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September 1, 2017

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VIA FEDERAL EXPRESS

Darrell Nitschke
Executive Secretary
North Dakota Public Service Commission
Department 408
600 East Boulevard
Bismarck, ND 58505-0480

**Re: Applicant's Proposed Findings of Fact
Northern States Power Company
230 kV Transmission Line - McHenry & Ward Counties
Siting Application
Case No. PU-17-102
OAH Case No. 20170229**

Dear Mr. Nitschke:

On behalf of Northern States Power Company, doing business as Xcel Energy, enclosed for filing with the North Dakota Public Service Commission in the above referenced case, please find an original and ten copies of Applicant's proposed Findings of Fact, Conclusions of Law, and Order.

Sincerely,

Valerie T. Herring

Enclosures

cc: ALJ Timothy Dawson (via mail)
Illona Jeffcoat-Sacco (via email)
Zachary Pelham (via email)
Jerry Lein (via email)
Jack Schuh (via email)
Pat Fahn (via email)

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**Northern States Power Company
Minot Load Serving Project
Siting Application**

Case No. PU-17-102

**FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER
September 1, 2017**

Appearances

Commissioners Randy Christmann, Julie Fedorchak, and Brian Kroshus

Valerie Herring, Attorney, and Zeviel Simpser, Attorney, Briggs and Morgan, P.A., 220 IDS Center, 80 South 8th Street, Minneapolis, Minnesota 55402, on behalf of Applicant, Northern States Power Company, a Minnesota corporation (NSP).

Zachary Pelham, Special Assistant Attorney General, 314 East Thayer Avenue, P.O. Box 400, Bismarck, North Dakota 58502, on behalf of the Public Service Commission.

Timothy Dawson, Administrative Law Judge, Office of Administrative Hearings, 2911 North 14th Street-Suite 303, Bismarck, North Dakota 58503, as Procedural Hearing Officer.

Preliminary Statement

On March 13, 2017, NSP filed consolidated applications for a certificate of corridor compatibility and route permit for the construction of approximately 20.5 miles of 230 kV transmission line and associated facilities to be constructed from a proposed new substation, Magic City Substation, in Ward County near the City of Minot to the existing McHenry Substation in McHenry County near the City of Velva (Application).

Also on March 13, 2017, NSP filed an application for waivers of procedures and time schedules established under North Dakota Century Code sections 49-22-07.2, 49-22-08, 49-22-08.1, 49-22-13, and North Dakota Administrative Code section 69-06-01-02 and chapter 69-06-06, requiring separate filings, separate notices, and separate hearings on such applications.

On June 27, 2017, the Public Service Commission issued a Notice of Filings and Public Hearing and deemed the applications complete. The Commission scheduled the hearing for August 18, 2017 at 11:00 a.m. (CDT) at the Sleep Inn, 2400 10th Street SW, Minot, North Dakota on NSP's applications.

The Notice of Hearing identified the following issues to be considered on the application for waiver of procedures and time schedules:

1. Are the proposed facilities of such length, design, location, or purpose that they will produce minimal adverse effects and that adherence to applicable procedures and time schedules may be waived?
2. Is it appropriate for the Commission to waive any procedures and time schedules as requested in the application?

The Notice of Hearing identified the following issues to be considered on the application for a certificate of corridor compatibility and route permit:

1. Will the location and operation of the proposed facilities produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota?
2. Are the proposed facilities compatible with the environmental preservation and efficient use of resources?
3. Will the proposed facility locations minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion?

On August 18, 2017 at 11:00 a.m. (CDT), a public hearing was held as noticed in Minot, North Dakota. NSP presented four witnesses and two members of the public offered comments.

Also on August 18, 2017, NSP submitted an executed Certification Relating to Order Provisions — Transmission Facility Siting. (Hearing Exhibit 4),

Having allowed all interested persons an opportunity to be heard and having heard, reviewed, and considered all testimony and evidence presented, the Commission makes the following:

Findings of Fact

1. NSP is a Minnesota corporation duly authorized to conduct 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. NSP presently serves approximately 92,000 retail electric customers in North Dakota in and around Fargo, Grand Forks, and Minot. NSP owns just over 430 miles of transmission lines and 20 substations (69 kV and above) in North Dakota.
2. NSP proposes to construct a new approximately 20.5 mile long 230 kV transmission line from a proposed Magic City Substation to be located southeast of the

City of Minot in Ward County, North Dakota to the existing McHenry Substation located near the City of Velva in McHenry County (the Minot Project) as presented in its application and supporting hearing exhibits. NSP intends to commence construction of the Minot Project in the fall of 2017 provided all pre-construction permits and approvals are obtained. NSP anticipates that construction of the Minot Project will be complete by the end of 2018, with the removal of the existing 115 kV transmission line in the spring of 2019. NSP expects to place the new 230 kV transmission line and Magic City Substation in-service by the end of 2018.

3. The Minot Project is needed to meet the growing demand for electricity in the Minot area and to reinforce the reliability of the region's transmission system. NSP currently serves its entire load for the City of Minot from the Souris Substation via two 115 kV transmission lines that were built in the late 1950s and early 1960s. These lines are reaching capacity and experience low voltage conditions when certain elements of the system are out of service. In addition, the McHenry Substation 230/115 kV transformer also experiences overloads when certain elements of the transmission system are out of service. The Joint Minot Load Serving Study and Addendum concluded that the Minot Project is the most effective solution to address the near-term voltage issues and the long-term capacity issues in the Minot area.

4. The new 230 kV transmission line and new Magic City Substation will be constructed, owned, and maintained by NSP.

5. The McHenry Substation is owned by Great River Energy (GRE) and modifications to that substation to accommodate the new 230 kV line will be constructed and owned by GRE.

6. NSP proposed a corridor of 300 feet wide for the Minot Project. The proposed corridor includes the proposed Magic City Substation and extends southeast along the existing Souris-McHenry 115 kV transmission line to the McHenry Substation in McHenry County. A Class I Literature Search and Class III Cultural Resource Inventory of the Project corridor was conducted. The North Dakota State Historical Preservation Office concurred with the recommended finding of *No Historic Properties Affected* in a March 1, 2017 letter.

7. NSP selected the proposed route based on a number of factors including: input from landowners and federal, state, and local agencies; avoidance of wetlands; cultural sites and environmentally sensitive areas; compliance with Chapter 49-22 of the North Dakota Century Code and the Commission's siting rules; and feasibility from a design, construction, and access perspective.

8. The proposed route is located within the proposed corridor and extends southeast from the proposed Magic City Substation along the existing Souris-McHenry 115 kV line to the McHenry Substation. The proposed route deviates from the existing 115 kV line route in North Prairie Township in Ward County. In and around North Prairie Township, the proposed route diverges south and then east from the existing 115 kV transmission line route for approximately 4.2 miles to follow section and half-

section lines before rejoining the existing 115 kV transmission line route to the McHenry Substation.

Project Design

9. The new 230 kV transmission line will be constructed on single pole double circuit weathering steel structures with the existing 115 kV Souris-McHenry transmission line. The typical height of the single pole structures will range from 85 to 130 feet, depending on span length and topography. Once the new 230/115 kV transmission line has been constructed, the existing 115 kV line and wooden H-frame structures will be removed. Site specific conditions may require other structures to be used, such as structures having reduced or increased height or multiple pole structures.

10. The maximum span between structures will be approximately 1,000 feet and will vary depending on geological or engineering constraints. The typical right-of-way width that will be used during construction and maintained during the life of the Project is 125 feet.

11. The new 230/115 kV transmission line from the McHenry Substation will terminate at the proposed Magic City Substation. NSP has acquired 50 acres for the substation to accommodate transmission line interconnections and possible future expansion. Approximately 10 acres of the 50 acres will be fenced and developed for the Magic City Substation as part of this Project. Of the remaining 40 acres, approximately 10 acres will be used as a staging area during construction. A single 115 kV transmission line will exit the Magic City Substation and connect the 115 kV line to the existing Souris-McHenry 115 kV transmission line which serves the Souris Substation.

12. The proposed transmission line and associated facilities will be designed and constructed to meet or surpass all relevant state codes, standards of the National Electric Safety Code, and NSP standards.

13. The total cost of the Project is estimated to be approximately \$50.5 million (2018 dollars).

Siting Criteria

14. North Dakota Administrative Code, Chapter 69-06-08 sets forth certain criteria to guide the Commission in evaluating the suitability of granting an application for a Certificate of Corridor Compatibility and Route Permit for a transmission facility. The criteria as set forth in Section 69-06-08-02 are classified as Exclusion Areas, Avoidance Area, Selection Criteria, and Policy Criteria.

15. North Dakota Administrative Code 69-06-08-02 provides that Exclusion and Avoidance Areas may be located within a corridor, but at no given point may such an area encompass more than 50 percent of the corridor width unless there is no reasonable alternative.

16. North Dakota Administrative Code, Section 60-06-08-02 provides that a transmission facility route must not be sited within an Exclusion Area. A transmission facility route must not be sited within an Avoidance Area unless the Applicant shows under the circumstances there are no reasonable alternatives.
17. In accordance with the Commission's Selection Criteria, a corridor or route may be approved if it is demonstrated that any significant adverse impacts that will result from the location, construction, and maintenance of the transmission facility will be at an acceptable minimum or managed at an acceptable minimum.
18. In accordance with the Commission's Policy Criteria, preference may be given to an applicant demonstrating certain benefits from the adoption of certain policies and practices.
19. NSP submitted information in its Application, exhibits, and testimony at the August 18, 2017 hearings, concerning compliance with the Commission Exclusion and Avoidance Areas Criteria as applied to the proposed corridor and route.
20. NSP evaluated a corridor width of approximately 300 feet centered on the proposed route for Commission Exclusion and Avoidance areas.
21. At no point within the Project corridor does an Exclusion or Avoidance Area encompass more than 50 percent of the Project corridor width.
22. No exclusion areas are present within the Project corridor.
23. There are avoidance areas within the 300 foot Project corridor. Both the City of Velva wellhead protection area and the North Prairie Watershed District III are present within the Project corridor and the southern end of the proposed route. There is no reasonable alternative to bypass these avoidance areas. The proposed route in this area follows the route of the existing Souris-McHenry 115 kV transmission line. To bypass these two avoidance areas is not reasonable as it would require additional land use impacts when an existing transmission line is already present in these areas. In addition, NSP will use best management practices to minimize potential impacts to surface and ground water. One such practice that will be employed will be to avoid refueling construction equipment on and around wellhead protection area and watershed district to avoid contamination of the soil and groundwater.
24. NSP has performed a Class III Cultural Resource Inventory (pedestrian survey) of the Project corridor. The North Dakota State Historic Preservation Office has concurred with the survey's recommended finding of *No Historic Properties Affected*.
25. There are six residences within 500 feet of the centerline of the proposed route. The owners of these residences have consented to the location of the Minot Project within 500 feet of their residence and have executed a waiver of this routing Avoidance Area criteria. There are no businesses or schools within 500 feet of the proposed route.

26. NSP submitted information in its Application and through its testimony that any significant adverse effects from the location, construction, and maintenance of the transmission facility as they relate to the Selection Criteria listed at Section 69-06-08-02(3) of the North Dakota Administrative Code, will be at an acceptable minimum or will be managed and maintained at an acceptable minimum.

27. NSP submitted information in its Application and through its testimony at the hearing to demonstrate its commitment to maximize, to the extent possible, the benefits of the transmission facility to meet the Policy Criteria set forth in Section 69-06-08-02(4) of the North Dakota Administrative Code.

28. NSP will implement mitigation measures to minimize impacts from the construction, operation, and maintenance of the Project as described in Section 6.0 of the Application.

29. NSP will abide by the terms of the Certification Relating to Order Provisions — Transmission Facility Siting with accompanying Tree and Shrub Mitigation Specifications executed on August 9, 2017 by NSP as modified below.

30. NSP submitted information in its Applications and at the hearing that good cause exists to waive procedures, time, schedules, and public hearings otherwise required by the Siting Act.

Based on the foregoing, the Commission finds the proposed location of the route is appropriate, satisfies the Commission's selection criteria, will result in minimal adverse effects and should be approved.

From the foregoing Findings of Fact, the Commission now makes its:

Conclusions of Law

1. The Commission has jurisdiction over this proceeding under North Dakota Century Code Chapter 49-22.

2. The Project proposed by NSP is a transmission facility as defined in North Dakota Century Code Section 49-22-03(12).

3. The location, construction, and operation of the proposed Project will produce minimal adverse effects of the environment and upon the welfare of the citizens of North Dakota.

4. The Application submitted by NSP meets the corridor and route evaluation criteria required by Chapter 49-22 of the North Dakota Century Code.

5. The proposed transmission facility corridor and route will minimize adverse human and environmental impact while ensuring continuing system reliability and

integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion.

6. The proposed Project is compatible with the environmental preservation and the efficient use of resources.

7. It is appropriate for the Commission to approve a Project corridor of less than ten percent of its length and less than one mile.

From the foregoing Findings of Fact and Conclusions of Law, the Commission now makes its:

Order

The Commission Orders:

1. NSP's application for a waiver of procedures and time schedules is granted.
2. Certificate of Corridor Compatibility No. ____ is issued to NSP designating a corridor for the construction, operation, and maintenance of the proposed approximately 20.5 mile, 230 kilovolt electric transmission line to be located in Ward and McHenry counties in North Dakota. For purposes of the Certificate, the designated corridor is 300 feet wide centered on the electric transmission line route.
3. Route Permit No. ____ is issued to NSP granting authority to construct and operate an approximately 20.5 mile, 230 kilovolt electric transmission line in the route location as described in Exhibit 1, Appendix B.
4. The Certification Relating to Order Provisions — Transmission Facility Siting with accompanying Tree and Shrub Mitigation Specifications executed on August 9, 2017, is incorporated by reference and attached to this Order, except that NSP may cut the entire 150 foot width of the right-of-way through windbreaks, shelterbelts and all other wooded areas.

PUBLIC SERVICE COMMISSION

**Brain Kroshus
Commissioner**

**Randy Christmann
Chairman**

**Julie Fedorchak
Commissioner**