

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

LeRoy Koppendraye
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Chair
Commissioner
Commissioner
Commissioner
Commissioner

In the Matter of the Application for Certificates
of Need for Three 115 kV Transmission Lines
in Southwestern Minnesota

ISSUE DATE: September 14, 2007

DOCKET NO. E-002/CN-06-154

ORDER GRANTING CERTIFICATES OF
NEED

PROCEDURAL HISTORY

I. Initial Proceedings

In 2005 Northern States Power Company d/b/a Xcel Energy (Xcel) informed the Commission of its proposal to build three 115 kilovolt (kV) transmission lines in southwestern Minnesota.¹ The Lyon County line would extend from the Lake Yankton Substation near Balaton, Minnesota, to a new substation near Marshall, Minnesota. The Murray/Nobles Counties line would extend from the Nobles County Substation northwest of Worthington, Minnesota, to the Fenton Substation near Chandler, Minnesota. And the Lincoln County line would extend from the Yankee Substation south of Hendricks, Minnesota, to the Minnesota/South Dakota boarder, meeting a new line extending from the Brookings County Substation near Brookings, South Dakota. Xcel's proposal would also entail modifying various electric substations in the region.

On May 23, 2006, Xcel asked to be exempted from providing certain information normally required for an application for a Certificate of Need. The Commission granted Xcel's request with conditions.²

On December 4, 2006, Xcel applied for Certificates of Need for the three 115 kV lines; Xcel supplemented that application on December 28. On February 7, 2007, the Commission accepted

¹ See *In the Matter of the 2005 Minnesota Biennial Transmission Filing*, Docket No. E-999/TL-05-1739, Xcel's filing (Issue No. 2005 SW-N2, the Buffalo Ridge Incremental Generator Outlet additions).

² This docket, ORDER GRANTING EXEMPTIONS (July 24, 2007).

the application as substantially complete contingent upon the filing of certain additional data,³ and provided for an Administrative Law Judge (ALJ) to develop the factual record required to determine whether the proposed transmission lines are needed.⁴

On February 12, 2007, Xcel filed the additional data required by the Commission.

On February 21 and 22, 2007, the Minnesota Department of Commerce (the Department) convened public meetings to address the scope of the analysis it would conduct in preparing the required Environmental Report for Xcel's proposal as required by Minnesota Rules, part 7849.0230. The Department issued its Environmental Report Scoping Decision on March 22.

On April 24, 2007, Xcel and the Department filed testimony, including the Department's Environmental Report.

On May 16 and 17, 2007, ALJ Beverly Jones Heydinger convened hearings to receive public comment in Slayton, Ivanhoe and Marshall, Minnesota. On May 22, the ALJ convened evidentiary hearings at the Commission's offices in St. Paul, Minnesota. Xcel subsequently filed proposed Findings of Fact, Conclusions of Law and Recommendation for all parties' consideration; the Department stated that it had no objection to the document's substance.

On June 21, 2007, the ALJ filed her own Findings of Fact, Conclusions of Law and Recommendation (ALJ's Report). No one took exception to the ALJ's Report.

The Commission met on August 23, 2007 to consider this matter. At that hearing Xcel stated that if the Commission would grant the necessary Certificates of Need for its proposed transmission lines, Xcel would promptly file applications for route permits and would seek to make its three proposed transmission lines operational by the Spring of 2009.

II. The Parties and their Representatives

Xcel was represented by James P. Johnson, Xcel Energy Services Inc., 414 Nicollet Mall, 5th Floor, Minneapolis, Minnesota 55401, and by Michael C. Krikava and Lisa M. Agrimonti, Briggs and Morgan, P.A., 2200 IDS Center, 80 South 8th Street, Minneapolis, Minnesota 55402.

The Department was represented by Julia E. Anderson and Valerie M. Means, Assistant Attorneys General, 445 Minnesota Street, Suite 1400, St. Paul, Minnesota 55101.

³ ORDER ACCEPTING CERTIFICATE OF NEED APPLICATION AS SUBSTANTIALLY COMPLETE, CONTINGENT ON SUBMISSION OF ADDITIONAL DATA (February 7, 2007).

⁴ NOTICE AND ORDER FOR HEARING (February 7, 2007).

FINDINGS AND CONCLUSIONS

I. Xcel's Proposed Project

In 2003, the Commission granted Xcel Certificates of Need to construct four high-voltage transmission lines that, coupled with the existing system, would achieve up to 825 megawatts (MW) of generation outlet transmission capacity in southwestern Minnesota.⁵

Shortly thereafter, Xcel states, it initiated the Buffalo Ridge Incremental Generation Outlet (BRIGO) Study to determine what additional system improvements would be needed to meet growing demand for wind generation development in the Buffalo Ridge area. Xcel states that demand for transmission capacity in the region will warrant the eventual construction of 345 kV transmission lines. Given the delay involved in designing, permitting and constructing such large lines, however, Xcel began exploring cost-effective interim remedies.

Xcel argues that the three 115 kV lines proposed in this docket should be undertaken as an interim step to provide a few hundred megawatts of additional generation outlet capacity until the higher voltage projects can be developed. In addition, Xcel states that the Lake Yankton/Marshall line would help meet a forecasted growth in demand for electricity in the City of Marshall and enhance the transmission system's ability to supply all the electricity demanded under a variety of circumstances.

II. The Legal Standard

Anyone seeking to build in Minnesota more than 10 miles of a high-voltage transmission line with a capacity of 100 kV or more⁶ must first obtain a Certificate of Need from the Commission demonstrating that the line is needed.⁷ Because each of Xcel's proposed 115 kV lines exceeds these thresholds, Xcel will require a Certificate of Need for each line.

Minnesota Statutes § 216B.243 lists factors the Commission must consider when determining whether a line is needed. For example, the Commission must determine whether an applicant could meet the demand for electricity more cost-effectively through energy conservation and load-management measures,⁸ and whether the applicant has given adequate consideration to obtaining energy from renewably sources.⁹ Minnesota Rules Chapter 7849 codifies many of these factors.

⁵ *In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy for Certificates of Need for Four Large High Voltage Transmission Line Projects in Southwestern Minnesota*, Docket No. E-002/CN-01-1958, ORDER GRANTING CERTIFICATES OF NEED SUBJECT TO CONDITIONS (March 11, 2003).

⁶ Minn. Stat. § 216B.2421, subd. 2(3).

⁷ Minn. Stat. § 216B.243.

⁸ Minn. Stat. § 216B.243, subd. 3.

⁹ Minn. Stat. § 216B.243, subd. 3a.

Those rules are detailed, but in brief they require the Commission to consider the following:

- The probable result of denial would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states.
- A more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record.
- By a preponderance of the evidence on the record, the proposed facility, or a suitable modification of the facility, will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health.
- The record does not demonstrate that the design, construction, or operation of the proposed facility, or a suitable modification of the facility, will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments.¹⁰

As noted above, Minnesota Rules part 7849.0230 provides for the Commission to receive an Environmental Report to aid in its analysis.

Finally, when evaluating the need for a proposed facility the Commission must consider opportunities for installing small, efficient distributed generators that produce few emissions.¹¹

III. Analysis of Need

Xcel, the Department and the ALJ discuss the application in light of the certificate of need criteria. All three conclude that the proposed facilities are needed; their arguments are summarized below.

A. Xcel has demonstrated that the need for the proposed facilities cannot be met more cost-effectively through energy conservation and load-management measures.

Xcel argues that efforts to control consumer demand for electricity will not obviate the need for any of the three proposed transmission lines. The City of Marshall has such programs in place, and additional programs are unlikely to make enough difference. Xcel denies that the needs for its proposed lines are driven by activities promoting the consumption of electricity. Moreover, no amount of programs to control demand would alter Xcel's statutory obligations under the RES to secure additional sources of wind power.

¹⁰ Minn. Rules 7849.0120.

¹¹ Minn. Stat. § 216B.2426, citing the definition of "distributed generation" at § 216B.169, subd. 1(c).

The Department supports Xcel's conclusions.

Based on the foregoing analysis, the ALJ concludes that Xcel has demonstrated that the energy conservation and load-management measures cannot displace the need for the proposed facilities. ALJ's Report, Findings of Fact 89 - 91.

B. Xcel's proposal demonstrates due regard for the goal of obtaining electricity from renewable sources.

Xcel claims that its proposal is designed to permit electricity generated by wind power to flow to customers.

Xcel identifies five wind-related factors affecting the need for its proposed transmission lines. First, the newly-enacted Renewable Energy Standard (RES)¹² will require Xcel by 2020 to acquire 30 percent of the amount of electricity it sells at retail from qualified renewable sources, including 25 percent from wind power. Second, the Commission-prescribed resource planning process identifies wind power as the most cost-effective source of renewable generation. Third, developers of Community-Based Energy Development programs have already asked Xcel for more transmission capacity in the Buffalo Ridge area than Xcel can currently accommodate. Fourth, developers of wind power generators have asked the Midwest Independent Transmission System Operator, Inc., for permission to connect more wind-powered generation to the transmission grid in the Buffalo Ridge area than the grid can accommodate. Finally, no other part of Minnesota provides a better location for wind-powered generators than the Buffalo Ridge. Xcel cites all these dynamics to support the conclusion that its proposals are driven in large part by a desire to facilitate the use of electricity from renewable sources.

The Department supports Xcel's conclusions.

Based on the foregoing analysis, the ALJ concludes that Xcel's proposal demonstrates due regard for the goal of obtaining electricity from renewable sources. ALJ's Report, Findings of Fact 71 - 77.

C. Withholding the requested Certificates of Need would likely harm the future adequacy, reliability and efficiency of the energy supply.

Xcel argues that the Lake Yankton/Marshall line is needed to ensure that electric service around the growing City of Marshall, Minnesota, continues to meet the reliability standards established by the North American Electric Reliability Corporation (NERC).¹³

While Xcel acknowledges that it offers its proposal merely as an interim measure, Xcel emphasizes that it remains mindful of its duty to make efficient use of resources. In particular, Xcel argues that the wind on Buffalo Ridge is the best source of windpower in the region, yet Xcel must curtail the operation of wind generators whenever their combined output exceeds the capacity of the region's transmission lines. Timely addition of transmission capacity would help

¹² Minn. Stat. § 216B.1691; see Laws 2007, Chap. 3, § 1.

¹³ Pursuant to the authority of the Energy Policy Act of 2005 (Pub.L. 109-058), the Federal Energy Regulatory Commission designated NERC the nation's "Energy Reliability Organization."

make better use of these wind resources.

Ultimately Xcel argues that it requires Certificates of Need in order to fulfill its duties to provide reliable electric service and meet the new statutory obligations. While Xcel could pursue – and is pursuing – modifications to its plant that do not require a Certificate of Need in order to enhance transmission capacity, these modifications will not obviate the need for larger changes.

The Department supports Xcel's conclusions.

Based on the foregoing analysis, the ALJ concludes that denying Xcel Certificates of Need to build the proposed transmission lines would likely harm the adequacy, reliability and/or efficiency of the energy supply. ALJ's Report, Findings of Fact 67 - 96.

D. The preponderance of the record evidence indicates that the proposed alternative is the most reasonable and prudent alternative.

The BRIGO study addresses more than a dozen alternatives for increasing the capacity for exporting electricity from Buffalo Ridge while also making electric service to Marshall more reliable. Alternatives under consideration included building a direct-current line out of Buffalo Ridge, modifying existing facilities, stringing additional transmission lines on existing towers, building an underground transmission line, and building new electric generators to offset the need for power from Buffalo Ridge. Based on this analysis Xcel concludes that the three proposed transmission lines are the best alternative based on factors such as capital costs, system electrical losses, technical performance and construction time.

Regarding timing, Xcel argues that new facilities can be built more quickly than existing facilities can be upgraded. Xcel would need to remove existing facilities from service before modifying them. Yet the very constraints that prompt the need for new lines also discourage Xcel from removing more than one line from service at a time. These same constraints do not apply to the construction of new facilities.

In many respects, Xcel argues, the alternatives explored in the BRIGO Study have comparable benefits. They tended to have similar environmental effects. Each alternative would produce some economic development in the area, creating new employment and tax revenues. And each of the proposed transmission line alternatives would produce similar reliability: According to Xcel, transmission lines tend to be available more than 99% of the time and with regular maintenance can last almost indefinitely.

While the Department finds fault in Xcel's analysis of electrical system losses, the Department's own analysis supports the view that Xcel's favored alternative would produce the least system losses. Ultimately the Department concludes that the record supports Xcel's conclusion that the proposed 115 kV transmission lines represent the most reasonable and prudent alternative.

Based on the analysis summarized above, the ALJ concludes that the preponderance of the record evidence indicates that the proposed alternative is the most reasonable and prudent alternative. ALJ Report, Findings of Fact 97-122.

E. The preponderance of the record evidence indicates that the proposed alternative will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health.

Much of state policy reflects the principle that wind-powered electricity can help displace reliance on electricity from sources with more harmful effects.¹⁴ But Xcel argues that this principle can be implemented only if the electricity can reach consumers. By enabling wind power to reach those who need it, the proposed facilities would benefit society in a manner that promotes the protection of the natural environment and human health.

Additionally, given the harms that would arise from a power failure in Marshall, Xcel argues that adding a transmission line to make electric service more reliable would benefit society in a manner that promotes the socioeconomic environment, including human health.

Whether or not the proposed facilities would induce future development in Marshall, Xcel provides evidence that the facilities would enable the development of additional wind-powered generators along Buffalo Ridge. The record shows that wind power developers have already contracted to provide more than 900 MW of power, which is more than Xcel says the current transmission system can reliably support. Adding transmission capacity would facilitate further development.

The Department agrees with Xcel's analysis. And based on the analysis summarized above, the ALJ concludes that the preponderance of the record evidence indicates that the proposed alternative will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health. ALJ Report, Findings of Fact 123-131.

F. The record does not demonstrate that the design, construction, or operation of the proposed facilities would fail to comply with any applicable jurisdiction's policies, rules, or regulations.

Xcel commits to complying with all relevant policies, rules and regulations from the federal, state and local governments, and even lists the regulatory requirements of which it is aware. The ALJ finds no evidence that any aspect of Xcel's proposal would conflict with any applicable legal standard. ALJ's Report, Findings of Fact 132.

G. Requirements for environmental review have been fulfilled, and no alternative proposals appear to produce better environmental outcomes.

Xcel's application contains a discussion of environmental consequences of its proposal and all considered alternatives, including the alternative not to build any new large energy facilities. In its Environmental Report, the Department concludes that –

¹⁴ Minn. Stat. §§ 216B.1612, 216B.169, 216B.1691, 216B.2423. See also *In the Matter of the Application of Northern State's Power Company for Approval of its 1998 Resource Plan*, Docket No. E-002/RP-98-32, ORDER MODIFYING RESOURCE PLAN, REQUIRING ADDITIONAL WIND GENERATION, REQUIRING FURTHER FINDINGS, AND SETTING STANDARDS FOR NEXT RESOURCE PLAN (February 17, 1999).

. . . none of the alternatives considered have significantly fewer human, environmental or economic impacts than the proposed BRIGO Project. The existing lines or alternative corridor options appear to have similar or slightly greater environmental impacts, higher energy losses, and higher costs than the BRIGO Project. The non-build, conservation, and generation alternatives do not meet the need to create approximately 350 MW of additional transmission system capacity in the Buffalo Ridge region and resolve reliability issues in Marshall.¹⁵

The ALJ concludes that the Environmental Report fulfills all of the requirements established in the Scoping Decision of March 22, 2007, and reasonably supports the granting the Certificates of Need. ALJ's Report, Conclusion 9.

H. The proposed facilities would increase opportunities for installing small, efficient distributed generators that produce few emissions.

The ALJ concludes that by expanding transmission capacity, Xcel's proposal would increase opportunities for installing small, efficient distributed generators that produce few emissions. ALJ's Report, Conclusion 10.

I. Summary

Based on many of the facts discussed above, the ALJ concludes as follows:

134. The Project will ensure safe and reliable service to [Marshall]'s customers during peak periods. The Project will also provide transmission facilities that can be used by renewable-based generation. That energy can then be used by electric utilities to meet their load serving obligations in the State.

135. The need for the Project cannot be avoided through the use of energy conservation programs.

136. The Project will help meet regional energy needs, particularly the need for increased use of renewable energy.

137. The Project has not been motivated by any promotional activities. Rather, it is driven by the demand for additional transmission capacity for renewable generation and electrical system reliability needs.

138. The Project will increase reliability of the energy supply in Marshall and increase the supply of renewables-based generation available to Minnesota load serving entities.

139. The Project cannot be avoided through upgrading existing facilities, load-management programs or distributed generation.

¹⁵ Environmental Report (April 24, 2007) at 3.

140. The Project will comply with the policies, rules and regulations of applicable state and federal agencies and local governments.

141. The Project will improve electric service reliability for [Marshall] and its retail customers and for wind generation within the Buffalo Ridge region, improving the robustness of the transmission system.

142. The Project also meets the requirements of Minn. Stat. § 216B.243, subd. 3(10) [regarding Xcel's compliance with the Renewable Energy Standards]. The Project will further Xcel Energy's and other utilities' ability to meet the RES with additional wind generation from the Buffalo Ridge area.

ALJ's Report, Findings of Fact 134-142 (footnotes omitted). Finding that Xcel has satisfied the criteria set forth at Minnesota Statutes § 216B.243 and Minnesota Rules part 7849.0120, the ALJ recommends granting Xcel's application for Certificates of Need. ALJ's Report, Recommendations 13 - 15.

IV. Commission Action

The Commission has examined the full record in this case, and its reading of the evidence leads to the same findings and conclusion reached by the ALJ. The Commission concurs in and adopts the ALJ's findings and conclusions.

Having secured Certificates of Need, Xcel will now need to obtain permits identifying the specific routes where Xcel may build the transmission lines. To ensure that Xcel makes timely progress toward completing building these lines, the Commission will direct Xcel to file a status report identifying the authorities from whom Xcel will seek route permits. Additionally, the Commission will direct Xcel to file applications for route permits no later than January 2008, and to take the necessary steps to bring the new lines into service by Spring 2009.

ORDER

1. The Commission accepts and adopts the Findings of Fact, Conclusions of Law and Recommendation of the Administrative Law Judge, including the conclusion that the Environmental Report of April 24, 2007, fulfills the requirements of the Department's Scoping Decision of March 22, 2007.
2. The Commission grants a Certificate of Need for the proposed 115 kV transmission line in Lyon County between Lake Yankton Substation near Balaton, Minnesota to a new substation near Marshall, Minnesota.
3. The Commission grants a Certificate of Need for the proposed 115 kV line in Murray and Nobles Counties between Fenton Substation near Chandler, Minnesota and Nobles County Substation northwest of Worthington, Minnesota.

4. The Commission grants a Certificate of Need for the proposed 115 kV transmission line in Lincoln County between Yankee Substation south of Hendricks, Minnesota and the Minnesota/South Dakota border near Brookings County Substation near Brookings, South Dakota.
5. Xcel shall file a status report identifying the authorities from whom Xcel will seek route permits. Xcel shall file applications for route permits no later than January 2008, and shall take the necessary steps to bring the new lines into service by Spring 2009.
6. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar
Executive Secretary

(S E A L)

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