

State of Minnesota
DEPARTMENT OF COMMERCE

Utility Information Request

Docket Number: E002,ET2/CN-06-1115

Date of Request: January 10, 2008

Requested From: Lisa Agrimonti
Briggs and Morgan

Response Due: February 1, 2008

James Alders
Northern States Power Company d/b/a Xcel Energy

Analyst Requesting Information: Steve Rakow

Type of Inquiry: Financial Rate of Return Rate Design
 Engineering Forecasting Conservation
 Cost of Service CIP Other:

If you feel your responses are trade secret or privileged, please indicate this on your response.

Request No.	
40	<p>Appendices C6 and C7 of the petition calculate a generation interconnection need of several thousand MW. The applicants' proposal represents a first step towards meeting the proposed need, but appears unlikely to meet the entire need. The following questions are intended to explore accelerating subsequent steps towards meeting the proposed need.</p> <p>1. Regarding the Applicants' discussion of constructing the Twin Cities—Fargo line to a higher voltage (Section 7.1.1 of the petition), please assume a goal of 1) moving increased quantities of hydroelectric energy from Manitoba to Minnesota's load centers, and 2) building a new 500 kV transmission line from Winnipeg to Fargo-Moorhead (for example, Dorsey-Maple River). Under such conditions:</p> <p>A. Would building all or part of the Twin Cities—Fargo line to 500 kV standards (but operating at 345 kV until a hypothetical Dorsey-Maple River 500 kV line is constructed) pass a screening test?</p> <p>B. If the answer to part A is yes, please provide an estimate of the capital cost for building all or part (as appropriate) of the Twin Cities—Fargo line to 500 kV standards (but operating at 345 kV).</p> <p><i>Contd. on next page</i></p>

Response by: _____

List sources of information:

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- C. If the answer to part A is yes, please provide:
 - i. The on-peak and off-peak losses when built and operated at 500 kV (i.e., with a Winnipeg to Fargo-Moorhead 500 kV line) in a manner comparable to Figure 5-10 on page 5.27 of the Petition; and
 - ii. The on-peak and off-peak losses when built at 500 kV but operated at 345 kV (i.e., without a Winnipeg to Fargo-Moorhead 500 kV line) in a manner comparable to Figure 5-10 on page 5.27 of the Petition.

- 2. Regarding the Applicants' discussion of constructing the Twin Cities—Brookings County line to a higher voltage (Section 7.1.1 of the petition), please assume a goal of 1) moving increased quantities of wind energy from Buffalo Ridge to Minnesota's load centers, and 2) rebuilding the Minn Valley-Panther 230 kV line to 345 kV (see page 37 of Appendix A4 of the petition: "it is fairly evident that a replacement would naturally be some type of 345 kV construction;" if the Applicants have better information regarding the likely future of this line please use that better information in your response.).
 - A. Under such conditions would building all or part of the Twin Cities—Brookings County line to 500 kV standards (but operating at 345 kV until a hypothetical Minn Valley-Panther rebuild to higher voltage is constructed) pass a screening test?
 - B. If the answer to part A is yes, please provide an estimate of the capital cost for building the Twin Cities—Brookings County line (or appropriate segments) to 500 kV standards.
 - C. If the answer to part A is yes, please provide:
 - i. The on-peak and off-peak losses when built and operated at 500 kV (i.e., with a Minn Valley-Panther rebuild to higher voltage) in a manner comparable to Figure 5-10 on page 5.27 of the Petition; and
 - ii. The on-peak and off-peak losses when built at 500 kV but operated at 345 kV (i.e., without a Minn Valley-Panther rebuild to higher voltage) in a manner comparable to Figure 5-10 on page 5.27 of the Petition.

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