

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

**In the Matter of the Application of Great
River Energy for a Route Permit for a 115
kV high Voltage Transmission Line to
Accommodate the Lake Eunice Substation
Conversion in Becker County**

MPUC Docket No. ET2/TL-19-311

**GREAT RIVER ENERGY'S
PROPOSED FINDINGS OF FACT AND
CONCLUSIONS OF LAW**

TABLE OF CONTENTS

	<u>Page</u>
STATEMENT OF ISSUE.....	1
SUMMARY	1
FINDINGS OF FACT	1
I. Applicant.....	1
II. Procedural History	2
III. Description of the Project	4
IV. Need Overview	5
V. Routes Evaluated	5
VI. Transmission Line Structure Types and Spans	5
VII. Transmission Line Conductors	6
VIII. Transmission Line Route Widths.....	6
IX. Transmission Line Right-of-Way	6
X. Project Schedule.....	6
XI. Project Costs	6
XII. Permittee	6
XIII. Public and Local Government Participation	6
FACTORS FOR A ROUTE PERMIT	7
APPLICATION OF STATUTORY AND RULE FACTORS	10
I. Application of Routing Factors to the Proposed Route	10
A. Effects on Human Settlement.	10
B. Effects on Public Health and Safety.	12
C. Effects on Land-Based Economies.	14
D. Effects on Archaeological and Historic Resources.....	16
E. Effects on Natural Environment.	16
F. Effects on Rare and Unique Natural Resources.....	19
G. Application of Various Design Considerations.	19
H. Use of or Paralleling of Existing Rights-of-Way, Survey Lines, Natural Division Lines, and Agricultural Field Boundaries.	20
I. Use of Existing Transportation, Pipeline, and Electrical Transmission System Rights-of-Way.	20
J. Electrical System Reliability.....	20
K. Costs of Constructing, Operating, and Maintaining the Facility.	20
L. Adverse Human and Natural Environmental Effects that Cannot be Avoided.....	21
M. Irreversible and Irretrievable Commitments of Resources.	21
N. Summary of Factors Analysis.....	21
II. Notice.....	22
III. Completeness of EA	22

TABLE OF CONTENTS
(continued)

Page

CONCLUSIONS.....	23
------------------	----

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

**In the Matter of the Application of Great
River Energy for a Route Permit for a 115
kV high Voltage Transmission Line to
Accommodate the Lake Eunice Substation
Conversion in Becker County**

MPUC Docket No. ET2/TL-19-311

**GREAT RIVER ENERGY'S
PROPOSED FINDINGS OF FACT AND
CONCLUSIONS OF LAW**

A public hearing was held before Administrative Law Judge (“ALJ”) Kimberly Middendorf on Thursday, May 28, 2020.

Dan Leshner, 12300 Elm Creek Blvd., Maple Grove, Minnesota 55369, and Haley Waller Pitts, Fredrikson & Byron, P.A., 200 South Sixth Street, Minneapolis, Minnesota 55402, appeared on behalf of Great River Energy (or, “Applicant”).

Bill Storm, 85 Seventh Place East, Suite 280, St. Paul, Minnesota 55101 appeared on behalf of the Department of Commerce, Energy Environmental Review and Analysis (“EERA”).

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

STATEMENT OF ISSUE

Has the Applicant satisfied the factors set forth in Minn. Stat. § 216E.03 and Minn. R. Ch. 7850 for a Route Permit for a 115 kilovolt (“kV”) transmission line project for the Lake Eunice 115 kV Transmission Conversion Project in Becker County, Minnesota (the “Project”)?

SUMMARY

The Commission concludes that the Applicant has satisfied the criteria set forth in Minnesota law for a Route Permit, and the Commission GRANTS the Applicant a Route Permit for the Project.

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. APPLICANT

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 Lake Region Electric Cooperative, the distribution

cooperative which services the area in which the new transmission line would be located. Great River Energy's distribution cooperatives, in turn, supply electricity and related services to more than 685,000 residential, commercial, and industrial customers in Minnesota and Wisconsin. Lake Region Electric Cooperative provides electricity and related services to approximately 27,800 residential, commercial, and industrial customers in Minnesota.¹

2. Great River Energy's generation system includes a mix of baseload and peaking plants, including coal-fired, natural gas, and oil plants as well as wind generators (approximately 3,450 megawatts ("MW")). Great River Energy owns over 4,600 miles of transmission line (69 kV or higher) in Minnesota, North Dakota, South Dakota, and Wisconsin.²

II. PROCEDURAL HISTORY

3. On May 8, 2019, Great River Energy filed with the Commission a notice that it intended to apply for a Route Permit for the Project under the Alternative Permitting Process.³

4. On June 4, 2019, Great River Energy submitted its Route Permit Application ("Application") for the Project.⁴

5. On June 7, 2019, the Commission issued a Notice of Comment Period on Application Completeness.⁵

6. On June 21, 2019, EERA filed its comments and recommendations regarding completeness of the Application and recommended the Application be found complete and that the Commission should take no action on an advisory task force.⁶ No other comments were filed.⁷

7. On July 5, 2019, the Commission issued a Notice of Commission Meeting for July 18, 2019.⁸

8. On July 18, 2019, the Commission met and found the Application complete.⁹

9. On August 5, 2019, the Commission issued its Order Finding Application Complete and Referring Matter to the Office of Administrative Hearings ("OAH"), finding the Application complete and confirming that the Project could be reviewed under the alternative permitting process.¹⁰ The Commission also directed use of the Summary Report process to develop the record for the Route Permit and requested that the OAH compile a summary report of the comments

¹ Ex. 302 at 1-1 (Application).

² Ex. 302 at 1-1 (Application).

³ Ex. 300 (Notice of Intent to Submit a Route Permit Application under the Alternative Permitting Process).

⁴ Ex. 301 (Cover Letter for Application).

⁵ Ex. 200 (Notice of Comment Period [on Application Completeness]).

⁶ Ex. 100 (EERA Comments & Recommendations on Application Completeness).

⁷ Public Comment—Speak Up - No Comments (June 26, 2019) (eDocket No. 20196-153844-01).

⁸ Notice of Commission Meeting (July 5, 2019) (eDocket No. 20197-154189-07).

⁹ Minutes – July 18, 2019 Agenda (July 31, 2019) (eDocket No. 20197-154855-04).

¹⁰ Ex. 201 (Order Finding Application Complete and Referring Matter to the Office of Administrative Hearings).

received regarding the Application. The Commission also asked the ALJ to adhere to the timelines for the alternative review process recommended by EERA as closely as possible.¹¹

10. On August 28, 2019, Great River Energy filed affidavits indicating that it completed the notice requirements of Minn. R. 7850.2100 and provided direct mail notice and a newspaper publication relating to the Application, and provided notice of the Application to the General Service List, persons who own land on or adjacent to the Project's route, local officials, and agencies.¹²

11. On September 9, 2019, the Commission and EERA issued a Notice of Public EA Scoping and Public Information Meeting. This notice was published in the *Detroit Lakes Tribune* on September 11, 2019, as required under Minn. Stat. §§ 216E.03, subd. 4, 216E.04, subd. 4, and Minn. R. 7850.2100, subp. 4.¹³

12. The EA Scoping and Information Meeting was held as scheduled on September 25, 2019 in Detroit Lakes, Minnesota.¹⁴

13. On October 3, 2019, the Minnesota Department of Natural Resources ("MDNR") filed comments on the Project.¹⁵ On October 8, 2019, the Minnesota Department of Transportation ("MnDOT") filed comments.¹⁶

14. On October 14, 2019, EERA filed comments and recommendations regarding the scope of the EA.¹⁷

15. On October 30, 2019, the Commission held a meeting to consider the routes to be evaluated in the EA.¹⁸ On November 7, 2019, the Commission issued an order taking no action regarding route alternative to be evaluated in the EA.¹⁹

16. On November 12, 2019, EERA issued the EA Scoping Decision and a Notice of the EA Scoping Decision.²⁰

17. On January 24, 2020, EERA issued the EA for the Project.²¹ That same day, EERA's Notice of EA Availability was published on the eDockets website.²²

¹¹ Ex. 201 (Order Finding Application Complete and Referring Matter to the Office of Administrative Hearings).

¹² Ex. 304 (Affidavits of Mailing and Publication).

¹³ Ex. 203 (Notice of Public Information and Environmental Assessment Scoping Meeting); Ex. 204 (Published Notice of Public Information and Environmental Assessment Scoping Meeting).

¹⁴ Transcript (October 10, 2018) (eDocket No. 201910-156470-01).

¹⁵ Comment by MDNR (October 09, 2019) (eDocket No. 201910-156292-01).

¹⁶ Comment by MnDOT (October 08, 2019) (eDocket No. 201910-156433-01).

¹⁷ Ex. 104 (EERA Comment: Summary of EA Scoping Process and Alternative Routes).

¹⁸ Minutes – October 30, 2019 Agenda (November 5, 2019) (eDocket No. 201911-157230-02).

¹⁹ Ex. 205 (Order on Route Alternatives for Evaluation in the Environmental Assessment).

²⁰ Ex. 105 (Scoping Decision for Environmental Assessment and Affidavit of Service).

²¹ Ex. 107 (EA).

²² Ex. 106 (Notice: Availability of Environmental Assessment and Affidavit of Service).

18. On March 4, 2020, the Commission issued a Notice of Public Hearing, EA Availability and Comment Period.²³ The public hearing was initially scheduled for March 18, 2020. This notice was published in the *Detroit Lakes Tribune* on March 4, 2020. On February 3, 2020 the Commission filed its Notice of EA Availability in the EQB Monitor.²⁴

19. On March 16, 2020, the Commission cancelled the March 18 public hearing because of the COVID-19 public health emergency.²⁵ On May 12, 2020, the Commission issued a revised Notice of Public Hearing, EA Availability and Comment Period.²⁶ This notice was published in the *Detroit Lakes Tribune* on May 17, 2020.²⁷

20. On May 27, 2020, the Commission filed the master exhibit list.²⁸

21. On May 28, 2020, a public hearing was held. Pursuant to Executive Order 20-20,²⁹ the public hearing was held via webinar and conference call. The public hearing was presided over by ALJ Middendorf. No members of the public spoke at the public hearing.

22. A written comment period was open through June 11, 2020; no written comments were received before the close of that comment period.

23. On June 17, 2020, ALJ Middendorf filed a Report to the Commission which summarized the public hearing and public comments.³⁰

III. DESCRIPTION OF THE PROJECT

24. The Project is the conversion of an approximately 0.80-mile portion of Great River Energy's 41.6 kV LR-LET transmission line to 115 kV standards in Becker County, Minnesota, to serve the proposed 115 kV conversion of the Lake Eunice Substation. Great River Energy will remove 3.65 miles of the 10.24-mile 41.6 kV LR-LET transmission line and build a 0.80-mile 115 kV transmission line between the existing Lake Eunice Substation owned by Lake Region Electric Cooperative ("LREC") and the existing Great River Energy LR-CF 115 kV transmission line.³¹

25. Great River Energy will lean the existing 41.6 kV with the distribution underbuild circuit while constructing the new 115 kV to minimize outage times. Great River Energy will also temporarily move the 41.6 kV tap on LREC's property. After the conversion to 115 kV, the south 0.80 mile and north 2.85 miles of the 41.6 kV conductor will be removed. LREC will own the remaining 6.59 miles of the 41.6 kV line for distribution purposes and retain all existing distribution lines in the area.³²

²³ Ex. 206 (Notice of Public Hearing).

²⁴ Ex. 108 (Notice: Availability of Environmental Assessment published in the EQB Monitor).

²⁵ Ex. 207 (Notice Suspending all Commission Meetings for Two Weeks).

²⁶ Ex. 208 (Notice of Public Hearing).

²⁷ Affidavit of Publication—Public Hearing (July 1, 2020) (eDocket No. 20207-164456-01).

²⁸ Exhibits – Hearing—Initial Exhibit List (May 27, 2020) (eDocket No. 20205-163507-01).

²⁹ Minn. Exec. Order No. 20-20 (March 25, 2020).

³⁰ Report to the Commission (June 17, 2020) (eDocket No. 20206-164067-01).

³¹ Ex. 302 at 1-2 (Application).

³² Ex. 302 at 1-3 (Application).

26. The proposed Project will connect to the converted LREC Lake Eunice Substation, head north along St. Mary's of the Lakes Road for 0.8 mile and connect to the existing LR-CF 115 kV transmission line owned by Great River Energy ("Proposed Route"). Great River Energy requested approval of a 200-foot route width for the transmission line and a 400-foot route width in the vicinity of the substation to accommodate routing the line into the Lake Eunice Substation. These route widths will provide flexibility in developing a final alignment and a 90-foot right-of-way for the proposed 115 kV high voltage transmission line ("HVTL") inside that route.³³

27. Great River Energy proposed a right-of-way of 90 feet in width.³⁴

IV. NEED OVERVIEW

28. The Project is needed to improve electrical service to members in the rural area southwest of Detroit Lakes, Minnesota, including Lake Eunice, Dunn, and Lake View townships. These proposed upgrades will allow over 10 miles of 41.6 kV radial transmission to be replaced by a 0.8-mile 115 kV loop fed transmission line. This new line will improve the reliability of the transmission feeding the existing LREC Lake Eunice Substation and thus improve the reliability of the approximately 2,000 members served from this substation.³⁵

V. ROUTES EVALUATED

29. Great River Energy presented the Proposed Route in its Application. The Project will interconnect with the converted Lake Eunice Substation and then head north along St. Mary's of the Lake Road for about 0.80 mile to a proposed 3-way switch on the existing LR-CF 115 kV transmission line owned by Great River Energy.³⁶

30. Great River Energy did not evaluate any alternative routes for the proposed transmission line.³⁷ The EA evaluated the Proposed Route because no alternative routes were proposed for study during the scoping period.³⁸

VI. TRANSMISSION LINE STRUCTURE TYPES AND SPANS

31. Applicant proposes to use single-pole wood structures for most of the transmission line. Laminated wood poles or steel poles may be required in some locations (for angles poles, or in areas where soil conditions are poor and guying is not practical).³⁹ The new 115 kV line will consist of single circuit with 12.5 kV distribution under-build, single pole wood structures spaced approximately 200 to 300 feet apart. Transmission structures will typically range in height from 70 to 80 feet above ground, depending upon the terrain and environmental constraints. The average

³³ Ex. 107 at 2 (EA); Ex. 302 at 1-3 (Application).

³⁴ Ex. 302 at 1-3 (Application); Ex. 107 at 8 (EA).

³⁵ Ex. 302 at 1-7 (Application); Ex. 107 at 2 (EA).

³⁶ Ex. 302 at 4-1 (Application).

³⁷ Ex. 302 at 5-1 (Application).

³⁸ Ex. 107 at 20 (EA).

³⁹ Ex. 302 at 4-3 (Application).

diameter of the wood structures at ground level is 20 inches. Typical pole heights will range from 70 to 80 feet above ground and spans between poles will range from 200 to 300 feet.⁴⁰

VII. TRANSMISSION LINE CONDUCTORS

32. 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 aluminum conductor steel-reinforced with seven steel core strands and 26 outer aluminum strands. The shield wire will be 0.528 optical ground wire.⁴¹

VIII. TRANSMISSION LINE ROUTE WIDTHS

33. Great River Energy requests approval of a 200-foot route width for the transmission line and a wider route width (400 feet) in the vicinity of the Lake Eunice Substation to accommodate routing the line into the substation.⁴²

IX. TRANSMISSION LINE RIGHT-OF-WAY

34. Applicant will acquire a 90-foot wide permanent right-of-way (45 feet on each side of the transmission line centerline). The easement may be slightly wider than 90 feet in some areas to accommodate guy wires and anchors.⁴³

X. PROJECT SCHEDULE

35. Applicant plans to commence construction of the Project in fall 2020. Applicant anticipates that construction will take approximately two months and that the entire Project will be energized in spring 2021.⁴⁴

XI. PROJECT COSTS

36. The total cost of the Project is estimated to be approximately \$1.5 million, including an estimated cost of single pole construction at approximately \$448,500 per mile. Applicant estimates that 15 to 20 workers at a time will be employed during construction of the Project.⁴⁵

XII. PERMITTEE

37. The permittee for the Project is Great River Energy.

XIII. PUBLIC AND LOCAL GOVERNMENT PARTICIPATION

38. EERA and Commission staff jointly held a scoping meeting in Detroit Lakes on September 25, 2019, as noticed on September 9, 2019, with the goals of providing information

⁴⁰ Ex. 107 at 14 (EA).

⁴¹ Ex. 302 at 4-5 (Application).

⁴² Ex. 302 at 4-1 (Application); Ex. 107 at 13 (EA).

⁴³ Ex. 302 at 4-3 (Application); Ex. 107 at 13 (EA).

⁴⁴ Ex. 302 at 4-7 (Application); Ex. 107 at 19 (EA).

⁴⁵ Ex. 302 at 4-6 (Application); Ex. 107 at 19 (EA).

about the permitting process and the Project, answering questions, and gathering input on how to focus the EA to provide the Commission with information for the permit decision.⁴⁶

39. Three people attended the public information and scoping meeting.⁴⁷

40. The only written comments received during the open comment period were from MDNR and MnDOT. MDNR requested that EERA include within the EA document a discussion on the regulatory requirements, and the potential impacts/mitigative measures associated with LREC's removal of the 41.6 kV line between Structure 161 and the Audubon Switch.⁴⁸ MnDOT commented that the removal of the 2.85 miles of 41.6 kV line that crosses U.S. Highway 10 will likely require a Miscellaneous Permit (Form 1723) from MnDOT, accompanied by traffic control measures. MnDOT recommended early coordination with MnDOT District 4 staff prior to commencement of this work.⁴⁹

FACTORS FOR A ROUTE PERMIT

41. The Power Plan Siting Act ("PPSA"), Minn. Stat. Ch. 216E, requires that route permit determinations "be guided by the state's goal 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."⁵⁰

42. 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;

⁴⁶ Ex. 107 at 5 (EA).

⁴⁷ Ex. 107 at 5 (EA).

⁴⁸ Comment by MDNR (October 09, 2019) (eDocket No. 201910-156292-01); EA at 6 (EA).

⁴⁹ Comment by MnDOT (October 08, 2019) (eDocket No. 201910-156433-01); EA at 6 (EA).

⁵⁰ Minn. Stat. § 216E.03, subd. 7.

- (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;⁵¹
- (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 subdivisions 1 and 2;
- (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 the 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.⁵²

43. In addition, Minn. Stat. § 216E.03, subd. 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 line 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.”

⁵¹ Factor 4 is not applicable because Applicant is not proposing to site a large electric generating plant in this docket.

⁵² Minn. Stat. § 216E.03, subd. 7.

44. In addition to the PPSA, the Commission is governed by Minn. R. 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;
- 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;⁵³
- 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.

45. There is sufficient evidence on the record for the Commission to assess the Project using the criteria and factors set forth above.

⁵³ This factor is not applicable because it applies only to power plant siting.

APPLICATION OF STATUTORY AND RULE FACTORS

I. APPLICATION OF ROUTING FACTORS TO THE PROPOSED ROUTE

A. Effects on Human Settlement.

46. Minnesota law requires consideration of the Project's effects 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.⁵⁴

47. Impacts to human settlements resulting from the Project are anticipated to be minimal to moderate.⁵⁵

Displacement.

48. No residences, businesses, or structures will be displaced by the Project⁵⁶ and direct property value impacts are anticipated to be minimal.⁵⁷

Noise.

49. The Minnesota Pollution Control Agency ("MPCA") has established standards for the regulation of noise levels.⁵⁸

50. The most restrictive MPCA noise limits are 60-65 A-weighted decibels ("dBA") during the daytime and 50-55 dBA during the nighttime.⁵⁹

51. Noise from the Project may arise from construction activities and the normal operation of the Project. Noise impacts for both categories are anticipated to be minimal.⁶⁰

52. Construction noise will occur during daytime hours as the result of heavy equipment operation and increased vehicle traffic associated with the Project. Any exceedance of MPCA daytime noise limits would be short-term and sporadic. Exceedance of MPCA nighttime noise limits is not expected.⁶¹ Construction will be limited to daytime hours to avoid nighttime construction noise.⁶²

53. Noise levels produced by a 115 kV transmission line are generally less than outdoor background levels and therefore are not usually audible.⁶³ During light rain, dense fog, snow, and other times when there is moisture in the air, transmission lines may produce audible noise

⁵⁴ Minn. Stat. § 216E.03, subd. 7(b); Minn. R. 7850.4100, subp. A.

⁵⁵ Ex. 302 at 7-2 (Application). *See also* Ex. 107 at 26-27 (EA).

⁵⁶ Ex. 107 at 31 (EA).

⁵⁷ Ex. 302 at 7-4 (Application); Ex. 107 at 39 (EA).

⁵⁸ *See* Ex. 107 at 36 (EA) (citing MPCA (n.d.) *Noise Program*: <https://www.pca.state.mn.us/air/noise-program>).

⁵⁹ Ex. 107 at 36 (EA).

⁶⁰ Ex. 107 at 36-37 (EA).

⁶¹ Ex. 107 at 37 (EA).

⁶² Ex. 302 at 7-8 (Application).

⁶³ Ex. 302 at 7-7 (Application).

approximately equal to household background levels. Because noise dissipates over distance, the small amount of transmission line noise will not noticeably change overall noise levels at homes along the Proposed Route, nor will it cause exceedances of MPCA standards.⁶⁴

54. The upgraded substation will meet Minnesota Noise Standards at approximately 75 feet from the 115 kV transformer. The nearest residence is approximately 350 feet from the proposed location of the 115 kV transformer. At 350 feet, noise from the transformer would attenuate to approximately 27 dBA, which is below the 50 dBA limit.⁶⁵

55. Noise impacts are not anticipated during operation of the Project. Noise generated by operation of the Project is anticipated to be within Minnesota noise standards.⁶⁶

Aesthetics.

56. The landscape in the Project area is a mixture of rural residential development, forested land, agriculture, and utility infrastructure. The 500-foot region of influence for aesthetic resources was identified because the Project is most likely to be visible within this near-foreground distance zone and views of the proposed Project from aesthetic resources within this distance zone have the greatest potential to result in visual impacts for sensitive viewers.⁶⁷

57. The new infrastructure will be visible in the general area of the Project. The visual contrast added by the taller transmission structures and lines may be perceived as a visual disruption or as points of visual interest. The transmission lines that already exist in the vicinity of the proposed Project will limit the extent to which the new infrastructure is viewed as a disruption to the area's scenic integrity.⁶⁸

58. The primary strategy for minimizing aesthetic impacts is prudent routing. Aesthetic impacts have been mitigated to the extent possible. Applicant has identified a proposed route that is immediately adjacent to and overlapping an existing transmission line right-of-way and avoids residences and businesses.⁶⁹

Cultural Values.

59. The construction and operation of the Project is not anticipated to impact or alter cultural values in Becker County. The Project will not impact the work and leisure pursuits of residents or geographic features in such a way as to impact the underlying culture of the Project area.⁷⁰

⁶⁴ Ex. 107 at 37 (EA).

⁶⁵ Ex. 107 at 37–38 (EA).

⁶⁶ Ex. 107 at 38 (EA).

⁶⁷ Ex. 107 at 26 (EA).

⁶⁸ Ex. 107 at 27 (EA).

⁶⁹ Ex. 107 at 31 (EA); Ex. 302 at 7-9 (Application).

⁷⁰ Ex. 107 at 31 (EA).

Recreation.

60. Recreational opportunities in the area include fishing, birding, tubing, scuba diving, boating, swimming, biking, motorcycling, hiking, golfing, skiing, ice skating, hockey, curling, snowshoeing and snowmobiles. There are no state parks, state forests, scientific and natural areas, Wildlife Management Areas, county parks, or federal forests or refuges within the Proposed Route.⁷¹

61. No impacts to tourism and recreational opportunities from the Project are anticipated.⁷²

Public Service and Infrastructure.

62. The Project is located in a rural area with typical public services. Minor, temporary impacts to roads may occur during construction of the Project. No impacts to roads or highways are anticipated after the Project has been constructed.⁷³

63. No airports/airstrips are located within five miles of the Project and no impacts from the Project are anticipated.⁷⁴

64. During construction of the Project, there may be temporary impacts to roads in the form of traffic delays which could impede responses to an emergency. Short-term localized traffic delays are anticipated during construction. These impacts are anticipated to be minimal. No impacts to emergency services are anticipated as a result of the Project once the Project is operational.⁷⁵

65. Impacts to utilities from construction and operation of the Project are expected to be minimal.⁷⁶

B. Effects on Public Health and Safety.

66. Minnesota's high voltage transmission line routing factors require consideration of the Project's potential effect on health and safety.⁷⁷

Construction and Operation of Facilities.

67. The Project will be designed in compliance with local, state, National Electric Safety Code ("NESC") standards regarding clearance to the ground, clearance to crossing utilities, strength of materials, and right-of-way widths. Applicant's established safety procedures, as well

⁷¹ Ex. 107 at 56 (EA).

⁷² Ex. 107 at 57 (EA).

⁷³ Ex. 302 at 7-12-7-13 (Application).

⁷⁴ Ex. 107 at 49 (EA).

⁷⁵ Ex. 107 at 50 (EA).

⁷⁶ Ex. 107 at 52 (EA).

⁷⁷ Minn. Stat. § 216E.03, subd. 7(b)(1); Minn. R. 7850.4100, subp. B.

as industry safety procedures, will be followed during and after installation of the transmission line, including clear signage during all construction.⁷⁸

68. The Lake Eunice Substation will be equipped with breakers and relays located where the transmission line will connect to the substation. The protective equipment is designed to de-energize the transmission line should such an event occur.⁷⁹

Electric and Magnetic Fields.

69. There is no federal standard for transmission line electric fields. The Commission has imposed a maximum electric field limit of 8 kV per meter (“kV/m”) measured at one meter (3.28 feet) above the ground.⁸⁰

70. The calculated electric fields for the Project directly under the transmission line was 0.36 kV/m one meter aboveground, which is considerably less than the maximum limit of 8 kV/m prescribed by the Commission.⁸¹

71. There are presently no Minnesota regulations pertaining to magnetic field exposure.⁸²

72. Research has not been able to establish a cause-and-effect relationship between exposure to magnetic fields and adverse health effects.⁸³

73. The potential impacts of electromagnetic fields (“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.”⁸⁴

74. 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 proximity to electrical structures. Some studies have shown that there is an association, and some

⁷⁸ Ex. 302 at 7-2 (Application).

⁷⁹ Ex. 107 at 14 (EA); Ex. 302 at 7-2 (Application).

⁸⁰ Ex. 107 at 47 (EA); Ex. 302 at 6-7 (Application).

⁸¹ Ex. 107 at 43 (EA); Ex. 302 at 6-7 (Application).

⁸² Ex. 302 at 6-9 (Application).

⁸³ Ex. 302 at 6-9 (Application).

⁸⁴ 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), eDockets Document No. 20104-49478-01, *adopted as amended*, Commission Order at 8 (Sept. 14, 2010), eDockets Document No. 20109-54429-01. See also *In the Matter of the Application of Blazing Star Wind Farm 2, LLC for a Route Permit for the Blazing Star Wind Farm 2 115 kV Transmission Line in Lincoln County*, Docket No. IP-6686/TL-17-701, ALJ’s Findings of Fact and Conclusions of Law at 17, ¶ 86 (March 20, 2019), eDockets Document No. 20193-151229-01 (quoting ALJ Luis’s conclusions in *Brookings*).

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.”⁸⁵

75. By following NESC and Commission requirements, the Project has been designed to avoid induced voltage impacts. As a result, potential impacts are not anticipated.⁸⁶

76. The Project is not anticipated to have a significant impact on human health and safety.⁸⁷

C. Effects on Land-Based Economies.

77. 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.⁸⁸

78. Land-based economies in the Project area include agriculture, forestry, mining, recreation, and tourism. Impacts to these operations are anticipated to be minimal and can be mitigated.⁸⁹

Agriculture.

79. Land use in the vicinity of the Project is dominated by agriculture production. The majority of the land in the vicinity of the Project is cultivated farmland and pastureland/grassland.⁹⁰

80. Agricultural lands within the Proposed Route consist primarily of tilled land (2,200 linear feet) with pasture/grassland (1,000 linear feet). In total, the transmission line would cross about 3,200 feet of agricultural land. Agricultural impacts along the Proposed Route are predominantly along edges of existing road right-of-way. However, the permanent impact to agricultural operations is much less because agricultural land within a transmission right-of-way is generally available for agricultural production. As demonstrated by other transmission and wind energy projects in the Midwest and in the vicinity of the Project, agricultural practices continue throughout construction and operations.⁹¹

⁸⁵ *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), eDockets Document No. 20114-61700-01, *adopted as amended*, Commission Order at 2 (June 24, 2011), eDockets Document No. 20116-64023-01. *See also In the Matter of the Application of Blazing Star Wind Farm 2, LLC for a Route Permit for the Blazing Star Wind Farm 2 115 kV Transmission Line in Lincoln County*, Docket No. IP-6686/TL-17-701, ALJ’s Findings of Fact and Conclusions of Law at 17–18, ¶ 87 (March 20, 2019), eDockets Document No. 20193-151229-01 (quoting ALJ Luis’s conclusions in *Brookings*).

⁸⁶ Ex. 107 at 43–44 (EA); Ex. 302 at 6-9 (Application).

⁸⁷ Ex. 107 at 43 (EA).

⁸⁸ Minn. Stat. § 216E.03, subd. 7(b)(5); Minn. R. 7850.4100, subp. C.

⁸⁹ *See* Ex. 107 at 52–57 (EA).

⁹⁰ Ex. 302 at 7-14 (Application).

⁹¹ Ex. 302 at 7-14 (Application); Ex. 107 at 53–54 (EA).

81. Temporary impacts to agricultural lands may include soil compaction, crop damage, and disruption to drainage systems during construction. Permanent impacts will be the footprint of the pole and the area immediately surrounding it. Applicant has indicated that it will mitigate agricultural impacts by, among other things: limiting movement of crews and equipment on the right-of-way; scheduling construction during periods when agricultural activities are minimally affected; repairing ruts that are hazardous to agricultural operations; repairing damages to ditches, tile, terraces, and roads; purchasing right-of-way easements through negotiations with each landowner affected by the Project; restoring or compensating landowners for reasonable crop damages or other property damage that occurs during construction or maintenance; and repairing damages to or replacing fences, gates, and similar improvements that are removed or damaged. In addition, Commission route permits require permittees to compensate landowners for damage to crops and drain tile.⁹²

82. As a result of the Project's routing and mitigation measures, permanent impacts to agricultural operations as a result of the Project are anticipated to be minimal.⁹³

Forestry.

83. Becker County has about 360,000 acres of forested land, much in public control including substantial private woodlands. According to county inventories, the county is composed of approximately 12 percent conifers and 70 percent hardwoods.⁹⁴

84. The Project will cross approximately 480 linear feet of forested land (about 4,800 additional square feet from the existing LR-LET right-of-way). To ensure the safe and reliable operation of the Project, the entire width of the 90-foot right-of-way will need to be cleared of vegetation. Applicant has indicated that it will mitigate potential impacts to forest resources by compensating landowners for removal of vegetation in the right-of-way and giving landowners the option to keep the timber cut within the easement area.⁹⁵

85. Direct impacts to forestry operations, including timber harvest, are not anticipated.⁹⁶

Mining.

86. There are no known mining activities within the vicinity of the Project, so no impacts to mining economies are anticipated.⁹⁷

Tourism.

87. There are several recreation lands and public trails in the Project vicinity that may be used by tourists.

⁹² Ex. 107 at 54; Ex. 302 at 7-16-7-17 (Application).

⁹³ Ex. 107 at 53 (EA).

⁹⁴ Ex. 107 at 54 (EA).

⁹⁵ Ex. 302 at 7-17 (Application).

⁹⁶ Ex. 107 at 55 (EA).

⁹⁷ Ex. 107 at 55 (EA).

88. The Project is near lakes, resorts, flea markets, amusement parks, a winery, syrup production, and resorts. The Project also intersects a portion of the Midnite Riders Snowmobile Trail which lies within the existing LR-LET transmission right-of-way. The trail provides a loop trail system connecting the communities of Cormorant Village, Lake Park, and Audubon. The trails run through the lakes and fields of southwestern Becker County and provide connections to Lake Runners Trail Association and Clay County Trails. Applicant has indicated that it will work with the snowmobile club to limit the impacts caused by construction. Temporary impacts to the Midnite Riders Snowmobile Trail will be minimal and long-term impacts are not expected.⁹⁸

89. The Project will avoid all other areas that would be considered tourist destinations, and the Project would not preclude tourism activities or diminish the use or experience at tourist destinations. Impacts to tourism from the Project are anticipated to be minimal.⁹⁹

D. Effects on Archaeological and Historic Resources.

90. Minn. R. 7850.4100, subp. D, requires consideration of the effects of the Project on historic and archaeological resources.

91. To determine potential impacts on known archaeological and historic resources, Applicants retained Wenck to perform a Phase I Archaeological Survey of the Project area and contacted the State Historical Preservation Office (“SHPO”) requesting information on the possible effects of the Project on historic properties in the Project area. Wenck concluded that there will be no adverse impact on known or suspected cultural resources as a result of the Project, and SHPO determined that there are no properties listed in the National or State Registers of Historic Places, and no known or suspected archaeological properties in the area that will be affected by the Project.¹⁰⁰

92. The Applicant has indicated that work will be stopped and SHPO staff will be consulted in the event archaeological sites or resources are identified during Project construction. Consultation with SHPO concerning archaeological resources encountered during construction is a standard Commission route permit condition.¹⁰¹

93. Based on cultural resource review and survey, no direct or indirect impacts to archaeological or historic resources are anticipated within the Project area.¹⁰²

E. Effects on Natural Environment.

94. Minnesota’s HVTL routing factors require consideration of the Project’s effect on the natural environment, including effects on air and water quality resources and flora and fauna.¹⁰³

⁹⁸ Ex. 107 at 56 (EA); Ex. 302 at 7-18 (Application).

⁹⁹ Ex. 107 at 56 (EA).

¹⁰⁰ Ex. 107 at 57 (EA).

¹⁰¹ Ex. 107 at 58 (EA); Ex. 302 at 7-19 (Application).

¹⁰² Ex. 107 at 57 (EA).

¹⁰³ Minn. Stat. § 216E.03, subd. 7(b)(1)-(2); Minn. R. 7850.4100, subp. E.

Air Quality.

95. No significant impacts to air quality are anticipated from the Project. Ozone and nitrous oxide emissions along transmission lines are generally directly linked to corona production. Ozone and nitrous oxide emissions from the new 115 kV line are anticipated to be well below state and federal standards.¹⁰⁴

96. Impacts due to construction dust and equipment exhaust are anticipated to be minor and temporary. Even so, Applicant indicated that appropriate dust control measures will be implemented to reduce potential fugitive dust emissions.¹⁰⁵

Geology and Topography.

97. The topography along the Project area is level. Depth of glacial drift over bedrock in the Pine Moraines and Outwash Plains Subsection varies from 200 to over 600 feet, with the greatest depths in the southwestern portion of the subsection. Underlying bedrock is a variety of Precambrian rock. There are some localized cretaceous marine shale, sandstone and variegated shale in the southwestern portion of the subsection. The Project will not impact topography or geology.¹⁰⁶

Water Quality and Resources.

98. The Project lies within the Otter Tail River watershed, in the south portion of the Red River Basin. There are no rivers or streams that intersect the Proposed Route.¹⁰⁷

99. The Project avoids surface waters. Therefore, impacts to surface waters as a result of the Project are anticipated to be minimal.¹⁰⁸

100. Short-term water quality impacts could be experienced to surface waters due to vegetation clearing, ground disturbances, and construction traffic, resulting in sedimentation. However, long-term impacts are not expected as the poles will be placed outside of wetlands.¹⁰⁹

101. The Project is located in Minnesota's central groundwater province. Impacts to groundwater are anticipated to be minimal. Impacts can be mitigated by utilizing measures to prevent impacts to surface waters. Direct impacts to groundwater are anticipated to be minimal due to limited use of concrete components.¹¹⁰

102. Impacts to wetlands are not anticipated from the construction or operation of the transmission line. Impacts to floodplains are not anticipated.¹¹¹

¹⁰⁴ Ex. 107 at 58 (EA).

¹⁰⁵ Ex. 107 at 59 (EA).

¹⁰⁶ Ex. 107 at 59 (EA).

¹⁰⁷ Ex. 107 at 59 (EA).

¹⁰⁸ Ex. 107 at 60 (EA).

¹⁰⁹ Ex. 107 at 60 (EA).

¹¹⁰ Ex. 107 at 61 (EA).

¹¹¹ Ex. 107 at 63–64 (EA).

103. Appropriate erosion and sediment control measures will be implemented to avoid or minimize impacts on the impairment status of the waters in the Project area. In the event that impacts to hydrologic features happen, Applicant has indicated that it will work with the jurisdictional agencies to determine the best ways to minimize the impacts and create appropriate mitigation measures.¹¹²

Flora.

104. The Proposed Route follows existing infrastructure and thereby minimizes the impacts of vegetation loss, the creation of fragmented areas, the clearing of trees to facilitate access to the transmission line right-of-way, and the conversion of forested areas to low-stature ground cover. Impacts to non-forested areas will be temporary and will primarily occur during the construction of the Project.¹¹³

105. There are no MDNR Wildlife Management Areas, MDNR Scientific and Natural Areas, or United States Fish and Wildlife Service (“USFWS”) Waterfowl Production Areas in the vicinity of the Project. There are no state or county forests or parks in the vicinity of the Project.¹¹⁴

Fauna.

106. Potential impacts to fauna due to the Project are anticipated to be minimal and temporary. The landscape types and vegetation communities throughout the Project area provide habitat for a wide range of resident and migratory wildlife species, including ruffed grouse, sharp-tail grouse, partridge, rabbits, squirrels, red and gray fox, raccoon, deer, bear, muskrat, mink, beaver, migratory waterfowl, and various birds. While construction noise may temporarily disrupt the daily activity of wildlife in the immediate construction area, long-term impacts are not expected.¹¹⁵

107. Minor displacement impacts may be associated with the construction of the Project, but these will be temporary in nature, and long-term population-level impacts are not anticipated.¹¹⁶

108. Avian species could be impacted by the Project through collisions with or electrocution by the transmission line.¹¹⁷ However, there are mitigation strategies that can be implemented to minimize these impacts. The Project will be constructed according to Avian Power Line Interaction Committee recommended safety design standards in order to reduce avian collision and electrocution. Avian issues will also be addressed through working with the DNR and USFWS to identify any areas that may require marking transmission line shield wires and/or use alternate structures to reduce the likelihood of collisions.¹¹⁸

¹¹² Ex. 302 at 7-22 (Application). *See also* Ex. 107 at 65–66 (EA).

¹¹³ Ex. 107 at 68 (EA).

¹¹⁴ Ex. 107 at 73 (EA); Ex. 302 at 7-22 (Application).

¹¹⁵ Ex. 107 at 68–70 (EA).

¹¹⁶ Ex. 302 at 7-23 (Application).

¹¹⁷ Ex. 302 at 7-23 (Application).

¹¹⁸ Ex. 302 at 7-23 (Application); Ex. 107 at 70 (EA).

F. Effects on Rare and Unique Natural Resources.

109. Minnesota's high voltage transmission line routing factors require consideration of the Project's effect on rare and unique natural resources.¹¹⁹

110. A desktop review of the Natural Heritage Inventory Systems provided by the DNR indicates no rare features within the Proposed Route. DNR further does "not believe the proposed Project will negatively affect any known occurrences of rare features."¹²⁰

111. The USFWS considered the gray wolf, the northern long-eared bat ("NLEB"), and the Canada lynx to be potentially present along the Proposed Route.¹²¹ The gray wolf is federally listed as threatened under the Endangered Species Act; the NLEB is listed as federally threatened; and the Canada lynx is listed as federally threatened. However, there is no designated critical habitat for the gray wolf or the Canada lynx in the Project area, and the USFWS has not identified designated critical habitat for the NLEB at this time.¹²²

112. The Applicant has indicated that it will implement the following mitigation measures to minimize impacts to area wildlife and rare natural resources: minimize tree felling and shrub removal that are important to area wildlife; utilize best management practices to prevent erosion of the soils in the areas of impact; implement sound water and soil conservation practices during construction and operation of the Project to protect topsoil and adjacent water resources and minimize soil erosion; re-vegetate disturbed areas with native species and wildlife conservation species where applicable; and implement raptor protection measures, if consultation with local wildlife management staff deems necessary.¹²³

113. The Proposed Route follows or overlays existing infrastructure for the majority of its length. By so doing, the Proposed Route places the new transmission line where there is already existing linear infrastructure (roadways and electrical transmission/distribution lines), as this tends to minimize the impacts on rare and unique natural resources. Thus, impacts to rare and unique resources are not expected.¹²⁴ If impacts to threatened or endangered species are identified, the Applicant will work with regulatory agencies to identify appropriate avoidance, minimization, and mitigative measures.¹²⁵

G. Application of Various Design Considerations.

114. Minnesota's HVTL routing factors require consideration of the Project's applied design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of the transmission system in the area.¹²⁶

¹¹⁹ Minn. Stat. § 216E.03, subd. 7(b)(1); Minn. R. 7850.4100, subp. F.

¹²⁰ Ex. 107 at 72 (EA).

¹²¹ Ex. 107 at 72 (EA).

¹²² Ex. 107 at 72, 73 (EA).

¹²³ Ex. 302 at 7-24-7-25 (Application).

¹²⁴ Ex. 107 at 73 (EA).

¹²⁵ Ex. 302 at 7-25 (Application).

¹²⁶ Minn. Stat. § 216E.03, subd. 7(a)-(b); Minn. R. 7850.1900, subp. 2(L).

115. The existing Lake Eunice Substation has a compact feeder design. This substation has been upgraded in the past and cannot accommodate any future transformer upgrades as that would require other larger equipment and material within the substation that would no longer meet electrical safety standards for clearance and operation. The newly rebuilt substation design would allow for future expansion and when deemed necessary.¹²⁷

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

116. Minnesota's HVTL routing factors require consideration of the Project's use of or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries.¹²⁸

117. The existing transmission line right-of-way and easements are located in Becker County, generally along the east 80 feet of a portion of the west half of Section 35, Township 138, Range 42, adjacent to the west edge of St. Mary's of the Lakes road right-of-way. The proposed transmission line alignment will run approximately 10–15 feet west of, and parallel to, the existing 41.6 kV line right-of-way for the majority of its length.¹²⁹

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

118. Minnesota's HVTL routing factors require consideration of the Project's use of existing transportation, pipeline, and electrical transmission system rights-of-way.¹³⁰

119. The proposed transmission line alignment parallels or utilizes existing transmission and roadway rights-of-way for the majority of its length.¹³¹

J. Electrical System Reliability.

120. Minnesota's HVTL routing factors require consideration of the Project's impact on electrical system reliability.¹³²

121. The Project will be constructed to meet reliability requirements.¹³³

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

122. Minnesota's HVTL routing factors require consideration of the Project's cost of construction, operation, and maintenance.¹³⁴

¹²⁷ Ex. 302 at 6-2 (Application).

¹²⁸ Minn. Stat. § 216E.03, subd. 7(b)(9); Minn. R. 7850.4100, subp. H.

¹²⁹ Ex. 302 at 6-2 (Application).

¹³⁰ Minn. Stat. § 216E.03, subd. 7(b)(8); Minn. R. 7850.4100, subp. J.

¹³¹ Ex. 107 at 68, 73 (EA); Ex. 302 at 6-2 (Application).

¹³² Minn. Stat. § 216E.03, subd. 7(b)(10); Minn. R. 7850.4100, subp. K.

¹³³ See Ex. 302 at 8-1 (Application).

¹³⁴ Minn. R. 7850.4100, subp. L.

123. The total cost of the Project is currently estimated to be approximately \$1.5 million.¹³⁵ Operation and maintenance costs for a 115 kV line in the Great River Energy system, including right-of-way maintenance, are approximately \$2,000 per mile of transmission line.¹³⁶

L. Adverse Human and Natural Environmental Effects that Cannot be Avoided.

124. Minnesota's HVTL factors require consideration of the adverse human and natural environmental effects that cannot be avoided.¹³⁷

125. Unavoidable adverse impacts include the physical impacts to the land due to construction of the Project.¹³⁸ However, as detailed in the Application and EA, the Applicant will employ mitigation measures to limit Project impacts.

M. Irreversible and Irretrievable Commitments of Resources.

126. Minnesota's high voltage transmission line factors require consideration of the irreversible and irretrievable commitments of resources that are necessary for the Project.¹³⁹

127. Irreversible impacts include the land required to construct the transmission line. While it is possible that the structures and conductors could be removed and the right-of-way restored to previous conditions, this is unlikely to happen in the reasonably foreseeable future.¹⁴⁰

128. There are few commitments of resources associated with the Project that are irretrievable. These impacts are primarily related to Project construction, including the use of water, aggregate, hydrocarbons, steel, concrete, wood, and other consumable resources. The commitment of labor and fiscal resources is also considered irretrievable.¹⁴¹

129. The majority of the Proposed Route parallels land that has already been committed to road and existing transmission line rights-of-way.¹⁴²

N. Summary of Factors Analysis.

130. The Proposed Route is designed to minimize overall impacts. The Proposed Route parallels road right-of-way and existing transmission line right-of-way where possible to minimize human and environmental impacts; includes right-of-way entirely on land leased by Great River Energy and where it has obtained transmission easement agreements, thereby minimizing conflict, controversy, and human impacts; and minimizes the number of residences in proximity to the

¹³⁵ Ex. 107 at 19 (EA); Ex. 302 at 4-6 (Application).

¹³⁶ Ex. 302 at 4-7 (Application).

¹³⁷ Minn. Stat. § 216E.03, subd. 7(b)(5)-(6); Minn. R. 7850.4100, subp. M.

¹³⁸ See Ex. 107 at 77 (EA).

¹³⁹ Minn. Stat. § 216E.03, subd. 7(b)(11); Minn. R. 7850.4100, subp. N.

¹⁴⁰ Ex. 107 at 77 (EA).

¹⁴¹ Ex. 107 at 77 (EA).

¹⁴² Ex. 107 at 77 (EA).

Transmission Line thereby reducing human impacts; accommodates landowner concerns and other existing infrastructure, thereby minimizing impacts to people in the Project area.¹⁴³

131. No route alternatives were proposed during scoping, and EERA did not identify any reasonable alternatives to Great River Energy's Proposed Route.¹⁴⁴

132. Based on consideration of all routing factors, the Proposed Route is the best route for the Project.

II. NOTICE

133. Minnesota statutes and rules require Applicant to provide certain notice to the public and local governments before and during the Application for a Route Permit process.¹⁴⁵

134. Applicants provided notice to the public and local governments in satisfaction of Minnesota statutory and rule requirements.¹⁴⁶

135. Minnesota statutes and rules also require EERA and the Commission to provide certain notice to the public throughout the Route Permit process.¹⁴⁷ EERA and the Commission provided the notice in satisfaction of Minnesota statutes and rules.¹⁴⁸

III. COMPLETENESS OF EA

136. The EA process is the alternative environmental review approved by the Environmental Quality Board ("EQB") for high voltage transmission lines.¹⁴⁹ The Commission is required to determine the completeness of the EA.¹⁵⁰ An EA is complete if it and the record address the issues and alternatives identified in the Scoping Decision.¹⁵¹

137. The evidence in 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.¹⁵²

¹⁴³ See, e.g., Ex. 107 at 26 (EA).

¹⁴⁴ Ex. 107 at 20 (EA).

¹⁴⁵ Minn. Stat. § 216E.03, subds. 3a, 4; Minn. R. 7850.2100, subps. 2, 4.

¹⁴⁶ Ex. 300 (Notice of Intent to Submit a Route Permit Application under the Alternative Permitting Process); Ex. 303 (Notice of Route Permit Application); Ex. 304 (Affidavits of Mailing and Publication).

¹⁴⁷ Minn. Stat. § 216E.03, subd. 6; Minn. R. 7850.2300, subp. 2; Minn. R. 7850.3700, subps. 2, 3, and 6.

¹⁴⁸ Ex. 101 (Notice of Public Information and Scoping Meeting And Affidavit of Service Affidavit of Publication); Ex. 106 (Notice: Availability of Environmental Assessment And Affidavit of Service); Ex. 108 (Notice: Availability of Environmental Assessment published in the EQB Monitor); Ex. 200 (Notice of Comment Period on Application Completeness); Notice of Commission Meeting (July 5, 2019) (eDocket No. 20197-154189-07); Notice of Public Information and Environmental Assessment Scoping Meeting (Sept. 9, 2019) (eDocket No. 20199-155731-01); Ex. 204 (Published Notice of Public Information and Environmental Assessment Scoping Meeting); Ex. 208 (Notice of Public Hearing).

¹⁴⁹ Minn. R. 4410.4400, subp. 6.

¹⁵⁰ Minn. R. 7850.3900, subp. 2.

¹⁵¹ *Id.*

¹⁵² Ex. 105 (Scoping Decision for Environmental Assessment and Affidavit of Service); Ex. 107 at 5–7 (EA).

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

CONCLUSIONS

1. The Commission has jurisdiction to consider the Application.
2. The Commission determined that the Application was substantially completed and accepted the Application July 18, 2019.¹⁵³
3. EERA has conducted an appropriate environmental analysis of the Project for purposes of this Route Permit proceeding, and the EA satisfies Minn. R. 7850.3700 and 7850.3900. Specifically, the EA and the record address the issues identified in the Scoping Decision to a reasonable extent considering the availability of information, and the EA includes the items required by Minn. R. 7850.3700, subp. 4, and was prepared in compliance with the procedures in Minn. R. 7850.3700.
4. Applicants gave notice as required by Minn. Stat. § 216E.04, subd. 4; Minn. R. 7850.2100, subp. 2; and Minn. R. 7850.2100, subp. 4.
5. Notice was provided as required by Minn. Stat. § 216E.04, subd. 6; Minn. R. 7850.3500, subp. 1; Minn. R. 7850.3700, subps. 2, 3, and 6; and Minn. R. 7850.3800.
6. 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. The evidence in the record demonstrates that the Proposed Route satisfies the Route Permit factors set forth in Minn. Stat. § 216E.04, subd. 8 (referencing Minn. Stat. § 216E.03, subd. 7) and Minn. R. 7850.4100.
8. There is no feasible and prudent alternative to the construction of the Project, and the Project is consistent with and reasonably required for the promotion of public health and welfare in light of the state's concern for the protection of its air, water, land, and other natural resources as expressed in the Minnesota Environmental Rights Act.¹⁵⁴
9. The evidence in the record demonstrates that the Proposed Route is the best route for the Project.
10. The evidence in the record demonstrates that the general Route Permit conditions are appropriate for the Project.
11. Any of the foregoing Findings more properly designated Conclusions are hereby adopted as such.

¹⁵³ Minutes – July 18, 2019 Agenda (July 31, 2019) (eDocket No. 20197-154855-04).

¹⁵⁴ Minn. Stat. § 116B.01.