



In the Matter of the Application for a HVTL
Route Permit for the Orono Substation
Expansion and New 115 kV Transmission Line
Project.

**ENVIRONMENTAL ASSESSMENT
SCOPING DECISION DOCUMENT
PUC DOCKET NO. E002/TL-11-223**

INTRODUCTION

The above matter has come before the Deputy Commissioner of the Department of Commerce (Department) for a decision on the scope of the environmental assessment (EA) to be prepared on the Orono Substation Expansion and New 115 kV Transmission Line Project proposed by Xcel Energy.

PROJECT DESCRIPTION

Xcel Energy proposes to construct the Orono Substation Expansion and new 115 kV Transmission Line Project (Project). As proposed, the Project would replace the existing 69 kV Orono Substation with a new 115 kV substation at the same location, but with a larger footprint. The Project would connect the expanded substation to the existing Xcel Energy 115 kV transmission line 0831 through a new double circuit 115 kV transmission lines of approximately 2,040 feet. The Project, as proposed, would also remove approximately 1,030 feet of 115 kV transmission line and replace it with approximately 1,100 feet of new single circuit 115 kV transmission line. While not part of the Route Permit requested by Xcel Energy, approximately 400 feet of the existing Great River Energy 69 kV transmission line BD would be rerouted around the new Orono Substation.

Xcel Energy proposes to use steel single-pole structures with spans of approximately 300 to 500 feet between poles; structure heights are anticipated to range from 70 to 90 feet for the single-circuit structures to 75 to 115 feet for the double-circuit structures. Xcel Energy is requesting a route width of approximately 400 feet, or 200 feet either side of the proposed alignment shown in the Application maps. The anticipated right-of-way for the new transmission line would be 75 feet.

The Project is located entirely within the city of Orono in Hennepin County. Xcel estimates the total Project cost to be approximately \$5.3 million dollars.

In its application, Xcel Energy included a description of four alternative routes that were considered, but ultimately rejected. Xcel Energy indicates that the Proposed Route, when compared to the alternatives, minimizes impacts to existing residences, provides greater

opportunity to share or parallel existing railroad rights-of-way, minimizes transportation crossings, and minimizes impacts to the Baker Park Nature Preserve.¹

PURPOSE

Xcel Energy indicates in its route permit application that the proposed project is intended to improve local and system reliability, reduce the risk of overloads, and allow for additional load growth in the future.

REGULATORY BACKGROUND

A high-voltage transmission line route permit application for the project was filed by Xcel Energy on June 7, 2011, and accepted by the Minnesota Public Utilities Commission (Commission) on June 30, 2011. The route permit will be reviewed under the alternative review process, pursuant to the Power Plant Siting Act (Minnesota Statutes 216E) and Minnesota Rules 7850.2800 to 7850.3900. Under the alternative permitting process the Commission has six months from the date the application was accepted as complete to make a decision on the route permit.

SCOPING PROCESS

Scoping is the first step in the process after application acceptance. The scoping process has two primary purposes: 1) to ensure that the public has a chance to participate in determining what routes and issues are studied in the EA, and 2) to help focus the EA on the most important issues surrounding the route permit decision. This scope identifies potential human and environmental issues that will be addressed in the EA. The scope also presents an anticipated schedule of the environmental review process.

Public Scoping Meeting

EFP staff held a public information and environmental assessment scoping meeting on August 10, 2011, at the Orono City Hall in Orono, Minnesota. The meeting provided members of the public an opportunity to learn about the proposed project and the state's high-voltage transmission line route permitting process, review the applicant's route permit application, ask questions, provide comments, and identify potential impacts and route alternatives to be considered in the scope of the environmental assessment. Approximately seven members of the public attended the meeting.

A court reporter was present at the public meeting and transcribed questions asked and comments made by the public, as well as responses from EFP staff and Xcel Energy. In total,

¹ Xcel Energy, *Northern States Power Company Application to the Minnesota Public Utilities Commission for a Route Route Permit – Orono Substation Replacement and New 115 kV Transmission Line Project*, Appendix G, June 7, 2011. eDocket [20116-63311-08](#)

three people provided oral comments and/or asked questions about the proposed project. Topics and issues raised by the public at the meeting included: visual impact, structure heights, possible future expansion, extent of the cleared area, alternate substation locations, and a route alternative through Baker Park Preserve to minimize impacts to residences.²

Public Comments

A public comment period, ending on August 26, 2011, provided the public an opportunity to submit comments to EFP staff via e-mail, fax, U.S. Mail or online on issues and alternative routes and alignments for consideration in the scope of the EA. Four comment letters were received by the close of the comment period.³ Xcel Energy also submitted a comment letter on September 7, 2011, addressing alternative routes and substation sites proposed during the scoping period.⁴

A letter from the Minnesota Department of Natural Resources (DNR) raised issues such as the wetland impacts, tree removal, impacts to the Baker Park Preserve and potential impacts to trumpeter swans. The DNR also indicates a preference for the Proposed Route or Route Alternative 1 described in the application, as it appears, based on the information contained in the application, that these routes would result in the fewest environmental impacts. DNR did recommend further coordination to minimize impacts to Painter Creek and use of bird flight diverters to minimize the risk of bird collisions.

The city of Orono submitted comments outlining issues they wanted to see addressed in the EA. These issues include: aesthetic impacts, relationship of the Project to the land use and planning, project purpose and need, impacts to vegetation and habitat, impacts to cultural and sensitive ecological resources, impact to wetlands and water resources, plans for management of stormwater runoff, traffic, noise and air pollution, and cumulative potential effects from the Project. The letter did not propose any alternative routes or identify a preferred alternative.

Xcel Energy's letter proposed use of Y-frame structures at two locations and requests that the EA evaluate the proposed Y-frame structures.

Michael Kuruvilla, a resident of the Huntington Farm neighborhood and president of the Hunt Farm Home Owner's association, submitted comments expressing concern with the location of the substation, impacts to wetlands, health and safety impacts from the Project, and economic impacts to landowners from the Project. Mr. Kuruvilla proposed four additional substations locations; these locations are addressed below.

The scoping meeting comment report and each comment letter are available for viewing and downloading on the project website maintained by the Commission at:

² Public Information and Environmental Scoping Meeting Comments, eDocket Id. [20119-66024-01](#).

³ Environmental Assessment Scoping Comments. eDocket Id. [20119-66024-02](#).

⁴ Xcel Energy Comment Letter on Scope of Environmental Assessment. eDocket Id. [20119-66015-01](#).

<http://energyfacilities.puc.state.mn.us/Docket.html?Id=32082> or on the eDockets website at: <https://edockets.state.mn.us/EFiling/search.jsp>, select “11” for Year and “223” for Number.

MATTERS TO BE ADDRESSED

Having reviewed the matter, consulted with EFP staff, and in accordance with Minnesota Rule 7850.3700, I hereby make the following scoping decision:

The issues outlined below will be identified and described in the environmental assessment for the proposed Orono 115 kV project. The assessment will describe the project and current setting of the proposed project area. It will also provide information on the potential impacts the proposed project could have as they relate to the topics outlined in this scoping decision document, including possible mitigation for identified impacts, identification of irretrievable commitment of resources and permits from other government entities that may be required.

I. GENERAL DESCRIPTION OF THE PROPOSAL

- A. Project Description
- B. Purpose of the Transmission Line
- C. Project Location
- D. Route Description
 - 1. Route Width
 - 2. Right-of-Way
- E. Project Cost

II. REGULATORY FRAMEWORK

- A. Certificate of Need
- B. High-Voltage Transmission Line Route Permits
- C. Environmental Review Process

III. ENGINEERING AND OPERATION DESIGN

- A. Transmission Line Conductors
- B. Transmission Line Structures
- C. Substations

IV. CONSTRUCTION

- A. Transmission Line and Structures
- B. Substations
- C. Restoration and Cleanup
- D. Operation and Maintenance
- E. Property/Right-of-Way Acquisition and Displacement

V. AFFECTED ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES

- A. Environmental Setting
- B. Socioeconomic and Cultural Setting
- C. Human Settlement
 - 1. Noise
 - 2. Aesthetics (including existing trees and right-of-way clearing, pole heights, substation)
 - 3. Existing Utilities (pipelines, propane tanks, septic systems)
 - 4. Property Values
- D. Public Health and Safety
 - 1. Electric and Magnetic Fields
 - 2. Implantable Medical Devices
 - 3. Stray Voltage
 - 4. Air Quality Associated with the Transmission Facility
- E. Recreation
 - 1. Parks (city, county, regional, state, and federal)
 - 2. Trails
- F. Transportation and Public Services
 - 1. Roads and Highways
 - 2. Emergency Services
 - 3. Airports
- G. Interference
 - 1. Radio (AM/FM and Short-wave)
 - 2. Television (satellite and digital)
 - 3. Global Positioning Devices
 - 4. Cellular Phone
 - 5. Wireless Internet
- H. Archaeological and Historic Resources
- I. Land Use (land-based economies)
 - 1. Mining
 - 2. Commercial
 - 3. Tourism
 - 4. Agriculture
 - 5. Forestry

- J. Zoning and Land Use Compatibility/ State and Local Government Planning
 - 1. Residential
 - 2. Shoreland
- K. Water Resources
 - 1. Lakes, Creeks, Streams, Rivers, and Other Waterways
 - 2. Wetlands (including description and function)
 - 3. Riparian Areas
 - 4. Floodplains
- L. Soil and Groundwater
- M. Flora and Fauna
 - 1. Wildlife Management Areas
 - 2. Scientific and Natural Areas
 - 3. State, Federal, and Regional Parks and Forests
 - 4. Avian Line Markers/Diverters
 - 5. Vegetation Removal
- N. Threatened/Endangered/Rare and Unique Natural Resources

VI. ALTERNATIVE ROUTES TO BE EVALUATED IN THE ENVIRONMENTAL ASSESSMENT

In addition to the Proposed Routes proposed by Xcel Energy in its route permit application, the environmental assessment shall address the following alternative route:

Baker Park Preserve Alternative

The application identified two routes that crossed portions of the Baker Park Preserve; these were ultimately rejected by Xcel Energy in favor of the Proposed Route. During the scoping process, members of the public requested further evaluation of a route alternative that minimized impacts to private property by shifting the route burden to public lands. The Baker Park Preserve Alternative to be evaluated in the EA is the same as Alternative Route 2 described in Appendix G of the Route Permit Application. The Baker Park Preserve Alternative (**Figure 1, attached**) follows the same route as the Proposed Route for the first 866 feet out of the substation, but continues northward for approximately 326 feet across the BNSF Railroad, U.S. Highway 12, and an existing Xcel Energy distribution line. Upon exiting U.S. Highway 12 right-of-way, the route enters the Three Rivers Park District's Baker Park Reserve. From here the route continues westerly approximately 974 feet across Baker Park Reserve property connecting to existing Xcel Energy 115 kV transmission Line 0831. The route would then cross back over to the south side of U.S. Highway 12.

Alternatives Proposed but not Evaluated in Detail

This section will also describe the alternative substation sites that were proposed in scoping but not evaluated in the EA.

VII. IDENTIFICATION OF PERMITS

The environmental assessment will include a list and description of permits from other government entities that may be required for the proposed project.

ISSUES OUTSIDE THE SCOPE OF THE ENVIRONMENTAL ASSESSMENT

The scope of the Orono Substation Expansion and New 115 kV Transmission Line Project EA will not consider the following:

- A. No-build alternative.
- B. Issues related to project need, size, type, or timing.
- C. Any route or substation alternatives not specifically identified in this scoping decision document.
- D. Policy issues surrounding whether utilities or local-government should be liable for the cost to relocate utility poles when roadways are widened.
- E. The manner in which land owners are paid for transmission rights-of-way easements, as that is outside the jurisdiction of the Commission.

ALTERNATIVE ROUTES NOT CHOSEN FOR FURTHER EVALUATION

None of the proposed alternative substation sites were chosen for further evaluation in the EA. Alternative Substation Sites 1, 2, 3, and 4 were proposed by Michael Kuruvilla in order to minimize impact on homeowners and the surrounding environment. Xcel proposes to expand an existing 0.1 acre site to approximately 1.2 acres within its 16 acre parcel. The substation site is zoned as “RR-1A,” allowing 1 home per 5 acres.”

Xcel Energy addressed the proposed substation sites in a letter filed September 7, 2011. A map accompanying the Xcel Energy filing shows the location of the proposed alternative sites. The alternative substation sites and the site-specific reasons they were not included can be summarized as follows:

Alternative Substation Site 1: This site is comprised of three small parcels owned by MnDOT between U.S. Highway 12 and Sixth Avenue South and is zoned the same as Xcel Energy’s current substation site. These parcels are not large enough for development of the proposed substation of 1.6 acres and additional area necessary for setbacks. The actual developable area of these parcels is likely to be further reduced based on observed wetlands on the parcels and possible additional setbacks or buffers from U.S. Highway 12. The estimated length of transmission line from this site is approximately 0.54 miles, or approximately 0.15 miles more than Xcel Energy’s proposed route.

Alternative Substation Site 2: This site is comprised of three parcels owned by the Park Gun Club. This site is zoned as “Rural Residential, one home to 2 acres.” The Park Gun Club is a nonconforming use in that location and is prevented from making any changes to their current use, including the layout of their shooting range. It does not appear that there is sufficient space within the parcel to locate both the gun club with its current layout and the substation, resulting in a likely displacement of Gun Club. Orono zoning does not permit gun clubs within the city; the club would not be able to re-locate within Orono. Anecdotal information indicates that gun clubs are very difficult to locate within metropolitan areas. The estimated length of transmission line from this site is approximately 0.76 miles, or approximately 0.4 miles more than Xcel Energy’s proposed route.

Alternative Site 3: This site is owned by the city of Orono. The site is zoned as “RR-1B,” allowing one home per two acres. This 39 acre property was donated to the city in 2000 for use as a passive natural environmental park; the donation specified restrictive covenants limiting improvements to the park to allow only for passive recreational uses. The city’s 2030 Land Use Plan identifies this site as “Park, Recreation, and Open Space.” The parcel is bounded to the north by several residential lots. Routing would require avoidance of the cloverleaf intersection of US Highway 12 and Wayzata Boulevard. The estimated length of transmission line from this site is approximately 0.5 miles.

Alternative Site 4: This site is privately owned and is zoned as “RR-1B,” allowing one home per two acres. The site is identified on the City’s 2030 Land Use Plan as “High Density Residential.” Depending upon the location of a substation on this parcel, use of this site would require approximately 6,500 feet of new double-circuit 115 kV transmission line, or approximately 3,400 feet more than the Proposed Route. As with Alternative Site 3, use of this site would require routing around the cloverleaf intersection of US Highway 12 and Wayzata Boulevard. The estimated length of transmission line from this site is approximately 1.31 miles, or approximately 0.9 miles more than Xcel Energy’s proposed route.

All of the alternative substation sites would also require acquisition of new land by Xcel Energy for the substation and easements for additional transmission line to meet the purpose and need of the Project. Although no routes for the additional transmission to the alternate substation sites were developed, it appears that the alternate sites would require approximately 800 to 4,900 feet of additional double circuit 115 kV transmission compared to Xcel Energy’s proposed route. Development of a new substation site would also require re-location of two existing electric distribution lines in addition to the transmission, resulting in additional impacts to new landowners.

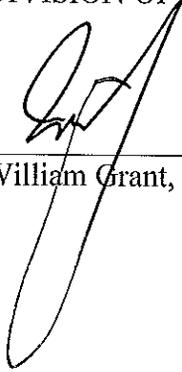
For the above reasons, the Department concluded that further evaluation of these alternative routes would not assist in the Commission’s final decision on the route permit application.

SCHEDULE

The environmental assessment shall be completed and available in October, 2011. A public hearing will be held in the Orono area after the environmental assessment has been issued and notice served.

Signed this 12th day of September, 2011

STATE OF MINNESOTA
DEPARTMENT OF COMMERCE
DIVISION OF ENERGY RESOURCES



William Grant, Deputy Commissioner

Orono 115 kV Transmission Project Routes Included in EA Scope

