and coordination with representatives of Native American tribes;
- The identification of issues and concerns expressed in comments received from the public and interested parties during the NEPA scoping process; and
- Additional issues and concerns expressed in comments received from the public and interested parties during the Minnesota Power Plant Siting Act scoping process.

DOE initially identified the environmental issues listed in Table 1.6-1 in the NOI for analysis in the EIS. The list, which was developed based on reviews of the proposed project location and technology as well as the scope of the proposed project and similar projects, was presented to facilitate public comment on the planned scope of the EIS. It was not intended to be all-inclusive; nor was it meant as a pre-determined set of potential impacts. Also, the order in which issues were listed was not intended to imply any priority or level of significance.

Table 1.6-1. Issues Identified in the NOI for Consideration in the EIS

- Atmospheric resources: Potential air quality impacts resulting from emissions during construction and operation of the project, including potential impacts on Class I areas in the vicinity (Voyageurs National Park [VNP] and Boundary Waters Canoe Area Wilderness [BWCAW]) and local odor impacts.
- Water resources: Potential impacts on surface and groundwater resources and water quality, including effects of water usage, wastewater management, storm water management, and soil erosion and sedimentation in the Mississippi River and Great Lakes Basins.
- Cultural resources: Potential effects on historic and archaeological resources and Native American tribal resources.
- Ecological resources: Potential onsite and offsite impacts to vegetation, wildlife, protected species, and ecologically sensitive habitats.
- Floodplains and wetlands: Potential impacts on wetlands located within the East Range and West Range Sites and their associated transportation/utility corridors, and potential impacts on floodplains within the transportation/utility corridors for both sites. In accordance with DOE regulations (10 CFR Part 1022), the final EIS will include a floodplain and/or wetlands assessment and a statement of findings.
- Terrestrial resources: Land requirements and compatibility of plant facilities and operations, access roads, rail alignments, and potential new corridors for HVTL and natural gas lines with adjacent and surrounding land uses.
- Utility and transportation infrastructure requirements for delivery of feedstocks and process chemicals to the facility.
- Health and safety impacts: Construction-related safety and process-related safety associated with handling and management of process chemicals.
- Noise: Potential impacts resulting from construction and operation of the proposed plant and from transportation of feedstocks, process materials, and plant by-products.
- Community resources: Potential impacts on local traffic patterns, socioeconomic impacts of plant construction and operation, including effects on public services and infrastructure resulting from the influx of construction personnel and plant operating staff, and environmental justice issues.
- Aesthetic and scenic resources: Potential visual effects associated with plant structures and operations.
- Cumulative effects that result from the incremental impacts of the proposed plant when added to the other past, present, and reasonably foreseeable future activities in the Iron Range area.
- Connected actions: Effects of construction and operation of the second phase of the Mesaba Generating Station resulting in a combined, nominal, 1,212 $MWe_{(net)}$ power generating facility on the selected site.

1.6.1.2 Coordination with Federal and State Agencies

DOE contacted the following agencies by letter to initiate consultation with respect to particular environmental resources and/or to invite them to become cooperating agencies under NEPA. The agency contacts have also been included in the distribution list for the EIS.

- Regional Environmental Officer, U. S. Department of the Interior
- Regional Director, National Park Service
- Regional Director, Bureau of Indian Affairs
- Director, Water Division, U. S. Environmental Protection Agency, Region 5
- Director, Federal Energy Regulatory Commission, Division of Gas – Environment & Engineering
- U.S. Army Corps of Engineers, St. Paul District Office (District Engineer, NEPA Coordinator, Regulatory Branch Chief, and Archaeologist)
- U.S. Forest Service (Superior National Forest Supervisor and Laurentian District Ranger)
- Field Supervisor, U.S. Fish and Wildlife Service, Twin Cities Ecological Services Field Office
- U.S. Department of Transportation, Federal Highway Administration

- State Historic Preservation Office, Minnesota Historical Society
- Minnesota Department of Natural Resources, Natural Heritage and Nongame Research Program

In response to the coordination letters, the USACE (St. Paul District, Brainerd Office) and the USDA FOREST SERVICE (Superior National Forest, Laurentian District) agreed to participate as cooperating agencies for the EIS.

1.6.1.3 Outreach to Native American Tribes

DOE contacted representatives of the following Native American tribes and reservations to inform them about the project and initiate formal consultation. The listed tribes and reservations are, or may historically have been, located in the vicinity of the proposed project. Tribal responses have been included in Appendix E and entered into the Administrative Record for the project. The tribal contacts have also been included in the distribution list for the EIS. A summary of DOE's efforts with respect to tribal consultation is provided in Section 3.9.4, Native American Resources.

- Leech Lake Reservation
- Mille Lacs Band of Ojibwe
- White Earth Reservation
- Minnesota Chippewa Tribe
- Grand Portage Reservation
- Bois Forte Reservation
- Fond du Lac Reservation
- Red Lake Band of Chippewa
- Lower Sioux Community
- Upper Sioux Community
- Prairie Island Indian Community
- Shakopee Mdewakanton Dakota Community
- Bad River Band of Lake Superior Chippewa
- Keweenaw Bay Indian Community
- Lac Courte Oreilles Band of Lake Superior Chippewa Indians of Wisconsin
- Lac Vieux Desert Band of Lake Superior Chippewa Indians
- Lac du Flambeau Band of Lake Superior Chippewa Indians of Wisconsin
- Red Cliff Band of Lake Superior Chippewa Indians
- Sisseton-Wahpeton Oyate of the Lake Traverse Reservation
- Sokaogon Chippewa (Mole Lake) Community of Wisconsin
- Spirit Lake Tribal Council
- St. Croix Chippewa Indians of Wisconsin
- Turtle Mountain Band of Chippewa
- Flandreau Santee Sioux
- Santee Sioux Nation
- Iron Range Area Council, White Earth Band

DOE also contacted the Minnesota Indian Affairs Council to inform the council about the project and elicit any support that it might provide in facilitating consultation with tribal organizations.

1.6.1.4 NEPA Public Scoping Meeting

The NOI invited public participation in the NEPA process and announced two scoping meetings, one held on October 25, 2005, at the Taconite Community Center in Taconite, Minnesota and one held on October 26, 2005, at the Hoyt Lakes Arena, in Hoyt Lakes, Minnesota. These locations were selected for their close proximity to Excelsior's respective preferred and alternative sites for the Mesaba Energy Project. DOE announced the public scoping meetings in local newspapers, including the *Eastern Itascan* on October 20; *Duluth News Tribune, Hibbing Daily Tribune, Mesabi Daily News,* and *Grand Rapids Herald-Review* on October 23; and *East Range Shopper* and *Grand Rapids Manney's Shopper* on October 24.

DOE also notified Federal, state, and local agencies, public officials, Native American tribes, and non-governmental organizations about the meetings. The public was encouraged to provide oral comments at the meeting and to submit comments to DOE by the close of the EIS scoping period. The NOI and announcements provided appropriate addresses and phone numbers where comments could be communicated to DOE by U.S. Mail, e-mail, toll-free telephone, or facsimile.

DOE led the presentations and presided over both formal meetings. Both meetings began at 7:00 pm Central Daylight Time (CDT) on the respective nights. The Taconite meeting adjourned at 8:57 pm, and the Hoyt Lakes meeting adjourned at 8:00 pm. Each scoping meeting was preceded by an open house from 4:00 pm to 7:00 pm, during which DOE and Mesaba Energy Project personnel were available to answer questions. Information packages were available to attendees that included background information about the project, the CCPI Program, and the NEPA process. Also, Excelsior exhibited approximately 15 mounted graphic displays illustrating various features of the proposed project. A court recorder was present at each meeting to ensure that all oral comments were recorded and legally transcribed.

Collectively, 157 individuals attended the public scoping meetings, (111 signed the Taconite attendance list and 46 signed the Hoyt Lakes attendance list) including several who attended both meetings. All attendees were invited to provide comments, either written or oral, on the proposed project. Those attendees wishing to speak were given an opportunity to sign up. Comment sheets were made available for all attendees wishing to provide written comments. Twenty-nine individuals presented oral comments and six comment sheets were submitted at the meetings. In all, 18 comments were submitted by e-mail, five letters were received by mail, four comments were received by facsimile, and two 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) and all submissions are maintained as part of the DOE Administrative Record.

1.6.1.5 Comments Received During the Federal Public Scoping Period

As discussed in the following sections, comments received by DOE during the public scoping period generally aligned according to major groupings, including:

- General comments about the project, the EIS, and the scoping process;
- Purpose and Need (including comments about the DOE decision);
- Proposed Action (including comments about project components and features);
- Alternatives (including comments on alternative sites and other alternatives); and
- Resource-specific concerns (comments related to specific environmental resources).

General Comments

Among the general comments received, respondents raised concerns about the absence of direct notification to all adjacent landowners about the meeting, the limited amount of material available about the project before the meetings, the desire for more written information to be available about the project that could be taken home from the meetings, and questions about how the process would proceed after the meetings. Other comments emphasized that the project should meet all regulatory requirements, expressed concerns regarding the project's emission of greenhouse gases, and raised concerns about the protection of Native American tribal interests.

Comments on the Purpose and Need

Respondents expressed concerns about the need for the proposed facility, both from the perspective of electricity demand (e.g., exemption from the Certificate of Need) and from the perspective of whether coal use is the best choice to meet that demand. Others conveyed concerns about the long-term operation and viability of the demonstration plant. Respondents questioned whether the envisioned economic benefits of the proposed facility are valid, and whether economics should outweigh the potentially adverse environmental and human effects.

Comments on the Proposed Action (Project Features)

Respondents recommended project information and details to be included in the EIS, including process information, information about the expected efficiency and reliability of the plant, feedstocks, utility and resource requirements, emissions, and controls. Other comments addressed the size of the plant and the expected "footprint," rail alignments, transmission corridors, and various other features.

Comments on the Alternatives

Respondents expressed concerns about the range of alternatives to be considered in the EIS. Specific comments were made regarding DOE's "No Fund" Alternative, as well as alternative site and technology selection (e.g., greenfield versus brownfield sites and the applicability of carbon sequestration technologies). Other respondents indicated that the project should include alternatives for renewable energy sources, such as wind and solar power that would reduce air pollutants, greenhouse gas emissions, and impacts on global climate change, or that the alternative of avoiding plant construction through increased energy efficiency and conservation should be considered.

Comments Related to Specific Environmental Resources

Numerous comments were received with respect to specific natural and human environmental resources. The majority of the comments were related to the use of natural resources (e.g., coal, land, and water), the discharge of pollutants to the natural environment (e.g., air, water, and national parks), and the socioeconomic impacts of the project (e.g., jobs, taxes, and property values). Comments were also received relating to eminent domain, wetlands destruction, increased vehicular and rail traffic, the potential for adverse health effects, and demands on local community services (e.g., emergency responders, local water and sewer systems, and tourism/recreation). Native American tribal issues that were raised related to the following areas: surveys to identify cultural resources; protection of treaty rights to hunt, fish, and gather (i.e., potential impacts to wild game species, fisheries, and wild rice); avoidance or minimization of negative impacts to natural resources such as air quality, water quality, and wetlands; and cumulative effects. Concerns were also expressed by the general public about connected actions and the cumulative effects of current industrial activities and future projects planned within the vicinity of the Mesaba Energy Project.

1.6.2 Minnesota EIS Scoping Process

1.6.2.1 MDOC Scoping Meetings

Upon acceptance of an application for a site or route permit, the PUC must provide the public with an opportunity to participate in developing the scope of the EIS by holding a public meeting and by soliciting public comments. Excelsior 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. In an Order dated July 28, 2006, the PUC accepted the Joint Permit Application submitted by Excelsior for the Mesaba Energy Project. The MDOC held two public scoping meetings for the Mesaba Energy Project on consecutive nights in the vicinities of the West and East Range Sites in northeastern Minnesota. The first meeting was held on August 22, 2006, at the Taconite Community Center in Taconite. The second was held on August 23, 2006, at the Hoyt Lakes Arena in Hoyt Lakes.

In satisfying the notification requirements within Minnesota Rules 4400.1350, the public informational and EIS scoping meetings were announced in the Environmental Quality Board (EQB) Monitor on July 31, 2006, and notices were published in local newspapers, including the *Scenic Range News* on July 6; *Duluth News Tribune*, *Hibbing Daily Tribune*, and *Mesabi Daily News* on July 5; *Grand Rapids Herald-Review* on July 7; and *East Range Shopper* on July 3. Additionally, notice was sent to those persons whose names are on the EQB general notification list, regional and local governments, and each person whose property is adjacent to any of the proposed sites or routes.

Both meetings began at 7:00 pm CDT on the respective nights. The Taconite meeting adjourned at approximately 10:45 pm, and the Hoyt Lakes meeting adjourned at approximately 9:30 pm. Each scoping meeting was preceded by an open house from 4:00 pm to 7:00 pm, during which MDOC, DOE-National Energy Technology Laboratory (NETL), and Excelsior personnel were available to answer questions.

Information packages were available to attendees that included a fact sheet on the state siting and routing process, and the Draft EIS Scoping Document. Also, Excelsior exhibited approximately 25 mounted graphic displays illustrating various features of the proposed project.

Collectively, approximately 300 individuals attended the public scoping meetings, (159 signed the Taconite attendance list and 123 signed the Hoyt Lakes attendance list) including several who attended both meetings. All attendees were invited to provide comments, either written or oral, on the proposed project. Those attendees wishing to speak were given an opportunity to do so. Comment sheets were made available for all attendees wishing to provide written comments.

The MDOC Energy Facility Permitting (EFP) staff led the presentations and presided over both formal meetings. A court recorder was present at each meeting to ensure that all oral comments were recorded and legally transcribed. Oral comments from 50 individuals were presented at the meetings.

In addition, the MDOC-EFP staff provided an e-mail address for members of the public who preferred to submit their comments electronically, a postal address for those who preferred to mail their comments, a telephone fax number for those who preferred to fax their comments, and a toll-free telephone number for those who preferred to speak their comments. In all, 49 comments were submitted via e-mail, U.S. Mail, or facsimile. All of the various comment submissions were reviewed to characterize specific issues, concerns, and questions to ensure the consideration of all substantive concerns. The Commissioner of MDOC issued the EIS Scoping Decision on September 13, 2006 (see Appendix G). Comments received during the public scoping period are intended to help direct and focus the analysis and contents of the EIS.

Comments on Operational Information and Design

Several respondents recommended that project operational information and design details be included in the EIS, including process information, information about the expected efficiency and reliability of the plant, feedstocks, utilities and resource requirements, emissions, and controls. Other comments addressed the physical size of the plant and the expected "footprint," rail alignments, transmission corridors, and various other features. This information has been incorporated into the project/process description sections of the EIS.

Opinions

A number of comments contained statements of opinion and rhetorical questions, such as the desirability of a particular site. Such comments have not been assimilated into the Scoping Decision in all cases; however, the EIS has attempted to address the subjects raised to the extent appropriate.

Comments on Need

Many respondents expressed concerns about the need for the proposed facility, both from the perspective of electricity demand (e.g., exemption from Certificate of Need) and from the perspective of whether coal use is the best choice to meet that demand. Because Minnesota Statutes § 216B.1694, Subdivision 2, item 1 has exempted this facility from demonstrating need and that this facility qualifies as an "innovative energy project," issues related to the need, size, or type of the facility are excluded from consideration by the MDOC-EFP staff. Such issues are not within the scope of the EIS. The MDOC will not, as part of this environmental review, consider whether a different size or different type of plant should be built instead, nor will the MDOC consider the "No Build" option.

Comments on Viability

Additionally, some of the comments conveyed concern over the long-term operation and viability of the project. Respondents questioned whether the envisioned economic benefits of the proposed facility are valid, and whether economics should outweigh the potentially adverse environmental and human effects of construction and operation of the facility. There is currently a docket before the PUC pertaining to Excelsior's proposed power purchase agreement (Docket E6472/M-05-1993) that will evaluate many of these concerns.

Comments on Overall Environmental Impacts

Numerous comments were received with respect to specific natural resources, environmental welfare, and human health issues. The majority of the comments were related to the use of natural resources (e.g., coal, land, water, and national parks), the discharge of pollutants to the natural environment (e.g., air, water, wetlands, and CO_2 emissions) and adverse health effects, and the socioeconomic impacts of the project (e.g., jobs, taxes, and property values). Comments were also received relating to eminent domain, increased vehicular and rail traffic, and demands on local community services (e.g., emergency responders, local water and sewer systems, and tourism/recreation). Concerns were also expressed about connected actions and the cumulative effects of current industrial activities and future projects planned within the vicinity of the Mesaba Energy Project.

These issues, along with the typical LEPGP, HVTL, and pipeline routing and siting impacts, were incorporated into the proposed Order on the EIS Scoping Decision.

1.6.2.2 Citizens Advisory Task Force

A Citizens Advisory Task Force was established by the PUC to provide input to the scope of the EIS for the Mesaba Energy Project. The Task Force was charged with the following three tasks:

- Determine whether local site or route specific information as presented within the Joint Permit Application is inaccurate or has missing information;
- Recommend which site- or route-specific impacts and issues of local concern should be assessed in the EIS; and
- Express a preference for either the preferred or alternative site contained within the Joint Permit Application if a consensus can be reached.

Task Force members were selected by the MDOC based on the responses to a solicitation letter, and the Task Force met three times during August 2006 at locations near the West and East Range Sites. The final comments and recommendations of the Task Force were posted on the PUC website (see Section 1.6.1.4). Due to the time constraints, there was not an opportunity for the Task Force to discuss individual comments and reach a consensus as to whether or not the comment represented the view of all members. Consequently, some of the comments provided may present views that are not necessarily shared by all Task Force members.

In an attempt to facilitate the discussion of which site should be indicated as the preferred site, a number of evaluation criteria were considered to provide a quantitative evaluation of the two sites. During the second meeting the evaluation criteria and weightings were selected by the task force members, and a general consensus was reached on both the evaluation criteria and the weighting of each of those criteria. These criteria included many of the environmental issues addressed in this EIS (such as noise, aesthetics, air and water quality) and impacts from construction on residences, rail traffic, and tourism/recreation. The evaluation matrices were then provided to each member to fill out the rankings of each evaluation criterion for each site prior to the third meeting.

Thirteen members submitted completed evaluations matrices. Seven members scored the East Range Site as having a lower impact, while five members scored the West Range Site as having a lower impact. One member determined that the impact between the two sites was essentially equal. From both the scores and comments received from individual members, it was clear that the Task Force would not be able to reach a consensus on a preferred site.

During the final meeting of the Task Force, several members expressed an interest in developing statements related to the project that could be supported by all members. A unanimous consensus was not reached on any of the proposed statements, but a majority of the members voted affirmatively on the following statements (note that the recommendations of the Task Force on limitations to the scope are not binding on DOE):

- *This Task Force recommends that a site or sites be permitted and built on the Iron Range, assuming that all environmental concerns are considered and adequately addressed in the Environmental Impact Statement.*
- *This Task Force recommends that any analysis of cumulative impacts only be conducted on projects that have the necessary permits in place to proceed with the construction of the facility.*

1.6.3 Special CCPI Program Considerations under NEPA

DOE does not possess permitting and regulatory authority for the proposed project. Furthermore, by providing financial assistance to private sector investments in energy systems, DOE has a more limited role

than if the Federal government were the owner and operator of the energy systems. In the latter case, DOE would be responsible for a comprehensive review of reasonable alternatives for power generation, as well as for the siting of proposed facilities. However, when dealing with applicants under the CCPI Program, the alternatives available to DOE are necessarily more restrictive. Once DOE selects a prospective applicant and project, the department's decision is bounded by the reasonable alternatives available to the applicant within the constraints of the application and the applicant's needs for the project.

This relationship creates an important distinction between alternatives that might be available to Excelsior as a project proponent, alternatives available to the PUC as a state regulatory agency, and alternatives that are available to DOE as the Federal sponsor of an energy program initiative. The reasonable alternatives available to DOE in this case are either to enter into a cooperative agreement to provide co-shared funding for the applicant's project or to decline to participate in the project. However, alternatives considered by Excelsior and incorporated into the Federal Proposed Action are described in Section 2.1 of this EIS. At the request of USACE staff, Excelsior has prepared an analysis of alternatives intended to satisfy USACE NEPA and CWA Section 404 requirements. This supplemental alternatives analysis is provided in Appendix F1.

The evaluations of potential impacts included in this EIS are intended to enable the Federal decision-makers to choose the appropriate alternative. If DOE elects to provide financial assistance for the Mesaba Energy Project under a cooperative agreement (beyond those activities that are appropriate and necessary to complete the NEPA evaluation and documentation), the agency may also specify measures to mitigate potential significant impacts as identified in the EIS. See Section 5.3 for discussion of the mitigation measures that Excelsior would implement for the proposed project. All mitigation measures imposed by DOE would be announced in the ROD.

If DOE declines to provide financial assistance for the Mesaba Energy Project beyond those activities that are appropriate and necessary to complete the NEPA evaluation and documentation, the co-funding withdrawn may be made available for other current or future CCPI projects. In the absence of DOE co-funding (the Federal No Action Alternative), Excelsior may still elect to construct and operate the proposed IGCC power plant provided it can obtain all required state and Federal permits.

It is important to note that in the absence of DOE co-funding, Excelsior may still elect to construct and operate the IGCC power plant.

1.6.4 Connected Actions

Although DOE's CCPI Program co-funding will apply only to Phase I of the Mesaba Energy Project, Phase II, which is a duplicate of the Phase I facility, is considered a connected action. MDOC's state EIS must address the project as submitted in the joint permit application, which includes both phases of the Mesaba Energy Project. Because Phase II is inextricably linked to the successful performance of Phase I, the impacts of both phases will be assessed as a whole in this EIS.

In association with the proposed Mesaba Energy Project at Excelsior's preferred site near Taconite, the Itasca County Engineer indicated that the county has an interest in rerouting County Road (CR) 7 near its intersection with U.S. Highway (US) 169. Therefore, although this action would be undertaken independently of the proposed Mesaba Energy Project as a road improvement project by Itasca County, it has been addressed in this EIS as a connected action, because the construction of the Mesaba Generating Station would provide substantial impetus for the road realignment.