In the Matter of the Route Permit Application for the Potato Lake 115 kV Transmission Line and Substation in Park Rapids, Minnesota

ENVIRONMENTAL ASSESSMENT SCOPING DECISION DOCUMENT PUC DOCKET NO. ET2/TL-10-86

INTRODUCTION

The above matter has come before the director of the Office of Energy Security (OES) for a decision on the scope of the environmental assessment (EA) to be prepared on the Potato Lake 115 kV transmission line and substation project proposed by Great River Energy (GRE or applicant), a not-for-profit generation and transmission cooperative based in Maple Grove, Minnesota.

PROJECT DESCRIPTION

The proposed project is a new 7.25-mile 115 kV single-circuit overhead transmission line and 115 kV substation to be located northeast of the city of Park Rapids. The transmission line would run through portions of Arago, Henrietta, Lake Emma, and Todd townships, Minnesota (Figure 1).

Great River Energy would own the 7.25 miles of 115 kV overhead transmission line. Itasca-Mantrap, a GRE member electric cooperative, would own the proposed Potato Lake Substation, and has purchased 3.2 acres of land on which to construct the new facility. In addition, Itasca-Mantrap would own and operate all the associated low-voltage distribution facilities.

The transmission line would run between the existing Mantrap Sub Tap 34.5 kV Line in Lake Emma Township and a newly proposed Potato Lake substation to be located in Arago Township. The newly proposed transmission line would initially be operated at 34.5 kV until the surrounding transmission system is converted to 115 kV. As part of the project the new 115 kV transmission structures will be designed to accommodate approximately 2.25 miles of existing Itasca-Mantrap distribution lines along U.S. Highway 71 and portions of 230th Street as well as future distribution lines along 141st Avenue and the remaining portions 230th Street.

Specifically, the project as described in GRE's route permit application would consist of the following:

- Construction of a new 115 kV Potato Lake Substation.
- Construction of approximately 7.25 miles of new overhead 115 kV transmission line between the new Potato Lake Substation in section 21 of Arago Township and a tap point on GRE's existing Mantrap Sub Tap 34.5 kV line (PM Line) in Lake Emma Township.

- Approximately 2.25 miles of existing 12.5 kV distribution line owned by Itasca-Mantrap would be removed, upgraded and attached/underbuilt to the new 115 kV structures along U.S. Highway 71 between the new Potato Lake Substation and 230th Street/Northern Pine Road.

- Installation/underbuild of new 12.5 kV distribution lines on the new 115 kV structures along 230th Street/Northern Pine Road and 141st Avenue up to the intersection with County Highway 18.

ALTERNATE ROUTE

GRE has also identified an alternate route in its application. The alternate route would exit the new Potato Lake Substation proceed south paralleling U.S. Highway 71 for approximately 1.5 miles to 230th Street/Northern Pine Road, east along 230th Street/Northern Pine Road for approximately 2 miles, south approximately 1 mile following the boundary between sections 35 and 36 (Arago Township) to County Highway 18, then east paralleling County Highway 18 for approximately 2.75 miles to County Highway 4 and the proposed 3-way switch on the existing PM Line (Figure 1).

GRE is requesting a 300-foot route width that would extend 150 feet on either side of the road centerlines (or section lines) for the entirety of the route(s).

PURPOSE

GRE indicates in the route permit application that the existing 34.5 kV Itasca-Mantrap distribution system serving the area has reached its capacity limit based on continuous growth of electric demand averaging 5 percent per year for the past seven years.[1] GRE has determined that the existing 34.5 kV system serving the area will eventually be unable to support the area electric load, and a higher voltage will be required to provide adequate system support. The proposed transmission line project would add a 115 kV source to the area; providing for a more reliable future transmission system, as indicated in the route permit application.

REGULATORY BACKGROUND

A high-voltage transmission line route permit application for the project was filed by the applicant on February 26, 2010, and accepted by the Minnesota Public Utilities Commission (Commission) on April 16, 2010. The route permit will be reviewed under the alternative review process, pursuant to the Power Plant Siting Act (Minnesota Statues 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 (approximately October 16, 2010).

[1] GRE (2009 Demand Statistics Requested by Commission), filed 03/26/10, Docket Id. 20103-48375-01.

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.

OES Energy Facility Permitting (EFP) staff collected and reviewed comments on the scope of the EA by establishing one advisory task force (ATF), holding a public scoping meeting near the proposed project area, and accepting written/emailed comments through June 1, 2010.

This scope identifies potential human and environmental issues and the project route or substation site alternatives that will be addressed in the EA. The scope also presents an anticipated schedule of the environmental review process.

Advisory Task Force

As authorized by the Commission, the OES established an ATF. The ATF was charged with: 1) identifying specific impacts and issues of local concern, and 2) identifying potential alternative transmission line routes or route segments and alignments that may maximize positive impacts and/or minimize or avoid negative impacts of the project.

The task force met two times in May 2010, and generated a number of issues and concerns including one alternative route (ATF Alternative Route). The recommendations of the ATF have been considered during the preparation of this scope and can be found in their final report at: http://energyfacilities.puc.state.mn.us/admin/resource.html?Id=27692.

Public Scoping Meetings

EFP staff held a public information and environmental assessment scoping meeting on May 18, 2010, at the Park Rapids High School Commons in Park Rapids, Minnesota. The meeting provided 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 and submit comments. The attendance sign-in sheet indicated approximately 40 people 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 the applicant. In total, 27 people provided oral comments and/or asked questions about the proposed project.

Public Comments

A public comment period, ending on June 1, 2010, provided the public an opportunity to submit comments on issues and alternative routes for consideration in the scope of the EA. A total of 85 comment letters were received by the close of the comment period. A summary of the issues raised in the scoping comments as well as the frequency the issue was raised is summarized in Table 1.

Table 1. Major Issues Raised During Scoping Period.[1,2]

Issue	Number of Comments
Aesthetics	17
Avian Concerns/Flight Diverters	9
Construction Activities	3
Cost	5
Easements and Right-of-way	10
Electric and Magnetic Fields	7
Groundwater and Domestic Wells	6
Herbicides/Pesticides	2
Impaired Waters	1
Interference	1
Invasive Species	1
Need	21
Property Values	13
Proximity to Homes/Businesses/Structures	14
Rare and Endangered Species	2
Recreation and Tourism	12
Restoration Methods	2
Surface Water Resources	5
Tree Loss Along Right-of-Way	11
Undergrounding as a Mitigation	8
Zoning	3

[1]To eliminate duplication, when a person sent both a written/email comment letter and provided oral comments at the public meeting the issues that overlapped in the oral and written comments were combined. [2]Includes issues identified by the Potato Lake ATF.

Four alternative routes or route segments, including the ATF Alternative Route, were identified in the letters/emails and oral comments provided by the public during the comment period. The alternative routes suggested and the number of times each route was suggested is summarized in Table 2.

Table 2. Alternative Routes Raised.

Route	Number of Comments
Miller Alternative Route	1
Fortune Drive Alternative Route	1
ATF Alternative Route	16
County Road 40 Route (Described in the route permit application and rejected by applicant.)	4

The scoping meeting comment report and each individual comment letter or email are available for viewing and downloading on the project website maintained by the Commission at: http://energyfacilities.puc.state.mn.us/Docket.html?Id=26124 or on the eDockets website at: https://edockets.state.mn.us/EFiling/search.jsp, select "10" for Year and "86" 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 Potato Lake 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 impact the proposed project and identified alternative routes 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 (Including pole composition/treatments.)
C. Substations

IV. CONSTRUCTION

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

V. AFFECTED ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES

A. Environmental Setting
B. Socioeconomic and Cultural Setting
C. Human Settlement
    1. Noise
    2. Aesthetics
        a. Proximity of project to Homes/Business/Structure
        b. Existing Trees and Right-of-way Clearing
        c. Transmission Line Structure Design
        d. Undergrounding Transmission Line as a Mitigation
        e. Scenic-Byways
    3. Displacement
    4. Existing Utilities (pipelines, propane tanks, septic systems)
    5. Domestic Water Wells
D. Public Health and Safety
    1. Electric and Magnetic Fields
    2. Implantable Medical Devices
    3. Stray Voltage
    4. Air Quality (As it pertains specifically to this transmission line project only.)
E. Recreation
    1. Parks (city, county, state, and federal)
    2. Trails
F. Property Values

G. Transportation and Public Services
   1. Emergency Services
   2. Airports
   3. Highways, Roads, Bridges, Dams
H. Interference
   1. Radio (AM/FM and Short-wave)
   2. Television (satellite and digital)
   3. Global Positioning Devices
   4. Cellular Phone
I. Archaeological and Historic Resources
J. Land Use (land-based economies)
   1. Mining
   2. Commercial
   3. Tourism
   4. Agriculture
   5. Forestry
K. Zoning and Compatibility/Federal, State and Local Government Planning
   1. Residential
   2. Commercial
   3. Rural/Agricultural
   4. Industrial
   5. Shoreland
L. Property Values
M. Water Resources
   1. Creeks, Streams, Rivers, and Other Waterways
   2. Lakes
   3. Wetlands (including description and function)
   4. Riparian Areas
   5. Floodplains
N. Soil and Groundwater
O. Contaminated sites near project area
P. Flora and Fauna
   1. Wildlife Management Areas
   2. Scientific and Natural Areas
   3. State and Federal Parks and Forests
   4. National Wildlife Refuge/Waterfowl Production Areas
   5. Avian Line Markers/Diverters
Q. Threatened/Endangered/Rare and Unique Natural Resources

VI. ALTERNATIVE ROUTES TO BE EVALUATED IN THE ENVIRONMENTAL ASSESSMENT

In addition to the proposed and alternate routes proposed by GRE in its route permit application, the environmental assessment shall address the following alternative route and substation locations:

ATF Alternative Route

The ATF Alternative Route exits from a new Potato Lake Substation to be located in one of three locations along U.S. Highway 71 near an abandoned gas station (U.S. Highway 71 and County Road 41), runs north along U.S. Hwy. 71 for approximately 1 mile, runs east along the same parallel as 280th Street and County Road 24 at CSAH 4 through undeveloped forest and wetland for approximately 8 miles, then south for approximately 6.6 miles along CSAH 4 terminating at a tap point on GRE's existing Mantrap PM Line in Lake Emma Township. The total length of this alternative would be approximately 13.1 miles.

VIII. 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 Potato Lake 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.

REJECTED ALTERNATIVE ROUTES AND SUBSTATION LOCATIONS

The alternative routes not chosen for further evaluation include:

County Road 40 Alternative Route – This route would exit the existing Mantrap Substation and follow County Highway 40 meeting up with the applicant's route at U.S. Highway 71. This route was identified in the route permit application by the applicant, but was rejected. This route would require a number of angle structures with guy wires in order to follow along the many curves of County Highway 40. There are also two constricted areas on County Highway 40 between Blue Lake/Potato Lake and Eagle Lake/Potato Lake that would create difficult siting issues.

Fortune Drive Alternate Route – This route would follow along Fortune Drive which runs through a dense residential area south of County Highway 18 and continue west, traversing wetlands and forest to U.S. Highway 71 connecting with the applicant's preferred route.

Miller Alternative Route - This is a suggested route segment that would connect with the Mantrap Sub Tap Line just south of the applicants preferred route and traverse west across a cleared area that includes a number of homes connecting with the preferred route at County Road 1 and County Highway 18.

These alternative routes appear to have greater impact to human settlement and the environment when compared to the applicant's preferred route, the applicant's alternate route, and the ATF Alternative Route. Thus, 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 August 2010. A public hearing will be held in the Park Rapids area after the environmental assessment has been issued and notice served.

Signed this 17th day of June, 2010

STATE OF MINNESOTA
DEPARTMENT OF COMMERCE
OFFICE OF ENERGY SECURITY

William Glahn, Director

Itasca Mantrap
Potato Lake
Substation Site

Mantrap
Substation

Arago Township
T 141N R 35W

Lake Emma
Township
T 141N R 34W

Todd Township
T 140N R 35W

Henrietta Township
T 140N R 34W

Hay Creek
Many Arm Lake
Churchill Lake
Pickerel Lake
Eagle Lake
Rice Lake
Little Rice Lake
Blue Lake
Potato Lake
Potato River
Portage Lake
Portage Lake Dam
Ingram Lake

US 71
CR. 89
Hay Creek Dr
Happy Hollow Rd
Inlet Cir
Horizon Dr
Honzon Dr
Holly Rd
Ithaca Dr
Inward Loop
Hartman Dr
CSAH 4
Hammock
Hammock Dr
CSAH 40
Haakon Dr
Harris Dr
HaMoon Rd
195th Ave
Hazel Wood Dr
Hummingbird Dr
Garnet Dr
Garden Dr
Gazebo Dr
26 Gazebo Dr
230th St
141st Ave
Green Pines Rd
Greenway Dr
Gunner Dr
Grouse Rd
CSAH 32
Green Day Dr
Gull Dr
Goshawk Dr
220th St
CSAH 18
Grackle Rd
CSAH 1
Far Portage Dr
Fishhook Dr
Fable Trl
Forest Dr
Flamingo Dr
210th St
175th Ave
185th Ave
204th St
CR. 112

Proposed Itasca-Mantrap (IM)
- Distribution Substation

Existing Itasca-Mantrap
- Distribution Substation

Proposed Great River Energy (GRE)
- 115 kV Transmission Line Route
- Alternate Route

Existing Great River Energy
- 34.5 kV Transmission Line

Existing Minnesota Power (MP)
- 34.5 kV Transmission Line

Land Base Features
- Road Centerline
- Lakes and Rivers
- PLS Section Lines

N

Updated: Feb 19, 2010

0 2,000 4,000 Feet

Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy

Map Projection:
UTM, NAD83, Zone15, Meters

Proposed Potato Lake 115 kV Transmission Line & Substation

Figure 1

Savannah
T 142N
R 36W

Clover T 142N R 35W

Clay T 142N R 34W

Substation #1

Substation #3

Substation #2
Property For Sale

ATF Northern Alternative Route

Two Inlets
T 141N
R 36W

Arago T 141N R 35W

Lake Emma T 141N R 34W

Potato Lake
Substation Site

Mantrap
Substation
Site

Todd T 140N R 35W

Henrietta T

Potato Lake
Dam

Proposed Buried Segment

Cedar Lake
Lower Mud Lake
Stony Lake
Crooked Lake
Island Lake
Hay Creek
Many Arm Lake
Churchill Lake
Rice Lake
Little Rice Lake
Pickerel Lake
Stocking Lake
Eagle Lake
Blue Lake
Potato Lake
Big Sand Lake
Beden Lake
Sloan Lake
Ingram Lake
Lower Bottle Lake

280th St
CSAH 24
CR 69
Island Lake Dr
Inland Dr
166th Ave
CSAH 44
CSAH 41
Impression Rd
270th St
115th Ave
Island Shore Dr
320th St
260th St
CR 152
Hay Creek Dr
Inlet Dr
US 71
Horizon Dr
264th St
Holy Rd
Ithaca Dr
Hideaway Dr
Harbor Trl
Hartman Dr
CSAH 50
Half Moon Rd
195th Ave
CSAH 40
Harris Dr
Haskon Dr
Hazel Wood Dr
Hummingbird Dr
Hammock Dr
Garnet Dr
235th St
CSAH 32
Garden Dr
Gazebo Dr
230th St
Green Pines Rd
Greenway Dr
Green Bay Dr
Gull Dr
Goshawk Dr
220th St
141st Ave
CSAH 10
Far Portage Dr
Gracklle Rd
175th Ave
GRE 34.5 kV -PM

Proposed ATF
Northern Alternative
Route

Figure 2