

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
FOR THE PUBLIC UTILITIES COMMISSION

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

**EXCELSIOR ENERGY INC.'S
STATEMENT OF THE CASE**

Excelsior Energy Inc. ("Excelsior") respectfully submits this Statement of the Case pursuant to the Second Prehearing Order dated June 2, 2006.

INTRODUCTION

Xcel Energy's last baseload, coal-fueled power plant in Minnesota, Unit 3 of its Sherburne County Generating Station, came online almost twenty years ago. Since 2000, Minnesota energy policymakers have recognized that in order to sustain and expand economic growth in Minnesota new baseload power plants must be built in the coming decade. However, coal-fired power plants using even state-of-the-art traditional pulverized coal technologies emit significant levels of pollutants, such as sulfur dioxide, nitrogen oxide, large and fine particulate matter and mercury, which adversely impact the air and lakes so critical to Minnesota's overall quality of life.

Fortunately, starting in 2001, thoughtful observers of the national energy policy landscape in Minnesota's Legislature recognized that the United States Department of Energy and others were actively supporting a better way to generate electricity from coal, using integrated gasification combined cycle ("IGCC") technology that would minimize the environmental impacts

of coal-fueled power generation while allowing continued use of our Nation's most abundant domestic fuel resource. Those legislators also understood that without legislative incentives to encourage development of IGCC as Minnesota's preferred clean-coal technology, the incumbent utilities would sponsor traditional and familiar pulverized coal power plants that would continue to contribute to unnecessarily high levels of pollution.

Thus, in 2003, the Legislature enacted and Governor Pawlenty signed into law two significant energy policy statutes: Minn. Stat. § 216B.1694, the Innovative Energy Project ("IEP") Statute, and Minn. Stat. § 216B.1693, the Clean Energy Technology ("CET") Statute (and, together with the IEP Statute, the "2003 IGCC Statutes"), specifically designed to foster development of IGCC power plants in northeastern Minnesota. The 2003 IGCC Statutes codify the Legislature's judgment that Minnesota must rapidly develop IGCC power plants to meet the State's substantial and ever-growing electric energy needs, while maintaining Minnesota's traditional and leading commitment to environmental protection.

The starting point for this contested case is the 2003 directive from the State's highest policymaking body, the Minnesota Legislature, that Minnesota should expedite development of IGCC as an innovative base load "clean energy technology" in order to provide the State an alternative to its dependence on nuclear, traditional coal, and natural gas fueled generation technologies, and to protect the State and ratepayers against impending stricter emission standards for both currently, and soon-to-be, regulated pollutants.

A number of key foundational determinations have already been made by the Legislature. First, the Legislature has defined IGCC technology as both (i) an "innovative generation technology" (*see* Minn. Stat. § 216B.1694, subd. 1(1)); and (ii) a "clean energy technology" (*see* Minn. Stat. § 216B.1693(c)). Second, the Legislature has identified five specific public interest benefits of IGCC that the Commission must consider when making its public interest

determination about this innovative energy project (*see* Minn. Stat. § 216B.1694, subd. 2(a)(7)). Finally, the Legislature determined over three years ago that the innovative energy project should be expedited through regulatory incentives, including an exemption from the requirements of a certificate of need for project generation and transmission facilities (a six-month process at the time the 2003 IGCC Statutes were passed). Significantly, in subdivision 2(a)(7) of the IEP Statute, the Legislature granted the innovative energy project the entitlement to a power purchase agreement to ensure that the purpose behind the 2003 IGCC Statutes would not be frustrated by a public utility with a State-granted monopoly franchise that likely would otherwise have a very strong preference for traditional pulverized coal and other technologies.

ISSUES TO BE ADDRESSED IN THIS PHASE OF THE CASE

In this proceeding, Excelsior presents its Mesaba Unit I Project (“Project”), an innovative energy project meeting the requirements of the IEP Statute.

This phase of the contested case requires the Minnesota Public Utilities Commission (“Commission”) to confirm that the Project should receive two of the regulatory benefits the Legislature conferred on the innovative energy project. The first benefit at issue is the Project’s entitlement to enter into a long-term power purchase agreement (“PPA”) to provide 450 MW of baseload capacity to Xcel, “a public utility that owns a nuclear generation facility in the state,” so long as the Commission determines that the terms and conditions of the PPA are in the public interest (under Minn. Stat. § 216B. 1694, subd. 2(a)(7)). The second benefit at issue is the right to require Xcel to “supply at least two percent of the electric energy provided to retail customers” from the Project, so long as the Commission finds that IGCC “is or is likely to be a least-cost resource.” The evidence will show that the Project will have a maximum capacity of 603 MW and that 153 MW (*i.e.*, the Project’s 603 MW less the 450 MW under the PPA entitlement) is greater than two percent of Xcel’s retail electric load.

Excelsior respectfully submits that what is *not* at issue in this contested case is whether IGCC technology serves the public interest, because the Legislature has found that it does in enacting the 2003 IGCC Statutes. In addition, although the reasonableness of cost is a factor to consider and the evidence will show that the cost of electricity under the PPA will, in fact, be competitive with, or superior to, the cost of electricity from a super critical pulverized coal (“SCPC”) plant, this case is not about *proving* that the cost of electricity from the Project throughout the term of the PPA will be equal to or less than the cost of electricity from an alternative plant over a similar time period.

Rather, the Legislature presumed the initial costs of IGCC might be higher than the costs for traditional pulverized coal technologies, as evidenced in both subdivision 2(a)(7) of the IEP Statute and paragraph (a) of the CET Statute. In making its overall public interest determination, the IEP Statute specifically directs the Commission to consider five valuable, but not all easily quantifiable, life-cycle public interest benefits of IGCC (*i.e.*, (i) the Project’s use of coal, an abundant domestic fuel source; (ii) the Project’s economic development benefits to the State; (iii) the stability of the price of the output from the Project under a binding PPA; (iv) IGCC’s potential to contribute to a transition to hydrogen as a fuel source; and (v) the emission reductions achieved by IGCC as compared to other solid fuel baseload technologies) *See* subdivision 2(a)7. It is noteworthy that the IEP Statute does not explicitly include a “least cost” concept at all, highlighting the presumption that the Project could cost more than a conventional pulverized coal alternative but still be in the public interest in light of the many other benefits associated with IGCC. Moreover, the bare cost of a hypothetical, conventional pulverized coal alternative may not be relevant to the analysis at all, if the Commission believes — as Excelsior does — that the environmental community in Minnesota never again will allow a conventional coal plant to be permitted here. Given that reality, the question really becomes whether coal-fueled power

generation in Minnesota is in the public interest, period. Certainly the Legislature in enacting the IGCC Statutes believed that new, clean coal-fueled generation was a critical energy policy objective for Minnesota, one that Legislators undoubtedly expected would be much further along more than three years after passage of the IGCC Statutes.

The CET Statute in paragraph (a) also evidences the Legislature's expectation that IGCC likely would be more expensive at the outset than conventional coal alternatives. Paragraph (a) of § 216B. 1693 does not require that IGCC *be the* least cost resource but rather that IGCC "is or is *likely to* be *a* least cost resource." This prospective language confirms that the cost analysis required under the CET Statute is necessarily a life-of-plant, forward looking analysis that must assess the likelihood and potential impact of ever-tightening environmental regulations during the decades-long useful life of a new plant. Since it is impossible to precisely quantify the future costs of environmental regulations, and the Legislature recognized IGCC's (i) comparatively advantageous environmental profile; (ii) technological flexibility to deal with future regulations; and (iii) anticipated cost reductions as IGCC technology matures, the CET Statute merely requires that the Project's technology be *one of the likely* future least cost resources in order to mandate that "at least 2%" of Xcel's retail load be supplied by this clean energy technology. The Commission need not make a finding that IGCC is certain to be the least cost resource, but rather the Commission simply may subjectively determine, based on quantitative and qualitative factors, that IGCC likely will be one of Xcel's least cost baseload resources over the life of the Project.

At the end of the day, as the Commission's Order referring this case to the Office of Administrative Hearings and the Second Prehearing Order noted, there are only two real issues in this phase of the case: (1) whether providing the first 450 MW of capacity from the Project to Xcel under the terms and conditions of the PPA proposed by Excelsior should be approved, disapproved, amended or modified to serve the public interest, taking into consideration the five

public interest benefits set forth in Minn. Stat. § 216B.1694, subd.2 (a)(7) and the Project’s many other public interest benefits that will be demonstrated in the record; and (2) with respect to the remaining 153MW of capacity from the Project, whether IGCC “is or is likely to be a least-cost resource” over the life of the Project, requiring that Xcel supply at least 2% of its retail electric energy from the Project.

Excelsior’s Petition, supporting documents, and testimony firmly establish that the Project is indeed in the public interest, that IGCC is likely to be a least cost resource, and therefore that the Project is entitled to receive the two regulatory incentives authorized by the Legislature and at issue in this phase of the contested case.

APPLICABLE LAW

The primary issues in this case arise from the IEP Statute (Minn. Stat. § 216B.1694) and the CET Statute (Minn. Stat. § 216B.1693), each of which was passed by the Legislature in 2003. The complete texts of those statutes are set forth below. The Statutes make clear that Excelsior’s proposed highly efficient, reduced emissions IGCC plant constitutes an “innovative energy project”; that IGCC is the very “clean energy technology” which the Legislature has favored as the State’s baseload choice going forward; and that Excelsior’s Project is the very project entitled to both a PPA with Xcel and to serve a minimum percentage of Xcel’s retail load. The most pertinent provisions are highlighted and identified as (1) the provision in the IEP Statute codified as Minn. Stat. § 216B.1694, subd. 2(a)(7) (relating to the entitlement to a PPA for 450 MW from the innovative energy project); and (2) the provision in the CET Statute codified as Minn. Stat. § 216B.1693(a) (requiring Xcel to supply at least 2% of its retail load with electricity from the Project so long as the Commission finds that IGCC “is or is likely to be a least-cost resource”).

216B.1693 Clean energy technology.

(a) If the commission finds that a clean energy technology is or is likely to be a least-cost resource, including the costs of ancillary services and other generation and transmission upgrades necessary, the utility that owns a nuclear generating facility shall supply at least two percent of the electric energy provided to retail customers from clean energy technology.

(b) Electric energy required by this section shall be supplied by the innovative energy project defined in section 216B.1694, subdivision 1, unless the commission finds doing so contrary to the public interest.

(c) For purposes of this section, “clean energy technology” means a technology utilizing coal as a primary fuel in a highly efficient combined-cycle configuration with significantly reduced sulfur dioxide, nitrogen oxide, particulate, and mercury emissions from those of traditional technologies.

(d) This section expires January 1, 2012.

216B.1694 Innovative energy project.

Subdivision 1. Definition. For the purposes of this section, the term “innovative energy project” means a proposed energy-generation facility or group of facilities which may be located on up to three sites:

(1) that makes use of an innovative generation technology utilizing coal as a primary fuel in a highly efficient combined-cycle configuration with significantly reduced sulfur dioxide, nitrogen oxide, particulate, and mercury emissions from those of traditional technologies;

(2) that the project developer or owner certifies is a project capable of offering a long-term supply contract at a hedged, predictable cost; and

(3) that is designated by the commissioner of the Iron Range Resources and Rehabilitation Board as a project that is located in the taconite tax relief area on a site that has substantial real property with adequate infrastructure to support new or expanded development and that has received prior financial and other support from the board.

Subd. 2. Regulatory incentives. (a) An innovative energy project:

(1) is exempted from the requirements for a certificate of need under section 216B.243, for the generation facilities, and transmission infrastructure associated with the generation facilities, but is subject to all applicable environmental review and permitting procedures of sections 116C.51 to 116C.69;

(2) once permitted and constructed, is eligible to increase the capacity of the associated transmission facilities without additional state review upon filing notice with the commission;

(3) has the power of eminent domain, which shall be limited to the sites and routes approved by the Environmental Quality Board for the project facilities. The project shall be considered a utility as defined in section 116C.52, subdivision 10, for the limited purpose of section 116C.63. The project shall report any intent to exercise eminent domain authority to the board;

(4) shall qualify as a “clean energy technology” as defined in section 216B.1693;

(5) shall, prior to the approval by the commission of any arrangement to build or expand a fossil-fuel-fired generation facility, or to enter into an agreement to purchase capacity or energy from such a facility for a term exceeding five years, be considered as a supply option for the generation facility, and the commission shall ensure such consideration and take any action with respect to such supply proposal that it deems to be in the best interest of ratepayers;

(6) shall make a good faith effort to secure funding from the United States Department of Energy and the United States Department of Agriculture to conduct a demonstration project at the facility for either geologic or terrestrial carbon sequestration projects to achieve reductions in facility emissions or carbon dioxide;

(7) shall be entitled to enter into a contract with a public utility that owns a nuclear generation facility in the state to provide 450 megawatts of baseload capacity and energy under a long-term contract, subject to the approval of the terms and conditions of the contract by the commission. The commission may approve, disapprove, amend, or modify the contract in making its public interest determination, taking into consideration the project's economic development benefits to the state; the use of abundant domestic fuel sources; the stability of the price of the output from the project; the project's potential to contribute to a transition to hydrogen as a fuel resource; and the emission reductions achieved compared to other solid fuel baseload technologies; and

(8) shall be eligible for a grant from the renewable development account, subject to the approval of the entity administering that account, of \$2,000,000 a year for five years for development and engineering costs, including those costs related to mercury-removal technology; thermal efficiency optimization and emission minimization; environmental impact statement preparation and licensing; development of hydrogen production capabilities; and fuel cell development and utilization.

(b) This subdivision does not apply to nor affect a proposal to add utility-owned resources that is pending on May 29, 2003, before the Public Utilities Commission or to competitive bid solicitations to provide capacity or energy that is scheduled to be on line by December 31, 2006.

Under the applicable law above. Excelsior must show that the Project is an “innovative energy project” and that providing the first 450 MW of capacity from the Project to Xcel under the PPA is in the public interest, taking into consideration the five public interest benefits of IGCC specifically enumerated in Minn. Stat. § 216B.1694, subd. 2(a)(7) and the many additional public interest benefits of IGCC that will be evident in the record. Excelsior will present substantial evidence upon which the Commission can rely to confirm that each of the public interest benefits of IGCC should weigh heavily in favor of approval of the PPA.

With respect to the remaining 153 MW of capacity from the Project, under Minn. Stat. § 216B.1693(a) Excelsior must show that (1) IGCC “is or is likely to be a least-cost resource” over the life of the Project, and (2) 153 MW is sufficient to supply at least 2% of Xcel’s retail electric energy.

EXCELSIOR’S POSITION ON THE PRIMARY ISSUES

Excelsior’s opponents have yet to formally reply to Excelsior’s Petition and filing in this proceeding, so it is difficult to know what issues might be contested. However, Excelsior respectfully believes that whether the Project is an “innovative energy project” under the IEP Statute cannot reasonably be contested.

There are three requirements to become an innovative energy project under Minn. Stat. § 216B.1694, subd. 1. First, under Minn. Stat. 216B.1694, subd. 1(1), a project must make use of the highly efficient, low emissions IGCC technology to generate energy utilizing coal as a primary fuel. No party can reasonably argue that the Project does not use IGCC technology to generate energy using coal as a primary fuel.

Second, under Minn. Stat. § 216B.1694, subd. 1(2), a project developer or owner must certify that a project is capable of offering a long-term supply contract at a hedged, predictable

cost. Because Excelsior as the owner of the Project has certified in its Petition in this case that the Project is capable of offering a long-term supply contract at a hedged, predictable cost, no party can reasonably argue that this requirement has not been met.

Third, under Minn. Stat. § 216B.1694, subd. 1(3), a project must be designated by the Commissioner of Iron Range Resources (formerly known as the Iron Range Resources and Rehabilitation Board) as a project that meets the requirements set forth in Minn. Stat. § 216B.1694, subd. 1(3). Because Commissioner Sandy Layman of Iron Range Resources, in a letter dated November 7, 2005 that Excelsior has filed in this proceeding, designated the Project as one that meets the requirements of the statute, no party can reasonably argue that the Commissioner of Iron Range Resources has not so designated the Project. In recognition of the Legislature's determination that an innovative energy project should be located within the taconite tax relief area in order to bring economic development benefits to Minnesota's Iron Range, the Legislature explicitly delegated the sole authority to designate a project as an innovative energy project to the Commissioner of Iron Range Resources, the State's chief economic development agency focused exclusively on that region. Because the Project satisfies each of the three requirements set forth in Minn. Stat. § 216B.1694, subd. 1, the Project is by definition an innovative energy project.

The Legislature defined IGCC technology as the "innovative energy technology" under Minn. Stat. § 216B.1694, subd. 1 (1), and as the "clean energy technology" under Minn. Stat. § 216B.1693(c). The Legislature also declared five specific public interest benefits of IGCC in Minn. Stat. § 216B.1694, subd. 2(a)(7). The fact that IGCC is the innovative energy technology and clean energy technology in the 2003 IGCC Statutes is not open to debate, since the Legislature has so declared. Similarly, no party can debate the Legislature's findings that an innovative energy project located on the Iron Range will bring economic development benefits to the State,

that it will use abundant, domestically available fuel, that its capability to offer a long-term supply contract at a hedged, predictable cost will make the price of its output stable, that it has the potential to contribute to a transition to hydrogen as a fuel resource, and that it will achieve greater emission reductions compared to other solid fuel baseload technologies.

Excelsior therefore presumes that any contested issues in this case will fall into one of the following three categories:

- (1) Under Minn. Stat. § 216B.1694, subd. 2(a)(7), how much weight should the Commission give to each of the five public interest benefits identified by the Legislature and to the other public interest benefits of IGCC, such as its inherent technological capability to more cost-effectively capture carbon dioxide at some point in the future when carbon reductions are required, as Excelsior will demonstrate in this proceeding;
- (2) Under Minn. Stat. § 216B.1694, subd. 2(a)(7), is the cost of electricity under the Project's proposed PPA reasonable, in light of all of the environmental, human health and other public interest benefits of IGCC identified by the Legislature and that will be demonstrated by Excelsior, particularly in light of the fact that the Legislature did not include any kind of "least cost" language in Minn. Stat. § 216B.1694, subd. 2(a)(7); and
- (3) Under Minn. Stat. § 216B.1693, how should the Commission evaluate life-cycle cost evidence relating to IGCC, including: The initial cost of electricity from the Project; the costs of future environmental compliance by traditional coal plants (such as the costs to achieve the same 90% mercury removal rate achieved by the Project, the costs to comply with pending tighter limits on fine particulate matter, and the costs of complying with potential carbon capture requirements during the

expected useful life of a new plant); the costs of delaying baseload coal additions beyond 2011 in the form of unnecessary and substantially higher volumes of natural gas consumed for power generation and the attendant rise in natural gas prices statewide; and how heavily should all of those life-cycle costs be weighed by the Commission in finding that IGCC as proposed in the Project is likely to be one of the least-cost resources to meet baseload need over the coming decades.

Although Excelsior has no burden to prove in this proceeding that a new conventional pulverized coal plant cannot be permitted in Minnesota, and Excelsior will prove that the two issues in the first phase of this case should be resolved in favor of the Project even assuming that a conventional pulverized coal plant somehow could be built in Minnesota, Excelsior nonetheless expects that certain utility parties may take issue with Excelsior's view that in Minnesota conventional coal technologies are no longer viable, practically speaking. The Commission should note that the issues in this case become very simple indeed if Excelsior is correct about the prospects for new conventional coal in Minnesota, since IGCC then becomes the only baseload coal technology available to meet the ever-increasing demand for baseload power generation in Minnesota. Excelsior respectfully submits that the public interest dictates that significant amounts of new coal-fueled baseload power generation must be built in Minnesota during the coming 10-15 years if Minnesota is to maintain its economic vitality, competitive position and high standard of living.

The Legislature in the 2003 IGCC Statutes does not ask the Commission to make rigid economic findings that are constrained by, for instance, the official, narrow, Commission-approved environmental externality values on which utilities often rely when seeking permits for new generation resources. Rather, the Legislature asks the Commission to take a much broader view of the public interest, giving weight to a number of key strategic, subjective and qualitative

benefits (such as an innovative energy project's ability to produce hydrogen from coal, its ability to use abundant domestic coal, its dramatically reduced fine particulate and mercury emissions compared to conventional coal alternatives, and IGCC's ability to cost-effectively protect ratepayers in the coming carbon constrained world).

Finally, because Xcel Energy is actively pursuing IGCC initiatives in Colorado, including support of Colorado legislation that appears to have been at least partially modeled on the 2003 IGCC Statutes here in Minnesota, it is doubtful that Xcel will contest the fact that the Commission should give considerable weight to the five public interest benefits identified by the Minnesota Legislature in subdivision 2(a)(7) of the IEP Statute. Xcel in Colorado has touted many of the same benefits that the Minnesota Legislature highlighted, such as IGCC's environmental attributes, its use of abundant domestic coal, and the resulting relative stability of price that will protect ratepayers from natural gas price risk. Frank Prager, Xcel's Managing Director for environmental policy, said of IGCC technology, "We're very, very interested in exploring this technology. It has a lot of potential to it. We would like to see Xcel Energy and the state of Colorado being the leaders in bringing this technology to the West and our customers [in Colorado]."¹ In the same Denver Business Journal article, Mr. Prager is quoted as saying:

The question is in the future, how can you move forward in a way that allows the company [Public Service of Colorado] to meet its environmental obligations and expectations of its customers [in Colorado] - - and also reduces the [Colorado] customers' exposure to the highly volatile fuel prices and risks such as natural gas prices. . . [IGCC] is one solution that cuts that Gordian knot. If we can get this technology up and running, we can address both our [Colorado] customers' [economic and environmental] concerns at one time. If we can do it in a way that's reasonable and cost-effective, our [Colorado] customers will benefit from the technology.²

¹ Denver Business Journal, *Xcel pushing higher tech coal plant*, January 13, 2006, at p. 2.

² *Id.* at p.5.

Pat Vincent, President and CEO of Public Service of Colorado, is also quoted in the Denver Business Journal article as saying about IGCC, “We’d really like to see it in Colorado,”³ and Dick Kelly, Chairman and CEO of Xcel Energy, has been quoted as saying about Xcel’s IGCC initiatives in Colorado, “New Mexico and Wyoming are looking at [IGCC], too. But we’d [Public Service Company of Colorado] like to be the first one.”⁴ The people of Minnesota should be gratified to see Xcel Energy in 2006 embracing IGCC in Colorado for precisely the same public policy reasons that prompted the Minnesota Legislature in 2003 to take the extraordinary action that it did in enacting the 2003 IGCC Statutes.

FACTS EXCELSIOR INTENDS TO PROVE

Excelsior’s proof is set forth in its Petition and the attached Mesaba Energy Project Report, which is divided into seven sections.

Section I of the Mesaba Energy Project Report contains an analysis of the following five public interest benefits specified in the IEP Statute that the Commission is directed to consider in making its public interest determination with respect to the PPA. Excelsior’s extensive evidence documenting and quantifying each of these substantial benefits provides a strong evidentiary basis for the Commission to conclude that each factor should weigh very heavily in favor of approval of the PPA as being in the public interest.

- Economic development benefits. Subsection A demonstrates that the economic development benefits of the Project include: The creation of new jobs; economic stimulus; syngas production that can retain existing industry and attract new entrants from the transportation fuel, pipeline quality gas, hydrogen and chemical industries; and stable energy prices that create a strong business environment and a cleaner natural environment that will attract and retain human capital and promote tourism. The economic benefits of the Project are quantified in a report prepared by the University of Minnesota, Duluth.
- Use of abundant domestic fuel. Subsection B establishes that the Project uses coal, an abundant domestic fuel resource, as a primary fuel. The public interest benefits of use of coal are described, including price stability, avoiding use of natural gas for power generation, and energy independence and national security.

³ *Id.* at p.2.

⁴ Rocky Mountain News, *Xcel seeks partners for clean coal power plant*, February 8, 2006, at p.5.

- Price stability. Subsection C describes the price stability benefits the Project will bring to the State's energy portfolio. Many factors contribute to the stability of the price of the Project's output, including: The cost of power is fixed under a long-term power purchase agreement and the payments under the PPA are largely in the form of a capacity payment that is tied to availability of the facility; the PPA structure provides a price hedge advantage, compared to a utility rate-based structure, in that the PPA locks in current low interest rates for the life of the Project; the variable fuel costs of generation from the Project are a small component of the total costs, and are tied to relatively stable coal prices (as compared to volatile natural gas prices); the Project can use a wide variety of coal qualities as well as petroleum coke, and will be able to minimize the costs of production by selecting the optimal mix of fuel as dictated by market conditions over the life of the Project, which creates a cost advantage for the IGCC technology over conventional combustion technologies; the ability of the facility's combined-cycle power island to run on natural gas when the gasification island is offline for maintenance brings additional price stability and a benefit over conventional technologies; IGCC's low emissions profile, flexibility to adapt to ever-tightening environmental control requirements, and ability to capture carbon dioxide if greenhouse gas limits are imposed, further ensure that the price of the energy from the Project will remain stable and competitive for the long term. The perils associated with dependence on natural gas and LNG for power generation are described in a report prepared by Andrew Weissman of FTI Consulting, which is included with the Report.
- Potential to contribute to a transition to hydrogen. Subsection D details the role IGCC and the Project can play in moving hydrogen into the fuel mix in Minnesota and nationally. The Mesaba Project can serve as a large, centralized source of hydrogen, a critical component of the national strategy to transition to hydrogen as a fuel source.
- Emission reductions achieved compared to alternative solid fuel technologies. Subsection D demonstrates that the Mesaba Project will be the cleanest coal-fueled power plant in the nation. Detailed analysis is provided that compares the Project's environmental performance to (a) the permit limits for the new supercritical pulverized coal plants that have been permitted in recent years, (b) the emissions from the existing Minnesota fleet, and (c) the cleanest coal facilities in existence in each category of pollutants that are subject to unusually restrictive emission control requirements. The importance of this clean profile to avoiding costly retrofits or stranded investments in conventional coal plants is described, as well as the human health benefits the cleaner profile brings. Because a substantial amount of Minnesota's pollution comes from out-of-state sources, the benefits of catalyzing the rapid market penetration of IGCC is another benefit highlighted in this section. Analysis of the costs associated with fine particulate matter and mercury is provided in a report prepared by ICF Consulting, detailing the health benefits of IGCC compared to the SCPC technology.

Section II of the Mesaba Energy Project Report provides analysis of the clean energy technology determinations described in the CET Statute.

- Subsection A provides information related to the Commission's required determination as to whether IGCC is or is likely to be a least-cost resource. The analysis

demonstrates that because the costs associated with generation from combustion technologies have rapidly escalated due to changes in environmental law, the cost penalty formerly associated with IGCC generation has largely disappeared. The 60% reduction in emissions achieved by IGCC compared to the next best coal alternative provides the State a valuable hedge in dealing with federally imposed emission reduction requirements that must be met with plans implemented on a state-wide basis. In addition, the adaptability of the IGCC technology to meet tightening limits, and the identified research and development plan to ensure that continuous improvement is achieved in the technology's capability, contribute to make IGCC one of the likely least-cost resources to meet baseload need over the life of the Project.

- The appropriate percentage of NSP's generation mix that should be supplied from IGCC, the issue that has been deferred to Phase II of this contested case, is analyzed in Subsection B. For purposes of the current phase of this contested case, Subsection B provides analysis to show that the incremental 153MW of capacity from the Project in excess of the 450 MW referenced in the IEP Statute, will be greater than 2% of Xcel's expected electric energy to be provided to retail customers in 2012, the first full year of commercial operation of the Project. The fact that natural gas prices are nearly three times the price levels existing when the CET Statute was enacted, and the fact that the percentage of Xcel's generating capacity that is coal-based will shrink to below 30% by 2012 in the absence of Commission action, highlight the need to ensure a proactive plan is implemented to add coal base load capacity.

Section III of the Mesaba Energy Project Report demonstrates that the cost of energy from the Project is competitive with the cost of energy from a hypothetical utility-owned supercritical pulverized coal ("SCPC") alternative plant, even on a direct cost basis. In light of its superior environmental profile and capabilities, an IGCC plant will be least cost over the life of the facility, as compared to a SCPC facility, even if initial direct costs of electricity prove to be higher for the IGCC facility. The cost parity that the Project achieves with a utility-owned SCPC unit is due, in part, to the benefits available under the Federal Energy Policy Act of 2005 that first movers such as the Project are positioned to receive.

- Subsection A provides a detailed description of the tariff provided for in the PPA and the cost of energy from the Project.
- Subsection B provides a detailed analysis of the cost of energy from a hypothetical utility-owned SCPC unit located in central Minnesota. The detailed capital and operating costs for both the Project and the SCPC facility are provided in a report from Fluor that is attached to Section III as Exhibit F. In addition, the Addendum to the Fluor Report attached as Exhibit G provides the detailed analysis of the cost of energy from the utility-owned SCPC facility.
- Subsection C compares the direct costs from each facility.
- Subsection D provides a detailed analysis of the externality costs as established by the Commission and the quantified costs associated with other emissions.

- Subsection E considers the addition of quantified values for fine particulate matter. These quantified costs result in a very significant increase in the Project's cost advantage over a utility-owned SCPC plant.
- Subsection F analyzes qualitatively other cost benefits associated with the Project, including its ability to be in service in 2011, the risk shifting benefits that the PPA provides to ratepayers as compared to a utility-owned facility and the benefits provided by the transmission upgrades proposed in conjunction with the Project.

Section IV of the Mesaba Energy Project Report is a Project Overview that provides details about the Project. Included in the overview is key information regarding:

- The IGCC technology and process (Subsection C)
- All fuel, water and other inputs (Subsection D)
- All emissions and discharges from the Project (Subsection E) and the Project's pollution prevention, recycling and reuse plans (Subsection F)
- A project milestone schedule and a list of all material permits required for the Project (Subsection G)
- Labor and construction requirements (Subsection H)
- A transmission and interconnection plan and status report (Subsection I)
- The Projects' pipeline requirements (Subsection J), details on required water resources (Subsection K) and fuel supply (Subsection L)
- The human health benefits associated with the Project (Subsection M)
- The Project's financing plan (Subsection N)

Section V of the Mesaba Energy Project Report contains the power purchase agreement for which the public interest finding is sought in this proceeding.

Section VI of the Mesaba Energy Project Report provides a narrative summary of the key terms of the PPA.

Section VII of the Mesaba Energy Project Report describes the national consensus that is emerging on the role IGCC technology should play in meeting our Nation's energy, environmental and national security objectives.

EXCELSIOR'S SUPPLEMENTAL FILING

In its Supplemental Filing Excelsior has provided testimony of the witnesses who prepared the information described above, as well as testimony from additional third party witnesses to provide facts obtained after Excelsior's initial filing in December 2005 which corroborate the Legislature's public policy judgment that IGCC technology serves the public interest. This additional evidence includes an analysis of the extraordinary financial exposure to which Minnesota customers currently are subject because of the Xcel's rapidly increasing dependence on natural gas to fuel its power plants, including testimony and a supplemental report from Andrew Weissman of FTI Consulting. The Supplemental Filing also includes evidence of the steps that other states are taking to expedite IGCC development and ensure that their ratepayers obtain the benefits of IGCC technology, along with evidence of the unique and vital role IGCC technology must play in ameliorating carbon emissions from energy facilities.

The Supplemental filing also updates Section VII of the Mesaba Energy Report to include additional statements and publications since January 1, 2006, supporting the growing consensus that IGCC power plants are in the public interest, including a copy of Senator Norm Coleman's May 23, 2006 press release applauding the Department of Energy's formal commitment to fund the Mesaba Project's Clean Coal Power Initiative award. Senator Coleman said, "With rising energy prices and increasing concerns over energy security, the Mesaba Project is a key opportunity for Minnesota to increase domestic energy production, lower the demand for and cost of natural gas, and do so in an environmentally sensitive manner. This revolutionary energy endeavor continues Minnesota's role as a leader in energy innovation and environmental protection. Best of all, the project will provide jobs in an area that is in sore need of more employment opportunities." At the same press conference, United States Assistant Secretary of Energy Jeffrey Jarrett said, "[The Mesaba Project] is a prime example of our Administration's

efforts to ensure our Nation's energy future. Advancing the technology for clean coal is a critical element of ensuring adequate, domestic power supplies, while safeguarding the environment for future generations.”

The additional evidence also includes a copy of the Wisconsin Department of Natural Resources recently issued report, *Integrated Gasification Combined-Cycle Technology Draft Report*, summarizing conclusions reached after Wisconsin's year-long intensive study of IGCC versus super critical pulverized coal (SCPC) technologies. With respect to the potential cost differences between IGCC and SCPC plants, the report says, “As described above, pollutants, including carbon dioxide, are easier to strip out of IGCC than SCPC. This means that should a carbon dioxide tax be imposed, IGCC will have an advantage both in terms of cost and technology in the near term.” Wisconsin Department of Natural Resources, *Integrated Gasification Combined-Cycle Technology Draft Report*, Executive Summary p. II (June 2006).

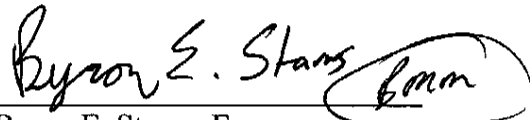
Finally, the additional evidence includes the forceful and cogent testimony of Dr. Daniel P. Schrag, Director of the Harvard University Center for the Environment, that any solution to the global carbon emissions crisis and related climate change impacts must include immediate deployment of IGCC power plants to begin replacing the existing capital stock of conventional coal plants, because of IGCC's inherent ability to someday cost-effectively capture carbon dioxide emissions. Dr. Schrag's testimony convincingly demonstrates why conventional pulverized coal plants are extremely risky investments today, and therefore why conventional coal plants should not be permitted in Minnesota or anywhere else, for that matter, regardless of *any* initial cost advantage over IGCC that might be presumed to exist.

CONCLUSION

Excelsior's evidence will establish that providing 450 MW of capacity from the Project to Xcel under the PPA serves the public interest, that IGCC is or is likely to be a least-cost resource, and that the remaining 153 MW of capacity from the Project is sufficient to supply at least 2% of Xcel's electric energy to retail customers such that the balance of the capacity from the Project must, by statute, be employed to meet Xcel's retail load. Based on this evidence, Excelsior is entitled as a matter of law to the Commission's approval of the PPA for the full 603 MW of output from the Project under the IEP and CET Statutes.

Dated: June 19, 2006

Respectfully submitted,
EXCELSIOR ENERGY INC.

A handwritten signature in black ink that reads "Byron E. Starns" followed by a circled monogram "BES".

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