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**STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION**

David Boyd	Chair
J. Dennis O'Brien	Commissioner
Thomas Pugh	Commissioner
Phyllis Reha	Commissioner
Betsy Wergin	Commissioner

IN THE MATTER OF THE APPLICATION OF  
NORTHERN STATES POWER COMPANY  
(D/B/A XCEL ENERGY), GREAT RIVER  
ENERGY, AND OTHERS FOR CERTIFICATES  
OF NEED FOR THE THREE CAPX2020 345-KV  
TRANSMISSION LINES

Docket No. E002/CN-06-1115

**Compliance Filing for CapX Fargo Phase 1  
Pursuant to Order Point 4 Of May 22, 2009  
Certificate of Need Order**

**INTRODUCTION**

Applicants Northern States Power Company, a Minnesota Corporation (“Xcel Energy” or “NSPM”) and Great River Energy (“GRE”) submit this compliance filing pursuant to Order Point 4 of the Minnesota Public Utilities Commission’s (“Commission”) May 22, 2009 Certificate of Need Order in the above-captioned Docket. Order Point Four requires Applicants to provide a compliance filing disclosing each project’s transmission capacity, owners, and ownership structure. In response to this requirement, Applicants submit this compliance filing to provide the desired information for the Monticello to St. Cloud portion of the Fargo Project, which we refer to as CapX Fargo Phase 1.

**Ownership Structure**

On August 18, 2010, Xcel Energy, Great River Energy, Western Minnesota Municipal Power Agency (“WMMPA”), ALLETE, Inc., d/b/a Minnesota Power, Otter Tail Corporation, d/b/a Otter Tail Power Company (“Project Owners”), executed agreements memorializing ownership, construction, operations and maintenance arrangements for CapX Fargo Phase 1. The following Project Agreements were executed: the Project Participation Agreement (“PPA”), the Construction Management Agreement, the Transmission Capacity Exchange Agreement, and the Operations and Maintenance Agreement.

The PPA governs most of the rights and obligations of the Project Owners, as funders of the construction of the project facilities and as owners of the completed and energized facilities. Except for the Monticello Substation and Quarry Substation assets, the Project Owners of CapX Fargo Phase 1 will own all property interests in the Facilities (defined as the transmission lines and associated real property) as tenants-in-common in undivided ownership interests. The assets of Quarry Substation and Monticello Substation will be owned individually by NSPM.

## **Project Owners**

The Project Owners have elected the following ownership percentages in CapX Fargo Phase 1:

Great River Energy	25.0%
Minnesota Power	14.7%
WMMPA <sup>1</sup>	11.0%
Otter Tail Power	13.2%
Xcel Energy	36.1%

These are the same ownership percentages represented by the Applicants in their Certificate of Need application to the Commission, dated August 16, 2007, for the CapX Fargo Project.

In addition, the Project Owners have established a Transmission Capacity Exchange Agreement ("TCEA") to align their rights to the capacity of the line in the event there is no longer a Regional Transmission Operating authority like the Midwest Independent System Operator. In that circumstance this Agreement would grant each Project Owner the right to use the capacity and associated transfer capability of CapX Fargo Phase 1 for all purposes associated with the transmission of electric energy and data for electric utility communications, in proportion to that Owner's percentage interest.

The Project Owners completed their commercial arrangements and agreed to commence construction of the project in order to meet the in-service date of the project by 4th Quarter 2011.

## **Transmission Capacity**

*Thermal or design capacity.* The CapX utilities have worked collaboratively to develop construction standards that will ensure uniformity in the design and capability of the all CapX projects. In line with these standards, the CapX Fargo Phase 1 345 kV transmission line will have a design capacity of 2,050 MVA. This indicates the maximum level of power associated with the current flow that the facility is designed to handle without damaging conductors. To save cost and avoid installing expensive new equipment, certain pieces of substation equipment will be limited to 1,800 MVA during substation maintenance or contingency conditions when a substation circuit breaker is out of

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<sup>1</sup> Applicants note that Missouri River Energy Services ("MRES") has been a participating CapX2020 utility from the commencement of these proceedings. Under the Project Development Agreement, MRES held rights to as much as 11% of the Fargo Project. MRES chose to assign its rights to WMMPA. While WMMPA will be the owner of the 11% share of CapX Fargo Phase 1, it will continue to be associated with MRES and the overall utility operations are unchanged.

service. While the equipment is physically capable of supporting these power levels there are other system conditions that will limit power levels as described below.

*System Capacity.* As current on a transmission line increases, its impedance or resistance to the flow of energy increases. At very high levels of current, the impedance of the line increases to such a level that energy will take other high voltage paths with lower impedance. For this reason, the entire Fargo – Monticello 345 kV line will not see flow as high as its design or thermal capacity.

It is expected that in the interim operating scenario, with only the Monticello-Quarry line added to the network, it will see flows as high as 200 MVA when all transmission facilities are in service. Should the limiting contingency of the existing St. Cloud-area transmission system occur (loss of the Benton County-Granite City double-circuit 115 kV line), flow on the Monticello-Quarry line could be as high as 240 MVA. This is more than enough power to supply the 180 MW of need forecasted for the area by the Applicants in the Certificate of Need proceeding.

Transmission studies indicate that once the entire length of the Fargo-Monticello line is in service, flow on the line could be as high as 600 MVA. As additional generation is integrated into the electric system, particularly in North Dakota, South Dakota, and Manitoba, the Fargo-Monticello line could experience current flow with associated power levels as high as 1200 to 1500 MVA. It is expected that these conditions would occur during periods when other transmission lines are out of service.

## CONCLUSION

This compliance filing provides the information required by Order Point 4 pertaining to CapX Fargo Phase 1. Copies of this filing have been served on the service list for this matter.

Dated: August 20, 2010

**Respectfully submitted:**

**BRIGGS AND MORGAN**

Jennifer Thulien Smith  
Assistant General Counsel  
Xcel Energy Services Inc.  
414 Nicollet Mall  
Minneapolis, MN 55401

Eric Olson  
Vice President and General Counsel  
Great River Energy  
12300 Elm Creek Boulevard  
Maple Grove, MN 55369

By: /s/ Michael C. Krikava  
**Michael Krikava (#182679)**  
**Zeviel T. Simpser (#0387974)**  
**2200 IDS Center**  
**80 South Eighth Street**  
**Minneapolis, MN 55402**  
**(612) 977-8400**

**Attorneys for Northern States Power Company, a  
Minnesota corporation**