

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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Chair  
Commissioner  
Commissioner  
Commissioner  
Commissioner

In the Matter of the Application of Great River  
Energy and Minnesota Power for a Certificate  
of Need and a Route Permit for the Menahga  
Area 115 kV Transmission Line Project in  
Hubbard, Wadena, and Becker Counties

ISSUE DATE: March 14, 2016

DOCKET NO. ET-2, E-015/CN-14-787

DOCKET NO. ET-2, E-015/TL-14-797

ORDER ISSUING CERTIFICATE OF  
NEED AND ROUTE PERMIT AS  
AMENDED

**PROCEDURAL HISTORY**

On January 15, 2015, Great River Energy and Minnesota Power (the Applicants) filed a joint Certificate of Need and Route Permit petition for a proposed 115 kilovolt (kV) transmission line project in Hubbard, Wadena, and Becker counties (the Menahga Area Project). Applicants proposed to build approximately 22.5 miles of new overhead 115 kV transmission line, and to build and modify certain substations.

On March 18, 2015, the Commission issued an order finding the application complete and authorized record development according to the alternative permitting process under Minn. R. 7850.2800 to .3900. The order authorized conducting hearings in the two dockets jointly. And the order authorized the Minnesota Department of Commerce (the Department) to generate an analysis of the environmental consequences of the proposed project and viable alternatives (an Environmental Assessment) in a manner that would meet the requirements of both dockets.<sup>1</sup>

On March 24, 2015, the Commission and the Department held a joint public meeting to provide information on the project and discuss the appropriate scope for the Environmental Assessment to be conducted by the Department. At the meeting, and through a separate public comment period, several site and route alternatives were proposed for consideration in the Environmental Assessment.

On May 26, 2015, the Department issued its decision establishing the scope of the Environmental Assessment it would prepare in analyzing the applications.

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<sup>1</sup> Order Finding Application Complete, Directing Use of Informal Review Process, and Authorizing Joint Proceedings and Combined Environmental Review.

On July 8, 2015, the Commission issued an order asking an administrative law judge (ALJ) from the Office of Administrative Hearings to convene a public meeting on the proposal, and to prepare a summary of the comments received.<sup>2</sup>

On September 28, 2015, the Department issued its Environmental Assessment of the application, including an analysis of the Applicants' proposed route and the alternative routes the Department identified in its scoping decision. The Environmental Assessment also included standard language (a generic template) for a Route Permit.<sup>3</sup>

By October 2, 2015, the Department had issued comments and supplementary comments on the application for a Certificate of Need, ultimately recommending that the Commission issue the certificate.

On October 19, 2015, an ALJ convened a public hearing on the Menahga Area Project, and invited written comments on the project through November 2. The ALJ issued a summary of the public's testimony on November 18. In particular, the ALJ received comments from Donna J. Andersen and Carol Overland opposing the project

On November 5, 2015, the Applicants filed a study on how the project might affect bat populations.

On November 18, 2015, the Applicants filed Proposed Findings of Fact and Conclusions of Law (Findings of Fact) supporting its applications. And on November 20, the Applicants filed proposed revisions to the generic Route Permit template.

On December 2, 2015, three landowners on the route proposed for the Menahga Project—Donna J. Andersen, Curtis Andersen, and the Donna J. Andersen Trust (collectively, the Andersens)—filed comments on the ALJ's summary of public testimony, and on the Applicants' proposed Findings of Fact.

On December 3, 2015, the Andersens petitioned to address the Commission during its January 28, 2016 meeting regarding the Menahga Project.

On December 8, 2015, the Department filed recommendations regarding (1) comments on the Environmental Assessment, (2) the Andersens' December 2, 2015 comments, (3) the Applicants' Findings of Fact, and (4) the Applicants' proposed changes to the language of the generic Route Permit template. The Department generally recommended granting the requested Route Permit with modifications, but identified two alternative routes that it regarded as equally supported in the record. Regarding each route, however, the Department recommended aligning the transmission line in the manner proposed by the Andersens.

On January 15, 2016, Donna Andersen again petitioned to address the Commission during its January 28 meeting regarding the Menahga Project.

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<sup>2</sup> Order Directing Use of Summary Report Process and Granting Variance (July 5, 2015).

<sup>3</sup> Environmental Assessment (September 28, 2015), Appendix B (Generic Route Permit Template).

On January 28, 2016, the Commission met to consider the Applicants' application. At that time the Applicants, the Department, and the Minnesota Department of Natural Resources (DNR) responded to a proposed hybrid route alternative. Also, the Andersens' representative stated her support for the route and alignment selected by the Commission.

## **FINDINGS AND CONCLUSIONS**

### **I. Summary**

In this order the Commission does the following:

- Finds that the record of this case is sufficient to address the issues identified in the Department's Environmental Assessment scoping decision.
- Adopts the Proposed Findings of Fact and Conclusions of Law with modifications.
- Grants a Certificate of Need as requested.
- Grants a Route Permit with modifications—specifically, a permit authorizing construction along a route following a modified version of the 119<sup>th</sup> Avenue Route Alternative.

### **II. The Proposed Project**

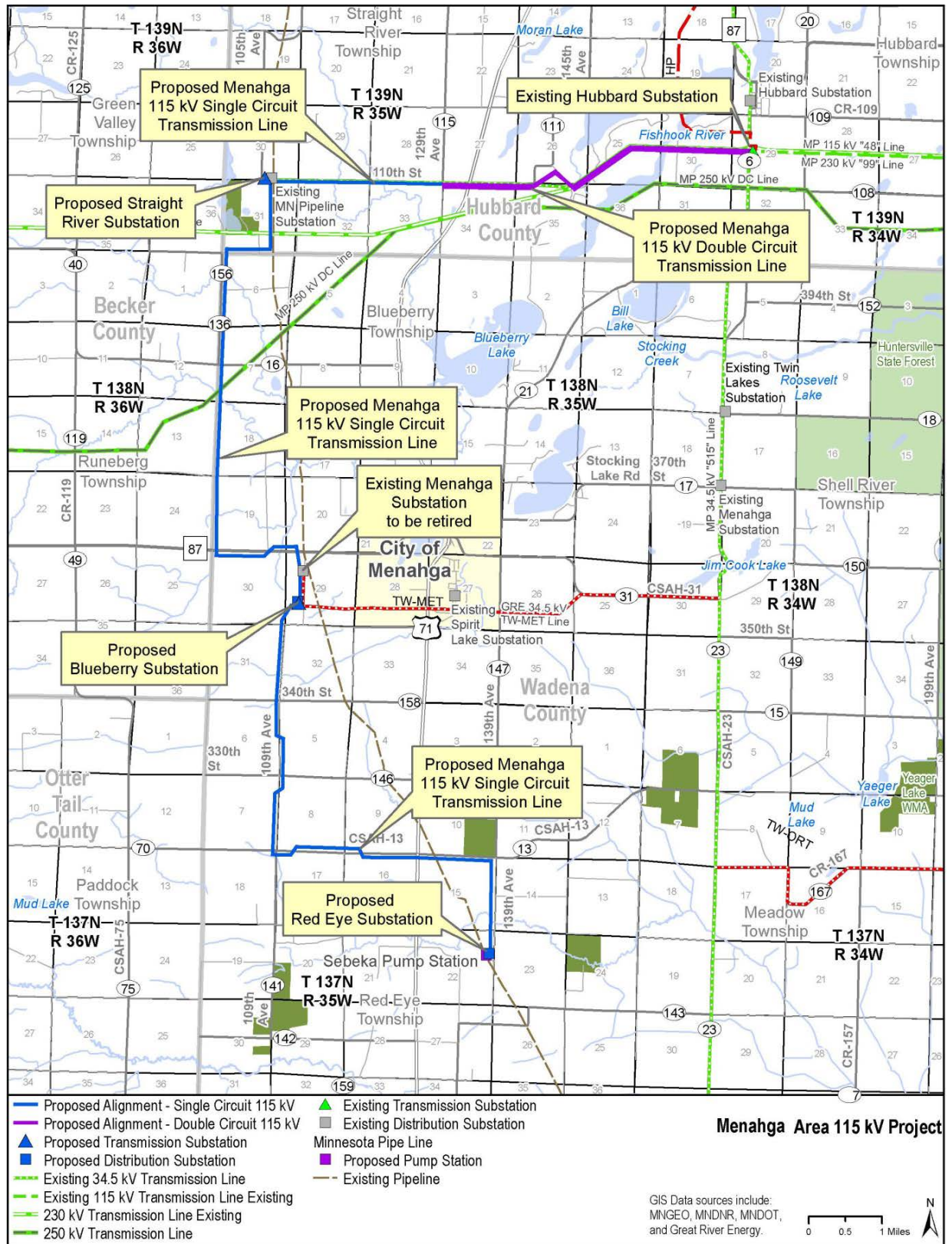
Applicants propose to build their Menahga Area Project to reduce the possibility that demands on the existing 34.5 kV transmission system near the city of Menahga would exceed its capacity, and to serve an oil pumping station proposed for the area.

Applicants would build the project in the central Minnesota counties of Hubbard, Becker, and Wadena. The proposed route would traverse Hubbard Township and Straight River Township in Hubbard County, then follow the boundary between Becker County's Runeberg Township and Wadena County's Blueberry Township, passing just west of the city of Menahga. The project traverses Blueberry Township and Red Eye Township in Wadena County. See Figure 1, below.<sup>4</sup>

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<sup>4</sup> Application to the Minnesota Public Utilities Commission for a Certificate of Need and Route Permit for the Menahga Area 115 kV Transmission Line Project (January 15, 2015).

**Figure 1: Applicants' Proposed Route for the Menahga Project**



Specifically, Applicants propose to build approximately 22.5 miles of new 115 kV transmission line from the existing Hubbard substation westward to a new Straight River substation, and then southward to a new Blueberry substation near the city of Menahga and on to a new Red Eye substation. The project would include:

- Building 4.5 miles of double-circuit 115 kV transmission line and approximately 2.5 miles of single-circuit 115 kV transmission line from the Hubbard Substation to Minnesota Power's proposed Straight River Substation.
- Building the Straight River Substation.
- Building approximately 15.5 miles of primarily single-circuit 115 kV transmission line south to Great River Energy's proposed Blueberry Substation and Todd-Wadena Electric Cooperative's Red Eye Distribution Substation.
- Building the Blueberry Substation, relocating the existing Todd-Wadena Menahga Distribution Substation to the Blueberry Substation site, and increasing the voltage from 34.5 kV to 115 kV.
- Building the Red Eye Distribution Substation to serve a proposed pipeline pumping station; the Commission has already granted a Certificate of Need for the pumping station.<sup>5</sup>
- Modifying the existing Hubbard Substation and Minnesota Pipeline Substation.

### **III. The Legal Standard**

#### **A. Certificate of Need**

In Minnesota, anyone seeking to build a transmission line longer than 10 miles with a capacity of 100 kV or more must obtain a Certificate of Need from the Commission.<sup>6</sup> To assess the need for the proposed facility, the Commission considers the criteria set forth in statute and rule.

As initially enacted, Minn. Stat. § 216B.243 identified eight factors for the Commission to consider in evaluating the need for a proposed large energy facility<sup>7</sup> and directed the Commission to adopt criteria to be used in the determination of need for large energy facilities.<sup>8</sup> The statute also prohibited the Commission from granting a Certificate of Need unless the application demonstrated that the need for electricity could not be met more cost effectively through energy conservation and load management.<sup>9</sup>

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<sup>5</sup> *In the Matter of the Application of Minnesota Pipe Line Reliability Project to Increase Pumping Capacity on Line 4 Crude Oil Pipeline in Hubbard, Wadena, Morrison, Meeker, McLeod, and Scott Counties*, Docket No. PL-5/CN-14-320, Order Granting Certificate of Need (August 31, 2015).

<sup>6</sup> Minn. Stat. §§ 216B.2421, subd. 2(3); 216B.243, subd. 2.

<sup>7</sup> Minn. Stat. § 216B.243, subd. 3.

<sup>8</sup> *Id.*, subd. 1.

<sup>9</sup> *Id.*, subd. 3.

As the statute directed, in 1983 the Commission adopted its Certificate of Need rules, Minn. R. ch. 7849. One of those rules, Minn. R. 7849.0120, addressed the eight factors identified in the statute and directed the Commission to issue a Certificate of Need when the applicant demonstrates that:

- A. the probable result of denial would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states;
- B. a more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record;
- C. by a preponderance of the evidence on the record, the proposed facility, or a suitable modification of the facility, will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health; and
- D. the record does not demonstrate that the design, construction, or operation of the proposed facility, or a suitable modification of the facility, will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments.

The Legislature subsequently amended the statute to add four more factors to consider when assessing need:

- (9) with respect to high-voltage transmission lines, the benefits of enhanced regional reliability, access, or deliverability to the extent these factors improve the robustness of the transmission system or lower costs for electric customers in Minnesota;
- (10) whether the applicant or applicants are in compliance with applicable provisions of sections 216B.1691 and 216B.2425, subdivision 7, and have filed or will file by a date certain an application for certificate of need or for certification as a priority electric transmission project under section 216B.2425 for any transmission facilities or upgrades identified under section 216B.2425, subdivision 7;
- (11) whether the applicant has made the demonstrations required under subdivision 3a [to explore, in lieu of pursuing the proposed project, "the possibility of generating power by means of renewable energy sources and has demonstrated that the alternative selected is less expensive (including environmental costs)"]; and
- (12) if the applicant is proposing a nonrenewable generating plant, the applicant's assessment of the risk of environmental costs and regulation on that proposed facility over the expected useful life of the plant, including a proposed means of allocating costs associated with that risk.

## **B. Route Permit**

In addition to the Certificate of Need requirement, anyone seeking to build a transmission line in Minnesota longer than 1500 feet with a capacity of 100 kV or more must obtain a Route Permit from the Commission, establishing the line's route.<sup>10</sup>

Minn. Stat. ch. 216E requires high-voltage transmission lines to be routed in a manner consistent with the state's goals of locating electric power facilities in an orderly manner compatible with environmental preservation and the efficient use of resources.<sup>11</sup> In establishing a route, the Commission seeks to conserve resources, minimize environmental impacts, minimize human settlement and other land use conflicts, and ensure the state's electric energy security through efficient, cost-effective power supply and electric transmission infrastructure.<sup>12</sup> In addition, the Commission considers the permitting criteria contained in Minn. Stat. § 216E.03, subd. 7(b) and Minn. R. 7850.4100.

Minn. R. ch. 7850 sets forth the procedures for obtaining a permit, including alternative review procedures specifically for transmission lines with capacity between 100 and 200 kV.<sup>13</sup> Under alternative review an applicant is not required to propose alternative routes,<sup>14</sup> but the Commission evaluates the project based on the same considerations as a project under standard review.<sup>15</sup>

The Commission must balance the relevant statutory and regulatory criteria to identify the optimal site and route corridor for the project, and even the location of the project within the corridor (the alignment). Typically a Route Permit anticipates that a project will conform to the alignment specified in the Route Permit unless landowners request a change, unforeseen conditions arise, or the permit specifies otherwise.<sup>16</sup> For each segment of a project, a permit typically specifies that a permittee must provide the Commission with maps of the segment's alignment and wait 30 days, or until it receives Commission approval, before preparing a site for construction of that segment.<sup>17</sup>

## **C. Environmental Assessment**

To aid the Commission's analysis of a Certificate of Need or Route Permit application for a high-voltage transmission line, the Department generates a report analyzing the project's environmental consequences.<sup>18</sup>

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<sup>10</sup> Minn Stat. §§ 216E.01, subd. 4; 216E.03, subd. 2.

<sup>11</sup> Minn. Stat. § 216E.02.

<sup>12</sup> Minn. Stat. § 216E.03, subd. 7(a); Minn. R. 7850.4000.

<sup>13</sup> Minn. R. 7850.2800, subp. 1, provides for transmission lines with a capacity between 100 and 200 kV to proceed under an alternative review process set forth at Minn. R. 7850.2800 to .3900.

<sup>14</sup> Minn. Stat. § 216E.04 subd. 3; and Minn. R. 7850.3100.

<sup>15</sup> Minn. Stat. § 216E.04, subd. 8, citing standard considerations listed at § 216E.03, subd. 7.

<sup>16</sup> Generic Route Permit Template, section 4.0.

<sup>17</sup> *Id.*, section 9.1.

<sup>18</sup> Minn. R. 7849.1200 and 7850.3700.

Before generating a report on a Route Permit application, the Department convenes a public hearing to evaluate the appropriate scope of its report. In particular, the Department solicits alternative route proposals. With the benefit of this information, the Department then issues a decision establishing the scope of the report it will prepare. Finally, the Commission determines whether the report and the record created at the public hearing address all the issues that the Department identified as within the assessment's scope.<sup>19</sup>

A report on a Route Permit must describe the proposed project; list alternative sites or routes that are addressed; discuss how the proposed project and each alternative site or route might affect the human and natural environment; discuss how the harms associated with the proposal and each alternative might be mitigated; analyze the feasibility of each alternative site or route considered; list the permits required for the project; and discuss any other matters identified in the scoping process.<sup>20</sup>

Similarly, a report on a Certificate of Need application must address the human and environmental consequences of the proposed project associated with the size, type, and timing of the project, system configurations, and voltage; it must also address methods to mitigate any anticipated harms arising from the project.<sup>21</sup>

Where the Department analyzes applications for a project's Certificate of Need and Route Permit simultaneously, it may generate a combined report addressing the criteria for evaluating both applications.<sup>22</sup>

#### **IV. Content of Environmental Assessment**

##### **A. In General**

The Department's September 28, 2015 Environmental Assessment described the proposed project; discussed the affected environment, potential impacts, and mitigative measures; analyzed alternatives to the proposed project; analyzed alternative routes and route alignments; and identified permits and approvals required for the project to be built.

The Department evaluated the Applicants' forecast that the demand for transmission would shortly exceed the existing capacity, and that demand from a new oil pumping station would exacerbate this problem. The Department also explored whether these problems might be remedied through some alternative means such as managing consumer demand for electricity in the region (demand-side management); generating more power in the region—including power from renewable sources—or buying power from elsewhere; building a transmission line with a different size, voltage, amperage, or endpoints; or building nothing at all.

The Department also analyzed the anticipated consequences of the project, as well as the consequences of the alternative routes identified in its scoping decision.

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<sup>19</sup> Minn. R. 7850.3900, subp. 2.

<sup>20</sup> Minn. R. 7850.3700.

<sup>21</sup> Minn. R. 7849.1200.

<sup>22</sup> Minn. R. 7849.1400.

The Department concluded that the project would likely have minimal consequences to human settlements, aesthetics, public health and safety, known archaeological and historic resources, most land-based economies, water resources and soil, fauna, and rare and unique natural resources. Further, the Department concluded that aesthetic consequences could be mitigated—for example, near the Alajoki Cemetery—through judicious pole placements and shifts in the route alignment.

Consequences for water resources, soils, and rare and unique natural resources could be mitigated through the use of best management practices. Consequences for avian species could be minimized by the use of strategies such as bird flight diverters and raptor perch deterrents.

Given the forested nature of the terrain, the Department concluded that building the project would necessarily entail cutting trees. But this consequence could be minimized, the Department stated, both through the judicious placement of poles and alignments and by sharing the rights-of-way with existing infrastructure. The Department noted that if the project harms trees that might be used as roosting habitat by the Northern Long-Eared Bat, a threatened species, the U.S. Fish and Wildlife Service may impose additional conditions on the project.

Finally, while consequences for unknown archeological resources cannot be predicted, the Department stated that the Applicants would address this concern by conducting an archeological survey along any route eventually selected by the Commission.

## **B. Alternative Routes and Sites**

Figure 2 depicts the Applicants' proposed route in blue and alternative routes in green.<sup>23</sup> The Department analyzed alternatives for the portion of the project extending between the Hubbard and Blueberry Substations, and also alternatives extending between the Blueberry and Red Eye Substations.

For the portion of the project extending between the Hubbard and Blueberry Substations, the Department analyzed the Applicants' proposed route as well as one alternative route plus a variation on that alternative.

- The *Blueberry Route Alternative*, instead of following the applicants' proposed route along Highway 87, would follow the county line (Wadena Line Road) south approximately 0.7 miles and then turn eastward crossing Section 30 of Blueberry Township and enter the Blueberry substation from the west.
- As a variation on that alternative, the Department also analyzed the *Western Blueberry Substation Site Alternative*. This alternative would place the Blueberry substation on the western edge of Section 30 of Blueberry Township at the point where the Blueberry route alternative turns eastward. If the Blueberry substation were constructed at this alternative site, an existing 34.5 kV line would need to be extended westward to reach the substation.

For the portion of the project extending between the Blueberry and Red Eye Substations, the Department analyzed the Applicants' proposed route as well as four alternatives.

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<sup>23</sup> Environmental Assessment, Figure 5.

- The *Pipeline South Route Alternative* would proceed from the Blueberry Substation east along the 34.5 kV line right-of-way, and then southeast along the western edge of a pipeline right-of-way to the Red Eye Substation.
- The *East of 109th Avenue Route Alternative* would proceed from the Blueberry Substation south along 111th Avenue and then cross country, east of and parallel to 109th Avenue to County State Aid Highway 13 (CSAH 13). From CSAH 13, this alternative would follow the Applicants' proposed route to the Red Eye Substation.
- The *119th Avenue Route Alternative* would proceed from the Blueberry Substation south along 111th Avenue, east along 350th Street, and then south along 119th Avenue and cross country to CSAH 13. From CSAH 13, this alternative would follow the Applicants' proposed route to the Red Eye Substation.
- Finally, the *U.S. Route 71 Route Alternative* would proceed from the Blueberry Substation east along the 34.5 kV line right-of-way, then south along U.S. Route 71 to CSAH 13. From CSAH 13, this alternative would follow the Applicants' proposed route to the Red Eye Substation.

The Environmental Assessment then evaluates how well the proposed route and these alternatives meet the selection criteria set forth in statute and rule.

This map illustrates the proposed Blueberry Substation and its associated transmission line alternatives. The substation is located near the intersection of T 138N R 35W and T 137N R 35W. The map shows several route alternatives, including the Blueberry Route Alternative, Western Blueberry Substation Site Alternative, Pipeline South Route Alternative, U.S. Route 71 Route Alternative, East of 109th Avenue Route Alternative, 119th Avenue Route Alternative, and Red Eye Substation. The map also displays the City of Menahga, Wadena, and Red Eye Township, along with various roads and landmarks such as Spirit Lake and Red Eye WMA.

## **V. Findings of Fact and Conclusions of Law**

### **A. As Proposed**

The Applicants' initial Findings of Fact contains some 193 findings of fact and conclusions supporting a Route Permit for the Applicants' preferred route.

The Findings of Fact identifies the Applicants; describes the proposed project; reviews the need for the project; identifies the alternative routes for the project that the Department identified in its scoping decision; describes the proposed transmission line structures, conductors, right-of-way widths, schedule, and anticipated cost; describes how the public and government agencies have participated in the process; identifies the factors the Commission considers when evaluating a Route Permit applicant; applies those factors to the Applicants' proposed route and to the route alternatives; and documents that the Department's Environmental Assessment addressed the issues raised in the scoping decision.

### **B. The Department's Proposed Revisions**

Having reviewed the Applicants' Findings of Fact, the Department proposes revisions that would bring the number of findings and conclusions to 212. The Department's proposed revisions would include the following:

*Conclusion 184* (which the Department rennumbers 198). The Department recommended removing a statement that the Minnesota Environmental Quality Board (EQB) prescribed the Environmental Assessment process to meet the requirements of the Minnesota Environmental Policy Act (MEPA). Rather, the Department noted, the environmental review process for the Menahga Project is statutorily prescribed by Minnesota's Power Plant Siting Act.

*Conclusion 202*. The Department recommended adding a conclusion stating that the appropriate route between the Hubbard and Blueberry Substations would shift the alignment near the Andersens' property to the south side of Hubbard Line Road (the Andersen alignment) in order to mitigate potential impacts to trees as well as rare and unique natural resources. (The Department also proposes to modify Finding 74 to acknowledge that the Andersens requested this alignment change.)

*Conclusion 189*. The Department recommended omitting text stating that (a) the Applicants' proposed route is the only feasible and prudent alternative for complying with the relevant legal requirements, and (b) those requirements are set forth in MEPA.

In its place, the Department proposed adding new *Conclusions 203 and 204*. Conclusion 203 would state that north of the Blueberry Substation, the Applicants' proposed route—modified by the Andersen alignment—would best address the factors for granting a Route Permit. Conclusion 204 would state that south of the Blueberry Substation, either the proposed route or the 119<sup>th</sup> Avenue Route Alternative would best address the relevant factors. And each conclusion would identify the relevant factors as those listed at Minn. Stat. § 216E.04, subd. 8 (referencing Minn. Stat. § 216E.03, subd. 7) and Minn. R. 7850.4100.

*Conclusions 189 and 190.* The Department recommended deleting the Applicants’ proposed Conclusions 189 and 190, which state that the record identifies “no feasible and prudent alternative” to the Applicants’ proposal, and that this proposal is the best route for the project. Among other things, the Department argued that the 119<sup>th</sup> Avenue Route Alternative is a feasible and prudent alternative.

*Conclusions 205-211.* The Department recommended placing a number of conditions on any Route Permit granted in this case, including conditions directing a permittee to do the following:

- Avoid placing structures between the Alajoki Cemetery, including the area where it plans to expand, and the frontage road, subject to engineering constraints.
- Consult with the State Historic Preservation Office about the need to conduct an archeological survey of the regions where the line would be built, and the need to adopt measures to mitigate the project’s consequences for any historical sites.
- Develop plans, in consultation with other governmental agencies, to mitigate the project’s consequences for birds, bats, vegetation, and rare and unique natural resources.

*Numbering.* Finally, the Department recommended that the proposed Findings of Fact and Conclusions of Law number the findings of fact separately from the conclusions of law.

## **VI. Route Permit Template**

On September 28, 2015, the Department issued its Environmental Assessment and included a 14-page generic Route Permit template.<sup>24</sup> The Department concluded that the Applicants’ proposal would have minimal consequences for many of the Route Permit factors specified by Minn. R. 7850.4100—provided the Applicants abided by the template’s terms.<sup>25</sup>

Nevertheless, the Applicants identified nine aspects of the template that they would change.<sup>26</sup> While four of these proposed changes are uncontested, the Department opposed five of the Applicants’ proposals. The Department’s reasoning opposing those changes, and some different modifications designed to accommodate the Applicants’ concerns, are summarized below:<sup>27</sup>

### **A. Permit Template Section 4.0**

Section 4.0 states in part that “[w]here 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....” The Applicants propose to replace this language with language from their application stating that the line’s right-of-way would be located from three to seven feet outside any existing right-of-way.

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<sup>24</sup> Environmental Assessment (September 28, 2015), Appendix B (Generic Route Permit Template).

<sup>25</sup> Environmental Assessment, *supra*, at 86-110.

<sup>26</sup> Applicants’ Comments (November 20, 2015).

<sup>27</sup> See Department Comments (December 8, 2015).

The Department opposes this proposal because it would eliminate the direction to make maximum use of existing rights-of-way. But to incorporate more specificity about rights of way, the Department proposes modifying different language in Section 4.0 as follows:

This permit anticipates that the right-of-way will generally conform to the anticipated alignment as described in the EA [Environmental Assessment] and record and as provided for in this permit and noted on the attached route permit maps unless changes are requested by individual landowner or unforeseen conditions are encountered or are otherwise provided for by this permit.

**B. Permit Template Section 5.1**

Section 5.1 directs the permittee to provide all affected landowners with a copy of the permit and, as a separate information piece, the complaint procedures “at the time of the first contact with the landowners after issuance of this permit...” The Applicants propose omitting this time constraint, arguing that they have already been interacting with these landowners.

The Department opposes this change, noting that the first contact with landowners following the issuance of the permit will provide the permittees with the earliest opportunity to distribute the finalized text.

**C. Permit Template Section 5.2.8**

The Applicants propose to revise Section 5.2.8 as follows:

The Permittee shall ~~minimize the number of trees to be removed in selecting the right-of-way~~ specifically ~~preserving~~ preserve to the maximum extent practicable windbreaks, shelterbelts, living snow fences, and vegetation in areas such as trail and stream crossings where vegetative screening may minimize aesthetic impacts....

The Applicants argue that the stricken language is unnecessary because the Applicants have already completed preliminary designs for the project, identified the relevant rights-of-way, and identified the alignment within the rights-of-way that would minimize the amount of trees to be removed.

The Department opposes this change, noting that if the Applicants have already selected alignments in a manner that minimizes tree removal then the original Section 5.2.8 imposes no additional burden on the permittee.

**D. Permit Template Section 5.2.12**

The Applicants propose to revise Section 5.2.12 as follows:

To minimize impacts, construction in wetland areas shall occur during frozen ground conditions where practicable and will be according to permit requirements by the applicable permitting authority....

The Applicants argue that this change would grant them greater flexibility for building in wetland areas, but would not weaken any applicable permit requirements.

The Department opposes this change, arguing that it is unnecessary. The Department notes that 5.2.12 already provides that “[w]hen construction during winter is not possible, wooden or composite mats shall be used to protect wetland vegetation” and that “[a]ll requirements of the U.S. Army Corps of Engineers [and other wetland permitting agencies] shall be met.”

#### **E. Permit Template Sections 9.4 and 9.5**

Section 9.4 directs a permittee to submit copies of the project’s final as-built plans and specifications within 60 days of completing construction. The Applicants propose extending this deadline to within 180 days of completing construction. They argue that meeting a 60-day deadline is infeasible, and that the Commission has previously granted permittees up to 180 days to make this submission.

Similarly, Section 9.5 directs a permittee to submit geo-spatial information about the project within 60 days of completing construction. The Applicants also propose extending this deadline to 180 days. They argue that it may be challenging to secure the geo-spatial data within the 60-day deadline. Moreover, they note that permittees typically present their as-built plans and geo-spatial data jointly; given that they have sought to extend the deadline for submitting final as-built plans to 180 days, they propose to extend the deadline for submitting geo-spatial data as well.

While the Department concurs in granting the Applicants additional time for making these submissions, it argues that the Applicants should be able to complete these tasks within 90 days, rather than the 180 days requested by the Applicants.

#### **VII. Comments of the Andersens and Carol Overland**

As proposed by the Applicants, building the northwest corner of the proposed transmission line would entail cutting 100 feet of forested land along the north side of Hubbard Line Road—land owned by the Andersens. According to Donna J. Andersen, since 2007 her land has been enrolled in the Woodland Stewardship Plan of the Minnesota Department of Natural Resources,<sup>28</sup> and she has worked with the Forest Service on a plan to manage this forest land. The Andersens ask the Commission to shift the proposed line’s alignment to the treeless farm field on the south side of the Hubbard Line Road.

In support of this request, the Andersens—and Carol Overland, speaking on behalf of the Andersens and herself—variously raised objections to the Applicant’s petition for a Certificate of Need, the scope of the Environmental Assessment, the Environmental Assessment itself, the administrative law judge’s summary of public testimony, and the Applicants’ proposed Findings of Fact. The Department disputes the Andersens’ claims, with one exception: The Department concurs that the Environmental Assessment should have included the Andersens’ property in the list of areas of biological significance that could be affected by the project.

Ms. Overland asked to address the Commission at its January 28, 2016 meeting on behalf of the Andersens. But at the meeting, after learning that the Commission intended to shift the project’s alignment in the manner proposed by the Andersens, Ms. Overland expressed satisfaction with this result and withdrew her request.

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<sup>28</sup> See Ex. 54 (Andersens’ Woodland Stewardship Plan).

## VIII. Department's Evaluation of the Proposed Route and Alternatives

The Department concludes that the Applicants' proposal is the route between the Hubbard and Blueberry Substations that best meets the routing criteria. In contrast, the Blueberry Route Alternative would require routing more of the project outside existing rights-of-way, and through more acres of trees and forested wetland—potential roosting habitat for the Northern Long-Eared Bat. The Blueberry Substation Site Alternative would also add cost to the project, but would not mitigate any of these problems.

However, in response to the issues identified by the Andersens and Carol Overland, the Department acknowledged that the Andersens' property is an area of biological significance that could be affected by the project. To mitigate harm to this property the Department recommended modifying the alignment along this segment as proposed by the Andersens.<sup>29</sup>

Between the Blueberry and Red Eye Substations, the Department identified two alternative routes—the Applicants' proposed route and the 119<sup>th</sup> Avenue Route Alternative—that would best meet the routing criteria. Among other considerations, these routes would minimize aesthetic harms and place new facilities near existing infrastructure facilities. Relative to these options, the East of 109<sup>th</sup> Avenue Route Alternative would affect more forested areas, while the Pipeline South Route Alternative would cost more.

In comparing the final two alternatives, the Department stated as follows:

- *Aesthetic consequences:* The proposed route would minimize aesthetic impacts. It would follow existing infrastructure rights-of-way for 95 percent of its length, while the 119<sup>th</sup> Avenue route alternative would follow existing infrastructure right-of-way for only 89 percent of its length. Additionally, the roadway followed by the proposed route is a paved county road, while the roadway followed by the 119<sup>th</sup> Avenue Route Alternative is a non-paved—and non-continuous—township road.
- *Harm to forested land:* The Applicants' proposed route would affect 17.8 forested acres, while the 119<sup>th</sup> Avenue Route Alternative would affect 22.4 forested acres.
- *Proximity to residences:* The 119<sup>th</sup> Avenue Route Alternative would minimize aesthetic impacts by placing the line near fewer residences—7 residences versus 14 for the proposed route. But the alternative route would place the line within 100 feet of one residence; the Applicants' proposed route would not. The Department noted, however, that a line that followed the Pipeline South Route Alternative north of 350<sup>th</sup> Street, and followed the 119<sup>th</sup> Avenue Route Alternative thereafter, would reduce the number of residences within 250 feet of the line to five, and reduce the number of residences within 100 feet of the line to zero.

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<sup>29</sup> See Department Comments (December 8, 2015), Attachment B (Proposed Andersen Alignment).

## **IX. Commission Action**

### **A. Environmental Assessment**

The Environmental Assessment contains a comprehensive description of the Menahga Project; a description of the proposed route as well as alternatives to the Project; a discussion of alternatives required under Minn. R. 7849.1500; a discussion of potential impacts of the Project and any alternatives on the human and natural environment; reasonable mitigation measures that could be implemented to minimize any identified adverse impacts; and required permits and approvals.

As provided by Minn. R. 7850.3900, subp. 2, the Commission has reviewed the Environmental Assessment and the record as a whole, and determines that they address the issues identified by the Department as appropriately within the assessment's scope.

### **B. Certificate of Need**

In its August 20, 2015 comments, Attachment 1, the Department (1) listed the requirements for obtaining a Certificate of Need, (2) summarized the extent to which the Applicants had fulfilled each requirement, (3) identified where each matter was addressed in the record, and (4) asked the Applicants to provide supplementary information addressing unresolved criteria. And on October 2, 2015, following the Applicants' supplementary filing, the Department concluded that the record was sufficient to demonstrate need for the proposed project.

Based on the record, the Commission makes the following findings:<sup>30</sup>

First, based on a consideration of the factors set forth in Minn. R. 7849.0120(A), the Commission finds that denying the application would likely harm the future adequacy, reliability, or efficiency of the energy supply to the Applicants' customers. In particular, the Commission finds under Minn. Stat. § 216B.243, subd. 3(9), that the benefits of enhanced regional reliability, access, or deliverability improve the robustness of the transmission system in Minnesota.

Second, based on a consideration of the factors set forth in Minn. R. 7849.0120(B), the Commission concludes that a more reasonable and prudent alternative to the Project has not been demonstrated by a preponderance of the evidence in the record.

Third, based on a consideration of the factors set forth in Minn. R. 7849.0120(C), the Commission concludes that the preponderance of the evidence in the record demonstrates that the Project will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health.

Fourth, based on a consideration of the factors set forth in Minn. R. 7849.0120(D), the Commission concludes that the record does not demonstrate that the design, construction, or operation of the Menahga Area Project, or a suitable modification of the project, would inevitably conflict with relevant policies, rules, and regulations of other state and federal agencies or local governments.

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<sup>30</sup> See generally Department Comments (August 20, 2015) at 6-22 and Attachment 1.

Fifth, the Commission concludes under Minn. Stat. § 216B.243, subd. 3(10), that the Applicants have demonstrated compliance with applicable state requirements to obtain specified amounts of energy from renewable sources.

Sixth, the Commission concludes under Minn. Stat. § 216B.243, subds. 3(11) and 3a, that the record demonstrates that generating additional power by means of renewable energy resources would not displace the need for the Menahga Area Project.

Finally, the Commission concludes under Minn. Stat. § 216B.243, subd. 3(12), that the Applicants are not proposing to build a generating plant fueled from non-renewable sources.

Consequently the Commission will grant the Applicants' petition for a Certificate of Need.

### **C. Findings of Fact and the Route Permit**

#### **1. In General**

On November 18, 2015, the Applicants filed their Proposed Findings of Fact and Conclusions of Law (Findings of Fact) supporting the issuance of a Route Permit. And on December 8, the Department filed recommended changes to the Findings of Fact. Neither the Applicants nor any other commenter objected to the Department's proposed revisions to the Findings of Fact.

The Commission generally finds the language of the Findings of Fact incorporating the Department's recommended changes to be well reasoned, supported in the record, comprehensive, and thorough—with one exception and one addition.

#### **2. Route Selection**

Contrary to the Department's proposed Finding 204, the Commission finds record evidence that one route addresses the Route Permit factors better than any of the alternatives analyzed in the Environmental Assessment.

As previously discussed, the Environmental Assessment analyzed the Applicants' proposed route and four alternative routes between the Blueberry and Red Eye Substations. This analysis established a factual record regarding each of these routes.

The Pipeline South Route Alternative intersects with the other routes at various points. In particular, both the Pipeline South Route Alternative and the 119<sup>th</sup> Avenue Route Alternative begin at the Blueberry Substation, cross a point where 350<sup>th</sup> Street intersects a pipeline right-of-way, and end at the Red Eye Substation. As a result, the record arguably contains support for the Commission to select segments from each route alternative.

Choosing among the routes analyzed in the Environmental Assessment, the Commission is persuaded that the 119<sup>th</sup> Avenue Route Alternative best addresses the Route Permit factors. In particular, this route would pass within 250 feet of seven residences, fewer than any of the alternative routes analyzed. But as the Department observed, the Commission could reduce the number of residences within 250 feet of the line from seven to five—provided the Commission

selects the Pipeline South Route Alternative from the Blueberry Substation to 350<sup>th</sup> Street, and follows the 119<sup>th</sup> Avenue Route Alternative from 350<sup>th</sup> Street to the Red Eye Substation.<sup>31</sup>

At the Commission's meeting, the Applicants stated their support for this hybrid proposal. The Department estimated that this hybrid route alternative would result in clearing a comparable amount of trees as the 119<sup>th</sup> Avenue Route Alternative; DNR estimated that the hybrid proposal could result in less tree clearing. While the DNR could not say how the hybrid proposal would affect rare plant species, it stated that this matter could be addressed in the vegetation management plan addressed in the Route Permit template. And both the Department and DNR acknowledged that the Commission is justified in seeking routes that, among other things, reduce the number of residences within 250 feet of the transmission line.

### **3. Route Alignment**

In addition to selecting the transmission line's route, the Commission will state a preference regarding the line's alignment along Highway 13.

The Applicants' proposed route aligned the transmission line along the north side of Highway 13 to avoid building near a residence on the south side of that highway west of 119<sup>th</sup> Avenue; as the route continued eastward, the Applicants would then shift the alignment to the south of the highway. Building along this alignment might require removing structures and pasture fences along the north side of the highway. Also, this alignment would require additional expense where the line would shift direction to cross the highway, and where it would shift direction again to parallel the highway on the other side.

But as discussed above, the Commission proposes to select the 119<sup>th</sup> Avenue Route Alternative south of 350<sup>th</sup> Street. This route would no longer travel along the highway west of 119<sup>th</sup> Avenue. Consequently the Applicants would no longer have any need to retain the alignment on the north side of the highway.

During the Commission's meeting the Applicants supported changing this alignment to the south side of the highway. The Department and DNR neither supported nor opposed this alignment change. However, they both supported building along the 119<sup>th</sup> Avenue Route Alternative where it intersected Highway 13, and noted that the proposed alignment change would be consistent with that route. DNR acknowledged that this proposed change might well reduce the line's environmental impact.

### **4. Route Permit**

Finally, the Department's analysis and recommendations regarding the Applicants' proposed route and the alternatives was based on the assumption that the Applicants would abide by the terms of the generic Route Permit template<sup>32</sup> with only reasonable modifications.<sup>33</sup> The Commission's findings and conclusions in this docket incorporate this assumption.

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<sup>31</sup> See Department Comments (December 8, 2015), Attachment C, Map Sheets 17 and 18 of 30.

<sup>32</sup> Environmental Assessment at 86-110.

<sup>33</sup> See Department Comments (December 8, 2015).

The Commission concurs with the Department's recommendations regarding revisions to the language of the Route Permit template for purposes of this project. Because these recommendations are well reasoned and supported in the record, the Commission will adopt them.

## **5. Conclusion**

### **a. Approving Finding of Fact**

The Commission will approve and adopt the Findings of Fact and Conclusions of Law as revised by the Department, with three additional revisions:

- The Commission will re-number the conclusions to distinguish them from the findings.
- In lieu of the Department's proposed Conclusion 204 (now renumbered Conclusion 9), the Commission will adopt the following:

*The evidence in the record demonstrates that, for that segment of the Project between the proposed Blueberry Substation and 350<sup>th</sup> Street, the Pipeline South Route Alternative best satisfies the Route Permit factors set forth in Minnesota Statutes Section 216E.04, Subdivision 8 (referencing Minnesota Statutes Section 216E.03, Subdivision 7) and Minnesota Rule 7850.4100. The evidence on the record further demonstrates that, for that segment of the Project between 350<sup>th</sup> Street and the proposed Red Eye Substation, the 119<sup>th</sup> Avenue Route Alternative best satisfies the Route Permit factors set forth in Minnesota Statutes Section 216E.04, Subdivision 8 (referencing Minnesota Statutes Section 216E.03, Subdivision 7) and Minnesota Rule 7850.4100.*

- As Conclusion 18, the Commission will state as follows:

*Where the approved route follows Highway 13, the Commission prefers locating the alignment on the southern side of Highway 13.*

### **b. Specifying Approved Route**

On the basis of the Findings of Fact and the record as a whole, the Commission will approve the following route:

- Between the Hubbard Substation and the Blueberry Substation, the approved route will follow the Applicants' proposed route. The alignment within this route will incorporate the Andersen alignment.
- Between the Blueberry Substation and 350<sup>th</sup> Street, the approved route will follow the Pipeline South Route Alternative.
- Between 350<sup>th</sup> Street and the Red Eye Substation, the approved route will follow the 119<sup>th</sup> Avenue Route Alternative. Where the approved route follows Highway 13, the Commission prefers locating the alignment on the southern side of Highway 13. Changes to this alignment, as with any other alignment change, are subject to the requirements set forth in Sections 4.0 and 9.1 of the Route Permit.

This route and alignment will satisfy the conditions under Minn. Stat. § 216E.04, subd. 8 (referencing Minn. Stat. § 216E.03, subd. 7) and Minn. R. 7850.4100. Compared to the other alternatives, the Commission finds that this route will best conserve resources, minimize environmental impacts, minimize conflicts with human settlement and other land uses, and ensure the state's electric energy security through efficient, cost-effective power supply and electric transmission infrastructure.

**c. Supporting Documents**

In support of this decision, the Commission will attach to this order the following documents:

Attachment 1, the revised Findings of Fact and Conclusions of Law.

Attachment 2, the completed Route Permit incorporating the changes approved by the Department, along with the Permit's exhibits:

- o Figures – Official Route Maps
- o Attachment A – Complaint Procedures for High-Voltage Transmission Lines
- o Attachment B – Compliance Filing Procedure for Permitted Energy Facilities
- o Attachment C – Compliance Filing List

**ORDER**

1. The Commission hereby determines that the Environmental Assessment and the record created at the public hearing address the issues identified in the Department's Environmental Assessment scoping decision.
2. The Commission hereby approves and adopts the Applicants' Proposed Findings of Fact and Conclusions of Law as modified in Attachment 1.
3. The Commission hereby grants a Certificate of Need to Great River Energy and Minnesota Power for the Menahga Area 115 kV Transmission Line Project.
4. The Commission hereby issues to the Applicants a Route Permit incorporating the modifications set forth in this order and its attachments, including the following:
  - A. Between the Hubbard Substation and the Blueberry Substation, the approved route follows the Applicants' proposed route. The alignment within this route incorporates the Andersen alignment.
  - B. Between the Blueberry Substation and 350<sup>th</sup> Street, the approved route follows the Pipeline South Route Alternative.

- C. Between 350<sup>th</sup> Street and the Red Eye Substation, the approved route follows the 119th Avenue Route Alternative. Where the approved route follows Highway 13, the Commission prefers locating the alignment on the southern side of Highway 13.
5. This order shall become effective immediately.

BY ORDER OF THE COMMISSION

Daniel P. Wolf  
Executive Secretary



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**STATE OF MINNESOTA  
OFFICE OF ADMINISTRATIVE HEARINGS  
FOR THE PUBLIC UTILITIES COMMISSION**

IN THE MATTER OF THE APPLICATION OF  
GREAT RIVER ENERGY AND MINNESOTA  
POWER FOR A ROUTE PERMIT FOR A 115 kV  
TRANSMISSION PROJECT IN THE MENAHGA  
AREA IN BECKER, HUBBARD AND WADENA  
COUNTIES

PUC Docket No. ET2, E015/TL-14-797  
OAH Docket No. 5-2500-32715

FINDINGS OF FACT AND CONCLUSIONS OF  
LAW

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**STATE OF MINNESOTA  
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PUC DOCKET NO. ET2, E015/TL-14-797  
OAH DOCKET NO. 5-2500-32715

FINDINGS OF FACT AND CONCLUSIONS  
OF LAW

A public hearing was held before Administrative Law Judge (“ALJ”) James Mortenson on October 19, 2015 at the Menahga Senior Center in Menahga, Minnesota.

Lisa Agrimonti, Fredrikson & Byron, P.A., 200 South Sixth Street, Minneapolis, Minnesota 55402, appeared on behalf of Great River Energy. Michelle Lommel, Senior Field Representative; Carole Schmidt, Supervisor, Transmission Permitting and Compliance; Chuck Lukkarila, Project Manager; Eric Messerich, Planning Engineer; Rick Jeanson, Senior Transmission Line Design Engineer, and Jenny Guardia, Communications Coordinator, of Great River Energy, 12300 Elm Creek Boulevard, Maple Grove, MN 55369, attended on behalf of Great River Energy and Minnesota Power (“Applicants”).

Ray Kirsch, Environmental Review Manager, 445 Minnesota Street, Suite 1500, St. Paul, MN 55101 appeared on behalf of the Department of Commerce, Energy Environmental Review and Analysis (“EERA”).

Scott Ek, Minnesota Public Utilities Commission (“Commission”) Staff, 121 Seventh Place East, Suite 350, St. Paul, MN 55101 appeared on behalf of the Commission.

**STATEMENT OF ISSUE**

Have Applicants satisfied the factors set forth in Minnesota Statutes Section 216E.03 and Minnesota Rules Chapter 7850 for a Route Permit for a 115 kilovolt (“kV”) transmission project in the Menahga area in Becker, Hubbard, and Wadena Counties (the “Project”)?

**SUMMARY**

The Commission concludes that the Applicants have satisfied the criteria set forth in Minnesota law for a Route Permit and the Commission GRANTS the Applicants a Route Permit.

Based on information in the Application, the Environmental Assessment (“EA”), the testimony at the public hearing, written comments, and exhibits received in this proceeding, the Commission makes the following:

## **FINDINGS OF FACT**

### **I. APPLICANTS**

1. Great River Energy 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 Todd-Wadena Electric Cooperative, the distribution cooperative serving the area to be served by the proposed Project. Great River Energy's distribution cooperatives, in turn, supply electricity and related services to more than 650,000 residential, commercial, and industrial customers in Minnesota and Wisconsin.<sup>1</sup>

2. Minnesota Power is an investor-owned public utility headquartered in Duluth, Minnesota. Minnesota Power supplies retail electric service to 143,000 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.<sup>2</sup>

### **II. PROCEDURAL HISTORY**

3. On December 11, 2014, Great River Energy filed with the Minnesota Public Utilities Commission ("Commission") a Notice of Intent to File a Route Permit Application under the Alternative Permitting Process.<sup>3</sup> Applicants had previously also provided local government units with notice of the Project.<sup>4</sup>

4. On January 15, 2015, Great River Energy and Minnesota Power submitted their Application for a Certificate of Need and Route Permit ("Application") for the Project.<sup>5</sup>

5. On January 21, 2015, the Commission issued a Notice of Comment Period on Application Completeness.<sup>6</sup>

6. On January 26, 2015, Applicants provided notice of the Application to the General List, persons who own land on or adjacent to the proposed route, local officials, and agencies.<sup>7</sup>

7. On January 30, 2015, Applicants filed a revised Appendix J of the Application with the corrected list of landowners. This corrected list of landowners is the same list of landowners that was used for the notice of the Application sent on January 26, 2015.<sup>8</sup>

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<sup>1</sup> Ex. 6 at 1-1 (Application).

<sup>2</sup> Ex. 6 at 1-3 (Application).

<sup>3</sup> Ex. 6 at Appendix D (Application).

<sup>4</sup> See Ex. 6 at Appendix A (Application).

<sup>5</sup> Ex. 6 (Application).

<sup>6</sup> Ex. 36 (Notice of Comment Period on Application Completeness).

<sup>7</sup> Ex. 7 (Notice of Route Permit Application).

<sup>8</sup> Revised App. J (Jan. 30, 2015), eDocket Document No. 20151-106873-01.

8. On February 4, 2015, EERA staff filed its comments and recommendations regarding the completeness of the Application and recommended the Application be found complete.<sup>9</sup>

9. Several members of the public filed comments during the comment period on Application Completeness.<sup>10</sup> Comments included a suggested system alternative, a suggested route alternative, and concerns about: an organic farm, irrigators, stray voltage, lady slippers, property values, electric and magnetic fields (“EMF”), and television interference.

10. On February 13, 2015, the Commission issued a Notice of Meeting on Application Completeness for February 26, 2015.<sup>11</sup>

11. On February 17, 2015, Applicants filed affidavits of mailing and affidavits of publication for the Notice of Application, as required under Minnesota Statutes Sections 216E.03, Subdivision 4 and 216E.04, Subdivision 4; and Minnesota Rule 7850.2100, Subpart 4.<sup>12</sup>

12. On February 19, 2015, Commission staff filed Briefing Papers recommending the Commission find the Application complete.<sup>13</sup>

13. On February 26, 2015, the Commission met and found the Application complete.<sup>14</sup>

14. On March 18, 2015, the Commission issued its Order Accepting the Application as Complete.<sup>15</sup> In addition to finding the Application complete, the Commission approved joint hearings and combined environmental review for the Certificate of Need and Route Permit proceedings.

15. On February 27, 2015, the Commission and EERA issued a Notice of Public Information and EA Scoping Meeting.<sup>16</sup> This notice was also published in the *Detroit Lakes Tribune* on March 4, 2015, the *Verndale Sun* on March 5, 2015, the *Northwoods Press* on March 4, 2015, and the *Review Messenger* on March 4, 2015, as required under Minnesota Statutes Sections 216E.03, Subdivision 4 and 216E.04, Subdivision 4; and Minnesota Rule 7850.2100, Subpart 2.<sup>17</sup>

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<sup>9</sup> Ex. 11 (EERA Comments and Recommendations on Application Completeness).

<sup>10</sup> Ex. 37 (Public Comment Letters Received During Comment Period on the Permit Application Completeness).

<sup>11</sup> Ex. 38 (Commission Meeting Notice on Completeness).

<sup>12</sup> Compliance Filing (Feb. 17, 2015), eDocket Document No. 20152-107393-01.

<sup>13</sup> Ex. 39 (Staff Briefing Papers on Completeness).

<sup>14</sup> Ex. 41 (Commission Order Accepting Application as Complete).

<sup>15</sup> Ex. 41 (Commission Order Accepting Application as Complete).

<sup>16</sup> Ex. 40 (Notice of Public Information and EA Scoping Meetings Affidavit of Service).

<sup>17</sup> Ex. 35 (Affidavit of Publication for Notice of Public Meeting).

16. On March 19, 2015, Applicants filed the newspaper affidavits of publication for the March 24, 2015 Information and EA Scoping Meeting.<sup>18</sup>

17. On March 24, 2015, the Commission and EERA held a Public Information and EA Scoping Meeting at the Menahga Senior Center in Menahga, Minnesota at 6:00 p.m.<sup>19</sup>

18. On April 10, 2015, the scoping comment period ended.<sup>20</sup>

19. On April 14, 2015, EERA posted the transcript of oral comments from the March 24, 2015 meeting and written comments received during the comment period.<sup>21</sup>

20. Ten members of the public filed comments during the scoping comment period.<sup>22</sup>

21. The Minnesota Department of Transportation (“MnDOT”) filed a comment during the scoping period indicating its interest in any impacts the new transmission line may have on the safety of the state transportation system, the effectiveness of the operations or maintenance of the state trunk highway system and any additional costs that may be imposed on the state trunk highway fund as a result of the proposed transmission line.<sup>23</sup>

22. On May 6, 2015, EERA issued comments and recommendations on the EA Scoping Process and Alternative Routes to the Commission.<sup>24</sup> EERA recommended that six alternatives be included in the EA.

23. On May 8, 2015, the Commission issued a Notice of Commission Meeting noting that it would consider what action it should take in regard to route alternatives to be evaluated in the EA.<sup>25</sup>

24. On May 13, 2015, Commission staff issued Briefing Papers on the EA scoping process and alternative routes.<sup>26</sup>

25. On May 18, 2015, EERA filed supplemental comments on hearing processes.<sup>27</sup>

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<sup>18</sup> Ex. 35 (Affidavit of Publication for Notice of Public Meeting).

<sup>19</sup> Ex. 35 at 8 (Affidavit of Publication for Notice of Public Meeting); Ex. 40 (Notice of Public Information and EA Scoping Meeting).

<sup>20</sup> Ex. 40 (Notice of Public Information and EA Scoping Meeting).

<sup>21</sup> Exs. 12, 13 (Written and Oral Comments on Scope of EA).

<sup>22</sup> Ex. 12 (Written Comments on Scope of EA).

<sup>23</sup> Ex. 12 at 2-3 (Written Comments on Scope of EA).

<sup>24</sup> Ex. 14 at 5 (Comments and Recommendations to Commission on Scoping Process and Route and Site Alternatives).

<sup>25</sup> Ex. 42 (Notice of Commission Meeting on Route Alternatives and Generic Route Permit Template).

<sup>26</sup> Ex. 43 (Commission Staff Briefing Papers on Route Alternatives and Generic Route Permit Template).

<sup>27</sup> Ex. 15 (Supplemental Comments to Commission on Hearing Processes).

26. On May 26, 2015, the Department of Commerce issued its EA Scoping Decision.<sup>28</sup>

27. On May 27, 2015, EERA filed a letter to new landowners that may be affected by new site or route alternatives.<sup>29</sup>

28. On May 29, 2015, the Commission filed the minutes from the February 26, 2015 Commission meeting.<sup>30</sup>

29. On July 2, 2015, the Commission filed a Generic Route Permit Template.<sup>31</sup>

30. On July 6, 2015, the Commission posted two more landowner comments, dated February 3, 2015, and March 15, 2015.<sup>32</sup>

31. On July 8, 2015, the Commission issued its Order Directing Use of Summary Report Process and Granting Variance.<sup>33</sup>

32. On August 21, 2015, EERA posted additional Project information provided by Applicants for the EA.<sup>34</sup>

33. On September 22, 2015, the Commission filed the minutes from the May 21, 2015 Commission meeting.<sup>35</sup>

34. On September 28, 2015, EERA issued the EA for the Project and its Notice of Availability of the EA.<sup>36</sup>

35. On October 1, 2015, EERA filed the certificate of service for mailing of the EA to public agencies.<sup>37</sup>

36. On October 2, 2015, the Commission issued the Notice for the Public Hearing to be held October 19, 2015 at the Menahga Senior Center at 6:00 p.m.<sup>38</sup> The notice further provided that the Commission would accept public comments on the Project through November 2, 2015, at 4:30 p.m.

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<sup>28</sup> Ex. 17 (EA Scoping Decision).

<sup>29</sup> Ex. 18 (Notice of EA Scoping Decision to New Landowners).

<sup>30</sup> Minutes of Commission Meeting (Feb. 26, 2015), eDocket Document No. 20155-110950-07.

<sup>31</sup> Ex. 46 (Generic Route Permit Template).

<sup>32</sup> Additional Written Comments on Scope of EA (July 6, 2015), eDocket Document No. 20157-112148-01.

<sup>33</sup> Ex. 48 (Commission Order Directing Use of the Summary Report Process and Granting Variance).

<sup>34</sup> Ex. 19 (Additional Project Information for the EA).

<sup>35</sup> Ex. 49 (Minutes from Commission's May 21, 2015, Agenda Meeting).

<sup>36</sup> Ex. 20 (EA); Ex. 21 (Notice of Availability of the EA).

<sup>37</sup> Ex. 22 (Certificate of Service for EA to Public Agency Representatives).

<sup>38</sup> Ex. 50 (Public Hearing Notice and Affidavit of Service).

37. On October 12, 2015, EERA published notice of the EA Availability in the *EQB Monitor* as required by Minnesota Rule 7850.3700, Subpart 6.<sup>39</sup>

38. On October 12, 2015, the Donna J. Andersen and Curtis Andersen and Donna J. Andersen Trust (the “Andersens”) filed Petitions for Full Process and Contested Case Intervention.<sup>40</sup>

39. On October 14, 2015, the OAH issued an Order denying the Andersens’ Petition to Intervene and Motion for Full Process and Referral for Contested Case.<sup>41</sup>

40. On October 16, 2015, the Andersens filed a Motion for Reconsideration.<sup>42</sup> Also on October 16, 2015, the Andersens filed a Petition for an Environmental Impact Statement (“EIS”).<sup>43</sup>

41. On October 19, 2015, Applicants filed comments in response to the Andersen Petition for an EIS.<sup>44</sup>

42. On October 19, 2015, the ALJ held a Public Hearing at the Menahga Senior Center in Menahga, Minnesota at 6:00 p.m.<sup>45</sup>

43. On October 20, 2015, the Andersens submitted a reply to Applicants’ response to the Petition for an EIS.<sup>46</sup>

44. On October 26, 2015, Applicants filed affidavits of publication of the Notice of Public Hearings, confirming that notice for the October 19, 2015 public hearing was published in the *Detroit Lakes Tribune* on October 7, 2015, the *Verndale Sun* on October 8, 2015, the *Northwoods Press* on October 7, 2015, and the *Review Messenger* on October 7, 2015.<sup>47</sup>

45. On November 2, 2015, the public hearing comment period ended.<sup>48</sup>

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<sup>39</sup> Ex. 23 (Notice in EQB Monitor of EA Availability).

<sup>40</sup> Petitions for Full Process and Contested Case Intervention (Oct. 12, 2015), eDocket Document No. 201510-114752-01.

<sup>41</sup> Order Denying Andersens’ Petition to Intervene and Motion for Full Process and Referral for Contested Case (Oct. 14, 2015), eDocket Document No. 201510-114794-01.

<sup>42</sup> Motion for Reconsideration (Oct. 16, 2015), eDocket Document No. 201510-114880-01.

<sup>43</sup> Petition for an Environmental Impact Statement (Oct. 16, 2015), eDocket Document No. 201510-114911-02.

<sup>44</sup> Applicants’ Reply to Anderson’s Petition for an EIS (Oct. 19, 2015), eDocket Document No. 201510-114933-01.

<sup>45</sup> Ex. 50 (Notice of Public Hearing).

<sup>46</sup> Letter (Oct. 20, 2015), eDocket Document No. 201510-114950-02.

<sup>47</sup> Compliance Filing (Oct. 26, 2015), eDocket Document No. 201510-115106-01.

<sup>48</sup> Ex. 50 (Notice of Public Hearing and Certificate of Service).

### III. DESCRIPTION OF THE PROJECT

46. The Project includes new 115 kV transmission lines and substations in Becker, Hubbard, and Wadena counties, Minnesota:

- Construction of approximately 7 miles of east-west transmission line between the existing Great River Energy Hubbard Substation and proposed new Minnesota Power Straight River Substation, which will replace the existing Minnesota Power 34.5 kV “522” feeder line. The first 4.5 miles between the Hubbard Substation and County Road (CR) 115 will be double-circuit 115 kV line to accommodate a future Great River Energy project to the north. The approximate 2.5 miles between CR 115 and the proposed Minnesota Power Straight River Substation will be single-circuit 115 kV line.<sup>49</sup>
- Construction of a generally north to south, single-circuit transmission line (approximately 15.5 miles) between the proposed Minnesota Power Straight River Substation and the proposed new Todd-Wadena Red Eye distribution substation.<sup>50</sup>
- Construction of the proposed new Minnesota Power Straight River Substation, Great River Energy Blueberry Substation, and Todd-Wadena Red Eye Substation (that will serve the new Minnesota Pipeline Company (“MPL”) pump station); relocation of the existing Todd-Wadena Menahga Substation to the new Blueberry Substation and conversion of the voltage from 34.5 kV to 115 kV; and modifications to the existing Great River Energy Hubbard Substation and the Minnesota Power Pipeline Substation.<sup>51</sup>

47. Applicants propose to use single pole structures between 60 and 90 feet in height for the majority of the Project. Spans for the 115 kV single circuit and 115 kV/115 kV double circuit portions of the Project are proposed to range from 350 feet to 400 feet. H-Frame structures (between 60 and 90 feet in height, spans ranging from 600 to 1000 feet) may be used in areas where longer spans are required to avoid or minimize impacts to wetlands or waterways.<sup>52</sup>

48. Applicants are generally requesting approval of a 500-foot route width (250 feet either side of the transmission line in areas where the transmission line will be cross-country, or 250 either side of the centerline of road right-of-way in areas where the transmission line follows a road). In a few areas (particularly around proposed substations), Applicants are requesting a route width wider than 500 feet to accommodate facility designs.<sup>53</sup>

49. Applicants propose a right-of-way of 100 feet in width for the Project.

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<sup>49</sup> Ex. 6 at 1-5 (Application).

<sup>50</sup> Ex. 6 at 1-5 (Application).

<sup>51</sup> Ex. 6 at 1-5 (Application).

<sup>52</sup> Ex. 6 at 14 (EA).

<sup>53</sup> Ex. 6 at 1-5 (Application).

#### IV. NEED OVERVIEW

50. The Project is designed to serve two needs. First, the Project is designed to meet a load-serving need. Specifically, the Project will address existing low voltage and transmission system overloads in the area, which will improve reliability and provide a long-term load-serving capability transmission system for the area. Second, the Project will provide electrical service to the proposed new Todd-Wadena Red Eye distribution substation, which will in turn serve MPL's proposed Sebeka Pump Station, which is part of MPL's Reliability Project, for which MPL received a certificate of need from the Commission on August 31, 2015.<sup>54</sup>

#### V. ROUTES EVALUATED

##### A. Route Proposed by Applicants.

51. Great River Energy evaluated the Project area and determined that identifying route options were constrained by a need to connect to existing infrastructure, the location of the proposed MPL pump station, the geographical area of the proposed Project, and engineering constraints associated with getting proper clearances around existing infrastructure.<sup>55</sup>

52. Applicants' proposed route is approximately 22.5 miles long and is located in Becker, Hubbard, and Wadena counties near the cities of Menahga and Sebeka and in the townships of Hubbard, Straight River, Blueberry, and Red Eye (the "Proposed Route").<sup>56</sup> A map of the Proposed Route is included on Exhibit A.

53. The Application identified two alternatives, the East Route Alternative and the Central Alternative Segment, which Applicants analyzed and rejected. The East Route Alternative was rejected because it did not meet the Project's need, was longer, resulted in additional environmental impacts, and would be less reliable.<sup>57</sup> The Central Alternative Segment would have placed the Project along Highway 71 south of the City of Menahga and was rejected because of development along Highway 71, which created routing constraints. Applicants did not consider routing along Highway 71 north of the City of Menahga because the highway goes right through the city and is adjacent to a golf course.<sup>58</sup>

##### B. Routes Proposed Through Public Participation.

54. Several alternative sites and routes in the southern portion of the Project area were introduced in the EA Scoping Decision:

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<sup>54</sup> Order Granting Certificate of Need, *In the Matter of the Application of Minnesota Pipe Line Company, LLC for a Certificate of Need for the Minnesota Pipe Line Reliability Project to Increase Pumping Capacity on the Line 4 Crude Oil Pipeline in Hubbard, Wadena, Morrison, Meeker, McLeod, and Scott Counties*, MPUC Docket No. PL-5/CN-14-320 (Aug. 31, 2015).

<sup>55</sup> *E.g.*, Ex. 6 at 7-1 to 7-2 (Application).

<sup>56</sup> Ex. 6 at 1-1 (Application).

<sup>57</sup> Ex. 6 at 7-1 (Application).

<sup>58</sup> Ex. 6 at 7-2 (Application).

1. Blueberry Route Alternative and Western Blueberry Substation Site Alternative

55. The Blueberry Route Alternative, instead of following the Applicants' proposed route along Highway 87, follows the county line (Wadena Line Rd.) south approximately 0.7 miles and then turns eastward crossing Section 30 of Blueberry Township and enters the Blueberry Substation from the west.<sup>59</sup>

56. The Western Blueberry Substation Site Alternative would place the Blueberry Substation on the western edge of Section 30 of Blueberry Township, at the point where the Blueberry Route Alternative turns eastward. If the Blueberry Substation were constructed at this alternative site, an existing 34.5 kV line would need to be extended westward to reach the substation. This alternative substation site would only be used in conjunction with the Blueberry Route Alternative.<sup>60</sup>

2. Blueberry to Red Eye Route Alternatives

57. The Pipeline South Route Alternative proceeds from the Blueberry Substation, east along the 34.5 kV line right-of-way, and then southeast along the western edge of the MPL right-of-way to the Red Eye Substation.<sup>61</sup>

58. The East of 109th Avenue Route Alternative proceeds from the Blueberry Substation, south along 111th Avenue and then cross country, east of and parallel to 109th Avenue to County State Aid Highway 13 ("CSAH 13"). From CSAH 13, this alternative follows the Applicants' proposed route to the Red Eye Substation.<sup>62</sup>

59. The 119th Avenue Route Alternative proceeds from the Blueberry Substation, south along 111th Avenue, east along 350<sup>th</sup> Street, and then south along 119th Avenue and cross country to CSAH 13. From CSAH 13, this alternative would follow the Applicants' proposed route to the Red Eye Substation.<sup>63</sup>

60. The U.S. Route 71 Route Alternative proceeds from the Blueberry Substation, east along the 34.5 kV line right-of-way, and then south along U.S. Route 71 to CSAH 13. From CSAH 13, this alternative would follow the Applicants' proposed route to the Red Eye Substation.<sup>64</sup>

61. The EA evaluated the Proposed Route and these alternatives.<sup>65</sup> A map of the alternatives reviewed in the EA is provided in Exhibit B.

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<sup>59</sup> Ex. 20 at 21 (EA).

<sup>60</sup> Ex. 20 at 21 (EA).

<sup>61</sup> Ex. 20 at 21 (EA).

<sup>62</sup> Ex. 20 at 21 (EA).

<sup>63</sup> Ex. 20 at 21 (EA).

<sup>64</sup> Ex. 20 at 21 (EA).

<sup>65</sup> Ex. 20 (EA).

## **VI. TRANSMISSION LINE STRUCTURE TYPES AND SPANS**

62. For the Project, Applicants propose to use overhead construction with wood structures. Applicants propose to primarily use single pole structures. Wood poles would be directly embedded and may require guying at certain locations including but not limited to, angle locations.<sup>66</sup>

63. H-Frame structures may be used in areas where longer spans are required to avoid or minimize impacts to wetlands or waterways.<sup>67</sup>

## **VII. TRANSMISSION LINE CONDUCTORS**

64. The single circuit structures will have three single conductor phase wires and one shield wire. It is anticipated that the phase wires will be 477 ACSR, which will have a summer rating of 141.6 MVA, with seven steel core strands and 26 outer aluminum strands. The shield wire will be 0.528 optical ground wire.<sup>68</sup>

65. The engineering evidence in the record demonstrates that the conductor is appropriate to meet the Project's need.<sup>69</sup>

## **VIII. TRANSMISSION LINE ROUTE WIDTHS**

66. For the Project, Applicants requested a route width of 500 feet for the majority of the Proposed Route except for the following areas:

- At the existing Hubbard Substation, an additional 150 by 650 feet north of the route width that encompasses the substation.
- In Section 26 of Straight River Township, a wider triangular route width is proposed to allow flexibility for the crossing of Minnesota Power's 230 kV "909" Line, although only a single alignment with an easement that is 50 feet on each side of the transmission line will be required in this area.
- Around the Straight River Substation, an area that accommodates the proposed location, plus an additional 650 feet to the west of the north-south alignment; and 500 feet north and 250 south of the road centerline is necessary to accommodate the transmission line.
- Around the Blueberry Substation, an additional route width of 100 feet to the north, 150 feet to the south, and 450 feet to the west of the substation is necessary to accommodate the transmission lines that will go in and out of the substation.

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<sup>66</sup> Ex. 6 at 4-6 (Application); Ex. 20 at 23 (EA).

<sup>67</sup> Ex. 6 at 4-6 (Application); Ex. 20 at 24 (EA).

<sup>68</sup> Ex. 6 at 4-6 (Application); Ex. 20 at 24 (EA); Applicants' Comments (Nov. 2, 2015), eDocket Document No. 201511-115396-01.

<sup>69</sup> Ex. 6 at 4-6 (Application); *e.g.*, Public Hearing Transcript, at 35, 42-43.

- Around the Red Eye Substation, an additional area of 400 feet by 750 north of the east-west alignment that extends into the substation (property owned by MPL) to allow flexibility in design and to minimize conflict with MPL and Todd-Wadena's facilities.<sup>70</sup>

## **IX. TRANSMISSION LINE RIGHT-OF-WAY**

67. Applicants requested a right-of-way width of 100 feet. Where the Proposed Route is adjacent to a roadway, poles would generally be placed approximately three to five feet outside the public right-of-way. In these locations, the easement required from the adjacent landowner may be of lesser width because a portion of the transmission right-of-way can overlap with the public right-of-way.<sup>71</sup>

## **X. PROJECT SCHEDULE**

68. Applicants anticipate a spring 2017 in-service date for the Project.<sup>72</sup>

## **XI. PROJECT COSTS**

69. Total project costs are estimated to be approximately \$23 million, depending on final route selection and mitigation.<sup>73</sup>

## **XII. PERMITTEE**

70. The permittees for the Project are Great River Energy and Minnesota Power.<sup>74</sup>

## **XIII. PUBLIC AND LOCAL GOVERNMENT PARTICIPATION**

### **A. Public Comments**

71. EERA received written comments from 10 members of the public during the EA scoping comment period.<sup>75</sup> In general, comments related to concerns about potential impacts to property values, gravel pits, rare plants, windbreaks, and television/cellular reception.<sup>76</sup>

72. Alternative routes to the Proposed Route were also discussed during the scoping meeting and in written comments received during the scoping period.<sup>77</sup>

73. Several members of the public spoke at the public hearing on October 19, 2015. Ms. Carol Overland provided testimony under oath and asked questions of Applicants'

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<sup>70</sup> Ex. 6 at 4-1 (Application).

<sup>71</sup> Ex. 6 at 4-6, 8-2 (Application).

<sup>72</sup> See Ex. 6 at 4-14 (Application).

<sup>73</sup> Ex. 6 at 4-11 (Application).

<sup>74</sup> Ex. 6 at 1-1 (Application).

<sup>75</sup> Ex. 12 (Written Comments on Scope of EA).

<sup>76</sup> Ex. 17 at 2 (EA Scoping Decision).

<sup>77</sup> See Exs. 12 and 13 (Written and Oral Comments on Scope of EA).

representatives regarding the Project.<sup>78</sup> Her questions related to the proposed conductor size, the need for the Project, transmission planning studies, growth rates and electrical load, the load at the existing MPL pump station in the area, the distribution system in the area, and the Northern Long-Eared Bat (“NLEB”) study.<sup>79</sup> The Andersens requested that Applicants submit the NLEB study, and Applicants agreed to do so after further consultation with the United States Fish & Wildlife Service (“USFWS”).<sup>80</sup> The Applicants filed and served the study that includes the Andersens’ property in this docket on November 5, 2015.<sup>81</sup> The study determined that NLEB were likely absent from the studied area.<sup>82</sup> The Andersens also expressed concerns about potential tree clearing on their property and further questioned the adequacy of the EA and indicated concerns related to wetlands.<sup>83</sup> Another landowner expressed opposition to the Blueberry Route Alternative. In addition, a landowner questioned why the Proposed Route did not follow existing pipeline right-of-way.<sup>84</sup> Great River Energy and EERA responded to these questions from the public.<sup>85</sup>

74. Multiple members of the public provided written comments during the public hearing comment period.<sup>86</sup> Comments generally related to the need for the project, tree removal, sensitive species, and alternative routes.<sup>87</sup> The Andersens’ comments related to the Project’s need, the adequacy of the EA, and potential impacts to the Andersens’ property. The Andersens requested that any alignment near their property be on the south side of Hubbard Line Road.<sup>88</sup>

## **B. Local Government and State Agency Participation**

75. During the EA scoping comment period, EERA received written comments from one state agency (MnDOT).<sup>89</sup>

76. During the public hearing and subsequent comment period, written comments were received from two state agencies.<sup>90</sup> MnDOT provided comments regarding route alternatives and identified several concerns related to the U.S. 71 Route Alternative, such as

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<sup>78</sup> *E.g.*, Public Hearing Transcript at 18:3-22:11. Ms. Overland did not expressly state whether she was testifying on behalf of her clients, the Andersens, or herself, individually.

<sup>79</sup> *See, e.g.*, Public Hearing Transcript at 24:10-25, 25:1-18.

<sup>80</sup> Public Hearing Transcript at 26:11-16.

<sup>81</sup> NLEB (Nov. 5, 2015), eDocket Document No. 201511-115499-01.

<sup>82</sup> NLEB at 5 (Nov. 5, 2015), eDocket Document No. 201511-115499-01.

<sup>83</sup> *See* Public Hearing Transcript at 24:10-24, 27:7-16.

<sup>84</sup> *See* Public Hearing Transcript at 54:22-25.

<sup>85</sup> *See* Public Hearing Transcript *passim*.

<sup>86</sup> Ex. 47 (Public Written Comments).

<sup>87</sup> *See, e.g.*, Ex. 55 (Documents Regarding Bat Study); Andersen Comments (Nov. 2, 2015), eDocket Document No. 201511-115330-01; Comments of Carol Overland (Nov. 2, 2015), eDocket Document No. 201511-115353-01; Comments of Peter-Mark and Lynn Hendrickson (Nov. 3, 2015), eDocket Document No. 201511-115409-01.

<sup>88</sup> *See* Comments of Carol Overland (Nov. 2, 2015), eDocket Document No. 201511-115353-01.

<sup>89</sup> Ex. 20 at 9 (EA).

<sup>90</sup> *See* DNR Public Hearing Comments (Nov. 21, 2015, eDocket Document No. 201511-115391-01; MnDOT Public Hearing Written Comments (Nov. 21, 2015), eDocket Document No. 201511-115379-01.

physical encroachment due to overhead and diagonal road crossings. The Minnesota Department of Natural Resources' (DNR's) comments recommended various mitigation measures for the Project, including the use of bird diverters at public water crossings, minimization of habitat fragmentation, habitat maintenance, vegetation management, and practices for wetland construction. DNR recommended that an Avian Mitigation Plan and a Vegetation Management Plan be developed for the project. In addition, DNR noted that the Applicants' Proposed Route resulted in fewer environmental impacts than the Blueberry Route Alternative, and that the Proposed Route and the 119th Avenue South Alternative have fewer environmental impacts compared to other route alternatives.

77. In addition, Applicants have received comments from the following agencies, as detailed below:

- On October 7, 2014, the MnDOT Office of Aeronautics notified Applicants that the Project has been determined to have no significant effect to the operations of Park Rapids Municipal Airport, Wadena Municipal Airport, and New York Mills Municipal Airport.
- On October 22, 2014, the Minnesota Historical Society State Historic Preservation Office ("SHPO") recommended that Applicants complete a Phase I Archeological Survey for the Project.
- On October 17, 2014, the USFWS notified Applicants that the NLEB is proposed to be a listed species in the Project counties, but that USFWS had no known occurrence records in close proximity to the Project. USFWS stated that consultation may be necessary if habitat removal is anticipated after listing and between April 1 and September 30. USFWS further recommended that Applicants place bird flight diverters on transmission lines and raptor perch deterrents on power poles adjacent to the Marrs Farm Services Agent easement and Red Eye Wildlife Management Area. Applicants have stated that they will work with USFWS regarding the use of bird flight diverters and raptor perch deterrents in this area.<sup>91</sup>
- On December 17, 2014, the DNR recommended that Applicants avoid or minimize disturbance to old growth forests, minimize disturbance to identified Sites of Moderate Biodiversity Significance, and implement erosion prevention and sediment control practices in Kettle Creek and the Blueberry River because of state-listed mussels of special concern.<sup>92</sup>

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<sup>91</sup> Ex. 6 at 9-44 (Application).

<sup>92</sup> Ex. 6 at Appendix K (Application).

## **FACTORS FOR A ROUTE PERMIT**

78. The Power Plant Siting Act (“PPSA”), Minnesota Statutes Chapter 216E, requires that route permit determinations “be guided by the state’s goals to conserve resources, minimize environmental impacts, minimize human settlement and other land use conflicts, and ensure the state’s electric energy security through efficient, cost-effective power supply and electric transmission infrastructure.”<sup>93</sup>

79. Under the PPSA, the Commission must be guided by the following responsibilities, procedures, and considerations:

- (1) evaluation of research and investigations relating to the effects on land, water and air resources of large electric power generating plants and high-voltage transmission lines and the effects of water and air discharges and electric and magnetic fields resulting from such facilities on public health and welfare, vegetation, animals, materials and aesthetic values, including baseline studies, predictive modeling, and evaluation of new or improved methods for minimizing adverse impacts of water and air discharges and other matters pertaining to the effects of power plants on the water and air environment;
- (2) environmental evaluation of sites and routes proposed for future development and expansion and their relationship to the land, water, air and human resources of the state;
- (3) evaluation of the effects of new electric power generation and transmission technologies and systems related to power plants designed to minimize adverse environmental effects;
- (4) evaluation of the potential for beneficial uses of waste energy from proposed large electric power generating plants;<sup>94</sup>
- (5) analysis of the direct and indirect economic impact of proposed sites and routes including, but not limited to, productive agricultural land lost or impaired;
- (6) evaluation of adverse direct and indirect environmental effects that cannot be avoided should the proposed site and route be accepted;
- (7) evaluation of alternatives to the applicant’s proposed site or route proposed pursuant to subdivision 1 and 2;

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<sup>93</sup> Minn. Stat. § 216E.03, Subd. 7.

<sup>94</sup> Factor 4 is not applicable because Applicants are not proposing to site a large electric generating plant.

- (8) evaluation of potential routes that would use or parallel existing railroad and highway rights-of-way;
- (9) evaluation of governmental survey lines and other natural division lines of agricultural land so as to minimize interference with agricultural operations;
- (10) evaluation of future needs for additional high-voltage transmission lines in the same general area as any proposed route, and the advisability of ordering the construction of structures capable of expansion in transmission capacity through multiple circuiting or design modifications;
- (11) evaluation of irreversible and irretrievable commitments of resources should the proposed site or route be approved; and
- (12) when appropriate, consideration of problems raised by other state and federal agencies and local entities.<sup>95</sup>

80. In addition, Minnesota Statutes Section 216E.03, Subdivision 7(e), provides that the Commission “must make specific findings that it has considered locating a route for a high-voltage transmission line on an existing high-voltage transmission route and the use of parallel existing highway right-of-way and, to the extent those are not used for the route, the [C]ommission must state the reasons.”

81. In addition to the PPSA, the Commission and the ALJ are governed by Minnesota Rule 7850.4100, which mandates consideration of the following factors when determining whether to issue a route permit for a high voltage transmission line:

- A. effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values, recreation, and public services;
- B. effects on public health and safety;
- C. effects on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;
- D. effects on archaeological and historic resources;
- E. effects on the natural environment, including effects on air and water quality resources and flora and fauna;
- F. effects on rare and unique natural resources;

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<sup>95</sup> Minn. Stat. § 216E.03, Subd. 7.

- G. application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity;
- H. use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries;
- I. use of existing large electric power generating plant sites;<sup>96</sup>
- J. use of existing transportation, pipeline, and electrical transmission systems or rights-of-way;
- K. electrical system reliability;
- L. costs of constructing, operating, and maintaining the facility which are dependent on design and route;
- M. adverse human and natural environmental effects which cannot be avoided; and
- N. irreversible and irretrievable commitments of resources.<sup>97</sup>

82. There is sufficient evidence on the record for the Commission to assess the Proposed Route and route alternatives using the criteria and factors set forth above.

### **APPLICATION OF STATUTORY AND RULE FACTORS**

#### **I. APPLICATION OF ROUTING FACTORS TO THE PROPOSED ROUTE AND ROUTE ALTERNATIVES**

##### **A. Effects on Human Settlement**

83. Minnesota law requires consideration of the Project's effect on human settlement, including displacement of residences and businesses; noise created during construction and by operation of the Project; and impacts to aesthetics, cultural values, recreation, and public services.<sup>98</sup>

84. The Proposed Route primarily crosses lands used for agriculture, forestry, and tourism. Built infrastructure in the area includes cities, roads, and utilities. The largest community in the Project area is the City of Menahga, which has approximately 1,300 residents.<sup>99</sup>

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<sup>96</sup> This factor is not applicable because it applies only to power plant siting.

<sup>97</sup> Minn. R. 7850.4100.

<sup>98</sup> See Minn. Stat. § 216E.03, Subd. 7(b); Minn. R. 7850.4100(A).

<sup>99</sup> Ex. 20 at 42 (EA).

1. Displacement

85. None of the routes under consideration is within 50 feet of a residence or non-residential buildings.<sup>100</sup>

86. No residential or commercial displacement will occur as a result of the Project.<sup>101</sup>

2. Noise

87. The Minnesota Pollution Control Agency (“MPCA”) has established standards for the regulation of noise levels.<sup>102</sup>

88. The most restrictive MPCA noise limits are 60-65 A-weighted decibels (“dBA”) during the daytime and 50-55 dBA during the nighttime.<sup>103</sup>

89. Noise concerns for the Project may be associated with construction and operation of the transmission lines and substations.<sup>104</sup>

90. Transmission lines produce noise under certain conditions. The level of noise depends on conductor conditions, voltage level, and weather conditions. Generally, activity-related noise levels during the operation and maintenance of transmission lines are minimal and do not exceed the MPCA Noise Limits outside the right-of-way.<sup>105</sup> Noises associated with a substation result from the operation of transformers and switchgear. Applicants modeled and estimated noise levels for each of the substations.<sup>106</sup>

91. The audible noise levels for the Proposed Route are not predicted to exceed the MPCA Noise Limits.<sup>107</sup>

92. The route alternatives are anticipated to result in similar noise levels as the Project.<sup>108</sup> The Western Blueberry Substation Site Alternative is anticipated to result in noise levels that are within MPCA Noise Limits and slightly higher at the nearest receptor than noise levels of the proposed Project.<sup>109</sup>

3. Aesthetics

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<sup>100</sup> Ex. 20 at 49 (EA).

<sup>101</sup> Ex. 20 at 49 (EA).

<sup>102</sup> Ex. 20 at 46 (EA).

<sup>103</sup> Ex. 20 at 47 (EA).

<sup>104</sup> Ex. 20 at 47 (EA).

<sup>105</sup> Ex. 20 at 48 (EA).

<sup>106</sup> Ex. 20 at 48 (EA).

<sup>107</sup> Ex. 20 at 48 (EA).

<sup>108</sup> Ex. 20 at 96, 107 (EA).

<sup>109</sup> Ex. 20 at 99 (EA).

93. The Proposed Route follows existing transmission and roadway rights-of-way. This placement makes the new line relatively harmonious with the existing landscape.<sup>110</sup> In addition, for that segment between the Hubbard Substation and Straight River Substation, the new line will replace an existing 34.5 kV line. Thus, aesthetic impacts are anticipated to be minimal because they will be incremental.<sup>111</sup>

94. As set forth in Tables 1.1 and 1.2 below, the Blueberry Route Alternative and the Blueberry to Red Eye Route Alternatives are near fewer residences than the Proposed Route. The Blueberry Route Alternative and the East of 109<sup>th</sup> Ave., 119<sup>th</sup> Ave., and U.S. Route 71 Route Alternatives have residences that are closer to the anticipated alignment for the project than the Proposed Route.

**Table 1.1 – Distance of Residences from Anticipated Alignment – Proposed Route and Blueberry Route Alternative<sup>112</sup>**

| Route                       | 0 to 50 feet | 51 to 100 feet | 101 to 150 feet | 151 to 200 feet | 201 to 250 feet | Total |
|-----------------------------|--------------|----------------|-----------------|-----------------|-----------------|-------|
| Proposed Route              | 0            | 0              | 0               | 5               | 1               | 6     |
| Blueberry Route Alternative | 0            | 1              | 1               | 0               | 0               | 2     |

**Table 1.2 – Distance of Residences from Anticipated Alignment – Proposed Route and Blueberry to Red Eye Route Alternatives<sup>113</sup>**

| Route                                  | 0 to 50 feet | 51 to 100 feet | 101 to 150 feet | 151 to 200 feet | 201 to 250 feet | Total |
|----------------------------------------|--------------|----------------|-----------------|-----------------|-----------------|-------|
| Proposed Route                         | 0            | 0              | 2               | 8               | 4               | 14    |
| East of 109th Avenue Route Alternative | 0            | 1              | 0               | 3               | 1               | 5     |
| 119th Avenue Route Alternative         | 0            | 1              | 0               | 5               | 1               | 7     |
| Pipeline South Route Alternative       | 0            | 0              | 2               | 0               | 0               | 2     |
| U.S. Route 71 Route Alternative        | 0            | 2              | 2               | 2               | 3               | 9     |

95. The Proposed Route and the 119th Avenue and U.S. Route 71 Route Alternatives minimize aesthetic impacts of the project by utilizing existing infrastructure rights-of-way and

<sup>110</sup> Ex. 20 at 45 (EA).

<sup>111</sup> Ex. 20 at 45 (EA).

<sup>112</sup> Ex. 20 at 92, 103 (EA).

<sup>113</sup> Ex. 20 at 92, 103 (EA).

placing like with like.<sup>114</sup> Though the Pipeline Route Alternative utilizes existing infrastructure right-of-way, it does not place like with like in a manner that minimizes aesthetic impacts.<sup>115</sup>

96. Aesthetic impacts can be minimized by placing the alignment of the transmission line away from residences and by limiting damage to natural landscapes.<sup>116</sup> Applicants have indicated they will work with landowners to best locate structures and minimize damage to vegetation and natural landscapes.<sup>117</sup>

97. Aesthetic impacts may occur between the Straight River Substation and the Red Eye Substation. However, only a few structures will likely be visible from any one location, and most residences are located more than 150 feet from the anticipated alignment of the Proposed Route.<sup>118</sup>

98. Aesthetic impacts due to the Straight River Substation and Blueberry Substation are anticipated to be minimal because they are near existing distribution substations and residences are relatively distant from the substations.<sup>119</sup>

99. Aesthetic impacts resulting from the Project if constructed along the Proposed Route are anticipated to be minimal.<sup>120</sup> Aesthetic impacts resulting from the Project if constructed along any of the Route Alternatives are anticipated to be minimal.<sup>121</sup> Nonetheless, aesthetic impacts vary among routing options for the project.<sup>122</sup>

#### 4. Cultural Values

100. The region surrounding the Proposed Route derives from a diverse ethnic heritage. However, a majority of the reported ethnic backgrounds are of German, Norwegian, and Irish origin.<sup>123</sup>

101. No impacts are anticipated to cultural values as a result of construction of the Project or route alternatives.<sup>124</sup>

#### 5. Recreation

102. There are a number of existing recreational resources within the Project vicinity, including parks, trails, rivers, and lakes. Popular activities include camping, fishing, hunting,

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<sup>114</sup> Ex. 20 at 97, 103-104 (EA).

<sup>115</sup> Ex. 20 at 103 (EA).

<sup>116</sup> Ex. 20 at 46 (EA).

<sup>117</sup> Ex. 20 at 46 (EA).

<sup>118</sup> Ex. 20 at 45 (EA).

<sup>119</sup> Ex. 20 at 45 (EA).

<sup>120</sup> Ex. 20 at 44-46, 86 (EA).

<sup>121</sup> Ex. 20 at 92-93, 102-104 (EA).

<sup>122</sup> Ex. 20 at 92-93, 102-104 (EA).

<sup>123</sup> Ex. 6 at 9-12 (Application).

<sup>124</sup> Ex. 6 at 9-12 (Application); Ex. 20 at 96, 107 (EA).

bird watching, canoeing, kayaking, boating, swimming, golfing, biking, hiking, cross country skiing, and riding ATVs and snowmobiles.<sup>125</sup> Applicants will coordinate with DNR, USFWS, and other agencies as applicable to ensure the Project does not impact surrounding natural resources.<sup>126</sup>

103. No impacts to recreational resources are anticipated. The closest wildlife management area (“WMA”) to the Project is the Red Eye WMA, but the Project will be on the opposite side of the road from the WMA. Thus, the Red Eye WMA will not be impacted.<sup>127</sup>

104. No impacts to recreational resources are anticipated as result of construction of the Project or route alternatives.<sup>128</sup>

## 6. Public Service and Infrastructure

105. Temporary impacts to public services resulting from the Project are anticipated to be minimal. Long-term impacts to public services are not anticipated.<sup>129</sup>

106. No impacts to water utilities are anticipated as a result of the Project.<sup>130</sup>

107. The electrical transmission system in the Project area will change as a result of the Project, but no adverse impacts to electrical service are anticipated.<sup>131</sup>

108. No impacts to natural gas service are anticipated as a result of the Project.<sup>132</sup>

109. No impacts to emergency services are anticipated due to the Project.<sup>133</sup>

110. Applicants must obtain permits and approvals from MnDOT for crossing state and federal highways. Applicants are also required to comply with MnDOT’s accommodation policy for placement of utilities along and across state highways. Impacts to roads and highways due to the Project construction are anticipated to be minimal and temporary. Applicants have indicated that they will work with roadway authorities to minimize obstructions and inconvenience to the public and that construction equipment will be moved in a manner to minimize safety risks and avoid traffic congestion. Where the Project crosses roadways, Applicants will use temporary guard structures to ensure that the Project does not interfere with traffic. No impacts to roads and highways are anticipated after Project construction.<sup>134</sup>

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<sup>125</sup> Ex. 6 at 9-13 (Application).

<sup>126</sup> See Ex. 20 at 72 (EA).

<sup>127</sup> Ex. 20 at 72 (EA).

<sup>128</sup> Ex. 20 at 96, 108 (EA).

<sup>129</sup> Ex. 20 at 65 (EA).

<sup>130</sup> Ex. 20 at 67 (EA).

<sup>131</sup> Ex. 20 at 67 (EA).

<sup>132</sup> Ex. 20 at 67 (EA).

<sup>133</sup> Ex. 20 at 68 (EA).

<sup>134</sup> Ex. 20 at 65-66 (EA).

111. No impacts to airports are anticipated as a result of the Project.<sup>135</sup>

112. No impacts to public services and infrastructure are anticipated as a result of the Project or the route alternatives.<sup>136</sup>

## 7. Zoning and Land Use Compatibility

113. The Project is generally compatible with current and future land uses in the project area and impacts to land uses due to the Project are anticipated to be minimal.<sup>137</sup>

114. The Alajoki Cemetery is located along the Proposed Route in Section 18 of Blueberry Township, Wadena County.<sup>138</sup> The cemetery will be expanding in the near future by 75 feet to the north along Wadena Line Road.<sup>139</sup>

115. The Proposed Route would impact the Alajoki Cemetery by placing conductors, and possibly structures, across the front edge of the cemetery, thus impacting the aesthetics of the cemetery and its approachability for visitors.<sup>140</sup>

116. Impacts to the Alajoki Cemetery could be minimized by placing transmission line structures on either side of the cemetery, i.e., by not placing a structure along the front edge of the existing cemetery or its future expansion.<sup>141</sup>

## B. Effects on Public Health and Safety

117. Minnesota high voltage transmission line routing factors require consideration of the Project's potential effect on health and safety.<sup>142</sup>

### 1. Construction and Operation of Facilities

118. The Project will be designed in compliance with local, state, National Electric Safety Code ("NESC"), and Applicants' standards regarding clearance to ground, clearance to crossing utilities, clearance to buildings, strength of materials, and right-of-way widths.<sup>143</sup>

119. Applicants' construction crews and/or contract crews will comply with local, state, NESC, and Applicants' standards regarding installation of facilities and standard construction practices. Applicants' and industry safety procedures will be followed during and

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<sup>135</sup> Ex. 20 at 66 (EA).

<sup>136</sup> Ex. 20 at 96, 107 (EA).

<sup>137</sup> Ex. 20 at 54 (EA).

<sup>138</sup> Ex. 20 at 54 (EA).

<sup>139</sup> Ex. 20 at 54 (EA).

<sup>140</sup> Ex. 20 at 54 (EA).

<sup>141</sup> Ex. 20 at 55, 87 (EA).

<sup>142</sup> Minn. Stat. § 216E.03, Subd. 7(b)(1); Minn. R. 7850.4100(B).

<sup>143</sup> Ex. 6 at 9-2 (Application).

after installation of the transmission lines. This will include clear signage during all construction activities.<sup>144</sup>

120. The Project would be equipped with protected devices to safeguard the public if an accident occurs and a structure or conductor falls to the ground. The existing substations are already equipped with breakers and relays located where existing transmission lines connect to the substations. The protective equipment is designed to de-energize the transmission lines should such an event occur.<sup>145</sup>

## 2. Electric and Magnetic Fields

121. There are no federal standards for transmission line electric fields.<sup>146</sup>

122. The Commission has imposed a maximum electric field limit of 8 kV/m measured at one meter above the ground at the edge of the right-of-way.<sup>147</sup>

123. The calculated electric fields for the Project are less than the maximum limit of 8 kV/m prescribed by the Commission.<sup>148</sup>

124. There are no federal or state regulations for the permitted strength of magnetic fields from transmission lines.<sup>149</sup>

125. Research has not been able to establish a cause and effect relationship between exposure to magnetic fields and adverse health effects.<sup>150</sup>

126. The potential impacts of EMF on human health were at issue in the Route Permit proceeding for the Brookings County to Hampton 345 kV transmission line. In that proceeding, ALJ Luis found that: “The absence of any demonstrated impact by EMF-ELF exposure supports the conclusion that there is no demonstrated impact on human health and safety that is not adequately addressed by the existing State standards for such exposure. The record shows that the current exposure standard for EMF-ELF is adequately protective of human health and safety.”<sup>151</sup>

127. Similarly, in the Route Permit proceeding for the St. Cloud-Fargo 345 kV transmission line, ALJ Heydinger found: “Over the past 30 years, many epidemiological studies have been conducted to determine if there is a correlation between childhood leukemia and

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<sup>144</sup> Ex. 6 at 9-2 (Application).

<sup>145</sup> Ex. 6 at 9-2 (Application).

<sup>146</sup> Ex. 20 at 57 (EA).

<sup>147</sup> Ex. 20 at 57 (EA).

<sup>148</sup> Ex. 20 at 59 (EA).

<sup>149</sup> Ex. 20 at 57 (EA).

<sup>150</sup> Ex. 20 at 57 (EA).

<sup>151</sup> See *In re Route Permit Application by Great River Energy and Xcel Energy for a 345 kV Transmission Line from Brookings County, South Dakota to Hampton, Minnesota*, Docket No. ET-2/TL-08-1474, ALJ’s Findings of Fact and Conclusions of Law at 44 ¶ 216 (Apr. 22, 2010), eDocket Document No. 20104-49478-01, *adopted as amended*, Commission Order at 8 (Sept. 14, 2010), eDocket Document No. 20109-54429-01.

proximity to electrical structures. Some studies have shown that there is an association and some have not. Although the epidemiological studies have been refined and increased in size, the studies do not show a stronger related effect. In addition, a great deal of experimental, laboratory research has been conducted to determine causality, and none has been found.”<sup>152</sup>

128. There is no indication that any significant impact on human health and safety will arise from the Project or any of the route alternatives.<sup>153</sup>

**C. Effects on Land-Based Economies and Direct and Indirect Economic Impacts**

129. Minnesota’s high voltage transmission line routing factors require consideration of the Project’s impacts to land-based economies, specifically agriculture, forestry, tourism, and mining.<sup>154</sup>

**1. Agriculture**

130. Agriculture is a land-based economic resource along the Proposed Route.<sup>155</sup>

131. Impacts to agricultural operations as a result of the Project are anticipated to be minimal. The Proposed Route crosses approximately 8.8 miles of agricultural land, and the right-of-way will cross approximately 182 acres of farmland. However, agricultural land within a transmission line right-of-way is generally available for agricultural production. Approximately 1,500 square feet of land is expected to be permanently removed from agricultural production.<sup>156</sup>

132. To mitigate the Project’s impacts on agriculture, Applicants will: limit the movement of crews and equipment to the greatest extent possible; repair and restore disturbed areas to pre-construction contours; repair ruts and soil compaction; conduct filling, grading, scarifying, harrowing, and disking; repair damage to ditches, tile, terraces, roads, and other land features; place structures to avoid irrigation systems; and provide compensation to landowners for any crop and property damage.<sup>157</sup>

133. No long-term impacts are anticipated to the agricultural economy from construction of the Project.<sup>158</sup> Impacts to agriculture are anticipated to be similar across the

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<sup>152</sup> *In re Application for a Route Permit for the Fargo to St. Cloud 345 kV Transmission Line Project*, Docket No. ET-2, E002/TL-09-1056, ALJ’s Findings of Fact, Conclusions of Law at 23 ¶ 125 (Apr. 25, 2011), eDocket Document No. 20114-61700-01, *adopted as amended*, Commission Order at 2 (June 24, 2011), eDocket Document No. 20116-64023-01.

<sup>153</sup> Ex. 20 at 55, 96, 108 (EA).

<sup>154</sup> Minn. Stat. § 216E.03, Subd. 7(b)(5); Minn. R. 7850.4100(C).

<sup>155</sup> Ex. 20 at 68 (EA).

<sup>156</sup> Ex. 20 at 69 (EA).

<sup>157</sup> Ex. 20 at 70 (EA).

<sup>158</sup> See Ex. 20 at 69-70 (EA).

Proposed Route and route alternatives; thus, none of the route alternatives offers an advantage over the Proposed Route.<sup>159</sup>

## 2. Forestry

134. The Proposed Route crosses approximately 4.7 miles of forested land.<sup>160</sup> The Proposed Route will require the removal of approximately 60 acres of forest.<sup>161</sup>

135. Impacts to forested areas and forestry operations as a result of the Project are anticipated to be moderate.<sup>162</sup> Impacts can be mitigated by prudent routing and prudent placement of structures within the route to avoid forested areas. Impacts can also be mitigated by new plantings compatible with the Project and compensation to landowners.<sup>163</sup>

136. As shown in Tables 2.1 and 2.2, each of the route alternatives impact more forested acres than the Proposed Route.<sup>164</sup>

**Table 2.1 – Forested Acres Within Right-of-Way – Proposed Route and Blueberry Route Alternative<sup>165</sup>**

| Route                       | Forested Acres within Right-of-Way<br>(100 ft.) |
|-----------------------------|-------------------------------------------------|
| Proposed Route              | 4.03                                            |
| Blueberry Route Alternative | 18.38                                           |

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<sup>159</sup> Ex. 20 at 96, 108 (EA).

<sup>160</sup> Ex. 20 at 70 (EA).

<sup>161</sup> Ex. 20 at 70 (EA).

<sup>162</sup> Ex. 20 at 70-71 (EA).

<sup>163</sup> Ex. 20 at 70-71 (EA).

<sup>164</sup> Ex. 20 at 98, 105, 110 (EA).

<sup>165</sup> Ex. 20 at 93 (EA).

**Table 2.2 – Forested Acres Within Right-of-Way – Proposed Route and Blueberry to Red Eye Route Alternatives<sup>166</sup>**

| <b>Route</b>                              | <b>Forested Acres within Right-of-Way<br/>(100 ft.)</b> |
|-------------------------------------------|---------------------------------------------------------|
| Proposed Route                            | 17.80                                                   |
| East of 109th Avenue<br>Route Alternative | 28.88                                                   |
| 119th Avenue Route<br>Alternative         | 22.40                                                   |
| Pipeline South Route<br>Alternative       | 22.02                                                   |
| U.S. Route 71 Route<br>Alternative        | 22.73                                                   |

### 3. Mining

137. There are several active gravel pits in the Project area.<sup>167</sup>

138. Impacts to gravel pits are anticipated to be minimal and similar across the Proposed Route and route alternatives.<sup>168</sup> The Proposed Route is near two gravel pits in Blueberry Township, one active and one inactive. Because the gravel pits must be set back from the roadway, it is anticipated that the Project can be placed between the gravel pits and the roadway without impacting current or future gravel mining activities.<sup>169</sup>

#### **D. Effects on Archeological and Historic Resources**

139. Minnesota Rule 7850.4100(D) requires consideration of the effects on historic and archaeological resources.

140. Applicants' review of SHPO records indicated that there are eight previously recorded archeological sites and six previously recorded historic structures within one mile of the Proposed Route. None of the archeological sites is within the Proposed Route.<sup>170</sup> One of the historic structures is within the Proposed Route, but it is not within the proposed right-of-way, and the Project is not anticipated to impact the structure.<sup>171</sup>

141. There is a moderate to high potential that the Proposed Route could impact unrecorded archeological sites. Accordingly, SHPO has recommended that a Phase I

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<sup>166</sup> Ex. 20 at 105 (EA).

<sup>167</sup> Ex. 20 at 71 (EA).

<sup>168</sup> Ex. 20 at 96, 108 (EA).

<sup>169</sup> Ex. 20 at 72 (EA).

<sup>170</sup> Ex. 20 at 73 (EA).

<sup>171</sup> Ex. 20 at 73 (EA).

archeological survey be completed for the Project, and Applicants have agreed to perform this survey.<sup>172</sup>

142. If archeological sites or resources are identified during Project construction, work will be stopped and SHPO staff will be consulted on how to proceed.<sup>173</sup>

143. Impacts to archeological and historic resources are anticipated to be similar across the Proposed Route and route alternatives.<sup>174</sup> No impacts to previously identified archaeological or historic resources are anticipated as a result of construction of the Project along the Proposed Route.<sup>175</sup>

## **E. Effects on Natural Environment**

144. Minnesota's high voltage transmission line routing factors require consideration of the Proposed Route's effect on the natural environment, including effects on air and water quality resources and flora and fauna.<sup>176</sup>

### **1. Air Quality**

145. Ozone and nitrous oxide emissions from the Project are anticipated to be less than state and federal standards. Impacts due to construction dust are anticipated to be minor and temporary.<sup>177</sup> Applicants will use dust control measures to minimize dust during Project construction.<sup>178</sup>

146. No significant impacts to air quality are anticipated from the Project or any of the route alternatives.<sup>179</sup>

### **2. Water Quality and Resources**

147. The Project avoids or spans surface waters. Applicants will use best management practices to prevent construction sediments from impacting surface waters and follow DNR recommendations to minimize impacts at crossings of public waters. Thus, impacts to surface waters are anticipated to be minimal.<sup>180</sup>

148. No impacts to the 100-year floodplain and related development in the Project area are anticipated.<sup>181</sup>

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<sup>172</sup> Ex. 20 at 73 (EA).

<sup>173</sup> Ex. 20 at 74 (EA).

<sup>174</sup> Ex. 20 at 96, 105 (EA).

<sup>175</sup> Ex. 20 at 73 (EA).

<sup>176</sup> Minn. Stat. §§ 216E.03, Subd. 7(b)(1)-(2); Minn. R. 7850.4100(E).

<sup>177</sup> Ex. 20 at 65 (EA).

<sup>178</sup> Ex. 20 at 65 (EA).

<sup>179</sup> Ex. 20 at 65, 97, 108 (EA).

<sup>180</sup> Ex. 20 at 74-75 (EA).

<sup>181</sup> Ex. 20 at 75 (EA).

149. Groundwater impacts are anticipated to be minimal.<sup>182</sup>

150. Because most wetlands within the Proposed Route can be avoided or spanned, Project impacts to wetlands are anticipated to be minimal. Applicants anticipate that the Project will qualify for a regional general permit from the United States Army Corps of Engineers (“USACE”). Applicants will restore all wetlands in accordance with USACE requirements and within the requirements of Minnesota’s Wetland Conservation Act.<sup>183</sup>

151. As shown in Tables 3.1 and 3.2, the Blueberry Route Alternative and the Pipeline South and U.S. Route 71 Route Alternatives impact more acres of wetlands than the Proposed Route.<sup>184</sup> The East of 109<sup>th</sup> Ave. and 119<sup>th</sup> Ave. Route Alternatives impact fewer acres of wetlands than the Proposed Route.<sup>185</sup> Use of the U.S. Route 71 Route Alternative would permanently change approximately 7.61 acres of forested wetlands into non-forested wetlands.<sup>186</sup>

**Table 3.1 – Wetlands Within Right-of-Way – Proposed Route and Blueberry Route Alternative<sup>187</sup>**

| Route                       | Forested Wetland Acres Within Right-of-Way (100 ft.) | Total Wetland Acres Within Right-of-Way (100 ft.) |
|-----------------------------|------------------------------------------------------|---------------------------------------------------|
| Proposed Route              | 1.95                                                 | 3.14                                              |
| Blueberry Route Alternative | 3.40                                                 | 4.38                                              |

**Table 3.2 – Wetlands Within Right-of-Way – Proposed Route and Blueberry to Red Eye Route Alternatives<sup>188</sup>**

| Route                      | Forested Wetland Acres Within Right-of-Way (100 ft.) | Total Wetland Acres Within Right-of-Way (100 ft.) |
|----------------------------|------------------------------------------------------|---------------------------------------------------|
| Proposed Route             | 2.03                                                 | 4.13                                              |
| East of 109th Avenue Route | 2.02                                                 | 3.73                                              |

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<sup>182</sup> Ex. 20 at 76 (EA).

<sup>183</sup> Ex. 20 at 76-77 (EA).

<sup>184</sup> Ex. 20 at 94, 106 (EA).

<sup>185</sup> Ex. 20 at 106 (EA).

<sup>186</sup> Ex. 20 at 106, 108 (EA).

<sup>187</sup> Ex. 20 at 94 (EA).

<sup>188</sup> Ex. 20 at 106 (EA).

|                                        |      |       |
|----------------------------------------|------|-------|
| Alternative                            |      |       |
| 119th Avenue<br>Route<br>Alternative   | 2.87 | 4.06  |
| Pipeline South<br>Route<br>Alternative | 5.32 | 8.63  |
| U.S. Route 71<br>Route<br>Alternative  | 7.61 | 10.13 |

### 3. Flora

152. Impacts to flora due to the Project are anticipated to be minimal to moderate.<sup>189</sup> Impacts to non-tree flora are anticipated to be minimal; impacts to trees are anticipated to be moderate.<sup>190</sup>

153. Impacts to flora can be mitigated by (1) placement of the alignment and specific structures to avoid trees and other tall-growing species, (2) construction during fall and winter months to limit plant damage, (3) leaving or replanting compatible plants at the edge of the transmission line ROW, (4) replanting on the ROW with low growing, native species, and (5) avoiding the introduction of invasive species.<sup>191</sup>

154. Applicants will minimize the introduction and spread of invasive species by: revegetating disturbed areas using weed-free seed mixes; using weed-free straw and hay for erosion control; removing invasive species via herbicide and manual means consistent with easement conditions and landowner restrictions.<sup>192</sup>

155. The DNR recommended several strategies to minimize impacts to flora, including use of border zone/wire zone ROW management, the maintenance of vegetation at all stream crossings, and development of a Vegetation Management Plan for the Project.<sup>193</sup>

156. Impacts to non-tree flora are not anticipated to vary among routing options.<sup>194</sup> Because they impact more acres of forested land, each of the route alternatives is anticipated to have a relatively greater impact on trees than the Proposed Route.<sup>195</sup>

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<sup>189</sup> Ex. 20 at 79 (EA).

<sup>190</sup> Ex. 20 at 87(EA).

<sup>191</sup> Ex. 20 at 79 (EA).

<sup>192</sup> Ex. 20 at 79 (EA).

<sup>193</sup> DNR Public Hearing Comments (Nov. 21, 2015, eDocket Document No. 201511-115391-01.

<sup>194</sup> Ex. 20 at 94, 106 (EA).

<sup>195</sup> Ex. 20 at 97, 110 (EA).

#### 4. Fauna

157. The Project area includes a variety of habitats including forested areas, grasslands, agricultural fields, wetlands, and lakes and streams. There are four WMAs in the Project area: Lowe WMA, Red Eye WMA, Kitten Creek WMA, and Wood Eye WMA.<sup>196</sup>

158. USFWS has indicated a need for bird flight diverters and raptor perch deterrents near the Red Eye WMA to minimize impacts to avian species.<sup>197</sup> The DNR indicated a need for bird flight diverters at all public water crossings.<sup>198</sup> The DNR recommended the development of an Avian Mitigation Plan for the Project.<sup>199</sup> Applicants indicated that they will work with DNR and USFWS to identify areas of the Project where bird flight diverters are needed.

159. Impacts to non-avian species are anticipated to be similar across the Project and route alternatives and minimal.<sup>200</sup> Impacts to avian species as a result of the Project are anticipated to be minimal to moderate; however, impacts can be mitigated through the use of bird flight diverters.<sup>201</sup>

#### **F. Effects on Rare and Unique Natural Resources**

160. Minnesota's high voltage transmission line routing factors require consideration of the Project's effect on rare and unique natural resources.<sup>202</sup>

161. There are rare and unique plant communities in the Project area; there are three rare and unique plant species in the Project area: Yellow Rail, Rams-head Lady's-slipper, and Dragon's Mouth.<sup>203</sup> There are three rare and unique animal species in the Project area: the Greater Prairie Chicken, Eastern Hog-Nosed Snake, and Creek Heelsplitter.<sup>204</sup>

162. The Northern Long-Eared Bat (NLEB) was listed by the USFWS as a threatened species on April 2, 2015.<sup>205</sup> The NLEB was listed due to white nose syndrome, a fungal disease that has spread throughout the NLEB's range.<sup>206</sup> Because of this disease, other possible cause of NLEB mortality may be important factors affecting the viability of NLEB populations.<sup>207</sup> One such cause is the loss or degradation of summer roosting habitat.<sup>208</sup> There are no known

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<sup>196</sup> Ex. 20 at 80 (EA).

<sup>197</sup> Ex. 20 at 81 (EA).

<sup>198</sup> DNR Public Hearing Comments (Nov. 21, 2015, eDocket Document No. 201511-115391-01.

<sup>199</sup> DNR Public Hearing Comments (Nov. 21, 2015, eDocket Document No. 201511-115391-01.

<sup>200</sup> Ex. 20 at 94, 106 (EA).

<sup>201</sup> Ex. 20 at 94, 106 (EA).

<sup>202</sup> Minn. Stat. § 216E.03, Subd. 7(b)(1); Minn. R. 7850.4100(F).

<sup>203</sup> Ex.20 at 81-82 (EA).

<sup>204</sup> Ex. 20 at 81-82 (EA).

<sup>205</sup> Ex. 20 at 82 (EA).

<sup>206</sup> Ex. 20 at 82 (EA).

<sup>207</sup> Ex. 20 at 82 (EA).

<sup>208</sup> Ex. 20 at 82 (EA).

occurrences of NLEB roosting in the Project area; however the Project area includes trees that may serve as roosting habitat for NLEB.<sup>209</sup>

163. The USFWS recommends minimizing the removal of trees that could be used as roosting habitat for the NLEB.<sup>210</sup> The USFWS has indicated that an incidental take permit may be necessary for projects that result in greater than one acre of tree removal.<sup>211</sup> The take permit may impose conditions to mitigate potential impacts to NLEB.<sup>212</sup>

164. A segment of the Proposed Route from the Hubbard substation to the Straight River substation passes through an area of biological significance and old growth forest remnants.<sup>213</sup> The DNR recommended several mitigation strategies for this segment, including: (1) constructing the project within already disturbed areas, (2) minimizing vehicular disturbance, (3) avoiding equipment or supply stockpiles in the area, (4) inspecting and cleaning all equipment to prevent introduction of invasive species, (5) conducting work under frozen ground conditions, (6) using effective erosion control measures, and (7) revegetating with native species and weed-free seed mixes.<sup>214</sup>

165. The DNR recommended that erosion control measures be implemented near Kettle Creek and the Blueberry River to mitigate potential impacts to the Creek Heelsplitter mussel.<sup>215</sup>

166. Impacts to rare and unique natural resources can be avoided through prudent routing.<sup>216</sup> Within a route, impacts can be mitigated by placing the alignment and specific structures away from rare resources.<sup>217</sup>

167. The Proposed Route is generally located away from rare communities and species in the Project area. Where the Proposed Route crosses and/or is near such communities, it follows existing rights-of-way. Thus, impacts to rare and unique species are anticipated to be minimal.<sup>218</sup> Impacts to rare and unique natural resources along the route alternatives are anticipated to be similar to those along the Proposed Route and minimal.<sup>219</sup>

#### **G. Application of Various Design Considerations**

168. Minnesota's high voltage transmission line routing factors require consideration of the Project's applied design options that maximize energy efficiencies, mitigate adverse

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<sup>209</sup> Ex. 20 at 82 (EA).

<sup>210</sup> Ex. 20 at 84 (EA).

<sup>211</sup> Ex. 20 at 84 (EA).

<sup>212</sup> Ex. 20 at 84 (EA).

<sup>213</sup> Ex. 20 at 82 (EA).

<sup>214</sup> Ex. 20 at 84 (EA).

<sup>215</sup> Ex. 20 at 84 (EA).

<sup>216</sup> Ex. 20 at 83 (EA).

<sup>217</sup> Ex. 20 at 83 (EA).

<sup>218</sup> Ex. 20 at 82 (EA).

<sup>219</sup> Ex. 20 at 100, 106 (EA).

environmental effects, and could accommodate expansion of transmission or generating capacity.<sup>220</sup>

169. The Project is designed to improve electrical service and reliability in the Project area. It is also designed to accommodate future expansion of the transmission system in the area.<sup>221</sup>

**H. Use or Paralleling of Existing Right-of-Way, Survey Lines, Natural Division Lines, and Agricultural Field Boundaries**

170. Minnesota’s high voltage transmission line routing factors require consideration of the Project’s use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries.<sup>222</sup>

171. Using existing corridors reduces and minimizes impacts on planned future residential areas, commercial properties, and environmental and sensitive resources.<sup>223</sup>

172. As shown in Tables 4.1 and 4.2, the Blueberry, East of 109th Avenue, and 119th Avenue Route Alternatives utilize less existing right-of-way than the Proposed Route.<sup>224</sup> The Pipeline South and U.S. Route 71 Route Alternatives utilize slightly more existing ROW than the Proposed Route.<sup>225</sup> In areas where the East of 109<sup>th</sup> Avenue and 119<sup>th</sup> Avenue Route Alternatives do not follow existing ROW, they do follow field boundaries.<sup>226</sup>

**Table 4.1 – Use of Existing Right-of-Way – Proposed Route and Blueberry Route Alternative<sup>227</sup>**

| Route                       | Total Length (miles) | Length Following Roadway, Pipeline, or Transmission Line Right-of-Way (miles/percent) | Length Following Field Boundaries (miles/percent) |
|-----------------------------|----------------------|---------------------------------------------------------------------------------------|---------------------------------------------------|
| Proposed Route              | 1.95                 | 1.58 / 81%                                                                            | 0 / 0%                                            |
| Blueberry Route Alternative | 2.07                 | 0.77 / 37%                                                                            | 0 / 0%                                            |

**Table 4.2 – Proposed Route and Blueberry to Red Eye Route Alternatives<sup>228</sup>**

<sup>220</sup> Minn. Stat. § 216E.03, Subd. 7(a)-(b); Minn. R. 7850.1900, Subp. 2(L).

<sup>221</sup> Ex. 20 at 89 (EA).

<sup>222</sup> Minn. Stat. § 216E.03, Subd. 7(b)(9); Minn. R. 7850.4100(H).

<sup>223</sup> Ex. 20 at 46 (EA).

<sup>224</sup> See Ex. 20 at 92, 104 (EA).

<sup>225</sup> Ex. 20 at 92, 104 (EA).

<sup>226</sup> Ex. 20 at 104 (EA).

<sup>227</sup> Ex. 20 at 92 (EA).

<sup>228</sup> Ex. 20 at 104 (EA).

| Route                                  | Total Length (miles) | Length Following Roadway, Pipeline, or Transmission Line Right-of-Way (miles/percent) | Length Following Field Boundaries (miles/percent) |
|----------------------------------------|----------------------|---------------------------------------------------------------------------------------|---------------------------------------------------|
| Proposed Route                         | 7.85                 | 7.44 / 95%                                                                            | 1.84 / 23%                                        |
| East of 109th Avenue Route Alternative | 7.51                 | 4.42 / 59%                                                                            | 2.67 / 36%                                        |
| 119th Avenue Route Alternative         | 4.55                 | 6.75 / 89%                                                                            | 2.36 / 31%                                        |
| Pipeline South Route Alternative       | 5.70                 | 5.65 / 99%                                                                            | 0.52 / 9%                                         |
| U.S. Route 71 Route Alternative        | 7.55                 | 7.50 / 99%                                                                            | 1.87 / 25%                                        |

**I. Use of Existing Transportation, Pipeline, and Electrical Transmission System Rights-of-Way**

173. Minnesota's high voltage transmission line routing factors require consideration of the Project's use of existing transportation, pipeline and electrical transmission system rights-of-way.<sup>229</sup>

174. As shown in Tables 4.1 and 4.2 above, the Blueberry, East of 109th Avenue, and 119th Avenue Route Alternatives utilize less existing right-of-way than the Proposed Route.<sup>230</sup> The Pipeline South and U.S. Route 71 Route Alternatives utilize slightly more existing ROW than the Proposed Route.<sup>231</sup>

**J. Electrical System Reliability**

175. Minnesota's high voltage transmission line routing factors require consideration of the Project's impact on electrical system reliability.<sup>232</sup>

176. The Project will be constructed to meet reliability requirements.<sup>233</sup> The Project is anticipated to improve electrical service and reliability in the Project area.<sup>234</sup>

**K. Costs of Constructing, Operating, and Maintaining the Facility**

177. Minnesota's high voltage transmission line routing factors require consideration of the Project's cost of construction, operation, and maintenance.<sup>235</sup>

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<sup>229</sup> Minn. Stat. § 216E.03, Subd. 7(b)(8); Minn. R. 7850.4100(J).

<sup>230</sup> Ex. 20 at 92, 104 (EA).

<sup>231</sup> Ex. 20 at 104 (EA).

<sup>232</sup> Minn. Stat. § 216E.03, Subd. 7(b)(10); Minn. R. 7850.4100(K).

<sup>233</sup> Ex. 6 at 4-1 to 4-11, 5-1 to 5-7 (Application).

<sup>234</sup> Ex. 20 at 89 (EA).

<sup>235</sup> Minn. R. 7850.4100(L).

178. The estimated cost of the Project along the Proposed Route is \$23 million, depending on final route selection and mitigation.<sup>236</sup> As shown in Tables 5.1 and 5.2, the Blueberry, Pipeline South, and U.S. Route 71 Route Alternatives are anticipated to have higher costs than the Proposed Route.<sup>237</sup> The East of 109<sup>th</sup> Avenue and 119<sup>th</sup> Avenue Route Alternatives are anticipated to have slightly lower costs than the Proposed Route.<sup>238</sup>

**Table 5.1 – Estimated Costs – Proposed Route and Blueberry Route Alternative**<sup>239</sup>

| Route                       | Estimated Cost |
|-----------------------------|----------------|
| Proposed Route              | \$1.01 million |
| Blueberry Route Alternative | \$1.25 million |

**Table 5.2 – Estimated Costs – Proposed Route and Blueberry to Red Eye Route Alternatives**<sup>240</sup>

| Route                                  | Estimated Cost |
|----------------------------------------|----------------|
| Proposed Route                         | \$4.34 million |
| East of 109th Avenue Route Alternative | \$3.83 million |
| 119th Avenue Route Alternative         | \$4.23 million |
| Pipeline South Route Alternative       | \$5.13 million |
| U.S. Route 71 Route Alternative        | \$4.62 million |

179. The cost of the Western Blueberry Substation Site Alternative is higher than the Proposed Blueberry Substation Site by approximately \$430,000 dollars.<sup>241</sup>

180. For all of the overhead designs, operating and maintenance costs for the transmission line will be nominal for several years because the line will be new, and minimal vegetation maintenance will be required. Annual operating and maintenance costs for the 115 kV wooden transmission structures across Great River Energy's Minnesota system average approximately \$2,000 per mile of transmission right-of-way for scheduled maintenance.<sup>242</sup> The Applicant's practice provides for the inspection of 115 kV transmission lines every two years.

<sup>236</sup> Ex. 6 at 4-11 (Application).

<sup>237</sup> Ex. 20 at 95, 107 (EA).

<sup>238</sup> Ex. 20 at 95, 107 (EA).

<sup>239</sup> Ex. 20 at 95 (EA).

<sup>240</sup> Ex. 20 at 107 (EA).

<sup>242</sup> Ex. 20 at 29 (EA).

<sup>242</sup> Ex. 20 at 29 (EA).

Right-of-way clearing practices include a combination of mechanical and hand clearing, along with herbicide application where allowed.<sup>243</sup>

**L. Adverse Human and Natural Environmental Effects Which Cannot be Avoided**

181. Minnesota's high voltage transmission line routing factors require consideration of the adverse human and natural environmental effects, which cannot be avoided, for each proposed route.<sup>244</sup>

182. Unavoidable adverse impacts include aesthetic impacts, impacts to agriculture and forestry, impacts to vegetation, and impacts to wildlife and wildlife habitat.<sup>245</sup>

**M. Irreversible and Irretrievable Commitments of Resources**

183. Minnesota's high voltage transmission line routing factors require consideration of the irreversible and irretrievable commitments of resources that are necessary for each proposed route.<sup>246</sup>

184. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the use of those resources have on future generations. Irreversible effects result primarily from the use or destruction of a specific resource that cannot be replaced within a reasonable timeframe. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of action.<sup>247</sup>

185. The commitment of land for a transmission line ROW is likely an irreversible commitment of resources.<sup>248</sup> The majority of the Proposed Route parallels land that has already been committed to transmission line or roadway right-of-way.<sup>249</sup>

186. There are few commitments of resources associated with this Project that are irreversible and irretrievable, but those few resources relate primarily to construction of the Project. Only construction resources, such as concrete, steel, and hydrocarbon fuels, will be irreversibly and irretrievably committed to this Project.<sup>250</sup>

**N. Summary of Factors Analysis**

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<sup>243</sup> Ex. 6 at 8-6 (Application).

<sup>244</sup> Minn. Stat. § 216E.03, Subd. 7(b)(5)-(6); Minn. R. 7850.4100(M).

<sup>245</sup> Ex. 20 at 89-90 (EA).

<sup>246</sup> Minn. Stat. § 216E.03, Subd. 7(b)(11); Minn. R. 7850.4100(N).

<sup>247</sup> Ex. 20 at 90 (EA).

<sup>248</sup> Ex. 20 at 90 (EA).

<sup>249</sup> Ex. 20 at 104 (EA).

<sup>250</sup> Ex. 20 at 90 (EA).

187. For that segment of the Project from the Hubbard Substation to the proposed Blueberry Substation, the Proposed Route and the Blueberry Route Alternative are anticipated to have similar impacts with respect to the routing factors except for: aesthetic impacts, impacts to forestry and flora, impacts on rare and unique resources and use of existing rights-of-way.<sup>251</sup> The Proposed Route has lesser impacts than the Blueberry Route Alternative on forestry, flora, and rare and unique resources.<sup>252</sup> The Proposed Route utilizes more existing right-of-way than the Blueberry Route Alternative and minimizes aesthetic impacts by placing like with like.<sup>253</sup> The Blueberry Route Alternative is near fewer residences; these residences are closer to the anticipated alignment for the Project than residences along the Proposed Route.<sup>254</sup>

188. The Proposed Blueberry Substation Site and the Western Blueberry Substation Site Alternative are anticipated to have similar impacts with respect to the routing factors except for cost.<sup>255</sup>

189. For that segment of the Project from the Proposed Blueberry Substation to the Proposed Red Eye Substation, the Proposed Route and the Blueberry to Red Eye Route Alternatives are anticipated to have similar impacts with respect to the routing factors except for: aesthetic impacts, impacts to forestry and flora, use of existing rights-of-way, and cost.<sup>256</sup> The Proposed Route has lesser impacts than the Route Alternatives on forestry and flora.<sup>257</sup> The Proposed Route and the 119<sup>th</sup> Avenue, Pipeline South, and U.S Route 71 Route Alternatives make the best of use of existing ROW.<sup>258</sup> The Proposed Route and the 119<sup>th</sup> Avenue and U.S Route 71 Route Alternatives minimize aesthetic impacts by placing like with like.<sup>259</sup> All of the Blueberry to Red Eye Route Alternatives are near fewer residences than the Proposed Route.<sup>260</sup> The East of 109<sup>th</sup> Avenue, 119<sup>th</sup> Avenue, and U.S. Route 71 Route Alternatives have residences that are closer to the anticipated alignment for the Project than the Proposed Route.<sup>261</sup> The Pipeline South Route Alternative is anticipated to be more expensive to construct than other routing options.<sup>262</sup>

190. There are several routing factors for which impacts are anticipated to be minimal to moderate and which may require permit conditions in order for the impacts to be mitigated.<sup>263</sup> These are: impacts on zoning and land use compatibility; impacts on archaeological and historic

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<sup>251</sup> Ex. 20 at 96-98 (EA).

<sup>252</sup> Ex. 20 at 96-98 (EA).

<sup>253</sup> Ex. 20 at 96-98 (EA).

<sup>254</sup> Ex. 20 at 92 (EA).

<sup>255</sup> Ex. 20 at 101-102 (EA).

<sup>256</sup> Ex. 20 at 107-110 (EA).

<sup>257</sup> Ex. 20 at 107-110 (EA).

<sup>258</sup> Ex. 20 at 107-110 (EA).

<sup>259</sup> Ex. 20 at 107-110 (EA).

<sup>260</sup> Ex. 20 at 107-110 (EA).

<sup>261</sup> Ex. 20 at 107-110 (EA).

<sup>262</sup> Ex. 20 at 107-110 (EA).

<sup>263</sup> Ex. 20 at 87-88 (EA).

resources; impacts on forestry, flora, and fauna; and impacts on rare and unique natural resources.<sup>264</sup>

## II. NOTICE

191. Minnesota statutes and rules require Applicants to provide certain notice to the public and local governments before and during the Application for a Route Permit process.<sup>265</sup>

192. Applicants provided notice to the public and local governments in satisfaction of Minnesota statutory and rule requirements.<sup>266</sup>

193. Minnesota statutes and rules also require EERA and the Commission to provide certain notice to the public throughout the Route Permit process.<sup>267</sup> EERA and the Commission provided the notice in satisfaction of Minnesota statutes and rules.<sup>268</sup>

## III. COMPLETENESS OF EA

194. The Commission is required to determine the completeness of the EA.<sup>269</sup> An EA is complete if it and the record address the issues and alternatives identified in the Scoping Decision.<sup>270</sup>

195. The evidence on the record demonstrates that the EA is adequate because the EA and the record created at the public hearing and during the subsequent comment period address the issues and alternatives raised in the Scoping Decision.<sup>271</sup>

Based on the foregoing Findings of Fact and the record in this proceeding, the Commission makes the following:

### CONCLUSIONS

1. [Department Conclusion 196] The Commission has jurisdiction to consider the Application.
2. [Department Conclusion 197] The Commission determined that the Application was substantially complete and accepted the Application on March 18, 2015.<sup>272</sup>

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<sup>264</sup> Ex. 20 at 87-88 (EA).

<sup>265</sup> Minn. Stat. § 216E.03, Subds. 3a, 4; Minn. R. 7850.2100, Subps. 2, 4.

<sup>266</sup> Ex. 7 (Notice of Route Permit Application Submission); Notice (Jan. 26, 2015), eDocket Document No. 20151-106621-01; Notice (Feb. 17, 2015), eDocket Document No. 20152-107393-01.

<sup>267</sup> Minn. Stat. § 216E.03, Subd. 6; Minn. R. 7850.2300, Subp. 2; Minn. R. 7850.2500, Subps. 2, 7-9.

<sup>268</sup> Ex. 17 (EA Scoping Decision); Ex. 21 (Notice of Availability of EA); Ex. 23 (Notice of Availability of EA in EQB Monitor); Ex. 36 (Notice of Comment Period on Application Completeness); Ex. 38 (Commission Meeting Notice on Completeness); Ex. 40 (Notice of Public Information and Scoping Meeting); Compliance Filing (Oct. 26, 2015), eDocket Document No. 20150-115106-01.

<sup>269</sup> Minn. R. 7850.3900, Subp. 2.

<sup>270</sup> *Id.*

<sup>271</sup> See Ex. 17 (EA Scoping Decision); Ex. 20 (EA).

3. [Department Conclusion 198] EERA has conducted an appropriate environmental analysis of the Project for purposes of this Route Permit proceeding and the EA satisfies Minnesota Rules 7850.3700 and 7850.3900. Specifically, the EA and the record address the issues and alternatives identified in the Scoping Decision to a reasonable extent considering the availability of information, and the EA includes the items required by Minnesota Rule 7850.3700, Subpart 4, and was prepared in compliance with the procedures in Minnesota Rule 7850.3700.

4. [Department Conclusion 199] Applicants gave notice as required by Minnesota Statutes Section 216E.04, Subdivision 4; Minnesota Rule 7850.2100, Subpart 2; Minnesota Rule 7850.2100, Subpart. 4.

5. [Department Conclusion 200] Notice was provided as required by Minnesota Statutes Section 216E.04, Subdivision 6; Minnesota Rule 7850.3500, Subpart 1; Minnesota Rule 7850.3700, Subparts 2, 3, and 6; and Minnesota Rule 7850.3800.

6. [Department Conclusion 201] A public hearing was conducted near the Proposed Route. Proper notice of the public hearing was provided, and the public was given the opportunity to speak at the hearing and to submit written comments. All procedural requirements for the Route Permit were met.

7. [Department Conclusion 202] The evidence on the record demonstrates that the alignment proposed by the Andersens on the south side of Hubbard Line Road (Andersen Alignment) mitigates potential impacts to trees and rare and unique natural resources and is appropriate for the Project.

8. [Department Conclusion 203] The evidence on the record demonstrates that for that segment of the Project between the Hubbard Substation and the proposed Blueberry Substation, the Proposed Route – including the Anderson Alignment and the proposed Blueberry Substation site – best satisfies the Route Permit factors set forth in Minnesota Statutes Section 216E.04, Subdivision 8 (referencing Minnesota Statutes Section 216E.03, Subdivision 7) and Minnesota Rule 7850.4100.

9. [Department Conclusion 204, revised] The evidence in the record demonstrates that, for that segment of the Project between the proposed Blueberry Substation and 350th Street, the Pipeline South Route Alternative best satisfies the Route Permit factors set forth in Minnesota Statutes Section 216E.04, Subdivision 8 (referencing Minnesota Statutes Section 216E.03, Subdivision 7) and Minnesota Rule 7850.4100. The evidence in the record further demonstrates that, for that segment of the Project between 350th Street and the proposed Red Eye Substation, the 119th Avenue Route Alternative best satisfies the Route Permit factors set forth in Minnesota Statutes Section 216E.04, Subdivision 8 (referencing Minnesota Statutes Section 216E.03, Subdivision 7) and Minnesota Rule 7850.4100.

10. [Department Conclusion 205] The evidence on the record demonstrates that the general Route Permit conditions are appropriate for the Project.

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<sup>272</sup> Ex. 41 (Commission Order Accepting Application as Complete).

11. [Department Conclusion 206] A special Route Permit condition to mitigate potential impacts to the Alajoki Cemetery is appropriate for the Project:

The permittees shall avoid placing structures along the existing frontage of the Alajoki Cemetery and its planned future expansion, consistent with engineering constraints for the line.

12. [Department Conclusion 207] A special Route Permit condition requiring a Phase I archaeological survey is appropriate for the Project:

The permittees shall consult with the State Historic Preservation Office concerning the extent of a Phase I archaeological survey and appropriate mitigation measures for the Project. Permittees shall document and submit to the Commission the results of the consultation, including those portions of the Project that will be surveyed and the extent of the survey. For those portions of the Project that are surveyed, permittees shall submit, with the plan and profile for these portions, the results of the survey and all avoidance and mitigation measures employed or to be employed.

13. [Department Conclusion 208] A special Route Permit condition requiring that the permittees consult with the DNR and USFWS to develop an avian mitigation plan is appropriate for the Project. It is appropriate for the plan to incorporate expressed recommendations of the DNR and USFWS, including the use of bird flight diverters at public water crossings and near the Red Eye WMA and the use of raptor perch deterrents for structures near the Red Eye WMA.

14. [Department Conclusion 209] A special Route Permit condition requiring that the permittees consult with the DNR to develop a vegetation management plan is appropriate for the Project. It is appropriate for the plan to incorporate expressed recommendations of the DNR including management of vegetation within the ROW to maintain low-growing plants on the border of the ROW (wire zone / border zone management) and maintaining natural vegetation within a 50 foot buffer on both banks at all stream crossings.

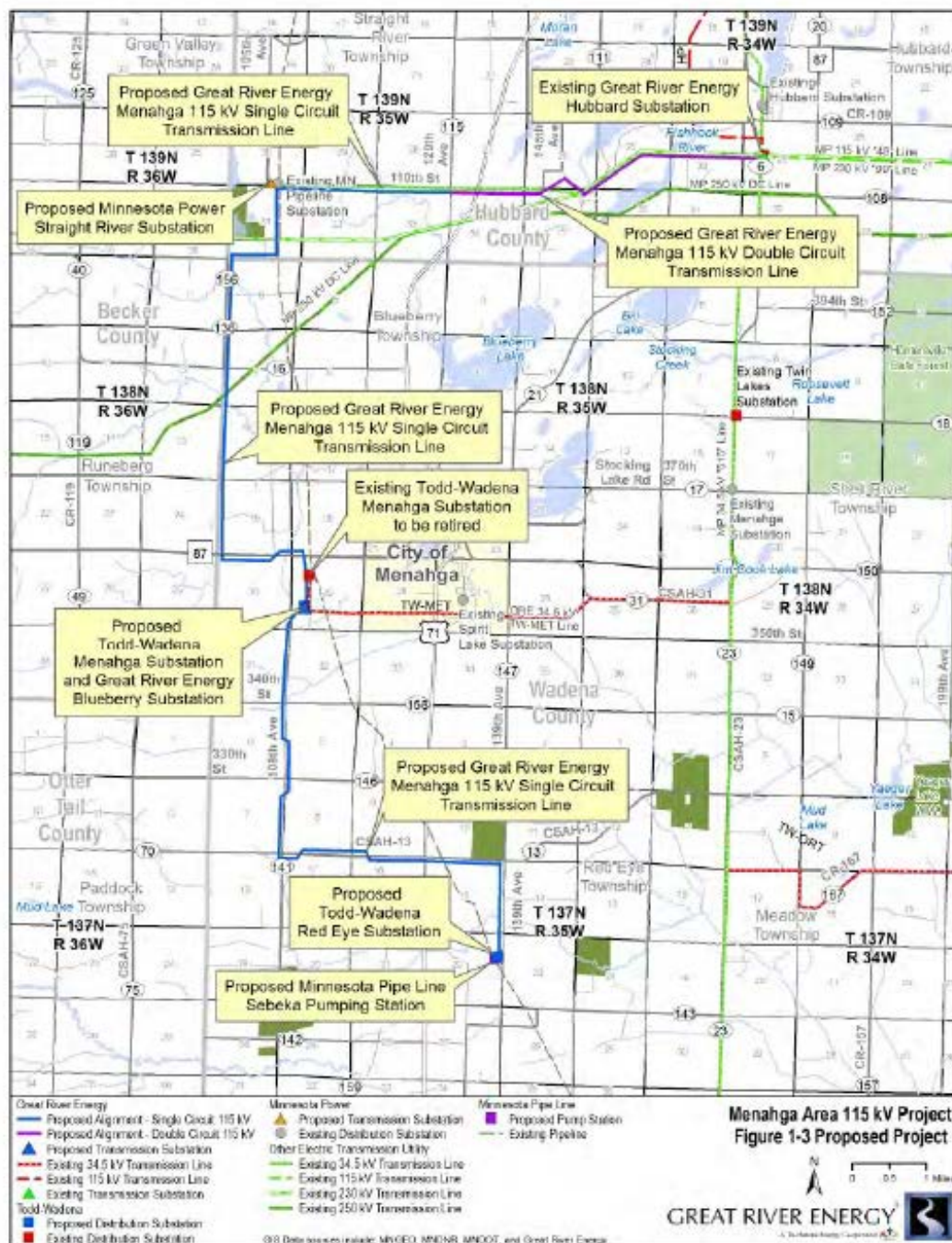
15. [Department Conclusion 210] A special Route Permit condition requiring that the permittees implement those mitigation strategies recommended by the DNR for rare and unique natural resources (Findings 164 and 165) is appropriate for the Project.

16. [Department Conclusion 211] A special Route Permit condition requiring that the permittees file with the Commission the results of any additional bat studies conducted for the Project is appropriate. Further, if the permittees are required to obtain an incidental take permit from the USFWS, it is appropriate for the permittees to file a copy of the permit with the Commission.

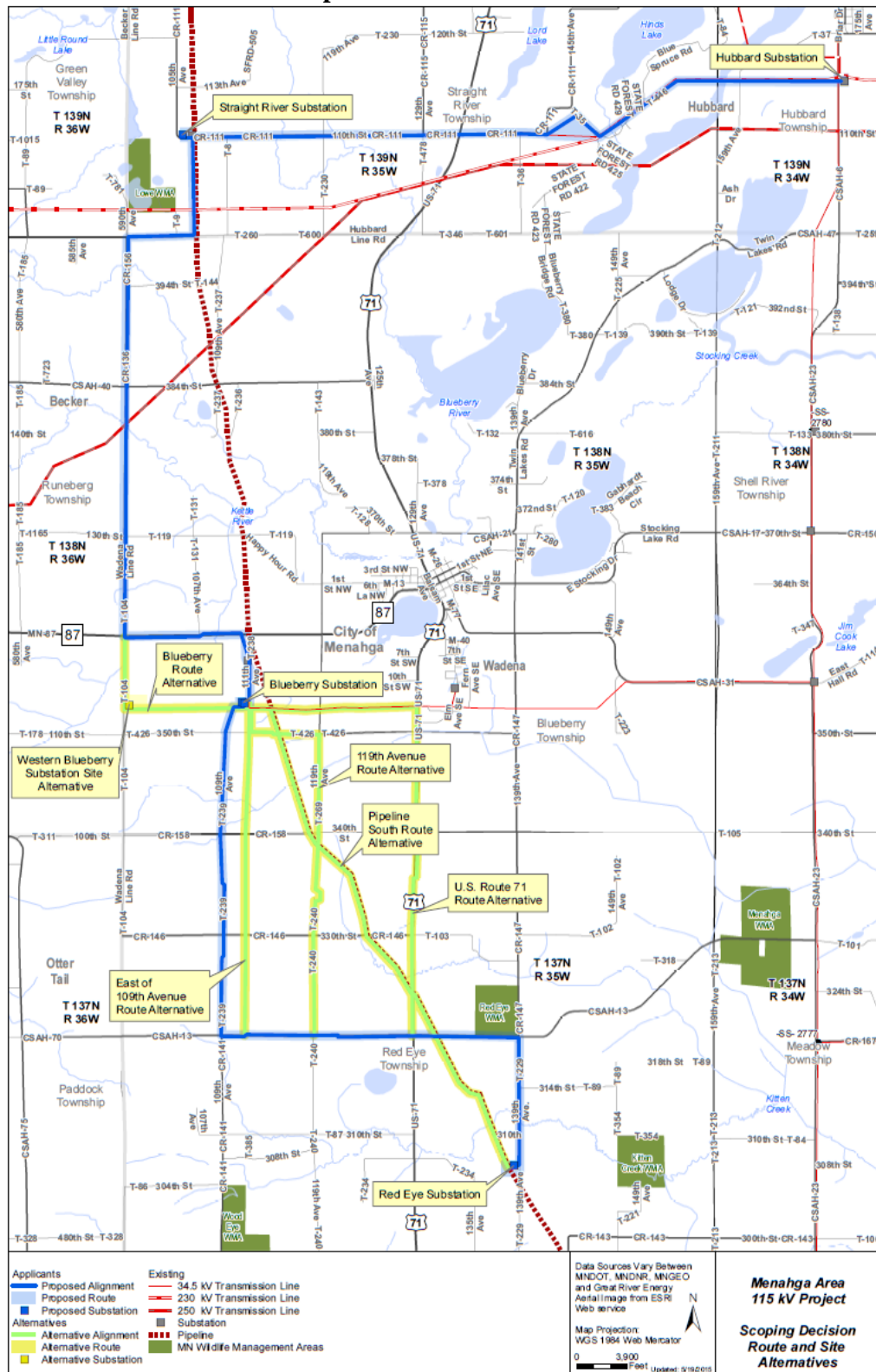
17. [Department Conclusion 212] Any of the foregoing Findings more properly designated Conclusions are hereby adopted as such.

18. Where the approved route follows Highway 13, the Commission prefers locating the alignment on the southern side of Highway 13.

## Exhibit A – Applicants’ Proposed Route



## Exhibit B – Proposed Route and Route Alternatives



**STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION**  
**ROUTE PERMIT FOR CONSTRUCTION OF A HIGH-VOLTAGE TRANSMISSION**  
**LINE AND ASSOCIATED FACILITIES**

**IN**  
***HUBBARD, WADENA AND BECKER COUNTIES***

**ISSUED TO**  
***GREAT RIVER ENERGY AND MINNESOTA POWER***

**PUC DOCKET NO. ET-2, E-015/TL-14-797**

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 AND MINNESOTA POWER***

Great River Energy and Minnesota Power are authorized by this route permit to construct approximately 22.5 miles of new 115 kV Transmission Line and three new substations known as the “Menahga Area” Project in Hubbard, Wadena and Becker counties, Minnesota.

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

Approved and adopted this 14<sup>th</sup> day of March, 2016

BY ORDER OF THE COMMISSION

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Daniel P. Wolf,  
Executive Secretary

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## **FIGURES**

Official Route Maps

## **ATTACHMENTS**

Attachment A – Complaint Procedures for High-Voltage Transmission Lines

Attachment B – Compliance Filing Procedure for Permitted Energy Facilities

Attachment C – Compliance Filing List

## **1.0 ROUTE PERMIT**

The Minnesota Public Utilities Commission (Commission) hereby issues this route permit to Great River Energy and Minnesota Power (Permittee) pursuant to Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7850. This permit authorizes the Great River Energy and Minnesota Power to construct approximately 22.5 miles of new 115 kV Transmission Line and three new substations known as the “Menahga Area” Project in Hubbard, Wadena and Becker counties, Minnesota and as identified in the attached route permit maps, hereby incorporated into this document.

### **1.1 Pre-emption**

Pursuant to Minn. Stat. § 216E.10, this route permit shall be the sole approval required to be obtained by the Permittee for construction of the transmission facilities 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.

## **2.0 PROJECT DESCRIPTION**

The Project includes the construction and operation of approximately 22.5 miles of new 115 kV transmission line in Hubbard, Wadena and Becker counties. The 115 kV transmission line would run westward from the existing Hubbard substation to a new Straight River substation in the SW corner of Straight River Twp., and then southward to a new Blueberry substation near the city of Menahga and to a new Red Eye substation approximately 3 miles north of Sebeka, MN.

The Project entails: 1) construction of 4.5 miles of double-circuit 115 kilovolt (kV) transmission line and approximately 2.5 miles of single-circuit 115 kV transmission line, 2) construction of approximately 15.5 miles of primarily single-circuit 115 kV transmission line, and 3) construction of the new Todd-Wadena Electric Cooperative Red Eye Distribution Substation (to serve the proposed Minnesota Pipe Line Company (MPL) Sebeka pump station); construction of the Minnesota Power Straight River Substation, and the construction of the Great River Energy Blueberry Substation; relocation of the existing Todd-Wadena Menahga Distribution Substation to the Blueberry Substation site and convert the voltage from 34.5 kV to 115 kV; and modify the existing Great River Energy Hubbard Substation and Minnesota Power Pipeline Substation.

### **2.1 Project Location**

The Project is located in West-Central Minnesota in Hubbard, Wadena and Becker counties, specifically within the townships of Hubbard, Straight River, Runeberg, Blueberry, and Red Eye in the service territory of Todd-Wadena Electric Cooperative.

| County  | Township Name  | Township | Range | Section                                             |
|---------|----------------|----------|-------|-----------------------------------------------------|
| Hubbard | Hubbard        | T139N    | R34W  | 29, 30                                              |
| Hubbard | Straight River | T139N    | R35W  | 25, 26, 27, 28,<br>29, 30, 31, 32,<br>33, 34, 35    |
| Wadena  | Blueberry      | T138N    | R35W  | 6, 7, 18, 19, 20,<br>29, 30, 31, 32                 |
| Becker  | Runeberg       | T138N    | R36W  | 1, 12, 13, 24                                       |
| Wadena  | Red Eye        | T137N    | R35W  | 5, 6, 7, 8, 9, 10,<br>14, 15, 16, 17,<br>18, 22, 23 |

## 2.2 Associated Facilities and Substations

The associated facilities for the Project include construction of the proposed new Minnesota Power Straight River Substation, Great River Energy Blueberry Substation, and Todd-Wadena Red Eye Substation (that will serve the proposed new MPL pump station); relocation of the existing Todd-Wadena Menahga Substation to the proposed new Blueberry Substation site and conversion of the voltage from 34.5 kV to 115 kV; and modifications to the existing Great River Energy Hubbard Substation and the Minnesota Power Pipeline Substation.

### 2.2.1 Minnesota Power Straight River Substation

The Straight River Substation is located in the SW 1/4 of the SE 1/4 of Section 30 in Straight River Township. Minnesota Power will construct and own the Straight River 115/34.5 kV Substation near the existing MPL Park Rapids Pump Station to re-establish 34.5 kV service to the Minnesota Power Pipeline Substation after removal of the 34.5 kV source from Hubbard. The 34.5 kV 522 feeder line from the Hubbard Substation to the Pipeline Substation will be removed to accommodate the interconnection and routing of the new 115 kV transmission line. It is anticipated that the fenced area of the 115 kV substation will be approximately 115' by 180'.

Facilities at the Straight River Substation will include:

- 115/34.5 kV transformer
- A 115 kV “transrupter” and a 34.5 kV recloser
- A 3-way 115 kV motor operated switch and tap line (approximately 700 feet)
- Structural steel, grounding
- 115 kV and 34.5 kV substation switches
- Communications and metering equipment

### 2.2.2 Great River Energy Blueberry Substation

Great River Energy will construct the Blueberry 115/34.5 kV Substation south of the existing Menahga distribution substation near Menahga, Minnesota. Great River Energy has an option to purchase 10 acres in the NW ¼ of the SW ¼ of Section 29 of Blueberry Township. It is anticipated that the fenced area of the 115 kV substation will be approximately 240' by 415'.

Facilities at the Blueberry Substation will include:

- Relocated 115/34.5 kV transformer from the Hubbard Substation
- A 115 kV breaker and a 34.5 kV breaker
- 115 kV switches
- Electrical Equipment Enclosure
- Structural steel
- Bus work and fittings
- SCADA/Relay/Control Equipment
- Conduit
- Grounding
- Fiber optic communication
- 115/12.47 kV distribution transformer
- Low side sectionalizing equipment

#### 2.2.3 Todd-Wadena Menahga Substation

Todd-Wadena will relocate the existing Menahga Substation to the new Blueberry Substation site and convert the voltage from 34.5 kV to 115 kV. The existing Menahga Substation will be completely retired, including all equipment, structures and fence. The Menahga Substation will occupy approximately 100' by 100' at the Blueberry site.

Facilities at the relocated Menahga Substation will include:

- 115/12.47 kV transformer
- Structural steel
- Meter building
- Bus work
- Low side sectionalizing equipment

#### 2.2.4 Todd-Wadena Red Eye Substation

Todd-Wadena will construct the Red Eye 115/4.16 kV Substation to support the motor loads for the MPL Sebeka pump station. Todd-Wadena plans to construct the proposed new substation on MPL's property in the SE ¼ of the NE ¼ of Section 22 in Red Eye Township. It is anticipated that the fenced area of the 115 kV substation will be approximately 125' by 125'.

Facilities at the Red Eye Substation will include:

- 115/4.16 kV transformer
- Electrical Equipment Enclosure
- January 2015 Menahga Area 115 kV Project 4-11
- Structural steel
- Bus work and fittings
- Low side sectionalizing equipment
- Meter equipment
- Conduit, Grounding
- Fiber optic communication

#### 2.2.5 Great River Energy Hubbard Substation

Great River Energy will modify the existing Hubbard Substation to accommodate the new 115 kV transmission line. One 115/34.5 kV transformer will be relocated to the proposed Blueberry Substation. The existing 34.5 kV breakers and foundations associated with the transformer will be retired. New equipment to be installed at the Hubbard Substation includes:

- A 115 kV breaker in the ring bus
- 115 kV switches
- Structural steel, bus work and fittings
- SCADA/Relay/Control Equipment
- Conduit, grounding
- Grounding
- Fiber optic communication

#### 2.2.6 Minnesota Power Pipeline Substation

The existing Minnesota Power Pipeline 34.5/4.16 kV Substation, which provides a dedicated source to the MPL Park Rapids pump station, may need to be modified to accommodate the connection of a 34.5 kV feeder from the proposed new Straight River Substation. The extent of these modifications, if they are needed, will not be known until further engineering is completed on the Straight River Substation.

### 2.3 Structures

The majority of the new 115 kV line will consist of single circuit, single pole wood structures spaced approximately 275 to 400 feet apart. Spans for the double circuit portion of the Project will range from 350 to 450 feet. Transmission structures will typically range in height from 60 to 90 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. Some sections of the new line will

have distribution underbuild, which would be attached to new 115 kV transmission line structures spaced 250 to 300 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 90 feet above ground 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 table below details specifics on the various structure types as presented in the route permit application.

| Line Type | Conductor | Structure   |          | Diameter<br>(inches) | Height<br>(feet) | Span<br>(feet) |
|-----------|-----------|-------------|----------|----------------------|------------------|----------------|
|           |           | Type        | Material |                      |                  |                |
| 115 kV    | 477 ACSR  | Single Pole | Wood     | 20                   | 60-90            | 250-300        |
| 115 kV    | 477 ACSR  | Single Pole | Wood     | 20                   | 60-90            | 275-400        |
| 115 kV    | 477 ACSR  | H-Frame     | Wood     | 20                   | 60-90            | 600-1,000      |

## 2.4 Conductors

The single circuit structures will have three single conductor phase wires and one shield wire. It is anticipated that the phase wires will be 477 thousand circular mil ACSR with seven steel core strands and 26 outer aluminum strands.

The shield wire will be 0.528 optical ground wire.

## 2.5 Safety Codes and Design Requirements

The transmission line and associated facilities shall be designed to meet or exceed all relevant local and state codes, the National Electric Safety Code (NESC), and North American Electric Reliability Corporation (NERC) requirements. This includes standards relating to clearances to ground, clearance to crossing utilities, clearance to buildings, strength of materials, clearances over roadways, right-of-way widths, and permit requirements. The transmission line shall be equipped with protective devices to safeguard the public if an accident occurs.

## 3.0 DESIGNATED ROUTE

The route designated by the Commission in this permit is the route described below and shown on the route maps attached to this permit. The route is generally described as follows:

- Construction of approximately 7 miles of east-west transmission line between the existing Great River Energy Hubbard Substation and proposed new Minnesota Power

Straight River Substation, which will replace the existing Minnesota Power 34.5 kV “522” feeder line. The first 4.5 miles between the Hubbard Substation and County Road (CR) 115 will be double-circuit 115 kV line to accommodate a future Great River Energy project to the north. The approximate 2.5 miles between CR 115 and the proposed Minnesota Power Straight River Substation will be single-circuit 115 kV line.

- Construction of a generally north to south, single-circuit transmission line (approximately 15.5 miles) between the proposed Minnesota Power Straight River Substation and the proposed new Todd-Wadena Red Eye distribution substation.
- Construction of the proposed new Minnesota Power Straight River Substation, Great River Energy Blueberry Substation, and Todd-Wadena Red Eye Substation (that will serve the proposed new MPL pump station); relocation of the existing Todd-Wadena Menahga Substation to the proposed new Blueberry Substation site and conversion of the voltage from 34.5 kV to 115 kV; and modifications to the existing Great River Energy Hubbard Substation and the Minnesota Power Pipeline Substation.

#### **4.0 RIGHT-OF-WAY**

The approved right-of-way width for the project is as follows:

The route for the Project will be 500-foot wide (250 feet either side of the transmission line in areas where the transmission line will be cross-country, or 250 feet either side of the centerline of road right-of-ways (ROW) in areas where the transmission line follows a road). In a few areas (particularly around proposed substations), Applicants are requesting a route width wider than 500 feet to accommodate facility designs as described below:

- At the existing Hubbard Substation, an additional 150 by 650 feet north of the route width that encompasses the substation.
- In Section 26 of Straight River Township, a wider triangular route width is proposed to allow flexibility for the crossing of Minnesota Power’s 230 kV “909” Line, although only a single alignment with an easement that is 50’ on each side of the transmission line will be required in this area.
- Around the Straight River Substation, an area that accommodates the proposed location, plus an additional 650 feet to the west of the north-south alignment; and 500 feet north and 250 south of the road centerline is necessary to accommodate the transmission line.
- Around the Blueberry Substation, an additional route width of 100 feet to the north, 150 feet to the south, and 450 feet to the west of the substation is necessary to accommodate the transmission lines that will go in and out of the substation.

- Around the Red Eye Substation, an additional area of 400 feet by 750 north of the east-west alignment that extends into the substation (property owned by MPL) to allow flexibility in design and to minimize conflict with MPL and Todd-Wadena's facilities.
- The Minnesota Power DC Line will need to be raised where the proposed 115 kV transmission line would cross under it in Section 7, T148, R35W. However, no additional right-of-way is anticipated to be needed to raise the line.

This permit anticipates that the right-of-way will generally conform to the anticipated alignment as described in the EA and record and as provided for in this permit and noted on the attached route permit maps unless changes are requested by individual landowner or unforeseen conditions are encountered or are otherwise provided for by this permit.

The identified route widths will provide the Permittee 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.

Any alignment modifications within the designated route shall be located so as to have comparable overall impacts relative to the factors in Minn. R. 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 9.1 of this permit.

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 Minn. R. 7850.4100, the other requirements of this permit, and for highways under the jurisdiction of the Minnesota Department of Transportation (Mn/DOT) rules, policies, and procedures for accommodating utilities in trunk highway rights-of-way.

## **5.0 GENERAL CONDITIONS**

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

### **5.1 Notification to Landowners**

The Permittee shall provide all affected landowners with a copy of this permit and, as a separate information piece, the complaint procedures at the time of the first contact with the landowners

after issuance of this permit. The Permittee shall contact landowners prior to entering the property or conducting maintenance along the route. The Permittee shall work with landowners to locate the high-voltage transmission line to minimize the loss of agricultural land, forest, and wetlands, and to avoid homes and farmsteads.

At the time of first contact, the Permittee shall also provide all affected landowners with a copy of the Department of Commerce's Rights-of-Way and Easements for Energy Facility Construction and Operation fact sheet.<sup>1</sup>

## **5.2 Construction Practices**

The Permittee shall follow those specific construction practices and material specifications described in Great River Energy and Minnesota Power Application to the Commission for a route permit for the Menahga Area 115 kV Transmission Line Project, dated January 15, 2015 unless this permit establishes a different requirement in which case this permit shall prevail.

### **5.2.1 Field Representative**

At least 14 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, emergency phone number, and email 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.

### **5.2.2 Employee Training and Education of Permit Terms and Conditions**

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

### **5.2.3 Public Services, Public Utilities, and Existing Easements**

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

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<sup>1</sup> [http://mn.gov/commerce/energyfacilities/documents/Easements%20Fact%20Sheet\\_08.05.14.pdf](http://mn.gov/commerce/energyfacilities/documents/Easements%20Fact%20Sheet_08.05.14.pdf)

to utilities have the potential to occur the Permittee will work with both landowners and local agencies to determine the most appropriate transmission structure placement.

The Permittee shall work with the landowners, townships, cities, and counties along the route to accommodate concerns regarding tree clearing, distance from existing structures, drain tiles, pole depth and placement in relationship to existing roads and road expansion plans.

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

#### 5.2.4 Temporary Work Space

The Permittee shall limit temporary easements to special construction access needs and additional staging or lay-down areas required outside of the authorized right-of-way. Temporary space shall be selected to limit the removal and impacts to vegetation. Temporary easements 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 using the shortest route possible. Construction mats should also be used to minimize impacts on access paths and construction areas.

#### 5.2.5 Noise

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

#### 5.2.6 Site Sediment and Erosion Control

The Permittee shall implement those erosion prevention and sediment control practices recommended by the Minnesota Pollution Control Agency (MPCA) Construction Stormwater Program.

The Permittee shall implement reasonable measures to minimize erosion and sedimentation during construction and shall employ perimeter sediment controls, protect exposed soil by promptly planting, seeding, using erosion control blankets and turf reinforcement mats, stabilizing slopes, protecting storm drain inlets, protecting soil

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

Where larger areas of one acre or more are disturbed or other areas designated by the MPCA, the Permittee shall obtain a National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Construction Stormwater permit from the MPCA.

#### 5.2.7 Aesthetics

The Permittee 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 a 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.

#### 5.2.8 Vegetation Removal and Protection

The Permittee 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 where vegetative screening may minimize aesthetic impacts, to the extent that such actions do not violate sound engineering principles or system reliability criteria.

Tall growing species located within the transmission line right-of-way that endanger the safe and reliable operation of the transmission facility will be removed by the Permittee. The Permittee shall leave undisturbed, to the extent possible, existing low growing species in the right-of-way or replant such species in the right-of-way to blend the difference between the right-of-way and adjacent areas, to the extent that the low growing vegetation that will not pose a threat to the transmission facility or impede construction.

#### 5.2.9 Application of Herbicides

The Permittee shall restrict herbicide use to those herbicides and methods of application approved by the Minnesota Department of Agriculture and the U.S. Environmental

Protection Agency. Selective foliage or basal application shall be used when practicable. The Permittee shall contact the landowner or his designee to obtain approval for the use of herbicide prior to any application on their property. The landowner may request that there be no application of herbicides on any part of the right-of-way within the landowner's property. All herbicides shall be applied in a safe and cautious manner so as not to damage crops, orchards, tree farms, or gardens.

#### 5.2.10 Noxious Weeds

The Permittee shall take all reasonable precautions against the spread of noxious weeds during all phases of construction. When utilizing seed to establish temporary and permanent vegetative cover on exposed soil, the Permittee shall select site appropriate seed certified to be free of noxious weeds. To the extent possible, the Permittee shall use native seed mixes. The Permittee shall consult with landowners on the selection and use of seed for replanting.

#### 5.2.11 Restoration

The Permittee 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.

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 Permittee shall advise the Commission in writing of the completion of such activities.

#### 5.2.12 Wetlands and Water Resources

Wetland impact avoidance measures that shall be implemented during design and construction of the transmission line will include spacing and placing the power poles at variable distances to span and avoid wetlands, watercourses, and floodplains.

Unavoidable wetland impacts as a result of the placement of poles shall be limited to the immediate area around the poles. To minimize impacts, construction in wetland areas shall occur during frozen ground conditions. When construction during winter is not possible, wooden or composite mats shall be used to protect wetland vegetation. Soil excavated from the wetlands and riparian areas shall be contained and not placed back into the wetland or riparian area.

Wetlands and riparian areas shall be accessed using the shortest route possible in order to minimize travel through wetland areas and prevent unnecessary impacts. No staging or

stringing set up areas shall be placed within or adjacent to wetlands or water resources, as practicable. Power pole structures shall be assembled on upland areas before they are brought to the site for installation.

Areas disturbed by construction activities shall be restored to pre-construction conditions. Restoration of the wetlands will be performed by Permittee in accordance with the requirements of applicable state and federal permits or laws and landowner agreements.

All requirements of the U.S. Army Corps of Engineers (wetlands under federal jurisdiction), Minnesota Department of Natural Resources (Public Waters/Wetlands), and County (wetlands under the jurisdiction of the Minnesota Wetland Conservation Act) shall be met.

#### 5.2.13 Archaeological and Historic Resources

The Permittee shall consult with the State Historic Preservation Office (SHPO) concerning the extent of a Phase I archaeological survey and appropriate mitigation measures for the Project. Permittee shall document and submit to the Commission the results of the consultation, including those portions of the Project that will be surveyed and the extent of the survey.

For those portions of the Project that are surveyed, Permittee shall submit, with the plan and profile for these portions, the results of the survey and all applicable avoidance and mitigation measures employed or to be employed.

Prior to construction, workers shall be trained about the need to avoid cultural properties, how to identify cultural properties, and procedures to follow if undocumented cultural properties, including gravesites, are found during construction.

#### 5.2.14 Avian Mitigation

The Permittee's standard transmission design shall incorporate adequate spacing of conductors 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 Permittee will consult with the Minnesota Department of Natural Resources and USFWS regarding type and placement of bird diverters.

#### 5.2.15 Cleanup

All waste and scrap that is the product of construction shall be removed from the right-of-way and all premises on which construction activities were conducted 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.

#### 5.2.16 Pollution and Hazardous Wastes

All appropriate precautions to protect against pollution of the environment must be taken by the Permittee. The Permittee shall be responsible for compliance with all laws applicable to the generation, storage, transportation, clean up and disposal of all wastes generated during construction and restoration of the right-of-way.

#### 5.2.17 Damages

The Permittee shall fairly restore or compensate landowners for damage to crops, fences, private roads and lanes, landscaping, drain tile, or other damages sustained during construction.

### 5.3 Electrical Performance Standards

#### 5.3.1 Grounding

The Permittee shall design, construct, and operate the transmission line in a manner so that the maximum induced steady-state short-circuit current shall be limited to five milliamperes 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 milliampere 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.

#### 5.3.2 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.

### 5.3.3 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 feasible to restore or provide reception equivalent to reception levels in the immediate area just prior to the construction of the line.

## 5.4 Other Requirements

### 5.4.1 Applicable Codes

The Permittee shall comply with applicable NERC planning standards and 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.

### 5.4.2 Other Permits and Regulations

The Permittee shall comply with all applicable state rules and statutes. The Permittee shall obtain all required permits for the Project and comply with the conditions of these permits. A list of the permits known to be required is included in the permit application. The Permittee shall submit a copy of such permits to the Commission upon request.

## 6.0 SPECIAL CONDITIONS

The Permittee 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. Special conditions shall take precedence over other conditions of this permit should there be a conflict.

### 6.1 Alajoki Cemetery

The Permittees shall avoid placing structures along the existing frontage of the Alajoki Cemetery and its planned future expansion, consistent with engineering constraints for the line.

### 6.2 Avian Mitigation Plan

The Permittees shall consult with the DNR and USFWS to develop an avian mitigation plan for the Project. It is appropriate for the plan to incorporate expressed

recommendations of the DNR and USFWS, including the use of bird flight diverters at public water crossings and near the Red Eye WMA and the use of raptor perch deterrents for structures near the Red Eye WMA.

### **6.3 Vegetation Management Plan**

The Permittee shall consult with the DNR to develop a vegetation management plan for the Project. It is appropriate for the plan to incorporate expressed recommendations of the DNR including management of vegetation within the ROW to maintain low-growing plants on the border of the ROW (wire zone / border zone management) and maintaining natural vegetation within a 50 foot buffer on both banks at all stream crossings (Kitten, Blueberry, Shell, and Fish Hook). The Vegetation Management Plan shall also include ROW management approach, invasive species control and prevention measures, shoreland vegetation management, and herbicide used.

### **6.4 Rare and Unique Natural Resources**

The Permittees shall implement those mitigation strategies recommended by the DNR for rare and unique natural resources as identified in Finding 164.

### **6.5 Erosion Control**

The Permittees shall implement erosion control measures near Kettle Creek and the Blueberry River to mitigate potential impacts to the Creek Heelsplitter mussel as identified in Finding 165.

### **6.6 Bat Studies**

The Permittees shall file with the Commission the results of any additional Northern Long-Eared Bat (“NLEB”) studies conducted for the Project. If the permittees are required to obtain an incidental take permit from the USFWS, the permittees should file a copy of the permit with the Commission.

## **7.0 DELAY IN CONSTRUCTION**

If the Permittee has not commenced construction or improvement of the route within four years after the date of issuance of this permit the Permittee shall file a report on the failure to construct and the Commission shall consider suspension of the permit in accordance with Minn. R. 7850.4700.

## **8.0 COMPLAINT PROCEDURES**

Prior to the start of construction, the Permittee 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 of Minn. R. 7829.1500 or Minn. R. 7829.1700, and as set forth in the complaint procedures attached to this permit.

Upon request, the Permittee shall assist the Commission with the disposition of unresolved or longstanding complaints. This assistance shall include, but is not limited to, the submittal of complaint correspondence and complaint resolution efforts.

## **9.0 COMPLIANCE REQUIREMENTS**

Failure to timely and properly make compliance filings required by this permit is a failure to comply with the conditions of this permit. Compliance filings must be electronically filed with the Commission.

### **9.1 Plan and Profile**

At least 30 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, and structure specifications and locations. 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 this permit.

The Permittee 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.

### **9.2 Periodic Status Reports**

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

### **9.3 Notification to Commission**

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

#### **9.4 As-Builts**

Within 90 days after completion of construction, the Permittee shall submit copies of all final as-built plans and specifications developed during the Project.

#### **9.5 GPS Data**

Within 90 days after completion of construction, the Permittee shall submit to the Commission, in the format requested by the Commission, geo-spatial information (e.g., ArcGIS compatible map files, GPS coordinates, associated database of characteristics) for all structures associated with the transmission line and each substation connected.

### **10.0 PERMIT AMENDMENT**

This 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.

### **11.0 TRANSFER OF PERMIT**

The Permittee may request at any time that the Commission transfer this permit to another person or entity. The Permittee 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.

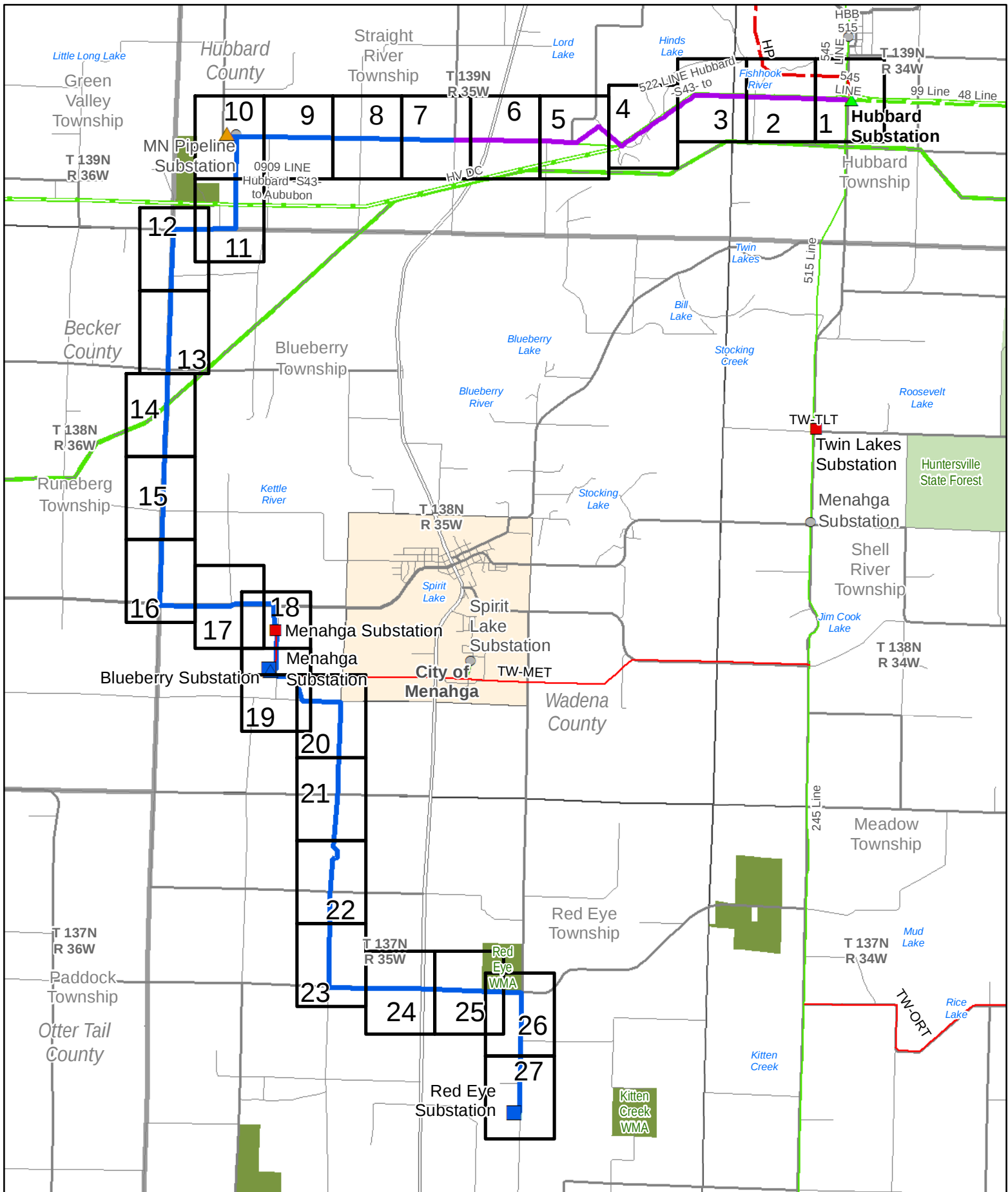
The person to whom the permit is to be transferred shall provide the Commission with such information as the Commission shall require to determine whether the new Permittee can comply with the conditions of the permit. The Commission may authorize transfer of the permit after affording the Permittee, the new Permittee, and interested persons such process as is required.

### **12.0 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 Minn. R. 7850.5100, to revoke or suspend the permit.

**STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION  
PUC DOCKET NO. ET-2, E-015/TL-14-797**

**ROUTE PERMIT FIGURES – ROUTE MAPS**



Great River Energy

Anticipated alignment double circuit  
115 kV transmission line

Anticipated alignment single circuit  
115 kV transmission line

Proposed transmission substation

Existing transmission substation

Proposed distribution substation

Existing distribution substation

Minnesota Power

Proposed transmission substation

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.

Aerial Imagery from ESRI web service

0 5,000 Feet



# **Menahga Area 115 kV Project Route Permit Key map**

Updated: 2/9/2016



Great River Energy

Anticipated alignment double circuit  
115 kV transmission line

Right-of-way area

Permitted route

Existing transmission substation

Existing 115 kV transmission line

Minnesota Power

Existing 34.5 kV transmission line

Existing 115 kV transmission line

Existing 230 kV transmission line

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

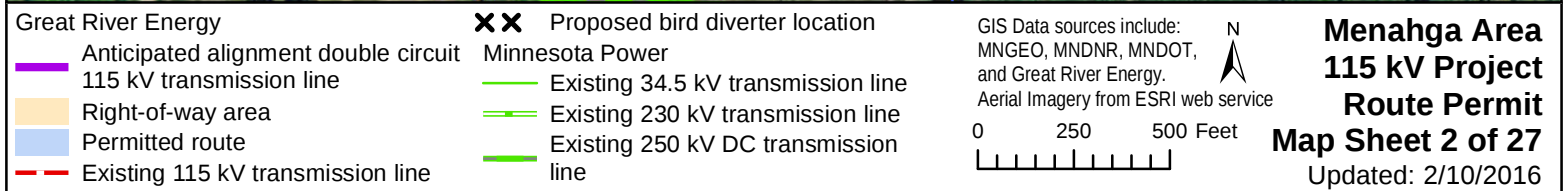
0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit**

**Map Sheet 1 of 27**

Updated: 2/10/2016





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, Swisstopo, and the GIS User Community

#### Great River Energy

- Anticipated alignment double circuit 115 kV transmission line
- Right-of-way area
- Permitted route
- X X Proposed bird diverter location

#### Minnesota Power

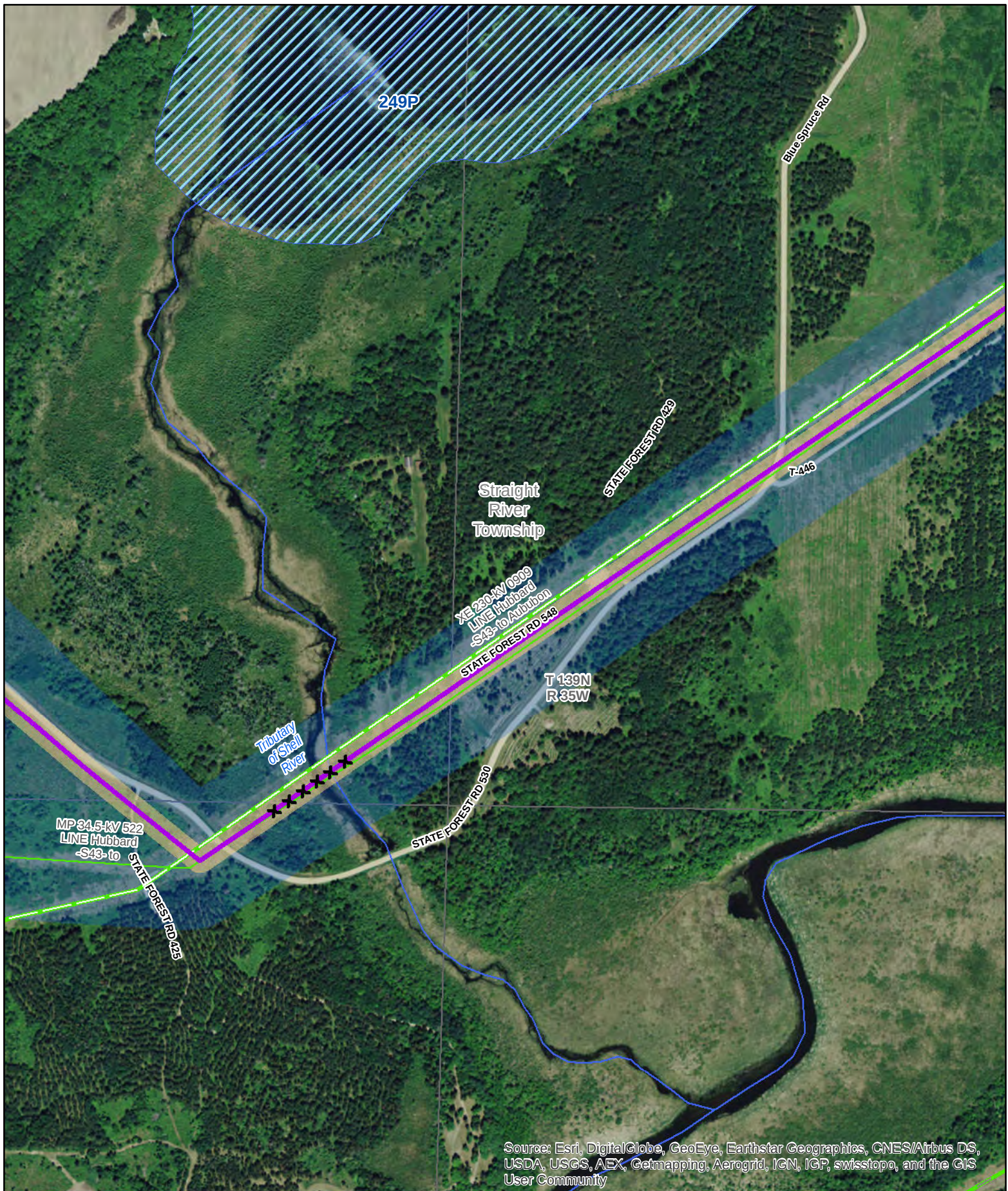
- Existing 34.5 kV transmission line
- Existing 230 kV transmission line
- Existing 250 kV DC transmission line

GIS Data sources include: MNGEO, MNDNR, MNDOT, and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit  
Map Sheet 3 of 27**  
Updated: 2/10/2016



#### Great River Energy

- Anticipated alignment double circuit 115 kV transmission line
- Right-of-way area
- Permitted route
- XX Proposed bird diverter location

#### Minnesota Power

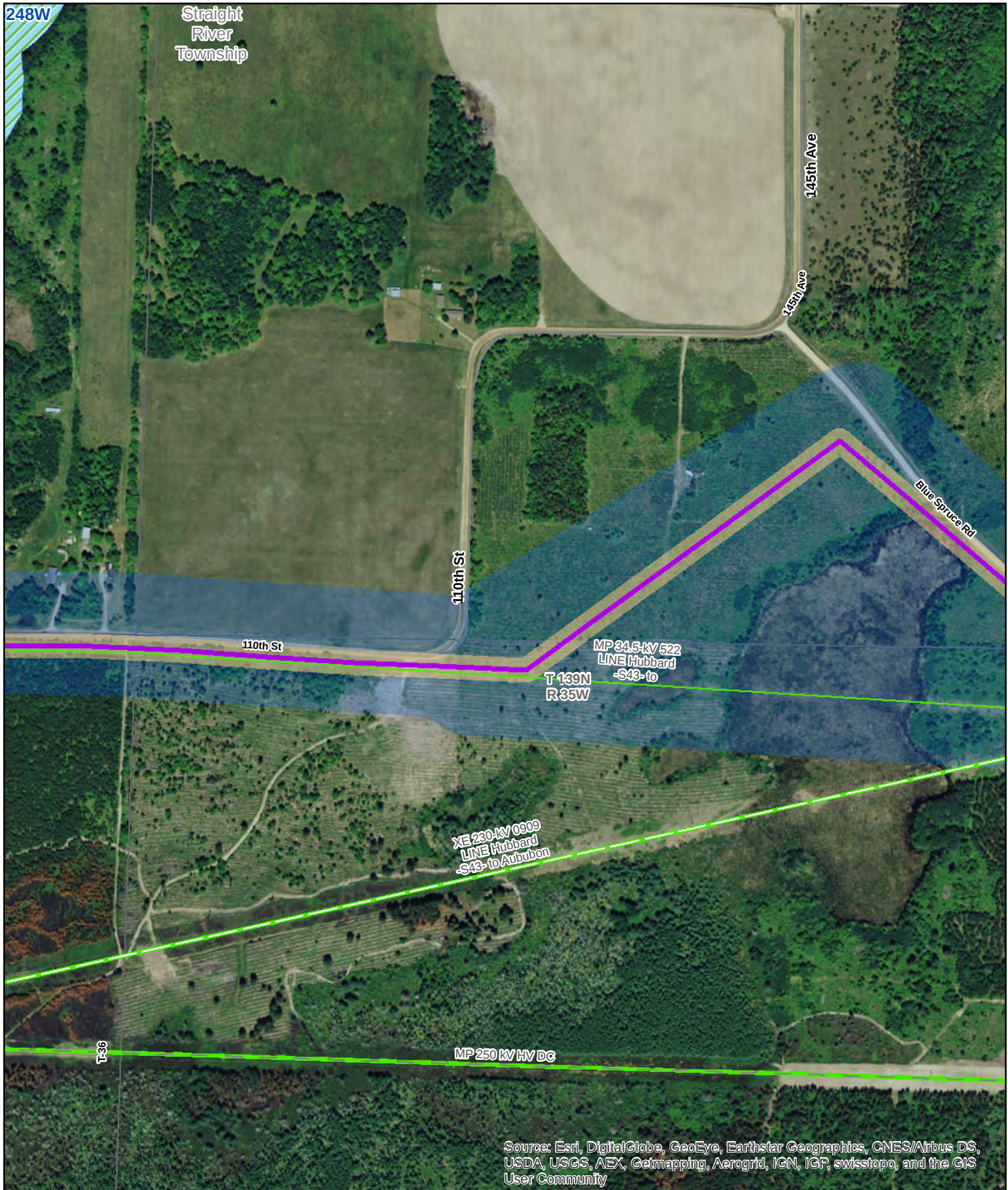
- Existing 34.5 kV transmission line
- Existing 230 kV transmission line
- Existing 250 kV DC transmission line

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit  
Map Sheet 4 of 27**  
Updated: 2/10/2016



#### Great River Energy

- Anticipated alignment double circuit 115 kV transmission line
- Right-of-way area
- Permitted route

#### Minnesota Power

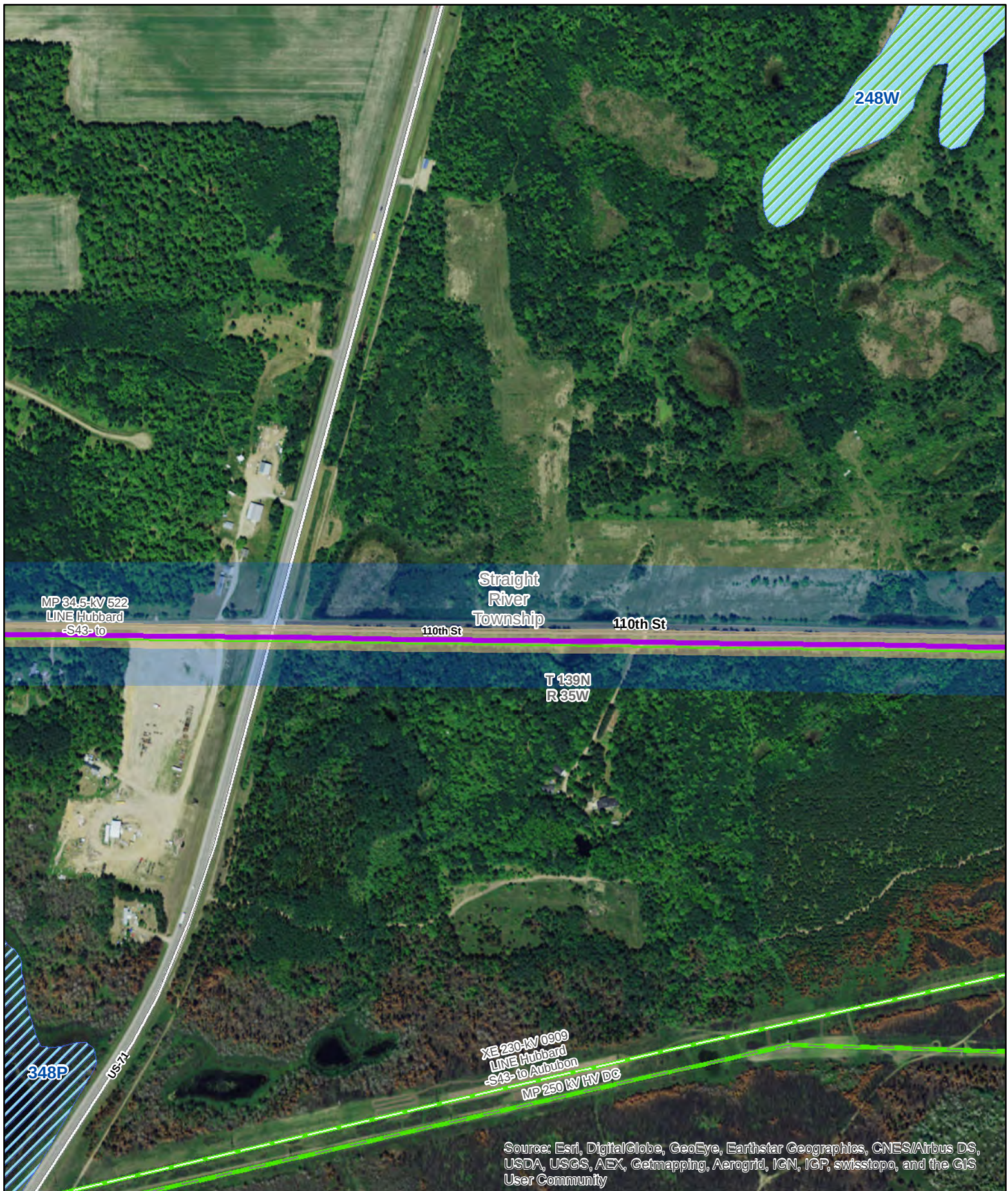
- Existing 34.5 kV transmission line
- Existing 230 kV transmission line
- Existing 250 kV DC transmission line

GIS Data sources include: MNGEO, MNDNR, MNDOT, and Great River Energy. Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit  
Map Sheet 5 of 27**  
Updated: 2/10/2016



#### Great River Energy

- Anticipated alignment double circuit 115 kV transmission line
- Right-of-way area
- Permitted route

#### Minnesota Power

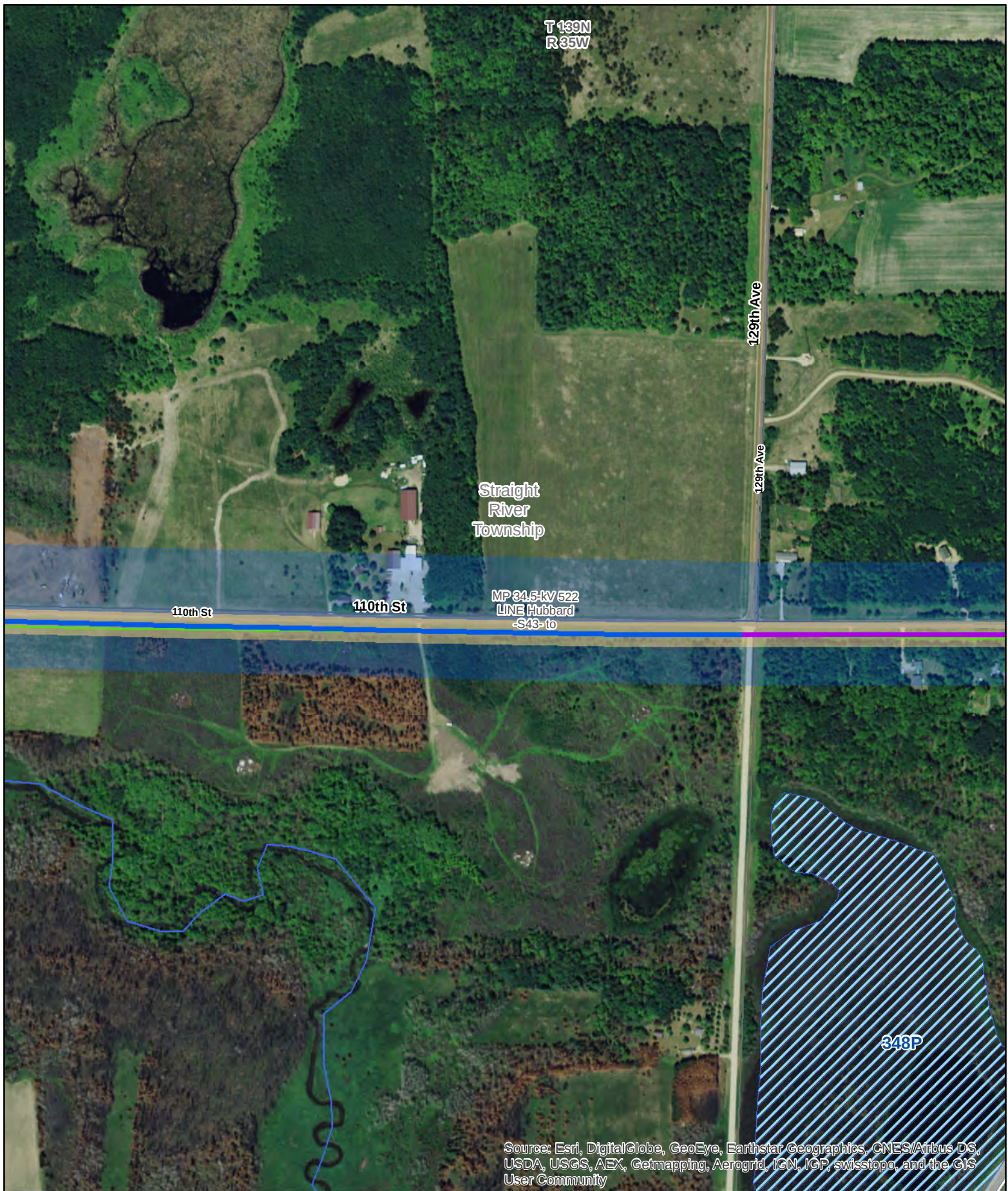
- Existing 34.5 kV transmission line
- Existing 230 kV transmission line
- Existing 250 kV DC transmission line

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit  
Map Sheet 6 of 27**  
Updated: 2/10/2016



Great River Energy

Anticipated alignment double circuit  
115 kV transmission line

Anticipated alignment single circuit  
115 kV transmission line

Right-of-way area

Permitted route

Minnesota Power

Existing 34.5 kV transmission line

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit  
Map Sheet 7 of 27**

Updated: 2/10/2016



Great River Energy

Anticipated alignment single circuit  
115 kV transmission line

Right-of-way area

Permitted route

Minnesota Power

Existing 34.5 kV transmission line

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit  
Map Sheet 8 of 27**  
Updated: 2/10/2016



Great River Energy

Anticipated alignment single circuit  
115 kV transmission line

Right-of-way area

Permitted route

XX Proposed bird diverter location

Minnesota Power

Existing 34.5 kV transmission line

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area**  
**115 kV Project**  
**Route Permit**  
**Map Sheet 9 of 27**

Updated: 2/10/2016



Great River Energy

- Anticipated alignment single circuit 115 kV transmission line
- Right-of-way area
- Permitted route

Minnesota Power

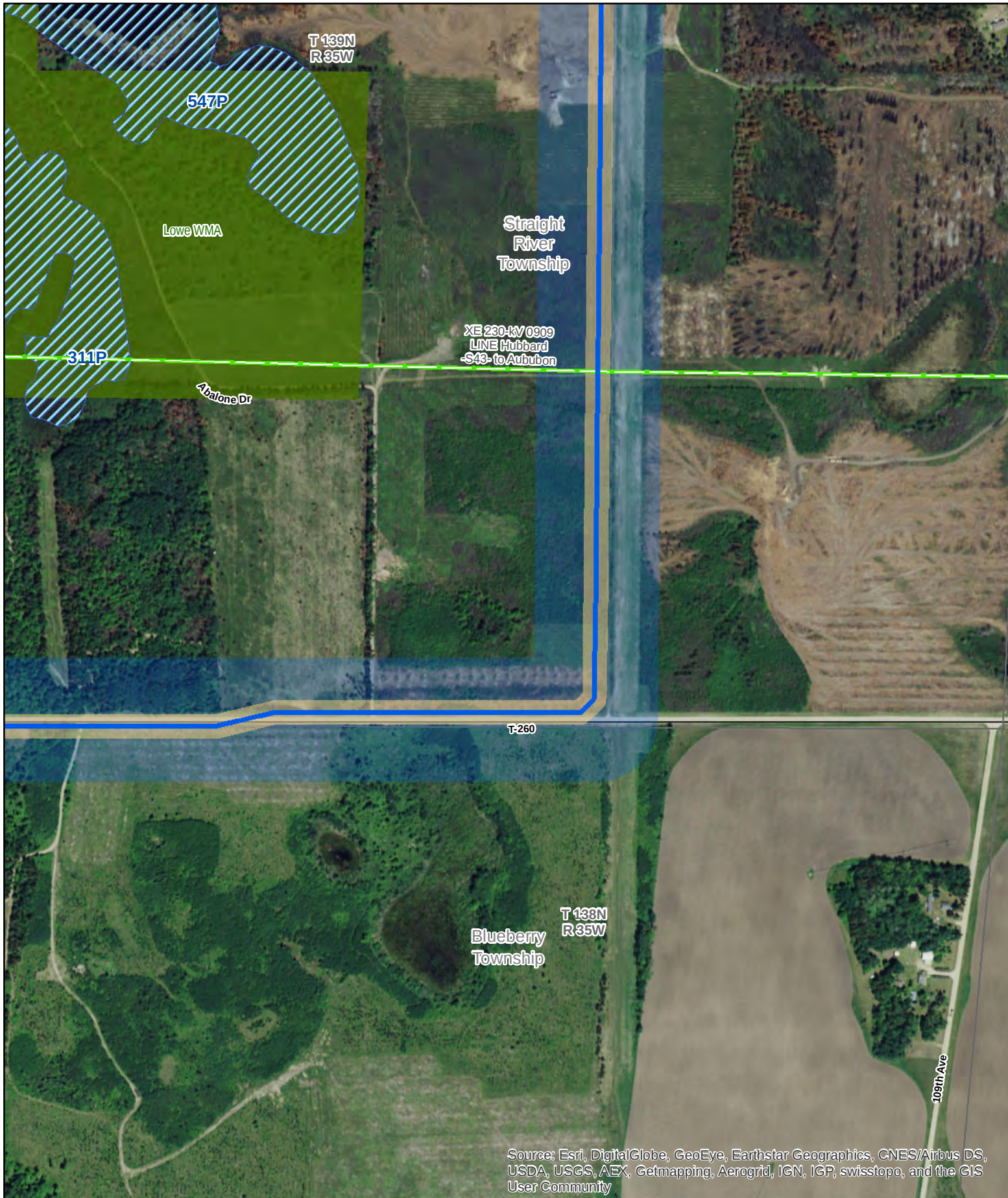
- Existing 34.5 kV transmission line
- ▲ Proposed transmission substation
- Existing distribution substation

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit  
Map Sheet 10 of 27**  
Updated: 2/10/2016



Great River Energy

Anticipated alignment single circuit  
115 kV transmission line

Right-of-way area

Permitted route

Minnesota Power

Existing 230 kV transmission line

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

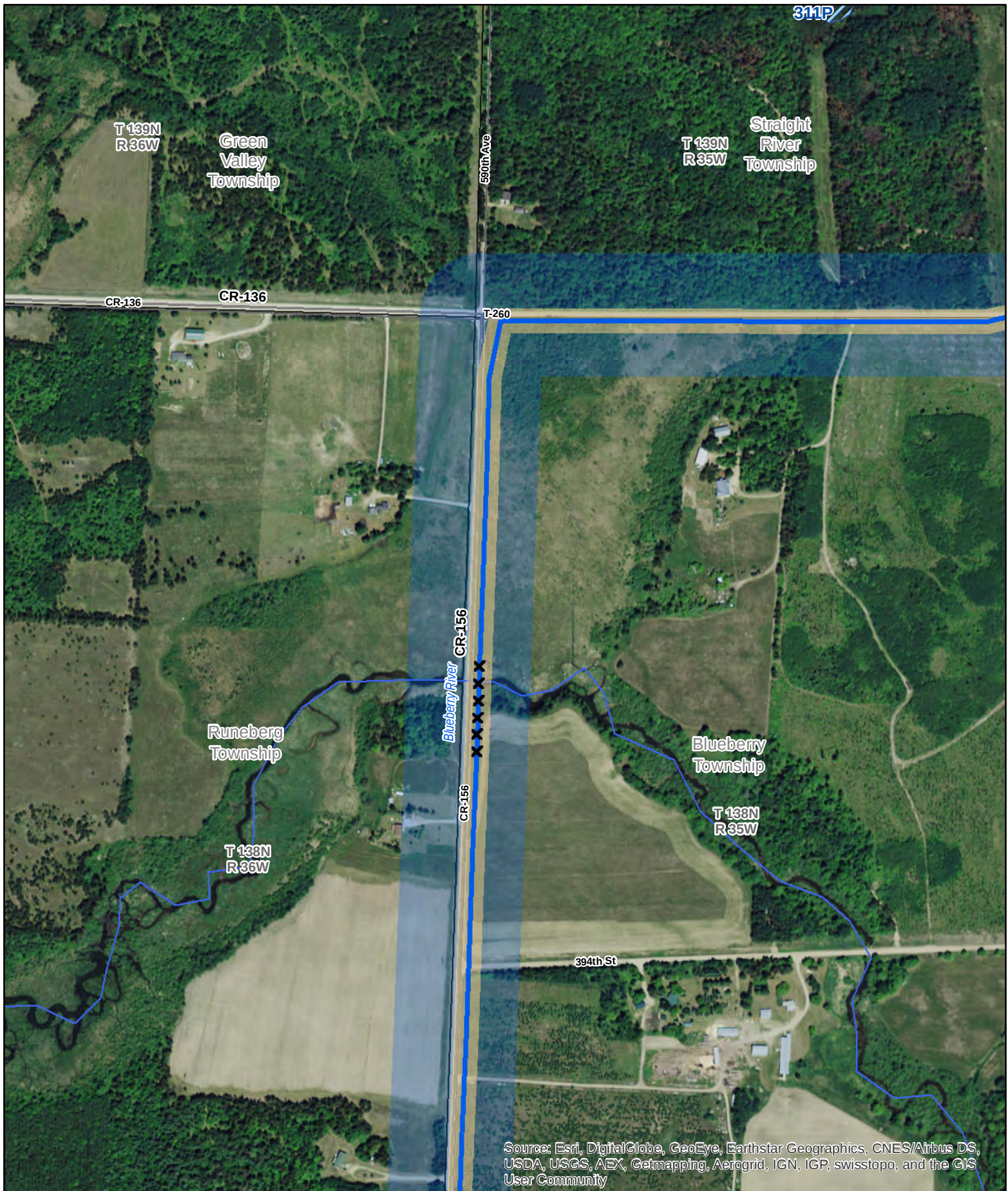
0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit**

**Map Sheet 11 of 27**

Updated: 2/10/2016



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Great River Energy

- Anticipated alignment single circuit 115 kV transmission line
- Right-of-way area
- Permitted route
- XX Potential bird diverter location

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit  
Map Sheet 12 of 27**  
Updated: 2/10/2016



Great River Energy

- Anticipated alignment single circuit 115 kV transmission line
- Right-of-way area
- Permitted route

Minnesota Power

- Existing 250 kV DC transmission line

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit**

**Map Sheet 13 of 27**

Updated: 2/10/2016



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Great River Energy

Anticipated alignment single circuit  
115 kV transmission line

Right-of-way area

Permitted route

XX Potential bird diverter location

Minnesota Power

Existing 250 kV DC transmission  
line

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit**

**Map Sheet 14 of 27**

Updated: 2/10/2016



Great River Energy

- Anticipated alignment single circuit 115 kV transmission line
- Right-of-way area
- Permitted route

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit  
Map Sheet 15 of 27**  
Updated: 2/10/2016



Great River Energy

- Anticipated alignment single circuit 115 kV transmission line
- Right-of-way area
- Permitted route

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit  
Map Sheet 16 of 27**  
Updated: 2/10/2016



Great River Energy

- Anticipated alignment single circuit 115 kV transmission line
- Right-of-way area
- Permitted route

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

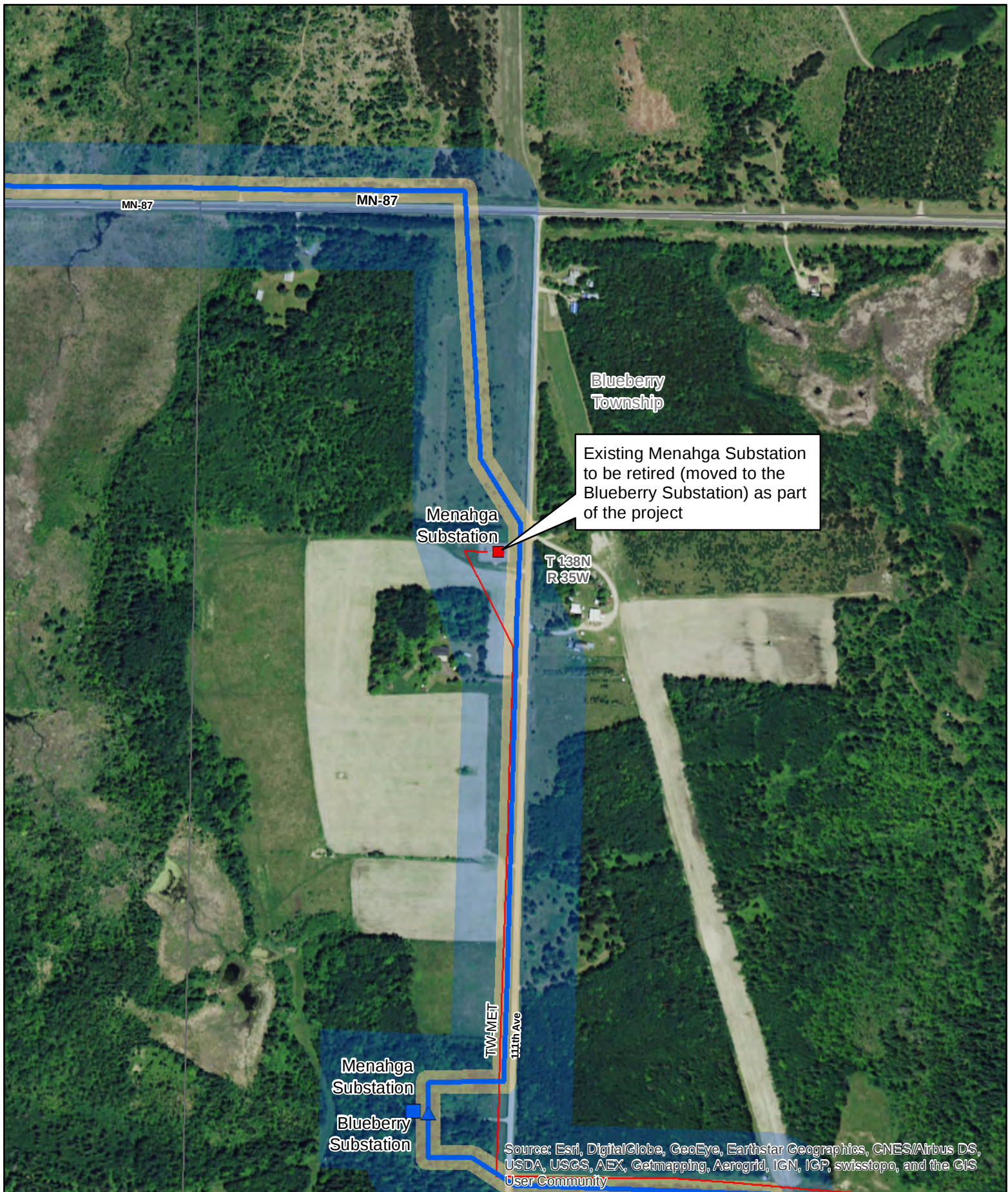
0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit**

**Map Sheet 17 of 27**

Updated: 2/10/2016



Great River Energy

- Anticipated alignment single circuit 115 kV transmission line
- Right-of-way area
- Permitted route
- ▲ Proposed transmission substation

- Existing 34.5 kV transmission line
- Proposed distribution substation
- Existing distribution substation (to be retired)

GIS Data sources include:  
 MNGEO, MNDNR, MNDOT,  
 and Great River Energy.  
 Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
 115 kV Project  
 Route Permit  
 Map Sheet 18 of 27**  
 Updated: 2/10/2016



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Great River Energy

Anticipated alignment single circuit 115 kV transmission line

Right-of-way area

Permitted route

Proposed transmission substation

Existing 34.5 kV transmission line

Todd-Wadena

Proposed distribution substation

GIS Data sources include: MNGEO, MNDNR, MNDOT, and Great River Energy. Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit**

**Map Sheet 19 of 27**

Updated: 2/10/2016



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Great River Energy

- Anticipated alignment single circuit 115 kV transmission line
- Right-of-way area
- Permitted route
- Existing 34.5 kV transmission line

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit**

**Map Sheet 20 of 27**

Updated: 2/10/2016



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Great River Energy

- Anticipated alignment single circuit 115 kV transmission line
- Right-of-way area
- Permitted route

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit**  
**Map Sheet 21 of 27**  
Updated: 2/10/2016



Great River Energy

- Anticipated alignment single circuit 115 kV transmission line
- Right-of-way area
- Permitted route

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit**

**Map Sheet 22 of 27**

Updated: 2/10/2016



Great River Energy

- Anticipated alignment single circuit 115 kV transmission line
- Right-of-way area
- Permitted route

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit**

**Map Sheet 23 of 27**

Updated: 2/10/2016



Great River Energy

- Anticipated alignment single circuit 115 kV transmission line
- Right-of-way area
- Permitted route

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit  
Map Sheet 24 of 27**  
Updated: 2/10/2016



Great River Energy

Anticipated alignment single circuit  
115 kV transmission line

Right-of-way area

Permitted route

XX Potential bird diverter location

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit  
Map Sheet 25 of 27**

Updated: 2/10/2016



Great River Energy

Anticipated alignment single circuit  
115 kV transmission line

Right-of-way area

Permitted route

XX Potential bird diverter location

GIS Data sources include:  
MNGEO, MNDNR, MNDOT,  
and Great River Energy.  
Aerial Imagery from ESRI web service

0 250 500 Feet



**Menahga Area  
115 kV Project  
Route Permit**

**Map Sheet 26 of 27**

Updated: 2/10/2016



**Great River Energy**

- Anticipated alignment single circuit 115 kV transmission line
- Right-of-way area
- Permitted route
- XX Potential bird diverter location

**Todd-Wadena**

- Proposed distribution substation

GIS Data sources include: MNGEO, MNDNR, MNDOT, and Great River Energy. Aerial Imagery from ESRI web service

0 250 500 Feet

N

**Menahga Area**  
**115 kV Project**  
**Route Permit**  
**Map Sheet 27 of 27**  
Updated: 2/10/2016

**STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION  
PUC DOCKET NO. ET-2, E-015/TL-14-797**

**ROUTE PERMIT ATTACHMENT A –  
COMPLAINT PROCEDURES FOR HIGH-VOLTAGE TRANSMISSION LINES**

**A. Purpose**

To establish a uniform and timely method of reporting complaints received by the permittee 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 permittee and all complaints received by the Minnesota Public Utilities Commission (Commission) under Minn. R. 7829.1500 or Minn. R. 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 route and associated facilities permit conditions. Complaints do not include requests, inquiries, questions or general comments.

**Substantial Complaint:** A written complaint alleging a violation of a specific 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 permittee and a person, 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 permittee shall designate an individual to summarize complaints for the Commission. This person's name, phone number and email address shall accompany all complaint submittals.
2. A person presenting the complaint should to the extent possible, include the following information in their communications:
  - a. name, address, phone number, and email address;
  - b. date of complaint;
  - c. tract or parcel number; and
  - d. whether the complaint relates to a permit matter or a compliance issue.
3. The permittee shall document all complaints by maintaining a record of all applicable information concerning the complaint, including the following:
  - a. docket number and project name;
  - b. name of complainant, address, phone number and email address;
  - c. precise description of property or parcel number;
  - d. name of permittee representative receiving complaint and date of receipt;
  - e. nature of complaint and the applicable permit condition(s);
  - f. activities undertaken to resolve the complaint; and
  - g. final disposition of the complaint.

## **F. Reporting Requirements**

The permittee shall commence complaint reporting at the beginning of project construction and continue through the term of the permit. The permittee shall report all complaints to the Commission according to the following schedule:

**Immediate Reports:** All substantial complaints through the term of the permit 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 the Commission's Consumer Affairs Office at 1-800-657-3782 (voice messages are acceptable) or [consumer.puc@state.mn.us](mailto:consumer.puc@state.mn.us). For e-mail reporting, the email subject line should read "PUC EFP Complaint" and include the appropriate project docket number.

**Monthly Reports:** During project construction and restoration, a summary of all complaints, including substantial complaints received or resolved during the preceding month, shall be filed

by the 15th of each month to Daniel P. Wolf, Executive Secretary, Public Utilities Commission, using the eDockets system. The eDockets system is located at:  
<https://www.edockets.state.mn.us/EFiling/home.jsp>

If no complaints were received during the preceding month, the permittee shall file a summary indicating that no complaints were received.

#### **G. Complaints Received by the Commission**

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

#### **H. Commission Process for Unresolved Complaints**

Commission staff shall perform an initial evaluation of unresolved complaints submitted to the Commission. Complaints raising substantial permit issues shall be processed and resolved by the Commission. Staff shall notify the permittee and appropriate persons 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. The complaint will be presented to the Commission for a decision as soon as practicable.

#### **I. Permittee Contacts for Complaints and Complaint Reporting**

Complaints may be filed by mail or email to:

Carole Schmidt  
Supervisor, Transmission Planning  
Great River Energy  
12300 Elm Creek Blvd.  
Maple Grove, MN 55369  
763-445-5214  
[cschmidt@grenergy.com](mailto:cschmidt@grenergy.com)

This information shall be maintained current by informing the Commission of any changes as they become effective.

**STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION  
PUC DOCKET NO. ET-2, E-015/TL-14-797**

**ROUTE PERMIT ATTACHMENT B –  
COMPLIANCE FILING PROCEDURE FOR PERMITTED ENERGY FACILITIES**

**A. Purpose**

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

**B. Scope and Applicability**

This procedure encompasses all compliance filings required by permit.

**C. Definitions**

**Compliance Filing:** A filing of information to the Commission, where the information is required by a Commission site or route permit.

**D. Responsibilities**

1. The permittee shall file all compliance filings with Daniel P. Wolf, Executive Secretary, Public Utilities Commission, through the eDockets system. The eDockets system is located at: <https://www.edockets.state.mn.us/EFiling/home.jsp>

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

2. All filings must have a cover sheet that includes:
  - a. Date
  - b. Name of submitter/permittee
  - c. Type of permit (site or route)
  - d. Project location
  - e. Project docket number
  - f. Permit section under which the filing is made
  - g. Short description of the filing

3. Filings that are graphic intensive (e.g., maps, engineered drawings) must, in addition to being electronically filed, be submitted as paper copies and on CD. Paper copies and CDs should be sent to: 1) Daniel P. Wolf, Executive Secretary, Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, St. Paul, MN 55101-2147, and 2) Department of Commerce, Energy Environmental Review and Analysis, 85 7th Place East, Suite 500, St. Paul, MN 55101-2198.

The Commission may request a paper copy of any electronically filed document.

**STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION  
PUC DOCKET NO. ET-2, E-015/TL-14-797**

**ROUTE PERMIT ATTACHMENT C – COMPLIANCE FILING LIST<sup>2</sup>**

PERMITTEE: Great River Energy and Minnesota Power

PERMIT TYPE: HVTL Route Permit

PROJECT LOCATION: Hubbard, Becker, Wadena Counties

PUC DOCKET NUMBER: ET-2, E-015/CN-14-787, TL-14-797

| Filing Number | Permit Section                | Description of Compliance Filing                      | Due Date                                               |
|---------------|-------------------------------|-------------------------------------------------------|--------------------------------------------------------|
| 1             | 9.1                           | Plan and profile of right-of-way (ROW)                | 30 days before ROW preparation for construction        |
| 2             | 5.2                           | Contact information for field representative          | 14 days prior to construction                          |
| 3             | 5.2.11                        | Restoration complete                                  | 60 days after completion of all restoration activities |
| 4             | 9.2                           | Periodic status reports                               | Monthly                                                |
| 5             | 8.0                           | Complaint procedures                                  | Prior to start of construction                         |
| 6             | Complaint Handling Procedures | Complaint reports                                     | By the 15th of each month                              |
| 7             | 5.1                           | Notification to landowners                            | First contact with landowners after permit issuance    |
| 8             | 9.3                           | Notice of completion and date of placement in service | Three days prior to energizing                         |

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<sup>2</sup> This compilation of permit compliance filings is provided for the convenience of the permittee and the Commission. It is not a substitute for the permit; the language of the permit controls.

| Filing Number | Permit Section | Description of Compliance Filing                           | Due Date                                        |
|---------------|----------------|------------------------------------------------------------|-------------------------------------------------|
| 9             | 9.4            | Provide as-built plans and specifications                  | Within 90 days after completion of construction |
| 10            | 9.5            | Provide GPS data                                           | Within 90 days after completion of construction |
| 11            | 5.2.13         | Notification of previously unrecorded archaeological sites | Upon discovery                                  |
| 12            | 6.3            | Invasive species management plan                           | 14 days prior to submission of plan and profile |