

**STATE OF MINNESOTA  
ENVIRONMENTAL QUALITY BOARD**

In the Matter of the Application by Xcel Energy for a Route Permit for a Double-Circuit 115 Kilovolt Transmission Line and a Single Circuit 345 Kilovolt Transmission Line between the Xcel Wilmarth Substation in Mankato and the Mankato Energy Center Facility in Blue Earth County, Minnesota

**FINDINGS OF FACT,  
CONCLUSIONS, AND ORDER  
ISSUING A ROUTE PERMIT FOR  
THREE HIGH VOLTAGE  
TRANSMISSION LINES**

**MEQB DOCKET NO.  
04-86-TR-Xcel Mankato**

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The above-captioned matter came before the Minnesota Environmental Quality Board (EQB) at a regular meeting on November 18, 2004, pursuant to an application by Xcel Energy for a Route Permit to construct a double-circuit 115 kilovolt transmission line and a 345 kilovolt transmission line in Blue Earth County, Minnesota, to interconnect the new Mankato Energy Center power plant with the nearby Wilmarth Substation.

**STATEMENT OF ISSUE**

Should Xcel Energy be granted a Route Permit for a double-circuit 115 kilovolt transmission line and a single circuit 345 kilovolt transmission line to connect the new Mankato Energy Center power plant in Blue Earth County, Minnesota, with the nearby Wilmarth Substation and if so, along what route and under what conditions?

Based upon all of the proceedings herein, the Minnesota Environmental Quality Board makes the following:

**FINDINGS OF FACT**

**The Applicant**

1. The applicant is Northern States Power Company, d/b/a Xcel Energy (hereinafter "Applicant" or "Xcel Energy").

**The Project**

2. The proposed project consists of two 115 kilovolt transmission lines (a double-circuit) and a 345 kilovolt transmission line, all approximately 1000 feet long that will connect a new power plant to be built by Mankato Energy Center, LLC, with the nearby Wilmarth Substation. The transmission lines will be located north of downtown Mankato in Lime Township.

3. The 115 kV lines will be double circuited on steel single pole structures. The structures will be 70-80 feet high. The 345 kV structures will be H-frame wood pole structures approximately 80 to 115 feet high. The transmission lines will be located entirely on property owned by either Xcel Energy or Mankato Energy Center, LLC.

4. The Wilmarth Substation will be expanded to the south and west to accommodate the additional equipment that will be necessary. The 345 kV line will require two circuit breakers, a new overhead line termination structure, protective relaying for the new connection, and associated switches and bus work. The 115 kV double-circuit line will require relocation of three existing transformers, installation of additional circuit breakers and underground cable, expansion of existing steel structures, and installation of associated switch and bus work.

### **Procedural History**

5. On June 17, 2004, the Applicant notified the EQB that it intended to apply for a Route Permit under the Alternative Permitting Procedures set forth in the EQB rules, Minn. Rules parts 4400.2000 to 4400.2950. Exhibit 1.

6. On August 10, 2004, Xcel Energy applied to the EQB for a Route Permit for two 115 kV transmission lines and one 345 kV transmission line. Exhibit 2. The EQB Chair accepted the application on August 18, 2004, and began the review process. The Chair determined that a citizen advisory task force was not necessary. Exhibit 3.

7. On August 25, 2004, the Applicant mailed notice of the filing of the permit application to those persons whose names appeared on the EQB's general notification list. Exhibit 6. Since the only landowners affected are Xcel Energy and Mankato Energy Center, LLC, it was not necessary to send notice through the mail to any individual landowners.

8. The Applicant published notice in the *Mankato Free Press* on August 25, 2004, announcing that an application had been filed with the EQB and that a public meeting would be held on September 28, 2004. Exhibit 5.

9. A public meeting was held in Mankato, Minnesota, on September 28, 2004. The public was afforded an opportunity to submit written comments on the scope of the Environmental Assessment until October 8, 2004. No person registered any comments regarding the scope of the Environmental Assessment.

10. On October 6, 2004, Chair Robert A. Schroeder appointed Alan Mitchell of the EQB staff as the Hearing Examiner to conduct a public hearing on this matter. Exhibit 10.

11. On October 6, 2004, the EQB mailed a Notice of Availability of Environmental Assessment and Public Hearing to those persons on the general notification list and to local officials. Exhibits 12 and 13. The date for the public hearing was set and the Notice was mailed out in advance of scoping the Environmental Assessment in order to provide the public with as much notice as possible of the upcoming hearing. The Notice was posted on the EQB webpage on or about October 6.

12. On October 11, 2004, the EQB Chair entered a Scoping Decision setting the scope of the Environmental Assessment.

13. The Notice of Availability of Environmental Assessment and Public Hearing was published in the *EQB Monitor* on October 11, 2004. Exhibit 15.

14. The Environmental Assessment was completed on October 15, 2004. Exhibit 17. The Environmental Assessment was posted on the EQB webpage on or about October 15.

15. On October 15, 2004, the Notice of Availability of Environmental Assessment and Public Hearing was published in the *Mankato Free Press*. Exhibit 18.

16. A public hearing was held in Mankato, Minnesota, on October 28, 2004. George Johnson of the EQB staff and Pamela Jo Rasmussen and Tom Bailey representing Xcel Energy were in attendance. Only two people attended the hearing – Mr. Dennis Siemer, President, V-Tek Incorporated, and Mr. Doug Laven, Chief Operations Officer. V-Tek's facility is located about ½ mile southeast of the new Mankato Energy Center power plant. The address is 751 Summit Avenue, Mankato, Minnesota. The V-Tek facility is shown on Exhibit 20. V-Tek Incorporated processes electronic components such as tape splicers and taping machines for the electronics industry.

17. The record was kept open for the receipt of written comments until November 8, 2004. No comments were submitted to the EQB.

### **Potential Impacts**

18. The new Mankato Energy Center power plant was the subject of a separate EQB permit proceeding. EQB Docket No. 04-76-PPS-Calpine Mankato. A separate Environmental Assessment was prepared and a separate public hearing was held on the power plant. Administrative Law Judge Allan W. Klein presided at the public hearing on the power plant and issued a report that addressed some of the potential impacts of the new transmission lines. The EQB Board adopted Judge Klein's Findings of Fact and Conclusions and issued a Site Permit for the plant on September 16, 2004, and those Findings and Conclusions are hereby affirmed and adopted in this proceeding as though fully set forth herein.

19. The proposed lines will be located entirely on property owned by either Xcel Energy or Mankato Energy Center, LLC. No other private property will be required for construction of the transmission lines.

20. The area where the transmission lines will be located is a developed industrial area. To the south of the area where the lines will be installed are industrial and manufacturing facilities, including a waste processing facility, an auto salvage yard, a scrap metal operation, a construction company, a U.S. Postal Service mail processing building, and a household hazardous waste collection site. On the east side is the new power plant, and the western edge is bordered by the Minnesota River. Part of the area to the north includes a wetland.

21. The nearest residence to the proposed transmission lines is approximately 1500 feet from the center of the power plant site. No persons will be displaced by location of the lines along the route.

22. The proposed transmission lines will not add significantly to background noise levels. The generating plant will be a much louder noise source than the transmission lines and the plant will operate in compliance with all state noise standards.

23. The aesthetic and visual impact of the transmission line structures will be insignificant. The H-frame structures (at 80-115 feet) will be shorter than the stacks at the power plant (about 200 feet). The lines are only 1000 feet long and there will only be a few structures required. There are already several existing transmission line structures around the Wilmarth Substation.

24. There are no state recreational areas, historic features, or other protected areas that will be impacted by the lines along the route.

25. There is a wetland on the north side of the property to be crossed by the transmission lines. Xcel Energy does not anticipate that it will need to dredge or fill any portion of the wetland and will attempt to avoid placing any structures in the wetland. If any structures must be placed in the wetland, Xcel Energy will minimize impacts to the wetland by utilizing special construction mats to limit disturbance and compaction.

26. The proposed transmission lines will be designed to meet or exceed all requirements of the National Electric Safety Code, which is the utility standard that applies to all transmission lines.

27. The issue of electric and magnetic field (EMF) exposure was discussed in the Environmental Assessment. There are no state or federal health-based exposure standards. The Minnesota Department of Health recommends avoiding exposures about which there are questions of safety or health, at least to the extent that an activity can be avoided easily or cheaply. The Department has stated that it is prudent to continue to monitor research in this area.

28. The electric field generated by the line will not exceed the limit that the EQB has included in other permits it has issued, which is 8 kilovolts per meter one meter above the ground.

29. The EQB has not imposed any limits on exposure to magnetic fields in the route permits it has issued.

30. Mr. Dennis Siemer, President of V-Tek Incorporated, appeared at the hearing and raised a concern about the transmission lines interfering with electronic communications and computing equipment to be processed at the V-Tek facility near the power plant. Mr. Siemer had raised his concerns with Xcel Energy a few weeks before the hearing and had discussions with Ms. Rasmussen about this issue prior to the hearing. Ms. Rasmussen stated that Xcel Energy had calculated the expected electric and magnetic field strength at various distances from the transmission line, Tables 3.2 and 3.3 in the Application, Exhibit 2, and that since the V-Tek facility was approximately 1,500 feet away from the transmission lines, the EMF would be extremely small near the facility and would not interfere with any of the V-Tek equipment. Mr. Siemer indicated that he was satisfied with Ms. Rasmussen's response and that he had no objection to the proposed transmission lines.

### **Costs**

31. The transmission lines will cost approximately \$350,000 for the 345 kV line and \$475,000 for the double-circuit 115 kV lines. The expansion and upgrade of the Wilmarth Substation is estimated to cost approximately \$9,525,000.

### **Environmental Assessment**

32. The Environmental Assessment addresses the issues identified in the Chair's scoping decision.

Based on the foregoing Findings of Fact, the Environmental Quality Board makes the following:

### **CONCLUSIONS**

1. Any of the foregoing Findings more properly designated as Conclusions are hereby adopted as such.

2. The Environmental Quality Board has jurisdiction over the subject matter of this proceeding pursuant to Minn. Stat. § 116C.57, subdivision 2.

3. This project qualifies for review under the Alternative Review Process of Minn. Stat. § 116C.575 and Minn. Rules parts 4400.2000 to 4400.2950.

4. The Applicant and the EQB have complied with all procedural requirements required by law.

5. The EQB has completed an Environmental Assessment on this project as required by Minn. Stat. § 116C.575, subdivision 5 and Minn. Rules part 4400.2750, and considered all the pertinent factors in determining which route to approve.

6. The route proposed by the Applicant is necessary to connect with the site approved for location of the power plant.

7. The conditions included in the Route Permit are reasonable and appropriate and agreed to by the Applicant.

Based on the Findings of Fact and Conclusions contained herein and the entire record of this proceeding, the Environmental Quality Board hereby makes the following

**ORDER**

A Route Permit is hereby issued to Xcel Energy for construction of two 115 kilovolt transmission lines (in a double-circuit configuration) and a 345 kV transmission line along the route proposed by the Applicant and under the conditions specified in the permit. The Permit shall be issued in the form attached hereto, with a map showing the approved route.

Dated this 18<sup>th</sup> day of November, 2004

STATE OF MINNESOTA  
ENVIRONMENTAL QUALITY BOARD



Robert A. Schroeder  
Chair