

February 10, 2005

TO: EQB Board Members

FROM: Alan Mitchell (651-296-3714)  
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EQB Energy Facility Permitting

SUBJECT: **Route Permit to Xcel Energy and Great River Energy for Construction of a 115 kV High Voltage Transmission Line, Substation, and Associated Facilities in Dakota County. (EQB Docket No. 04-81-TR-Air Lake-Empire)**

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### **Action**

The Board is asked to adopt Findings of Fact and Conclusions and issue a Route Permit to Xcel Energy and Great River Energy (GRE) for a new 115 kilovolt (kV) high voltage transmission line (HVTL), a new Vermillion River Substation, and associated facilities extending from the Air Lake Substation in Lakeville on the west to the Empire Substation in Empire Township on the east. The west end of the line will be owned by Xcel Energy (from the Air Lake Substation to the Vermillion Substation) and the east end of the line will be owned by Great River Energy (from the Vermillion Substation to the Empire Substation).

This matter was before the Board at its January 2005 meeting, but the Board did not reach a decision on the route to approve on the GRE portion of the line, through the City of Farmington and along the east end of the line near 210<sup>th</sup> Street and the Empire Substation. The Board directed the staff to address two possible routes through the City and three possible routes on the east end of the line. The route for the Xcel Energy portion of the line, the route for the section between Highway 3 and Ahern Road, and the site for the new Vermillion Substation are not contested.

The staff has provided the Board with five sets of findings of fact, one for each of the route options under consideration. They are color coded as follows:

- Green: south route through Farmington;
- Yellow: north route through Farmington;
- Red: Ahern Road/County Road 66 option in Empire Township;
- Pink: route through the sod farms in Empire Township;
- Blue: the 210<sup>th</sup> Street route in Empire Township.

There are two maps in the Board packet as well – one showing the two routes through Farmington and one showing the three routes on the east end in Empire Township. The route options are shown on the maps in the same colors as described above. The staff will be prepared at the Board meeting to present the maps electronically.

There is also a document in the Board packet on white paper that contains the Findings of Fact and Conclusions that are not contested. Regardless of which route is ultimately chosen, many of the hard facts regarding this transmission line– those relating to such things as the land uses and number of landowners along each route option – are not really in dispute. These are the findings contained in the findings document on the white paper.

There are two blank sections in the proposed Findings of Fact on the white paper. One is Finding No. 89.20 and the other is Finding No. 117. Finding No. 89.20 sets forth the reasons for picking the route through the City of Farmington. If the south route is chosen, the findings on the green document should be entered here. If the north route is selected, then the findings on the yellow document are entered.

Similarly, for Finding No. 117, either the red, pink, or blue findings should be included, depending on which route on the east end is selected.

The same thing applies for the permit language. A permit on white paper is included in your packet. This document contains the permit language that is the same regardless of which route is selected, including the description of the route segments that are not contested and the boilerplate permit conditions.

Once the Board decides what route to approve through the City of Farmington and what route to approve on the east end, the appropriate route description in Part III and special conditions in Part IV must be included in the final permit document. In the Board packet are five versions of the language for the Route Permit describing the route and the appropriate conditions for each route option. These versions are color coded to match the respective route options. Once it is determined which routes through the City and on the east end are approved, the appropriate language from the colored versions will be included in the final permit.

## **Background**

The background discussion contained in the January 13 memorandum prepared for the January Board meeting is not repeated here. The discussion below focuses on the five route options under consideration.

### ***Route through the City of Farmington.***

There are two route options through the City of Farmington. One (called the “north route” in yellow on the map) runs north along Akin Road, then east through agricultural land owned by Giles Properties, Inc. and the Rother family to Highway 3, and then south along Highway 3 to the intersection of Highway 3 and the point where a planned extension of Willow Street will intersect Highway 3. The other route (called the “south

route” in green on the map) runs south along Akin Road, then east along school district property, through Rambling River Park, and along a former railroad right-of-way to Highway 3 and the Willow Street extension.

Many of the proposed findings (Findings Nos. 89.1 to 89.11) are the same for both routes because the facts are identical regardless of which route the Board chooses. Only proposed Finding No. 89.12 – the finding explaining the rationale for choosing the route – differs.

The EQB staff continues to recommend the south route. This route is modified somewhat from the route recommended by the administrative law judge in that it runs through a different part of Rambling River Park and avoids the shopping center on the east side of the Park. Giles Properties and the Rothers also support this route. Giles Properties submitted a petition signed by thirteen residents of the Riverside Development (near the Giles property and Akin Road) who are opposed to the north route. The City of Farmington and the Farmington School Board support the north route. Landowners along the south route, including Dakota County Lumber and Landscape Depot, also support the north route. Only one person along Highway 3 testified at the hearing, and that person wanted the line to be on the west side of the highway opposite his house. Great River Energy stated at the Tech Rep meeting on February 8 that upon further consideration, it prefers the south route because it is shorter and cheaper.

### ***Route on the East End.***

From Ahern Road to the Empire Substation, there are three possibilities under consideration. The option recommended by the judge and the staff (the blue route on the map) runs straight down 210<sup>th</sup> Street but restricts which side of the street the line is on to minimize the removal of trees and impacts to the homeowners. A second option (the pink line on the map) turns north of 210<sup>th</sup> Street on the border of the David Baker property and then turns east through agricultural land that is presently used as sod farms to an existing 115 kV line that runs south to the Empire Substation. The third option (the red line on the map) turns north at Ahern Road to County Road 66, then east along CR 66 to the existing 115 kV line that runs to the substation.

There are three sets of documents in your packet, one for each route option on the east end. The documents correspond in color with the color used on the map – blue for the route along 210<sup>th</sup> Street, pink for the route through the sod farms, and red for the route along Ahern Road and CR 66. Only Finding No. 113 differs in the Findings of Fact.

Residents along 210<sup>th</sup> Street have opposed constructing the line along the street in front of their homes. They prefer any of the other options that avoid their property. The owners of the sod farms object to running the line through their farms and are concerned that the line would interfere with their center pivot irrigation systems. Residents along CR 66 have objected to any proposals to put the line on their property. Residents along Ahern Road also object to any route along that street and complain that they were not given advance notice that the route might go along Ahern Road. Great River Energy prefers the route along 210<sup>th</sup> Street.

## **Discussion of Significant Issues**

Judge Klein recognized in his Report that there are certain factors spelled out in statute (Minn. Stat. § 116C.57, subd. 4) and rule (Minn. Rules part 4400.3150) that guide the Board's decision. *See* Findings Nos. 49 and 50. Of the factors listed, the more significant ones in this matter seem to be the following: (1) Effects on human settlement, (2) Effects on agricultural land and operations; (3) Potential use of existing railroad and highway rights-of-way; (4) Environmental effects; (5) Local interests; and (6) Costs. No one of these factors appears to be decisive in selecting the final route.

The discussion below addresses each of the factors listed above, first for the route options through the City of Farmington and then for the route options on the east end.

### **ROUTE THROUGH CITY OF FARMINGTON**

#### ***(1) Effects on Human Settlement***

Minn. Rules part 4400.3150(A) directs the EQB to consider effects on human settlement. The fact that so many landowners have objected to any route that passes on or near their property is an indication that this line will have an impact on existing homes and businesses regardless of where it is placed.

The EQB always tries to minimize the effects on existing landowners whenever any new high voltage transmission line is routed. Often, however, the interest in minimizing impacts on landowners conflicts with other goals, such as minimizing impacts on agricultural land or following existing roadways. Obviously, fewer homes are affected if entirely new routes are selected through agricultural land.

One important comparison for purposes of evaluating the effects on human settlement is to count the number of homes and businesses that would be close to the transmission line. There are different criteria that could be applied to determine which homes and business to count. The staff counted those that would either be crossed by the transmission line or be across the road or street from the line. Under that method of counting, there are 18 homes and 7 businesses along the north route and 3 homes and 11 businesses along the south route. The data are summarized later in this memorandum.

For the north route, there are three houses and three businesses on the east side of the line along Highway 3 and eight houses and three businesses on the west side. The line will be on the east side if the north route is selected because the highway is likely to be expanded to the west. There are four new homes along Akin Road close to where the north route would turn east through the Giles property. Two other houses are along Akin Road, and the Rother residence is also along the proposed 208<sup>th</sup> Street extension. None of the homes in the Riverside Development (whose owners signed a petition in opposition to the north route) were counted, nor were any homes counted in anticipation of residential development on the Giles property and the Rother property.

The south route has three homes near the commercial development east of the railroad tracks. Only homes fronting the transmission line were counted, and other homes on neighboring streets in this area were not counted. The south route does not follow Highway 3 so no Highway 3 homes were counted for the south route. There are three homes near the school district boundary near Rambling River Park but these homes were not counted because they are separated from the route by a windrow of trees and they face in the opposite direction. The eleven businesses that were counted, including the Landscape Depot and Dakota County Lumber, are along the former railroad right-of-way,. The line would run in back of all these businesses.

Whether the north route or the south route through Farmington is approved, the line will border school district property. If the north route is selected, the line will be 315 feet from the East Middle School at its closest point; and if the south route is selected, the line will be 705 feet from the West Middle School at its closest point. The south route would actually be located on school district property and would run between the fences separating the softball fields and the baseball fields.

Regardless of route, electric and magnetic fields levels are well below any levels of concern immediately below the line and dissipate rapidly as distance from the line increases.

## ***(2) Effects on Agricultural Land and Operations***

Both the statute and the rule recognize that the EQB should be guided by a consideration of the effects of any new high voltage transmission line on agricultural land, to avoid the loss of productive agricultural land and to minimize the impact on farming operations. Section 116C.57, subs. 4(5) and (9) and Part 4400.3150(C).

The Giles land and the Rother land are both presently in active agricultural use but are planned for residential development. The City of Farmington provided staff with a letter from the Rother to the City dated February 4, 2004, expressing an interest in annexation and also with a preliminary plot plan for development of the property prepared by the Rother. In a letter dated February 8, 2005, however, Jerry Rother stated that the family is reconsidering its plans to develop the land. These documents are included in the Board packet.

Giles Properties submitted a letter and other material on February 9, 2005. This material is included in the Board packet. One of the documents is a concept plan showing possible residential development on this property. Only a portion of the plan showing the area where the line would go if the north route is selected is included in the Board packet because the actual plan is too large to copy. Staff will have the full plan at the Board meeting.

The Rother property will be divided by the new 208<sup>th</sup> Street extension, but 208<sup>th</sup> will not run through the Giles property. The City of Farmington provided staff with a copy of the engineer's Feasibility Report for the 208<sup>th</sup> Street Extension Project (dated February 7, 2005) at the Tech Rep meeting on February 8. The Feasibility Report contains a map

showing the proposed alignment of the 208<sup>th</sup> Street extension. The Giles property is within the city limits of the City of Farmington, and the Rother property is in Empire Township. The Highway 3 segment is also in Empire Township.

### ***(3) Potential Use of Existing Railroad and Highway Right-of-Way***

The statute (subd. 4(8) ) and the rule (part 3150(H) and (J) ) both direct the EQB to evaluate and consider the use of existing railroad and highway and other existing rights-of-way. The idea here is to minimize the creation of new rights-of-way for construction of transmission lines.

The north route would follow the Akin Road right-of-way for the first stretch. A new right-of-way would be required across the Giles property, although any residential development would require access streets so some street construction would have to occur on the Giles property. The Rother property would be bisected by the 208<sup>th</sup> Street extension, although the transmission line will be built before the road is built. The Feasibility Study for the road project identifies the location of 208<sup>th</sup> Street so the line could follow the anticipated route for the street through the Rother property. The final portion of the north route would parallel the existing Highway 3 right-of-way.

The south route avoids both the Giles property and the Rother property but would require several hundred feet of new right-of-way through school district property near the ballfields, although the structures could be placed between two fences separating the baseball fields and the softball fields. A new corridor through Rambling River Park would also be required but because there is already a distribution line corridor through the Park that will be eliminated, only one corridor will ultimately exist. Some trees will be removed because of the new corridor through the Park. East of the park to Highway 3, the line would follow a former railroad right-of-way.

Two business owners along the former railroad right-of-way have stated that they may at some time construct a railroad spur from the nearby rail line (owned by Canadian Pacific and operated by Union Pacific according to the City's Feasibility Report at p. 5) to their commercial businesses. Such plans are indefinite. According to GRE, after talking with the representatives of Union Pacific, a clearance of 35 feet (center of rail line to the pole) is required if the railroad owns the spur, and 15 feet is required if the private entity owns the spur. In either case, GRE states that there is enough clearance to build the line along this former right-of-way and still allow for the construction of a spur.

### ***(4) Environmental Effects***

Minimizing the environmental effects associated with a new transmission line is surely one of the goals of the EQB in routing new lines. Minn. Stat. § 116C.57, subd. 4(3), (6), and (11) and Minn. Rules part 4400.3150 E, F, G, and M.

There is no overwhelming reason from an environmental standpoint to pick one route over the other. The north route avoids Rambling River Park, but it crosses a wetland on the Giles property. The south route requires a corridor through the Park, but there

already is a corridor there for a distribution line so there will be no increase in the number of corridors. No person has really registered any concerns about impacts on the Park.

The north route crosses the Vermillion River or the west branch three times; the south route crosses the river once. There is no evidence that crossing the river will cause any adverse impacts on the river.

#### ***(5) Local Interests***

Minn. Stat. § 116C.57, subd. 4(12) directs the EQB to consider problems raised by other state and local entities. The City of Farmington objects to the south route and prefers the north route. The City Council and the Farmington School Board have gone on record in support of the north route. The City would like to avoid having transmission structures in the shopping center area and near the commercial businesses along the former railroad.

The south route does not cross the downtown area of Farmington. The downtown area is to the south of where the transmission line would go. Also, by moving the corridor through the Park a little to the north from the corridor the judge recommended, the shopping center can be avoided entirely. As addressed above, the structures along the former railroad right-of-way would be in back of the businesses along that corridor and the structures will not preclude the construction of a railroad spur to those businesses.

A portion of the north route would be located outside the city limits and in Empire Township. The Rother property and the stretch along Highway 3 are both in the township. The south route is entirely within the city limits. The white line on the map showing the two route options is the boundary of the city limits.

#### ***(6) Costs***

Costs are not a factor that will justify a route selection on that basis alone, but economics are a factor to take into account. Minn. Rules part 4400.3150.L. The north route is 1.66 miles long and according to the best estimate from GRE, would cost \$958,200 to construct. The south route is 1.11 miles long and would cost \$488,100 to construct.

There are other costs not related directly to construction of the line. For example, GRE will be required to move the present distribution line from Rambling River Park if the south route is approved. That cost is estimated to be approximately \$40,000 to \$50,000. The north route will require GRE to do something with the phone and cable lines along Highway 3, although whether these lines are buried or hung on the new poles is uncertain at this time and cost estimates are not available. An e-mail from GRE dated February 10, 2005, with these cost figures is in the Board packet.

***(7) Summary of Routes through Farmington***

The table below summarizes the features of each of the routes through Farmington.

<b>Farmington</b>	<b>North Route</b>	<b>South Route</b>
Houses	<b>18</b>	<b>3</b>
Commercial Units	<b>7</b>	<b>11</b>
Ag Properties	<b>2</b>	<b>0</b>
Line Length	<b>1.66 mi.</b>	<b>1.11 mi.</b>
Construction Cost	<b>\$958,200</b>	<b>\$488,100</b>
River Crossings	<b>3</b>	<b>1</b>

**ROUTE ON THE EAST END THROUGH EMPIRE TOWNSHIP**

***(1) Effects on Human Development***

There are 18 homes along 210<sup>th</sup> Street. There are 11 homes along Ahern Road and CR 66. There are two houses along 210<sup>th</sup> Street that would border the line if the route through the sod farms were approved, although there are no adjacent houses north of 210<sup>th</sup> Street in the fields. Ferris Estates Development is north of 210<sup>th</sup> Street but the route through the sod farms would be north of any of those houses. A resident of Ferris Estates (Mr. Scott Bennis) appeared at the Tech Rep meeting and opposed constructing the line through the fields. Mr. Ferris does not object to placing the line along CR 66 but does object to locating the line in his field. Mr. Bennis submitted a letter and several photographs showing pheasants and other animals near his home; his letter is in the Board packet and the photographs will be available at the Board meeting.

Some of the houses along 210<sup>th</sup> Street are closer to the street than the houses along CR 66 are to the highway. The David Baker house is the closest house to 210<sup>th</sup> Street, about 100 feet. GRE could locate the line on the opposite side of the street near the Baker property.

Residents along 210<sup>th</sup> Street are concerned about the trees that would have to be removed to place the line along the street. There already is an existing distribution line along the north side of 210<sup>th</sup> Street, and GRE would bury this line if the 210<sup>th</sup> Street route is approved. The Gossmans run a dog kennel at their home and are concerned that removal of some of the trees would result in increased noise to their neighbors from dogs barking. GRE is prepared to place the line on the opposite side of the street from the Gossmans, on the Armstrong property, or make other accommodations satisfactory to the Gossmans if the structures are placed on their property. Mr. Armstrong would lose some trees, although his home is several hundred feet south of the line and only one structure would be required.

There is also a windrow of evergreen trees on the west side of Ahern Road, which would be affected if the line were to follow that side of the road. On the east side are irrigation pipes that could be impacted if the structures were on that side of Ahern Road.

Residents along Ahern Road complain that they were not given notice that Ahern was a possible route. This route alternative was not identified in the Scoping Decision and was not examined in the Environmental Assessment. These landowners were given notice on January 28, 2005, that the Board was considering this route option.

### ***(2) Effects on Agricultural Land and Operations***

The route along 210<sup>th</sup> Street does not interfere with any agricultural land or operations. The Ahern Road route could interfere with irrigation if it were on the east side of the road. The route through the sod farms would interfere significantly with operation of the farms because the landowners operate center pivot irrigation systems. These landowners are opposed to this route.

Two of the owners of the sod farms are Colin Garvey and Les Ferris. The route through the Garvey and Ferris farms would not follow any demarcation such as a section line or property boundary. The line could follow the property boundary through the farm east of Blaine Avenue. Mr. Garvey, who also owns the Landscape Depot along the south route in Farmington, and Mr. Ferris, who also is developing Ferris Estates, both oppose a route through their farmland.

### ***(3) Potential Use of Existing Railroad and Highway Right-of-Way***

The 210<sup>th</sup> Street route would follow the existing street right-of-way for the entire distance. The Ahern Road/CR 66 route would also follow existing road right-of-way. The route through the sod farms would require an entire new right-of-way where the line crossed the fields. There is also an existing distribution line right-of-way on the north side of 210<sup>th</sup> Street serving the homes along the east end.

### ***(4) Environmental Effects***

There are no environmental concerns that should drive the selection of the route option along this stretch of the line.

A representative of the Trust for Public Land testified at the public hearing that a landowner had dedicated to the Trust 460 acres on the north side of County Road 66 near the intersection with Ahern Road. No impacts on this land would be expected from construction of a transmission line along CR 66.

### ***(5) Local Interests***

Empire Township officials have not registered any formal comments on this project. There are township residents along every one of the routes under consideration.

**(6) Costs**

The 210<sup>th</sup> Street route is 1.95 miles long. The Ahern Road/CR 66 route is 3.72 miles long. The sod farm route is 2.77 miles long.

The 210<sup>th</sup> Street route is estimated by GRE to cost \$712,300. The Ahern route estimate is \$2,002,400, and the sod farm route estimate is \$1,224,600. These costs are the estimated costs of construction.

The existing distribution line along 210<sup>th</sup> Street would be buried by GRE if this route were approved. The costs for doing that are estimated to be \$120,000. There are also distribution lines along Ahern Road and CR 66 owned by Dakota Electric Cooperative and Xcel Energy. As explained in an e-mail from GRE dated February 10, 2005, a transmission line along CR 66 would require the utilities to tie together the transmission line and the distribution line and this could cost approximately \$200,000. This number is in the GRE e-mail of February 10, 2005.

**(7) Summary of Routes in Empire Township**

The table below summarizes the features of each of the routes through Empire Township.

<b>Empire Township</b>	<b>Ahern Bypass</b>	<b>Farm Crossing</b>	<b>210 Street</b>
Houses	<b>11</b>	<b>2</b>	<b>18</b>
Commercial Units	<b>0</b>	<b>0</b>	<b>0</b>
Ag Properties	<b>0</b>	<b>6</b>	<b>0</b>
Line Length	<b>3.72 mi.</b>	<b>2.77 mi.</b>	<b>1.95 mi.</b>
Construction Cost	<b>\$2,002,400</b>	<b>\$1,224,600</b>	<b>\$712,300</b>
Regional Parkland	<b>1</b>	<b>0</b>	<b>0</b>

The Ahern Road bypass route would put the total length of the line over ten miles. The sod farm route would be less than ten miles if the south route through the City of Farmington were selected, but over ten miles if the north route were selected. The 210<sup>th</sup> Street route is under ten miles regardless of the route through the City of Farmington.

**THE XCEL ENERGY PORTION OF THE LINE**

As discussed in the January 13 staff memorandum and as was evident at the Board meeting, there is no controversy over the route for the west end of the line from the Air Lake Substation in Lakeville to the new Vermillion Substation in Farmington. This is the portion of the line to be constructed and owned by Xcel Energy. The staff recommends that the Board approve the proposed route for the Xcel Energy portion.

There is one slight change in the description of this portion of the line from the January version of the permit. In the Project Description in Part II of the permit, the following sentence should be included: “The 69 kV portion of the line will be rebuilt to 115 kV specifications, but will continue to be operated at 69 kV.” This was always part of the proposal, it should have been included in last month’s draft, and it does not change the route in any manner. This language simply clarifies how the line will be constructed and operated.

### **Staff Recommendation**

The staff believes that on balance the south route through the City of Farmington (green route on the map) and the 210<sup>th</sup> Street route on the east end (blue route on the map) are the preferred routes. There is no one route that is clearly superior to another and there is no route that does not meet with stiff opposition. While any of the route options under consideration has reasons justifying its selection, the staff concludes that following the straightest, shortest route between the Vermillion Substation and the Empire Substation is the best way to go.

This route has the least impact on agricultural land, whether actively farmed or scheduled for development. It follows other kinds of rights-of-way for a significant distance. While there will be structures located on commercial property along the former railroad right-of-way in Farmington, the line avoids the shopping center and the downtown area and will not interfere with business operations or preclude the construction of a railroad spur to these businesses if the owners should chose to do so. It avoids Highway 3, a busy, congested area. It crosses school district property for a few hundred feet, but it is farther from the middle school than the north route and does not interfere with the ball fields. The impact on Rambling River Park is minimized by eliminating another corridor through the park. On the east end, by selecting which side of 210<sup>th</sup> Street to follow, the loss of trees can be minimized and the nearest homes can be avoided. The existing distribution line will be buried and the new line can be placed along much of the existing corridor. The other routes are all longer and more costly.