MINNESOTA DEPARTMENT OF COMMERCE

February 3, 2012

Burl W. Haar
Executive Secretary
Minnesota Public Utilities Commission
127 7th Place East, Suite 350
St. Paul, MN 55101-2147

RE: Comments and Recommendations of the Minnesota Department of Commerce
GRE/MP's Savanna HVTL Project
Docket No. ET2, E015/TL-10-1307

Dear Dr. Haar:

Attached are the comments and recommendations of the Minnesota Department of Commerce (DOC) Energy Facility Permitting (EFP) staff in the above stated matter.

GRE/MP proposes to construct the new Savanna 115 kilovolt (kV) Switching Station near Floodwood, Minnesota, and to rebuild approximately 37 total miles of existing 69 kV transmission line to 115 kV specifications between:

- Lake Country Power's existing Cedar Valley Substation and the new Savanna Switching Station, and
- The Savanna Switching Station, Lake Country Power's existing Gowan Substation, and Great River Energy's existing Cromwell Substation.

The Department is providing you with:

A. Comments and Recommendations;
B. Proposed Findings of Fact, Conclusions of Law and Order
C. Proposed HVTL Route Permit

Staff is available to answer any questions the Commission may have.

Sincerely,

William Cole Storm, DOC EFP Staff

Enclosures

MINNESOTA DEPARTMENT OF COMMERCE

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

COMMENTS AND RECOMMENDATIONS OF THE MINNESOTA DEPARTMENT OF COMMERCE ENERGY FACILITY PERMITTING STAFF

DOCKET NO. ET2, E015/TL-10-1307

Meeting Date:	February 16, 2012……..……..……Agenda Item #
Company:	Great River Energy and Minnesota Power
Docket No.	PUC Docket Number: ET2, E015/TL-10-1307 In the Matter of the Application for a HVTL Route Permit for the Savanna 115 kV Transmission Line Project.
Issue(s):	Should the Commission find that the Environmental Assessment and the record adequately address the issues identified in the Scoping Decision? Should the Commission issue a HVTL Route Permit identifying specific routes and other permit conditions for the proposed Savanna HVTL project?
EFP Staff:	William Cole Storm…..…….651-296-9535

Relevant Documents (in Commission Packet).

- GRE/MP's HVTL Route Permit Application…....……February 9, 2011.
- GRE Key Map Book…….September 12, 2011
- DOC's Scoping Decision…….June 10, 2011.
- Environmental Assessment……..October 21, 2011.
- ALJ's Public Hearing Summary..……December 29, 2011

The enclosed materials are work papers of the Department of Commerce (Department) Energy Facility Permitting (EFP) staff. They are intended for use by the Public Utilities Commission (Commission) and are based on information already in the record unless otherwise noted.

This document can be made available in alternative formats (i.e., large print or audio) by calling 651-296-0391 (voice). Persons with hearing or speech disabilities may call us through Minnesota Relay at 1-800-627-3529 or by dialing 711.

Documents Attached.

1. Site map illustrating the study area in which the route will be located.
2. Proposed Findings of Fact, Conclusions, Order.
3. Proposed HVTL Route Permit.

(Note: Relevant documents and additional information can be found on eDockets (E002/TL-10-1307) or the PUC Energy Facilities Permitting website

http://energyfacilities.puc.state.mn.us/Docket.html?Id=31883)

Statement of the Issue

Should the Commission find that the Environmental Assessment (EA) and the record adequately address the issues identified in the Scoping Decision? Should the Commission issue a high voltage transmission line (HVTL) route permit identifying specific routes and other permit conditions for the proposed Savanna HVTL project?

Introduction

Great River Energy (GRE) is a not-for-profit generation and transmission cooperative based in Maple Grove, Minnesota. Great River Energy provides electrical energy and related services to 28 member cooperatives, including Lake Country Power, Mille Lacs Energy Cooperative, and East Central Energy, the distribution cooperatives serving the area proposed to be supplied by the new transmission lines. Great River Energy's distribution cooperatives, in turn, supply electricity and related services to more than 639,000 residential, commercial, and industrial customers in Minnesota and Wisconsin.

Minnesota Power (MP) is an investor-owned public utility headquartered in Duluth, Minnesota. Minnesota Power supplies retail electric service to 136,000 retail customers and wholesale electric service to 16 municipalities in a 26,000-square-mile electric service territory located in northeastern Minnesota. Minnesota Power generates and delivers electric energy through a network of transmission and distribution lines and substations throughout northeastern Minnesota. Minnesota Power's transmission network is interconnected with the regional transmission grid to promote reliability and Minnesota Power is a member of the Midwest Reliability Organization and the Midwest Independent Transmission System Operator.

The Applicants applied for a high-voltage transmission line route permit to construct the new Savanna 115 kilovolt (kV) Switching Station near Floodwood, Minnesota, and to rebuild approximately 37 total miles of existing 69 kV transmission line to 115 kV specifications between:

- Lake Country Power's existing Cedar Valley Substation and the new Savanna Switching Station, and

- The Savanna Switching Station, Lake Country Power's existing Gowan Substation, and Great River Energy's existing Cromwell Substation.

Project Description

The Applicants proposed that the new lines follow the same alignment (route request is 300 feet wide, 150 feet either side of the existing transmission line centerline) that the existing Great River Energy 69 kV lines presently follow. The proposed plan includes:

- Construct the new Savanna 115 kV Switching Station in Section 32 of Van Buren Township.
- Rebuild approximately seven miles of existing Great River Energy 69 kV transmission line to single circuit 115 kV between Lake Country Power's existing Cedar Valley Substation in Cedar Valley Township and the new Savanna Switching Station.
- Rebuild approximately nine miles of existing Great River Energy 69 kV transmission line to single circuit 115 kV between the new Savanna Switching Station and Lake Country Power's existing Gowan Substation in Floodwood Township.
- Rebuild approximately 21 miles of existing Great River Energy 69 kV transmission line to double circuit 115/69 kV between the Lake Country Power Gowan Substation and Great River Energy's existing Cromwell Substation in Kalevala Township.
- Modify the Lake Country Power Cedar Valley Substation and Great River Energy Cromwell Substation to accommodate the 115 kV transmission lines.

This project will result in a new 115 kV line between the proposed Savanna Switching Station and the Cedar Valley Substation, a new 115 kV line between the Savanna Switching Station and the Cromwell Substation, and an upgraded 69 kV line between the Gowan Substation and the Cromwell Substation.

The transmission lines lie entirely in Minnesota in St. Louis and Carlton counties. Single-pole wood structures with horizontal post insulators will be used for most of the rebuild. Laminated wood poles or steel poles may be required in some locations (angle poles or areas where soil conditions are poor and guying is not practical), and two pole H-Frame structures may used in some areas. Typical pole heights will range from 60-85 feet above ground and the average span would be 350 to 400 feet for single pole structures and 600 to 800 feet for H-Frame structures. Small sections of the existing line near the two St. Louis River crossings have distribution under-build, which would be attached to the new 115 kV transmission line structures. The average span for these structures would be approximately 250 to 350 feet.

The Applicants propose that the majority of the new lines would follow the alignment of the existing 69 kV lines. A 15-foot offset from the existing pole locations may be required in some areas. The necessary easement width is 50 feet on each side of the transmission centerline; however, in areas where the line follows an existing distribution line or roadway, the easement may overlap with existing easements and/or the road right-of-way. Great River Energy has existing easements for the majority of the 69 kV line and anticipates that only minimal additional property will be required when the line is upgraded to 115 kV. Great River Energy intends to

enter into new easements or amendments of the existing easements with landowners to update the language to reflect typical provisions included in today's easements.

The project will cost approximately $29 million dollars.

Regulatory Process and Procedures

Minnesota Statutes Section 216E.03, subd. 2, provides that no person may construct a high voltage transmission line without a route permit from the Commission. An HVTL is defined as a transmission line of 100 kV or more and greater than 1,500 feet in length in Minnesota Statutes Section 216E.01, subd. 4.

The proposed transmission lines in the GRE/MP application are HVTLs and therefore a route permit is required prior to construction.

The route application was reviewed under the Alternative Permitting Process (Minn. R.7850.2800 to 7850.3900) of the Power Plant Siting Act (Minn. Stat. § 216E). The Alternative Permitting Process is shorter than the full permitting procedures and does not require the Applicant to propose alternative routes to the preferred route, but does require the Applicant to disclose rejected route alternatives and an explanation of why they were rejected.

Route Permit Application and Acceptance

On February 9, 2011, GRE/MP submitted a high voltage transmission line (HVTL) Route Permit application to the Commission for the proposed transmission line rebuild to the existing 69 kV between Cromwell and Cedar Valley. The docket number for the route proceedings is ET2, E015/TL-10-1307.

The Commission released an order on April 4, 2011, finding the route permit application to be complete and initiating the alternative review process.

Public Information and Environmental Assessment Scoping Meeting

DOC EFP staff is responsible for conducting the environmental review for route permit applications to the Commission (Minn. Rules 7850.3700). Environmental review for a project of this size requires a public information/scoping meeting, development of a *Scoping Decision* and the preparation of an environmental assessment (EA). An EA examines the potential human and environmental impacts of a proposed project, alternative routes for the project, and potential mitigative measures.

On April 21, 2011, the DOC EFP sent notice of the place, date and times of the Initial Public Information and Scoping meeting to those persons on the General List maintained by the PUC, the agency technical representatives list and the project contact list.

Notice of the public meeting was also published in the local newspapers.

On Wednesday, May 18, 2011, the DOC EFP staff held two public information/scoping meetings at the Fine Lakes Township Hall in Wright, Minnesota. The meetings included two sessions, one starting at 2:00 pm and another starting at 6:00 pm. The meeting covered and fulfilled both the CN and Routing procedural requirements. The purpose of the meeting was to provide information to the public about the proposed project, to answer questions, and to allow the public an opportunity to suggest alternatives and impacts that should be considered during preparation of the environmental review document.

Approximately 12 people attended the public information and scoping meetings; five individuals took the opportunity to speak on the record. A court reporter was present to document oral statements.

A variety of questions were asked and answered during the oral discussion; topics included: specifics on which lines and poles will be removed, and design/construction of any new poles; specifics on the proposed alignment and easement requirements; construction methods that allow for "hot" work to avoid the off-set of the right-of-way (ROW); the concepts of route width and ROW width; sources of power generation for this project; and timeline and milestones of the application review process.

Written comments were due no later than Wednesday, June 1, 2011. Nine written comments were received.

The major areas of concern for scoping expressed during the public comment period included: health and safety issues, property values, compensation for easements, avian impacts, impacts of herbicides in wetlands/public waters, and flexibility in siting the final alignment.

These items and issues, along with the typical HVTL routing impacts, have been incorporated into the proposed Order on the Environmental Assessment Scoping Decision.

Alternative routes, alternative route segments and modifications to the Applicants' proposed alignment were discussed during the scoping meeting and in comments received during the scoping comment period.

Scoping Decision

The items, issues and alternatives raised during the scoping meeting and comment period were reviewed in preparation of the proposed Order on the Environmental Assessment Scoping Decision.

Two alternative route segments/alignment modifications (the Goodell Alternative Route Segment and the Lund Alternative Route Segment), along with the typical HVTL routing impacts, were carried forward into the Scoping Decision.

EFP staff submitted an additional alternative route segment (Cedar Valley Substation to Savanna Switching Station Alternative Route Segment) for evaluation in the environmental review document.

The DOC released its EA Scoping Decision on June 15, 2011. The DOC EFP staff provided a Notice of Scoping Decision to all parties on the project contact list.

Alternatives Carried Forward

Goodell Alternative Route Segment: A resident located along the south side of Hingeley Road (County State Aid Highway 86 - CSAH) in Section 15, Township 50 north, Range 20 west, requested that an *alternative route segment* be considered in a portion of the proposed Savanna HVTL route (Applicant's Key Map Book, Map 22 and 23). The alternative route segment lies within the portion of the proposed route that includes a rebuild of approximately nine miles of existing GRE 69 kV line to double-circuit 115/69 kV line, south of Lake Country Power's Gowan Substation.

The Goodell Alternative Route Segment would modify an approximately one mile segment of the proposed route along CSAH 86 (Hingeley Road) where the road runs west from the intersection of Norlund Road (Township Road 5004) in Fine Lakes Township. The current proposal consists of utilizing the existing 69 kV ROW that runs along the south side of CSAH 86; the Goodell Alternative Route Segment would relocate this ROW so that it follows the north side of CSAH 86.

This alternative would impact five new parcels; four corporate owned (Potlatch Corporation) and one private undeveloped parcel (Hokala). The relocation of the ROW would move the line off of four private parcels, two of which are developed.

The Applicants' proposal is to rebuild the existing 69 kV line to a double-circuit 115/69 kV line transmission line.

The stated purpose of this alternative route segment is to reduce the impact to resident, developed parcels along this segment of the proposed HVTL rebuild.

An additional option included in the request is consideration of moving the Lake Country Power distribution line (which is also located along the south side of CSAH 86) to the north side of CSAH 86 as a possible distribution under build with the proposed 115 kV transmission line.

Lund alternative route segment: Several members of the Lund family, who own four forty-acre parcels along the west side of Stremel Road (County Road 192-CR) requested that an *alternative route segment* be considered in a portion of the proposed Savanna HVTL route (Applicant's Key Map Book, Map 38 and 39).

The Lund Alternative Route Segment lies within the portion of the proposed rebuild route that GRE has stated will need an "off-set" of the centerline due to the need to keep the existing 69 kV line energized; the consequence of this off-set is the creation of an addition HVTL ROW to the west of the existing ROW.

The Lund Alternative Route Segment would modify an approximately two mile segment of the proposed route along Stremel Road (CR 192), between the proposed Savanna Switching Station

north to Parantala Road (County Road 732) in Van Buren Township. The current 69 kV line runs along the west side of Stremel Road (CR 192) from the proposed switching station to Parantala Road (County Road 732); the Lund Alternative Route Segment would relocate this ROW so that it follows the east side of Stremel Road.

An additional option included in the request is consideration of so called "hot work" methods of construction (i.e., hot stick, leaning the existing poles, etc.) that would allow the new 115 kV to remain in the existing ROW.

The Lund family has established a memorial site in a stand of tamaracks to honor a deceased sibling. The memorial and tamarack stand are to the west of the existing 69 kV ROW; the concern is that this area may lie within, or very near to, the proposed new 115 kV ROW. The stated purpose of this alternative route segment or alternative construction methodology is to eliminate the impact to the tamarack stand and memorial therein.

Cedar Valley Substation to Savanna Switching Station Alternative Route Segment: GRE has stated that the section of the proposed route between the existing Cedar Valley Substation and the proposed Savanna Switching Station will be "off-set" from the existing 69 kV line ROW due to the need to keep the 69 kV line energized during construction of the new 115 kV HVTL, in essence creating a new ROW for this section of the proposed project.

The creation of new ROW or expansion of existing ROW, as proposed, makes the evaluation of similar alternatives practicable. This route alternative segment would follow the MP 115 kV 9 line east-northeast out of the proposed Savanna Switching Station for approximately one mile to the point where the MP 9 line crosses the MP 230 kV 98 line. At this point, the route alternative segment would turn northwest and follow the MP 98 line for approximately six miles to a point just (1/4 mile) east of the Cedar Valley Substation. The route then makes a short (1/4 mile) cross-country run to the west to tie into the Cedar Valley Substation (Applicant's Key Map Book, Cedar Valley-Savanna Alternative, Map 1 through 10).

A route width of 700 feet centered on the MP 9 and MP 98 line will provide adequate room to evaluate placing the new ROW on either side of the existing ROWs.

The purpose of this alternative route segment is to allow the existing 69 kV to remain energized during construction of the new 115 kV HVTL, maintain the concept of paralleling/overlapping of existing ROWs, and utilizes, to a greater degree, public lands over privately owned lands.

There was no Advisory Task Force established for this routing docket.

Environmental Assessment

Since there are two concurrent environmental reviews required for the Savanna Rebuild Transmission Line Project – one for the CN application and one for the route permit application – DOC EFP staff elected to combine the environmental review for the two applications (Minn. Rules 7849.1900). The result was a single environmental review document, an Environmental Assessment, which addresses the issues required in Minnesota Rules 7849.1500, subpart 1 and

Minnesota Rules, 7850.3700, subpart 4, and as determined in the Scoping Decision of June 14, 2011.

The DOC EFP staff released the EA on October 21, 2011.

Public Hearing

EFP staff made request to the Minnesota Office of Administrative Hearings for an administrative law judge (ALJ) to preside over the public hearing and provide a summary of testimony.

The DOC EFP staff issued a Notice of Public Hearing and Availability of the Environmental Assessment on October 21, 2011, and provided the Notice to all individuals on the project contact list. The notice of the public hearings was published on November 6, 2011, in the *Duluth News Tribune*, and on November 10, 2011, in the *Floodwood Forum*. Notice of the public hearings was also published in the *EQB Monitor* on October 31, 2011.

A combined public hearing (CN and Routing) was held on November 15, 2011, at the Fine Lakes Township Hall in Wright, Minnesota. ALJ Bruce H. Johnson presided over the hearing; the comment period was open for written comments through November 29, 2011.

Approximately 18 members of the public attended the public hearing; eleven persons took the opportunity to speak on the record. Two comment letters were submitted to the ALJ during the comment period for the public hearing.

The ALJ released a Summary of Testimony and Written Comments on December 29, 2011.

Public Hearing Comments

A variety of questions were asked and answered during the public hearing between the ALJ, staff, the Applicants and the public; topics included: which specific route segment would require an off-set from the existing 69 kV ROW; vegetation removal and management; status of current easements; the concepts of route width and ROW width; and construction schedule.

A member of the public (Nate Goodell) spoke in support of the Goodell Alternative Route Segment (described previously) and the specifics of his proposed alternative were discussed.

Mr. Roy Marlow attended the public meetings on behalf of the Marlow Trust, the Marlow Estate, and himself and proposed the *Marlow Alternative Alignment*, a request to have the alignment (ROW) for the new 115 kV line moved from the west side to the east side of Hingeley Road. Although this alignment alternative was not specifically discussed in the Department's scoping decision, or in the Environmental Assessment, the requested alignment is within the Applicant's proposed 300 foot route width.

Two state agencies filed written comments, the Minnesota Pollution Control Agency (MPCA) and the Minnesota Department of Natural Resources (MnDNR).

The MPCA commented on the need for down-stream permitting (i.e., National Pollution Discharge Elimination System/Stormwater permit, wetland permits, and crossing public waters permits), clearing of vegetation and use of herbicides, and heavy equipment management.

The MnDNR commented on the use of herbicides and avian collision with transmission lines.

Standards for Permit Issuance
The Power Plant Siting Act sets standards and criteria and outlines the factors to be considered in determining whether to issue a permit for a high voltage transmission line (Minn. Stat. § 216Eand Minn. R. 7850.4000). The law also allows the Commission to place conditions on high voltage transmission line permits (Minn. Stat. § 216E.03 and Minn. R. 7850.4600).

EFP Staff Analysis and Comments

EFP staff has prepared the attached proposed Findings of Fact, Conclusions of Law, and Order and proposed Route Permit. The Findings show that the alternative permitting process has been conducted in accordance with Minn. R. 7850.2800 to 7850.3900, identify route impacts and mitigation measures, and make conclusions of law and order. The proposed route permit includes measures to ensure the line is constructed in a safe, reliable manner and that impacts are minimized or mitigated.

In weighing the differences of the routes for the proposed project, staff was guided by the state's policy of choosing locations that minimize adverse human and environmental impact while insuring continuing electric power system reliability and integrity (Power Plant Siting Act, Minn.Stat. § 216E).

EFP staff reached its conclusions and recommendations based on the analysis in the EA and the comments received in this record.

The record supports several specific items that merit consideration relative to alternative route segments and special conditions in the HVTL Route Permit for the Savanna HVTL project.

These items include:

Goodell Alternative Route Segment. The Goodell alternative route segment modifies an approximately one mile segment of the proposed route along CSAH 86 (Hingeley Road) where the road runs west from the intersection of Norlund Road (Township Road 5004) in Fine Lakes Township. An additional option included in the request is consideration of moving the Lake Country Power distribution line (which is also located along the south side of CSAH 86) to the north side of CSAH 86 as a possible distribution under build with the proposed 115 kV transmission line

The Applicants noted at the public hearing, that Lake Country Power's (LCP) parallel distribution line on the south side of Hingeley Road is relatively new, and there is also no current need to relocate it. Additionally, the Applicants expressed concerned that building a line with all

three circuits (i.e., the double circuit 115/69 kV and the LCP distribution line) would not provide them with a system as safe as they would prefer.

Great River Energy offered to consider moving the rebuilt double circuit line northward approximately 20 to 25 feet closer to Lake Country Power's distribution line in order to reduce the overall impact on Mr. Goodell's property and other private properties

Great River Energy has stated that if the Commission adopts the Goodell Alternative Route Segment, thus requiring the 115/69 kV transmission line to be constructed along the north side of CSAH 86, GRE proposes that the new HVTL be located 3-5 feet outside of road right-of-way.

> **EFP Staff Analysis:** This alternative route segment would impact five new parcels; four corporate owned (Potlatch Corporation and Northwest Paper Company) parcels and one private, undeveloped parcel (Hokala). The relocation of the ROW would move the line off of four privately owned parcels, two of which are developed (**Applicants' Key Map Book, Goodell Alternative Route Segment Maps 1 and 2**). EFP staff believes that the Goodell Alternative Route Segment is a reasonable request since it will lessen the impact to the existing residential landowners; the estimated cost different is approximately $67,000.00.
>
> The request for relocation of the LCP distribution line presents some safety concerns for installation, operation and maintenance of the HVTLs. Additionally, staff does not consider it to be mitigation from the potential impacts associated with the requested HVTL Route Permit.
>
> This alternative route segment has been incorporated into the proposed HVTL Route Permit (Section 5.1).

Lund Alternative Route Segments. The Lund family has established a memorial site in a stand of tamaracks to honor a deceased sibling. The memorial and tamarack stand are to the west of the existing 69 kV ROW; this area lies close to the proposed new 115 kV ROW off-set. The off-set, as stated by the Applicants, is required to avoid taking that portion of the existing 69 kV line "out of service" during the construction of the new 115 kV line. The stated purpose of this alternative route segment or alternative construction methodology is to eliminate the impact to the tamarack stand and memorial therein.

> **EFP Staff Analysis:** This alternative would impact nine new parcels; two State of Minnesota owned and seven privately owned parcels, four of the parcels are developed. The current 69 kV line crosses 10 privately owned parcels along the subject portion of the route, two of which are developed (**Applicants' Key Map Book, Lund Alternative Route Segment Maps 1, 2 and 3**). The estimated cost different is approximately $26,000.00.

The possibility of utilizing "hot-work" in an effort to avoid the need for the off-set was evaluated in the Environmental Assessment; given the transmission structures, the unstable nature of the area soils, and single circuit configuration, these methods are not practical. The estimated cost different is approximately $563,000.00.

The proposed route with off-set, relative to Lund Memorial site, was evaluated in the Environmental Assessment (see Figure 9 in the EA). The memorial site would be approximately 157 feet from the centerline of the new 115 kV transmission if the line were to be constructed as proposed; this would leave a distance of approximately 107 feet between the memorial and the edge of the cleared ROW.

Given the relative locations of the memorial site to the proposed off-set, EFP staff does not believe that there is sufficient potential to impact the memorial site to warrant mitigation, and therefore feels that the Lund Alternative Route Segment is not reasonable alternative to the proposed route/alignment.

This option has not been incorporated into the proposed HVTL Route Permit.

Cedar Valley Substation to Savanna Switching Station Alternative Route Segment. This alternative route segment was developed to avoid the property issues (primarily the Lund property) associated with the need to "off-set" the transmission line ROW between the proposed Savanna Switching Station and the Cedar Valley Substation.

EFP Staff Analysis: This alternative would impact 23 new parcels; eight State of Minnesota owned and 15 private parcels, five of the parcels are developed. This route parallels existing HVTLs along its entire length (**Applicants' Key Map Book, Cedar Valley-Savanna Alternative Route Segment Maps 1 through 10**). The estimated cost different is approximately $2,177,000.00.

This option has not been incorporated into the proposed HVTL Route Permit.

Marlow Alternative Alignment. The Marlow Alternative Alignment was not previously discussed in the Department's scoping decision, or in the Environmental Assessment. However, the requested alignment is within the Applicant's proposed route which was evaluated in the EA; additionally, sufficient information has been added to the record during the hearing and in post-hearing comments to supplement this assessment.

Mr. Jeff Kletscher (Mayor of Floodwood), Mr. John Sederinski (St. Louis County highway foreman), and Mr. Mark Weber (Saint Louis County Resource Management Supervisor) all spoke in support of the Marlow Alternative Alignment during the public hearing process.

On November 29, 2011, GRE submitted post-hearing comments; these comments contained information relative to the Marlow Alternative Alignment. Included in these comments were: 1) aerial maps illustrating the Marlow Alternative Alignment, 2) a comparative impacts table

specifically incorporating the Marlow Alternative Alignment, and 3) documentation from Mr. Kojo indicating that he had no objections to relocating the line to his side of Hingeley Road with the understanding that he would be able to keep any timber on his property that would have to be cut.

> **EFP Staff Analysis:** This alternative would impact 3 new parcels (State of Minnesota owned) and an added portion (additional 500 feet) of a private parcel (Kenneth Kojo). This alternative alignment would follow along the east side of Hingeley Road, from GRE pole #333 southward toward the St. Louis River to GRE pole #302, just north of the river (**Applicant's Key Map Book, Map 27, 28 and 29**). The estimated cost different is negligible.
>
> The affected land owner (Mr. Kenneth Kojo) and the County support this alternative alignment. EFP staff believes that the Marlow Alternative Alignment is a reasonable request since it will lessen the impact to the private land on the west side of Hingeley Road, as well as increasing the distance (from 45 feet to 103 feet) of the transmission from a residence along Hingeley Road.
>
> This alternative alignment has been incorporated into the proposed HVTL Route Permit (Section 5.2).

Swan Flight Diverters. The Minnesota Department of Natural Resources (MnDNR) has expressed a desire to be consulted on the need, type and placement of swan flight diverters (SFD) along the route.

> **EFP Staff Analysis:** There are a number of rivers and streams in the project area, including the St. Louis River, Floodwood River, East Savanna River, McCarty River, Prairie River, Tamarack River, Kettle River and Heikkila Creek. The proposed transmission line will cross tributaries to the Floodwood River, the St. Louis River and tributary, McCarty River, Prairie River, Tamarack River and two drainages between lakes
>
> Lakes in the project area include Prairie Lake (848 acres), Mud Lake, Blackwood Lake (34 acres), Cross Lake (104 acres), Springer Lake (8 acres), North Island Lake (113 acres), South Island Lake (319 acres), Flower Lake (12 acres) and Eagle Lake (389 acres). The route comes the closest to Cross Lake, approximately 140 feet from the riparian area and 300 feet from open water
>
> EFP staff believes that consultation with the MnDNR on the need, type and placement of SFDs along the approved route, prior to the Applicant's submittal of the final Plan and Profile to the Commission, is a reasonable request.
>
> A requirement for the Applicants to consult with the MnDNR on the need, type and location SFD, including providing the agency with GIS shapefiles, has incorporated it into the proposed HVTL Route Permit (Section 5.4).

Based on the analysis above, EFP staff makes the following recommendation.

Commission Decision Options

A. Approve and adopt the Findings of Fact, Conclusions of Law and Order for the GRE/MP's Savanna HVTL project (PUC Docket No. ET2, E015/TL-10-1307) which:

1. Determines that the environmental assessment and record created at the public hearing address the issues identified in the EA Scoping Decision;

2. Designates the proposed HVTL (to include the Goodell Alternative Route Segment and Marlow Alternative Alignment) route, Savanna Switching Station, and modifications to the Cedar Valley and Cromwell Substations as the routes/sites for the construction/implementation of the Savanna HVTL project and associated facilities; and

3. Issues a HVTL Route Permit, with appropriate conditions, to GRE/MP.

B. Amend the Findings of Fact, Conclusions and Order and Route Permit as deemed appropriate.

D. Make some other decision deemed more appropriate.

EFP Staff Recommendation: Option A.

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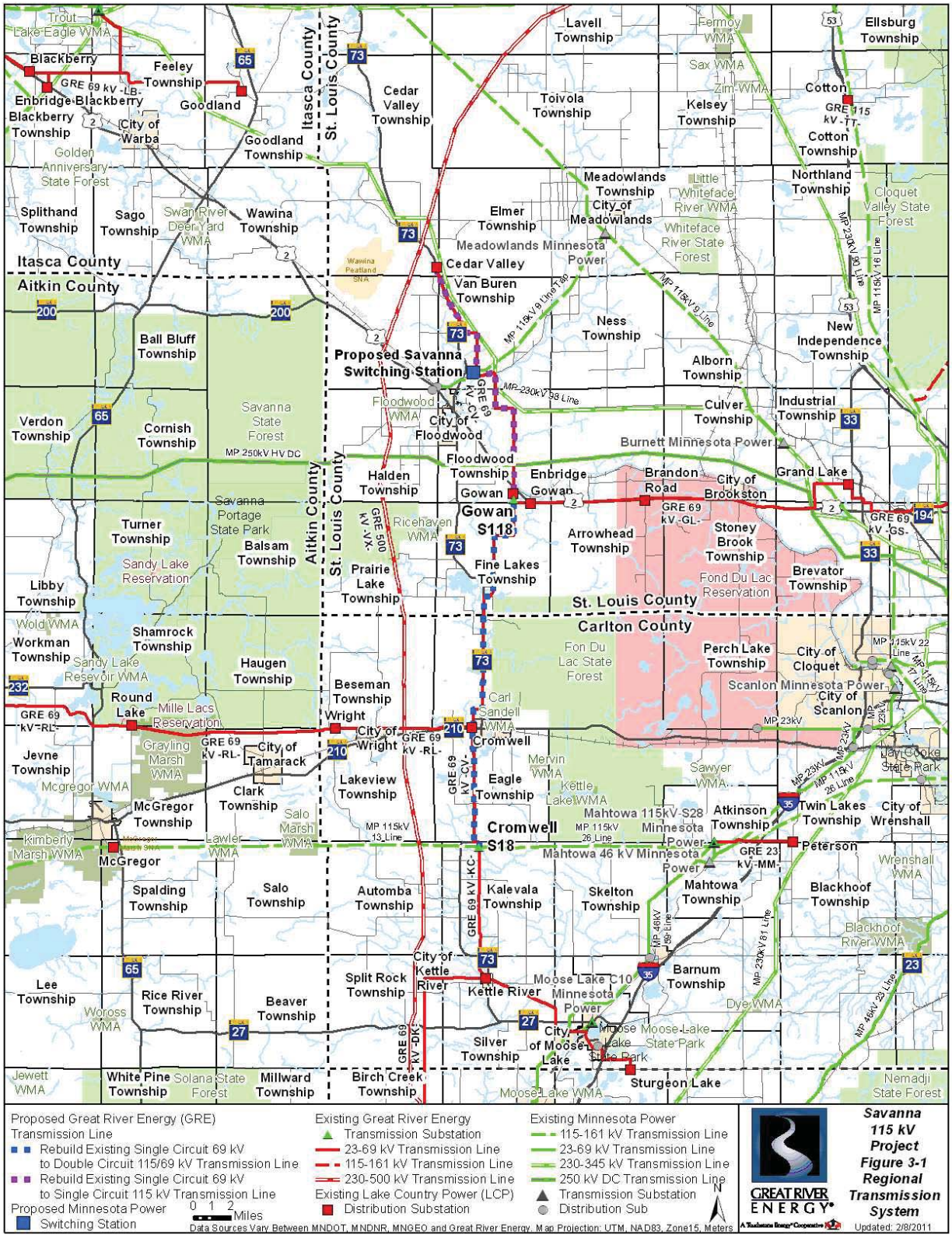
STUDY AREA MAP



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BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

	Chair
David Boyd	Commissioner
J. Dennis O'Brien	Commissioner
Phyllis Reha	Commissioner
Betsy Wergin	Commissioner

In the Matter of the Application for a High Voltage Transmission Line for the Proposed Savanna Transmission Line Project	ISSUE DATE: DOCKET NO. ET2, E015/TL-10-1307 FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER ISSUING A HVTL PERMIT TO GREAT RIVER ENERGY & MINNESOTA POWER FOR THE SAVANNA TRANSMISSION PROJECT

The above-captioned matter came before the Minnesota Public Utilities Commission (Commission) on February 16, 2012, acting on an application by Great River Energy and Minnesota Power for a HVTL Permit to construct approximately 37 miles of 115 kV transmission line in St. Louis County.

A public hearing was held on November 15, 2011, at the Fine Lakes Township Hall in Wright, Minnesota. The hearing was presided over by Bruce H. Johnson, Administrative Law Judge (ALJ) for the Minnesota Office of Administrative Hearings (OAH). The hearing continued until all persons who desired to speak had done so. The comment period closed on November 29, 2011, at 4:30 p.m.

STATEMENT OF ISSUE

Should the Commission find that the Environmental Assessment and the record adequately address the issues identified in the Scoping Decision? Should the Commission issue a HVTL Route Permit identifying specific routes and permit conditions for the proposed Savanna HVTL project?

Based upon all of the proceedings herein, the Commission makes the following:

FINDINGS OF FACT

The Applicant

1. Great River Energy (GRE) is a not-for-profit generation and transmission cooperative based in Maple Grove, Minnesota. Great River Energy provides electrical energy and related services to 28 member cooperatives, including Lake Country Power, Mille Lacs Energy Cooperative, and East Central Energy, the distribution cooperatives serving the area proposed to be supplied by the new

transmission lines. Great River Energy's distribution cooperatives, in turn, supply electricity and related services to more than 639,000 residential, commercial, and industrial customers in Minnesota and Wisconsin.[1]

2. Minnesota Power (MP) is an investor-owned public utility headquartered in Duluth, Minnesota. Minnesota Power supplies retail electric service to 136,000 retail customers and wholesale electric service to 16 municipalities in a 26,000-square-mile electric service territory located in northeastern Minnesota. Minnesota Power generates and delivers electric energy through a network of transmission and distribution lines and substations throughout northeastern Minnesota. Minnesota Power's transmission network is interconnected with the regional transmission grid to promote reliability and Minnesota Power is a member of the Midwest Reliability Organization and the Midwest Independent Transmission System Operator.[2]

3. The Applicants applied for a high-voltage transmission line route permit to construct the new Savanna 115 kilovolt (kV) Switching Station near Floodwood, Minnesota, and to rebuild approximately 37 total miles of existing 69 kV transmission line to 115 kV specifications between: 1) Lake Country Power's existing Cedar Valley Substation and the new Savanna Switching Station, and 2) The Savanna Switching Station, Lake Country Power's existing Gowan Substation, and Great River Energy's existing Cromwell Substation.[3]

Project Description

4. The Applicants proposed that the new lines follow the same alignment (route request is 300 feet wide, 150 feet either side of the existing transmission line centerline) that the existing Great River Energy 69 kV lines presently follow. The proposed plan includes:[4]

   - Construct the new Savanna 115 kV Switching Station in Section 32 of Van Buren Township.
   - Rebuild approximately seven miles of existing Great River Energy 69 kV transmission line to single circuit 115 kV between Lake Country Power's existing Cedar Valley Substation in Cedar Valley Township and the new Savanna Switching Station.
   - Rebuild approximately nine miles of existing Great River Energy 69 kV transmission line to single circuit 115 kV between the new Savanna Switching Station and Lake Country Power's existing Gowan Substation in Floodwood Township.
   - Rebuild approximately 21 miles of existing Great River Energy 69 kV transmission line to double circuit 115/69 kV between the Lake Country Power Gowan Substation and Great River Energy's existing Cromwell Substation in Kalevala Township.
   - Modify the Lake Country Power Cedar Valley Substation and Great River Energy Cromwell Substation to accommodate the 115 kV transmission lines.

   This project will result in a new 115 kV line between the proposed Savanna Switching Station and the Cedar Valley Substation, a new 115 kV line between the Savanna Switching Station and the

[1] Ex. 2 at p. 1-1 (Application)
[2] Ex. 2 at p. 1-3 (Application)
[3] Ex. 2 at p. 1-1 (Application)
[4] Ex. 2 at Sections 4-1 through 4-8 (Application)

Cromwell Substation, and an upgraded 69 kV line between the Gowan Substation and the Cromwell Substation.[5]

The transmission lines lie entirely in Minnesota in St. Louis and Carlton counties. Single-pole wood structures with horizontal post insulators will be used for most of the rebuild. Laminated wood poles or steel poles may be required in some locations (angle poles or areas where soil conditions are poor and guying is not practical), and two pole H-Frame structures may used in some areas. Typical pole heights will range from 60-85 feet above ground and the average span would be 350 to 400 feet for single pole structures and 600 to 800 feet for H-Frame structures.[6]

Small sections of the existing line near the two St. Louis River crossings have distribution under-build, which would be attached to the new 115 kV transmission line structures. The average span for these structures would be approximately 250 to 350 feet.[7]

The Applicants propose that the majority of the new lines would follow the alignment of the existing 69 kV lines. A 15-foot offset from the existing pole locations may be required in some areas. The necessary easement width is 50 feet on each side of the transmission centerline; however, in areas where the line follows an existing distribution line or roadway, the easement may overlap with existing easements and/or the road right-of-way. Great River Energy has existing easements for the majority of the 69 kV line and anticipates that only minimal additional property will be required when the line is upgraded to 115 kV. Great River Energy intends to enter into new easements or amendments of the existing easements with landowners to update the language to reflect typical provisions included in today's easements.[8]

The project will cost approximately $29 million dollars.[9]

Estimated Pre- and Post-Construction Costs	Estimated Construction Costs – 115 kV Transmission Lines	Estimated Switching Station Costs	Estimated Substation Modification Costs	Total Estimated Project Cost
$4,640,000	$20,720,000	$2,600,000	$1,075,000	**$29,035,000**

Procedural History

5. On December 29, 2010, in accordance with Minn. R. 7850.2800, subp. 2, the Applicants filed a letter with the Commission noticing their intent to submit a route permit application under the alternative permitting process set forth in Minn. Stat. § 216E.04 and Minn. R. 7850.2800 to 7850.3900.[10]

[5] Ex. 2 at Sections 4-1 through 4-8 (Application)
[6] Id
[7] Id
[8] Id
[9] Id
[10] Ex.1 (Applicant mailed notice)

6. On February 10, 2011, the Applicants filed a route permit application (Application) with the Commission for the Savanna Transmission Line project to be constructed in St. Louis and Carlton counties, Minnesota.[11]

7. The Applicant mailed a Notice of a Submittal of an Application for a Route Permit on February 18, 2011, to those persons whose names are on the general list maintained by the Commission for this purpose, local and regional officials, and property owners in compliance with Minn. R. 7850.3300 and 7850.2100.[12]

8. The Applicant published Notice of a Submittal of an Application for a Route Permit in the *Grand Rapids Herald Review* (February 23, 2011), *Cloquet Pine Journal and Duluth News Tribune* (February 24, 2011) and the *Portage News* (February 22, 2011) in compliance with Minn. R. 7850.3300 and 7850.2100, subp. 4.[13]

9. On March 23, 2011, the Department of Commerce (Department) Energy Facility Permitting (EFP) staff submitted comments and recommendations to the Commission on the completeness of the Applicant's HVTL Route Permit Application. The EFP staff recommended that the Commission accept the route permit application as complete and appoint a public advisor; the establishment of an advisory task force (ATF) was not recommended. The EFP staff also took the opportunity to inform the Commission that it would be combining the environmental review in the certificate of need (CN) and routing dockets for this project in accordance with Minnesota Rule 7849.1900, Subpart 1.[14]

10. On April 4, 2011, the Commission accepted the application as complete and authorized the EFP staff to process the application under the alternative permitting process in Minn. R. 7850.2800 to 7850.3900. The Commission also authorized the EFP staff to name a public advisor; the Commission determined that an advisory task force was not necessary at that time.[15]

11. On April 21, 2011, EFP issued and mailed a Notice of Public Information Meeting to those persons whose names are on the general list maintained by the Commission for this purpose in compliance with Minn. R. 7850.3500, subp. 1 and 7850.2300, subp. 2. EFP also sent the Notice to designated State Agency Technical Representatives.[16]

12. The Applicant on behalf of EFP published the Notice of Public Information Meeting in the *Grand Rapids Herald Review* (May 4, 2011), and the *Duluth News Tribune* (May 4, 2011), in compliance with Minn. R. 7850.3500 and 7850.2300, subp. 2.[17]

13. A hard copy of the route permit application was made available at the Cloquet and Duluth Public Libraries.[18]

Public Information/Scoping Meeting

[11] Ex. 2 (Application)
[12] Ex. 3 (Applicant submittal documentation of mailed and published notice)
[13] Id
[14] Ex. 4 (EFP Comments & Recommendations Application Acceptance)
[15] Ex. 5 (Commission Order on Application Completeness)
[16] Ex. 6 (EFP Notice of Public Meeting)
[17] Ex. 7 (Published Notice of Public Meeting)
[18] Ex. 6 (EFP Notice of Public Meeting)

14. The scoping process is the first step in developing an environmental assessment (EA). The Department "shall provide the public with an opportunity to participate in the development of the scope of the environmental assessment by holding a public meeting and by soliciting public comments."[19] During the scoping process, alternative routes may be suggested for evaluation in the EA.[20]

15. In accordance with Minn. R. 7850.3500, subp. 1 and 7850.2300, subp. 1 to 4, EFP staff held a public information and environmental review scoping meeting on May 18, 2011, at the Fine Lakes Township Hall in Wright, Minnesota.[21]

16. The meetings included two sessions, one starting at 2:00 pm and another starting at 6:00 pm. The meeting covered and fulfilled both the CN and Routing procedural requirements. The purpose of the meeting was to provide information to the public about the proposed project, to answer questions, and to allow the public an opportunity to suggest alternatives and impacts that should be considered during preparation of the environmental review document. Written comments were due no later than Wednesday, March 23, 2011.[22]

17. Approximately 12 people attended the public information and scoping meetings; 5 individuals took the opportunity to speak on the record. A court reporter was present to document oral statements. Ten written comments were received.[23]

18. A variety of questions were asked and answered during the oral discussion; topics included: specifics on which lines and poles will be removed, and design/construction of any new poles; specifics on the proposed alignment and easement requirements; construction methods that allow for "hot" work to avoid the off-set of the right-of-way (ROW); the concepts of route width and ROW width; sources of power generation for this project; and timeline and milestones of the application review process.[24]

19. The major areas of concern for scoping expressed during the public comment period included: health and safety issues, property values, compensation for easements, avian impacts, impacts of herbicides in wetlands/public waters, and flexibility in siting the final alignment.[25]

20. Alternative routes, alternative route segments and modifications to GRE's proposed alignment were discussed during the scoping meeting and in comments received during the scoping comment period.[26]

Alternative Routes and Route Segments

[19] Minn. R. 7850.3700, subp. 2.
[20] Minn. R. 7850.3700, subp. 2B.
[21] Ex. 10 (Scoping Decision: Attached Memorandum)
[22] Id
[23] Id
[24] Id
[25] Id
[26] Ex. 10 (Scoping Decision: Attached Memorandum)

21. *Goodell Alternative Route Segment:* A resident located along the south side of Hingeley Road (County State Aid Highway 86 - CSAH) in Section 15, Township 50 north, Range 20 west, requested that an *alternative route segment* be considered in a portion of the proposed Savanna HVTL route (Applicant's Key Map Book, Map 22 and 23). The alternative route segment lies within the portion of the proposed route that includes a rebuild of approximately nine miles of existing GRE 69 kV line to double-circuit 115/69 kV line, south of Lake Country Power's Gowan Substation.[27]

22. The Goodell Alternative Route Segment would modify an approximately one mile segment of the proposed route along CSAH 86 (Hingeley Road) where the road runs west from the intersection of Norlund Road (Township Road 5004) in Fine Lakes Township. The current proposal consists of utilizing the existing 69 kV ROW that runs along the south side of CSAH 86; the Goodell Alternative Route Segment would relocate this ROW so that it follows the north side of CSAH 86.[28]

23. This alternative would impact five new parcels; four corporate owned (Potlatch Corporation) and one private undeveloped parcel (Hokala). The relocation of the ROW would move the line off of four private parcels, two of which are developed.[29]

24. The Applicants' proposal is to rebuild the existing 69 kV line to a double-circuit 115/69 kV line transmission line.[30]

25. The stated purpose of this alternative route segment is to reduce the impact to resident, developed parcels along this segment of the proposed HVTL rebuild.[31]

26. An additional option included in the request is consideration of moving the Lake Country Power distribution line (which is also located along the south side of CSAH 86) to the north side of CSAH 86 as a possible distribution under build with the proposed 115 kV transmission line.[32]

27. This alternative alignment was carried forward into the scope of the EA.[33]

28. *Lund alternative route segment:* Several members of the Lund family, who own four forty-acre parcels along the west side of Stremel Road (County Road 192-CR) requested that an *alternative route segment* be considered in a portion of the proposed Savanna HVTL route (Applicant's Key Map Book, Map 38 and 39).[34]

[27] Ex. 10 (Scoping Decision: Attached Memorandum)
[28] Id
[29] Id
[30] Id
[31] Id
[32] Id
[33] Ex. 10 (Scoping Decision)
[34] Ex. 10 (Scoping Decision: Attached Memorandum)

29. The Lund Alternative Route Segment lies within the portion of the proposed rebuild route that GRE has stated will need an "off-set" of the centerline due to the need to keep the existing 69 kV line energized; the consequence of this off-set is the creation of an addition HVTL ROW to the west of the existing ROW.[35]

30. The Lund Alternative Route Segment would modify an approximately two mile segment of the proposed route along Stremel Road (CR 192), between the proposed Savanna Switching Station north to Parantala Road (County Road 732) in Van Buren Township. The current 69 kV line runs along the west side of Stremel Road (CR 192) from the proposed switching station to Parantala Road (County Road 732); the Lund Alternative Route Segment would relocate this ROW so that it follows the east side of Stremel Road.[36]

31. An additional option included in the request is consideration of so called "hot work" methods of construction (i.e., hot stick, leaning the existing poles, etc.) that would allow the new 115 kV to remain in the existing ROW.[37]

32. The Lund family has established a memorial site in a stand of tamaracks to honor a deceased sibling. The memorial and tamarack stand are to the west of the existing 69 kV ROW; the concern is that this area may lie within, or very near to, the proposed new 115 kV ROW. The stated purpose of this alternative route segment or alternative construction methodology is to eliminate the impact to the tamarack stand and memorial therein.[38]

33. This alternative alignment was carried forward into the scope of the EA.[39]

34. *Cedar Valley Substation to Savanna Switching Station Alternative Route Segment:* GRE has stated that the section of the proposed route between the existing Cedar Valley Substation and the proposed Savanna Switching Station will be "off-set" from the existing 69 kV line ROW due to the need to keep the 69 kV line energized during construction of the new 115 kV HVTL, in essence creating a new ROW for this section of the proposed project.[40]

35. The creation of new ROW or expansion of existing ROW, as proposed, makes the evaluation of similar alternatives practicable. This route alternative segment would follow the MP 115 kV 9 line east-northeast out of the proposed Savanna Switching Station for approximately one mile to the point where the MP 9 line crosses the MP 230 kV 98 line. At this point, the route alternative segment would turn northwest and follow the MP 98 line for approximately six miles to a point just (1/4 mile) east of the Cedar Valley Substation. The route then makes a short (1/4 mile) cross-country run to the west to tie into the Cedar Valley Substation (Applicant's Key Map Book, Cedar Valley-Savanna Alternative, Map 1 through 10).[41]

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[35] Ex. 10 (Scoping Decision: Attached Memorandum)
[36] Id
[37] Id
[38] Id
[39] Ex. 10 (Scoping Decision)
[40]
[41] Ex. 10 (Scoping Decision: Attached Memorandum)

36. A route width of 700 feet centered on the MP 9 and MP 98 line will provide adequate room to evaluate placing the new ROW on either side of the existing ROWs.[42]

37. The purpose of this alternative route segment is to allow the existing 69 kV to remain energized during construction of the new 115 kV HVTL, maintain the concept of paralleling/overlapping of existing ROWs, and utilizes, to a greater degree, public lands over privately owned lands.[43]

38. There was no Advisory Task Force established for this routing docket.[44]

39. The scoping decision for the environmental assessment was released by the Department on June 14, 2011, filed with the Commission and made available to the public as provided in Minn. R. 7850.3700, subp. 3.[45]

Environmental Assessment

40. The environmental assessment was filed with the Commission and made available on October 21, 2011.[46] The environmental assessment was prepared in accordance with Minn. R. 7850.3700, and contained all the information required.

41. On October 21, 2011, EFP staff mailed hard copies of the EA to state and federal agency technical representatives. A hard copy of the EA was also sent to the Cloquet and Duluth Public Libraries for public review purposes.[47]

42. On October 21, 2011, EFP mailed a combined Notice of Public Hearing and Availability of Environmental Assessment to those persons whose names are on the project contact list, local and regional officials, and property owners in compliance with Minn. R. 7850.3700, subd. 6.[48]

43. The Applicant, on behalf of the EFP, published combined Notice of Public Hearing and Availability of Environmental Assessment in the *Duluth News Tribune* (November 6, 2011 and the *Floodwood Forum* (November 10, 2011).[49]

44. Pursuant to Minn. R. 7850.3700, subp. 6, EFP published combined Notice of Public Hearing and Availability of Environmental Assessment in the *EQB Monitor* (August 1, 2011).[50]

[42] Ex. 10 (Scoping Decision: Attached Memorandum)
[43] Id
[44] Ex. 10 (Scoping Decision)
[45] Id
[46] Ex. 11 Environmental Assessment
[47] Ex. 12 Notice of Public Hearing & Availability of EA
[48] Ex. Id
[49] Ex. Id
[50] Ex. 13 EQB Monitor: Notice of Public Hearing & Availability of EA

45. The Environmental Assessment was provided to the public agencies with authority to permit or approve the proposed project and was also posted to the Commission's Energy Facilities Permitting website in accordance with Minn. R. 7850.3700, subp. 6.

46. The Environmental Assessment evaluated the Applicant Proposed Route, the Goodell Alternative Route Segment, the Lund Alternative Route Segment, and the Cedar Valley Substation to Savanna Switching Station Alternative Route Segment.[51]

Public Hearing

47. On October 21, 2011, EFP mailed a combined Notice of Public Hearing and Availability of Environmental Assessment to those persons whose names are on the project contact list, local and regional officials, and property owners in compliance with Minn. R. 7850.3700, subd. 6.[52]

48. On October 27, 2010, EFP sent via Certified mail a combined Notice of Public Hearing and Availability of Environmental Assessment to chief executives of the regional development commissions, counties, organized towns, townships, and incorporated municipalities in accordance with Minn. Stat. § 216E.03, subd. 6.[53]

49. Pursuant to Minn. Stat. § 216E.03, subd. 6, the Applicant, on behalf of the EFP, published combined Notice of Public Hearing and Availability of Environmental Assessment in the *Duluth News Tribune* (November 6, 2011 and the *Floodwood Forum* (November 10, 2011).[54]

50. Minnesota Office of Administrative Hearings, Bruce Johnson, Administrative Law Judge (ALJ) presided over the public hearing conducted on November 15, 2011. The public hearing was held at the Fine Lakes Township Hall in Wright, Minnesota. The ALJ provided an opportunity for members of the public to ask questions or comment on the proposed project verbally and/or to submit question/comments in writing.[55]

51. Testimony was heard from the Applicants' representative (Michelle Lommel, GRE) and eleven members of the public. The record closed on November 29, 2011, the last day set for receipt of written comments by mail. Bill Storm, State Permit Manager, Minnesota Department of Commerce, appeared on behalf of the Minnesota Department of Commerce (DOC). Bret Eknes, State Planning Director, appeared on behalf of the staff of the Minnesota Public Utilities Commission (Commission).[56]

[51] Ex. 11 Environmental Assessment
[52] Ex. 12 Notice of Public Hearing & Availability of EA
[53] Id
[54] Id
[55] Id
[56] ALJ Summary Of Testimony

52. Approximately 18 members of the public attended the public hearing. All persons who desired to speak were afforded a full opportunity to make a statement on the record.[57]

53. The public hearing transcript was filed by the Office of Administrative Hearings designated court reporter on December 8, 2011.[58]

54. The ALJ filed the Summary of Public Testimony on December 29, 2011.[59] The ALJ received post-hearing comments that elaborated on the themes expressed at the public hearing.

55. The ALJ report contains a summary of oral public comments provided at the hearing.[60]

56. A member of the public (Nate Goodell) spoke in support of the Goodell Alternative Route Segment (described previously); additionally, if his alternative were to be given favorable consideration, Mr. Goodell also requested that consideration be given to relocating Lake County Power's distribution line to the north side of Hingeley Road as an underbuild on the proposed double circuited 115/69 kV line.[6162]

57. Mr. Goodell also believes the current proposal will interfere with a wildlife habitat management plan that he has developed in cooperation with the U. S. Department of Agriculture's Natural Resource Conservation Service (NRCS).[63]

58. The Applicants noted that Lake Country Power's parallel distribution line on the south side of Hingeley Road is relatively new, and there is also no current need to relocate it. Additionally, the Applicants expressed concerned that building a line with all three circuits (i.e., the double circuit 115/69 kV and the LCP distribution line) would not provide them with a system as safe as they would prefer. Great River Energy offered to consider moving the rebuilt double circuit line northward approximately 20 to 25 feet closer to Lake Country Power's distribution line in order to reduce the overall impact on Mr. Goodell's property and other private properties.[64]

59. Mr. Roy Marlow attended the public meetings on behalf of the Marlow Trust, the Marlow Estate, and himself and proposed the *Marlow Alternative Alignment*. Although not previously discussed in the Department's scoping decision, nor in the Environmental Assessment, the Applicants and the EFP staff both agreed that it was appropriate to include relevant information on the Marlow Alternative Alignment in the hearing record.[65]

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[57] ALJ Summary Of Testimony
[58] Public Hearing Transcript
[59] ALJ Summary Of Testimony
[60] Id
[61] Id
[62] Ex. 18 and 19 Goodell Maps
[63] ALJ Summary Of Testimony
[64] Id
[65] Id

60. The Marlow Alternative Alignment lies within the Applicants' requested 300 foot wide route and involves an approximately 2 mile portion of the proposed route.[66,67]

61. As proposed by the Applicants, the proposed alignment for the rebuild would follow the existing 69 kV right-of-way along the west side of Hingeley Road, from its intersection with County Road 825 southward toward the St. Louis River; Hingeley Road actually ends at a turnabout approximately 2000 feet north of the river. The Marlow Alternative Alignment is located in this portion of the proposed route (Applicant's Key Map Book, Map 27, 28 and 29). Roy Marlow, the Marlow Trust, and the Marlow Estate own most of the property along the west side of Hingeley Road along this portion of the proposed route where the existing 69 kV line is currently located.[68]

62. Mr. Marlow stated that much of the property adjacent to the nearby city of Floodwood lies within a flood zone, while the private property along west side of Hingeley Road is 125 feet above flood level. Consequently, Mr. Marlow believes that the property along the west side of Hingeley Road has significant potential for future residential development. He also believes that rebuilding the proposed 115 kV line along the alignment of the existing 69 kV line would interfere with the possibility of widening Hingeley Road's right-of-way to 85 or 100 feet and would otherwise impede future development of the privately-owned parcels along the west side of Hingeley Road.[69]

63. Mr. Marlow noted that most of the property along the east side of Hingeley Road is publicly owned and has little potential for future development.[70]

64. Jeff Kletscher, the Mayor of Floodwood, also attended the hearings. While supporting the project as a necessary step to ensure that the city of Floodwood continues to have an ample and reliable supply of electrical power, Mr. Kletscher (also a realtor in Floodwood) spoke in agreement with Mr. Marlow in the view that the public would be better served by relocating the new 115 kV line onto public land on the east side of Hingeley Road rather than on developable private land along Hingeley Road's west side.[71]

65. John Sederinski is the local highway foreman for St. Louis County and his responsibilities include maintaining Hingeley Road. Mr. Sederinski stated that the current location of poles located along the west side of Hingeley Road have hindered the County's road maintenance. He stated that this area is adjacent to a creek, and there are several cut banks in the area. Many existing poles are located in the cut banks, and the County has not been able to clean and maintain the ditches adjacent to the road because removing material might cause poles to fall over. Mr. Sederinski supports relocating the 115 kV line to the east side of Hingeley Road and as far from the road as possible.[72]

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[66] ALJ Summary Of Testimony
[67] Ex. 20 through 38 Marlow Information
[68] ALJ Summary Of Testimony
[69] Id
[70] Id
[71] Id
[72] Id

66. Doug Bailey is a logger who has conducted logging on the publicly-owned parcels along the east side of Hingeley Road. He offered to conduct, at no cost, any additional logging on those parcels that might be necessary to relocate the 115 kV line there.[73]

67. Ms. Lommel indicated that the Applicants were neutral about whether to allow the line to remain on the west side of Hingeley Road or whether to relocate it on the publicly-owned parcels on the east side. She further stated that the Applicants had examined the environmental aspects of relocating the line to the east side of Hingeley Road and had concluded that there were no appreciable differences.[74]

68. At the request of the EFP staff, the Applicants agreed to submit along with their post-hearing comments a comparison table and map segments depicting a Marlow Alternative Alignment similar to those which had been included in the Environmental Assessment for other alternative route segments.[75]

69. It appeared from the public testimony that relocation of the existing alignment to the Marlow Alternative Alignment (i.e., from the west to the east side of Hingeley Road) would further impact one private parcel owed by Kenneth A. Kojo. Mr. Kojo was not present at either of the hearings. The Applicants stated that they would contact Mr. Kojo to determine his position on the proposed route relocation and report his position in post-hearing comments.[76]

70. Clarence Badger expressed concern that the 15 to 20-foot pole offset being proposed for portions of the line would result in further removal of trees from his property. The Applicants stated that no pole offset was being contemplated along the segment of the line where Mr. Badger's property is located. It was therefore unlikely that more vegetation would have to be removed from his property because of pole offsets. However, because of the increase in line voltage and stricter vegetation standards, the Applicants would likely be removing some vegetation within 50 feet on each side of the transmission centerline.

71. The Applicants agreed to consult with Mr. Badger before they removed any additional vegetation on his property.

72. Bob Rahja's residence is located on the north side of County Road 29; he also owns a strip of land on the south side of that road adjacent to the St. Louis River. The existing line is located on Mr. Rahja's property along the south side of County Road 29; Mr. Rahja had questions concerning vegetation removal.

[73] ALJ Summary Of Testimony
[74] ALJ Summary Of Testimony
[75] Id
[76] Id

73. The Applicants are seeking to have an easement that extends 50 feet on each side of the transmission line, and they are currently uncertain about the extent to which the easement they are seeking would be coterminous with the existing road easement. When the Applicants are able to obtain more precise information about any additional easement needs, they will consult with Mr. Rahja about vegetation removal and other issues relating to his use of his land.[77]

74. Marjorie Phibbs lives on Villa Vista Circle, north of the city of Cromwell. Ms. Phibbs indicated that two transmission lines are currently located on her property. One of those lines is the existing 69 kV line and the other is Lake Country Power's distribution line. She inquired about any changes that would affect her property.[78]

75. The Applicants stated that the only change would be adding a 115 kV line on the existing poles.[79]

76. Ms. Phibbs also inquired whether the addition of a high voltage line might result in any adverse health effects. After determining that Ms. Phibbs' home is located at least 100 feet from the existing line, the Applicants stated that her house was not close enough to the line to cause any additional concern.[80]

77. Robert Jobe asked about whether the existing easements are all recorded and, if so, where. The Applicants responded that many easements are out of date and others may never have been recorded. Consequently, the Applicants plan to negotiate individually with all property owners whose land will be affected by the project in order to obtain updated and recorded easements.[81]

78. Robert Johnston and Bob Rahja both expressed concern about the Cedar Valley-Savanna Alternative Route Segment, stating that the project would then directly impact property which they owned that is currently unaffected by the project.[82]

79. Two state agencies filed written comments, the Minnesota Pollution Control Agency (MPCA) and the Minnesota Department of Natural Resources (MnDNR).[83]

80. The MPCA commented on the need for down-stream permitting (i.e., National Pollution Discharge Elimination System/Stormwater permit, wetland permits, and crossing public waters permits), clearing of vegetation and use of herbicides, and heavy equipment management.[84]

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[77] ALJ Summary Of Testimony
[78] Id
[79] Id
[80] Id
[81] Id
[82] Id
[83] Id

81. The MnDNR commented on the use of herbicides and avian collision with transmission lines.[85]

82. On November 23, 2011, post-hearing comments were received from Saint Louis County (Mr. Mark Weber, Resource Management Supervisor); the County stated that it was open to the option of utilizing tax forfeited land located across Hingeley Road and to the east of the existing line as an alternative alignment (Marlow Alternative Alignment) for the 115 kV line. Mr. Weber further stated that such an opportunity was consistent with its history of offering public lands for the routing of new and upgraded power utilities in the region.[86]

83. On November 29, 2011, GRE submitted post-hearing comments; these comments contained information relative to the Marlow Alternative Alignment. Included in these comments were: 1) aerial maps illustrating the Marlow Alternative Alignment, 2) a comparative impacts table incorporating the Marlow Alternative Alignment, and 3) documentation from Mr. Kojo indicating that he had no objections to relocating the line to his side of Hingeley Road with the understanding that he would be able to keep any timber on his property that would have to be cut.[87]

Environmental Assessment

84. In the route permit application, the Applicant identified a Proposed Route of approximately 37 miles. The project's 115 kV lines will replace approximately 16 miles of existing 69 kV line between the Cedar Valley and the Gowan substations. Between the Gowan and Cromwell substations, approximately 21 miles of existing Great River Energy 69 kV transmission line will be rebuilt on double circuit structures with the Project's 115 kV line. These transmission lines are located entirely in Minnesota, in St. Louis and Carlton counties.[88]

85. The Energy Facility Permitting staff of the Department of Commerce elected to combine its environmental review responsibilities under the Certificate of Need process with the environmental review procedures under the HVTL Route Permit procedures (Minnesota Rule 7849.1900, Subpart 1) for the Savanna Transmission Line project. The result was a single environmental review document, an Environmental Assessment.[89]

    The environmental assessment addressed the issues required in Minnesota Rules 7849.1500, subpart 1 and Minnesota Rules, 7850.3700, subpart 4, and as determined in the Scoping Decision of June 10, 2011.

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[84] ALJ Summary Of Testimony
[85] Id
[86] Id
[87] Id
[88] Ex. 2 (Application)
[89] Ex. 11 Environmental Assessment

86. Through the Scoping process two alternative route segments/alignment modifications were identified for evaluation in the environmental assessment; the three alternatives were named, the Goodell Alternative, the Lund Alternative and the Cedar Valley to Savanna Alternative.[90]

Socioeconomic and Cultural Values

87. There will be short-term impacts to community services as a result of construction activity and an influx of contractor employees during construction of the various segments of the project. Both utility personnel and contractors will be used for construction activities. The communities near the project should experience short-term positive economic impacts through the use of the hotels, restaurants and other services by the various workers.[91]

88. There is no indication that any minority or low-income population is concentrated in any one area of the project, or that the transmission line would cross through an area occupied primarily by any minority group.[92]

89. One of the first concerns of many residents near existing or proposed transmission lines is how that proximity could affect the value of their property. In the matter of property values, potential impact would typically be a negotiated settlement in an easement agreement between the Applicants and the landowner. In this case, the incremental differences between properties with the existing 69 kV and the same properties with the proposed 115 kV HVTL would be difficult to discern.[93]

Displacement

90. The proposed project maximizes the use of existing transmission line corridors – the proposed route uses existing transmission rights-of-way for the majority of its length. The use of existing transmission line corridors was an important factor for this project because using existing corridors reduces transmission line proliferation and new impacts to residences. There is no structure along the route of this project that would require relocation. Displacement of residential homes or businesses is not anticipated.[94]

Noise

91. The Minnesota Pollution Control Agency (MPCA) has established standards for the regulation of noise levels.[95]

92. For residential, commercial and industrial land, the MPCA noise limits are 60-65 A-weighted decibel (dBA) during the daytime and 50-55 dBA during the nighttime.[96]

[90] Ex. 10 (Memorandum on Scoping Decision & Scoping Decision)
[91] Ex. 11 at p. 30-31 (EA)
[92] Id
[93] Ex. 11 at p. 32-34 (EA)
[94] Ex. 11 at p. 34 (EA)
[95] Ex. 11 at p. 34-37 (EA)

93. The project consists of a 115 kV transmission line and a 115/69 kV double circuit transmission line. Computer modeling performed by Applicants using the BPA 1977 software under the worst case wet conditions scenario indicated that the audible L5 and L50 noise levels measured at the edge of the 100 wide right-of-way (50 feet from centerline) would be at 17.7 and 14.2 dBA, respectively, well below the MPCA nighttime L50 limit of 50 dBA for Noise Area Classification 1. [97]

94. Transformer "hum" is the dominant noise source at substations. Transformer hum is caused by magnetostrictive forces within the core of the transformer. These magnetic forces cause the core laminations to expand and contract, creating vibration and sound at a frequency of 100Hz (twice the a.c. mains frequency), and at multiples of 100Hz (harmonics). Typically, the noise level does not vary with transformer load, as the core is magnetically saturated and cannot produce any more noise. [98]

95. The nearest occupied homes to the Cedar Valley Substation, the proposed Savanna Switching Station and the Cromwell Substation are located approximately 400 feet, 1,100 feet and 500 feet from the facilities, respectively. It would be very unlikely that substation noise would be audible at these homes.[99]

96. The Applicants have stated that the substations will be designed and constructed to comply with state noise standards established by the Minnesota Pollution Control Agency. [100]

97. Short-term exceedance of daytime noise standards associated with initial construction of all routes is expected to occur during daytime hours as the result of heavy equipment operation and increased vehicle traffic associated with the transport of construction materials and personnel to and from the work area. The short-term exceedance of daytime noise standards would be intermittent and temporary in nature. Minnesota nighttime noise level standards will not be exceeded.[101]

Aesthetics

98. Because the proposed project will mainly follow existing 69 kV transmission line routes, the project will have nominal effects on the visual and aesthetic character of the area. The structures will be about 60 to 85 feet tall and will have a span of approximately 350 to 400 feet. A maximum span of 400 feet will be used between the structures, which will still keep the conductor within the right-of-way under blowout conditions. The usual right-of-way required for these types of structures is 100 feet wide.[102]

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[96] Minn. R. 7030.0400; Ex. 13 at p30-31
[97] Ex. 11 at p. 34-37 (EA)
[98] Id
[99] Id
[100] Id
[101] Id
[102] Ex. 11 at p. 34-37 (EA)

99. The existing transmission line structures vary in height between 50 to 55 feet. By comparison, the proposed transmission line structures will generally be slightly taller. The overall spacing of the poles will be comparable to the current layout, which varies greatly by engineering and land use constraints.[103]

100. The proposed transmission line will cross the St. Louis River in two different locations. Crossing the St. Louis River will not perceptibly change the existing viewshed of the area because the proposed route will follow the existing transmission line ROW. The potential aesthetic impact resulting from new, somewhat taller, structures will be imperceptible to most viewers.[104]

101. Like the existing 69 kV transmission line, the new single circuit and double circuit transmission line will be visible to area residents. The majority of the landscape in the project area is undeveloped. The visual effect will depend largely on the perceptions of the observers. The visual contrast added by the transmission structures and lines may be perceived as a visual disruption. The transmission lines and substations that already exist in the project area will limit the extent to which the new line and substation are viewed as a disruption it the area's scenic integrity.[105]

102. Although the transmission line would be visible throughout most of its length, it is not incompatible with its setting amongst existing transmission lines, public transportation corridors and residential development along the route.[106]

Public Health and Safety

103. The Applicant will ensure that all safety requirements meet NESC standards during the construction and operation of the proposed transmission line and associated facilities[107]

104. The project will be designed and constructed in compliance with local, state, NESC and Great River Energy/Minnesota Power standards regarding clearance to the ground, clearance to crossing utilities, strength of materials and right-of-way widths.[108]

105. The project will be equipped with protective devices to safeguard the public in the event of an accident. The protective equipment is designed to de-energize the transmission line should such an event occur.[109] In addition, the associated facilities will be properly fenced and accessible only by authorized personnel.

[103] Ex. 11 at p. 34-37 (EA)
[104] Id
[105] Id
[106] Id
[107] Ex. 11 at p. 39 (EA)
[108] Id
[109] Ex. 11 at p. 39-40 (EA)

106. The issue of electric and magnetic fields was discussed in the environmental assessment.[110] A number of national and international health agencies (the Minnesota Department of Health, the World Health Organization, the National Institute of Environmental Health Sciences) have concluded in their research that there is insufficient evidence to prove a connection between electric and magnetic field exposures and health effects. Research has not been able to establish a cause and effect relationship between exposure to magnetic fields and human disease, nor a plausible biological mechanism by which exposure to electric and magnetic fields could cause disease.[111] The maximum magnetic field for this project, as calculated by the Applicant, would be 9.13 milligauss (peak load), one meter above the ground and directly below the line.[112] No Minnesota regulations have been established pertaining to magnetic fields from high-voltage transmission lines.[113]

107. The absence of any demonstrated impact by magnetic field exposure supports the conclusion that no adverse effects from magnetic fields on human health/welfare are expected for persons living or working at locations along or near the proposed project.[114]

108. Transmission lines (alternate current or AC) can induce "stray" voltage on nearby conductive objects. When the electric-magnetic field of a transmission line is within range of a nearby conductive object, a voltage may be induced on the object. The magnitude of the voltage depends on the weather conditions, the objects ability to collect an electric charge (capacitance), and vary with the object's shape, size, orientation and location, object to ground resistance.[115]

109. If a voltage is induced on an object insulated from the ground and a person touches the object, a small current (induced current or stray voltage) would pass through their body to the ground. This current may produce a spark discharge or mild shock to the individual. This type of stray voltage occurs most often on long fences and distribution lines built under transmission. Proper grounding of metal objects under the transmission line is the best method of avoiding these shocks. Most shocks from induced current are considered more of a nuisance than a danger. The Minnesota Public Utilities Commission electric field limit of 8 kV/m was designed to prevent serious hazard from shocks due to induced voltage under transmission lines. The NESC sets an induced current limit of five milliamps(mA) for objects under transmission lines.[116]

110. Stray voltage describes any case of elevated potential, but more precise terminology gives an indication of the source of the voltage.[117]

Neutral to earth voltage (NEV) specifically refers a condition that can occur on the electric service entrances to structures from distribution lines. More precisely, stray voltage is a voltage that exists between the neutral wire of the service entrance and grounded objects in buildings such as barns and milking parlors.

[110] Ex. 11 at p. 40-49 (EA)
[111] Ex. 11 at p. 40-49 (EA)
[112] Id
[113] Id
[114] Id
[115] Id
[116] Id
[117] Id

HVTLs carry power at a high voltage from generating plants to substations. At the substation, the voltage is lowered for distribution and distribution lines delivery power to consumers (homes, businesses, and industry). Power distribution lines may cause NEV stray voltage on electric service entrances to structures. Transmission lines do not create NEV stray voltage as they do not directly connect to businesses or residences.

111. The quality of the farm/structure wiring system has the largest single influence on contact voltage. Stray voltage (NEV) sources can be reduced in three fundamental ways: reduce the current flow on the neutral system; reduce the resistance of the neutral system; or improve the grounding of the neutral system. Making good electrical connections and making sure that these connections are maintained by the proper choice of wiring materials for wet and corrosive locations will reduce the resistance of the grounded neutral system and thereby reduce NEV levels.[118]

112. Appropriate measures will be taken by the Applicant during transmission line design, construction, and operation to prevent the potential for any stray voltage problems from this project. As a condition of the permit, all fixed metallic objects on or off the right-of-way, except electric fences that parallel or cross the right-of-way, will be grounded to the extent necessary to limit the induced short circuit current between ground and the object and to comply with the ground fault conditions specified in the NESC.[119]

Recreation

113. Recreational opportunities in St. Louis and Carlton counties include hiking, biking, canoeing, boating, fishing, camping, equestrian riding, swimming, hunting, snowmobiling and nature observation.[120]

114. There are no state or national forests or parks, national wildlife refuges, federal waterfowl production areas, state trails, scientific and natural areas, wildlife management areas, or county parks present within the proposed route.[121]

115. The project will involve two crossings of the St. Louis River. Utility lines are already part of this landscape, and because the existing transmission line will be rebuilt within the same ROW, the recreational uses of these resources will not be affected. No significant changes to the visual setting or recreational uses for people using this section of the river are expected. The Applicants will coordinate with the DNR to ensure utility line construction will not impact the surrounding natural resources.[122]

116. The proposed route crosses snowmobile trails in both St. Louis and Carlton counties. The trails are located within Van Buren Township in St. Louis County and Red Clover Township in Carlton

[118] Ex. 11 at p. 40-49 (EA)
[119] Id
[120] Ex. 11 at p.49-50 (EA)
[121] Id
[122] Id

County. The proposed transmission line will likely stay within the same ROW corridor, therefore it will not significantly affect the visual field of snowmobilers. This recreational use will not be impacted by the proposed project.[123]

117. Where the rebuilt lines are constructed, the visual setting for people biking, hiking, boating or birding near the new lines may be slightly affected. It is also possible that clearing vegetation underneath the utility lines will decrease the wildlife habitat within the immediate vicinity, potentially impacting viewing opportunities for the short term. Again, because there is an existing line in place, vegetation clearing will be limited.[124]

Land-based Economies

118. Construction and maintenance of the project will result in permanent and temporary impacts to farmland such as soil compaction and crop damage. Construction of new transmission structures and removal of existing structures will require repeated access to structure locations to install foundations, structures and conductors. Equipment used in this process includes drill rigs, concrete trucks, backhoes, cranes, boom trucks and assorted small vehicles.[125]

119. The transmission line would cross approximately 5.7 miles of agricultural land. There is no prime farmland along the proposed route. Some agricultural land will be temporarily removed from production during transmission line construction, but permanent agricultural land conversion associated with the transmission line will be minimal. Landowner compensation will be established by individual easement agreements. In general, agricultural areas surrounding transmission line poles can still be farmed. Because the proposed transmission line is along an existing route, impacts will be limited to the existing utility corridor.[126]

120. Both St. Louis and Carlton counties are heavily forested; public agencies manage just under half of these forested lands. The proposed transmission line crosses wooded areas, some of which are privately-owned woodlots and shelterbelts. The transmission line would cross approximately 5.6 miles of upland forested land.[127]

Because the route follows existing ROW for much of its length, clearing of trees would be minimal. Impacts to forested areas and shelterbelts along the rebuild portion of the route would be incidental, and would be limited to the amount necessary to permit safe and reliable operation of the transmission line. Due to safety concerns, any trees that would grow taller than 15 feet within the ROW would need to be removed beneath overhead lines. Additionally, a 10-foot radius around each structure would be kept free of woody vegetation.[128]

[123] Ex. 11 at p.49-50 (EA)
[124] Id
[125] Ex. 11 at p. 50-53 (EA)
[126] Id
[127] Id
[128] Id

121. According to the Minnesota Department of Transportation (MnDOT) county pit maps for St. Louis and Carlton counties, there are gravel pits, rock quarries and commercial aggregate sources in the vicinity of the project. Because no existing gravel and rock resources are being utilized within the proposed route, no impacts are anticipated. Unknown resources that may exist along the proposed route would be situated in close proximity to existing utility and roadway ROW, making development unlikely.[129]

122. There are no mineral mining or "known but undeveloped resources" along the proposed route, the project has a low potential to impact mineral mines. The project would be constructed in the existing ROW and the number of transmission line poles may be reduced. Any potential aggregate resources in the ROW would have already been impacted in terms of their availability for development. There would be no additional impacts on potential aggregate resources in the project area.[130]

Land Use

123. The project covers a variety of land use patterns in a generally rural environment. The route runs along State Highway 73, continuing along Hingley Road, County Rd 965 (CSAH 86), Duluth Street, Vincent Road (CSAH 8), Hill Rd, Benson Road (CR 171), CSAH 29, Stremel Road (CR 192) and Parantala Road (CR 732). The route is dominated by forest, with areas of grassland, cropland, wetlands and waters, and residential land uses.[131]

124. A portion of the proposed project is located in southwestern St. Louis County where it crosses Cedar Valley, Van Buren, Floodwood and Fine Lakes townships. The St. Louis County current Zoning Map shows that the majority of the route crosses areas with zoning classifications of Forest Agricultural Management and Mixed Use (Multiple Use Non-Shoreland), with some Residential areas associated with lakes near the St. Louis County/Carlton County border.[132]

In the vicinity of the proposed route, the St. Louis River is defined as a Shoreland Mixed Use zoning district in St. Louis County. The proposed crossing of the St. Louis River is in an existing corridor and complies with the zoning district use restrictions.[133]

The proposed route crosses northwestern Carlton County in Eagle and Kalevala townships. According to the Carlton County Zoning Map, the majority of the route crosses areas with zoning classifications of Agricultural/Forest Management (A-1) and Agriculture/Rural Residential (A-2). There is also a Municipality (City of Cromwell) and a small portion of Recreation Residential (R-1) at the south end of the project.[134]

[129] Ex. 11 at p. 50-53 (EA)
[130] Id
[131] Id
[132] Id
[133] Id
[134] Id

125. The existence of a transmission line easement restricts some possible uses for the property. Acceptable uses within the easement areas include planting crops, pasture, roadways, curbs and gutters. The two most common restrictions would include prohibiting construction of permanent structures or buildings within the easement area and restrictions on planting trees that may grow into the lines; properties with existing structures very close to or within the current ROW may have further restrictions placed on them.[135]

126. In general, the rebuild portions of the line would not create new impacts on existing or proposed land use; therefore, no mitigation would be necessary for the majority of the proposed rebuild; however, potential impacts to those properties with existing structures very close to or within the current ROW may be mitigated through final design efforts such as placing the conductors on a single side of the support towers, adjustments in final alignment within the proposed route, and selection of span width and tower placement.[136]

127. The project would be design to meet or exceed the clearance standards provided in NESC Section 232 for a 115 kV transmission line, which require a 9' 1'' horizontal distance between the conductor and a building; a 15' 1'' vertical distance between the conductor and a roof/balcony accessible by people; and a 20' 1'' vertical distance between the conductor and a roadway or parking lot.[137]

Public Services

128. Public services and utilities are generally defined as services provided by government entities including hospitals, fire and police departments, schools, roads and highways, public parks, and water supply. Utilities also include private wells, septic systems and other utilities.

129. The transportation network that may be used to develop and operate this project is comprised of various county, trunk and U.S. highways. Few urban areas exist within the project area. Two active BNSF Railway Company railroad lines are present within the project area.[138] MnDOT has adopted a formal policy and procedures for accommodation of utilities on the highway rights-of-way (Utility Accommodation Policy.[139]

Short-term localized traffic delays are anticipated. The impacts resulting from construction and operation of the proposed transmission lines and modifications to substations would be minimal for transportation.[140]

Archaeological and Historic Resources

[135] Ex. 11 at p. 50-53 (EA)
[136] Id
[137] Id
[138] Ex. 11 at p. 55-57 (EA)
[139] Id
[140] Id

130. One archaeological site and 39 inventoried historic properties were located within one mile of the project.[141]

131. Archaeological sites may be disturbed during construction of transmission structures, substations and substation expansions, maintenance structures, staging areas or access roads. Historic buildings or other sites may be impacted as well in that construction of modern transmission structures may compromise the integrity of a historic viewshed from or to above ground archaeological and historic resources.[142]

132. The proposed project is the rebuild of an existing line and is adjacent to roads for approximately 76 percent of the length, the corridor has already been disturbed and the likelihood of affecting archaeological resources or new impacts to historical properties is relatively low.[143] Should a specific impact be identified during field/survey/construction activities, the Applicants will consult with SHPO on the appropriate course of action, as noted in the proposed route permit.[144]

Air Quality

133. There is minimal air quality impacts associated with transmission line operation. The only potential air emissions from a transmission line result from corona. Corona can produce ozone and oxides of nitrogen in the air surrounding the conductor. Corona consists of the breakdown or ionization of air in a few centimeters or less immediately surrounding conductors. For 115/115 kV double-circuit, 115 kV single-circuit and 161 kV single-circuit transmission lines, the conductor gradient surface is usually below the air breakdown level.[145]

134. Calculations done for a 345 kV project showed that the maximum one hour concentration during foul weather (worst case) would be 0.0007 ppm ozone. This is well below both the federal (0.075 ppm 8 hour) and state standards (0.08 ppm 8 hour) for ozone.[146]

135. Construction of the project will result in temporary air quality impacts caused by, among other things, construction-vehicle emissions and fugitive dust from right-of-way clearing. The Applicants will implement the appropriate dust control measures, as required.[147]

Water Quality and Water Resources

136. The project lies within the St. Louis watershed of the Lake Superior Basin.[148]

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[141] Ex. 11 at p. 57-59 (EA)
[142] Id
[143] Id
[144] Id (EA)
[145] Ex. 11 at p. 59-60 (EA)
[146] Id
[147] Id
[148] Ex. 11 at p. 61-65 (EA)

137. Lakes in the project area include Prairie Lake (848 acres), Mud Lake, Blackwood Lake (34 acres), Cross Lake (104 acres), Springer Lake (8 acres), North Island Lake (113 acres), South Island Lake (319 acres), Flower Lake (12 acres) and Eagle Lake (389 acres). The route comes the closest to Cross Lake, approximately 140 feet from the riparian area and 300 feet from open water.[149]

138. There are a number of rivers and streams in the project area, including the St. Louis River, Floodwood River, East Savanna River, McCarty River, Prairie River, Tamarack River, Kettle River and Heikkila Creek. The proposed transmission line will cross tributaries to the Floodwood River, the St. Louis River and tributary, McCarty River, Prairie River, Tamarack River and two drainages between lakes.[150]

139. The transmission line would cross approximately 5.9 miles of National Wetland Inventory wetlands. Scrub-shrub and forested wetlands are the dominant wetland types.[151]

140. The proposed transmission line rebuild will have minor, mostly short term effects on surface water resources. Most potential effects on surface waters will be related to reconstruction of the transmission line across wetlands proximal to the existing transmission corridor. The project may require wetland and water resource approvals from the U.S. Army Corps of Engineers (USCOE), MnDNR, St. Louis County, and Carlton County.[152]

141. Indirect impacts could include sedimentation reaching surface waters during construction due to ground disturbance by excavation, grading, construction traffic, and dewatering of holes drilled for transmission structures. These impacts will be avoided and minimized using appropriate sediment control practices and best management practices (BMPs).[153]

142. Disturbed areas of one acre or more (proposed substation) will be regulated by a National Pollutant Discharge Elimination System (NPDES) permit and Stormwater Pollution Prevention Plan prepared for the project. Mitigation under the NPDES permit includes implementation of the Stormwater Pollution Prevention Plan with the appropriate erosion control methods developed specifically for the site. The Minnesota Pollution Control Agency (MPCA) issues combined NPDES/State Disposal System permits for construction sites, industrial facilities and municipal storm sewer systems. Compliance with the MPCA stormwater program will be a condition of the route permit.[154]

Flora

143. Transmission line construction impacts to trees and woodlands will be minimized because the transmission line will follow existing right-of-way for the majority of its route. Temporary impacts may occur due to activities associated with pole construction, including minor vegetative clearing for

[149] Ex. 11 at p. 61-65 (EA)
[150] Id
[151] Id
[152] Id
[153] Id
[154] Id

excavation, leveling and heavy equipment traffic. Vegetative clearing would include felling trees along the existing transmission line route and temporarily trimming or removing any shrubs or tall grass. Similar to existing maintenance practices, trees that would grow to taller than 15 feet would be removed beneath the overhead lines.[155]

144. Sound water and soil conservation practices will be maintained during construction and operation of the project to protect topsoil and adjacent water resources, and minimize soil erosion. Areas disturbed due to construction activities would be restored to pre-construction contours. In non-cultivated areas, reseeding would occur in a timely manner using a seed mix certified to be free of noxious weeds.[156]

Fauna

145. The croplands, grasslands, wetlands, and woodlands in the area provide habitat for a variety of wildlife. Wildlife and other organisms that inhabit the project area include small mammals such as mice, voles, and ground squirrels; large mammals such as white-tailed deer; waterfowl and other water birds like pelicans and egrets, songbirds, raptors, upland game birds; and reptiles/amphibians such as frogs, salamanders, snakes, and turtles.[157]

146. Wildlife that resides within the construction zone will be temporarily displaced to adjacent habitats during the construction process.[158]

147. The reconstructed transmission line may affect raptors, waterfowl and other bird species. Birds have the potential to collide with all elevated structures, including power lines. Avian collisions with transmission lines can occur in proximity to agricultural fields that serve as feeding areas, wetlands and water features, and along riparian corridors that may be used during migration.[159]

148. The MnDNR has expressed a desire to be consulted with by the Applicant during final design on the need, type and placement of swan flight diverters.[160]

149. The electrocution of large birds, such as raptors, is more commonly associated with small distribution lines than large transmission lines. Electrocution occurs when birds with large wingspans come in contact with two conductors or a conductor and a grounding device. Utility transmission and distribution line design standards provide adequate spacing to eliminate the risk of raptor electrocution and will minimize potential avian impacts of the proposed project.[161]

Rare and Unique Natural Resources

[155] Ex. 11 at p. 65 (EA)
[156] Ex. 11 at p. 65 (EA)
[157] Ex. 11 at p. 66 (EA)
[158] Id
[159] Id
[160] ALJ Summary of Testimony (Letter from Jamie Schrenzel, MnDNR
[161] Ex. 11 at p. 66 (EA)

There are nine known occurrences of rare or unique resources identified within 2.0 miles of the project area. These resources were identified using the MnDNR Natural Heritage Database. These occurrences include two vertebrate species, five plant species, one butterfly species and one colonial waterbird nesting area. All of the occurrences of rare features, except for one botanical feature, were recorded outside of the proposed route. The proposed route passes just to the west of a DNR Site of Moderate Biodiversity Significance south of Gowan.[162]

150. In general, impacts to rare and unique natural resources would be avoided because the project is a rebuild of an existing line along most of the route.[163]

151. The DNR was contacted by the Applicants requesting information on the possible effects of the proposed project on rare and unique features in the project area. In an email dated December 8, 2010, the DNR indicated that there were no concerns regarding rare features for the Savanna Project[164].

Comparison of Alternative Route Segments/Alignments

152. Alternative routes, alternative route segments and modifications to GRE/MP's proposed alignment were discussed during the scoping meeting, in comments received during the scoping comment period, and in the public hearing record. Three alternative route segments/alignment modifications were carried from the scoping process into the environmental review; they are the Goodell Alternative, the Lund Alternative and the Cedar Valley to Savanna Alternatives.[165] A fourth alternative was introduced during the public hearing, the Marlow Alternative Alignment.[166]

153. The Goodell alternative route segment modifies an approximately one mile segment of the proposed route along CSAH 86 (Hingeley Road) where the road runs west from the intersection of Norlund Road (Township Road 5004) in Fine Lakes Township.[167]

154. The Goodell alternative route segment would impact five new parcels; four corporate owned (Potlatch Corporation and Northwest Paper Company) parcels and one private, undeveloped parcel (Hokala). The relocation of the ROW would move the line off of four privately owned parcels, two of which are developed.[168] The Goodell Alternative is approximately 1,737 feet shorter in length than the proposed alignment, would impact 2.6 additional acres of wetlands than the proposed alignment, and would cost an estimated $67,000.00 more than the proposed alignment.[169]

155. The Lund Alternative Route Segment would modify an approximately two mile segment of the proposed route along Stremel Road (CR 192), between the proposed Savanna Switching Station

[162] Ex. 11 at p. 65-69 (EA)
[163] Ex. 13 at p. 63-64 (EA)
[164] Ex. 2 at Appendix G (Application).
[165] Ex. 10 (Memorandum on Scoping Decision & Scoping Decision)
[166] ALJ Summary of Testimony
[167] Ex. 11 at p. 70-72 (EA)
[168] Id
[169] Id

north to Parantala Road (County Road 732) in Van Buren Township. The current 69 kV line runs along the west side of Stremel Road (CR 192) from the proposed switching station to Parantala Road (County Road 732); the Lund Alternative Route Segment would relocate this ROW so that it follows the east side of Stremel Road.[170]

156. The Lund alternative would impact nine new parcels; two State of Minnesota owned and seven privately owned parcels, four of the parcels are developed. The current 69 kV line crosses 10 privately owned parcels along the subject portion of the route, two of which are developed.[171]

157. The Lund Alternative is approximately 1,233 feet longer in length than the proposed alignment, would impact 2.9 additional acres of wetlands than the proposed alignment, and would cost an estimated $26,000.00 more than the proposed alignment.[172]

158. The possibility of utilizing "hot-work" in an effort to avoid the need for the off-set was evaluated in the Environmental Assessment; given the transmission structures, the unstable nature of the area soils, and single circuit configuration, these methods are not practical. The estimated cost different is approximately $563,000.00.[173]

159. The proposed route with off-set, relative to Lund Memorial site, was evaluated in the Environmental Assessment (see Figure 9 in the EA). The memorial site would be approximately 157 feet from the centerline of the new 115 kV transmission if the line were to be constructed as proposed; this would leave a distance of approximately 107 feet between the memorial and the edge of the cleared ROW.[174]

160. The Cedar Valley to Savanna alternative route segment was developed to avoid the property issues (primarily the Lund property) associated with the need to "off-set" the transmission line ROW between the proposed Savanna Switching Station and the Cedar Valley Substation.[175]

161. This alternative would impact 23 new parcels; eight State of Minnesota owned and 15 private parcels, five of the parcels are developed. This route parallels existing HVTLs along its entire length.[176]

162. The Cedar Valley to Savanna Alternative is approximately 3,537 feet longer in length than the proposed alignment, would impact 144 additional acres of wetlands than the proposed alignment, and would cost an estimated $2,177,000.00 more than the proposed alignment.[177]

[170] Ex. 11 at p. 72-76 (EA)
[171] Id
[172] Id
[173] Id
[174] Id
[175] Ex. 11 at p. 76-79 (EA)
[176] Id

163. The Marlow Alternative Alignment was not previously discussed in the Department's scoping decision, or in the Environmental Assessment. The requested alternative alignment is within the Applicant's proposed route which was evaluated in the EA; additionally, sufficient information has been added to the record during the hearing and in post-hearing comments to supplement this assessment.[178]

164. The Marlow Alternative alignment would follow along the east side of Hingeley Road, from GRE pole #333 southward toward the St. Louis River to GRE pole #302, just north of the St. Louis River. This alternative would impact 3 new parcels (State of Minnesota owned) and an added portion (additional 500 feet) of a private parcel (Kenneth Kojo).[179]

165. The difference between the Marlow Alternative and the proposed alignment relative to length, wetlands and cost is negligible.[180]

Unavoidable Impacts

166. The Savanna Transmission line project would have no significant unavoidable adverse impacts. It would not have the same level of impacts that are usually associated with the construction of new transmission line due to the fact that it is a rebuild of an existing line. As the project is a mostly a rebuild, the bulk of the new impacts would be related to those short term impacts that are associated with the construction of the transmission line project. The long term impacts of the transmission line, those related to land and visual impacts, have already been realized with the existing line.[181]

167. Operating the transmission line at the higher voltage level of 115 kV would also not result in a significant environmental impact. In addition, the significant ROW sharing associated with this project would further mitigate the direct impacts associated with the construction of the new line.[182]

168. There are few commitments of resources associated with this project that are irreversible and irretrievable, but those that do exist are primarily related to construction. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the use of these resources have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action. Construction resources that would be used include aggregate resources, concrete, steel, and hydrocarbon fuel.[183]

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[177] Ex. 11 at p. 76-79 (EA)
[178] ALJ Summary of Testimony
[179] Id
[180] Id
[181] Ex. 11 at p. 80 (EA)
[182] Id
[183] Ex. 11 at p. 80 (EA)

Requirements of Statute and Rule

169. Minn. Stat. § 216B.243, subd. 2, states that no large energy facility shall be sited or constructed in Minnesota without the issuance of a certificate of need by the Commission. Minn. Stat. § 216B.2421, subd. 2(3) defines a "large energy facility" as any high voltage transmission line with a capacity of 100 kV or more with more than ten miles of length or that crosses a state line.

170. Minn. Stat. § 216E.03, subd. 7, and Minn. R. 7850.4100 provide considerations in designating sites and routes and determining whether to issue a permit for a large electric power generating plant or a high-voltage transmission line.

Based on the Findings of Fact, the Commission makes the following:

CONCLUSIONS OF LAW

1. Any of the foregoing Findings more properly designated as Conclusions of Law are hereby adopted as such.

2. The Commission has jurisdiction over the subject matter of this proceeding pursuant to Minnesota Statute Minn. Stat. § 216E.03, subd. 2.

171. The Project qualifies for review under the alternative permitting process of Minn. Stat. § 216E.04 and Minn. R. 7850.2800.

3. The Applicant, the DOC and the Commission have complied with all procedural requirements required by law.

4. The EFP has completed an Environmental Assessment on this project as required by Minn. Stat. § 216E.04, subd. 5, and Minn. R. 7850.3700.

5. The Commission has considered all the pertinent factors relative to its determination of whether a route permit should be approved as required by Minn. Stat. § 216E.03, subd. 7, and Minn. Rule 7850.4100.

6. The conditions included in the route permit are reasonable and appropriate.

Based on the Findings of Fact, Conclusions of Law contained herein and the entire record of this proceeding, the Commission hereby makes the following:

ORDER

1. A route permit is hereby issued to Great River Energy and Minnesota Power to construct the new Savanna 115 kilovolt (kV) Switching Station near Floodwood, Minnesota, and to rebuild approximately 37 total miles of existing 69 kV transmission line to 115 kV specifications between:

    - Lake Country Power's existing Cedar Valley Substation and the new Savanna Switching Station, and
    - The Savanna Switching Station, Lake Country Power's existing Gowan Substation, and Great River Energy's existing Cromwell Substation.

2. The route permit includes the Goodell Alternative Route Segment and the Marlow Alternative Alignment.
3. The Commission approves a route width of 150 feet on each side of the centerline of the existing 69 kV facilities (300 feet total width), except along the portion of the route identified as the Goodell Alternative. In this area the HVTL Route Permit specifies the placement of the

transmission line alignment (ROW) and shifts the 300 foot wide route so that it extends north from the existing transmission in order to facilitate the placement of the alignment along the northern ROW of CASH 86.

The route permit shall be issued in the form attached hereto, with a map showing the approved route.

Approved and adopted this _____ day of February 2012.

BY ORDER OF THE COMMISSION

_____
Burl W. Haar,
Executive Secretary

This document can be made available in alternative formats (i.e. large print or audio tape) by calling 651.296.0406 (voice). Persons with hearing or speech disabilities may call us through Minnesota Relay at 1.800.627.3529 or by dialing 711.

STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

ROUTE PERMIT FOR CONSTRUCTION OF A HIGH-VOLTAGE TRANSMISSION LINE AND ASSOCIATED FACILITIES

IN ST. LOUIS AND CARLTON COUNTIES

ISSUED TO
GREAT RIVER ENERGY & MINNESOTA POWER
PUC DOCKET NO. ET2, E015/TL-10-1307

In accordance with the requirements of Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7850, this route permit is hereby issued to:

GREAT RIVER ENERGY & MINNESOTA POWER

Great River Energy (GRE) and Minnesota Power (MP) are authorized by this route permit to construct the new Savanna 115 kilovolt (kV) Switching Station near Floodwood, Minnesota, and to rebuild approximately 37 total miles of existing 69 kV transmission line to 115 kV specifications in St. Louis and Carlton Counties, Minnesota.

The transmission line and associated facilities shall be built within the route identified in this permit, as portrayed on the official route maps, and in compliance with the all other conditions specified in this permit.

Approved and adopted this _____ day of February, 2012

BY ORDER OF THE COMMISSION

_____

Burl W. Haar,
Executive Secretary

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Goodell & Marlow Alternatives

1 ROUTE PERMIT

The Minnesota Public Utilities Commission (Commission) hereby issues this route permit to Great River Energy and Minnesota Power (Permittees) pursuant to Minnesota Statute 216E.03 and Minnesota Rules 7850. This permit authorizes the Permittees to construct approximately 37 miles of new 115 kV transmission line and associated facilities in St. Louis and Carlton counties, Minnesota and as identified in the attached route permit maps, hereby incorporated into this document.

2 PROJECT DESCRIPTION

The Permittee is authorized to construct a project comprising a rebuild of the existing 69 kV system and associated facilities described as:

- The new Savanna 115 kV Switching Station in Section 32 of Van Buren Township.
- Rebuild approximately seven miles of existing Great River Energy 69 kV transmission line to single circuit 115 kV between Lake Country Power's existing Cedar Valley Substation in Cedar Valley Township and the new Savanna Switching Station.
- Rebuild approximately nine miles of existing Great River Energy 69 kV transmission line to single circuit 115 kV between the new Savanna Switching Station and Lake Country Power's existing Gowan Substation in Floodwood Township.
- Rebuild approximately 21 miles of existing Great River Energy 69 kV transmission line to double circuit 115/69 kV between the Lake Country Power Gowan Substation and Great River Energy's existing Cromwell Substation in Kalevala Township.
- Modify the Lake Country Power Cedar Valley Substation and Great River Energy Cromwell Substation to accommodate the 115 kV transmission lines.

This project will result in a new 115 kV line between the proposed Savanna Switching Station and the Cedar Valley Substation, a new 115 kV line between the Savanna Switching Station and the Cromwell Substation, and an upgraded 69 kV line between the Gowan Substation and the Cromwell Substation.

2.1 Project Location

The Savanna Transmission Line project will be located between Cromwell and Cedar Valley in the counties of St. Louis and Carlton, Minnesota. The project would specifically be located in portions of the Kalevala, Eagle, Fine Lakes, Floodwood, Van Buren and Cedar Valley townships

Route	County	Township Name	Township	Range	Sections
Proposed Route	Carlton	Kalevala	47N	20W	4,5
Proposed Route	Carlton	Eagle	48N	20W	33,28, 21, 16, 9,5,4

Proposed Route	Carlton	Cromwell	49N	20W	33,32,29,28, 21,16,9,4,
Proposed Route	St. Louis	Fine Lakes	50N	20W	33,28, 21,16,9,10,3
Proposed Route	St. Louis	Floodwood	51N	20W	35,34,27/26,23,14,11,10,4,3,2
Proposed Route	St. Louis	Van Buren	52N	20W	33/34,32,29,20, 17,18,7,6
Proposed Route	St. Louis	Cedar Valley	53N	21W	36,31

2.2 Associated Facilities and Substations

The proposed project includes a new Savanna 115 kV Switching Station and minor modifications to the LCP Cedar Valley Substation and the Great River Energy Cromwell Substation. Upgrades on the Minnesota Power 9 Line Floodwood Tap will also be required in conjunction with the project to accommodate increased power flows.

Savanna Switching Station

The new Savanna 115 kV Switching Station near Floodwood will be constructed by Minnesota Power. The site consists of 25 acres of land in the NE ¼ of the NE ¼ of Section 32 of Van Buren Township; MP would own all common facilities associated with the switching station (land, fence, etc.). The fenced-in area of the 115 kV switching station will be approximately 250 feet by 300 feet.

The facilities at the Savanna Switching Station will include:

- Four 115 kV, SF6 Circuit Breakers
- One 115kV, 27 MVAR Capacitor Bank
- 115 kV Switches
- Electrical Equipment Enclosure
- Structural Steel
- Bus work and fittings
- SCADA/Relay/Control Equipment
- Conduit
- Grounding

Lake Country Power Cedar Valley Substation

The Cedar Valley Substation was recently rebuilt and can accommodate a 115 kV circuit. LCP will need to change out the substation transformer to allow operation of the substation at 115 kV.

Great River Energy Cromwell Substation

Great River Energy will provide a 115 kV line termination at the existing Cromwell Substation to accommodate the 115 kV line from Savanna.

Minnesota Power 9 Line Floodwood Tap

Once the project is complete, the addition of the Savanna Switching Station and the Savanna to Cromwell 115 kV line will cause approximately 10 miles of Minnesota Power's 115 kV 9 Line Floodwood Tap (9 Line Tap) to become a networked transmission facility. This will create a through-flow path on the 9 Line Tap. In its existing configuration, the 9 Line Tap is a radial line, meaning that the only power flowing on it is that needed to serve the loads in the Floodwood area. When the project is implemented and the 9 Line Tap becomes a network facility, the power flow on the 10 mile segment between the new Savanna Switching Station and the existing 9 Line Tap switches (located near Meadowlands) will increase significantly under certain system conditions. To accommodate the increased power flow, this segment of the 9 Line Tap will need to be upgraded so that it has adequate capacity. The upgrade will involve replacing or modifying some structures to increase conductor clearance, which would increase capacity by allowing the line to operate at a higher thermal limit.

Alternatively, the conductor along this 10 mile segment of the 9 Line Tap could be replaced. Either way, all the work will be done within the existing ROW.

2.3 Structures and Conductors

The majority of the two new 115 kV lines will consist of single-pole wood structures spaced approximately 350 to 400 feet apart. For the single circuit portion of the project (Cedar Valley Substation to Savanna Switching Station and Savanna Switching Station to LCP Gowan Substation), the 115 kV spans will be longer than the existing 69 kV spans, therefore fewer poles will be required. The structures will typically range in height from 60 to 85 feet above ground, depending upon the terrain and environmental constraints (such as highway crossings, river and stream crossings, and required angle structures). The average diameter of the wood structures at ground level is 20 inches.

Small sections of the existing line near the two St. Louis River crossings have distribution underbuild, which would be attached to new 115 kV transmission line structures spaced 250 to 350 feet apart.

H-Frame design structures may be used in areas with rugged topography and where longer spans are required to avoid or minimize impacts to wetlands or waterways. Span lengths average 600 to 800 feet, with 1,000-foot spans possible with certain topography. Structure heights typically range from 60 to 85 feet with taller structures required for exceptionally long spans and in circumstances requiring additional vertical clearance exceeding the National Electrical Safety Code (NESC) and other agency requirements.

The single circuit structures will have three single conductor phase wires and one shield wire, and the double circuit structures will have six single conductor phase wires and one shield wire.

It is anticipated that the phase wires will be 477 thousand circular mil aluminum conductor steel reinforced (ACSR) with seven steel core strands and 26 outer aluminum strands on the 115 kV line between the Cedar Valley Substation and the Savanna Switching Station, and on the upgraded 69 kV line on the 115/69 kV double circuit structures between the LCP Gowan Substation and the Great River Energy Cromwell Substation.

It is anticipated that the phase wires will be 477 thousand circular mil aluminum conductor steel supported (ACSS) with seven steel core strands and 26 outer aluminum strands on both the single circuit and double circuit segments of the 115 kV line from the Savanna Switching Station to the Great River Energy Cromwell Substation.

The shield wire will be 0.528 optical ground wire for all transmission line segments.

3 DESIGNATED ROUTE

The approved route is shown on the route maps attached to this permit and further designated as follows:

On the north end of the project, the first new 115 kV line begins at the Cedar Valley Substation in Section 36 of Cedar Valley Township. The line follows Highway 73 for approximately four miles, goes cross country east ¼ mile then south ½ mile to County Road (CR) 732, follows CR 732 for ¾ mile, then turns south along CR 192 for approximately two miles then connects into the new Savanna Switching Station. The second new 115 kV line exits the Savanna Switching Station and runs south about ¼ mile to County State Aid highway (CSAH) 29, follows CSAH 29 east for one mile, then turns south across the St. Louis River to Hill Road. The line follows Hill Road south for two miles, turns east on CSAH 8 for one mile, then turns south along CR 965 for approximately 3.5 miles, continues cross county for about one mile across the St. Louis River and the Burlington Northern Santa Fe railroad tracks to Hingley Road. It follows Hingley Road for about ½ mile to the LCP Gowan Substation, where double circuit 115/69 kV construction will begin. For this single circuit portion of the project, the spans will be longer and fewer poles will be required.

The second 115 kV line (now on double circuit structures with the upgraded 69 kV line) continues south past the LCP Gowan Substation along Hingley Road for 1.75 miles, turns west along CSAH 86 for one mile, then turns south along Hingley Road again for approximately three miles. The line then goes cross country to the southwest for about ¼ mile, goes west along CR 822 for about ½ mile, then turns south along Highway 73 for six miles. Then line turns west for½ mile along CR 122, turns south for two miles (1.5 miles of which is cross country), then follows Highway 73 again south for five miles. The line turns east for ¼ mile along CSAH 4, then turns south for about ¼ mile along CR 129 into the Great River Energy Cromwell Substation.

The Savanna to Cromwell line will cross the St. Louis River northeast of Floodwood and north of Gowan in the same locations that the existing 69 kV line presently crosses the river.

3.1 Route Width and Alignment

The designated route width will be 300 feet, centered over the existing transmission line (150 feet either side), except in the portion of the route incorporating the Goodell Alternative (see Section 5.1). In this portion of the route, the 300 foot width will extend north from the centerline of the existing transmission line. This is to facilitate placement of the alignment along the northern ROW of CSAH 86 (Hingeley Road).

The route width and alignment are depicted in the route maps attached to this permit.

A width of 1040 feet in the vicinity of the Savanna Switching Station location is approved to accommodate the lines in and out of the station. This width includes the existing 69 kV line ROW, the entire switching station property, and a 200 foot buffer on the north, east, and south sides of the property. The additional ROW is required to allow for some flexibility in the final design of the switching station and in how the transmission lines enter the station.

These widths will provide the Permittees with flexibility for minor adjustments of the specific alignment or right-of-way to accommodate landowner requests and unforeseen conditions. The final alignment (i.e., permanent and maintained rights-of-way) will be located within this designated route unless otherwise authorized below.

Consequently, this permit anticipates that the actual right-of-way will generally conform to the alignment of the existing 69 kV transmission line, unless changes are requested by individual landowners, unforeseen conditions are encountered, or are otherwise provided for by this permit.

Any alignment modifications within this designated route shall be located so as to have comparable overall impacts relative to the factors in Minnesota Rule 7850.4100 as does the alignment identified in this permit, and shall be specifically identified and documented in and approved as part of the Plan and Profile submitted pursuant to Section 4.1 of this permit.

Route width variations outside the designated route may be allowed for the permittee to overcome potential site specific constraints. These constraints may arise from any of the following:

1) Unforeseen circumstances encountered during the detailed engineering and design process.

2) Federal or state agency requirements.

3) Existing infrastructure within the transmission line route, including but not limited to roadways, railroads, natural gas and liquid pipelines, high voltage electric transmission lines, or sewer and water lines.

4) Planned infrastructure improvements identified by state agencies and local government units (LGUs) and made part of the evidentiary record during the contested case proceeding for this permit.

Any alignment modifications arising from these site specific constraints that would result in right-of-way placement outside the designated route shall be located so as to have comparable overall impacts relative to the factors in Minnesota Rule 7850.4100 as does the alignment identified in this permit and shall also be specifically identified and documented in and approved as part of the plan and profile submitted pursuant to Section 4.1 of this permit.

3.2 Right-of-Way Placement

Where the transmission line route parallels existing highway and other road rights-of-way, the transmission line right-of-way shall occupy and utilize the existing right-of-way to the maximum extent possible, consistent with the criteria in Minnesota Rule 7850.4100, the other requirements of this permit, and for highways under the jurisdiction of the Minnesota Department of Transportation (Mn/DOT), Mn/DOT rules, policies, and procedures for accommodating utilities in trunk highway rights-of-way.

3.3 Right-of-Way Width

The 115 kV transmission line will be built primarily with single pole structures, which will require a 100-foot right-of-way, 50 feet on each side of the transmission line centerline.

4 GENERAL CONDITIONS

The Permittees shall comply with the following general conditions during construction of the transmission line and associated facilities and the life of this permit.

4.1 Plan and Profile

At least 30 calendar days before right-of-way preparation for construction begins on any segment or portion of the project, the permittee shall provide the Commission with a plan and profile of the right-of-way and the specifications and drawings for right-of-way preparation, construction, transmission structure specifications and locations, and restoration for the transmission line. The documentation shall include maps depicting the plan and profile including the right-of-way, alignment, and structures in relation to the route and alignment approved per the permit.

The Permittees may not commence construction until the 30 days has expired or until the Commission has advised the permittee in writing that it has completed its review of the documents and determined that the planned construction is consistent with this permit. If the permittee intends to make any significant changes in its plan and profile or the specifications and drawings after submission to the Commission, the permittee shall notify the Commission 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.

4.2 Construction Practices

The Permittees shall follow those specific construction practices and material specifications described in the GRE/MP application to the Commission for a route permit, dated February 10, 2011, and as described in the environmental assessment and Findings of Fact, unless this permit establishes a different requirement, in which case this permit shall prevail.

4.2.1 Field Representative

At least 10 days prior to commencing construction, the permittee shall advise the Commission in writing of the person or persons designated to be the field representative for the permittee with the responsibility to oversee compliance with the conditions of this permit during construction.

The field representative's address, phone number, email, and emergency phone number shall be provided to the Commission and shall be made available to affected landowners, residents, public officials and other interested persons. The permittee may change the field representative at any time upon written notice to the Commission.

4.2.2 Local Governments

During construction, the permitee shall minimize any disruption to public services or public utilities. To the extent disruptions to public services occur, these would be temporary and the permitee will work to restore service promptly.

Where any impacts to utilities have the potential to occur, permitee will work with both landowners and local agencies to determine the most appropriate transmission structure placement.

The Permittees shall cooperate with county and city road authorities to develop appropriate signage and traffic management during construction.

4.2.3 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, including bottles, cans, and paper from construction activities shall be removed on a daily basis.

4.2.4 Noise

Construction and routine maintenance activities shall be limited to daytime working hours, as defined in Minnesota Rule 7030.0200, to ensure nighttime noise level standards will not be exceeded.

4.2.5 Vegetation Removal in the Right-of-Way

The Permittees shall minimize the number of trees to be removed in selecting the right-of-way specifically preserving to the maximum extent practicable windbreaks, shelterbelts, living snow fences and vegetation in areas such as trail crossings, where vegetative screening may minimize aesthetic impacts, to the extent that such actions do not violate sound engineering principles or system reliability criteria.

Tall tree species located within the transmission line right-of-way that endanger the safe and reliable operation of the transmission facility will be removed.

In many cases certain low and slow growing species that do not exceed a mature height of 15 feet can be planted in the right-of-way to blend the difference between the right-of-way and adjacent wooded areas, to the extent that the low growing vegetation that will not pose a threat to the transmission facility or impede construction.

4.2.6 Aesthetics

The Permittees shall consider input pertaining to visual impacts from landowners or land management agencies prior to final location of structures, rights-of-way, and other areas with the potential for visual disturbance. Care shall be used to preserve the natural landscape, minimize tree removal and prevent any unnecessary destruction of the natural surroundings in the vicinity of the project during construction and maintenance. Structures shall be placed at the reasonable distance, consistent with sound engineering principles and system reliability criteria, from intersecting roads, highway, or trail crossings and could cross roads to minimize or avoid impacts.

4.2.7 Erosion Control

The Permittees shall follow standard erosion control measures outlined in Minnesota Pollution Control Agency (MPCA) guidance and best management practices regarding sediment control practice during construction include protecting storm drain inlets, use of silt fences, protecting exposed soil, immediately stabilizing restored soil, controlling temporary soil stockpiles, and controlling vehicle tracking.

The Permittees shall implement reasonable measures to minimize runoff during construction and shall promptly plant or seed, erect sediment control fences (e.g. biorolls, sandbags, and silt fences), apply mulch (e.g. hay or straw) on exposed soils, and/or use erosion control blankets and turf reinforcement mats to provide structural stability to bare surfaces and slopes.

When utilizing seed to establish temporary and permanent vegetative cover on exposed soil, the Permittees shall select specific site characteristic seed, certified to be free of noxious weeds.

Contours shall be graded as required so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate re-vegetation, provide for proper drainage, and prevent erosion. All areas disturbed during construction of the facilities shall be returned to their pre-construction condition.

Where larger areas of one acre or more (substation site) are disturbed or other areas designated by the MPCA, the permittee shall prepare the required Stormwater Pollution Prevention Plan (SWPPP) and obtain a National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) construction stormwater permit from the MPCA.

4.2.8 Wetlands and Water Resources

Structures shall be located to span watercourses, wetlands, and floodplains to the extent practicable and consistent with sound engineering principles. Minimal grading of areas

around pole locations may be required to accommodate construction vehicles and equipment.

The Permittees shall endeavor to access wetlands and riparian areas using the shortest route possible in order to minimize travel through wetland areas and prevent unnecessary impacts wherever possible.

Construction in wetlands and riparian areas shall be scheduled during frozen ground conditions, when practicable. When construction during winter is not possible, construction mats (wooden mats or a composite mat system) shall be used to protect wetland vegetation. All-terrain construction vehicles designed to minimize soil impact in damp areas may also be used.

No staging or stringing set up areas shall be placed within or adjacent to wetlands or water resources, as practicable. The structures shall be assembled on upland areas before they are brought to the site for installation.

Soil excavated from the wetlands and riparian areas shall be contained and not placed back into the wetland or riparian area. The Permittees shall also utilize erosion control methods identified in Section 4.2.7 (Erosion Control), as warranted. Areas disturbed by construction activities shall be restored to pre-construction conditions (soil horizons, contours, vegetation, etc.).

4.2.9 Temporary Work Space

The Permittees shall limit temporary easements to special construction access needs and additional staging or lay-down areas required outside of the authorized right-of-way. Space shall be selected to limit the removal and impacts to vegetation.

Temporary lay down areas outside of the authorized transmission line right-of-way will be obtained from affected landowners through rental agreements and are not provided for in this permit.

Temporary driveways may be constructed between the roadway and the structures to minimize impact by using the shortest route possible. Construction mats may also be used to minimize impacts on access paths and construction areas.

4.2.10 Restoration

The Permittees shall restore the right-of-way, temporary work spaces, access roads, abandoned right-of-way, and other public or private lands affected by construction of the transmission line. Practices to restore areas impacted by construction and maintenance activities are also described in Section 4.2.7 of this permit.

Restoration within the right-of-way must be compatible with the safe operation, maintenance, and inspection of the transmission line.

Within 60 days after completion of all restoration activities, the Permittees shall advise the Commission in writing of the completion of such activities. The Permittees shall compensate landowners for any yard/landscape, crop, soil compaction, drain tile, or other damages that may occur during construction.

4.2.11 Notice of Permit

The Permittees shall inform all employees, contractors, and other persons involved in the transmission line construction of the terms and conditions of this permit.

4.3 Periodic Status Reports

The Permittees shall report to the Commission on progress regarding finalization of the route, design of structures, and construction of the transmission line. The Permittees need not report more frequently than monthly.

4.4 Complaint Procedures

Prior to the start of construction, the Permittees shall submit to the Commission the procedures that will be used to receive and respond to complaints. The procedures shall be in accordance with the requirements set forth in the complaint procedures attached to this permit.

4.5 Notification to Landowners

The Permittees shall provide all affected landowners with a copy of this permit and the complaints procedures at the time of the first contact with the landowners after issuance of this permit. At the time of first contact, the Permittees shall also provide all affected landowners with a copy of the *Landowner Guide to Easements* publication provided by the Department of Commerce.

The Permittees shall contact landowners prior to entering the property or conducting maintenance along the route. The Permittees shall avoid construction and maintenance practices, particularly the use of fertilizer, herbicides or other pesticides, that are inconsistent with the landowner's or tenant's use of the land (See also, Section 4.2.5).

The Permittees shall work with landowners to locate the high-voltage transmission lines to minimize the loss of agricultural land, forest, and wetlands, and to avoid homes and farmsteads.

4.6 Completion of Construction

4.6.1 Notification to Commission

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

4.6.2 As-Builts

Within 60 days after completion of construction, the Permittees shall submit copies of all the final as-built plans and specifications developed during the project.

4.6.3 GPS Data

Within 60 days after completion of construction, the Permittees shall submit to the Commission, in the format requested by the Commission, geo-spatial information (ArcGIS compatible map files, GPS coordinates, associated database of characteristics, etc.) for all structures associated with the transmission lines, each switch, and each substation connected.

4.7 Electrical Performance Standards.

4.7.1 Grounding

The Permittees shall design, construct, and operate the transmission line in a manner that the maximum induced steady-state short-circuit current shall be limited to five milliamperes (mA), root mean square (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 induced short-circuit current between ground and the object so as not to exceed one mA rms under steady state conditions of the transmission line and to comply with the ground fault conditions specified in the NESC. The permittee shall address and rectify any induced current problems that arise during transmission line operation.

4.7.2 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.

4.7.3 Interference with Communication Devices

If interference with radio or television, satellite, wireless internet, GPS-based agriculture navigation systems or other communication devices is caused by the presence or operation of the transmission line, the permittee 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.

4.8 Other Requirements.

4.8.1 Applicable Codes

The Permittees shall comply with applicable requirements of the 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. The transmission line facility shall also meet the NERC reliability standards.

4.8.2 Other Permits

The Permittees shall comply with all applicable state rules and statutes. The Permittees shall obtain all required local, state and federal permits for the project and comply with the conditions of these permits. A list of the required permits is included in the route permit application and the environmental assessment. The Permittees shall submit a copy of such permits to the Commission upon request.

4.8.3 Pre-emption

Pursuant to Minnesota Statutes 216E.10, subdivisions 1 and 2, this route permit shall be the sole route 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 government.

4.8.4 Delay in Construction

If the Permittees have not commenced construction or improvement of the route within four years after the date of issuance of this permit, the Commission shall consider suspension of the permit in accordance with Minnesota Rule 7850.4700.

5 SPECIAL CONDITIONS

The Permittees shall provide a report to the Commission as part of the plan and profile submission that describes the actions taken and mitigative measures developed regarding the project and the following Special Conditions.

5.1 Goodell Alternative Route Segment

The Goodell Alternative Route Segment is an approximately one mile segment of the route along CSAH 86 (Hingeley Road) where the road runs west from the intersection of Norlund Road (Township Road 5004) in Fine Lakes Township. The Goodell Alternative Route Segment places the 115/69 kV transmission line ROW so that it follows the north side of CSAH 86 (between the areas generally defined by GRE pole number 240 east to pole number 254). Rather than being centered on the existing transmission line, the 300 foot route width extends north from the existing transmission line ROW in this portion of the route.

5.2 Marlow Alternative Alignment

The Marlow Alternative Alignment is an approximately 2 mile portion of the route along County Road 965 (Hingeley Road) from the southern terminus of Hingeley Road, northward. The Marlow Alternative Alignment places the new transmission line ROW so that it follows the east side of Hingeley Road in this portion of the route (between the areas generally defined by GRE pole number 334 south to pole number 302).

5.3 Archaeological and Historic Resources

The Permittees shall consult with the Minnesota State Historic Preservation Office (SHPO) once detailed survey and acquisition work has been performed, and prior to the submittal of the final plan and profile to determine the need and extend of survey work that may be required for the project.

The Permittees shall make every effort to avoid impacts to identified archaeological and historic resources when installing the high-voltage transmission line on the approved route. In the event that a resource is encountered, the SHPO should be contacted and consulted; the nature of the resource should be identified; and a determination should be made on the eligibility for listing in the National Register of Historic Places. Where feasible, avoidance of the resource is required.

5.4 Avian Mitigation

The Permittees' standard transmission design shall incorporate adequate spacing of conductor(s) and grounding devices in accordance with Avian Power Line Interaction Committee standards to eliminate the risk of electrocution to raptors with larger wingspans that may simultaneously come in contact with a conductor and grounding devices.

The Permittees shall consult with the MnDNR on the need, type and placement of Swan Flight Diverters (SFDs) along the approved route, prior to the Permittee's submittal of the final Plan and Profile to the Commission. The consultation, at a minimum, shall include providing the MnDNR with GIS shapefiles illustrating the proposed location of SFDs along the approved route, and provide the MnDNR at least 30 days to review and comment.

6 PERMIT AMENDMENT

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

7 TRANSFER OF PERMIT

The Permittees may request at any time that the Commission 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 Commission with such information as the Commission shall require to determine whether the new Permittees can comply with the conditions of the permit. The Commission may authorize transfer of the permit after affording the Permittees, the new permittee, and interested persons such process as is required.

8 REVOCATION OR SUSPENSION OF THE PERMIT

The Commission may initiate action to revoke or suspend this permit at any time. The Commission shall act in accordance with the requirements of Minnesota Rule 7850.5100 to revoke or suspend the permit.

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MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLIANCE FILING PROCEDURE
FOR PERMITTED ENERGY FACILITIES

1. Purpose

To establish a uniform and timely method of submitting information required by the Commission energy facility permits.

2. Scope and Applicability

This procedure encompasses all compliance filings required by permit.

3. Definitions

Compliance Filing – A sending (filing) of information to the Commission, where the information is required by a Commission site or route permit.

4. Responsibilities

A) The Permittees shall eFile all compliance filings with Dr. Burl Haar, Executive Secretary, Public Utilities Commission, through the Department of Commerce (DOC) eDocket system. The system is located on the DOC website: https://www.edockets.state.mn.us/EFiling/home.jsp

General instructions are provided on the website. Permittees must register on the website to eFile documents.

B) All filings must have a cover sheet that includes:
1) Date
2) Name of submitter / Permittees
3) Type of Permit (Site or Route)
4) Project Location
5) Project Docket Number
6) Permit Section Under Which the Filing is Made
7) Short Description of the Filing

Filings that are graphic intensive (e.g., maps, plan and profile) must, in addition to being eFiled, be submitted as paper copies and on CD. Copies and CDs should be sent to: 1) Dr. Burl W. Haar, Executive Secretary, Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, St. Paul, MN, 55101-2147, and 2) Department of Commerce, Energy Facility Permitting, 85 7th Place East, Suite 500, St. Paul, MN, 55101-2198.

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PERMIT COMPLIANCE FILINGS[1]

PERMITTEES: Great River Energy/Minnesota Power
PERMIT TYPE: HVTL Route Permit
PROJECT LOCATION: St. Louis and Calton counties
PUC DOCKET NUMBER: ET2, E015/TL-10-1307

Filing Number	Permit Section	Description	Due Date
1	4.2.1	Plan and profile of right-of-way	30 days before ROW preparation or construction
2	4.1	Contact information for field representative	10 days prior to construction
3	4.3	Periodic Status Reports	monthly
4	4.6.1	Notice of completion and date of placement in service	Three days prior to energizing
5	4.6.2	Provide As-built and GPS information	Within 60 days of construction
6	5.3	Provide documentation of consultation with MnDNR, on need, type and location of SFD along the approved route.	Prior to submittal of the Plan and profile of right-of-way (Item 1)

[1] This compilation of permit compliance filings is provided for the convenience of the permittees and the PUC. However, it is not a substitute for the permit; the language of the permit controls.

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MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLAINT HANDLING PROCEDURES FOR
HIGH VOLTAGE TRANSMISSION LINES

A. Purpose:

To establish a uniform and timely method of reporting complaints received by the Permittees concerning Permit conditions for site preparation, construction, cleanup and restoration, operation and resolution of such complaints.

B. Scope:

This document describes Complaint reporting procedures and frequency.

C. Applicability:

The procedures shall be used for all complaints received by the Permittees and all complaints received by the Commission under Minn. Rule 7829.1500 or 7829.1700 relevant to this Permit.

D. Definitions:

Complaint: A verbal or written statement presented to the Permittees by a person expressing dissatisfaction or concern regarding site preparation, cleanup or restoration or other HVTL and associated facilities route permit conditions. Complaints do not include requests, inquiries, questions or general comments.

Substantial Complaint: A written Complaint alleging a violation of a specific Route Permit condition that, if substantiated, could result in Permit modification or suspension pursuant to the applicable regulations.

Unresolved Complaint: A Complaint which, despite the good faith efforts of the Permittees and a person(s), remains to both or one of the parties unresolved or unsatisfactorily resolved.

Person: An individual, partnership, joint venture, private or public corporation, association, firm, public service company, cooperative, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

E. Complaint Documentation and Processing:

1. The Permittees shall document all Complaints by maintaining a record of all applicable information concerning the Complaint, including the following:

a. Name of complainant, address, phone number, and e-mail address.
b. Precise property description or parcel number.
c. Name of Permittees representative receiving Complaint and date of receipt.
d. Nature of Complaint and the applicable Route Permit conditions(s).
e. Activities undertaken to resolve the Complaint.
f. Final disposition of the Complaint.

2. The Permittees shall designate an individual to summarize Complaints for substantial to the Commission. This person's name, phone number and e-mail address shall accompany all complaint submittals.

3. A Person presenting the Complaint should to the extent possible, include the following information in their communications:

a. Name, address, phone number, and e-mail address.
b. Date
c. Tract or parcel
d. Whether the complaint relates to (1) a Route Permit matter, (2) a HVTL and associated facility issue, or (3) a compliance issue.

F. Reporting Requirements:

The Permittees shall report all complaints to the Commission according to the following schedule:

Immediate Reports: All substantial complaints shall be reported to the Commission the same day received, or on the following working day for complaints received after working hours. Such reports are to be directed to HVTL Permit Compliance, 1-800-657-3794, or by e-mail to: DOC.energypermitcompliance@state.mn.us, or. Voice messages are acceptable.

Monthly Reports: By the 15th of each month, a summary of all complaints, including substantial complaints received or resolved during the preceding month, shall be Filed to Dr. Burl W. Haar, Executive Secretary, Public Utilities Commission, using the Minnesota Department of Commerce eDocket system (see eFiling instructions attached to this permit).

If no Complaints were received during the preceding month, the Permittees shall submit (eFile) a summary indicating that no complaints were received.

G. Complaints Received by the Commission or DOC:

Complaints received directly by the Commission from aggrieved persons regarding site preparation, construction, cleanup, restoration, operation and maintenance shall be promptly sent to the Permittees.

H. Commission Process for Unresolved Complaints:

Initial Screening: Commission staff shall perform an initial evaluation of unresolved Complaints submitted to the Commission. Complaints raising substantial HVTL Route Permit issues shall be processed and resolved by the Commission. Staff shall notify Permittees and appropriate person(s) if it determines that the Complaint is a Substantial Complaint. With respect to such Complaints, each party shall submit a written summary of its position to the Commission no later than ten days after receipt of the Staff notification. Staff shall present Briefing Papers to the Commission, which shall resolve the Complaint within twenty days of submission of the Briefing Papers.

I. Permittees Contacts for Complaints:

Mailing Address: Complaints filed by mail shall be sent to:

ATTN: Ms. Carole L. Schmidt
Supervisor, Transmission Permitting and Compliance
Great River Energy
12300 Elm Creek Blvd.,
Maple Grove, MN 55369

Tel: (763) 445-5214

Email: cschmidt@grenergy.com

Mailing Address: Complaints filed by mail shall be sent to:

ATTN: Mr. Dan McCourtney
Environmental Compliance Specialist II
Minnesota Power
30 West Superior Street
Duluth, MN 55802

Tel: (218) 355-3515

Email: dmccourtney@allete.com

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HVTL ROUTE MAPS