

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**Minnkota Power Cooperative, Inc.
345 kV Transmission Line – Center to Grand Forks
Siting Application**

Case No. PU-09-670

FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

March __, 2012

Appearances

Commissioners Tony Clark, Kevin Cramer, Brian P. Kalk.

Mollie M. Smith, Fredrikson & Byron, P.A., 200 North 3rd Street, Suite 150, Bismarck, North Dakota 58501-3879, on behalf of the Applicant, Minnkota Power Cooperative, Inc.

Gerad Paul, Senior Attorney – Assistant General Counsel, Minnkota Power Cooperative, Inc., 1822 Mill Road, PO Box 13200, Grand Forks, North Dakota 58208-3200, on behalf of the Applicant, Minnkota Power Cooperative, Inc.

Matthew Sagsveen, Assistant Attorney General, North Dakota Office of Attorney General, 600 E. Boulevard, Dept. 125, Bismarck, North Dakota 58505, on behalf of the North Dakota Public Service Commission.

Allen C. Hoberg, Administrative Law Judge, Office of Administrative Hearings, 2911 North 14th Street, Suite 303, Bismarck, ND 58503, as Procedural Hearing Officer.

Preliminary Statement

On September 7, 2011, the North Dakota Public Service Commission (Commission) issued Findings of Fact, Conclusions of Law and Order designating a corridor (Project Corridor) and issuing Corridor Certificate No. 121 to Minnkota Power Cooperative, Inc. (Minnkota), for the Center to Grand Forks 345 kV Transmission Line Project (Project).

On December 2, 2011, Minnkota filed its Application for a Route Permit, Case No. PU-09-670 (Application), requesting that the Commission issue a route permit for the route identified in the Application. Minnkota also filed a Request for Modification of the Project Corridor and for Waiver of Procedures and Time Schedules, in which Minnkota requested that the Commission (1) approve modifications of the Project Corridor in five locations to accommodate routing requests from landowners, agencies and others, and (2) grant waivers of procedures and time schedules so as to allow the

corridor modification requests to be considered in conjunction with Minnkota's Application.

On January 18, 2012, the Commission issued a Notice of Filing and Notice of Hearings setting public hearings. Pursuant to the Notice, the public hearings were scheduled as follows:

- February 22, 2012, 9:00 a.m. at Memorial Hall, 805 Main Ave., Washburn, ND 58577;
- February 27, 2012, 9:00 a.m. in the Baker Courtroom at the UND School of Law, 215 Centennial Drive Stop 9003, Grand Forks, ND 58201;
- March 1, 2012, 9:00 a.m. at the Chieftain Conference Center Tepee Room, 60 4th Ave. S., Carrington, ND 58204.

The Notice identified the following issues to be considered:

1. Will the location, construction, 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 the 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?
4. Is it appropriate for the Commission to approve a 1,000 footwide corridor as requested in the application?

On January 20, Minnkota filed a letter regarding a minor adjustment to one of the five corridor modifications previously requested and four minor right-of-way adjustments made to accommodate landowner routing requests or avoid cultural resources.

On February 15, 2012, Minnkota filed a revised plan and profile set depicting the proposed final structure locations.

Public hearings on Minnkota's Application were held as scheduled on February 22, 2012 at Washburn, North Dakota, February 27, 2012 at Grand Forks, North Dakota, and March 1, 2012 at Carrington, North Dakota.

On March 16, 2012, Minnkota filed the following late-filed exhibits: Exhibit R (addressing the Jeff Topp re-route request); Exhibit S (addressing the Lund re-route request); Exhibit U (addressing section line and road right-of-way issues); Exhibit V

(addressing the Weber re-route request); and Exhibit W (addressing the Weikum re-route request and cultural resources within the Brantford Townsite).

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. Minnkota is a wholesale electric generation and transmission cooperative headquartered in Grand Forks, North Dakota. Minnkota was incorporated under the laws of the State of Minnesota and is authorized to do business in the State of North Dakota. Minnkota provides wholesale electric service to 11 retail/member-owner distribution cooperatives. 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.

2. Minnkota proposes to construct and operate a transmission line project known as the Center to Grand Forks 345 kV Transmission Line Project. The Project consists of approximately 250 miles of new, high voltage alternating current (AC) transmission line extending from the existing Center 345 kV Substation at the Milton R. Young Unit 2 (Young 2) Generation Station 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 of the city of Grand Forks, North Dakota, in Grand Forks County.

3. The Project will be constructed, owned and maintained by Minnkota. The Project will be located in Burleigh, Oliver, McLean, Sheridan, Wells, Eddy, Foster, Griggs, Steele, Nelson and Grand Forks Counties.

4. The Project is needed in order to provide Minnkota with access to the base load generation provided by the Young 2 Generation Station, and to address grid reliability issues in and around Minnkota's service territory.

5. The United States Department of Agriculture (USDA), Rural Utilities Service (RUS), as a federal agency, is required to complete an environmental review of the Project under the National Environmental Policy Act (NEPA) prior to approving Minnkota's request for funding. As part of the NEPA review process, the RUS prepared an Environmental Assessment (EA) with Scoping for the proposed Project, which was issued on November 12, 2010. On February 29, 2012, the RUS executed a Finding of No Significant Impact (FONSI) for the Project.

6. Minnkota selected the proposed route based on a number of factors, including: input from landowners and agencies; minimizing environmental impacts through measures such as avoidance of wetlands, cultural sites and environmentally sensitive areas; wind developer recommendations; compliance with Chapter 49-22 of the North

Dakota Century Code and the Commission's siting rules; and feasibility from a design and construction perspective.

7. During the route selection process, the federal, state and local departments, agencies and entities who were consulted by and provided feedback to Minnkota regarding the Project include:

- a. Federal Agencies – RUS; Federal Aviation Administration; United States Army Corps of Engineers (USACE) Omaha District, North Dakota Regulatory Office; United States Fish and Wildlife Service (USFWS), North Dakota Ecological Services; USDA, Natural Resources Conservation Service; United States Department of the Interior – National Park Service;
- b. State Agencies – State Historical Society of North Dakota, State Historic Preservation Office (SHPO); North Dakota Parks and Recreation Department; North Dakota Game and Fish Department; North Dakota Department of Health; North Dakota Department of Transportation; North Dakota State Water Commission; Job Service North Dakota; North Dakota Department of Trust Lands;
- c. Local Entities – County Commissioners; Township Commissioners; Grand Forks International Airport; the University of North Dakota School of Aerospace Sciences; the Grand Forks Prairie Partners; Audubon Dakota.

8. Agency consultations and comments were included within the Application (see Section 7.11 and Appendix G), as well as in the exhibits and the testimony presented at the public hearings. Although comments and suggestions were provided by various agencies, no objections to the proposed Project were raised by any state or federal agencies or any local governmental entities.

Project Design

9. The majority of the Project will be constructed using single-pole, self-supporting, self-weathering steel, single circuit structures placed on drilled pier foundations. The typical structures will range in height from approximately 95-180 feet. The typical span between the structures will be approximately 1,000 feet. The Project will also utilize specialty structures at the Missouri River crossing (three pole steel structures) and south of the Grand Forks International Airport (two pole H-Frame wood or steel structures), which will range in height from approximately 62 feet near the Airport to up to 205 feet near the Missouri River. None of the structures will require guy wires.

10. The Project will include three sets of phase conductors. Each conductor will consist of two 959.6 kcmil (thousand circular mils) Suwannee TW (trapezoidal wire) type

ACSR (aluminum conductor steel reinforced) cables, and will have an outside diameter of 1.1 inches. The Project will also have two shield wires, also known as lightning protection wires, one of which will be fiber optical ground wire (OPGW), while the other will be 0.5-inch Extra High Strength (EHS) steel cable.

11. Associated facilities will include upgrades or additions to the Center 345 kV Substation, the Square Butte 230 kV Substation, the Prairie 345 kV Substation, and an existing 230 kV Tie Line. A new 230 kV Tie Line between the Center 345 kV Substation and the Square Butte 230 kV Substation will also be constructed. The Project will also include four fiber optic regeneration stations, temporary laydown areas, and may include additional temporary areas for staging and concrete batch plants.

12. The majority of the Project right-of-way will be 150-foot-wide. In some limited instances, where specialty structures are required for long spans, additional right-of-way may be needed.

13. The proposed Project will be designed and constructed to meet or surpass all applicable regulations, standards, and guidelines, including State codes, RUS guidelines, the National Electric Safety Code (NERC), the Institute of Electrical and Electronics Engineers standards, and Minnkota's standards. The Project will also be designed and constructed in accordance with the practices recommended by the Avian Power Line Interaction Committee.

14. Construction of the proposed Project is expected to begin in the spring of 2012 and is anticipated to take approximately twenty months to complete. The Project is anticipated to be in-service by the fourth quarter of 2013.

15. The total cost of the Project is estimated to be \$312 million.

16. Project benefits include: providing Minnkota and its member-owner distribution cooperatives with access to additional low-cost base load generation to serve increasing load in their service territories; improving grid reliability; generating long-term state and local tax revenue; providing construction-related jobs, including approximately 40-60 local hire opportunities; and stimulus to local economies in the form of expenditures for products and services.

Project Corridor Modifications

17. Minnkota proposed a total of six modifications to the Project Corridor in order to accommodate routing requests from landowners, agencies and others (five prior to the public hearings, and one in late-filed Exhibit S). Minnkota conducted wetland delineations and Class I and Class III cultural resource inventories, as necessary, on each of the proposed modifications.

18. 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. The criteria set forth in North Dakota Administrative Code Section 69-06-08-02 are classified as Exclusion Areas, Avoidance Areas, Selection Criteria, and Policy Criteria. Exclusion Areas and Avoidance Areas may be located within a corridor, but may not encompass more than fifty percent of the width of the corridor at any location unless there is no reasonable alternative. With respect to the Commission's Selection Criteria, a corridor for a transmission facility shall be approved only if it is demonstrated that any significant adverse effects that will result from the location, construction, and maintenance of the facility, as they relate to the Selection Criteria, will be at an acceptable minimum or managed and maintained at an acceptable minimum. In accordance with the Commission's Policy Criteria, preference may be given to an applicant who will maximize certain benefits of the transmission facility.

19. No exclusion areas are located within the proposed Project Corridor modifications.

20. Avoidance Areas located within the proposed Project Corridor modifications are as follows:

- a. One previously recorded cultural resource is located within the proposed Project Corridor modifications. The cultural resource will be avoided during construction.
- b. One occupied home is located within the proposed Project Corridor modifications, and two occupied residences are within 500 feet of the proposed Project within the proposed Project Corridor modifications. Minnkota has obtained written waivers from the owners of the residences within 500 feet of the proposed Project.
- c. Rural pipelines may potentially be present within the proposed Project Corridor modifications, but Minnkota will survey for underground utilities prior to construction in order to avoid impacts.

21. Minnkota submitted evidence to demonstrate that any significant adverse effects resulting from the location, construction, and maintenance of the Project within the proposed Project Corridor modifications as they relate to the Selection Criteria set forth in Section 69-06-08-02(3) of the North Dakota Administrative Code will be at an acceptable minimum or managed and maintained at an acceptable minimum.

Siting Criteria – Route

22. 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 Route Permit. The criteria set forth in North Dakota Administrative Code Section 69-06-08-02

are classified as Exclusion Areas, Avoidance Areas, Selection Criteria, and Policy Criteria. 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 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; the orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative routes. With respect to the Commission's Selection Criteria, a route for a transmission facility shall be approved only if it is demonstrated that any significant adverse effects that will result from the location, construction, and maintenance of the facility, as they relate to the Selection Criteria, will be at an acceptable minimum or managed and maintained at an acceptable minimum. In accordance with the Commission's Policy Criteria, preference may be given to an applicant who will maximize certain benefits of the transmission facility.

23. The proposed route will span the Missouri River, which is designated critical habitat for the federally threatened piping plover. No construction will take place within the designated critical habitat for the piping plover, structures will be placed approximately 150 feet from the river's edge, Minnkota will not construct across the river during the piping plover's typical breeding season, and, during construction, no equipment will be placed within the Missouri River. As such, there will be no direct impacts to the designated critical habitat of the piping plover. The RUS has engaged the USFWS in a Section 7 of the Endangered Species Act consultation as part of the NEPA process, and Minnkota will continue to consult with the RUS and the USFWS with respect to the logistics of the Missouri River crossing for the Project.

24. Avoidance Areas crossed by the route include the following:

- d. One Wildlife Management Area (WMA), the Wilber Boldt WMA, is crossed by the route. No structures will be placed within and no lines will cross the Wilber Boldt WMA. Access will be maintained and recreational activity may continue within the Wilber Boldt WMA.
- e. Minnkota conducted a Class III Cultural Resource Inventory and an Historic Building Inventory for the Project. Twenty-nine archaeological resource sites were identified within the Project right-of-way. Twelve structures will be located within the boundaries of six archaeological sites, but the structures will avoid site features. Thus, no impacts to archaeological resources are anticipated. Thirty-six architectural resources were identified within one-half mile of the Project right-of-way centerline and one mile on either side of the Project right-of-way centerline at the Missouri River crossing. Only one historic structure eligible for listing on the National Register of Historic Places (NRHP) was identified that would be adversely visually affected by the proposed Project, and Minnkota will implement mitigation measures to

minimize the visual impact. The SHPO has concurred with the findings and recommendations set forth in the reports associated with the Class III and Historic Building inventories, as well as with the mitigation measures identified for the one impacted historic structure.

- f. Nine occupied or vacant, but occupiable, residences are within 500 feet of the proposed Project. One vacant, uninhabitable home is located within the proposed Project route and will be removed. Minnkota has obtained written waivers from the owners of each of the nine occupied or vacant, but occupiable, residences, and the one vacant, uninhabitable home.
- g. The McClusky Canal is crossed by the route in two locations. One structure will be placed on uplands of the canal. No direct impacts to the canal or water availability for rural water districts is anticipated. Rural pipelines may potentially be crossed by the proposed route, but Minnkota will survey for underground utilities prior to construction in order to avoid impacts.
- h. The North Country National Scenic Trail, the Lewis and Clark National Historic Trail, and the Chain of Lakes Recreation Area/McClusky Canal are crossed by the route. The route will span these recreational features, visual impacts will be minimized by placing structures away from the features to the extent practicable, and access will be maintained so that recreational activities may continue. There is no reasonable alternative to crossing these features.

25. Minnkota submitted evidence to demonstrate that any significant adverse effects resulting from the location, construction, and maintenance of the Project within the proposed route as they relate to the Selection Criteria set forth in Section 69-06-08-02(3) of the North Dakota Administrative Code will be at an acceptable minimum or managed and maintained at an acceptable minimum.

26. Minnkota submitted evidence to demonstrate its commitment to maximize the benefits of the proposed Project to the extent possible with respect to the Policy Criteria set forth in Section 69-06-08-02(4) of the North Dakota Administrative Code.

Route Modification Requests

27. At the public hearing in Grand Forks, North Dakota, Mr. Jeff Topp requested certain route modifications on property owned by Topp family members in Eddy County. At the public hearing in Carrington, Minnkota stated that it would provide a late-filed exhibit to address Mr. Jeff Topp's route modification request. Following the public hearings, Minnkota filed late-filed Exhibit R, in which Minnkota requested a route alignment adjustment based on its discussions with the Topp family. The Commission

finds the route modification proposed by Minnkota in late-filed Exhibit R to be reasonable because the route modification was requested to accommodate the owners of the property affected, the route modification is not located on property owned by other landowners, and no additional environmental or cultural resource impacts are anticipated.

28. At the public hearing in Carrington, North Dakota, Minnkota testified that a landowner in Grand Forks County, Ms. Dorothy Lund, had requested that Minnkota modify the route alignment on her property, and stated that it would provide a late-filed exhibit to address Ms. Lund's route modification request. Following the public hearings, Minnkota filed late-filed Exhibit S, in which Minnkota requested a route alignment and corridor modification on the Lund parcel. The Commission finds the route and corridor modifications proposed by Minnkota in late-filed Exhibit S to be reasonable because the modifications were requested to accommodate the owner of the property affected, the modifications are not located on property owned by other landowners, and no additional environmental or cultural resource impacts are anticipated.

29. At the public hearings in Washburn and Carrington, North Dakota, Mr. Ryan Weber testified that an unoccupied, but occupiable, residence is located on his family's property in Oliver County, North Dakota. At the public hearing in Carrington, Minnkota stated that it would provide a late-filed exhibit regarding the structure identified by Mr. Weber. Following the public hearings, Minnkota filed late-filed Exhibit V, in which Minnkota requested a route alignment adjustment so that the route centerline is more than 500 feet from the structure identified by Mr. Weber. The Commission finds the route modification request to be reasonable because it allows the route centerline to be at least 500 feet from the structure on the Weber property.

30. At the public hearing in Carrington, Mr. Gary Weigum requested that the Project be routed east through the northeast quarter of Section 34 and the Brantford Townsite in the northwest quarter of Section 35, in Pleasant Prairie Township, Eddy County, North Dakota, rather than being routed through his property in the southeast quarter of Section 34. At the public hearing in Carrington, Minnkota stated that it would provide a late-filed exhibit regarding the Brantford Townsite. Following the public hearings, Minnkota filed late-filed Exhibit W, in which Minnkota stated that the northeast quarter of Section 34 and the northwest quarter of Section 35 are owned by landowners other than Mr. Weigum, and provided a Technical Memorandum evaluating the potential for NRHP-eligible cultural resources and identifying occupied and occupiable residences within the Brantford Townsite. Minnkota requested approval of the route presented in its Application and at the public hearings through Sections 34 and 35 in Pleasant Prairie Township, Eddy County. Since the re-route proposed by Mr. Weigum would impact other landowners, would place the transmission facility within 500 feet of occupied and occupiable residences, and would potentially impact cultural resources within the Brantford Townsite, the Commission finds that the proposal is not a reasonable alternative to the route proposed by Minnkota.

Other Issues

31. Minnkota conducted wetland delineations along the proposed route. Some structures will be located in wetlands, resulting in approximately 107 acres of temporary impact and approximately 0.06 acres of permanent impact. All impacts will be covered by USACE Nationwide Permit No. 12.
32. Minnkota has agreed to a number of steps to mitigate the impact of the Project, as indicated by the February 21, 2012 Certification Relating to Order Provisions – Transmission Facility Siting, with accompanying Tree and Shrub Mitigation Specifications. With respect to the requirement within the Tree and Shrub Mitigation Specifications that the width of clear cuts through windbreaks, shelterbelts and all other wooded areas be limited to fifty (50) feet or less unless otherwise approved by the Commission, Minnkota requested at the public hearings that the Commission approve clear cutting of the entire right-of-way because such a measure is necessary in order for Minnkota to be able to comply with NERC requirements, which are designed to ensure the safe and reliable operation of the transmission facility. Minnkota also testified that extremely tall trees in poor health outside of the Project right-of-way may also need to be selectively removed to meet NERC requirements.
33. Minnkota will conduct environmental monitoring during construction, including utilizing an environmental inspector.
34. Minnkota will participate in the North Dakota One-Call Excavation Notice System.
35. Minnkota will develop an emergency communications plan with the assistance of local authorities and first responders.

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

Conclusions of Law

1. The Commission has jurisdiction over this proceeding under Chapter 49-22 of the North Dakota Century Code.
2. The Project proposed by Minnkota is a transmission facility as defined in Section 49-22-03(12) of the North Dakota Century Code.
3. The Application submitted by Minnkota meets the corridor and route evaluation criteria required by Chapter 49-22 of the North Dakota Century Code and Section 69-06-08-02 of the North Dakota Administrative Code.
4. It is appropriate for the Commission to waive those certain procedures and time schedules as requested in the Application and provided under Section 49-22-07.2 of the North Dakota Century Code.

5. The location, construction, and operation of the proposed transmission facility will produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota.

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

7. The proposed transmission facility location 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.

8. The Commission has jurisdiction to ensure compliance with National Electric Safety Code standards in the construction and operation of the proposed transmission facility.

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

Order

The Commission orders that:

1. Minnkota Power Cooperative, Inc.'s request for waiver of procedures and time schedules is granted.

2. Minnkota Power Cooperative, Inc.'s request for approval of modifications to the corridor designated in the Commission's Findings of Fact, Conclusions of Law and Order, dated September 7, 2011, is granted. The modified designated corridor is shown on the set of maps attached hereto. Revised Certificate of Corridor Compatibility for a Transmission Facility No. 121 is hereby issued to Minnkota Power Cooperative, Inc., for the construction, operation and maintenance of a 345 kV transmission facility and associated facilities as described in the Application and presented at the hearings within the designated corridor.

3. Route Permit for Transmission Facility No. ___ is issued to Minnkota Power Cooperative, Inc., granting authority to construct a 345 kV transmission line and associated facilities as described in the Application and presented at the hearings. The designated route is shown on the set of maps attached hereto.

4. Minnkota must complete cultural resource surveys on the parcels identified in Exhibit O as requiring such survey work, and must file with the Commission documentation showing SHPO concurrence with the findings set forth in the associated report(s), prior to beginning construction on said parcels.

5. The February 21, 2012 Certification Relating to Order Provisions – Transmission Facility Siting, with accompanying Tree and Shrub Mitigation Specifications, is incorporated by reference and attached to this Order, except that Minnkota may clear cut the entire width of the right-of-way through windbreaks, shelterbelts and all other wooded areas.

PUBLIC SERVICE COMMISSION

Kevin Cramer
Commissioner

Tony Clark
Chairman

Brian P. Kalk
Commissioner