



**ROUTE PERMIT
FOR CONSTRUCTION OF A SUBSTATION AND
A HIGH VOLTAGE TRANSMISSION LINE**

IN

DAKOTA COUNTY, MINNESOTA

ISSUED TO

GREAT RIVER ENERGY & XCEL ENERGY

EQB DOCKET NO. 04-81-TR-AIR LAKE-EMPIRE

In accordance with the requirements of Minnesota Statutes section 116C.57 and Minnesota Rules chapter 4400, this Route Permit is hereby issued to

GREAT RIVER ENERGY and XCEL ENERGY

Great River Energy and Xcel Energy are authorized by this permit to construct a new 115 kilovolt transmission line, approximately nine miles long connecting the Air Lake and Empire Substations, and a new Vermillion River Substation in Farmington, along a route and at a site identified in this Permit and in compliance with the conditions specified in this Permit.

STATE OF MINNESOTA
ENVIRONMENTAL QUALITY BOARD

Robert A. Schroeder
Chair

Issued: February 22, 2005

I. ROUTE PERMIT

The Minnesota Environmental Quality Board hereby issues this Route Permit to Great River Energy and Xcel Energy (hereinafter the “Permittees”) pursuant to Minnesota Statutes section 116C.57 and Minnesota Rules chapter 4400. This permit authorizes the Permittees to construct a 115 kilovolt transmission line, a new substation, and other associated facilities in Dakota County, Minnesota.

II. PROJECT DESCRIPTION

The new high voltage transmission line authorized to be constructed under this Permit is a 115 kilovolt line approximately nine miles long that will connect the Air Lake and Empire Substations in Dakota County. A new Vermillion River Substation will be constructed by Xcel Energy in the city of Farmington, adjacent to Eaton Road. The line from the Air Lake Substation in Lakeville to the Vermillion River Substation will be built by Xcel Energy and follow an existing 69 kV transmission line corridor, using primarily existing rights-of-way. The 69 kV portion of the line will be rebuilt to 115 kV specifications, but will continue to be operated at 69 kV. A new 115 kV termination will be built at the Air Lake Substation to accommodate the new line.

The remainder of the new line, from the Vermillion River Substation to the Empire Substation in Empire Township, will be constructed by Great River Energy and will require approximately 5.8 miles of new right-of-way. The Empire Substation will require only minor modifications to accommodate the new line.

Structures will be single shaft steel poles for the Xcel Energy portion and single shaft wooden poles for the GRE portion, except GRE will use single shaft steel poles where longer spans are necessary. The phase wires will be 795 MCM (795,000 circular mil) aluminum conductor steel supported (ACSS) with seven steel core strands and 26 outer aluminum strands. The conductor has an overall diameter of 1.1 inches.

III. DESIGNATED ROUTE

The route designated by the Environmental Quality Board in this Permit is described below and shown on the attached maps. Beginning on the west end at the Air Lake Substation and finishing at the east end at the Empire Substation:

- A.** The first segment is being constructed by Xcel Energy, beginning at the intersection of County Road 50 and Cedar Avenue and continuing to the new Vermillion River Substation. The route heads east along the north side of CR 50 for approximately 2.5 miles. The existing 69 kV transmission line with distribution underbuild will be replaced with a new double circuit 115/69 kV line with distribution underbuild. East of Eaton Avenue, the double circuit line will run north for approximately ¼ mile to the south property line of the new Vermillion River Substation. While the existing 69 kV line then turns and continues to the east along its existing alignment, the 115 kV line will extend approximately 300 feet north into the new substation.

- B. The new Vermillion River Substation will be located on 11.4 acres at a site east of Eaton Avenue and ¼ mile north of CR 50. The site is in an Industrial Park in the city of Farmington, Minnesota. The fenced area will be 550 feet by 200 feet, using approximately 2.5 acres of the site. The substation will be laid out to accommodate the installation of future feeders and transformers should significant load growth occur in the area. Xcel Energy will own and operate all the high voltage facilities, the control house, and all common facilities (land, fencing, etc.) Dakota Electric Association will own and operate its own distribution facilities in the western ¼ portion of the substation.
- C. From the Vermillion River Substation eastward, the line will be constructed, owned and operated by Great River Energy. From the Vermillion River Substation, the existing 69 kV line will be rebuilt to a 69/115 kV double circuit line along the existing Xcel Energy route directly east, approximately 1/3 mile to Akin Road.

At this point, the line will follow a specific route within the parameters of the “Adaptation Alternative” (Environmental Assessment, Section 6.1.2, and Figures 14 and 15). The line turns south just east of Akin Road, paralleling an existing Xcel Energy 69 kV double-circuit line for approximately 400 feet. It then turns east and proceeds between the baseball diamonds and the softball fields, continuing on the south end of the school district property. The line shall then progress directly east to Rambling River Park, through the Park crossing the Vermillion River, then due east after exiting the Park, and continue directly along the south side of Pine Street until it angles northeast along the lumberyard to Hwy 3.

- D. From Hwy 3, the route follows the “City of Farmington” alternative (EA, Section 4.1.3, and Figure 7), whereby the route continues along the abandoned railway corridor, which is also the planned extension of 210th Street (called the Willow Extension). This segment runs northeasterly for about ½ mile to 210th Street and Cambodia Avenue. From Cambodia the line runs along 210th Street to the intersection with Ahern Road.
- E. From Ahern Road to the Empire Substation, the route then continues, as originally proposed by GRE, along 210th Street. This segment follows through to the end point at the Empire Substation.

IV. PERMIT CONDITIONS

The Permittees shall comply with the following conditions during construction of the transmission lines and substation and during the life of this Permit.

- A. **Plan and Profile.** At least 14 days before right-of-way preparation begins, the Permittees shall provide the EQB with a plan and profile of the right-of-way and the specifications and drawings for right-of-way preparation, construction, cleanup, and restoration for the transmission line. The Permittees may not commence construction until the 14 days has expired or until the EQB has advised the Permittees that it has completed its review of

the documents and determined that the planned construction is consistent with this permit. If the Permittees intend to make any significant changes in its plan and profile or the specifications and drawings after submission to the EQB, the Permittees shall notify the EQB at least five days before implementing the changes. No changes shall be made that would be in violation of any of the terms of this permit.

B. Construction Practices.

1. Application. The Permittees shall follow those specific construction practices and material specifications described in the Route Permit Application for the Air Lake-Empire 115 kV Transmission Line submitted by Great River Energy & Xcel Energy dated April 30, 2004, unless this Permit establishes a different requirement, in which case this Permit shall prevail.

2. Field Representative. At least ten days prior to commencing construction, the Permittees shall advise the EQB in writing of the person or persons designated to be the field representative for the Permittees with the responsibility to oversee compliance with the conditions of this Permit during construction. This person's address, phone number, and emergency phone number shall be provided to the EQB, who may make the information available to local residents and public officials and other interested persons. The Permittees may change the field representative at any time upon written notice to the EQB.

3. Cleanup. All waste and scrap that is the product of construction shall be removed from the area and properly disposed of upon completion of each task. Personal litter, bottles, and paper deposition by construction workers shall be removed on a daily basis.

4. Vegetation Removal. The Permittee shall minimize the number of trees to be removed in selecting the right-of-way. As part of construction, low growing brush or tree species are allowable at the outer limits of the easement area. Taller tree species that endanger the safe and reliable operation of the transmission facility need to be removed. To the extent practical, low growing vegetation that will not pose a threat to the transmission facility or impede construction should remain in the easement area.

5. Erosion Control. The Permittee shall implement reasonable measures to minimize runoff during construction and shall plant or seed areas where structures are installed.

C. Completion of Construction

1. Notification. At least three days before the line is to be placed into service, the Permittees shall notify the EQB of the date on which the line will be charged and the date on which construction was complete.

2. As-Builts. Upon request of the EQB, the Permittees shall submit copies of all the final as-built plans and specifications developed during the project.

3. GPS Data. Within sixty days of completion of construction, the Permittees shall submit to the EQB, in the format requested by the EQB, geo-spatial information (GIS compatible maps, GPS coordinates, etc.) for all above ground structures associated with the transmission lines and each substation connected.

D. Electrical Performance Standards.

1. Grounding. The Permittees shall design, construct, and operate the transmission line in such a manner that the maximum steady-state short-circuit current shall be limited to five milliamperes rms alternating current between the ground and any non-stationary object within the right-of-way including but not limited to, large motor vehicles and agricultural equipment. All fixed metallic objects on or off the right-of-way, except electric fences that parallel or cross the right-of-way, shall be grounded to the extent necessary to limit the short circuit current between ground and the object so as not to exceed one milliamperes rms under steady state conditions of the transmission line and to comply with the ground fault conditions specified in the National Electric Safety Code.

2. Electric Field. The transmission line shall be designed, constructed, and operated in such a manner that the electric field measured one meter above ground level immediately below the transmission line shall not exceed 8.0 kV/m rms.

3. Radio and Television Interference. If radio or television interference is caused by the presence or operation of the transmission line, the Permittees shall take whatever action is prudently feasible to restore or provide reception equivalent to reception levels in the immediate area just prior to the construction of the line.

E. Applicable Codes. The Permittees shall comply with applicable Rural Utilities Service (RUS) construction standards and requirements of the National Electric Safety Code (NESC) including clearances to ground, clearance to crossing utilities, clearance to buildings, right-of way widths, erecting power poles, and stringing of transmission line conductors.

F. Other Permits. The Permittees shall comply with all applicable state rules and statutes. The Permittees shall obtain all required permits for the project and comply with the conditions of these permits. A list of the required permits is included in the permit application and the environmental assessment. The Permittee shall submit a copy of such permits to the EQB upon request.

G. Pre-emption. Pursuant to Minnesota Statutes section 116C.61, subdivision 1, this Permit shall be the sole route and site approval required to be obtained by the Permittees and this Permit shall supersede and preempt all zoning, building, or land use rules, regulations, or ordinances promulgated by

regional, county, local and special purpose governments.

H. Delay in Construction. If the Permittees have not commenced construction or improvement of the route within four years from the date of issuance of this Permit, the EQB shall consider suspension of the Permit in accordance with Minn. Rules part 4400.3750.

I. Special Conditions.

1. Xcel Energy Right-of-way Acquisition. Between Cedar Avenue and the Vermillion River Substation, the Permit allows a 50-foot width on each side of the centerline of the existing 69 kV line to permit Xcel Energy to select pole locations that reduce the impacts on landowners.

2. Substation Modifications. The footprints of the Air Lake and Empire substations shall not be expanded.

3. Great River Energy Right-of-way Acquisition. From the Vermillion River Substation to the Empire Substation, GRE may acquire up to 70 feet of new right-of-way, except as follows:

A. East of Akin Road south of the softball fields, GRE must locate the centerline of its right-of-way within 20 feet of the south property line of the school district property.

B. From Highway 3 easterly along the 210th Street segment, GRE is permitted a corridor width of 170 feet – 85 feet from the centerline of 210th Street – to allow the Permittee to select pole locations that reduce impacts on landowners. GRE shall consult with the City of Farmington to determine the centerline of 210th Street where the City plans an extension to Highway 3.

4. Mitigation of Impacts. GRE shall:

A. Reroute the single-phase distribution line that presently runs through Rambling River Park, which exists to the south of the corridor for the new line, leaving only one utility river crossing in the Park.

B. Notify each of the landowners along the former railroad right-of-way of the location of each of the structures on their property at least ten days prior to commencing construction of the structures.

C. Bury the Dakota Electric Association distribution line along the north side of 210th Street.

D. Place the line on the south side of 210th Street directly across from the David Baker property, protecting an outbuilding and residence in close proximity to the street.

E. Place the line on the south side of 210th Street directly across from the John Gossman residence in a way to best preserve existing trees on both the

north and south side of the street. Should the Gossmans and GRE come to an agreement to cross the Gossman property on the north side of 210th Street, GRE may select that route segment upon notification of the EQB.

V. PERMIT AMENDMENT

This permit may be amended at any time by the Environmental Quality Board. Any person may request an amendment of this permit by submitting a request to the Chair in writing describing the amendment sought and the reasons for the amendment. The Chair will mail notice of receipt of the request to the Permittees. The EQB may amend the permit after affording the Permittees and interested persons such process as is required.

VI. TRANSFER OF PERMIT

The Permittees may request at any time that the Environmental Quality Board transfer this permit to another person or entity. The Permittees shall provide the name and description of the person or entity to whom the permit is requested to be transferred, the reasons for the transfer, a description of the facilities affected, and the proposed effective date of the transfer. The person to whom the permit is to be transferred shall provide the EQB with such information as the EQB shall require to determine whether the new permittee can comply with the conditions of the permit. The EQB may authorize transfer of the permit after affording the Permittees, the new permittee, and interested persons such process as is required.

VII. REVOCATION OR SUSPENSION OF THE PERMIT

The Environmental Quality Board may initiate action to revoke or suspend this permit at any time. The EQB shall act in accordance with the requirements of Minnesota Rules part 4400.3950 to revoke or suspend the permit.