BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

LeRoy Koppendrayer Ken Nickolai Marshall Johnson Phyllis Reha Thomas Pugh Chair Commissioner Commissioner Commissioner Commissioner

In the Matter of a Petition by Excelsior Energy, Inc. for Approval of a Power Purchase Agreement under Minn. Stat. §216B.1694, and Determination of Least Cost Technology and Establishment of a Clean Energy Minimum Under Minn. Stat. §216B.1693.

MPUC Docket: E/6472/M-05-1993

OAH Docket: 2500-17260-2

MCGP's COMMENT ON ADDRESSING COST ISSUES IN PPA DOCKET

On July 7, 2006, the Commission issued Notice that written comments will be accepted on whether the Commission should supplement its prior Order in this docket to request that the parties specifically address the costs of transmission upgrades and related facilities beyond the substation associated with the Mesaba Energy Project and the costs of other infrastructure investments associated with the Mesaba Energy Project. These issues must be carefully considered because this is the factual foundation of the legislatively mandated analysis and accounting of cost of ancillary services and the analysis of economic development benefits that the project provides to the state. Minn. Stat. §§ 216B.1693; 216B.1694.

In the PPA proceeding thus far, party access to cost information has been unduly restricted and unreasonably challenged, i.e., 1) Excelsior's objection to MCGP's very specific cost-based Intervention saying MCGP belonged in siting, not a PPA docket, with comments from ALJ about limiting MCGP's role, though the Order granting Intervention had no limitation; 2) an Order and Protective Order blocking MCGP's access to cost information, the distraction of time and effort necessary for MCGP to successfully challenge that Order, and the subsequent Order releasing cost information to MCGP; 3) Excelsior's challenge, without standing and upon "invitation of the Court", of MCGP's subpoenas of local government for this cost information, the distraction of time and effort necessary for MCGP to successfully challenge that improper Motion to Quash and the subsequent Order for Subpoenas; and 4) that MCGP has not received any of this cost information to date, and in this setting, there is no reasonable assurance that these costs will be addressed. The pattern thus far is that cost information requests are met with resistance and rather than address cost issues, we're spending time with Motions and argument about access to cost information which should be presumed. With the Discovery period passing and Intervenors' Direct Testimony due in less than one month, and where only MCGP is actively seeking this public spending data, there is much evidence pointing to a need for a more specific Order, and there is much evidence that the record and analysis will be insufficient and will not provide the cost information the Commission is seeking without a clarified and specific order.

I. THE STATUTE REQUIRES CONSIDERATION OF "ANCILLARY SERVICES" AND "THE ECONOMIC DEVELOPMENT BENEFITS TO THE STATE."

Excelsior, in its "Comments and Motion to Quash mncoalgasplant.com's Requested Subpoenas to County of Itasca, City of Nashwauk and City of Taconite" rhetorically states:

The Requests seek voluminous information arguably related in varying degrees to these local governments' possible contributions to the development of infrastructure relating to the Mesaba Project, including rail and roads, natural gas pipelines, and transmission lines. Ms. Overland's Information Requests inquire about state and federal funding available to cover these infrastructure costs, as well as available county funding, including bonding and grants...

Ms. Overland cannot seriously contend that any grants, bondings or guarantees by the federal or state governments in favor of the Mesaba Project should be counted as additional costs...

The answer, of course, is "Of course all costs should be counted!" because that is the plain language directive of the statute! The footprint and costs of infrastructure necessary for this project, infrastructure which would not be constructed but for this project, is exactly what the statute mandates be addressed in the PPA proceeding. Excelsior made the choice of a site with no infrastructure – a choice contrary to the legislative mandate and the specific legislative intent that the project reclaim an abandoned mine site.

Under the Second Prehearing Order, both enabling statutes are at issue in Phase I, because the proceeding is to address both the 450MW power purchase agreement and whether Excelsior will have a PPA for an additional percentage of Xcel's load. Second Prehearing Order; Minn. Stat. §216B.1694; Minn. Stat. §216B.1693. The relevant statutory provisions are:

[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.

[216B.1694] [INNOVATIVE ENERGY PROJECT]

(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;

Minn. Stat. §216B.1693(a)(emphasis added); Minn. Stat. §216B.1694(7)(emphasis added).

The statute is clear that a wide range of costs must be addressed – Excelsior is correct – this is not a "least cost" analysis.

II. THE COSTS TO BE REVIEWED ARE BROAD

The categories of costs to be analyzed under the statute are broader than the "least cost" analysis and include ancillary services and other generation and transmission upgrades necessary, and the project's economic development costs. Excelsior's definition of "Associated Facilities" in its siting permit application clarifies what infrastructure is necessary to support this project:

The term "Associated Facilities" means the buildings, equipment, and other physical structures that are necessary to operate the Station and includes, without limitation: the equipment identified in Sections 1.6.5, 1.6.6, and 1.6.7; fuel tanks; roads' rail track' process water supply and wastewater discharge pipelines, pumps, pump houses, metering equipment, valves and force mains; water intake structures (floating or permanent); wastewater discharge structures; flood control systems; and security systems.

Mesaba Energy Project, Environmental Supplement, p. 1-3, para. 1.2.3. In this same Excelsior document, site specific requirements include:

Rail Loop Access, High Voltage Electrical Switchyard and Interconnection to HVTLs, Raw Water Intake Structure and Pump House, Raw Water Pipeline, Raw Water Treatment, Cooling Tower Blowdown, Potable Water System, Sanitary Waste System, Natural Gas Supply Pipeline and Metering Station, Treated Wastewater Forwarding System, Wastewater Pipeline and Outfall Structure, Storm Water Collection and Detention, Plant Access Road, and Feedstock Suppliers, Locations and Transportation/Distribution Methods.

Id., Table of Contents, 1.11.1, p. iii. Under "Infrastructure Requirements" on the next page:

Electric Transmission, Natural Gas Pipeline, Transportation (rail and road), Process Water Supply, Process Wastewater Discharges, Domestic Wastewater Treatment Alternatives, Potable Water Supply.

Id., Table of Contents, 1.12, p. iv. Transmission, in both the Petition for the PPA and the Siting Application, includes network system upgrades.

Cost of ancillary services must be considered under the statute, and as shown in the details of Excelsior's applications, the definition is a broad one. 1

A. ANCILLARY SERVICES TAKEN ON BY LOCAL GOVERNMENTS

These ancillary services, and economic development costs, are addressed in an SEH document entitled "Public Infrastructure Improvements: Public Infrastructure Improvements to Support the Proposed Minnesota Steel Industries Taconite Mine, Pellet Plant and Steel Mill project and Excelsior Energy/Mesaba Energy Project" gives rough cost estimates for each of these categories:

Category	Excelsior Energy (exclusive part)	Excelsior Energy (1/2 shared)	Excelsior Energy (total if shared)	Excelsior Energy (if separate)
Roadway	\$ 9,999,825	\$ 3,448,185	\$12,448,070	\$16.940,075
Railroad	\$16,187,400	\$ 4,256,665	\$20,444,065	\$24,754,900
Gas Pipeline	\$ 805,000	\$ 5,780,333	\$ 6,585,333	\$ 8,602,000
Water	\$ 1,407,600		\$ 1,407,600	\$ 1,407,600
Sewer	\$ 3,773,150		\$ 3,773,150	\$ 3,773,150
Summary	\$32,172,975	\$13,570,978	\$45,743,953	\$55,477,725

Exhibit A, SEH Public Infrastructure for Mesaba & MSI (Jan. 2006).

Based on reports in the newspaper, and by members of the public attending meetings, MCGP believes that the County is taking on roadway (turning Scenic Hwy. 7 into the Mesaba plant access road) and

¹ MPUC Joint Application, §1.8.1.5; §4 Transmission Line Engineering and Operational Design;

railroad (becoming an active Railway Authority and short line railroad). The City of Nashwauk is taking on the gas pipeline and perhaps Generation Interconnection transmission. The City of Taconite is taking on water and sewer, and both cities have requested grants from IRR for planning. Excelsior has recently approached the City of Taconite about supply of 4,400-6,500 gallons per minute of process water, and the cost of this network of pipeline, as shown on the site plans, would be at least the cost of natural gas pipeline per mile. The MPCA, in a siting docket comment, noted the need for wastewater treatment plant upgrade, at significant cost, which is necessary because the outlet is ultimately the Swan and Mississippi River, impaired waters. Publicly declared costs and the addition of wastewater treatment system upgrades means that at least \$50 million in infrastructure is needed. Other significant costs are not specified and must be addressed.

B. COSTS FOR TRANSMISSION FOR GENERATION OUTLET AND NETWORK UPGRADES ARE AT LEAST \$377 MILLION

Transmission needs require construction of both the immediate outlet line from the plant to the Blackberry substation and also upgrades necessary because of addition of generation at Mesaba into the system. The numbers reported in the Petition for Power Purchase Agreement (PPA)² and MISO study G519³ are not consistent, except in demonstrating the high costs of interconnecting this project. Transmission for this project is characterized as "Generation Outlet" transmission (GO) and Network System Upgrades, which are determined by MISO studies. Generation Outlet must also include substation upgrades, and these costs are low for both line and substation cost.

1. Generation Outlet Transmission

Capital Estimates for Generator Outlet ONLY - E to Forbes, W to Blackberry

	Mesaba I	Upgrade I	Mesaba II	Upgrade II	Total
East Range Site	\$99.00	\$5.00	\$17.00	\$10.00	\$131.00
West Range Site	\$18.40	\$5.00	\$49.40	\$10.00	\$82,80

West - double circuit 230kV for Mesaba One and new 345kV for Mesaba Two.

East - two double circuit 345/115kV, in-line 600MVA 345/230kV xfmrs I & sub upgrade for II anticipating system upgrades

2. MISO Capital Estimates for Network System Upgrades

The estimates for necessary transmission system upgrades are based on studies by MISO completed in conjunction with Excelsior's generation interconnection request, but Excelsior's and MISO's estimates are far apart:.

Excelsior Estimate - Cost of Network System Upgrades for East & West Range, Mesaba I & II5

	Mesaba I	Mesaba II	Total
East Range Site	\$255.00	\$53.00	\$308.00

² Excelsior's PPA Petition (application) may be found at http://www.mncoalgasplant.com/ppa.html

³ Excelsior cost is nearly double MISO cost – what is discrepancy? MISO study G519 from May 2006 is available online http://www.mncoalgasplant.com/g519 sis report.pdf and the June 2006 revision of G519 is at http://www.midwestmarket.org/publish/Document/7be606 10b7aacd66e -

⁷ad90a48324a/G519 SIS Report rev.pdf?action=download& property=Attachment. See also "Assessment of the Impact of the Mesaba Transmission Upgrades in the West Range on the MAPP Transmission System and Consumers in Minnesota, ICF Resources (June 2005) http://www.mncoalgasplant.com/19%20Exhibit%20H.pdf

Excelsior PPA Petition, Section IV, p. 89 http://www.mncoalgasplant.com/08%20Section%20IV.pdf; the new Joint Application, http://energyfacilities.puc.state.mn.us/Docket.html?Id=16573 has different values and that information has not yet been integrated into these charts.

⁵ Excelsior's PPA Petition, Project Description, Section IV, p. 90 http://www.mncoalgasplant.com/ppa.html

West runge bite	415.00	φ220.00	32/5:00
West Range Site	\$75.00	\$220.00	\$295.00

(note E is high up front costs, W costs are delayed)

MISO Estimate - G519 MISO System Impact Study - Phase I only6

Boswell-Riverton	Add new 230kV line from Boswell to Riverton – 73 mi (80 mi ⁷ in G519) bundled 795 600MVA, 115kV to 200MVA		
Boswell 230kV sub* (+/- 40%)	New 230kV bus position for Boswell-Riverton line at Boswell	\$ 1.90	
Riverton 230kV sub*	New 230kV bus position for Boswell-Riverton line at Riverton	\$ 1.70	
Hill City 230kV sub*	New 230kV substation at Hill City	\$ 3.50	
Nashwauk 115kV sub*	Replace 4 115kV circuit breakers at Nashwauk	\$ 0.72	

TOTAL SYSTEM UPGRADES:

\$52.82

Costs of Generator Outlet & Network Upgrades from Excelsior's PPA Petition9

The costs of infrastructure necessary for this project are easily one-half billion dollars!

Infrastructure:

\$ 45,743,953 - \$ 55,477,725

Generator Interconnection:

\$ 82,800,000

Network upgrades

\$295,000,000 (Excelsior estimate very low)

\$423,543,953 - 433,277,725 + wastewater & process water in and out

3. Consideration of the cost of extensive transmission system upgrades

The cost analysis of this case has a broader reach than a typical transmission "least cost" analysis, even Excelsior agrees with that. In this case, the analysis is based on the statutory consideration of "ancillary services," "transmission upgrades" and "economic development benefits to the state." Regarding network system transmission costs, a look at the analysis in the Certificate of Need proceeding for the SW Minnesota 345kV line proves helpful. As the transmission network system upgrades are necessary for Mesaba generation outlet, in that project Xcel similarly claimed transmission studies showed a list of improvements were necessary to supply Buffalo Ridge wind generation outlet. In that proceeding, for each alternative proposed, it was listed on the TLGT table, showing the system impact of the upgrade and the cost of that specific upgrade. All the system upgrades were listed, the costs totaled, and that result was the cost of the project, and through the chart, cost was expressed at incremental levels to show baseline cost and cost of incremental system improvements.

⁶ Id..

Miles matter at between \$1-2 million/mile. Based on the Arrowhead line, costs of \$2 million per mile should be expected.
The Arrowhead-Weston line, a lest costly low capacity 345kV line, was just under \$2 million/mile, and so it appears this cost is grossly underestimated.

Excelsior's PPA Petition, Project Description, Section IV, p. 89-90 http://www.mncoalgasplant.com/ppa.html
 In the Matter of Certificate of Need for Four High Voltage Transmission Line Projects in SW Minnesota, PUC Docket E-002/CN-01-1958.

¹¹ The testimony of Xcel's engineer Rick Gonzalez, however showed that it wasn't Buffalo Ridge generation outlet, because of the 2085MVA capacity of the line, just 213-302MVA entered at the Nobles substation, the only interconnection from Buffalo Ridge.

4. Cost to others of backing down or redirecting generation and cutting back transmission capacity

The costs of ancillary services and economic development benefits to the state must be considered, and this includes the costs resulting from interconnection of Mesaba. In order to interconnect the 600MW of the Mesaba project's generation, fully 675MW of SW Minnesota wind must be cut and associated curtailment payments would have to be made, the entire 600MW output of Big Stone II must be "kept" in South Dakota, NDEX is cut, and Minnesota Power's generation in its service area is cut as is an additional 50MW of transmission capacity.

Before generation may be interconnected to the transmission grid, the project developers must demonstrate through modeling that the addition will not have a negative impact on the grid. The modeling assumptions and tweaks necessary to solve the system stability case of generation additions become the conditions under which the generation may be interconnected.

Mesaba's MISO System Impact Study G519 found that Mesaba could be interconnected without jeopardizing the stability of the system when the following conditions were met:

- Wind generation in SW Minnesota is reduced from 1,500MW to 825MW (cut 675MW)
- Reduce flows on interfaces in two sensitivity cases:
 - NDEX from 2452MW to 2445MW and 2079MW (nearly 400MW)
 - o NDEX was reduced by "keeping the output of Big Stone II in North Dakota (sic)12
 - o F601C (Xcel control area) 1660MW to 1533MW and 1482MW (nearly 200MW)
 - Generation was scaled in Minnesota Power control area and Arrowhead-Weston transmission dropped from 726MW to 690MW to 646MW (80MW)

MCGP has requested information from Excelsior, Xcel, Big Stone II Partners and Minnesota Power regarding the costs of these reductions. Because the SW Minnesota generation that was cut is wind, MCGP also requested information regarding the cost of curtailment payments made when wind cannot be put on the transmission grid.

The costs to ratepayers of various utilities and the costs to the public in lost generation, curtailment payments, transmission revenue lost, and policy issues is significant and must be considered.

III. THE COMMISSION SHOULD DIRECT THAT A FULL RANGE OF SPECIFIC COSTS AND BENEFITS BE ADDRESSED TO ASSURE THE RECORD IS DEVELOPED

MCGP requests that the prior Order of April 26, 2006, be supplemented to expressly reinforce the statutory mandates and to require that a thorough and complete record be developed regarding cost of infrastructure. As Excelsior notes, this is not a typical "least cost" analysis – the statutes mandate a thorough review. Minn. Stat. §§ 216B.1693; 216B.1694. This order should specify that the ALJ's recommendation conform with the mandated analysis and contain findings that address the full range of ancillary services and economic development costs and benefits of the Mesaba Project, including but not limited to those items addressed in Excelsior's applications:

- Rail tracks and other rail infrastructure
- Road access and traffic controls
- Natural gas pipeline and metering equipment

¹² Big Stone II is located in South Dakota and power flows to Minnesota. North Dakota is not involved.

- · Water supply pipeline and metering equipment
- · Water discharge pipeline
- Water treatment facility
- Transmission Generator Outlet and MISO network system upgrades
- Safety infrastructure, including fire, medical and police
- Scaled and cut generation necessary to interconnect Mesaba, i.e., Minnesota Power control area, SW wind generation, cut of NDEX level and restriction of Big Stone II generation to North Dakota
- Cost of curtailment payments necessary if 675MW of wind generation is cut
- Transmission capacity cutbacks necessary to interconnect Mesaba, i.e., 50MW decrease in Arrowhead line capacity
- CO2 capture and sequestration costs, including capture hardware, pressurizing equipment, pipeline (identification of per mile cost and terminus), pumping equipment

These significant costs are being contemplated because of Excelsior's choice, contrary to the legislative mandate, of a preferred site without infrastructure. A public interest determination, analysis of cost of ancillary services and analysis of the economic development benefits of a project requires a thorough look at costs.

July 18, 2006

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On July 18, 2006, Carol A. Overland mailed MCGP's Comment on Cost and Letter Supporting Xcel's Motion for Extension of Schedule at the Red Wing Post Office, properly addressed and with sufficient postage to the above parties, and emailed to those noted for service by email on July 18, 2006.

Dated: July 18, 2006

Signed and sworn to before me this

Contra

29th day of June, 2006.

Attorney for MCGP

#254617

