

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Case No. PU-09-670

**IN THE MATTER OF THE APPLICATION
OF MINNKOTA POWER COOPERATIVE,
INC., FOR A CERTIFICATE OF CORRIDOR
COMPATIBILITY AND ROUTE PERMIT TO
CONSTRUCT THE CENTER TO GRAND
FORKS 345 kV TRANSMISSION LINE
PROJECT IN OLIVER, MCLEAN,
BURLEIGH, SHERIDAN, WELLS, EDDY,
FOSTER, GRIGGS, STEELE, NELSON, AND
GRAND FORKS COUNTIES, NORTH
DAKOTA**

**MINNKOTA POWER COOPERATIVE, INC.'S CONSOLIDATED
APPLICATION FOR AN AMENDED CERTIFICATE OF
CORRIDOR COMPATIBILITY AND ROUTE PERMIT,
AND WAIVER OF PROCEDURES AND TIME SCHEDULES**

I. Introduction.

On September 7, 2011, the North Dakota Public Service Commission (Commission) issued its Order granting Certificate of Corridor Compatibility No. 121 (Certificate Order) to Minnkota Power Cooperative, Inc. (Minnkota) for its Center, North Dakota, to Grand Forks, North Dakota, 345 kV Transmission Line Project (Project). On April 25, 2012, the Commission issued its Order granting First Amended Certificate of Corridor Compatibility No. 121 and Route Permit No. 144 (together with the Certificate Order, hereinafter referred to as the Order) to Minnkota for the Project. Following issuance of the Order, one of the landowners whose property is crossed by the Project requested a route alignment adjustment that would place the route outside of the corridor approved for the Project. In order to accommodate the landowner's request, Minnkota submits this application for an amended Certificate of Corridor Compatibility and an amended Route Permit for the Project.

In addition, Minnkota requests a waiver or reduction of procedures and time schedules set forth in Chapter 49-22 of the North Dakota Century Code and Article 69-06 of the North Dakota Administrative Code. In accordance with Section 49-22-07.2 of the North Dakota Century Code and Chapter 69-06-06 of the North Dakota Administrative Code, Minnkota requests that the Commission waive or reduce the following requirements:

1. The requirements of Sections 49-22-08 and 49-22-08.1 of the North Dakota Century Code insofar as these sections may require the separate filing of applications for an amended Certificate of Corridor Compatibility and an amended Route Permit, and insofar as they require separate publication of notices of filing said applications.
2. The requirements of Sections 49-22-08, 49-22-08.1 and 49-22-13 of the North Dakota Century Code and Chapter 69-06-01-02 of the North Dakota Administrative Code insofar as these sections may require that the Commission hold a public hearing on an application for an amended Certificate of Corridor Compatibility and/or an application for an amended Route Permit. Instead, Minnkota requests that the Commission issue a notice of opportunity for hearing and publish it in the official newspaper of McLean County, North Dakota, the county in which the proposed corridor and route modification is located.

In support of its application, Minnkota submits herewith the Affidavits of Michael Hennes and Brian Hunker. Additional information regarding Minnkota's requested corridor and route modification, and its waiver request, is provided in the following sections.

II. Requested Modification and Compliance With Siting Criteria.

Minnkota's proposed corridor and route modification is discussed in more detail in Section A below. Information regarding the Commission's siting criteria, as applied to the proposed modification, is provided in Section B below.

A. Proposed Corridor and Route Modification.

The owner of the NW/4 of Section 13 and the NE/4 of Section 14, Township 143 North, Range 80 West, in McLean County, North Dakota, has requested that Minnkota adjust the route in order to maximize the distance from an area that the landowner has identified as a potential building site in the northeast corner of the SE/4 of Section 14. Hennes Aff., ¶ 3. The route modification requested is outside of the approved corridor. *Id.* at ¶ 4. To accommodate the landowner's request, Minnkota asks that the Commission approve the route and corridor modification depicted on the map provided as Exhibit 1 to the Affidavit of Michael Hennes (Hennes Aff.). As shown on Exhibit 1, the proposed modification would be located entirely within the NW/4 of Section 13 and the NE/4 of Section 14, and, as such, would not affect other landowners. *See also* Hennes Aff., ¶ 6. In addition to maximizing the distance from a potential building site, the proposed modification will enable Minnkota to place structures on the edge of the tilled portion of the landowner's property, reduce the number of structures required, slightly reduce the length of the Project, and reduce Project construction costs. *Id.* at ¶¶ 7, 10. The landowner has executed an easement in favor of Minnkota consistent with the proposed modification. *Id.* at ¶ 8.

B. Compliance with Siting Criteria.

The proposed corridor and route modification complies with the Commission's siting criteria set forth in Section 69-06-08-02 of the North Dakota Administrative Code. Information

regarding the exclusion areas and avoidance areas present within the proposed corridor and route modification, as well as information regarding the selection criteria and policy criteria as they relate to the proposed modification, is provided below.

1. Exclusion Areas.

Per Section 69-06-08-02(1) of the North Dakota Administrative Code, the geographical areas listed in Table 1 shall be excluded in the consideration of a route for a transmission facility, and shall include a buffer zone of reasonable width to protect the integrity of the area. As shown in Table 1, no exclusion areas are located within the proposed corridor and route modification. See Affidavit of Brian Hunker (Hunker Aff.), ¶¶ 4-6 and Exhs. A and B; see also Hennes Aff, Exh. 1.

Table 1. Exclusion Areas – Corridor and Route Modification

Geographic Area	Present within Modification	Proposed Buffer
Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; monuments; and wilderness areas	Not present within corridor or route modification.	No impacts are anticipated and no buffer is proposed.
Designated or registered state: parks; historic sites; monuments; historical markers; archaeological sites; and nature preserves	Not present within corridor or route modification.	No impacts are anticipated and no buffer is proposed.
County parks and recreational areas; municipal parks; and parks owned or administered by other governmental subdivisions	Not present within corridor or route modification.	No impacts are anticipated and no buffer is proposed.
Areas critical to the life stages of threatened or endangered animal or plant species	Not present within corridor or route modification.	No impacts are anticipated and no buffer is proposed.
Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged	Not present within corridor or route modification.	No impacts are anticipated and no buffer is proposed.

2. Avoidance Areas.

Per Section 69-06-08-02(2) of the North Dakota Administrative Code, the geographical areas listed in Table 2 shall not be considered in the routing of a transmission facility unless the applicant shows that under the circumstances there is no reasonable alternative. In determining whether an avoidance area should be designated for a facility, the Commission may consider, among other things, the proposed management of adverse impacts; orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative routes. As set forth in Table 2, with the exception of rural water pipelines, which may be present but are not anticipated to be impacted, no avoidance areas are located within the proposed corridor or route modification. *See Hunker Aff., ¶¶ 4-5, 7 and Exhs. A and B; see also Hennes Aff., Exh. 1.*

Table 2. Avoidance Areas – Corridor and Route Modification

Avoidance Area	Present within Modification	Proposed Buffer
Designated or registered national: historic districts; wildlife areas; wild, scenic or recreational rivers; wildlife refuges; and grasslands	Not present within corridor or route modification.	No impacts are anticipated and no buffer is proposed.
Designated or registered state: wild, scenic, or recreational rivers; game refuges; game management areas; management areas; forests; forest management lands; and grasslands	Not present within corridor or route modification.	No impacts are anticipated and no buffer is proposed.
Historical resources which are not specifically designated as exclusion or avoidance areas	Not present within corridor or route modification.	No impacts are anticipated and no buffer is proposed.
Areas that are geologically unstable	Not present within corridor or route modification.	No impacts are anticipated and no buffer is proposed.
Within 500 feet of a residence, school, or place of business	Not present within corridor or route modification.	No impacts are anticipated and no buffer is proposed.
Reservoirs and municipal water supplies	Not present within corridor or route modification.	No impacts are anticipated and no buffer is proposed.
Water sources for organized rural water districts	Rural water pipelines may potentially be present.	No impacts are anticipated and no buffer is proposed.
Irrigated land.	Not present within corridor or route modification.	No impacts are anticipated and no buffer is proposed.
Areas of recreational significance which are not designated as exclusion areas	Not present within corridor or route modification.	No impacts are anticipated and no buffer is proposed.

3. Selection Criteria.

Per Section 69-06-08-02(3) of the North Dakota Administrative Code, a corridor shall be designated only when it is demonstrated to the Commission by the applicant that any significant adverse effects resulting from the location, construction, and maintenance of the facility, as they relate to the Commission’s selection criteria, will be at an acceptable minimum or that those effects will be managed and maintained at an acceptable minimum. Table 3 addresses the selection criteria as they relate to the proposed corridor and route modification. *See Hunker Aff, Exh. B.*

Table 3. Selection Criteria – Corridor and Route Modification

Selection Criteria	Potential Adverse Effects
The impact upon agriculture:	
Agricultural production	Permanent impacts will occur as a result of structure placement and reduced tillage in cropland; impacts are approximately 78.5 square feet per structure. Temporary construction impacts such as soil compaction and crop damage will likely occur; approximately 2,827 square feet per structure. Minnkota will work with the landowner to minimize impacts to land.
Family farms and ranches	Minnkota will work with the landowner to minimize impacts to land and farming and/or ranching operations.
Land which the owner can demonstrate has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation	No irrigated lands are present within the modification. It is likely land economically suitable for irrigation is present within the route; however, Minnkota will work with the landowner to minimize impacts to land.
Surface drainage patterns and ground water flow patterns	No impacts are anticipated to rivers, streams, or drainageways. The removal of soil and groundwater at each structure location is not anticipated to impact local groundwater flow patterns due to the temporary and small-scale nature of the removal. To minimize impacts during construction, a National Pollutant Discharge Elimination System (NPDES) permit and a Storm Water Pollution Prevention Plan (SWPPP) have been prepared and a Notice of Intent (NOI) submitted to the North Dakota Department of Health. The Project will follow the sediment and erosion control best management practices (BMPs) outlined in the SWPPP.

Selection Criteria	Potential Adverse Effects
The impact upon:	
Noise-sensitive land uses	Nearby homes may experience short-term effects during construction such as elevated noise levels and increased vehicle traffic. However, no noise impacts are anticipated during Project operation.
The visual effect on the adjacent area	The transmission line will be visible to individuals traveling on adjacent roads and to residences and landowners that live close to the transmission line and substations.
Extractive and storage resources	One previously used gravel pit is located within the Project corridor modification. The route modification does not cross this gravel pit area and impacts will be avoided.
Wetlands, woodlands, and wooded areas	No wetlands or waterbodies within the proposed corridor and route modification will be permanently impacted by the Project. No tree stands are located within the route modification. Areas containing shrubs of buffalo berry and Russian olive are located within the route modification and will be cleared prior to construction. These areas will be inventoried and if the ground is disturbed where the shrubs cannot regenerate naturally, they will be replaced per the Project's replacement plan.
Radio and television reception and other communication or electronic control facilities	No communication towers are located in the modification. No impacts anticipated.
Human health and safety	Once construction is complete, the transmission line will span all roads and therefore will not impede emergency services. Minnkota conducted an analysis of electric and magnetic field (EMF) calculated levels for the Project (reference the Certificate of Corridor Compatibility application public hearing Exhibit No. 11). Results of the analysis show that calculated EMF levels for maximum operating conditions and normal operating conditions are below published guidelines. Minnkota will design the Project to meet National Electric Safety Code (NESC) standards. Safety concerns related to electric fields are sufficiently addressed by adherence to the NESC. No additional mitigation is required or anticipated.
Animal health and safety	No impacts to livestock are anticipated. Impacts to wildlife populations are expected to be minimal. Potential avian collisions may occur, but are anticipated to be relatively small. Minnkota has committed to marking the shield wires in select areas and designing the line and structures per APLIC guidelines.
Plant life	The Project area is primarily agricultural in nature. Permanent impacts to plant life will occur at structure locations and areas of tree clearing. Areas of temporary construction impacts will be restored. Impacts to individual trees would be replaced at a ratio of 2:1.

4. Policy Criteria.

Per Section 69-06-08-02(4) of the North Dakota Administrative Code, the Commission may give preference to an applicant that will maximize benefits that result from the adoption of the following policies and practices, and in a proper case may require the adoption of such policies and practices. Table 4 addresses the policy criteria as they relate to the proposed corridor and route modification. *See Hunker Aff., Exh. B.*

Table 4. Policy Criteria – Corridor and Route Modification

Policy Criteria	Suitable Policy or Practice of Applicant
Location and design	Minnkota's policy is to locate and design to minimize environmental impacts and utilize existing corridors.
Training and utilization of available labor in this state for the general and specialized skills required	Minnkota has discussed with construction contractors the use of local labor and will compile a listing of available local labor for use during construction.
Economies of construction and operation	Minnkota is utilizing specialty contractors with proven experience in large transmission projects. Economy is obtained by originating and terminating into existing jointly owned substation facilities.
Use of citizen coordinating committees	Minnkota is coordinating with the owner of property at issue to site the transmission line. A citizen coordinating committee is not necessary.
A commitment of a portion of the transmitted product for use in this state	Energy transmitted by the Project will be used in Minnkota's service territory, which includes North Dakota.
Labor relations	No labor relations will be affected.
Coordination of facilities	Minnkota has coordinated and will continue to coordinate with area utilities regarding the location of the facilities to maximize benefits and minimize duplication of efforts.
Monitoring of impacts	Minnkota will monitor BMPs utilized during construction to minimize environmental impacts and will monitor construction compliance with the commitments made in its applications to the Commission and applicable permit conditions, including the Commission's Order.
Utilization of existing and proposed rights-of-way and corridors	One of the primary goals in locating the corridor was to maximize use of existing rights-of-way, corridors, and field breaks, to the extent practical.
Other existing or proposed transmission facilities	Paralleling opportunities were utilized to the extent practical.

Minnkota's environmental policies are consistent with the Commission's policy criteria outlined above. *See also* Section 3.4 of Minnkota's Certificate of Corridor Compatibility application and Route Permit application.

Since the proposed corridor and route modification is within the wider macro-corridors that were analyzed during the corridor selection process, the environmental analysis in Section 5.0 of the Certificate of Corridor Compatibility application, and the figures provided in said application, are applicable to the proposed modification. That information further supports the determination that Minnkota's proposed modification complies with the applicable siting criteria.

III. Waiver Request.

Consistent with the Commission's Energy and Transmission Facility Siting Guidelines, Minnkota provides the following information in support of its waiver request:

A. Project Description.

1. Type.

Minnkota is constructing, and will own and operate, an approximately 250-mile-long, 345 kV transmission line extending from the existing Center 345 kV Substation at the Milton R. Young Unit 2 Generation Station (Young 2) located about 4.5 miles southeast of the town of Center, North Dakota, in Oliver County, to the existing Prairie Substation located on the western boundary the city of Grand Forks, North Dakota, in Grand Forks County. *See* Order, p. 3, ¶ 2.

2. Product.

The Project will connect base load power acquired from the Young 2 coal-fired electric generation facility to Minnkota's service territory. *See* Order, p. 3, ¶ 4.

3. Size and Design.

The Project consists of approximately 250 miles of 345 kV transmission line, associated structures, conductors, shield wires, and other components, as well as certain upgrades and/or modifications to substations and other existing facilities. *See* Order, pp. 4-5, ¶¶ 9-11.

4. Location.

The Project will extend from the Center 345 kV Substation (near Young 2) near Center, North Dakota, to the Prairie Substation located on the western boundary of the city of Grand Forks, North Dakota. *See* Order, p. 3, ¶ 2. The proposed corridor and route modification is located in the NW/4 of Section 13 and the NE/4 of Section 14, Township 143 North, Range 80 West, in McLean County, North Dakota. *Hennes Aff.*, ¶¶ 3-5.

5. Geographical Service Area.

The proposed 345 kV transmission line will provide wholesale electric service to eleven retail/member-owner distribution cooperatives, which are the members and owners of Minnkota. The member systems' service areas encompass approximately 35,000 square miles in the eastern third of North Dakota and northwestern Minnesota, serving more than 120,000 retail customers. *See* Order, p. 3, ¶ 1.

6. Time Schedule.

Minnkota has begun construction of the Project, and anticipates that the Project will be commissioned and in-service in the fourth quarter of 2013. *Hennes Aff.*, ¶ 11. Minnkota plans to begin clearing activities for the portion of the Project where the proposed corridor and route modification is located as soon as possible, with foundation and structure installation to be completed in 2013. *Id.* at ¶ 12.

7. Future Plans.

Minnkota has no specific plans for future upgrades or modifications to the Project at this time. The Project utilizes a base design that will accommodate the output capacity of Young 2, with sufficient margins for outage contingencies. Although the base design will afford a certain amount of additional transmission capacity, future modifications and/or improvements may be required in order to accommodate interconnection requests, and the parties requesting interconnection would be financially responsible for any system upgrades or modifications required to facilitate interconnection. However, any future modifications would not involve structure changes or double-circuiting of the Project. *See* the Testimony of Al Tschepen and Timothy Bartel during the public hearings on Minnkota's Certificate of Corridor Compatibility application (held June 16, 12, and 24, 2011), and the testimony of Michael Hennes during the public hearings on Minnkota's Route Permit application (held February 22 and 27, and March 1, 2012).

B. Need for Facility.

Over the past ten years, Minnkota's load has grown at a rate of 2.9 percent annually (*see* Minnkota's Alternative Evaluation Study, in Appendix A to its Certificate of Corridor Compatibility application). In addition, Minnkota's 2009 Load Forecast Study showed that load will continue to grow at a rate of approximately 1.9 percent annually over the next 25 years (Minnkota 2010a). In order to adequately serve this future load growth, Minnkota must increase its base load generation resources. In particular, additional base load generation is needed by the winter of 2013 to address an increased need for electricity to serve new residences, commercial accounts, and pipeline pumping projects (Minnkota 2010a).

To address the need for additional base load generation resources, Minnkota will acquire additional generation from Young 2 in early 2013 and eventually acquire all of the Young 2 output. The Project will facilitate delivery of the additional base load generation from Young 2 to Minnkota's service territory. For additional analysis of the need for the Project, including further discussion of the alternatives evaluated and the system studies that support the need for the Project, please see Sections 2.0 of Minnkota's Certificate of Corridor Compatibility and Route Permit applications for the Project. Also see the Testimony of Al Tschepen and Timothy Bartel during the public hearings on Minnkota's Certificate of Corridor Compatibility application (held June 16, 12, and 24, 2011), and the testimony of Michael Hennes during the public hearings on Minnkota's Route Permit application (held February 22 and 27, and March 1, 2012).

The Project is consistent with Minnkota's 2012-2022 Ten-Year Plan. *See* Minnkota Power Cooperative, Inc.'s 2012-2022 Ten-Year Plan, Docket No. PU-12-252, filed June 5, 2012; *see also* Hennes Aff., ¶ 9.

C. Cost.

The proposed route modification will reduce Project construction costs by approximately \$601,370. Hennes Aff., ¶ 10.

D. Waiver Request.

The waivers of procedures and time schedules requested are necessary so that Minnkota is able to complete clearing of the right-of-way within the modified portion of the Project route as soon as possible and outside of the avian breeding and nesting seasons. *See* Hennes Aff., ¶ 13; Hunker Aff., ¶ 8. Doing so will enable Minnkota to minimize or avoid potential impacts to

avian species, as well as to maintain its 2013 construction schedule, which is essential to completing the Project in a timely and efficient manner. *See* Hennes Aff. ¶ 13; Hunker Aff., ¶ 8.

Section 49-22-07.2 of the North Dakota Century Code provides that the Commission may waive procedures and time schedules upon a finding that “the proposed facility is of such length, design, location, or purpose that it will produce minimal adverse effects.” Granting the waivers requested is appropriate because the Commission has already issued a Certificate of Corridor Compatibility and Route Permit for the Project; thus, it has been determined that the Project will produce minimal adverse effects. In addition, granting the requested corridor and route modification will accommodate the landowner’s request to maximize the distance from a potential building site, allow structures to be placed on the edge of the tilled portion of the landowner’s property, reduce the number of structures required, slightly reduce the Project length, and reduce Project construction costs. *See* Hennes Aff., ¶¶ 3, 7, 10.

Furthermore, the documentation of environmental and cultural resource studies and analyses conducted for the proposed corridor and route modification demonstrates that there will be minimal adverse effects due to the modification, and that the proposed modification complies with the exclusion and avoidance area criteria set forth in Section 69-06-08-02 of the North Dakota Administrative Code. *See* Hunker Aff., ¶¶ 5-7 and Exhs. A and B; *see also* Hennes Aff., Exh. 1. As such, the requested modification also complies with the requirements of Section 69-06-05-02(2) of the North Dakota Administrative Code.

Accordingly, Minnkota respectfully requests that the Commission grant the requested waivers and reductions of procedures and time schedules, approve the requested corridor and route modification, and issue an order granting an amended Certificate of Corridor Compatibility and Route Permit for the Project.

