



414 Nicollet Mall
Minneapolis, MN 55401

March 14, 2014

Darrell Nitschke, Executive Director
North Dakota Public Service Commission
State Capitol Building, Dept. 408
600 East Boulevard
Bismarck, ND 59505-0480

—Via Email & U.S Mail—

Re: IN THE MATTER OF THE APPLICATION OF NORTHERN STATES
POWER COMPANY FOR A CERTIFICATE OF PUBLIC
CONVENIENCE AND NECESSITY FOR THE PRAIRIE
SUBSTATION EXPANSION PROJECT IN GRAND FORKS
COUNTY, NORTH DAKOTA
CASE NO PU-14-___

Dear Mr. Nitschke:

Pursuant to North Dakota Century Code Chapter 49-03, Northern States Power Company, doing business as Xcel Energy, respectfully submits the enclosed Application to the North Dakota Public Service Commission (Commission) for a Certificate of Public Convenience and Necessity (CPCN) for the purpose of adding a 230/115 kV 336 MVA transformer to Xcel Energy's Prairie Substation in Grand Forks and to construct 1,100 feet of 230 kV transmission line to interconnect Xcel Energy's Prairie Substation in Grand Forks to Minnkota Power Cooperative's (Minnkota) Prairie Substation in Brenna Township.

The Project will provide for increased reliability of electric service in the Grand Forks area by preventing voltage violations that would require interrupting electric service to customers.

Consistent with Section 49-03-02(2) of the North Dakota Century Code, the Company respectfully requests that the Commission issue a CPCN for the Project if no other interested party has requested a hearing on this Application after receiving appropriate notice of the opportunity to request such a hearing.

Mr. Nitschke
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The enclosed Application provides support that the Company meets the standards necessary for the Commission to grant a CPCN for the Project. The Application addresses the Standard of Review, provides a Description of the Company and the Project, and describes the Project Need.

We look forward to working with the Commission on this filing.

Respectfully,

A handwritten signature in black ink, appearing to read "Matt Langan". The signature is fluid and cursive, with a long horizontal stroke at the end.

Matthew Langan
Senior Permitting Analyst
414 Nicollet Mall
Minneapolis, MN 55401

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF NORTH DAKOTA**

IN THE MATTER OF THE APPLICATION
OF NORTHERN STATES POWER
COMPANY FOR A CERTIFICATE OF
PUBLIC CONVENIENCE AND
NECESSITY FOR THE 230 KV
TRANSMISSION LINE TO
INTERCONNECT NORTHERN STATES
POWER COMPANY'S PRAIRIE
SUBSTATION TO MINNKOTA POWER
COOPERATIVE'S PRAIRIE SUBSTATION

CASE NO. PU-14-_____

**APPLICATION FOR CERTIFICATE OF
PUBLIC CONVENIENCE AND NECESSITY**

I. INTRODUCTION

Pursuant to North Dakota Century Code Chapter 49-03, Northern States Power Company, doing business as Xcel Energy, respectfully submits this Application to the North Dakota Public Service Commission (Commission) for a Certificate of Public Convenience and Necessity (CPCN) for the purpose of adding a 230/115 kV 336 MVA transformer to Xcel Energy's Prairie Substation in Grand Forks and to construct 1,100 feet of 230 kV transmission line to interconnect Xcel Energy's Prairie Substation in Grand Forks to Minnkota Power Cooperative's (Minnkota) Prairie Substation (Project).

The Project will provide for increased reliability of electric service in the Grand Forks area by preventing voltage violations that would require interrupting electric service to customers to avoid voltage collapse.

Consistent with Section 49-03-02(2) of the North Dakota Century Code, the Company respectfully requests that the Commission issue a CPCN for the Project if no other interested party has requested a hearing on this Application after receiving appropriate notice of the opportunity to request such a hearing.

The remainder of this Application provides support that the Company meets the standards necessary for the Commission to grant a CPCN for the Project. This Application will address:

- Standard of Review;
- Description of the Company;
- Description of the Project; and
- Project Need.

II. STANDARD OF REVIEW

Statutory Provisions

The statutory provisions governing the requirement for a public utility to file for and to obtain a CPCN are found in Title 49 of the North Dakota Century Code.

N.D.C.C. § 49-03-01. Certificate of public convenience and necessity – Secured by electric public utility.

1. An electric public utility may not begin construction or operation of a public utility plant or system, or of an extension of a plant or system without first obtaining from the commission a certificate that public convenience and necessity require or will require the construction and operation. This section does not require an electric public utility to secure a certificate for an extension within any municipality within which the electric public utility has lawfully commenced operations. If any electric public utility in constructing or extending its line, plant, or system, unreasonably interferes with or is about to interfere unreasonably with the service or system of any other electric public utility, or any electric cooperative corporation, the commission, on complaint of the electric public utility or the electric cooperative corporation claiming to be injuriously affected, after notice and hearing as provided in this title, may order enforcement of this section with respect to the offending electric public utility and prescribe just and reasonable terms and conditions.
2. An electric transmission provider may not begin construction or operation of an electric transmission line interconnecting with an existing electric transmission line owned or operated by an electric public utility without first obtaining a certificate that public

convenience and necessity require or will require the construction or operation.

N.D.C.C. § 49-03-01.1. Limitation on electric transmission and distribution lines, extensions, and service by electric public utilities. No electric public utility henceforth shall begin in the construction or operation of a public utility plant or system or extension thereof without first obtaining from the commission a certificate that public convenience and necessity require or will require such construction and operation, nor shall such public utility henceforth extend its electric transmission or distribution lines beyond or outside of the corporate limits of any municipality, nor shall it serve any customer where the place to be served is not located within the corporate limits of a municipality, unless and until, after application, such electric public utility has obtained an order from the commission authorizing such extension and service and a certificate that public convenience and necessity require that permission be given to extend such lines and to serve such customer.

N.D.C.C. § 49-03-02. Prerequisites to issuance of certificate of public convenience and necessity.

1. Before any certificate may issue under this chapter, a certified copy of the articles of incorporation or charter of the utility, if the applicant is a corporation, or a certified copy of the articles of organization of the utility, if the applicant is a limited liability company, must be filed with the commission. At the hearing on the application after notice as provided in this title, the utility shall submit evidence showing that the applicant has received the consent, franchise, permit, ordinance, or other authority of the proper municipality or other public authority, if required, or has or is about to make application for authority. The commission shall have the power, after notice and hearing, to:
 - a. Issue the certificate prayed for;
 - b. Refuse to issue the certificate;
 - c. Issue the certificate for the construction or operation of a portion only of the contemplated facility, line, plant, system, or extension of the same; or

- d. Issue the certificate for the partial exercise of the right or privilege sought, conditioned upon the applicant's having secured or upon the applicant's securing the consent, franchise, permit, ordinance, or other authority of the proper municipality or other public authority, and may attach to the exercise of the rights granted by any certificate terms and conditions as in the judgment of the commission the public convenience and necessity may require.
2. Notwithstanding any other provision of this section, the commission may grant a certificate if an interested party, including any local electric cooperative, has not requested a hearing on an application after receiving at least twenty days' notice of opportunity to request such hearing. In addition, the commission may not issue a certificate to an electric transmission provider for construction or operation of an electric transmission line that will interconnect with an electric transmission line owned or operated by an electric public utility if the electric public utility is willing and able to construct and operate a similar electric transmission line.
3. The commission may impose an application fee of up to one hundred twenty-five thousand dollars for an application under this chapter. With the approval of the emergency commission, the commission may impose an additional amount. The commission shall pay the expenses of processing an application under this chapter from the application fee paid by the public utility in accordance with section 49-02-02.

Under these statutes, the standard applied by the Commission is whether the proposed system addition is needed under all the circumstances and whether the applicant is qualified to implement the proposed system addition. As demonstrated in this application:

- The Project is necessary to: (i) prevent voltage violations that would force the Company to disrupt electric service to customers to avoid voltage collapse; and (ii) comply with applicable reliability standards.
- Xcel Energy is an experienced electric utility that owns and has constructed numerous transmission facilities. Xcel Energy has successfully done so in North Dakota. Xcel Energy's experience supports its ability to complete the Project.

Corridor Compatibility and Routing

The Project involves 1,100 feet of 230 kV transmission line, which is less than one mile, and therefore not a “Transmission Facility” as defined in the North Dakota Energy Conversion and Transmission Facility Siting Act. N.D.C.C. § 49-22-03(12)(a)(2) (exempting from the definition of Transmission Facility “[a] transmission line that is less than one mile . . . long”). Consequently, a Certificate of Corridor Compatibility and a Route Permit are not required for the Company to begin construction of the interconnection facilities for the Project. *See* N.D.C.C. § 49-22-07 (requiring permit before construction of Transmission Facility).

Because the Project interconnection facilities are not a Transmission Facility as defined by statute, the Company does not believe a request for jurisdictional determination is necessary. *See* N.D. Admin. Code 69-06-02.1. However, to the extent the Commission deems a jurisdictional determination to be necessary and appropriate, the Company respectfully requests that the Commission make such a determination based on the information provided in this Application, which meets the content requirements of N.D. Admin. Code 69-06-02.1-02.

Ten Factor Inquiry

The Commission has indicated that it considers ten (10) factors in determining whether to grant a CPCN for a new electric facility.¹ Below we provide our responses to each of these factors:

1. From whom does the customer prefer electric service?

No specific customer requested the Project, and the Project does not provide direct retail service. Rather, the Project aids Xcel Energy in providing bulk transmission service that can be used by many utilities and, ultimately, their retail customers.

2. What electric suppliers are operating in the general area?

The Project does not provide direct retail service in competition with any other retail electric suppliers in the area, but instead ensures reliable service to all.

¹ Testimony of Jerry Lein of the Commission staff, presented to the Interim Electric Industry Competition Committee, April 24, 2000.

3. What electric supply lines exist within a two-mile radius of the location to be served and when were they constructed?

Figure 1 in Section IV demonstrates the electric supply lines that surround the Project location. These lines have been in service for many years. Minnkota also has a 345 kV line under construction that will soon be complete.

4. What customers are served by electric suppliers within at least a two-mile radius of the location to be served?

The Project will not provide direct retail service. By avoiding the disruption of electric service and preventing voltage collapse, the Project provides reliable electric service to all.

5. What are the differences, if any, between the electric suppliers available to serve the area with respect to reliability of service?

Adding a transformer to Xcel Energy's Prairie Substation in Grand Forks and constructing a 230 kV transmission line interconnecting Xcel Energy's Prairie Substation in to Minnkota's Prairie Substation will increase reliability in the Grand Forks area. The Project will therefore assist all electric suppliers in the Grand Forks area by providing more reliable service.

6. Which of the available electric suppliers will be able to serve the location in question more economically and still earn an adequate return on its investment?

The Project does not provide direct retail service. Rather, the Project will result in increased reliability to all electric suppliers in the Grand Forks area.

7. Which supplier's extended electric service would best serve orderly and economic development of electric service in the general area?

The Project will not extend retail service. The Project is part of a plan to comply with NERC requirements and mitigate voltage violations in the Grand Forks area.

8. Would approval of the application result in wasteful duplication of investment or services?

No. The Project will provide more reliable electric service by significantly improving voltages and mitigating voltage violations on the transmission system. Accordingly, the Project would neither result in a duplication of facilities nor an

expansion of the Company's retail electric service territory. Furthermore, the Project does not duplicate the work performed by another electric utility.

9. Is it probable that the location in question will be included within the corporate limits of a municipality within the foreseeable future?

Xcel Energy's Prairie Substation is located within the corporate limits of Grand Forks, and the Minnkota Prairie Substation is located outside of Grand Forks. Accordingly, the 230 kV transmission line that will be built to interconnect the two substations will extend outside the corporate limits of Grand Forks.

10. Will the service of either of the electric suppliers in the area unreasonably interfere with the service or system of the other?

No. The Project will not provide retail service, and will not interfere with the service or systems of other electric suppliers.

In summary, the Project satisfies the relevant criteria of the ten-factor inquiry.

III. DESCRIPTION OF APPLICANT

Northern States Power Company is a Minnesota corporation duly authorized to do business in the State of North Dakota as a foreign corporation. The Company conducts business in the State of North Dakota as a public utility subject to the jurisdiction and regulation of the Commission pursuant to Title 49 of the North Dakota Century Code.

The full name and address of the Company is:

Northern States Power Company,
a Minnesota corporation
414 Nicollet Mall
Minneapolis, Minnesota 55401

The Company also operates in North Dakota from the following address:

Northern States Power Company,
a Minnesota corporation
2302 Great Northern Drive
Fargo, North Dakota 58102

Xcel Energy's most recent Articles of Incorporation, Certificate of Authority, and Certificates of Good Standing were filed with the Commission in Case No. PU-09-664 and are hereby incorporated by reference.

Xcel Energy has service territory in three Upper Midwest states including North Dakota. We presently serve approximately 89,000 retail electric customers in and around Fargo, Grand Forks, and Minot. The Company owns just over 250 miles of transmission lines and 14 substations in North Dakota.

IV. DESCRIPTION OF THE PROJECT

The Company seeks to add a 230/115 kV 336 MVA transformer to Xcel Energy's Prairie Substation in Grand Forks and to construct 1,100 feet of 230 kV transmission line to interconnect Xcel Energy's Prairie Substation in Grand Forks to Minnkota's Prairie Substation. The Company also seeks to transform the existing 115 kV six-position ring-bus configuration into a more reliable eleven element breaker-and-a-half configuration as a result of the added transformer and associated elements. As described below, the Project would address current voltage violations in the Grand Forks area, and allow the Company to provide service in compliance with applicable reliability standards without interrupting electric service to customers (load shedding) and avoid voltage collapse.

The Project site is located in Grand Forks County. A map of the overall Project location is depicted in Figure 1 below.

Figure 1: Project Location

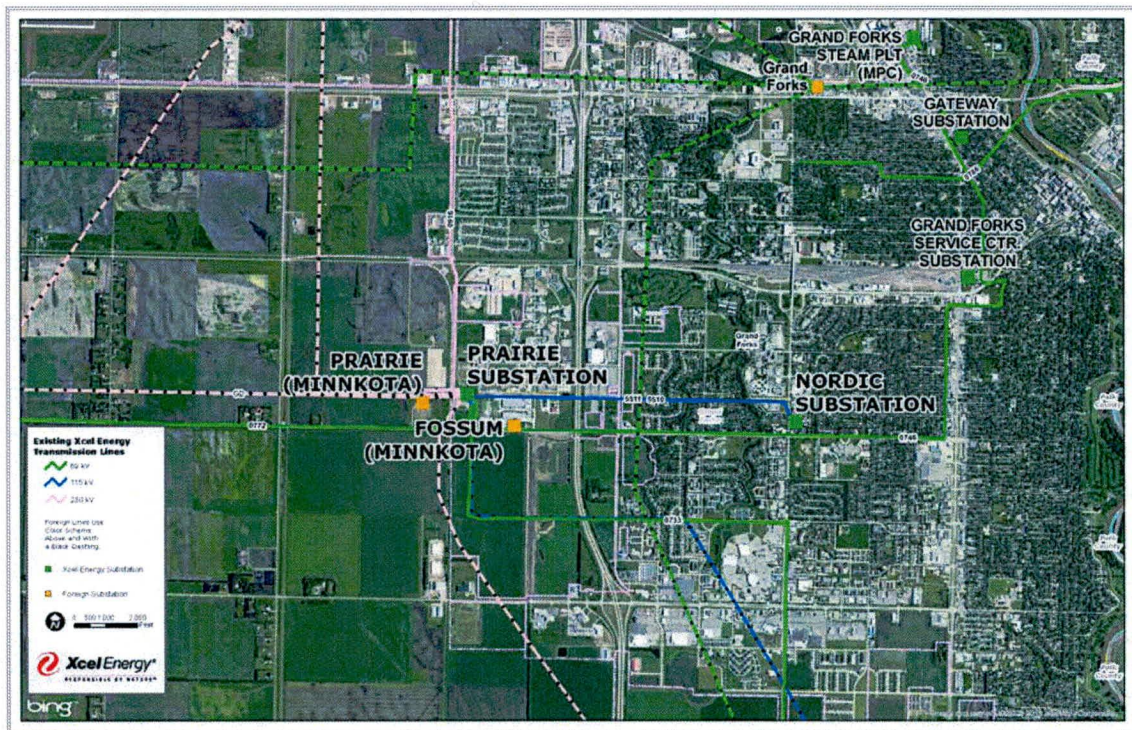
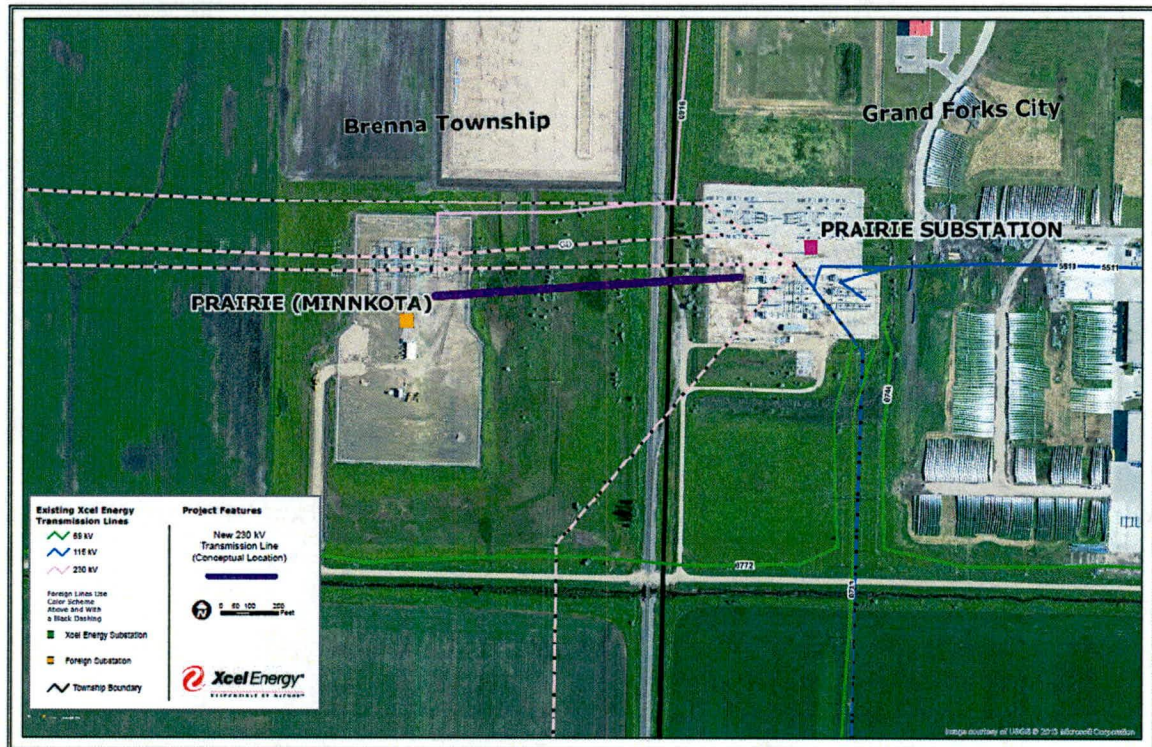


Figure 2 below depicts the Project in more detail, showing both substations and the 230 kV transmission line that will be constructed.

Figure 2: Project Detail



Project Timing and Costs

Construction of the Project is proposed to commence in late-spring/early-summer of 2014, beginning with site grading to expand the Company's Prairie Substation to accommodate for the new transformer. It is anticipated that the construction of the 230/115 kV 336 MVA transformer at Xcel Energy's Prairie Substation in Grand Forks will be complete in 2015. The construction of the 1,100 feet of 230 kV transmission line from Xcel Energy's Prairie Substation to Minnkota's Prairie Substation will begin simultaneously. It is anticipated that construction of the 230 kV transmission line will be complete in 2015. The construction for the transformation of the existing six-position ring-bus to an eleven element breaker-and-a-half would begin sequentially from the new transformer and line. It is anticipated that the construction of the eleven element breaker-and-a-half will be complete in 2016. These dates are approximate and subject to change depending on permitting and

other contingencies. The cost for the Project is estimated at approximately \$9 million to \$17 million, and will be paid by Xcel Energy.

V. NEED FOR PROJECT

2010 Voltage Stability Study

The 2010 Voltage Stability Study (2010 Study) conducted by Excel Engineering Inc. identified voltage and thermal violations in the Grand Forks area that would require load shedding to avoid voltage collapse, and thus cause an inconvenience to the public. The 2010 Study analyzed the 345, 230, 115, and 69 kV lines in the Grand Forks area, using standards from the MRO 2009 series MN TACT updated 2016 summer peak model. Based on these standards, the Study found voltage violations to consist of voltages below .92 and above 1.05, and thermal violations to consist of lines and transformers over 100% of rate A.

The 2010 Study concluded that the outage of both 230/115 kV transformers at Prairie substation (*i.e.*, double contingency event) would result in voltage and thermal violations. In order to avoid an uncontrolled black out in the Grand Forks area, the Company would have to interrupt the electric supply to customers in order to avoid voltage collapse in the area. As described below, the 2010 Study presented two proposed options to avoid load shedding in a double contingency event.

Grand Forks Load Serving Study

Xcel Energy Services conducted the Grand Forks Load Serving Study (Grand Forks Study) (attached as Appendix A) to evaluate the options to prevent the voltage problems in the Grand Forks area. The two options presented were to:

(1) Install a new 230/115 kV 336 MVA transformer at Xcel Energy's Prairie Substation. This option would also require interconnecting the Xcel Energy Prairie Substation and the Minnkota Prairie Substation with an 1,100 foot, 230 kV transmission line. This option would mitigate against the anticipated voltage problems.

(2) Install a new 230/115 kV transformer at Western Area Power Administration's ("WAPA") Grand Forks Substation. This option would require rebuilding the 69 kV transmission line between the Prairie Substation and Gateway Substation to a 115 kV transmission line.

The Grand Forks Study determined that Option (1) is the best solution to address the voltage problems in the Grand Forks area. The projected Option (1) median cost is \$13 million (+/- 30 percent). The projected median cost of Option (2)

is \$21 million. Both options sufficiently address the anticipated voltage deviations. The only benefit that Option (2) offers over Option (1) is that the Gateway substation load² would be upgraded from 69 kV to 115 kV, which would thereby unload the 115/69 kV transformers. This benefit is immaterial, however, because a need to convert the Gateway load has not yet been identified.

The results of the 2010 Study and the Grand Forks Study demonstrate that the Project is a cost-effective solution for rate payers. Moreover, the Project allows the Company to comply with applicable reliability standards in a double contingency event without disrupting electric service to customers. The Project therefore maintains the reliability of service to all electricity suppliers and their customers in the Grand Forks area.

VI. COMMUNICATIONS AND SERVICE LIST

We respectfully request that the following persons be placed on the Commission's official service list for all official communications in this case:

Dave Sederquist
Sr. Consultant, Regulation & Finance
Xcel Energy
2302 Great Northern Drive
Fargo, ND 58102

Matthew Langan
Senior Permitting Analyst
414 Nicollet Mall
Minneapolis, MN 55401

Alison Archer
Assistant General Counsel
Xcel Energy
414 Nicollet Mall
Minneapolis, MN 55401

² The Gateway substation is located between Grand Forks and East Grand Forks City.

VII. CONCLUSION

As demonstrated in this Application, the public convenience and necessity is met with the construction of the Project. The Project involves an extension of existing service territory nor duplicates facilities.

Therefore, we respectfully request that the Commission grant a Certificate of Public Convenience and Necessity for the Project. We further request, pursuant to N.D.C.C. § 49-03-02, that the Commission grant the requested Certificate not more than 20 days after a notice of opportunity for hearing issued in this proceeding, if no party requests a hearing. We have attached the Form of Notice of Opportunity for Hearing.

Please let us know if there is any other way we can assist the Commission in its review of this CPCN request.

Dated: March 14, 2014

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Matt Langan". The signature is stylized and cursive.

Matthew Langan
Senior Permitting Analyst
414 Nicollet Mall
Minneapolis, MN 55401