6-2901-16161-2
EQB Docket No. 04-81-TR-AIR LAKE-EMPIRE

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 115 kV Overhead High Voltage Transmission Line and a New Vermillion River Substation in Farmington, all in Dakota County, Minnesota

REPORT AND RECOMMENDATION

The above-entitled matter was heard before Administrative Law Judge Allan W. Klein on October 11, 2004 at the Dakota County Extension Office, 4100 220th Street West, Farmington, Minnesota.

Appearances: Michael J. Bradley, Moss & Barnett PA, 4800 Wells Fargo Center, 90 South Seventh Street, Minneapolis, MN 55402 appeared on behalf of Great River Energy (GRE); Lisa M. Agrimonti, Briggs and 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"); Alan R. Mitchell, George Johnson and David E. Birkholz, 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 Monday October 11, 2004. They continued until all persons desiring to speak had done so. The record closed on November 8, 2004.

NOTICE

This Project qualifies for alternative review under the Power Plant Siting Act, Minn. Stat. § 116C.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 GRE and Xcel Energy to construct a 115,000 volt (115 kV) high voltage overhead transmission line from Cedar Avenue and County Road 50 to a new Vermillion River Substation to be located northwest of the City of Farmington, and from that new substation to the Empire Substation?

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

SUMMARY OF THE EVIDENCE

I. Procedural History and the Parties

1. GRE is a not-for-profit generation and transmission cooperative based in Elk River, Minnesota. GRE was created when Cooperative Power Association (CP) and United Power Association (UPA) formed a joint operating company on January 1, 1999. GRE provides electrical energy and related services to 28 member distribution cooperatives which, in turn, supply electricity and related services to more than 560,000 residential, commercial, and industrial customers in Minnesota and Wisconsin. One of these is Dakota Electric Association (DEA), the distribution cooperative serving a portion of the areas to be supplied by the proposed high voltage transmission line (HVTL).

2. GRE's 2,500-megawatt (MW) generation system includes a mix of baseload and peaking plants, including coal-fired, refuse-derived fuel, and oil plants as well as new wind generators. GRE owns approximately 4,400 miles of transmission line in Minnesota, North Dakota, South Dakota, and Wisconsin.

3. DEA provides electricity and related services to approximately 93,000 residential, commercial and industrial customers in Minnesota. Approximately 10,000 residential, commercial and industrial DEA customers in the Farmington/Lakeville area would benefit from the proposed HVTL.

4. Xcel Energy Inc., headquartered in Minneapolis, Minnesota, is the fourth-largest combination electric and natural gas energy company in the United States. Xcel Energy Inc. provides a comprehensive portfolio of energy-related products and services to 3.2 million electric customers and 1.7 million natural gas customers through its regulated operating companies in Colorado, Kansas, Michigan, Minnesota, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Wisconsin, and Wyoming.

Xcel Energy Inc. owns over 240,000 conductor miles of electric transmission and distribution lines, and more than 32,700 miles of natural gas pipelines; and operates regulated power plants that generate about 15,246 megawatts of electric power.

5. In Minnesota, Xcel Energy provides electricity to approximately 1.2 million customers and natural gas to approximately 400,000 customers. Approximately 4,500 residential, commercial and industrial Xcel Energy customers in the Farmington/Lakeville area would benefit from the proposed HVTL.

6. On April 20, 2004 a letter was submitted by GRE and Xcel Energy to the MEQB noticing their intent to submit a Route Permit Application. On April 30, 2004, GRE and Xcel Energy jointly filed a Route Permit Application for a 115 kV HVTL to be located between Cedar Avenue and County Road 50 to a new Vermillion River Substation and from that new substation to the Empire Substation (the Project). The MEQB accepted the filing on May 7, 2004.

7. On May 12, 2004 a Public Notice of Xcel Energy and GRE's Application to the MEQB was made. On June 4, 2004, the Notice of Public Meeting for the Project, to be held in the Dakota County Extension Office on June 24, 2004 was made. On June 24, 2004 the public meeting was conducted at the Dakota County Extension Office, 4100 220th Street West, Farmington, Minnesota, as required by Minnesota Rules part 4400.2500. The public was provided an opportunity to learn about the Project, to suggest route alternatives and identify concerns that should be addressed in the Environmental Assessment (EA).

8. On or before July 9, 2004 public comments were received following the Public Meeting, including comments on the scope of the environmental document and suggestions for route segment alternatives. On July 23, 2004, after consideration of the public comments, the Chair of the MEQB issued an Environmental Assessment Scoping Decision. The Decision sets forth, in detail, what was to be included in the EA. Notice of the scoping order was provided by the MEQB to the persons specified in Minn. Rules 4400.2750, subp. 3.

9. On September 27, 2004 the EA was completed, including figures showing the location of the various route alternatives.

10. On October 11, 2004 the Public Hearing was conducted at Dakota County Extension Office, 4100 220th Street West, Farmington, Minnesota, at 2:00 p.m. and 7:00 p.m.

11. During the Public Hearing, the ALJ established a November 1, 2004 deadline (by postmark) to file initial comments with the ALJ. Later, the ALJ, by letter, established a November 8, 2004 deadline (by postmark) to file reply comments. The record closed on November 8, 2004.

II. General Description of the Project

12. GRE and Xcel Energy propose to build a 115 kV overhead transmission line between the Air Lake Substation in Lakeville and the Empire Substation in Empire Township. The line would be cut into two parts by the Vermillion River Substation proposed to be built in Farmington. The entire planned line as proposed is 9.25 miles long. As proposed, the Project would require 5.8 miles of new right-of-way. The entire permit application, maps, appendices and other documents may be viewed at www.eqb.state.mn.us/Docket.html?ID=6237. The proposed route is shown in Figures 1 and 2 of the EA. The first half mile of transmission line, from the Air Lake Substation to the east, is already designed for and capable of operating as a triple circuit 115 kV line and is not part of the permit application.

13. The proposed 115 kV transmission line is intended to provide more reliable electric service to the residents of southern Dakota County. Most of the existing transmission system in this area was designed and built prior to 1970. Growth in the electric load in this area can no longer be supported by the existing transmission system. The major benefit of the Project is that it will put transmission infrastructure in place that will enable GRE and Xcel Energy to provide more reliable energy service to customers in the Farmington and Empire Township area. This new transmission line will increase electrical system reliability in Dakota County sufficiently to allow for projected regional growth over the next 15 to 20 years. The construction of the transmission line was put off by two years as a result of DEA having constructed the Empire Substation, but there are no further distribution improvements that can be done to meet the needs of customers in the southern Dakota County area. Because the proposed route is less than 10 miles in length, a certificate of need was not required. See Minn. Stat. § 216B.2421, subd. 2(3). If a route with a length greater than 10 miles is selected by the MEQB, the issue of whether a certificate of need is required would need to be separately determined by the Minnesota Public Utilities Commission (MPUC).

14. The Route is divided into the following segments.

14.1 Cedar Avenue to Vermillion River Substation (Owned by Xcel Energy). The first section of the route is being constructed by Xcel Energy. It drew no comments at the hearing, and appears to be non-controversial. The route begins at County Road 50 and Cedar Avenue and continues to the Vermillion River Substation. See Figure 1 of the EA. The route heads east along the north side of County Road 50 for approximately 2.5 miles. A double circuit 115/69 kV line with distribution underbuild will replace the existing 69 kV line along this route. The line will then turn north approximately ¼ mile. The 115 kV line will leave the existing 69 kV alignment and extend approximately 300 feet north into the new Vermillion River Substation.

14.2 Vermillion River Substation (Owned by Xcel Energy). The new Vermillion River Substation is proposed to be located on 11.4 acres in an industrial-zoned portion of the City of Farmington near the intersection of County Road 50 and Akin Road. The fenced-in area will use 2.5 acres of the

site and be laid out to accommodate the installation of future feeders and transformers should significant load growth occur in the area. Xcel Energy will own the new installation, and DEA will have a permanent easement for its facilities on the western ¼ portion of the area.

14.3 Vermillion River Substation to Empire Substation (Owned by GRE). Almost all of the comments at the hearing and after focused on this segment. GRE plans to construct approximately 6.5 miles of new 115 kV line connecting the proposed Vermillion River Substation and the existing Empire Substation in Empire Township. See Figure 2 of the EA. The 115 kV line exits the Vermillion River Substation, connects with the Xcel Energy 69 kV line, proceeds east 1/3 mile as a 69/115 kV double circuit line to Akin Road. As initially proposed, the line moves north along the east side of Akin Road another 1/3 mile, crossing the west branch of the Vermillion River. At this point, the proposed 115 kV single circuit will split off and head east until it joins along a city-planned 208th Street route, again crossing the west branch of the Vermillion River and the main channel of the Vermillion River to the northeast corner of County Road 66 and Highway 3. The line turns south about 1/3 mile along the east side of Highway 3 to the south property line of the American Legion, where it turns easterly for about ½ mile and proceeds east along the north side of 210th Street for 4 miles to the Empire Substation. Approximately 3.5 of the 4 miles along 210th Street follow existing Xcel Energy and DEA distribution line. GRE has offered to bury the DEA distribution lines that are currently on 210th Street.

15. The new 115 kV line from the Vermillion River Substation will enter the Air Lake Substation from the south, and a new 115 kV termination will be built there to accommodate the new line. The layout of the substation will be developed to accommodate additional substation expansion plans, but no additional fence or control house expansion is planned at this time.

16. No major modifications are anticipated at the Empire Substation. The only equipment additions necessary at this time include the installation of control and protection equipment within the control house, installation of underground control wires, and the connection of the 115 kV transmission line to the existing breaker and a half bus.

17. The design voltage of the proposed project is 115 kV. Structure heights and spans will vary depending on topography and environmental constraints, such as highway crossings, stream crossings and required angle structures. Both transmission line segments would utilize 795 aluminum conductor steel-supported (ACSS) conductors. These provide greater load capacity with less sag than other traditional conductors, including 795 aluminum conductor steel reinforced (ACSR). ACSS provides more current carrying capability than ACSR with comparable structures, poles and appearance. The conductor has an overall diameter of 1.108 inches and weighs 1.094 pounds per lineal foot. The line uses three single conductors and a fiber optic shield wire.

18. Single shaft wooden poles will be used for the majority of the single circuit portion of the project. Galvanized or weatherized steel single shaft poles will be used in a few places where longer spans are required. Horizontal post insulators are planned unless design requires longer spans beyond the capability of the insulators. The longest spans will utilize a braced post design to accommodate the increased loadings. Xcel Energy will use single pole steel structures. Schematic diagrams of typical pole structures are shown in Figures 3 and 4 of the EA.

19. Xcel Energy will use its existing easements where the 69 kV transmission line will be replaced by 115/69 kV double circuits. A corridor width of 100 feet, 50 feet on each side of the centerline will permit Xcel Energy to select pole locations that reduce the impacts on landowners. GRE is seeking a corridor width of 170 feet, 85 feet on each side of the centerline of the road, where applicable, to permit GRE to select pole locations that reduce the impacts on landowners

III. Routes Analyzed in The Environmental Assessment

20. The EA evaluated the GRE/Xcel Energy proposed routes and the proposed substation additions. No party proposed an alternative to the Xcel Energy owned portions of the route or for the proposed Vermillion River Substation, nor did any person present any comments in opposition to these portions of the Project. Therefore, those portions of the Project will not be discussed further in this Report and Recommendation other than to recommend their approval based on the content of the GRE/Xcel Energy Application and the EA. At the hearing, attention was focused on GRI's portion of the project, which involves passing through (or around) the City of Farmington, and then East and to the Empire Substation. There were nine alternatives proposed to the portion of the route to be owned by GRE discussed in the EA.

21. Rother Bypass #1.

21.1 Jerry Rother and relatives are the owners of property along the proposed route where it follows the to-be-built 208th Street between Akin Road and Minnesota State Highway 3. Mr. Rother has proposed two alternative routes that would avoid following the proposed 208th Street. Both of these alternatives involve about one mile of line between the new Vermillion River Substation and Highway 3.

21.2 The first alternative suggested by Mr. Rother would run south about 1/3 of a mile on Akin Road rather than north as GRE has proposed and then turn east at the existing Xcel Energy and DEA Farmington Substations at the intersection of County Road 50 and Akin Road in the City of Farmington. The route would then run north-northeast until it intersected with 210th Street, where it would then follow the proposed GRE route along 210th Street to the Empire Substation. The Rother Bypass #1 Alternative is shown in Figure 5 in the EA.

21.3 The Rother Bypass #1 route alternative would cross the Vermillion River in Rambling River Park in the City of Farmington. There

are two existing distribution lines that cross the river in this area, and either corridor could be used for the new 115 kV line. The northernmost distribution corridor passes by three houses; the southernmost corridor does not pass by any houses. The Rother Bypass #1 Alternative also avoids a short stretch along Highway 3 between Willow Street and County Road 66.

22. Rother Bypass #2.

22.1 The second Rother Bypass differs from #1 in that the second option continues due east from the new Vermillion River Substation across Akin Road. About ½ mile east of Akin Road, it turns south and follows the existing railway corridor for a short distance until it connects with Rother Bypass #1. This route alternative is shown in Figure 6 in the EA.

22.2 Rother Bypass #2 crosses over playing fields, tennis courts and other school facilities to the south of Farmington Middle School. This alternative also requires one crossing of the Vermillion River in Rambling River Park.

23. Adaptation Alternative

23.1 An alternative was developed that is intended as a refinement of Rother Bypass #1 and as a replacement for Rother Bypass #2. (EA, Section 6.1.2, and Figure 14.) Where the route from the Vermillion River Substation meets Akin Road, it crosses over the existing Xcel Energy 69 kV double circuit transmission line and turns south on the east side of Akin Road, paralleling the existing Xcel Energy 69 kV transmission line for approximately 700 feet. It then turns east and proceeds on the south end of the school district property north of Rambling River Park, utilizes an existing distribution line crossing of the Vermillion River, follows east through a shopping center and a light commercial/industrial area along an abandoned railway corridor, and ends where the City of Farmington Alternative begins. GRE has indicated that this is a feasible and reasonable alternative for its route. A broad enough corridor between the Vermillion River crossing and 5th Street would be desirable to allow GRE to work with the directly affected landowners to minimize, where practical, the impact on future development and redevelopment.

24. City of Farmington Alternative.

24.1 The City of Farmington has proposed an alternative route for a short section of the line near the intersection of Willow Street and State Highway 3. The City would prefer that GRE avoid certain parcels of property near the American Legion Hall that the City and the Legion are hoping to develop. The American Legion and a nearby homeowner would also like to see GRE avoid this area. GRE has indicated that this is a feasible and reasonable alternative for its route.

24.2 The alternative proposed by the City of Farmington would follow an existing abandoned railroad right-of-way, which is also the planned extension of 210th Street just east of Highway 3 (called the Willow Extension). This segment passes between two homes on the north and industrial buildings on the south. Significant clearing of trees will be necessary for the City to construct the street.

24.3 The City of Farmington alternative is shown in Figure 7 in the EA.

24.4 This alternative could follow the route proposed by GRE at Highway 3 or could connect with either of the Rother Bypass Alternatives or the Adaptation alternative.

25. Empire Citizens #1.

25.1 This is the first of five route alternatives identified as Empire Citizen Alternatives in the EA that were presented by a citizens group calling itself the "Save the 210th Street Residents Group" (210th Street Group). For the most part, group members live or own land along the 210th Street segment of the route proposed by GRE.

25.2 Alternative #1 begins on the west end south of 210th Street. Instead of running due east as GRE has proposed, this alternative runs diagonally to the north-northeast through agricultural land essentially along a former railroad right-of-way. The railroad right-of-way was abandoned years ago, is not visually apparent, and the land is currently owned and under cultivation by a number of landowners.

25.3 Empire Citizens #1 is shown in Figure 8 in the EA.

25.4 This route alternative could be combined with either of the Rother Bypass Alternatives, the Adaptation Alternative or with the City of Farmington preferred route alternative.

26. Empire Citizens #2.

26.1 This alternative continues south on State Highway 3 to State Highway 50 rather than turning east at Willow Street as GRE has proposed. This alternative runs due east on State Highway 50 to a point due south of the Empire Substation, where it intersects an existing Xcel Energy 115 kV line. This alternative would double-circuit with the Xcel Energy line for approximately one mile and enter the substation from the south.

26.2 This alternative is shown in Figure 9 in the EA.

26.3 This citizens' route segment alternative passes 40 homes, two apartments, 11 businesses and one temple. GRE also evaluated a State Highway 50 route alternative. It passed 95 houses, nine townhomes, three apartments, 11 businesses, the County Fairgrounds entrance and numerous road, river and railroad crossings. The discrepancy lies in the citizens' count of housing only up to Highway 3,

where their alternative segment turns north. GRE's proposal continued west past the fairgrounds and turned north up Akin Road, counting all residences along the route.

26.4 This routing alternative along State Highway 50 brings the total project distance above ten miles.

27. Empire Citizens #3.

27.1 Alternative #3 routes from 210th Street at Biscayne Avenue, cutting behind a farmstead and moving through farm fields behind ten residences on County Road 66. In their comments the 210th Street Group selected this alternative (with modifications discussed below) as their principal recommendation. The proposed alternate then turns back north to run along County Road 66. The proposal crosses County Road 66 side-to-side two times to avoid seven homes along the remainder of the route. The citizens' proposal does not state where these road crossings would occur. At the eastern edge, the line intersects with the existing north-south 115 kV line east of County 79 (Blaine Avenue) and would double-circuit to the Empire Substation.

27.2 This Alternative is shown in Figure 10 in the EA.

27.3 As in the Empire Citizens' Alternative #1, this line crosses tilled farmland. This routing alternative along County Road 66 also brings the total project distance above ten miles.

28. Empire Citizens #4.

28.1 The fourth Empire Citizens' Alternate segment uses the GRE proposed route along 210th Street from the east until just west of the Baker property. It would veer north and run east above the properties of interest to the 210th Street Group. This would put the line directly behind a new development of homes north of the properties fronting 210th Street. Alternatively, the line could follow an irrigation ravine further north, cutting across a sod farm. The ravine does not continue through Blaine Avenue. The proposal continues going cross country, bisecting another sod farm. The line would then double-circuit the short distance south to the Empire Substation.

28.2 This Alternative is shown in Figure 11 in the EA.

29. Empire Citizens #5.

29.1 Empire Citizens' Alternative #5 runs along State Highway 50 as does Empire Citizens' alternative #2, but differs where the segment enters the City of Farmington. With alternative #5, the route would turn south at Biscayne Avenue in Empire Township, and the line would run south to 225th Street and share a corridor with a proposed Metropolitan Council Interceptor line. That Interceptor is part of a planned sewer connection from Elko-New Market to the Empire Waste Water Treatment Plant. The alternate segment would shadow that corridor along 225th

Street and turn north up Denmark Avenue, eventually branching off on Xcel Energy's existing 69 kV line leading to the new substation.

29.2 This Alternative is shown in Figure 12 in the EA.

IV. Other Route Alternatives

30. In their October 31, 2004 written comments, the 210th Street Group proposed two alternative modifications to the Empire Citizen's # 3 route, which relies in large part on using County Road 66. Under the first modification, the transmission line would follow County Road 66 starting immediately at Highway 3. This alternative is discussed in the Application in Section 4.3.1. Under the second modification, the route would continue the northerly Biscayne Avenue route from 210th Street until it intersects with County Road 66. Neither proposal was included in the EA and no public notice was provided concerning at least portions of these alternatives.

31. Another alternative considered by the ALJ can be called the "Ahern Bypass" alternative. It would utilize GRE's proposed 210th Street alignment from Cambodia Avenue to Ahern, but would then turn north, and follow Ahern to Co. Rd. 66. It would then turn east, and follow Co. Rd. 66 to the existing Xcel Energy 115 kV line, where it would be double-circuited south to the Empire substation.

V. Discussion of Public Comments

32. The Xcel Energy portion of the Project and the location of Vermillion River Substation did not generate any public comment other than general statements that there was no opposition to that portion of the project, or questions about why a project was needed at all.

33. GRE's portion of the route and each of the alternative routes was opposed by those persons with an interest in the property that would be crossed by the transmission line.

34. The 210th Street Group was responsible for developing the Empire Citizen Alternatives. The group opposed placing the route in the 210th Street right-of-way for a wide range of reasons including: some of the residences are located unusually close to the road and the necessary corridor is not compatible with current home and outbuilding locations; 210th Street is a dirt road and tree removal would be harmful because the trees are needed to reduce dust entering homes and to provide a sound barrier for an existing dog kennel; the road is designated by the Empire Township as having a 5-ton weight restriction and many of GRE's vehicles are heavier than 5 tons; it is inappropriate to place a transmission line on an unpaved rural road when other more traveled and paved roads (County Road 66 and State Highway 50) could be used; a route should be selected that would use the same route as the future, a potential sewer line; and potential health risks. GRE's cost estimates for the various alternatives were also questioned, but no alternative costs were offered. In response to some of these issues, Mr. Aukee, on behalf of GRE, stated that there are two homes located close to the road and to avoid having the corridor include a portion of those homes, GRE would

cross over from the north side of 210th Street to the south side of the street. Mr. Lukkarila, on behalf of GRE, stated that GRE, as a provider of power and capacity to rural distribution cooperatives, uses many rural roads for transmission lines and that smaller roads are often easier to use because there is less traffic.

35. The 210th Street Group favors Empire Citizens Alternative # 3, with the modifications described earlier, stating that there are already distribution lines along that route, the houses are set back further from the road than on 210th Street, County Road 66 is paved, and a portion of the route would be along a future nature preserve, where hiking and biking trails could be installed near the power lines.

36. Jerry Rother opposed the portion of the GRE proposal to place the transmission line along the yet to be determined extension of 208th Street because of the impact it would have if the Rother Farm were subdivided for housing purposes. Two proposals, known as Rother Bypass #1 and Rother Bypass #2 have been proposed as alternatives. Of the two alternatives, Mr. Rother supports Rother Bypass Alternative #1 as the better alternative. John Anderson, representing Giles Properties, Inc., located west of the Rother property, filed written comments also opposing the portion of the route originally proposed by GRE that would follow the yet to be determined extension of 208th Street. According to Mr. Anderson, that route would affect over 50 future units of housing that could be developed on that land. The Rother Bypass Alternatives #1 and #2 would avoid that impact.

37. Several persons residing on County Road 66, including Joe Daniel, Darron Simon, and Barry Padelford, asserted that they have trees that would be affected if County Road 66 were selected and that the homes along County Road 66 are not necessarily set back deeply from the road.

38. Michael Broback, representing the Dakota County Lumber Company, located on 5 acres at 28 Eighth Street in Farmington, and Tom Wartman, representing the Farmington City Center (a shopping center) opposed the Rother Bypass Alternatives #1 and #2. It was asserted by Mr. Broback that the original GRE proposal is superior to those alternatives because that route would pass through mostly uninhabited areas, and it would traverse the Rother property in a corridor identified as the likely route for a 208th Street extension, if such an extension is constructed. Currently, the area is largely uninhabited, simplifying engineering and land acquisition, whereas the Rother Bypasses would cross over Rambling River Park, pass by three houses, cross over playing fields, tennis courts and Farmington Middle School, and the Dakota County Lumber yard. Mr. Broback also stated that the delay in obtaining easements along the Rother Bypass Alternatives could also negatively affect reliability of service if construction was delayed as a result.

39. Larry Christian asked why a 70-foot easement is required. Mr. Lukkarila of GRE stated that the easement width assures a safe clearance from buildings and other objects as the conductor/wire blows out in high winds, and complies with the National Electrical Safety Code (NESC) and Rural Utilities Service (RUS) design recommendations.

40. Mr. Wustenberg, Ed Gerten and Scott Johnson stated that the Empire Township Planning Commission had been previously promised by a Jim Hanson or Craig Knutson of DEA, in 2001, that approval of the Empire Substation location would not result in 210th Street being used to route lines from that substation. Mr. Aukee, on behalf of GRE, replied that, at the Empire Township Planning Meeting where this issue was discussed, the focus was on DEA's distribution facilities, but that Mr. Aukee stated that GRE believed a separate transmission line would be needed in the future, but that no decisions on a possible transmission line route had been made at that time.

41. Mr. Betzold and Mr. Brand stated that Empire Citizen Group Alternative # 1 would bisect their farm operations and would negatively affect planned irrigation operations. Mr. Betzold also stated that the assertion that the route followed an old railroad right-of-way is not correct in that the railroad right-of-way had been sold to his father as much as 70 years ago. He stated that if the line had to go along one side of his farm, "so be it," but he didn't want to have it go through the center of his field.

42. Audrey Mellett opposed Empire Citizen's Alternative # 4 because it would place the line where it would be visible from the back of her home.

43. Kevin Carroll, Community Development Director, on behalf of the City of Farmington opposed the State Highway 50 Empire Citizens Alternative #2, because of the potential impact on future development on Highway 3 going south. He further stated that there are pending annexation issues; some issues with regard to the alignment of Biscayne Avenue; transportation issues; and some ponding issues. Mr. Carroll also testified against Empire Citizen Alternative # 2 because it runs along 220th Street and then turns north on Highway 3. That route would pass a large number of homes and businesses. While the GRE proposal also uses Highway 3, it does so for a much shorter distance. In addition, the southeast corner of the intersection of Highway 3 and 220th Street will have a fairly substantial amount of development in the future and there are development proposals pending.

44. In written comments, the City of Farmington explained its support for an alternative route east of Highway 3 and up to 210th Street, which is designed to reduce conflict with existing and planned commercial development. Essentially, that alternative (described at 4.1.3 and 7.1.3 of the EA) would follow, to the extent possible, a former railroad right-of-way. The City has no objection to the portion of the route proposed by GRE located on the east side of Highway 3. With respect to the portion of the transmission line west of Highway 3, the City supports the original proposal by GRE, subject to a requirement that GRE work with the City to design the transmission line placement to be compatible, to the extent possible, with the City's plans for a 208th Street extension and intersecting roads. The City opposes both Rother Bypass Alternatives. That opposition is based on the possible future use of the railroad right-of-way by the Dakota County Lumber Co. as a railroad right-of-way, and because of the impact the Rother Alternatives would have on current and future commercial use of the properties along the proposed alternative corridors. Both alternatives would also affect Rambling River Park and School District property.

45. Robert McGillivray, on behalf of Trust for Public Land, a non-profit conservation group stated that it has an option to purchase 470 acres in Section 22 of

Empire Township, with the intent that the land would be owned by the DNR and used as an aquatic management area and a wildlife management area. The land is located on the north side of County Road 66. It is also possible that this parcel would be joined with other available property even further north to become a regional park. A route north of 210th Street would be of concern for this proposed project. A route on 210th Street would not be a concern. Henry Miles confirmed the testimony of Mr. McGilivray and further stated that he opposed Empire Citizen alternative #1, because it would bisect his parents' farm.

46. Tom Armstrong stated that the route on 210th Street would eliminate the trees he has as a buffer to the road. Mr. Aukee responded that, to avoid another problem with respect to a home that is too close to the road to permit a full 70-foot corridor, GRE is proposing to cross over the road, placing a single pole on Mr. Armstrong's property, and then cross back over to the north side of the road, avoiding the need to remove Mr. Armstrong's pine trees.

47. Ralph Nordine lives on the east side of Highway 3. He requested that the line run on the west side of Highway 3. GRE explained that it selected the east side of Highway 3 because it is largely commercial, while the west side is largely residential. In addition, the MnDOT has plans to expand the road, which would necessitate the transmission line being placed very close to approximately ten homes located on the west side, while there is only one residence on the east side.

48. GRE filed additional comments on October 29, 2004 addressing some of the issues raised at the public hearing. More specifically, GRE stated: that it had discussed use of 210th Street with the maintenance supervisor for Empire Township and that vehicles larger than 5 tons could use the road as long as GRE reimbursed the Township for any damages; GRE needs a larger easement than Xcel Energy's easement, because GRE would use fewer poles, requiring a larger easement to accommodate the associated larger blow out; GRE, as a provider of service in largely rural areas, often locates transmission lines along township roads, because they provide the most direct, economical and environmentally sound route. GRE also provided the design assumptions used by its consultant in estimating the cost of the various route alternatives. GRE also commented on the various alternatives, supporting two variations from its original filing: The first modification is the change supported by the City and Pat Regan, owner of Marschall Bus Line (Alternative 4.1.3); the second modification is the Adaptation Alternative described in Section 6.1.2 of the EA. GRE supported its original proposed route with these two modifications because it would: impact a fewer number of residences and businesses; have minimal impact on environmental resources; utilize existing roadways or utility rights-of-way for nearly the entire distance; where possible, follow defined boundary lines along commercial and residential properties; utilize the existing and future 208th Street extension where it crosses the Vermillion River; be cost effective; and be constructed in the timeframe needed to ensure delivery of reliable electric energy to the area.

VI. Applicable Statutory Considerations

49. 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;

(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.

VII. Applicable Rule Considerations

50. 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.

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

51. Effects of the proposed Project on human settlement are discussed in Section 6.2 of the Application and Section 5.4 of the EA. Since 1970, around when the existing transmission network was installed, the population of the City of Farmington and Empire Township has increased more than three-fold. Forecasts by the Metropolitan Council are for Farmington and Empire Township to double in population again by 2030. As the population of this area has increased, the electric demand has increased dramatically. The construction of the new transmission line will not lead to development that would not otherwise occur. The proposed route and associated substation result in no actual displacement of existing residences. The portion of the proposed line to be owned by Xcel Energy is along an existing 69 kV transmission line corridor. The proposed HVTL and associated substation will have no impact on cultural values, recreation, or public services. As discussed below, the Rother Alternatives would affect park property, and the Citizen Alternative #3 would impact a potential nature preserve/regional park.

52. The EA, Section 5.1, contains an extensive discussion on the possible impact a HVTL may have on property values. Any of the alternatives, however, will affect property values. The fewer separate properties (homes or businesses) passed by the HVTL, the less overall impact.[1]

53. The EA, Section 5.31, discusses the visual impacts. The Xcel Energy portion replaces an existing 69 kV line with distribution underbuild. The local area is developed and the line parallels County Road 50. No significant impacts to the visual character of this area are anticipated. The portion of the line owned by GRE requires new right-of-way. The visual impact will be largely the same for each of the alternatives, although different people will be affected by each alternative. If 210th Street is selected, GRE has agreed to underground the existing DEA distribution facilities along 210th Street and will use a singe pole wood structure with an average span of 350 to 400 feet to reduce the visual impact. The existing distribution poles are spaced closer together than that, and the wires are closer to the ground. The proposed structures will also have a narrow profile designed to be less intrusive than older installations.

[1] A number of landowners who had not yet developed their land argued that when counting homes, their land should be treated as if it had already been developed with the maximum possible density. Throughout this Report, the ALJ has rejected that proposal. Instead, he has attempted to count only actual, already existing homes and businesses.

54. Normal construction noise can be expected during the installation of transmission line structures. These operations will be of short duration and conducted during the daylight hours to minimize any residential impact. The noise impacts are the same regardless of the route selected. (EA. Section 5.7.4.) During operation, audible noise occurs due to point source corona. The noise level should be essentially imperceptible at the nearest household. During a heavy rain (1 inch per hour) the noise level may approach 18 dB(A) at the right-of-way edge. However, background noise levels will also be greatly increased by the rainfall itself, thereby minimizing the additional power line noise. (EA, Section 5.7.4.)

55. Interference with existing television or radio is typically not a problem with 115 kV transmission lines. The proposed transmission facilities will be designed to industry standards to avoid interference with reception. If new interference occurs outside of the right-of-way the Applicant will be responsible to rectify the situation. (EA, Section 5.10.) There is an FCC-licensed amateur radio operator who lives along 210th Street who expressed concern about the impact upon his radio operation. He is entitled to the same protection as the other residents: the applicant must rectify any interference problems which it causes.

56. New right-of-ways will either be obtained through individual negotiations between GRE and the landowner, or through eminent domain. (EA, Section 5.11.)

b. Effects on public health and safety.

57. The proposed Project will be constructed to comply with RUS standards as well as the NESC. A number of residents raised concerns about health effects from EMF. The issue of EMF was examined in the EA in Section 5.2. and in the Board Staff's final comment. 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.

58. There is at present insufficient evidence to demonstrate a cause and effect relationship between EMF exposure and any adverse health effects. On the basis of the most current information available and expert advice of the Interagency Workgroup on EMF led by the Minnesota Department of Health, the MEQB has not established any standard or regulatory limit on magnetic fields from HVTLs. (EA, Section 5.2, p. 20.)

59. Based on the same information, no significant impacts on human health and safety are anticipated from the Project.

c. Effects on land-based economies, including but not limited to, agricultural, forestry, tourism, and mining.

60. This issue is discussed in Section 5.5 of the EA. The project will result in a minor short-term infusion of capital and employment by workers or establishments near the proposed corridor. GRE and Xcel Energy both expect between 15 and 25

additional temporary jobs to be created during construction, but that no permanent jobs would be created by the transmission options. Workers may make minor purchases from the area during construction. By providing local customers with a reliable and efficient future energy supply, the anticipated long-term impacts are positive for future growth in the project area. The proposed route for the HVTL does not cross any prime agricultural, forestry or mining property, nor is the route located in an area where tourism would be affected (Application, Section 6.3). As discussed below, Empire Citizen Alternatives #1 and # 3 would cross agricultural land currently in farm production. Center-pivot irrigation systems are used in some, but not all of the farm operations in the study area. When possible, routing the HVTL near such systems should be avoided.

61. It is anticipated that the new transmission line will not have any long-term impact on existing land uses along the proposed route. (EA, Section 5.8.)

d. Effects on archaeological and historic resources.

62. There are no properties along the proposed route(s) listed on the National or State Registers of Historic Places, and no known or suspected archaeological properties in the area that would be affected by the Project. The Minnesota Historical Society determined that the proposed route will not affect any archaeological or historical resources (EA, Section 5.6; Application, Section 6.4; Appendix B). The proposed route was also reviewed pursuant to the responsibilities given the State Historic Preservation Officer by the national Historic Preservation Act of 1966 and the Procedures of the Advisory Council on Historic Preservation (36 CFR Ch. 800).

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

63. This project is located in an area ranging from urban to pastoral (EA, Section 5.7). Hydrologic features include creeks, ditches, wetlands, and riparian areas. The route proposed by GRE would cross the Vermillion River in Farmington. GRE will need to apply to the DNR for a permit to cross these waters and wetlands. Impacts to wetlands and waters will be short-term and limited to placement of poles. The Rother Bypass #1 avoids a DNR-identified wetland (19-355) east of Akin Road along the GRE proposed route. (EA, Section 5.7.1.) In any case, typical impacts are temporary and limited to the placement of poles; placement should be flexible enough to avoid sensitive areas.

64. A mix of groundcover is present, and wildlife habitat exists in pockets along the proposed route. The HVTL and associated substation will not affect air or water quality (Application, Sections 6.5 and 6.6; Appendix B). The project will only affect flora within the easement area. GRE has indicated that it will work with affected residents to minimize the need to remove or trim nearby vegetation, although the company will have to do what is necessary to safely construct and maintain the line regardless of the route selected. For example, as noted in Section 5.3.2 of the EA, GRE has proposed to cross the street diagonally from the northeast corner of the intersection of 210th Street and Blaine Avenue to avoid as much clearing as possible

along that portion of the route. The line could cross 210th Street to the north again avoiding trees and buildings surrounding the dog kennels at the corner. In other places, vegetation may be planted to alleviate some of the loss of mature tree growth.

65. During construction of the Project, there will be emissions from vehicles and other construction equipment and fugitive dust from the right-of-way clearing. Temporary air quality impacts caused by the proposed construction-related emissions are expected to occur during this phase of activity. (EA Section 5.7.3.) There will be no impact on air quality during operation of the lines. No mitigation measures for air quality are necessary for the construction of the transmission line. (*Id*.)

f. Effects on rare and unique natural resources.

66. There are no threatened or endangered species or state listed species identified or any sites that are classified as rare or unique habitat. (EA Section 5.7.) Mitigation measures will be required during construction to protect all natural areas from impact. The Minnesota Department of Natural Resources and the United States Fish and Wildlife Service determined that the proposed project will not affect any rare or unique natural resources (Application, Section 6.8; Appendix B).

g. Application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission capacity.

67. There are no known, or likely plans to add additional transmission capacity along the proposed route. Therefore, the design is appropriate to this project and maximizes energy efficiency. In addition, GRE and Xcel Energy have committed to work with the affected landowners to use a design that mitigates the impact on the affected landowners and the right-of-way.

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

68. The proposed transmission line route uses or parallels existing rights-of-way where possible. These include roads and utility rights-of-way.

69. The Xcel Energy portion of the project uses an existing 69 kV transmission line corridor and its right-of-way between the Cedar Avenue/County Road 50 intersection and the proposed Vermillion River Substation.

70. The GRE portion of the project follows existing roads and transmission line right-of-way as much as possible. It parallels road rights-of-way along Akin Road, the proposed 208th Street, Minnesota Highway 3, and 210th Street.

i. Use of existing large electric power generating plant sites.

71. This criterion is not applicable.

j. Use of existing transportation, pipeline, and electrical transmission systems or rights-of-way.

72. The proposed transmission line route uses or parallels existing rights-of-way where possible.

73. The Xcel Energy portion of the project uses an existing 69 kV transmission line corridor and its right-of-way between the Cedar Avenue/County Road 50 intersection and the proposed Vermillion River Substation.

74. The GRE portion of the project follows existing roads and transmission line rights-of-way as much as possible. It parallels road rights-of-way along Akin Road, proposed 208th Street, MN Highway 3, and 210th Street.

k. Electrical system reliability.

75. The proposed Project will improve the electrical system reliability for the local distribution systems as well as for the transmission system. Distribution reliability is enhanced by providing new substation capacity in the vicinity of the load growth. The proposed Project will result in shorter distribution feeders and additional capacity to back up other substations when compared to the alternative of serving the new load from substations in the surrounding area.

76. Transmission reliability is increased by the addition of a new east-west tie for the Dakota County area transmission system. The proposed Project gives another source from the Inver Hills 345/115 kV Substation to the Farmington and Lakeville areas. It is important for the area's electrical reliability, especially during outages of existing transmission lines.

77. If an alternative were selected that resulted in the Project exceeding 10 miles, GRE and Xcel Energy could be required to obtain a certificate of need from the MPUC.[2] In addition to the time needed to prepare a certificate of need application, the certificate of need process would require six additional months from whenever the filing with the MPUC was deemed complete. The current energization date for the Project is scheduled for early 2006. GRE has estimated that delaying the Project to obtain a certificate of need would realistically result in that energization date occurring sometime after the summer of 2006. If the Project is not operational by the summer of 2006, the area may begin to experience voltage problems. More specifically, there would be the possibility of contingencies resulting in brown-outs or the lines could trip and fail, in which case there would be blackouts in the area. (GRE representative Steckelberg, 2 pm transcript, pp. 91-92.)

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

78. The cost of constructing, operating, and maintaining the facility along any of the alternative routes is higher than for the proposed route, other than the City of Farmington Alternative, which results in a very small saving. (EA, Section 5.9.) The proposed route relies on existing rights-of-way to the extent technically and economically feasible. This reduces the cost of acquiring easements, and right-of-way preparation.

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[2] There is some question about the requirement for a certificate of need. The project could be viewed as two separate projects, one being Xcel's line and substation, the other being GRE's line. If the project were viewed as two separate projects, then no certificate of need would be required for either part. The Administrative Law Judge expresses no opinion on this issue.

m. Adverse human and natural environmental effects which cannot be avoided.

79. The only identified environmental effects that cannot be avoided are primarily short-term during the construction of the line and substation. If any archeological sites are identified during placement of the poles along the proposed route or construction of the substation, the particular site will be avoided. Native vegetation will be maintained within the proposed route that is compatible with the operation and maintenance of the transmission line. If necessary, native species will be planted or seeded in areas that are devoid of native species. Soils will be revegetated as soon as possible to minimize erosion or some other method will be used during construction to prevent soil erosion. During construction, temporary guard or clearance poles are installed at crossings to provide adequate clearance over other utilities, streets, roads, highways, railroads, or other obstructions. Any necessary notifications will be made or permit requirements met during construction to mitigate any concerns with traffic flow or operations of other utilities.

n. Irreversible and irretrievable commitments of resources.

80. The proposed route does not require any irreversible or irretrievable commitment of resources. Should the line and/or substation be abandoned and removed at some time in the future, there is nothing related to their earlier placement that would prevent or require a different use of resources in the future.

VIII. Comparison of Routes

81. The following two tables, taken from the EA, give a comparative view of the approximate costs and impacts of the various alternatives.

Comparison of Costs

	Air Lake & Empire Substation Modifications, Xcel Energy & GRE	Vermillion River Substation, Xcel Energy & DEA	Cedar Av to Vermillion River 115/115 kV Line, Xcel Energy	Vermillion River to Empire Substation 115 kV Line, GRE	Total Estimated Cost of Project
Proposed Original Route	$800,000	$6,200,000	$1,500,000	$2,604,000	$11,104,000
Rother Bypass #1	$800,000	$6,200,000	$1,500,000	+276,000	$11,380,000
Rother Bypass #2	$800,000	$6,200,000	$1,500,000	+254,000	$11,358,000
City of Farmington	$800,000	$6,200,000	$1,500,000	-7,000	$11,097,000

Empire Citizens #1	$800,000	$6,200,000	$1,500,000	+848,000	$11,952,000
Empire Citizens #3	$800,000	$6,200,000	$1,500,000	+1,599,000	$12,703,000
Empire citizens #4	$800,000	$6,200,000	$1,500,000	+688,000	$11,792,000
Ahern Bypass	$800,000	$6,200,000	$1,500,000	+1,500,000	$12,604,000

Comparison of Impacts on Existing Development

	Commercial	Residential	Apartment	Townhouse	Place of Worship	School
GRE Original Proposal	13	40			1	1
Rother Bypass #1	18	30				1
Rother Bypass #2	18	32				1
Farmington City	14	40			1	1
Empire Citizens #1	15	21			1	1
Empire Citizens #2	24	100	1	4	3	1
Empire Citizens #3	12	28			1	1
Empire Citizens #4	13	27			1	1
Empire Citizens #5	8	47			2	1
Ahern Bypass	13	38			1	1

Property counts were calculated from 400' on each side of the route centerline in township areas, except for the Ahern Bypass numbers which were developed by the ALJ without precise measurements.
Property counts were calculated from 100' on each side of the route centerline in city areas.
* These figures do not include the twelve (12) lots in Ferris Estates, which are between 500-1000 feet north of 210th Street, just west of Blaine Ave.

82. The companies' proposed route can be divided into six segments: 1) the Xcel Energy portion of the route; 2) the Vermillion River Substation; 3) the segment of the route from the Vermillion River Substation to Highway 3; 4) the segment along Highway 3; 5) the segment from Highway 3 through the City of Farmington; and 6) from

the City of Farmington to the Empire Substation. The following will address each of those segments and their alternatives, if any.

1) Air Lake Substation To The Vermillion River Substation.

83. This portion of the route is from Cedar Avenue and County Road 50, to just east of Eaton Avenue, then north into the proposed Vermillion River Substation. No alternative has been proposed for the Xcel Energy portion of the Project; nor is there any evidence in the record to suggest a need to develop an alternative for this portion of the Project. It uses an existing 69 kV corridor and will have minimal impact.

2) The Vermillion River Substation.

84. No party has proposed a different location for the substation, which will be located on 11.4 acres zoned industrial; nor is there any evidence in the record to suggest a need to develop an alternative location for the Vermillion River Substation.

3) Vermillion River Substation to Highway 3.

85. This portion of the originally proposed route proceeds east 1/3 mile as a 69/115 kV double circuit line to Akin Road. Then it moves north along the east side of Akin Road another 1/3 mile, crossing the west branch of the Vermillion River. At that point, the proposed 115 kV single circuit would split off and head east until it joins along a city-planned 208th Street Route, again crossing the west branch of the Vermillion River and the main channel of the Vermillion River to the northeast corner of County Road 66 and Highway 3.

86. The portion of the route from Akin Road to Highway 3 is currently undeveloped land. However, there are two pending proposals for developing that land. The western portion is proposed for development by Giles Properties, and it is represented that the planned location of the transmission line could impact as many as 50 homes. On the east side of this portion of the route is the Rother property, which is also likely to be developed into residential property.

87. To avoid any impact to his development plans, Mr. Rother proposed two alternatives, referred to as Rother Bypass #1 and Rother Bypass #2. Both of these routes are well to the south of his property, through the City of Farmington.

88. The City of Farmington and two owners of existing commercial properties (a lumber yard and a business center) oppose both Rother Bypass alternatives. Rother Bypass #1 would run south on Akin Road (rather than north as proposed by GRE) and then turn east at the existing Xcel Energy/DEA Farmington Substations at 212th St. The route would then run north-northeast until it intersected with 210th Street. This is, according to Mr. Rother, the better of the two bypass alternatives. The City's objection to Rother Bypass #1 is based on the *possible* use of the existing railroad right-of-way to bring railroad service to the Dakota County Lumber Yard. Second, both of the

alternatives would impact the following properties: Dakota County Lumber, Peerless Plastics, Farmington Lanes (bowling alley), Landscape Depot, Marigold Foods, Farmington Auto Sales, Sauber Plumbing, the Farmington Eagles Club, and several homes. Rother Bypass #1 would also impact the City Center by placing the transmission line next to EconoFoods and directly in front of Pellicci's Ace Hardware. Both of the alternatives would also affect City park land and School District property (including buildings and outdoor recreation facilities owned by the School District).

89. A third alternative is referred to in the EA, Section 6.1.2 as the Adaptation of the Rother Bypass # 1. It would leave Akin Road slightly to the north of Rother Bypass #1. Where the route from the Vermillion River Substation meets Akin Road, it crosses over the existing Xcel Energy 69 kV double circuit transmission line and turns south on the east side of Akin Road, paralleling the existing Xcel Energy 69 kV transmission line for approximately 700 feet. It then turns east and proceeds on the south end of the school district property north of Rambling River Park, utilizes an existing distribution line crossing of the Vermillion River, follows east through an industrial development along an abandoned railway corridor, and ends where the City of Farmington Alternative begins. The City of Farmington did not support this alternative. It mitigates the tree loss along Highway 3 by avoiding Highway 3 altogether. It also avoids two of the three river crossings.

4) Highway 3.

90. If the Adaptation Alternative is selected the route will not use Highway 3. If Highway 3 is used, the only question is whether the route should be on the east side, as proposed by GRE, or on the west side, as requested by Mr. Nordine. GRE favors the east side because of possible widening of the roadway on the west side.

5) Highway 3 through the City of Farmington to Cambodia Avenue and 210th Street.

91. The GRE proposal, as set forth in the Application, starts at the south property line of the American Legion, turns easterly for about 1.2 miles, then proceeds east along 210th Street. The proposed route passes between two other commercial properties (the American Legion and the Marschall Bus Line property) in a location where the easement width may be less than normally used for transmission lines.

92. One alternative has been proposed for this segment. The City proposes that this portion of the route generally follow the former railroad right-of-way along the southern boundary of the Marschall Bus Line property.[3] This route would be along or within the right-of-way of a potential future roadway connection between Cambodia Avenue and the intersection of Highway 3 and Willow Street. Approximately halfway

[3] Pat Regan, the owner of the Marschall Bus Line property, urged that his property be avoided entirely. But if it could not be avoided, he would "definitely prefer" that the line go along this southern boundary rather than the northern boundary. Tr. 2, p. 57.

between Highway 3 and Cambodia Avenue, the line would leave the railroad right-of-way and turn straight east to intersect with the corner of Cambodia Avenue and 210th Street. GRE indicated its acceptance of this alternative. It is opposed, however, by Neil Perkins, whose property lies east of the Marschall Bus Line property. Perkins' property is on the west side of Cambodia Avenue, at the intersection of Cambodia and 210th Street. It is currently a trucking yard and trailer storage area, but his long-term plans are for residential development.

6) The 210th Street Segment to Empire Substation.

93. GRE proposes to follow 210th Street to the Empire Substation. GRE has pledged to work with the residents to minimize the tree loss and to avoid having the corridor include any portion of the homes along this route. This necessitates the line crossing 210th Street at strategic locations. The 210th Street residents suggested five alternatives that were discussed in the EA, and two additional modifications to Empire Citizen Alternative #3 were offered in their October 31, 2004 comments. Of the various alternatives, the 210th Street Group recommends either of the two routes contained in their later written comments.

94. The group's Alternative #1 would not follow any existing roadway or corridor and would diagonally cross active farmland, adversely affecting irrigation options and other farming operations. This alternative is not supported under MEQB Rules pt. 4400.3150, (c) and (h). Alternative #2 would follow Highway 3 south to State Highway 50 and travel east to a point due south of the Empire Substation where it would intersect an existing Xcel Energy 115 kV line. That route would pass a large number of homes and businesses (more than double the number under the GRE proposal). In addition, the southeast corner of the intersection of Highway 3 and 220th Street will have a fairly substantial amount of development in the future, and there are development proposals pending. This alternative would substantially increase the cost of the Project. (See Exhibit 21.) Because of the impact on a large number of homes and businesses and cost, this alternative is not supported under MEQB Rules 4400.3150 (a) and (l). Empire Citizens Alternative #4 would follow 210th Street on its western end, but then jog north to avoid the affected homes that are located on 210th between Ahern and Blaine. This alternative does not follow any existing rights-of-way or other boundaries, and is not supported by MEQB Rules pt. 4400.3150 (h). Empire Citizens Alternative #5 would also use State Highway 50 but would reach it by running south on Biscayne Avenue to 225th Street and then share a potential corridor with planned sewer connection from Elko-New Market to the Empire Waste Water Treatment Plant. The actual route of the sewer line has not been determined. This route could significantly interfere with future development and was opposed by Mr. Carroll, the Farmington Community Development Director. It is also significantly longer than the other routes, substantially increasing the cost of the Project. (Exhibit 21). This route is also a concern to Dakota County because of future road expansion (October 28, 2004 letter from Lynn Moratzka, Manager Office of Planning). Finally, Alternative #5 exceeds 10 miles and may require a certificate of need. Consequently, Alternative #5 is not supported by MEQB Rules pt. 4400.3150(a), (h), (k) and (l).

95. County Road 66 would represent a possible alternative if there were a reasonable method to route the transmission line through and just east of the City of Farmington, although this route would place the transmission line on the border of a potential new wildlife refuge and regional park. Empire Citizen Alternative #3, as proposed, crosses existing farmland in current production to reach County Road 66; it also substantially increases the cost of the Project. Consequently it is not supported by MEQB Rules pt. 4400.3150 (a) and (h). However, the 210th Street Group offered two modifications to its Alternative #3.

96. The first modification to Alternative #3 proposed by the 210th Street Group is the same alternative route identified by GRE in the Application, Section 4.3.1. This alternative route would exit the Vermillion River Substation as a 115 kV single circuit line, connect with the Xcel Energy 69 kV line, and proceed as a 115/69 kV double circuit line east to Akin Road, then north along the east side of Akin Road approximately ¼ mile. At that point, the 115 kV circuit would split off from the 69 kV route and head east across the Giles and Rother properties, along the extension of the north side of proposed 208th Street, crossing the Vermillion River, to the northeast corner of County Road 66 and Highway 3. It would then continue east along County Road 66 for 4.5 miles to the intersection with an Xcel Energy 115 kV line, and proceed south as a double circuit 115 kV line about one mile to the Empire Substation. Unfortunately, there is no good routing for this alternative just east of the intersection of County Road 66 and Highway 3. There are houses to the south and river/tree obstructions to the north. This alternative route is more congested than the proposed route, passing approximately 52 houses, and 4 townhomes. It is also very close to the Vermillion River in places. Because the County Road 66 route is longer and makes some bends to avoid the river (requiring multiple specialty poles) the route would be considerably more costly than the GRE proposed route. This route would also require more tree clearing than the proposed route. This corridor is also identified as a main east-west road corridor in the Dakota County East-West Corridor Study (Dakota County, 2003). Future road improvements could require expansion of the right-of-way to state standards and, therefore, could require relocation of any transmission lines. Consequently, this route is a concern to Dakota County (October 28, 2004 letter from Lynn Moratzka, Manager Office of Planning). This alternative, while feasible, is less desirable than the proposed route under MEQB Rules 4400.3150 (a) and (l).

97. The second modification would also follow County Rd. 66, on the east, but would avoid some of the obstacles around the intersection of Highway 3 by using Biscayne Ave. to connect to the western part of 210th St. near the City. This route was not selected for inclusion in the EA and notice was not given to all potentially affected landowners of this alternative. In written comments responding to this proposal dated November 8, 2004, GRE stated that this alternative would pass an additional 22 homes, for a total of 50 homes and 12 businesses affected. It would add two miles to the route and therefore add significant costs to the project (approximately 60% more than the GRE proposal). It would also increase the total route length beyond 10 miles, possibly requiring a certificate of need and delaying the completion of the project beyond the summer of 2006; jeopardizing the reliability of electric service to the area. This

alternative is not appropriate under the criteria of MEQB Rules pt. 4400.3150 (a), (k) and (l).

98. Ahern Boulevard, like Biscayne Ave, runs north-south but Ahern is further east than Biscayne and connecting County Road 66 and 210th Street. An examination of the aerial photos and a site inspection by the ALJ demonstrate that neither of the two logical east-west roadways, County Road 66 and 210th Street, are evenly populated throughout their lengths. County Road 66 is more densly populated west of Ahern Boulevard, while 210th Street is more populated east of Ahern. There are only three houses between Cambodia and Ahern on 210th Street, but there are 11 between Ahern and Blaine, plus three more between Blaine and the existing line to the Empire substation, for a total of 14 on 210th Street between Ahern and the east end. The converse is true of County Road 66. Between Ahern and Blaine there are only four homes, plus three more between Blaine and the existing line, for a total of seven between Ahern and the east end. But between County Road 3 and Ahern on County Road 66 there are 24 residences. This data can be summarized as follows:

Comparison of Residential Impacts
On Eastern End of Route

	Cambodia to Ahern	Ahern to East End
Co. Rd. 66	24	7
210th Street	3	14

Ahern, which runs north and south between County Road 66 and 210th Street, is sparsely populated, with fewer homes than Biscayne. There are only four residences along Ahern, with a fifth under construction.

But using this “Ahern Bypass” would only reduce the number of affected residences between Ahern and the East end from 14 to 12. The portion of the route along Ahern Blvd. was not studied in the EA, nor were the residents notified of the possibility of the route being considered.

99. The estimated additional cost for the Ahern Bypass would be $1,500,000. That is based upon the cost of running the line for one mile along Ahern, plus a corner structure at the corner of Ahern and 210th, and another corner structure at the corner of Ahern and Co. Rd. 66. It also includes the cost of double circuiting from County Rd. 66 to the Empire substation.

100. Les Ferris, the developer of Ferris Estates, and the owner of the 360 acre Ferris Sod Farms that occupies the northeast corner of Section 26 at the corner of County Road 66 and Blaine Avenue, has indicated that he would support using County Road 66, and that he would agree to have the right-of-way anywhere within a half-mile south of County Road 66, rather than to have the line run along 210th Street. This suggests that his land could be used for a route that used Citizens Alternative #4. But this route has problems involving other landowners. This alternative would be more

viable if consents could be obtained from the affected landowners in addition to Mr. Ferris.

Based on all of the filings, comments and proceedings, the Administrative Law Judge makes the following:

RECOMMENDATION

That the MEQB issue a route permit to Xcel Energy and GRE for construction of the proposed overhead 115 kV transmission line between the Air Lake Substation and the Empire Substation as follows.

Cedar Avenue to Vermillion River Substation (owned by Xcel Energy)

As proposed in the Application (with a corridor width of 50 feet on each side of the existing 69 kV line to permit Xcel Energy to select pole locations that reduce the impacts on landowners).

Vermillion River Substation

As proposed in the Application.

Vermillion River Substation to Highway 3

The MEQB should select the Adaptation described in the EA at Section 6.1.2 and Figure 14, with a broad enough corridor between the Vermillion River crossing and 5th Street to permit GRE to work with the directly affected landowners to minimize, where practical, the impact on future development and redevelopment.

Highway 3 to the Empire Substation

The MEQB should select the 210th Street route as proposed by GRE (with a corridor width of 170 feet, 85 feet from the centerline of 210th Street to permit GRE to select pole locations that reduce impacts on landowners). This route should proceed along the southern boundary of the Marschall Bus Line property, and then to 210th Street.

The route permit should further provide that:

> GRE should be required to bury the Dakota Electric Association distribution lines along 210th Street.
>
> GRE's transmission line shall be on the south side of 210th Street in at least two areas where residences are in close proximity to the road right-of-way and to preserve mature trees to the extent possible. More specifically:

GRE's transmission line shall be on the south side of 210th Street, west of the David Baker's outbuilding and residence that are in close proximity to the road. The line may return to the north side at a point west of Bentley Court that minimizes mature tree removal on both sides of 210th Street.

If GRE and the Gossmans, owners of the dog kennel, are unable to reach a mutually acceptable solution to cross the entire Gossman property such that Gossmans' voluntarily agree to that crossing, the line must be on the south side of 210th Street from a point west of the Gossman residence to a single pole on the south side. The line may then return to the north side at the intersection of 210th Street and Blaine Avenue.

Dated this 13th day of December 2004.

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

Reported: Court Reported
Transcript Requested
Two Volumes
Kirby Kennedy & Associates

MEMORANDUM

Two areas along the route present real difficulties because neither of them has a route that is clearly superior to all the alternatives. The first difficult area is between Akin Road and Highway 3, in the northwest quadrant of the City. The second difficult area is the eastern part of 210th Street, particularly the portion between Ahern Boulevard and the Empire substation.

Between Akin Road and Highway 3, the two basic choices are to either go through the undeveloped agricultural land of Giles Properties and the Rother farm, or to go through the more developed areas that include the shopping center and the lumberyard. In the 210th Street area, the choices are either 210th Street itself, County Road 66, or Citizens Alternative #4.

The caselaw that has developed from past power line routing disputes centers around the principle of non-proliferation: That power lines should be routed along a pre-existing route, such as a road, a railroad, a utility corridor, etc. wherever possible. But that principal arose, and has usually been enforced, in cases where power lines or highways were proposed to be built where they would destroy valuable natural resources, and the damage would be irreversible. Placing tons of fill in a lake to build a road across it, or cutting down a virgin oak woodlot, are examples where the courts

have said that the law protects the natural resources from impairment or destruction, especially where there is an alternative route that has already been destroyed, such as a pre-existing roadway or power line route. In such a case, the pre-existing route should be utilized instead of creating a new one.[4]

But this concept of non-proliferation has almost always arisen in cases where there are non-compensable resources proposed to be destroyed. Shortly after the *PEER* case, which was the major Supreme Court case announcing the non-proliferation doctrine, a question arose about whether the doctrine would apply where there were no non-compensable natural resources at stake.[5] In that case, a local distribution cooperative was routing a 230 kV line across open farmland approximately 277 feet south of a farm building site. The landowner objected, and brought a lawsuit. He argued that the proposed line would hamper the operation of farm machinery, make aerial spraying more hazardous, affect the installation of pivotal type irrigation, interfere with a proposed private landing strip and affect television reception. The lawsuit went to trial, and the trial court ruled in favor of the cooperative. The landowner appealed to the Supreme Court, which affirmed the trial court. The Supreme Court stated that the farmer's evidence demonstrated that the use of the cultivated fields would be made more difficult because of the power line's presence, but he did not show that the land would be polluted or impaired or destroyed. The court suggested that if the landowner had been able to show that the presence of the power line would have made the soil sterile, or caused substantial erosion, or limited its cropping potential in some significant and irreversible way, then he might have been entitled to more protection. The court also noted that this case was brought initially in 1976, when the proposed line was exempt from the Power Plant Siting Act.

What is important for the Air Lake-Empire case is to realize that there are no protected natural resources at risk of impairment or destruction that would absolutely require the use of an existing route. Instead, the law's preference for an existing route is only one of the factors to be considered.

The evolution of the Power Plant Siting Act, and the rules which are now in place, have put the considerations from earlier caselaw into a larger perspective. The statute requires the Board to consider the economic impact on productive agricultural land which is lost or impaired, adverse environmental effects that cannot be avoided, using routes that would use or parallel existing railroad and highway rights-of-way, minimizing interference with agricultural operations by using survey lines and other natural division lines, as well as double-circuiting or planning for double-circuiting that might be possible. The rules talk about the same general factors, using slightly different words.

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[4] See, for example, *People for Environmental v. Minn. Environmental (PEER*), 266 N.W. 2d 858 (Minn. 1978) and *No Power Line v. Minn. Environmental Quality*, 262 N.W. 2d 312 (Minn. 1977).

[5] *State, by Skeie v. Minnkota Power Coop., Inc*. 281 N.W. 2d 372 (Minn. 1979).

The Board need not feel bound by the 10-mile limitation imposed by the Certificate of Need program.[6] There is a question of whether the entire project could be viewed as two separate projects, and thus any of these routes would easily be under ten miles. But even if it is viewed as one large project, the only way that the 10-mile limitation would impact the selection of the best route would be if reliability was seriously threatened by the additional time needed to obtain a Certificate of Need. The Administrative Law Judge does not believe that the applicants have made a sufficient showing of threatened unreliability such that the Board must pick a route less than 10 miles in length. While the additional delay that flows from requiring a Certificate of Need does run some risk if other facilities should go out of service as a result of a tornado or similar difficulty, that risk has not been shown to be so substantial that this project must be rushed through. Therefore, the 10-mile threshold for the Certificate of Need program is not determinative of the route selected. Reliability is a factor, but not a decisive one in this particular case.

Similarly, cost considerations have been considered, but only as one factor. The Ahern Bypass alternative would have impacted 12 homes, rather than 14, but it would add an additional $1,500,000 in costs to avoid those two homes. That cost seems disproportionate to the benefit it would yield. But cost is not determinative, it is just one factor.

So the Board is left with a balancing of all of the applicable factors in the statute and rule. No one factor "trumps" or eliminates consideration of the others. Balancing all of the data in the record, the Administrative Law Judge recommends the old railroad right-of-way for the route through the City, and 210th Street for the remainder of the route. But the route as originally proposed through the Giles Properties and Rother farm would be a reasonable alternative for the first section, as would be Empire Citizens' #4 using the Ferris Sod Farms offer for the second part.

The Board is free to weigh the alternatives as it sees them in making the final decision. There just is no obvious choice for those two areas; but luckily, there are a number which will work.

A.W.K.

[6] If the line is more than ten miles in length, then a Certificate of Need must be obtained from the Minnesota Public Utilities Commission prior to construction. See Minn. Stat. § § 216B.743, subd. 2 and 216B.2421, subd. 2(3). If the applicants have to obtain a Certificate of Need, it will add time and expense to the project.