OAH Docket No. 6-2901-15942-2
EQB File No. 03-64-TR-XCEL

**STATE OF MINNESOTA**
**OFFICE OF ADMINISTRATIVE HEARINGS**
**FOR THE ENVIRONMENTAL QUALITY BOARD**

In the Matter of the Application to the Minnesota Environmental Quality Board for a Route Permit for a 161 kV High Voltage Transmission Line in Jackson and Martin Counties, Minnesota

**REPORT AND RECOMMENDATION**

The above-entitled matter was heard before Administrative Law Judge Allan W. Klein on May 25, 2004 at the Best Western Country Manor Inn, Jackson, Minnesota.

Appearances: Lisa M. Agrimonti and Michael C. Krikava, Briggs & Morgan P.A., 2200 IDS Center, 80 South 8th Street, Minneapolis, MN 55402, appeared on behalf of Northern States Power Company d/b/a Xcel Energy ("Xcel Energy" or "Company"); Alan R. Mitchell, Larry Hartman and George Johnson, Minnesota Environmental Quality Board, 658 Cedar Street, St. Paul, MN 55155, appeared on behalf of the staff of the Minnesota Environmental Quality Board ("MEQB Staff").

Public hearings were held at 2 p.m. and 7 p.m. on Tuesday, May 25, 2004. They continued until all persons desiring to speak had done so. The record closed on June 18, 2004.

## NOTICE

This Project qualifies for alternative review under the Power Plant Siting Act, Minn. Stat. § 116.575. The MEQB was not required to hold a contested case hearing on this Project pursuant to chapter 14, and it did not do so. Under MEQB rules, the MEQB has the option to conduct a public hearing itself or to request that an Administrative Law Judge ("ALJ") conduct the hearing and compile a record for the MEQB to consider in making its final decision. The MEQB also has the option to request that the ALJ prepare a report and recommendation, which it did in this case. This report contains a summary of the evidence in the record and a recommendation based on that record. It is not a final decision. The MEQB may, at its own discretion, accept or reject the ALJ's recommendation. Pursuant to Minn. Stat. §116C.575, subd. 7, the MEQB will make the final determination of the matter within 60 days of the completion of the public hearing. Persons wishing to file comments concerning this report with the MEQB should contact Alan Mitchell at (651) 296-3714 for information about the procedures to be followed.

## STATEMENT OF ISSUE

Which route should be permitted by the MEQB for Xcel Energy to construct a 161 kV high voltage transmission line from the Lakefield Junction Substation to the Fox Lake Substation?

Based upon all the proceedings herein, the ALJ makes the following:

## SUMMARY OF THE EVIDENCE

### Procedural History and the Parties

1. Xcel Energy is a public utility under the laws of the State of Minnesota. Xcel Energy and its parent public utility holding company are headquartered in Minneapolis, Minnesota. Xcel Energy has 1.5 million electricity customers in its upper Midwest service territory which includes parts of Minnesota, Wisconsin, Michigan, North Dakota and South Dakota.

2. On March 11, 2003, the Minnesota Public Utilities Commission ("Commission") granted certificates of need to Xcel Energy to construct four new high voltage transmission lines ("HVTLs") in southwestern Minnesota to move 825 megawatts of wind generation from the Buffalo Ridge area. A new 161 kV line from the Lakefield Junction Substation to the Fox Lake Substation was one of the four lines the Commission approved.[1]

3. On July 17, 2003, the MEQB Chair appointed a Citizen Advisory Task Force ("CATF") in anticipation of Xcel Energy's expected filing of a route permit application for the new 161 kV transmission line from the Lakefield Junction Substation to the Fox Lake Substation. The Chair directed the CATF to consider what additional routes should be evaluated in the environmental review process and to identify particular impacts.[2]

4. On October 3, 2003, Xcel Energy notified the MEQB that it intended to submit a route application for a permit to construct the new line and substation work (the "Project") using the procedures of Minnesota Statute Section 116C.575 and Minnesota Rules 4400.200 through 4400.2950, known as the Alternative Permitting Process. The Project is eligible to be considered under the Alternative Permitting Process because the proposed transmission line is between 100 kV and 200 kV (Minnesota Rules 4400.2000, Subp. 1(C)).[3]

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[1] Application, Exhibit 3, pp. 7-8.

[2] Environmental Assessment ("EA"), Exhibit 13, p. 2.

[3] Application, p. 1.

5. On November 25, 2003, Xcel Energy filed an application with the MEQB for a route permit ("Application").[4]

6. On December 11, 2003, the MEQB accepted Xcel Energy's Application and began the review process.[5]

7. On December 2, 2003 Xcel Energy mailed notice of the filing of the Application and notice of the first public meeting to those persons on the MEQB General Contact List, local officials and property owners along its proposed route. Such notice satisfies the requirements of Minn. Stat. § 116C.57, subd. 2b and Minn. Rule 4400.1350, Subp. 2.[6]

8. On December 15, 2003, the MEQB conducted public meetings at the Best Western Country Manor Inn, 2007 Highway 71 North in Jackson, Minnesota at 3 p.m. and 7 p.m., as required by Minnesota Rules part 4400.2500. The public was provided with an opportunity to learn about the Project, to suggest route alternatives and identify concerns that should be addressed in the Environmental Assessment ("EA"). The MEQB accepted public comments on the scope of the EA until February 10, 2004. Copies of the comment letters received by the MEQB and the CATF were included in the EA, as Appendix C.[7]

9. On February 4, 2004, the CATF completed its work. It submitted its report and recommendation to the MEQB Chair on February 26, 2004.[8]

10. On March 8, 2004, after consideration of the public comments, the Chair of the MEQB issued a scoping order. The order sets forth, in detail, what is to be included in the EA. It defines alternative routes to be studied. It also excluded certain options, most importantly, options which would require that the existing 161 kV Alliant line be removed from service. See paragraph 37(c)(2), below, for more detail. Notice of the scoping order was provided by the MEQB to the persons specified in Minn. Rules 4400.2750, Subp. 3.[9]

11. On April 21, 2004, the MEQB Staff sent a notice of public hearing and notice of the availability of the EA as required by Minnesota Rule 4400.2800 to the persons specified in the rule. Additionally, the notice was published in the Martin

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[4] Application.

[5] Exhibit No. 4.

[6] Exhibit Nos. 5 and 8.

[7] EA, p. 6, App. A.

[8] EA, p. 2 and Appendix B.

[9] Exhibit Nos. 9 and 10.

County Star and Jackson County Pilot newspapers. The notice announced that the MEQB would hold a public hearing on May 25, 2004 in Jackson.[10]

12. The MEQB Staff completed the EA as required by Minn. Stat. § 116C.575, subd. 5 on May 7, 2004.[11] The EA covers all of the topics ordered in the scoping order.

13. On May 24, 2004, copies of the prefiled direct testimony of Pamela J. Rasmussen and Grant Stevenson of Xcel Energy and Mike Steckelberg of Great River Energy were filed with the ALJ and served upon the MEQB.

14. On May 25, 2004, this hearing was held as required by Minn. Stat. § 116C.575, subd. 6 and Minn. Rule 4400.2850. Representatives of Xcel Energy and the MEQB attended and were available to respond to questions. Witnesses who submitted prefiled testimony were also available to answer questions. Approximately 50 individuals attended the 2:00 p.m. session and approximately 35 individuals attended the 7:00 p.m. hearing. Eight or nine members of the public provided oral testimony and/or asked questions of Xcel Energy witnesses on the record at each hearing session. The primary concerns raised were related to potential impacts of the line on residents, development plans, and historical resources.

15. During the hearings, the ALJ established a June 7, 2004 deadline for submission of written comments. The ALJ advised that comments postmarked on or before June 7, 2004 would be accepted into the record.

16. During the comment period, the ALJ received written comments from the following: AGCO Corporation (“AGCO”); Herman Brockman; the City of Jackson; Leland Erickson; Farmers Cooperative Association; Richard Fransen; counsel for Claire Gilmore and Vet’s Oil; Leo and Terrijo Hacker; Larry Hansen; Jason McIlravy; Minnesota Department of Natural Resources ("DNR"); Wayne and Linda Torgerson; Steven and Jennifer Tusa; and Xcel Energy.

**General Description of the Project**

17. The proposed new transmission line route is approximately 25.5 miles long and would connect the Lakefield Junction Substation in Jackson County, Minnesota on the west and the Fox Lake Substation in Martin County, Minnesota, on the east. Xcel Energy requested that a 1000 foot route corridor (500-foot width from the center line of the designated route) be approved to allow for reasonable flexibility in locating the transmission line.[12]

[10] Exhibit No. 15; Exhibit Nos. 18 and 19.

[11] EA.

[12] Application, p. 10.

18. Xcel Energy's proposed route would follow existing transmission line rights-of-way near the Lakefield junction and Fox Lake Substations and generally follow or parallel I-90, except through the City of Jackson. The predominant land use crossed by the preferred route and alternatives is agricultural.[13] The route also crosses land zoned as residential and recreation in Martin County and as business in the City of Sherburne.[14]

19. The Xcel Energy route comprises three distinct sections.

(a) The first segment, which is 9 miles long, exits south from the Lakefield Junction Substation, parallels an existing transmission line for approximately two miles and then follows property lines for approximately one mile until it reaches the I-90 corridor. From this point, it turns east paralleling I-90 for seven miles until it crosses the Des Moines River.

(b) The second segment is three miles long. After reaching the east side of the Des Moines River, the line parallels I-90 for a short distance until reaching an old railroad grade. The line then follows the railroad grade south/southeast skirting the north edge of the City of Jackson to Highway 51.

(c) The third segment is approximately 13.5 miles long. The transmission line parallels I-90 for approximately 12.6 miles and crosses back over to the north side just west of 50th Avenue near Sherburn and then follows 125th Street (the existing Alliant 161 kV line route) for approximately 1.5 miles to the Fox Lake Substation.[15]

20. In the City of Jackson, the routes would be located or pass through primarily mixed-land uses including open land, agricultural land, residential development land and platted or planned commercial land, industrial and commercial uses. There exists or is planned commercial development on both sides of I-90 through the City of Jackson. Expansion of the Jackson Municipal Airport is also under consideration.[16] The Federal Aviation Administration imposes height restrictions on structures located within certain distances of any airport and the new transmission line will have to comply with these federal height restrictions.[17] Xcel Energy's proposed route would not conflict

[13] EA, p. 25.

[14] EA, p. 25.

[15] Direct Testimony of Pamela J. Rasmussen, Exhibit 25, p. 4 (herein, "Rasmussen Testimony").

[16] EA, pp. 25-26.

[17] EA, p. 1.

with the existing or extended runway because the approach zone areas are above the height of the planned structures.[18]

21. Xcel Energy proposes to use single pole, galvanized steel, and davit armed structures for the transmission line. A single pole design is capable of use for both single and double circuit transmission line configurations. Double circuit structures are proposed between the Lakefield Junction Substation and the City of Jackson to accommodate a double circuit 69/161 kV line. Near the Fox Lake Substation, Xcel Energy proposes double circuit structures designed to accommodate two 161 kV circuits.[19]

22. The conductor proposed for the transmission line is 795-KCMIL 26/7 aluminum core steel supported ("ACSS") with seven steel core strands and 26 outer aluminum strands. For lightening protection, Xcel Energy will utilize 3/8-inch shield wire.[20]

23. The conductor capacity is 1,620 amps with average loading expected to be around 440 amps in 2006.[21]

24. As part of the Project, Xcel Energy proposes modifications to the two substations to support the new 161 kV transmission line. Xcel Energy requested flexibility around both of the substations to accommodate future expansion and to minimize land use impacts.[22]

25. At the Lakefield Junction Substation, the existing 161 kV Alliant Energy transmission line currently enters the substation from the south. It will need to be relocated from the south side to the north side of the substation. The new 161 kV line will exit the substation from the south.[23] However, it is uncertain at this time whether the new 161 kV line can be double circuited with any of the existing lines exiting the substation. This is because a new 345 kV line will be constructed from the Split Rock Substation to the Lakefield Junction Substation. (A route application for this line has been filed with the MEQB.) Accordingly, Xcel Energy would like the flexibility to determine the final structure types and location of the new 161 kV line near the substation once survey and design have been done and the 345 kV plans are more

[18] EA, p. 28. The airport is located north of I-90. See Application, Appendix D.10 for a map illustrating the approach zone areas, both existing and proposed.

[19] EA., p. 8.

[20] EA, p. 9; Testimony of Grant Stevenson at hearing.

[21] EA., p. 9.

[22] Application, pp. 16-17.

[23] EA, p. 12.

specific. Xcel Energy would also like to have flexibility to relocate any of the existing Xcel Energy and Alliant Energy transmission lines within two miles of the substation to accommodate the final line designs and to minimize land use impacts. There may be opportunities for Xcel Energy to consolidate lines in this area and reduce the number of poles in the fields. This may include using of temporary lines with wood structures until a final decision on the 345 kV line route is determined. Xcel Energy would share the final schematic with MEQB Staff for review. Allowing this flexibility as part of this permit would eliminate the need for Xcel Energy and Alliant Energy to file for a minor alteration permit at a later date to move one of the lines.[24]

26. At the Fox Lake Substation, which is owned by Alliant Energy, the work will include using an existing dead end structure to terminate the new line on the bay south of the termination of the existing transmission line; connecting the new line to an existing breaker and connecting the existing Alliant Energy line to a 161 kV, SF6 gas circuit breaker that will be installed at the substation. The substation will need to be expanded 40 feet to the west to accommodate a new control house. The expansion area is part of Alliant Energy's existing property.[25]

27. Xcel Energy would also like flexibility in final design decisions at the Fox Lake Substation. Specifically, Xcel Energy would like the flexibility to double circuit with the existing Alliant Energy 161 kV line. This would be for a short section (from Highway 4 east to the Fox Lake Substation) to minimize impacts on the land that it would cross. Concerns about the location of the line in this area were raised by the landowners at the MEQB scoping meeting and several of the CATF meetings. Xcel Energy agreed to work with those landowners on the final location of the lines in that area. The proposal at this time is to double circuit the new line with the existing Alliant Energy 161 kV line from Highway 4 to the Fox Lake Substation. The line could be placed along the I-90 fence line or in the location of the existing Alliant Energy line. Xcel Energy stated it would work through these issues with the landowners once the final route permit is issued and the Company begins contacting landowners for survey.[26]

28. At the hearing, a property owner along that stretch of the route, Robert Nelson, testified that he desired the potential double circuit line to utilize Alliant's existing transmission line corridor that now crosses his property diagonally, southwest to the northeast. Accordingly, Ms. Rasmussen of Xcel Energy requested on the record that the routing corridor for the Company's preferred route be expanded to include the current alignment of the existing line within its scope.[27]

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[24] Rasmsussen Testimony, pp. 8-9.

[25] EA, p. 11.

[26] Rasmussen Testimony, p. 8.

[27] See EA, Appendix D.7a. Just southwest of the Fox Lake Substation, Xcel's preferred route corridor does not include all of Alliant's existing 161 kV single circuit line. Robert

**Routes Analyzed in Environmental Assessment**

29. The EA evaluated Xcel Energy's I-90 route and one east/west alternative to this route. This alternative east/west route would parallel the existing 161 kV line owned by Alliant Energy between the Lakefield Junction and Fox Lake substations which is located about one to one and a half miles to the north of I-90. This route stays well to the north of I-90 for its entire length. It totally avoids any conflicts with businesses and landowners in the City of Jackson. This route, identified as D-4 by the CATF, would be approximately 22.3 miles long ("Alliant Route"). This option would not require the existing line to be taken out of service for an extended period of time, because it would parallel the Alliant line, rather than sharing poles.[28]

30. In the EA, the MEQB Staff expressly stated that no route that required an extended outage of the Alliant Energy line would be considered. The MEQB Staff noted: [T]he PUC has determined that electrical system reliability would be compromised if the Alliant line were taken out of service for an extended period of time."[29] Accordingly, the MEQB would not "consider any route alternative that would consider the existing 161 kV Alliant line to be removed from service, other than what is necessary as part of Xcel's proposal. Nor will the EQB consider the no-build option."[30]

31. In conjunction with Xcel's preferred I-90 route, the EA also considered three alternative routes through the City of Jackson that the CATF developed.[31] The three options all begin at the same point. They enter Jackson on the north side of the freeway to approximately 1 mile east of Highway 71, then cross south over I-90. At that point, they diverge, as follows:

(a) Route D-1-B: After crossing I-90, the route follows the half section line of Section 13 of Des Moines Township through the Jackson Industrial Park to the south of the industrial park along the property line between AGCO and the Wayne Torgerson farm. The alignment would then turn east and follow the southern boundary of the industrial park, across CH23, then enter Section 18 of Wisconsin township through agricultural land to the half section line, turn north and follow the half section line until it intersects MP 12 of Xcel Energy's proposed route.[32]

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Nelson asked that the corridor be expanded to include all of the existing line. Xcel agreed, and asked for the amendment.

[28] EA, pp. 14-15.

[29] EA, p. 52.

[30] EA, p. 8.

[31] EA, pp. 14-16, Appendix B, Appendix D.3 and Appendix D.3.A.

[32] EA, p. 19.

(b) Route D-1-C: This route would pass through the I-90 interchange at the intersection of I-90 and Highway 71 and then continue east for approximately 2,500 feet before crossing to the south side of I-90. This route could not be built entirely aboveground. It would require approximately 3,500 feet of undergrounding to accommodate anticipated future expansion at the Jackson airport.[33] The net cost of undergrounding the necessary 3,500 feet to avoid the airport restrictions would be $2,960,000.[34]

(c) Route D-5: This option is identical to Option D-1-B until it reaches the southwest side of the Jackson Industrial Park. It then turns east and follows the southerly boundary for approximately 1,700 feet, then angles south and east along the railroad spur line that passes through the Farmer's Cooperative Association across CH 23 and enters Wisconsin township in section 18, follows the road and railroad spur line to the half section line, then turns north and follows the half section line to the point where it intersects with MP 12 of Xcel Energy's proposed route.[35]

**Discussion of Public Comments**

32. Xcel Energy's application generated a moderate number of comments from members of the community. With respect to routing, the majority of comments focused on the ultimate placement of the line through the City of Jackson. Comments that represent the range of concerns expressed follows.

33. The City of Jackson opposes Xcel Energy's proposed route. On December 2, 2003, the Jackson City Council unanimously passed Resolution No. 69-1203 which stated the City's opposition and noted that the location of the proposed route has been designated a "job opportunity building zone" under Minn. Stat. § 469.314.[36] The City of Jackson also opposed Route Option D-1-B in its Resolution No. 17-204, dated February 2, 2004 because the alignment would transect prime development land in SE ¼, SE ¼ of Section 18 in Wisconsin township.[37] The City of Jackson supported Option D-5 and noted the following reasons for supporting this route: This route option would not interfere with the airport; AGCO preferred Option D-5; it follows its existing corridor and avoids the prime development land in Section 18 and Option D-5 brings the new line within close proximity of economical interconnections

[33] EA, p. 19.

[34] EA, p. 28.

[35] EA, p. 20.

[36] EA, p. 27, App. C-2.

[37] EA, p. 28, App. C-14.2 and C-14.3.

with the City's substation. The CATF also supported this option if the I-90 route were approved.[38] Regardless of which Jackson route is selected, the City of Jackson stated in written comments to the ALJ dated May 26, 2004 that it will work with Xcel Energy to establish the north/south section line for the route of the 161 kV line on the east side of the City of Jackson to I-90.

34. Several local business owners also opposed construction of the new line along Xcel Energy's proposed route. The business owners oppose the route because it is too close to the Jackson Municipal Airport, runs through prime industrial, commercial and residential development sites in and near the City of Jackson; they believe it would be detrimental to the development of those sites, would reduce the value of developed tracts and would adversely impact the economic health of the city and county.[39] One of the business owners was Todd Asa, owner of Kemma-Asa Auto Plaza who submitted a letter dated October 16, 2003, advising that he owned 35 acres behind his dealership south of I-90 and that the proposed line would run through the backyards of private home lots adjacent to the golf course. In his letter and later at the public hearing, Mr. Asa asserted that the line would prevent future development of this property for homes. He stated that his proposed plat for the north side of his property immediately south of I-90 in Jackson had been approved. He also stated that the plat proposal for housing on the south side of his property was still pending. [40]

35. Fort Belmont opposed Xcel Energy's preferred route. Fort Belmont is an historical site which includes a 1902 church and 1873 farmhouse, an old barbershop and original summer kitchen. There is also a reproduction of a blacksmith shop, a log house and a sod house. Fort Belmont currently has some plans to expand to add additional facilities. Fort Belmont representatives and Jackson County Tourism, Inc. submitted letters stating that they believed the presence of the transmission lines adjacent to the Fort would adversely affect the number of visitors.[41]

36. Farmers Cooperative Association submitted written comments dated June 4, 2004 stating that it prefers the Alliant Route. The Cooperative stated that it opposed Xcel Energy's proposed route because it would cross Cooperative property and could impact future expansion of the facilities. It further stated that it "very much opposed" Route D-5 because the line would run next to the feed mill and an adjacent large grain bin. The line would also run near a anhydrous ammonia facility which the Cooperative believes poses risks.

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[38] EA, p. 29.

[39] EA, p. 27.

[40] EA, p. 27 and Ex. 32.

[41] EA, p. 26.

37. On June 7, 2004, Xcel Energy submitted comments relating to certain issues raised at hearing or in three letters submitted to the ALJ. The issues and Xcel Energy's responses are as follows:

(a) Clair Gilmore:

(1) At the hearing, counsel for Clair Gilmore, the owner of Vet's Oil Company expressed opposition to the alternative routes through the City of Jackson developed by the CATF. Mr. Gilmore's bulk fuel plant and fuel station is located in Jackson at the northwest corner of the I-90 and Highway 71 intersection and he opposes the line being sited along the north side of I-90, past Highway 71. He stated he is concerned that the new transmission line would be placed over bulk storage tanks and interfere with satellite transmission of lottery and credit card transactions. These concerns were repeated in a letter to the ALJ dated June 1, 2004.

(2) Xcel Energy stated in its written comments that if one of the CATF routes is chosen, Xcel Energy plans to construct the new line so that it does not cross over any of the above ground storage tanks. Initial measurements of the distance between the tanks and the freeway right-of-way fence indicate there is adequate room to place the transmission line adjacent to road right-of-way and still maintain the electrical clearance to the tanks as required by the National Electric Safety Code. Xcel Energy further stated that the Company has not had problems in the past with high voltage transmission lines and satellite communications and therefore does not anticipate satellite communications will be affected by the installation of the 161 kV power line adjacent to Mr. Gilmore's property. In the unlikely event that satellite communications are impacted, Xcel Energy will work with Mr. Gilmore and any other affected party to resolve the problem, including relocating the satellite antennas.

(b) Jason McIlravy

(1) Mr. McIlravy owns acreage along I-90 along 470th Avenue and has a house near where the preferred route would turn east to head along I-90. In his written comments, he expressed concerns that the transmission line could affect cell phones, cordless phones, AM radio reception and a wireless dog fence.

(2) In its written comments, Xcel Energy stated it does not anticipate the transmission line will cause interference with cell phones, cordless phones, wireless fences, televisions, remote-control freeway gates or any other type of radio communication. Should any such unanticipated interference occur, Xcel Energy will remedy the situation in consultation with the affected individuals.

(c) Herman Brochman

(1) At the hearing, and in a letter to the ALJ, Mr. Brochman proposed a modification of the route just west of the Fox Lake Substation. Specifically, he suggested double circuiting the new 161 kV transmission line with the existing Alliant Energy-owned 161 kV transmission line for three miles from the

substation to Highway 7 and then heading south to I-90. This would avoid impacts on five residences that would be impacted by Xcel's proposed route in this area. The Brochman route would require the cooperation of and coordination with Alliant Energy and would add three additional miles of double circuiting and one additional mile of transmission line overall (for the route south to I-90).

(2) In its written comments, Xcel Energy stated that both Xcel Energy and Alliant Energy opposed double circuiting the *entire* Alliant Energy 161 kV route because of reliability concerns and these reliability concerns prompted the Commission to issue a certificate for a new line. Construction would take approximately 10 months, during which time the existing line would have to be taken out of service. Alliant Energy advised Xcel Energy that such a lengthy outage would pose a significant risk to its customers and was unacceptable. Xcel Energy stated it has similar reliability concerns about double circuiting the existing line for the three additional miles proposed by Mr. Brochman. Double circuiting a three-mile segment of the Alliant Energy line would require the existing line to be taken out of service for a much shorter period of time -- approximately six to eight weeks. The Company's preliminary investigation and conversations with Alliant Energy were inconclusive as to whether the electrical system could withstand this outage. Therefore, Xcel Energy did not support this route segment as proposed. However, Xcel Energy stated that it did not oppose *paralleling* the new line with the existing line for this route segment.[42]

*Applicable Statutory Considerations*

38. Minn. Stat. § 116C.57, subd. 4, provides that the MEQB shall be guided by the following responsibilities, procedures, and considerations:

> (a) Evaluation of research and investigations relating to the effects on land, water and air resources of large electric power generating plants and high voltage transmission lines and the effects of water and air discharges and electric and magnetic fields resulting from such facilities on public health and welfare, vegetation, animals, materials and aesthetic values, including baseline studies, predictive modeling, and evaluation of new or improved methods for minimizing adverse impacts of water and air discharges and other matters pertaining to the effects of power plants on the water and air environment;
>
> (b) Environmental evaluation of sites and routes proposed for future development and expansion and their relationship to the land, water, air and human resources of the state;
>
> (c) Evaluation of the effects of new electric power generation and transmission technologies and systems related to power plants designed to minimize adverse environmental effects;

[42] Paralleling with Alliant would cost $316,600 more than Xcel's preferred route, but it would avoid impacts to five residences in the area. See, Xcel letter of June 7.

(d) Evaluation of the potential for beneficial uses of waste energy from proposed large electric power generating plants;

(e) Analysis of the direct and indirect economic impact of proposed sites and routes including, but not limited to, productive agricultural land lost or impaired;

(f) Evaluation of adverse direct and indirect environmental effects that cannot be avoided should the proposed site and route by accepted;

(g) Evaluation of alternatives to the applicant's proposed site or route proposed pursuant to subdivisions 1 and 2;

(h) Evaluation of potential routes that would use or parallel existing railroad and highway rights-of-way;

(i) Evaluation of governmental survey lines and other natural division lines of agricultural land so as to minimize interference with agricultural operations;

(j) Evaluation of the future needs for additional high voltage transmission lines in the same general area as any proposed route, and the advisability of ordering the construction of structures capable of expansion in transmission capacity through multiple circuiting or design modifications;

(k) Evaluation of irreversible and irretrievable commitments of resources should the proposed site or route be approved;

(l) When appropriate, consideration of problems raised by other state and federal agencies and local entities;

(m) If the board's rules are substantially similar to existing regulations of a federal agency to which the utility in the state is subject, the federal regulations must be applied by the board;

(n) No site or route shall be designated which violates state agency rules.

The Application and the EA contain adequate information to allow the MEQB to consider these factors.

*Applicable Rule Considerations*

39. Minn. Rule 4400.3150 requires that the MEQB be guided by specified siting and routing considerations. They are as follows:

(a) Effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values, recreation, and public services;

(b) Effects on public health and safety;

(c) Effects on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;

(d) Effects on archaeological and historic resources

(e) Effects on the natural environment, including effects on air and water quality resources and flora and fauna;

(f) Effects on rare and unique natural resources;

(g) Application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity;

(h) Use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries;

(i) Use of existing large electric power generating plant sites;

(j) Use of existing transportation, pipeline, and electrical transmission systems or rights-of-way;

(k) Electrical system reliability;

(l) Costs of constructing, operating and maintaining the facility which are dependent on design and route;

(m) Adverse human and natural environmental effects which cannot be avoided; and

(n) Irreversible and irretrievable commitments of resources.

Each specific consideration will be assessed in the following Findings.

**Effects on Human Settlement**

*Community Benefits to be Expected from the Proposed Transmission Line*

40. The relatively short-term nature of construction and the number of workers who will be hired from outside of Project area should result in some short-term positive economic impacts in the form of increased spending on lodging, meals and other consumer goods and services. It is not anticipated that the Project will create new permanent jobs, but it will create temporary construction jobs that will provide a one-

time influx of income into the area.[43] Once constructed, the transmission line will provide an increase to the counties' tax base.[44]

*Displacement*

41. None of the routes under consideration will require the displacement of any occupied residences or businesses.[45]

*Noise*

42. Noise will be generated by the normal construction and operation of the Project. During construction, activities that could result in potential noise impacts will be of short duration and conducted during daytime hours to minimize any unavoidable residential impact.[46]

43. Transmission conductors and transformers at substations produce noise under certain conditions. Noise emission from a transmission line occurs during heavy rain and wet conductor conditions. During dry weather, audible noise from transmission lines is an imperceptible, sporadic crackling sound. The nearest receptors to the substations are residences which would follow under Noise Area Classification 1. The nearest residence to the Fox Lake Substation is approximately 500 feet away, whereas the nearest house to the Lakefield Junction Substation is 1,300 feet. No new transformers or other equipment will be added at the substations that would increase the noise level. Additionally, the Fox Lake Power Plant is located adjacent to the Fox Lake Substation and produces higher noise levels than the substation.[47]

44. Operation of the new transmission line will result in no perceptible increase in noise levels in the surrounding area.

*Aesthetics*

45. The transmission line will utilize single steel poles 70 to 110 feet high. The average height of the single circuit structures would be approximately 80 feet with an average span length between structures of approximately 600 feet.[48] Double circuit structures would average 95 feet in height. The pole structures will be installed in holes

[43] Application, p. 41.

[44] EA, p. 34; Application, p. 41.

[45] EA, p. 33.

[46] EA, p. 34.

[47] EA, pp. 34-35

[48] EA, p. 8.

dug 15-20 feet deep and 4-6 feet in diameter. Each steel structure will be supported by a drilled concrete pier foundation. In poor or wet soil conditions, there may be specially engineered foundations such as a steel caisson that would be vibrated into the ground.[49]

46. The new transmission line structures along I-90 will be visible to people using the Jackson Golf Club or Fort Belmont or Clear Lake or Fox Lake in the summer months. Because the transmission line will cross the Des Moines River adjacent either to the I-90 bridge or the existing 161 kV Alliant crossing, the visual impact is not anticipated to be significant. Persons living along I-90 and travelers will see new transmission line structures, which are commonplace along other sections of I-90 and other roads in the area. In contrast, those living along the Alliant Route would see a second set of poles.[50]

47. On the I-90 route, there are 10 residences within 300 feet, four within 100-200 feet and six are within 200-300 feet. On the Alliant Route, there are four homes within 40-100 feet and seven within 200-300 feet. To avoid homes on the Alliant Route, Xcel Energy would have to cross from one side of the existing transmission line to the other. A similar situation exists along the eastern portion of I-90, but it is easier to cross over the freeway to avoid residences as opposed to criss-crossing over a transmission line. The proposed transmission line will not have a significant impact on human settlement patterns.[51]

*Cultural Values*

48. No discernable land use change will occur and thus there will be no change in cultural values from the Project.[52]

*Recreation*

49. Construction of the new line may temporarily disrupt recreation activities in the immediate vicinity of the transmission line route. However, no significant or long-term impact is anticipated regardless of the route.[53]

**Effects on Public Health and Safety**

[49] EA, p. 9.

[50] EA, p. 36.

[51] EA, p. 33.

[52] Application, p. 43.

[53] EA, p. 35.

50. The issue of EMF was examined. The term EMF refers to electric and magnetic fields that are present around any electrical device. The intensity of the electric field is related to the voltage of the line and the intensity of the magnetic field is related to the current flow through the conductors. Both magnetic and electric fields decrease in intensity with increasing distance from the source.[54]

51. There is at present insufficient evidence to demonstrate a cause and effect relationship between EMF exposure and any adverse health effects.[55]

52. In previous routing proceedings, the MEQB has imposed a permit condition on high voltage transmission line permits limiting electric field exposure to 8 kV per meter at one meter above ground. This permit condition was designed to prevent serious hazard from shocks when touching large objects, such as semi tractor trailers or large farm equipment under extra high voltage transmission lines of 500 kV or greater. The existing line and proposed line would be below this limit and would create a maximum electric field of approximately 1.03 kV per meter for the proposed 69/169 kV configurations.[56]

53. The MEQB has not established similar limits on magnetic field exposure and there are no federal or Minnesota health-based exposure standards for magnetic fields. According to Xcel Energy, the maximum calculated ground level magnetic field expected when the new line and the existing line are both conducting electricity is approximately 39-58 milligauss directly below the new line. The only two states that have established standards are Florida (a 150 milligauss limit) and New York State (a 200 milligauss limit). The maximum magnetic field expected from the new line proposed here is well within those limits.[57]

54. No significant impacts on human health and safety are anticipated from the Project.

**Effects on Archeological and Historic Resources**

55. There are no known or suspected archeological properties in the area that will be affected by the Project.[58] Accordingly, the Project will not have negative impacts on archeological or historic resources.

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[54] Application, pp. 29-30.

[55] EA, pp. 44-49.

[56] EA, p. 44.

[57] EA, p. 45.

[58] EA, p. 35.

**Effects on Land-Based Economies, Including Agriculture, Forestry, Tourism and Mining**

56. The preferred route will impact 67.13 aces of agricultural land temporarily and 0.21 acres permanently. Xcel Energy chose the route to minimize impacts to farmland in the Project vicinity by closely following along much of the I-90 right of way fence line.[59]

57. The I-90 route would provide an opportunity for structure placement relative to fence lines or property boundaries. Agricultural impacts are minimized when transmission line structures are placed on section lines and field breaks where possible.[60]

58. In contrast, the Alliant Route would have significant impacts on agriculture due to the placement of a second line in the area next to the existing Alliant line. The Alliant Route would require at least 45 feet of new right-of-way to provide necessary clearance between parallel transmission line structures to allow for large agricultural equipment to maneuver around them. The Alliant line is located on the half-section for most of its 22.5 miles. The new line could not therefore be on the half-section line but would have to be set-off from the existing Alliant right-of-way and the new structures would have to intrude into the fields at least 80 feet or more. This location of the lines is likely to increase impacts on agricultural land.[61] Xcel Energy received numerous comments from landowners along the Alliant Route, many of which expressed a concern about the location of the poles in farmers' fields.[62]

59. There are no forestry or mining economies that will be affected by the Project.[63]

60. With respect to tourism, Fort Belmont is located within the Project corridor on the south side of I-90 at Jackson. Xcel Energy's preferred route passes behind Fort Belmont and therefore no impacts on tourism are expected by this option. The other options through Jackson would require the line to be placed along the north side of the Fort Belmont property. Potential impacts should be able to be substantially mitigated by strategic pole placement.

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[59] Application, pp. 47-48

[60] EA, p. 32.

[61] EA, pp. 30-31.

[62] EA, p. 31.

[63] Application, pp. 48-50.

**Effects of the Project on the Natural Environment, Including Effects on Air and Water Quality Resources and Flora and Fauna**

61. Construction would generate localized emissions from equipment for the construction period of approximately 12 months. There will be no impact on air quality during the operation of the lines. There will be no significant adverse impacts no the surrounding environment because of the short and intermittent nature of the motor vehicle emissions and dust-producing construction phases.[64]

62. The Project will cross several watersheds including the Des Moines River, Rock River and Blue Earth. Once the Project is completed, there will be no impact on surface water quality. Xcel Energy will avoid crossing streams with equipment to the greatest extent practicable. There are several wetlands along or near the existing Alliant 161 kV line and nine wetlands within the vicinity of Xcel Energy's proposed route. Many of the wetlands are hydrologically connected to area rivers, lakes and streams. All are small and can readily be avoided. Transmission line structures will not be placed in wetlands and crossing wetlands will be avoided wherever possible. If wetlands must be crossed, construction crews will use mats to minimize soil compaction.[65]

63. Flora within habitats along the Project corridor are typical of what will be found in an agricultural and urban setting. Since the Project will be built primarily near existing roads, agricultural lands and urban areas that have been previously disturbed, no impacts are anticipated to native vegetation.[66]

64. The DNR expressed concern about the impacts to Canada Geese that use the Statutory Game Refuge on and around Fox Lake. To address these concerns, Xcel Energy will install swan flight diverters on the shield wire of the line from Highway 4 to the Fox Lake Substation.[67] Since the line is proposed to be double circuited, Xcel Energy cannot accommodate the H-frame construction requested by the DNR. However, placing both lines on one pole will make the line more visible to the birds.

65. The Project will not have a significant impact on the natural environment.[68]

**Effects on Rare and Unique Natural Resources**

66. The only rare and unique resources identified in the Project area are related to remnants of prairie land near the old railroad grade in the City of Jackson

[64] EA, p. 43.

[65] EA, p. 42.

[66] Application, p. 55.

[67] Application, p. 57.

[68] Application, pp. 52-55.

which is in a degraded state. The DNR and the U.S. Fish and Wildlife Service did not identify any impacts to rare, threatened, or endangered species within the Project corridor for the preferred route or along the Alliant 161 kV transmission line.[69]

67. The Project will not adversely impact threatened or endangered species.[70]

**Design Options that Maximize Energy Efficiencies, Mitigate Adverse Environmental Effects, and Could Accommodate Expansion of Transmission or Generating Capacity**

68. Xcel Energy's proposed route will accommodate future expansion far better than the Alliant route. Specifically, Xcel Energy's proposed route will allow for economies in land use and resources to meet load serving needs in the Jackson area. Mr. Steckelberg, Project Engineer for GRE, submitted written prefiled testimony and testified at the hearing regarding the Southwest Minnesota Local Load Serving Study which evaluated load serving needs in the Jackson area. The study group determined that two new sources area required for the Jackson area to support the growing load. To provide these two new sources, the study group devised four options. Two of the options are dependent on the Xcel Energy route being placed along the I-90 corridor. The preferred option, Option A-3, would implement two new transformers in Jackson to provide the two required sources. This option is possible because the new 161 kV line can be tapped to create a source. The other preferred option, Option A-1, would require construction of a new 69 kV line from the Lakefield Junction Substation to the City of Jackson. This option would take advantage of the new 161 kV line by potentially sharing the same right-of-way by using double circuit structures as proposed by Xcel Energy.[71]

69. Mr. Steckelberg testified that if the I-90 route were selected, a minimum of $2.4 million would be saved in the cost of constructing facilities to provide the two new sources.[72] Both GRE and Missouri River Energy Services have obligations to serve the load on the 69 kV transmission system in the Jackson area. It has not been determined which utility will construct the new transmission facilities in Jackson but some cost-sharing arrangement will likely be reached.[73]

70. At the time of Xcel Energy's Application, a new 69 kV line into the City of Jackson from the Lakefield Junction Substation had been proposed to address local

[69] EA, p. 42.

[70] EA, pp. 41-42.

[71] Steckelberg Testimony, p. 5.

[72] Direct Testimony of Michael Steckelberg, Exhibit 27, pp. 3-7 (herein, "Steckelberg Testimony").

[73] Steckelberg Testimony, p. 7.

load serving needs. To accommodate this potential new line, Xcel Energy proposed to construct double circuit-single pole davit arm structures for 9 miles from the Lakefield Junction Substation to the Des Moines River so that the new 69 kV line could be built on the same structures.[74] The study group has now stated its preference for Option A-3 which would not require the construction of a new 69 kV line into the City of Jackson. If Option A-3 is constructed, double circuit structures are not necessary from the substation to Jackson to accommodate future expansion. However, if the study group determines that a new 69 kV line source is the better solution, double circuit structures would be the more prudent alternative.

**Use or Paralleling of Existing Rights-of-Way, Survey Lines, Natural Division Lines, and Agricultural Field Boundaries//Use of Existing Transportation, Pipeline, and Electric Transmission Systems Rights-of-Way**

71. The majority of Xcel Energy's proposed route would follow existing transmission and interstate road rights-of-way.[75] The Alliant Route alternative follows an existing transmission line corridor.

72. Through the City of Jackson, Xcel Energy's proposed route generally follows an abandoned railroad right-of-way and half section lines.

73. Through the City of Jackson, Option D-1-C would follow an existing transportation corridor. Option D-1-B would generally follow half section lines. Option D-5 would generally follow half section lines and a railroad corridor.[76]

**Electrical System Reliability**

74. All options under consideration for the new transmission line would reliably transmit electricity.

**Costs of Constructing, Operating, and Maintaining the Facilities Which are Dependent on Design and Route**

75. Option D-4 is estimated to cost $1.393 million less than the preferred route along I-90 if costs savings for facilities for local load serving are not considered. However, Option D-4 is estimated to be $110,937 more costly than the preferred route if local load serving savings are considered.[77]

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[74] Application, p. 16.

[75] EA, Appendix D.1—Appendix D.7b.

[76] EA, Appendix D.3a.

[77] Direct Testimony of Grant Stevenson, Exhibit 26, (herein, "Stevenson Testimony") Attachment GDS-1.

76. Option D-1-B through the City of Jackson would be approximately $177,063 less expensive than Xcel Energy's preferred route through Jackson.[78]

77. Option D-5 through the City of Jackson would be approximately $149,063 less costly than Xcel Energy's preferred route through Jackson.[79]

78. Option D-1-C would be approximately $2,960,000 more costly than Xcel Energy's preferred route through Jackson because it would have to be undergrounded to avoid airport restrictions.[80]

**Adverse Human and Natural Environmental Effects Which Cannot be Avoided and Mitigation Strategies**

79. The Company's proposed mitigation strategies adequately mitigate the enumerated impacts from the Project.

**Irreversible and Irretrievable Commitments of Resources**

80. The Project will not require the irreversible or irretrievable commitment of resources.

**Prohibited and Excluded Sites**

81. Minn. Rule 4400.3350 identifies sites where siting of new facilities is prohibited or excluded. The proposed routes for the transmission line are not located in a prohibited or excluded area.

**Comparison of I-90 and Alliant (parallel) Routes**

82. A comparison of the Xcel Energy route and the Alliant Route (using paralleling) demonstrates that the Xcel Energy route is the better route. Pole placement along the I-90 route would be adjacent to fences or on property lines, which would have less, if not minimal impact on the ability to farm the land. In contrast, the Alliant Route would have significant impacts on agriculture. The new line would have to be placed out in the fields since the existing line is already along the property/fence lines. The primary issue of concern that has been raised by the public during public meetings and

[78] Stevenson Testimony, Attachment GDS-1.

[79] Stevenson Testimony, Attachment GDS-1.

[80] EA, pp. 28, 50-51.

in other comments was the difficulty farmers would have trying to maneuver equipment around the structures if they were next to the existing Alliant line.[81]

83. The Xcel Energy route will also allow for significant efficiencies in the construction of facilities to meet local load serving needs as described by Mr. Steckelberg. These saving are estimated at a minimum of $2.4 million.

84. Finally, the proposed airport expansion is expected to impact Alliant's existing 161 kV line and would impact the new 161 kV line if it were routed parallel to the existing Alliant line.[82] This would require the removal of portions of the existing line and a new line if it were built.

**Comparison of Transmission Routes Through Jackson**

85. The CATF and the majority of commentators opposed Xcel Energy's proposed route through the City of Jackson. Local residents, businesses and the City of Jackson would prefer that one of the CATF options be selected.

86. Option D-1-C would require significant undergrounding to avoid Jackson airport restrictions that would add $2,960,000 in costs to the Project. Xcel Energy opposes Option D-1-C because it requires undergrounding. Xcel Energy advised that in addition to the high costs underground lines are problematic because failures are difficult to locate and it is also difficult to access a failure.[83] For these reasons, Option D-1-C is not a feasible alternative.

87. The two remaining CATF alternatives are both supported in the record. Xcel Energy prefers Option D-1-B because this route option is shorter, minimizes impacts to local businesses and is the least costly of the routes.[84] Option D-5 is preferred by the City of Jackson, the CATF, and AGCO because it avoids land the City has classified as prime development land.[85] However, the Farmers Cooperative Association strongly opposes Option D-5 because it would cross Cooperative property near its feed mill, grain bin and anhydrous ammonia facilities.[86] There is no "perfect" route through the City that avoids all objections. The Administrative Law Judge concludes that route D-5 is marginally superior to route D-1-B, but the final route

[81] Rasmussen Testimony, p. 5.

[82] EA, p. 25.

[83] EA, pp. 50-51.

[84] Rasmussen Testimony, p. 7.

[85] EA, p. 29.

[86] Farmers Cooperative Association letter dated June 4, 2004.

through the City of Jackson should be constructed along Options D-1-B and D-5 in a manner that best balances land use issues.

**Comparison of County Roads 4 and 7 near Fox Lake**

88. At the Fox Lake Substation, Xcel is proposing that the line be double circuited with the existing Alliant 161 kV line for approximately one mile from County Road 4 to the Fox Lake Substation. At County Road 4, the new line would make a small jog south, and then enter the I-90 corridor, where it would proceed westerly toward Jackson.

89. In a letter, Herman Brochman proposed a revised route to avoid five residences. He proposed that the new line should be double circuited with the Alliant line from the Fox Lake substation west to County Road 4 and then continue to be double circuited further west, for an additional three miles, to County Road 7. Brochman proposed that the new line then turn south along County Road 7 until it intersected with the I-90 corridor, a distance of about one mile.

90. Once the Alliant line gets out of the Fox Lake substation and gets just a little ways southwest of it, it turns westerly and runs in a straight line for many miles, until it changes course on the other side of the City of Jackson. It runs long a half-section line referred to as 125th Street. In the area immediately west of the Fox Lake substation past County Road 4 and west to County Road 7, there are no residences that would be affected by a double circuited line. In fact, 125th Street comes to an end at County Road 4, and there is no paved road between County Road 4 and County Road 7 where 125th Street would be. In contrast to this lack of residences, the I-90/County Road 4 alternative does impact a number of houses which are quite near I-90 itself. Brochman's letter mentioned five which are in Sections 10, 11 and 12 of Jay Township. The five include three on the north side, and two on the south. While it would theoretically be possible to avoid these by crisscrossing I-90 a number of times, it would have less impact on human settlement if it were possible to avoid houses all together using the Alliant Route all the way to County Road 7. However, this should not be done at the cost of putting poles out into the fields. It should only be done if the line from the Fox Lake Substation can be double circuited with the Alliant line. If that cannot be done, then the County Road 4 to I-90 route is preferable.

91. As noted in paragraph 37(c)(2), Xcel does not support additional double circuiting with Alliant. But Xcel does not oppose paralleling the new line with the existing line along the route proposed by Mr. Brochman. The difficulty with paralleling is that it pushes the new poles out into the fields, in most cases about 80 feet from the half-section line.[87]

92. An additional feature of the Brochman proposal is the addition of one mile of new single circuit right-of-way along County road 7 from the Alliant line south to the I-

[87] See paragraph 58.

90 corridor. The aerial photography (Appendix D.5) and the plat book[88] suggest that there is only one residence along this route. The residence is on the east side of County Road 7, near the southwest corner of Section 3, Jay Township. The plat book identifies it as the residence of Edwin Claussen, at 406 120th Street. A review of the mailing list for the December, 2003 mailing of the Notice of Filing Route Permit Application[89] does not reveal either that name or that address. Nor do the name or address appear on the list used in May, 2004, to mail the notice of Public Hearing.[90] These are to be expected, because the County Road 7 route was not proposed by Xcel or by the CATF. Two other potentially affected landowners, Walter VonOhlen and Ruby Schafer, did get notices of the public hearing, but did not get notices of the filing of the route application. This occurred because they were not affected by Xcel's proposed route (the December, 2003 mailing) but they were affected by the CATF proposal (the May, 2004 mailing).

93. Minn. Stat. § 116C.57, subd. 2b requires the applicant (Xcel) to send notice of the application to each owner whose property is along its proposed route. Xcel complied with this requirement with its December, 2003 mailing. Mr. Claussen's property is not along Xcel's proposed route (the I-90 route).

94. Minn. Stat. § 116.57, subd. 2d does not require that the Notice of Hearing be sent to landowners or residents. Instead, it requires mailed notice to various governmental entities (including townships) and newspaper publication. The Board's May, 2004 mailing of the Notice of Hearing to landowners along both the I-90 route and the Alliant route was not required by law. Instead, the Board made the mailing because of its policy of encouraging broad-based public participation.

In summary, the fact that Mr. Claussen did not receive notice of the Brochman proposal is not fatal to its consideration.

Based on the foregoing Findings of Fact, the ALJ makes the following:

## RECOMMENDATION

That the MEQB issue a route permit to Xcel Energy for construction of the proposed 161 kV line between the Lakefield Junction Substation and the Fox Lake Substation as follows:

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[88] 2003 Martin County, Minnesota, Farm & Home Plat & Directory (Farm & Home Publishers, Ltd., 2003).

[89] Ex. 8.

[90] Ex. 22.

- From the Lakefield Junction Substation to Highway 71 along the I-90 route and corridor as proposed by Xcel Energy in its Application;

- From Highway 71 through the City of Jackson to Milepost 12 along a corridor that includes routes D-1-B and D-5; and

- From Milepost 12 along the I-90 route and corridor as proposed by Xcel Energy in its Application and modified by Ms. Rasmussen in her testimony; however, if it is feasible to double circuit with the existing Alliant 161 kV line from Fox Lake substation to County Road 7, then the County Road 7 alternative should be used in place of Xcel's proposal. However, if it is not feasible to double circuit with the Alliant line, then Xcel's proposal, as modified by Ms. Rasmussen, is preferable to paralleling the Alliant line between County Road 7 and County Road 4.

The route permit should further provide that:

- Xcel Energy work with the City of Jackson and landowners in the area of routes D-1-B and D-5 to construct the line in the location that best balances land use issues but where irreconcilable differences occur, route D-5 should prevail; Xcel Energy shall provide MEQB Staff the final plan drawings prior to construction;

- Xcel Energy has the flexibility around the Lakefield Junction and Fox Lake substations to relocate existing transmission lines, utilize double circuit structures where appropriate and to move the existing Alliant Energy line so that it exits from the north side of the Lakefield Junction Substation. Xcel Energy shall provide MEQB Staff the final plan drawings prior to construction.

- Xcel Energy has the flexibility to build a double circuit line between Lakefield Junction Substation to the east side of the Jackson industrial park if the local load serving plans determine that a new 69 kV line source is required prior to design and construction of the new 161 kV line. If it is determined prior to design and construction of the new 161 kV line that no new 69 kV line source is required, Xcel Energy may construct a single circuit line instead.

Dated this 1st day of July, 2004.

/s/ Allan W. Klein
ALLAN W. KLEIN
Administrative Law Judge

Recorded: Tape Recorded
No Transcript Prepared

**NOTICE**

The Board is respectfully requested to provide a copy of its final decision to the Administrative Law Judge.