

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

**In the Matter of the Application for a Route
Permit Application for the Laketown 115-
kV Transmission Line in Carver County,
Minnesota**

OAH Docket No. 21-2500-40445
MPUC Docket No. ET2/TL-24-132

**GREAT RIVER ENERGY'S AND
MINNESOTA VALLEY ELECTRIC
COOPERATIVE'S
PROPOSED FINDINGS OF FACT,
CONCLUSIONS OF LAW, AND
RECOMMENDATIONS**

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TABLE OF CONTENTS

FOR PUBLIC UTILITIES COMMISSION	4
STATEMENT OF ISSUES	4
SUMMARY OF RECOMMENDATIONS	5
FINDINGS OF FACT	5
I. APPLICANTS	5
II. PROCEDURAL HISTORY	5
III. DESCRIPTION OF THE PROJECT	11
IV. NEED OVERVIEW	12
V. ROUTES EVALUATED	12
A. Route Evaluated by Applicants	12
B. Routes Analyzed in the Environmental Assessment.	15
VI. TRANSMISSION LINE STRUCTURE TYPES AND SPANS	16
VII. TRANSMISSION LINE CONDUCTORS	17
VIII. TRANSMISSION LINE ROUTE WIDTHS	17
IX. TRANSMISSION LINE RIGHT-OF-WAY	18
X. PROJECT SCHEDULE	18
XI. PROJECT COSTS	18
XII. PERMITTEE	18
XIII. PUBLIC AND LOCAL GOVERNMENT PARTICIPATION	18
XIV. FACTORS FOR A ROUTE PERMIT	20
XV. APPLICATION OF ROUTING FACTORS TO THE PROPOSED ROUTE	24
A. Effects on Human Settlement.	24
B. Effects on Public Health and Safety.	35
C. Effects on Land-Based Economies.	36
D. Effects on Archaeological and Historic Resources.....	38
E. Effect on Natural Environment.	39

F.	Rare and Unique Natural Resources.	48
G.	Application of Various Design Considerations.	49
H.	Use of or Paralleling of Existing Rights-of-Way, Survey Lines, Natural Division Lines, and Agricultural Field Boundaries.	50
I.	Use of Existing Transportation, Pipeline, and Electrical Transmission System Rights-of-Way.	51
J.	Electrical System Reliability.....	52
K.	Costs of Constructing, Operating, and Maintaining the Facility.	53
L.	Adverse Human and Natural Environmental Effects that Cannot be Avoided.....	53
M.	Irreversible and Irretrievable Commitments of Resources.	54
N.	Summary of Factors Analysis.....	54
XVI.	ROUTE PERMIT CONDITIONS	56
XVII.	NOTICE.....	57
XVIII.	COMPLETENESS OF EA	57
CONCLUSIONS OF LAW		58
RECOMMENDATIONS.....		59

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This matter was assigned to Administrative Law Judge Kimberly Middendorf to conduct a public hearing on the Route Permit Application (MPUC Docket No. ET2/TL-24-132) (Application) of Great River Energy and Minnesota Valley Electric Cooperative (MVEC) (together, the Applicants) to build a new 115-kilovolt (kV) double-circuit high voltage transmission line (HVTL) (Transmission Line) in Laketown and Dahlgren Townships in Carver County, Minnesota, referred to as the Laketown 115-kV Transmission Line Project (Project). The Project will be approximately 4.3 miles long and includes construction of a new MVEC substation (the Laketown Substation). The Project will connect Great River Energy's existing 115-kV MV-VTT transmission line to the proposed Laketown Substation. The Minnesota Public Utilities Commission (Commission) also requested that the Administrative Law Judge prepare findings of fact and conclusions of law and provide recommendations, if any, on conditions and provisions of the proposed route permit.

Public hearings on the Application were held on May 21, 2025 (in-person) and May 22, 2025 (remote-access). The factual record remained open until June 2, 2025, for the receipt of written public comments.

Haley Waller Pitts, Fredrikson & Byron, P.A., 60 South Sixth Street, Suite 1500, Minneapolis, Minnesota 55402, appeared on behalf of the Applicants. Michael Swenson, 12300 Elm Creek Boulevard, Maple Grove, MN 55369 appeared on behalf of the Applicants.

Sam Lobby, 121 Seventh Place East, Suite 350, St. Paul, MN 55101 appeared on behalf of Commission Staff.

Logan Hicks, 85 7th Place East, Suite 280, St. Paul, MN 55101 appeared on behalf of the Department of Commerce, Energy Environmental Analysis Review unit (EERA).

STATEMENT OF ISSUES

Have Great River Energy and MVEC satisfied the criteria established in Minn. Stat. ch. 216E and Minn. R. ch. 7850 a route permit for the Project?

SUMMARY OF RECOMMENDATIONS

The Administrative Law Judge concludes that Great River Energy and MVEC have satisfied the applicable legal requirements and, accordingly, recommends that the Commission GRANT a route permit for the Project, subject to the conditions discussed below.

Based on the evidence in the hearing record, the Administrative Law Judge makes the following:

FINDINGS OF FACT

I. APPLICANTS

1. Great River Energy is a not-for-profit wholesale electric power cooperative based in Maple Grove, Minnesota. Great River Energy provides electricity and related services to approximately 1.7 million people through its 27 member-owner cooperatives and customers. Through its member-owners, including MVEC, Great River Energy serves two-thirds of Minnesota and parts of Wisconsin.¹

2. MVEC is the distribution cooperative serving the area in which the Project will be located. It is one of Great River Energy's transmission customers, and it will be the owner of the proposed Laketown Substation. MVEC provides electric service to a 968-square-mile service area which includes all or parts of nine Minnesota counties: Blue Earth, Carver, Dakota, Hennepin, Le Sueur, Rice, Scott, Sibley, and Waseca. MVEC does not generate power; rather, MVEC delivers electric energy supplied and transmitted by Great River Energy to their substations. MVEC then distributes that energy to homes and businesses through their distribution system.²

II. PROCEDURAL HISTORY

3. The Minnesota Power Plant Siting Act (PPSA) provides that no person may construct a HVTL without a route permit from the Commission.³ Under the PPSA, an HVTL includes a transmission line that is 100-kV or more and is greater than 1,500 feet in length.⁴ The proposed 115-kV Transmission Line is an HVTL greater than 1,500 feet in length and, therefore, a route permit is required from the Commission prior to construction.⁵

4. The Commission's rules establish two tracks for the permitting of a HVTL. The "full permitting process" includes preparing an environmental impact statement (EIS) and holding a contested case hearing.⁶ The "alternative permitting process" is available to, among other HVTLs, HVTLs which operate at a voltage between 100- and 200-kV; this process requires an

¹ Ex. APP-2 at 1-1 (Application).

² Ex. APP-2 at 1-1 (Application).

³ Minn. Stat. § 216E.03, subd. 2.

⁴ Minn. Stat. § 216E.01, subd. 4.

⁵ Ex. APP-2 at 1-1 (Application).

⁶ See Minn. R. 7850.1700-.2700 (full permitting procedures).

Environmental Assessment (EA) instead of an EIS and a public hearing instead of a contested case hearing.⁷

5. Because Applicants' proposed Transmission Line would operate at a voltage between 100 and 200-kV, it is eligible for the alternative permitting process authorized by Minn. Stat. § 216E.04, subd. 2(3) and Minn. R. 7850.2800, Subp. 1(C).⁸

6. On July 10, 2024, Great River Energy filed with the Commission a notice that the Applicants intended to apply for a Route Permit for the Project and intended to use the Alternative Permitting Process within Minn. R. 7850.2800 - .3900.⁹

7. On August 19, 2024, the Applicants submitted the Application for the Project.¹⁰ Applicants also submitted the Notice of Filing of the Application to persons interested in the Project, the Commission's Energy Facilities General List, Local Officials, Tribes, and Property Owners in accordance with Minnesota Rule 7850.2100.¹¹

8. On August 23, 2024, the Commission filed a Notice of Comment Period regarding the completeness of the Application, requesting initial comments by September 6, 2024, reply comments by September 13, 2024, and supplemental comments by September 18, 2024. The notice requested comments on whether the Application was complete within the meaning of the Commission's rules; whether there were contested issues of fact with respect to the representations made in the Application; whether the Commission should appoint an advisory task force; whether any additional procedural requirements should be considered; and whether the Commission should direct the Executive Secretary to issue an authorization to the Applicants to initiate a State Historic Preservation Office (SHPO) Consultation.¹²

9. On September 4, 2024, EERA filed its Completeness Comments and Recommendations. EERA recommended that the Commission accept the Application as substantially complete, take no action on an advisory task force, and request a full Administrative Law Judge report with recommendations for the Project's public hearing.¹³

10. On September 11, 2024, Applicants submitted reply comments concerning Application completeness.¹⁴

11. On September 20, 2024, Applicants submitted the Notice Filing for the Application.¹⁵

⁷ See Minn. R. 7850.2800-.3900 (alternative permitting procedures).

⁸ Minn. R. 7850.2800, subp. 1(C).

⁹ Ex. APP-1 (Notice of Intent to File Route Permit Application under the Alternative Permitting Process).

¹⁰ Exs. APP-2-APP-12 (Application and Appendices).

¹¹ Ex. APP-13 (Route Permit Application – Notice of Filing Application).

¹² Ex. PUC-1 (Notice of Comment Period on Application Completeness).

¹³ Ex. EERA-1 (Comments on Application Completeness).

¹⁴ Ex. APP-14 (Reply Comments regarding Application Completeness).

¹⁵ Ex. APP-15 (Compliance Filing – Notice of Filing Route Permit Application).

12. On September 26, 2024, the Commission issued proposed consent items.¹⁶
13. On October 1, 2024, the Commission issued an order finding the Application complete, declining to appoint an advisory task force, and requesting a full Administrative Law Judge report with recommendations for the Project's public hearing.¹⁷
14. On October 2, 2024, the Commission issued minutes from the October 1 consent calendar subcommittee meeting.¹⁸
15. On October 10, 2024, the Commission published Notice of Public Information and EA Scoping Meetings scheduling meetings for October 23, 2024 (remote-access) and October 28, 2024 (in-person), opening up a public comment period until November 12, 2024, and requesting responses to three questions regarding the Project: (1) What potential human and environmental impacts of the proposed Project should be studied in the EA?; (2) Are there any methods to minimize, mitigate, or avoid potential impacts of the proposed Project that should be considered in the EA?; and (3) Are there any unique characteristics of the proposed Project that should be considered in the EA?¹⁹
16. On November 12, 2024, Minnesota Department of Natural Resources (MDNR) filed comments regarding potential environmental impacts that should be considered in the EA for the Project.²⁰
17. On November 20, 2024, the Administrative Law Judge filed a Notice of and Order for Prehearing Conference, setting a prehearing conference for December 2, 2024.²¹
18. On November 25, 2024, EERA filed written public comments received on the scope of the EA.²² EERA also filed oral public comments received on the scope of the EA.²³
19. On November 26, 2024, the Applicants filed a proposed procedural schedule which was prepared in coordination with EERA and Commission staff.²⁴
20. On November 27, 2024, the Commission filed the presentations prepared for the Public Information and Scoping Meeting.²⁵

¹⁶ Consent Items (Sept. 26, 2024) (eDocket No. [20249-210500-04](#)).

¹⁷ Ex. PUC-2 (Order Accepting Application as Complete).

¹⁸ Minutes – October 1, 2024 Consent (Oct. 2, 2024) (eDocket No. [202410-210653-03](#)).

¹⁹ Ex. PUC-3 (Notice of Public Information and EA Scoping Meeting).

²⁰ MDNR Comments (Nov. 12, 2024) (eDocket Nos. [202411-211858-01](#) and [202411-211858-02](#)).

²¹ Notice of and Order for Prehearing Conference (Nov. 20, 2024) (eDocket No. [202411-212190-01](#)).

²² Ex. EERA-4 (Written Comments on Scope of EA).

²³ Ex. EERA-3 (Oral Comments on Scope of EA).

²⁴ Ex. APP-16 (Proposed Procedural Schedule).

²⁵ Handout – Scoping Meeting Presentation (Nov. 27, 2024) (eDocket No. [202411-212494-01](#)).

21. On December 3, 2024, the Administrative Law Judge issued a First Prehearing Order establishing a schedule for the proceedings.²⁶

22. On December 4, 2024, Applicants filed reply comments in response to public comments received on the scope of the EA.²⁷

23. On December 12, 2024, EERA staff filed its EA Scoping Summary and Recommendations for the Project.²⁸

24. On December 17, 2024, Applicants filed comments in response to EERA's Scoping Summary and Recommendations.²⁹

25. On January 30, 2025, the Commission issued proposed consent items.³⁰

26. On January 31, 2025, the Commission issued minutes from the October 1 consent calendar subcommittee meeting.³¹

27. On February 4, 2025, the Commission issued an order requiring that the EA evaluate Applicants' Proposed Route, and the routing and alignment alternatives recommended by EERA.³²

28. Also on February 4, 2025, the Administrative Law Judge issued a Second Prehearing Order establishing an updated schedule for the proceedings.³³

29. On February 5, 2025, EERA filed the EA scoping decision for the Project.³⁴

30. Also on February 5, 2025, EERA filed a letter sent to newly affected landowners regarding the EA scoping decision.³⁵

31. On February 7, 2025, EERA filed a notice of EA scoping decision.³⁶

32. On February 20, 2025, EERA filed a notification of EA scoping decision in the EQB Monitor.³⁷

²⁶ First Prehearing Order (Dec. 3, 2024) (eDocket No. [202412-212631-01](#)).

²⁷ Ex. APP-17 (Response to Scoping Comments).

²⁸ Ex. EERA-5 (Scoping Summary and Recommendation).

²⁹ Ex. APP-18 (Response to EERA Proposed Scope of EA).

³⁰ Consent Items (Jan. 30, 2025 (eDocket No. [20251-214676-01](#))).

³¹ Minutes – Jan. 30, 2025 Consent (Jan. 31, 2025) (eDocket No. [20251-214814-01](#)).

³² Ex. PUC-5 (Order-Approving Scoping Decision).

³³ Second Prehearing Order (Feb. 5, 2025) (eDocket No. [20252-214900-01](#)).

³⁴ Ex. EERA-6 (EA Scoping Decision).

³⁵ Ex. EERA-9 (Letter to Newly Affected Landowners).

³⁶ Ex. EERA-7 (Notice of EA Scoping Decision).

³⁷ Ex. EERA-8 (Notice of EA Scoping Decision in EQB Monitor).

33. Also on February 20, 2025, EERA filed a public comment received outside of the comment period.³⁸

34. On March 19, 2025, the Commission filed a letter authorizing the Applicants to initiate consultation with SHPO pursuant to Minn. Stat. § 138.665.³⁹

35. On April 8, 2025, EERA filed the EA for the Project, with a Draft Route Permit attached thereto.⁴⁰

36. Also on April 8, 2025, EERA filed a notification of EA availability to agencies and Tribal Historic Preservation Officers.⁴¹

37. On April 15, 2025, EERA filed a notification of EA availability at public libraries.⁴²

38. On April 22, 2025, the Applicants filed the direct testimonies of Michael Swenson and Nick Goater.⁴³

39. On April 29, 2025, the Minnesota Pollution Control Agency (MPCA) filed comments on the EA.⁴⁴

40. On May 1, 2025, the Commission filed Notice of Public Hearings and Availability of Environmental Assessment providing for an in-person hearing on May 21, 2025, in Chaska, Minnesota and a remote hearing on May 22, 2025, via WebEx. The Commission also requested comments from the public on (1) whether the Commission should grant a route permit for the Project, and (2) if granted, what additional conditions or requirements, if any, should be included in the route permit. The Commission stated that it would accept written comments through June 2, 2025.⁴⁵

41. On May 5, 2025, the Commission filed a scoping meeting notice in the EQB.⁴⁶

42. On May 7, 2025, public comment was filed from Brian McCann, representing the City of Victoria.⁴⁷

43. On May 13, 2025, the Commission filed a public hearing notice in the EQB.⁴⁸

³⁸ Ex. EERA-10 (Public Comment Outside of Comment Period).

³⁹ Ex. PUC-6 (Letter-Authorization to Initiate Consultation with SHPO).

⁴⁰ Ex. EERA-11 (EA).

⁴¹ Ex. EERA-12 (Notice of EA to Agencies and Tribal Historic Preservation Officers).

⁴² Ex. EERA-13 (Notification of EA Availability at Public Library).

⁴³ Ex. APP-19 (Direct Testimony of Michael Swenson and Schedule A); APP-20 (Direct Testimony of Nick Goater).

⁴⁴ MPCA Comments (Apr. 29, 2025) (eDocket No. [20254-218277-01](#)).

⁴⁵ Ex. PUC-7 (Notice of Public Hearings and Availability of EA).

⁴⁶ Ex. PUC-8 (EQB-Scoping Meeting Notice).

⁴⁷ Brian McCann Public Comment (May 7, 2025) (eDocket No. [20255-218669-01](#)).

⁴⁸ Ex. PUC-9 (EQB-Public Hearing Notice).

44. Also on May 13, 2025, the Applicants filed comments and related attachments on the EA.⁴⁹

45. On May 16, 2025, public comment was filed from Drew Pflaumer on behalf of Carver County Public Works.⁵⁰

46. On May 21, 2025, the Commission filed an affidavit of publication of the Notice of Public Hearings and Availability of EA.⁵¹

47. On May 21, 2025, Judge Middendorf presided over a public hearing at Outpost 212 in Chaska, Minnesota. Ten members of the public provided oral comments at this public hearing.⁵²

48. A remote public hearing was held via Webex on May 22, 2025. Three members of the public provided oral comments at this public hearing.⁵³ The written public comment period remained open through June 2, 2025. Two written comments were submitted by members of the public before the close of the comment period.

49. On May 21, 2025, the City of Carver provided written comment.⁵⁴

50. On May 22, 2025, the City of Carver provided additional written comment.⁵⁵

51. On May 22, 2025, the City of Victoria provided written comment.⁵⁶

52. On May 27, 2025, the Commission filed the presentations prepared for the public hearings.⁵⁷

53. On May 31, 2025, Tim and Patty Eiden provided written comment.⁵⁸

54. On June 2, 2025, MDNR filed written comments.⁵⁹

⁴⁹ Ex. APP-21 (Comments regarding EA, with Attachments 1-4).

⁵⁰ Drew Pflaumer, on behalf of Carver County Public Works Public Comment (May 16, 2025) (eDocket No. [20255-218997-01](#)).

⁵¹ Affidavit of Publication of Notice of Public Hearings and Availability of EA (May 21, 2025) (eDocket No. [20255-219160-01](#)).

⁵² See Chaska Public Hearing Transcript (Chaska 6:00 p.m. Tr.) (May 21, 2025).

⁵³ See WebEx 6:00 p.m. Public Hearing Transcript (WebEx 6:00 p.m. Tr.) (May 22, 2025).

⁵⁴ City of Carver Public Comment (May 21, 2025) (eDocket No. [20255-219148-01](#)).

⁵⁵ City of Carver Public Comment (May 22, 2025) (eDocket No. [20255-219194-02](#)).

⁵⁶ City of Victoria Public Comment (May 22, 2025) (eDocket No. [20255-219194-01](#)).

⁵⁷ Handout – Commission (May 27, 2024) (eDocket No. [20255-219254-01](#)).

⁵⁸ Tim and Patty Eiden Written Comment (May 31, 2025) (eDocket No. [20256-219581-01](#)).

⁵⁹ MDNR Comment (June 2, 2025) (eDocket Nos. [20256-219508-01](#); [20256-219508-02](#)).

55. Also on June 2, 2025, EERA, on behalf of the interagency Vegetation Management Planning Working Group, submitted comments on the Vegetation Management Plan proposed by Great River Energy.⁶⁰

56. Also on June 2, 2025, EERA filed post-hearing comments.⁶¹

57. Also on June 2, 2025, Cathy Brunkow on behalf of Pierson Lake, LLC filed written comments.⁶²

58. Also on June 2, 2025, Mayor Courtney Johnson provided written comment on behalf of the City of Carver.⁶³

59. The public comment period closed on June 2, 2025.⁶⁴

60. On June 9, 2025, the Applicants filed their Post-Hearing Response to Comments (Post-Hearing Comments). In their Post-Hearing Comments, the Applicants provided further responses to comments submitted during the public hearing comment period.⁶⁵ On the same day, the Applicants filed their Proposed Findings of Fact, Conclusions of Law, and Recommendations.

III. DESCRIPTION OF THE PROJECT

61. The proposed Project consists of a new 4.3-mile 115-kV double-circuit HVTL in Laketown and Dahlgren Townships in Carver County, Minnesota. The Project also includes construction of a new MVEC substation (the Laketown Substation).⁶⁶

62. The Project will connect Great River Energy's existing 115-kV MV-VTT transmission line to the proposed Laketown Substation. This Project will enable Great River Energy to provide 115-kV service to the Laketown Substation to meet long-term electricity planning needs. The Transmission Line will be constructed and owned by Great River Energy; the Laketown Substation will be constructed and owned by MVEC.⁶⁷

63. The Transmission Line's proposed alignment will begin at Great River Energy's existing MV-VTT line on the west side of Guernsey Ave near structure MV-VTT-55. The Proposed Alignment will then follow Hampshire Road northwesterly for approximately 1 mile, then will leave the road alignment and travel west across greenfield agricultural fields for 1.2 miles. The Proposed Alignment will then turn north, crossing the Twin Cities & Western Railroad, for 0.5 mile to the south side of Augusta Road. The Proposed Alignment will then turn east and follow Augusta Road for 0.5 mile before crossing over Augusta Road on the east side of Jersey Avenue.

⁶⁰ Minnesota Interagency Vegetation Management Planning Working Group Public Comment (June 2, 2025) (eDocket No. [20256-219479-01](#)).

⁶¹ EERA Post-Hearing Comments (June 2, 2025) (eDocket No. [20256-219470-01](#)).

⁶² Pierson Lake, LLC Written Comment (June 2, 2025) (eDocket No. [20256-219463-01](#)).

⁶³ Mayor Courtney Johnson Written Comment (June 2, 2025) (eDocket No. 20256-219581-01).

⁶⁴ Ex. PUC-7 (Notice of Public Hearings and Availability of EA).

⁶⁵ Applicants' Post-Hearing Comments (June 9, 2025) (eDocket No. ____).

⁶⁶ Ex. APP-2 at 1-2 (Application).

⁶⁷ Ex. APP-2 at 1-1 (Application).

The Proposed Alignment will then travel along the east, then west sides of Jersey Avenue for 1 mile to the south side of County State Aid Highway (CSAH) 10. The Proposed Alignment will then travel 500 feet west on the south side of CSAH 10 before turning north into the Laketown Substation site, which is located northwest of the intersection of CSAH 10 and Laketown Road.⁶⁸

64. The Laketown Substation is proposed to be built on approximately 1.5 acres of an approximately 8.9-acre property at the corner of CSAH 10 and Laketown Road. The land is owned by MVEC.⁶⁹

IV. NEED OVERVIEW

65. The proposed Transmission Line is needed to provide electric energy to the new Laketown Substation. The Laketown Substation will provide service to end users within MVEC's service territory. The Project is needed to provide reliable electrical service to current and future end-use customers in the rapidly growing area near the Project. The ability to operate at the 115-kV voltage will ensure there is sufficient electrical capability to serve increased electrical demand in the future.⁷⁰

66. Because of the voltage (115-kV) and length (less than 10 miles) of the Project, a Certificate of Need is not required for the Project.⁷¹

V. ROUTES EVALUATED

A. Route Evaluated by Applicants.

67. In developing the Proposed Route, prior to filing the Application, Great River Energy conducted public outreach consisting of landowner coordination, open houses, and agency coordination.⁷² This included presentation of three potential routes to stakeholders, including the Proposed Route (presented as "Option 1 – Preferred"), Route Alternative A (presented as "Option 3"), and Route Alternative C (presented as "Option 2"), all of which were analyzed in the EA.⁷³ This allowed Great River Energy to consider feedback from stakeholders along each route under consideration, when determining which route to include as the Proposed Route. Great River Energy then conducted detailed analysis regarding the Project's routing and determined that the Proposed Route better avoids and minimizes potential human and environmental impacts, consistent with the Commission's routing criteria.⁷⁴

⁶⁸ Ex. APP-2 at 3-1 (Application).

⁶⁹ Ex. APP-2 at 1-3 (Application).

⁷⁰ Ex. APP-2 at 1-4 (Application).

⁷¹ Minn. Stat. § 216B.2421; Minn. Stat. § 216B.243.

⁷² Ex. APP-19 at 4-5 (Direct Testimony of M. Swenson); Ex. APP-21 at 4 (Comments regarding EA).

⁷³ Ex. APP-2 at 4-3 (Application).

⁷⁴ Ex. APP-2 at 3-10 (Application).

1. Applicants' Proposed Route.

68. The Applicants' Proposed Route begins at the Laketown Substation. It then crosses CSAH 10, runs slightly east, and then continues south along Jersey Avenue, crossing from west to east side of the road more than halfway down the length of the road. It then turns east at Augusta Road, on the opposite side of the road from local MVEC distribution lines. The Proposed Route then travels south through private property, before turning east along private property as well. Just before Hampshire Road, the Proposed Route then cuts back northeast, perpendicular to Hampshire Road, then turns southeast and runs along Hampshire Road. The Proposed Route follows Hampshire Road until it reaches the connection point along a Great River Energy-owned 115-kV transmission line on the west side of Guernsey Avenue.⁷⁵

2. Other Routes Considered and Rejected by Applicants.

69. Review under the alternative permitting process does not require the Applicants to propose alternative routes in the Application. However, if the Applicants have evaluated and rejected alternative routes, they must include these and the reasons for rejecting them in the route permit under Minn. Stat. § 216E.04, subd. 3, and Minn. R. 7850.3100.⁷⁶

70. Great River Energy considered two route alternatives that originate at the MV-VTT 115-kV transmission line along Victoria Drive/Guernsey Avenue and connect to the Laketown Substation: the CSAH 10 Alternative and the Xcel Energy Powerline Alternative.⁷⁷

71. The CSAH 10 Alternative would run from Great River Energy's MV-VTT line on the west side of Guernsey Avenue near structure MV-VTT-34, this route alternative would parallel Guernsey Avenue south for 300 feet to CSAH 10, then follow CSAH 10 for 3.0 miles to the northwest, making multiple crossings to avoid homes, and then crossing CSAH 10 to the Laketown Substation site.⁷⁸

72. While the CSAH 10 Alternative was initially designed to maximize collocation with an existing right-of way, there were several issues that led Great River Energy to reject the CSAH 10 Alternative in the Application. First, considering the present alignment of CSAH 10, residential homes and businesses are located on either side, and near, to the highway. This would require that Great River Energy make several crossings of the road to avoid impacting existing structures and provide proper setbacks. Great River Energy would need to make 12 crossovers of CSAH 10 because of the density of structures that are close to the highway right-of-way. Second, Carver County has imminent plans for major reconstruction/realignment of CSAH 10 planned within 5 to 10 years, which would be after installation of the Project. This would result in significant disruptions to the highway project and the operating transmission line when the roadway is expanded, and then moved in some locations.⁷⁹

⁷⁵ Ex. EERA-11 at II (EA).

⁷⁶ See Minn. Stat. § 216E.04, subd. 3; Minn. R. 7850.3100.

⁷⁷ Ex. APP-2 at 4-3 (Application).

⁷⁸ Ex. APP-2 at 4-3 (Application).

⁷⁹ Ex. APP-2 at 4-8 – 4-9 (Application).

73. The Xcel Energy Powerline Alternative would run from Great River Energy's MV-VTT line on the west side of Guernsey Avenue near structure MV-VTT-34, this route alternative would follow Guernsey Avenue north for 0.2 mile until meeting with the existing Xcel Energy 230-kV transmission line. The Route Alternative would then be collocated with the existing Xcel Energy 230-kV transmission line for 2.6 miles to Jersey Avenue. The Route Alternative would then follow Jersey Avenue for 0.5 mile north to CSAH 10 and then cross CSAH 10 to the Laketown Substation site. This Route Alternative would also involve modifications to a southerly switch near CSAH 10 and alternate connection points to MV-VTT on the east side of Guernsey Avenue near structure MV-VTT-30.⁸⁰

74. The City of Victoria notified Great River Energy that the Xcel Energy Powerline Alternative is located within land that, at the time, would eventually become part of the City of Victoria through an annexation agreement with Laketown Township, and that the City would like to develop this property for commercial and industrial use in the near future; during the pendency of this proceeding, annexation occurred, and this alternative would now cross the City of Victoria. The City of Victoria stated that properties crossed by the Xcel Energy Powerline Alternative are "within the future commercial and flex-employment growth areas for the city. These properties have been highly anticipated for the last few decades to become the commercial hub for the city. An additional power line and easement adjacent to the existing Xcel Energy power line and easement would severely prohibit development of this highly anticipated growth area."⁸¹

75. After considering the potential human and environmental impacts of these alternatives, Great River Energy selected the Proposed Route to present in its Application because the Proposed Route compared favorably when considering human and environmental impacts, as it avoided areas prioritized by Carver County and the City of Victoria for improvements and development; is collocated with existing right-of-way or within agricultural areas; and minimized wetland impacts, including forested wetlands.⁸² Nonetheless, as described further herein, the EA studied the CSAH 10 Alternative as Route Alternative A the Xcel Energy Powerline Alternative as Route Alternative C.

76. In addition, the Application described route options that Great River Energy initially considered but did not study further. In relevant part, Great River Energy considered a route that would have interconnected with Xcel Energy's existing 115-kV transmission system to the south of the Project, along County Road 140. However, Great River Energy did not carry the configuration forward because it would result in multiple substations, including the proposed new Laketown Substation, being overly sensitive to a single 115-kV circuit. This would result in a higher level of exposure to outages, resulting in less reliability.⁸³ Nonetheless, as described further herein, the EA studied this configuration as Route Alternative B.

⁸⁰ Ex. APP-2 at 4-3 (Application).

⁸¹ Ex. APP-2 at 4-9 (Application).

⁸² Ex. APP-2 at 4-3 (Application).

⁸³ Ex. APP-2 at 4-1 (Application); Ex. APP-20 at 2-4 (Direct Testimony of N. Goater).

B. Routes Analyzed in the Environmental Assessment.

77. Route Alternative A was first identified by Great River Energy during Project development, prior to submitting its Application, and was included in early public outreach regarding the Project.⁸⁴ The route begins at the Laketown Substation and travels along CSAH 10, connecting to the grid at a Great River Energy-owned 115-kV transmission line along Guernsey Avenue. Traveling north to south, Route Alternative A begins at the Laketown Substation then follows the Applicants' Proposed Route across CSAH 10 and then east. The Proposed Route then continues east and south along CSAH 10, crossing the road several times at various locations. It reaches a connection point along a Great River Energy-owned 115-kV transmission line on the west side of Guernsey Avenue. The route width for this route alternative is approximately 1,400 feet wide.⁸⁵ Route Alternative A crosses a recently annexed portion of the City of Victoria.⁸⁶

78. Route Alternative B begins at the Laketown Substation and connects to an Xcel-owned 115-kV transmission line along County Road 140. Traveling north to south, Route Alternative B begins at the Laketown Substation then follows the Applicants' Proposed Route until it reaches Augusta Avenue. Rather than turning east, this route alternative would turn west until it reaches Kelly Avenue. It would then travel south until it connects to the grid via an Xcel-owned 115-kV transmission line running east to west along County Road 140. The route width for this route alternative is approximately 1,400 feet wide.⁸⁷ Great River Energy considered a conceptually similar "route option" which connected to Xcel Energy's 115-kV transmission line; this route option was rejected and not studied further because it would not meet the long-term reliability or transmission planning needs of the Project.⁸⁸

79. Route Alternative C was first identified by Great River Energy during Project development, prior to submitting its Application, and was included in early public outreach regarding the Project.⁸⁹ The route begins at the Laketown Substation and travels south then east, connecting at a Great River Energy-owned 115-kV transmission line along Guernsey Avenue. Traveling north to south, Route Alternative C begins at the Laketown Substation then follows the Applicants' Proposed Route until it reaches an Xcel Energy-owned 230-kV transmission line that crosses Jersey Avenue. It would then collocate with the 230-kV transmission line, traveling east until it connects with the Great River Energy-owned 115-kV transmission line along Guernsey Avenue. This route alternative would require a switch modification and a connection to the transmission line on the eastern side of Guernsey Avenue. The route width for this route alternative is approximately 1,400 feet wide.⁹⁰ Route Alternative C crosses a recently annexed portion of the City of Victoria.⁹¹

80. Alignment Alternative D was proposed by the public through the scoping process. The route follows the Applicants' Proposed Route, differing only at a portion south of Augusta

⁸⁴ Ex. APP-2 at 4-3 (Application); Ex. APP-21 at 3 (Comments regarding EA).

⁸⁵ Ex. EERA-11 at II (EA).

⁸⁶ Ex. APP-21 at 6-7 (Comments regarding EA).

⁸⁷ Ex. EERA-11 at II (EA).

⁸⁸ Ex. APP-2 at 4-3 (Application); Ex. APP-21 at 3 (Comments regarding EA).

⁸⁹ Ex. APP-2 at 4-w (Application); Ex. APP-21 at 3 (Comments regarding EA).

⁹⁰ Ex. EERA-11 at II (EA).

⁹¹ Ex. APP-21 at 6-7 (Comments regarding EA).

Road and west of CSAH 43. Alignment Alternative D separates from the Applicants' Proposed Route at Augusta Road. Rather than traveling east along Augusta Road, it would bypass the road and travel south into private property, before turning east and meeting again with the original Applicants' Proposed Route. This alignment alternative remains in the original route width of the Applicants' Proposed Route width.⁹²

VI. TRANSMISSION LINE STRUCTURE TYPES AND SPANS

81. Great River Energy will construct the Project primarily with direct-embedded steel monopoles, 70 to 95 feet above ground and placed 300 to 450 feet apart. Direct-embed steel structures or steel structures on concrete foundations will be required at highway crossings and specialty structures may be required in some locations (e.g., to cross under an existing line, for angle locations, or in areas where soil conditions are poor, and guying is not practical). The average diameter of the direct-embedded steel structures at ground level would be approximately 30 inches.⁹³

82. Steel structures on concrete foundations may be needed for angled structures; the size of these structures is dependent on the tension on the line, and/or the angle of deflection the structure location causes on the Transmission Line. Specific sizing of these structures will be determined after a route permit is issued and detailed engineering design is initiated.⁹⁴

83. Multi-pole (e.g., 3-pole deadend) and/or H-frame structures are designed in a horizontal configuration, which maintains the Transmission Line conductors parallel to the ground. Horizontal configuration is sometimes desirable where the proposed Transmission Line crosses under other existing high voltage transmission lines. The horizontal configuration allows the Transmission Line to be as low as possible at the crossing point, while still maintaining the required clearances set by the National Electrical Safety Code (NESC). Specific sizing of these structures will be determined after a Route Permit is issued and detailed engineering design is initiated. In some cases where overhead clearances require the use of H-frame structures, it may be necessary to also bury the optical ground shield/communication wire. In such a situation, the optical ground wire would be directionally bored underground between the two structures adjacent to the H-frame structure. Great River Energy does not currently anticipate the Proposed Route will require H-frame or 3-pole structures.⁹⁵

84. NESC sets minimum clearances of the conductors from structures adjacent to or within the right-of-way. NESC clearance requirements are summarized in Table 3.1.5-1 of the Application. For a 115-kV transmission line like the Project, the NESC minimum clearance under a 48 mile per hour (mph) wind is 8.6 feet. When there is no wind, the conductors must have a clearance of 9.1 to 11.6 feet from various structures as listed in Table 3.1.5-1. In addition, Great River Energy typically requires the blowout to remain within the right-of-way under a more extreme wind condition of 94 mph. The amount of blowout is dependent on a number of factors including the span length and conductor type. On a typical 115-kV transmission line with a 300-

⁹² Ex. EERA-11 at II (EA).

⁹³ Ex. APP-2 at 3-4 (Application).

⁹⁴ Ex. APP-2 at 3-4 (Application).

⁹⁵ Ex. APP-2 at 3-4 – 3-5 (Application).

foot span, blowout is approximately five feet with 48 mph winds and approximately eight feet with 94 mph winds. The final line design evaluates blowout based on actual span distances and the type of conductor being used.⁹⁶

85. A deadend structure is used to change direction and/or wire tension on a transmission line. Deadend structures are also used as a “storm structure” to limit the number of structures damaged by a cascading effect due to higher line tensions when a pole is knocked down by a storm. Deadend structures can use wood, wood laminate, direct steel embedded, or steel on concrete foundation structures and can have a larger cross section than the typical structures. The location of deadend structures will be determined after a route permit is issued and detailed engineering design is initiated.⁹⁷

86. The Laketown Substation fence line footprint will be approximately 1.5 acres. Distribution level components within the fence line will include a transformer, switch gear, and bus work. The transmission level equipment will include a 24-by 24-foot electrical equipment enclosure, bus work, circuit breaker, high side structures, and switches on approximately one third of an acre in a fenced in, secured, rocked pad. A stormwater treatment pond will also be constructed on the Laketown Substation property. All the work at the Laketown Substation will be completed on the 8.9-acre existing parcel that MVEC owns.⁹⁸

VII. TRANSMISSION LINE CONDUCTORS

87. The double circuit structures will have six single-conductor phase wires (three conductors per circuit) and one shield wire. It is anticipated that the phase wires will be 795 thousand circular mil aluminum-clad steel supported (795 ACSS) or a conductor with similar capacity.⁹⁹

88. The shield wire will be 0.528 optical ground wire.¹⁰⁰

VIII. TRANSMISSION LINE ROUTE WIDTHS

89. The Proposed Route Width will generally be 1,400 feet in most locations. Great River Energy also requests varied route widths for specific portions of the route to account for existing infrastructure, mitigate potential engineering challenges, and/or to facilitate any necessary realignments to accommodate agency and/or landowner requests. The requested route widths include:

- Approximately 1,900 feet wide where the Proposed Route crosses Hampshire Road;

⁹⁶ Ex. APP-2 at 3-5 (Application).

⁹⁷ Ex. APP-2 at 3-5 (Application).

⁹⁸ Ex. APP-2 at 3-6 – 3-7 (Application).

⁹⁹ Ex. APP-2 at 3-6 (Application).

¹⁰⁰ Ex. APP-2 at 3-6 (Application).

90. Approximately 4,500 feet wide in the area south of Augusta Road and west of County Road 43; and

91. Approximately 1,700 feet wide to encompass the 8.9-acre Laketown Substation parcel. Great River Energy will require a new 100-foot-wide right-of-way for construction and maintenance of the Transmission Line.¹⁰¹

IX. TRANSMISSION LINE RIGHT-OF-WAY

92. Great River Energy will require a new 100-foot-wide right-of-way for construction and maintenance of the Transmission Line. Great River Energy representatives will work directly with individual landowners to acquire the necessary easements and other land rights for the construction, operation, and maintenance of the Project once the final route and alignment are determined. MVEC owns the land on which the Laketown Substation will be located.¹⁰²

X. PROJECT SCHEDULE

93. The Applicants anticipate starting construction on the Laketown Substation in spring 2027 and on the Transmission Line in fall 2027 and energizing the Project in the summer of 2028.¹⁰³

XI. PROJECT COSTS

94. Applicants estimate that the Project, if constructed on the Proposed Route, will cost approximately \$17,965,000. Of that cost, the Transmission Line will cost approximately \$11,043,500; the Great River Energy transmission substation infrastructure will cost approximately \$2,861,500; and the Laketown Substation will cost approximately \$4,060,000.¹⁰⁴

95. All capital costs for the Transmission Line infrastructure, including Great River Energy's equipment in MVEC's substation, will be borne by Great River Energy. All capital costs for the Laketown Substation facilities will be borne by MVEC.¹⁰⁵

XII. PERMITTEE

96. The Permittees for the Project are Great River Energy and MVEC.

XIII. PUBLIC AND LOCAL GOVERNMENT PARTICIPATION

97. Prior to submission of the Application, Great River Energy initiated landowner outreach by providing information on the Project via letters mailed to potentially impacted

¹⁰¹ Ex. APP-2 at 3-2 (Application).

¹⁰² Ex. APP-2 at 3-2 (Application).

¹⁰³ Ex. APP-2 at 3-8 (Application); Ex. APP-19 at 8 (Direct Testimony of M. Swenson).

¹⁰⁴ Ex. APP-2 at 3-8 (Application).

¹⁰⁵ Ex. APP-2 at 3-8 (Application).

landowners, interested parties, and federal, state, and local governmental officials; publishing notices in area newspapers; and holding an open house.¹⁰⁶

98. The Applicants held two open house sessions at the Chaska Event Center in Chaska, Minnesota, on January 23, 2024. Great River Energy and MVEC staff were available to provide information to members of the public and answer questions concerning the Project. Large posters showing the Project and route options, pictures of what the pole structures would look like, and a conceptual design of the Laketown Substation were also available for review.¹⁰⁷

99. In addition, after the open houses, the Applicants met twice with the Carver County Highway Department, as well as the City of Victoria, Laketown Township, and Dahlgren Township.¹⁰⁸

100. Outreach and local government participation helped inform the development of the Proposed Route. Great River Energy developed and analyzed a route that would largely follow CSAH 10; this route is Route Alternative A studied in the EA. Great River Energy rejected Route Alternative A during early Project planning, and as outlined in the Application, due to long-standing plans for the reconstruction/realignment and expansion of CSAH 10, as detailed by Carver County, as well as the proximity of existing residences along CSAH 10. Great River Energy coordinated with Carver County officials, where Great River Energy provided detailed Project information and Carver County officials communicated plans for CSAH 10. This played a significant role in route development. Carver County stated that it did not recommend routing along CSAH 10 because it would interfere with the County's published plans to realign and widen that road in the next 5-10 years.¹⁰⁹

101. Likewise, during early coordination with Laketown Township, township officials notified Great River Energy of an annexation agreement with the City of Victoria. Further correspondence with the City of Victoria informed Great River Energy that the Project, if constructed along Route Alternative C, would "severely prohibit development" of an area that has been "highly anticipated for the last few decades to become the commercial hub for the city."¹¹⁰

102. Public Information Meetings and EA Scoping Meetings were held on October 23 and October 28, 2024.¹¹¹ Written comments from members of the public were received until the written comment period on EA scoping closed on November 12, 2024.¹¹²

103. The Applicants have also met with the City of Carver. The City of Carver has identified a portion of the Proposed Route that crosses an area for potential future annexation into the City, with subsequent development. According to an August 2018 map provided by the City of Carver, the Project would cross 1.7 miles of land that is presently outside the city but within the City of Carver's "ultimate growth boundary," 1.5 miles of which is identified with the future land

¹⁰⁶ Ex. APP-2 at 3-7 (Application).

¹⁰⁷ Ex. APP-2 at 1-4 (Application).

¹⁰⁸ Ex. APP-19 at 5 (Direct Testimony of M. Swenson).

¹⁰⁹ Ex. APP-21 at 4 (Comments regarding EA).

¹¹⁰ Ex. APP-2 at 4-9 (Application); Ex. APP-21 at 7 (Comments regarding EA).

¹¹¹ Ex. EERA-3 (Oral Comments on Scope of EA).

¹¹² Ex. EERA-4 (Written Comments on Scope of EA).

use type of “low density residential” and 0.2 mile of which is along Hampshire Road, identified with the future land use type of “commercial/industrial.”¹¹³ This land has not yet been annexed and remains outside City boundaries. The Applicants met with the City of Carver most recently on May 7, 2025, to discuss the Project and the EA. As a result of that meeting, the Applicants understand that the City of Carver’s position on the Project remains unchanged, and that there are no near-term plans for annexation or development in the vicinity of the Project.¹¹⁴

104. The City of Victoria noted in written comments dated May 22, 2025, that many properties within Route Alternative C are in the City’s future commercial and flex-employment growth areas for the city, and that development of these properties is in its current comprehensive plan and has been highly anticipated for the last few decades. Moreover, the area impacted by Route Alternative C is planned and expected to become the commercial hub for Victoria with the City’s first commercial project currently underway.¹¹⁵

105. Carver County noted in written comments dated May 13, 2025, that the County supports the Proposed Route, and opposes the adoption of Route Alternative A due to the conflict with the future realignment and reconstruction of CSAH 10.¹¹⁶

106. Great River Energy has continued coordination with Carver County throughout the route permit process and met with Carver County Public Works on June 5, 2025. At the meeting, Carver County stated that they anticipate constructing the CSAH 10 project in 2029, although no specific plans have been finalized.¹¹⁷

107. Various members of the public provided comments at the in-person portion of the public hearing on May 21, 2025, in Chaska, Minnesota. Citizens made comments and asked questions concerning the EA, route alignment, and land acquisition process for the Project. Representatives from the Applicant, the Commission, and EERA provided responses.¹¹⁸ Three members of the public spoke at the virtual public hearing on May 22, 2025. Those individuals made comments regarding the Proposed Route and route alternatives.¹¹⁹

XIV. FACTORS FOR A ROUTE PERMIT

108. The 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.”¹²⁰

¹¹³ Ex. APP-17 at 3-6 (Response to Scoping Comments).

¹¹⁴ Ex. APP-21 at 12-13 (Comments regarding EA).

¹¹⁵ City of Victoria Public Comment (May 22, 2025) (eDocket No. [20255-219194-01](#)).

¹¹⁶ Drew Pflaumer, on behalf of Carver County Public Works Public Comment (May 16, 2025) (eDocket No. [20255-218997-01](#)).

¹¹⁷ Applicants’ Post-Hearing Comments (June 9, 2025) (eDocket No. ____).

¹¹⁸ See Chaska Public Hearing Transcript (Chaska 6:00 p.m. Tr.) (May 21, 2025).

¹¹⁹ See WebEx 6:00 p.m. Public Hearing Transcript (WebEx 6:00 p.m. Tr.) (May 22, 2025).

¹²⁰ Minn. Stat. § 216E.03, subd. 7. Minn. Stat. Ch. 216I becomes effective on July 1, 2025. Because the Application was filed prior to July 1, 2025, Minn. Stat. Ch. 216E applies to the Application.

109. 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;¹²¹
- (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

¹²¹ Factor 4 is not applicable because Applicant is not proposing to site a large electric generating plant in this docket.

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;
- (12) when appropriate, consideration of problems raised by other state and federal agencies and local entities;
- (13) evaluation of the benefits of the proposed facility with respect to (i) the protection and enhancement of environmental quality, and (ii) the reliability of state and regional energy supplies;
- (14) evaluation of the proposed facility's impact on socioeconomic factors; and
- (15) evaluation of the proposed facility's employment and economic impacts in the vicinity of the facility site and throughout Minnesota, including the quantity and quality of construction and permanent jobs and their compensation levels. The commission must consider a facility's local employment and economic impacts, and may reject or place conditions on a site or route permit based on the local employment and economic impacts.

110. 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.”¹²²

111. 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 HVTL:

- A. effects on human settlement, including, but not limited to,

¹²² See Minn. Stat. § 216E.03, subd. 7(e).

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;¹²³
- 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.¹²⁴

112. There is sufficient evidence in this record to assess the Project using the criteria and factors set forth above.

¹²³ This factor is not applicable because it applies only to power plant siting.

¹²⁴ See Minn. R. 7850.4100.

XV. APPLICATION OF ROUTING FACTORS TO THE PROPOSED ROUTE

A. Effects on Human Settlement.

113. Minnesota law requires consideration of the Project's effects on human settlement, including displacement of residences and businesses, noise created by construction and operation of the Project, and impacts to aesthetics, cultural values, recreation, and public services.¹²⁵

1. Displacement.

114. No residences or businesses are anticipated to be permanently displaced by the Project on the Proposed Route.¹²⁶

115. For all routing options, the proposed alignments are not within 50 feet of any existing residence.¹²⁷ The Project will be designed in compliance with local, state, NESC, and Great River Energy/MVEC standards regarding clearance to ground, clearance to crossing utilities, clearance to buildings, strength of materials, and right-of-way widths.¹²⁸

116. If Route Alternative A were constructed, there would be greater impact on existing residences and businesses, which are located on either side of CSAH 10, and lead to possible displacement.¹²⁹ Route Alternative A would also cause disruptions to the Carver County CSAH 10 highway project and its preliminary, conceptual redesign—of which the Applicants are aware that the final highway design is not yet available—and the operating transmission line when the roadway is expanded.¹³⁰

117. In Post-Hearing Comments, Great River Energy summarized the issues related to Route Alternative A as follows: (1) If Route Alternative A were to be approved and constructed along the existing CSAH 10, it would be in proximity to more homes and would be required to be relocated and constructed in the future based on Carver County's final plans for CSAH 10 redesign, also resulting in increased costs; or, (2) If Route Alternative A were to be modified such that it would follow the potential future expansion and realignment of CSAH 10, the Project would be placed farther into fields, closer to homes, and could result in the displacement of homes—not because displacement is required for this Project, but because of future highway plans that are, as of yet, still subject to change. In addition, during the pendency of these proceedings, a portion of Route Alternative A has been annexed into the City of Victoria.¹³¹

118. Route Alternative C would impact land that the City of Victoria has already planned to host future commercial, industrial, and residential developments.¹³² For example, the City of

¹²⁵ Minn. Stat. § 216E.03, subd. 7(b); Minn. R. 7850.4100, subp. A.

¹²⁶ Ex. EERA-11 at 23 (EA).

¹²⁷ Ex. EERA-11 at 23 (EA).

¹²⁸ Ex. APP-2 at 6-2 (Application).

¹²⁹ Ex. APP-2 at 4-8 (Application).

¹³⁰ Ex. APP-21 at 5 (Comments regarding EA).

¹³¹ Applicants' Post-Hearing Comments (June 9, 2025) (eDocket No. ____).

¹³² Ex. APP-2 at 4-11 (Application).

Victoria has indicated that it already has commercial development underway on property that would be impacted by Route Alternative C.¹³³

119. More specifically, during the pendency of these proceedings, a portion of Route Alternative C has been annexed into the City of Victoria, and there is currently a Kwik Trip gas station being constructed directly within Route Alternative C. If Route Alternative C were approved as studied in the EA, the gas station would likely be displaced. In addition, a residential development (West Creek Village) is proposed to the northwest of the Kwik Trip parcels, and is bisected by Route Alternative C. The initial plan for the residential development accommodates the existing 230-kV line by planning homes to the north of that line and maintaining wetlands and stormwater ponds under the line. Just north of the existing line, however, the plans show a series of residential lots. Route Alternative C crosses directly over the southernmost planned lots.¹³⁴

2. Noise.

120. MPCA has established standards for the regulation of noise levels. The most restrictive MPCA noise limits are 60–65 A-weighted decibels (dBA) during the daytime and 50–55 dBA during the nighttime.¹³⁵

121. The primary noise receptors within the local vicinity are residences and farmsteads.¹³⁶

122. Potential noise impacts due to the Project can be grouped into three categories: (1) noise from construction of the Transmission Line, and (2) noise from operation of the Transmission Line, and (3) noise from operation of the substation.¹³⁷

123. Construction crews and activity would be present at a particular location during daytime hours for a few days at a time but on multiple occasions throughout the period between initial right-of-way clearing and final restoration. Intermittent construction noise will occur and is dependent upon the activity. Major noise producing activities are associated with clearing and grading, material delivery, auguring foundation holes, setting structures, and stringing conductors.¹³⁸ Noise from heavy equipment and increased vehicle traffic will be intermittent and occur during daytime hours. Noise associated with heavy equipment can range between 80 and 90 dBA at full power 50 feet from the source.¹³⁹ Construction noise might exceed state noise standards for short intervals at select times and locations. Upon completion of construction activities, noise associated with construction equipment will cease.¹⁴⁰

124. Audible noise from power lines is created by small electrical discharges at specific locations along the surface of the conductor that ionize surrounding air molecules. This

¹³³ City of Victoria Public Comment (May 22, 2025) (eDocket No. [20255-219194-01](#)).

¹³⁴ Applicants' Post-Hearing Comments (June 9, 2025) (eDocket No. _____).

¹³⁵ Minn. R. 7030.0040.

¹³⁶ Ex. EERA-11 at 34 (EA).

¹³⁷ Ex. EERA-11 at 33-35 (EA).

¹³⁸ Ex. EERA-11 at 34 (EA); Ex. APP-2 at 6-3 – 6-4 (Application).

¹³⁹ Ex. EERA-11 at 34 (EA).

¹⁴⁰ Ex. APP-2 at 6-4 (Application).

phenomenon—common to all power lines—is known as corona and sounds like a crackling sound. In general, any imperfection on the surface of the conductor might be a source for corona. Examples include dust and dirt, or nicks and burrs from construction. Resulting noise levels are dependent upon voltage level (corona noise increases as voltage increases) and weather conditions.¹⁴¹

125. Based on results from the Bonneville Power Administration Corona and Field Effects Program, a 115-kV transmission line in heavy rain conditions (one inch per hour) is anticipated to produce L5 and L50 noise levels of 17.7 dBA and 14.2 dBA at the edge of the right-of-way, respectively.¹⁴² Operational noise levels produced by a 115-kV transmission line are generally less than outdoor background levels and are therefore not usually perceivable. As such, appreciable operational noise impacts are not anticipated as a result of the Project. Further, proper design and construction of the Transmission Line in accordance with industry standards will help to ensure that noise impacts are not problematic.¹⁴³

126. Sound control devices on vehicles and equipment, for example, mufflers; conducting construction activities during daylight hours, and, to the greatest extent possible, during normal business hours; and running vehicles and equipment only when necessary are common ways to mitigate noise impacts. Impacts to state noise standards can be mitigated by timing restrictions. During operation, permittees are required to adhere to noise standards and all appropriate locations.¹⁴⁴

127. Substation noise is associated with the transformer and cooling fans. Transformers produce a consistent humming sound, resulting from magnetic forces within the transformer core. This sound does not vary with transformer load and are expected to be constant throughout the night and day. Noise levels will meet day and nighttime noise standards at 50 feet from the transformer (50 dBA). The substation will have the potential for a second transformer, which will increase the noise level to 50 dBA at a distance of 75 feet. The closest residence is approximately 200 feet from the from the edge of the property on which the substation is planned to be built. With this distance, the noise level will be within state standards.¹⁴⁵

128. Section 5.3.5 in the Draft Route Permit addresses noise from the Project.¹⁴⁶

3. Aesthetics.

129. The Project will introduce new built features—structures, conductors, and a substation—on the landscape.¹⁴⁷

¹⁴¹ Ex. EERA-11 at 34-35 (EA).

¹⁴² Ex. EERA-11 at 35 (EA).

¹⁴³ Ex. APP-2 at 6-4 (Application).

¹⁴⁴ Ex. EERA-11 at 35 (EA).

¹⁴⁵ Ex. EERA-11 at 35 (EA).

¹⁴⁶ Ex. EERA-11 Appendix B at § 5.3.5 (Draft Route Permit).

¹⁴⁷ Ex. EERA-11 at 25 (EA).

130. The proposed Transmission Line will be visible, similar to the other distribution and transmission lines in the Project Area. Portions of the Proposed Route already have overhead MVEC distribution lines.¹⁴⁸

131. Where the Project utilizes existing MVEC distribution line right-of-way, aesthetic impacts are anticipated to be minimal. The existing MVEC distribution lines have been in place for a decade or more, as the area has developed.¹⁴⁹

132. The Proposed Route crosses limited areas where trees are present, which minimizes the amount of tree clearing, as well as the impact. The presence of transmission and distribution lines are a common occurrence in rural residential areas and are compatible with rural residential aesthetics; however, where there are new lines, there will be new permanent aesthetic impacts.¹⁵⁰

133. The Laketown Substation will have a new permanent visual impact as compared to present conditions. Presently, this land is maintained as a grassy, cleared area with sparse trees. MVEC's final design of the Laketown Substation will include design features to lessen visual impacts.¹⁵¹

134. The EA concludes there are eight residences within 200 feet of the Proposed Route, 13 residences within 200 feet of Route Alternative A, five residences within 200 feet of Route Alternative B, and three residences within 200 feet of Route Alternative C.¹⁵² In addition, Carver County's proposed expansion project of CSAH 10 would likely push the route closer to existing residences and possibly impact additional residences. Route Alternative B has one home 50-100 feet from the route, which is closer than any residence along the Proposed Route. Finally, the number of residences near Route Alternative C noted in the EA does not reflect the West Creek Village planned development west of the City of Victoria, which is bisected by Route Alternative C.¹⁵³

135. There are no scenic overlooks or scenic byways near the Project. While impacts to these byways will not occur, there is potential that recreationalists engaged in a scenic drive might be in the local vicinity of the Project.¹⁵⁴

136. For the substation, any lighting at the substation should be downlit to eliminate impacts to night sky and nearby residents.¹⁵⁵

137. The Applicants stated that they do not agree with the EA's conclusion that Route Alternative C would best minimize aesthetic impact.¹⁵⁶

¹⁴⁸ Ex. APP-2 at 6-6 (Application).

¹⁴⁹ Ex. APP-2 at 6-7 (Application).

¹⁵⁰ Ex. APP-2 at 6-7 (Application).

¹⁵¹ Ex. APP-2 at 6-7 (Application).

¹⁵² Ex. EERA-11 at 26 (EA).

¹⁵³ Ex. APP-21 at 18 (Comments regarding EA).

¹⁵⁴ Ex. EERA-11 at 26 (EA).

¹⁵⁵ Ex. EERA-11 at 27 (EA).

¹⁵⁶ Ex. APP-21 at 18 (Comments regarding EA).

138. There are additional unique impacts of each Route Alternative that would contribute to aesthetic impact. For example, Route Alternative A would impact the highest number of residences. Road expansion and realignment would push the Transmission Line even closer to more residences. Highway modification plans by Carver County would result in cumulative impacts on those landowners should a transmission line be built along the road, then moved to accommodate a potential four-lane divided highway. The density of residential homes and businesses on either side of the highway would require that Great River Energy make 12 crossings of the road to avoid impacting existing structures and provide proper setbacks.¹⁵⁷

139. Route Alternative B contains a residence closer than any residence along the Proposed Route. Moreover, Route Alternative B would require a new approximately 20-acre greenfield breaker station site, resulting in new, permanent aboveground facility impacts that would not occur under the Proposed Route. The specific location of the breaker station has not been studied.¹⁵⁸

140. While Route Alternative C may be near the fewest residences at the present, the EA does not reflect the residential development proposed for the community of West Creek Village, a residential development proposal that presently includes 56 row townhomes, 18 twin homes; and 36 single-family homes. Route Alternative C would presently cross the southern portion of this planned development where multiple residential lots have been proposed.¹⁵⁹

141. The Applicants state that the Proposed Route best minimizes potential residential and aesthetic impacts. The Proposed Route also utilizes existing right-of-way better than Route Alignment D.¹⁶⁰ Moreover, the Draft Route Permit has a general condition in section 5.3.7 that addresses the potential visual impacts from the Project.¹⁶¹

142. The Applicants will work with landowners to identify concerns related to Project aesthetics. In general, mitigation includes enhancing positive effects as well as minimizing or eliminating negative effects. Potential mitigation measures include:

- Locating structures, right-of-way, and other disturbed areas by considering input from landowners to minimize visual impacts.
- Care shall be used to preserve the natural landscape. Construction and operation shall be conducted to prevent any unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the work.

143. Landowners may be compensated for the removal of trees and vegetation based on easement negotiations.¹⁶²

¹⁵⁷ Ex. APP-21 at 18 (Comments regarding EA).

¹⁵⁸ Ex. APP-21 at 18 (Comments regarding EA).

¹⁵⁹ Ex. APP-21 at 18 (Comments regarding EA).

¹⁶⁰ Ex. EERA-11 at 96 (EA).

¹⁶¹ Ex. EERA-11, Appendix B at § 5.3.7 (Draft Route Permit).

¹⁶² Ex. APP-2 at 6-7 (Application).

4. Land Use and Zoning.

144. The Proposed Route will result in minimal impacts to land use and zoning, and construction of the Project will not change land uses. Short term agricultural impacts might occur during construction, which will be mitigated through restoration and compensatory payments. There will be permanent structures within agricultural fields, and Great River Energy will coordinate the placement of the structures with the landowner to the extent possible. Additionally, the Project is a 115-kV transmission line – a common feature in communities and operating in conjunction with homes, businesses, and industry and is not inconsistent with the rural character of the Project Area.¹⁶³ The EA recognizes that “impacts are anticipated to be minimal, if it all, since HVTL does not have a large potential to change underlying land use,” and also that “[i]nterference with county zoning ordinances is not expected.”¹⁶⁴

145. With respect to the Proposed Route, the Applicants are aware that the City of Carver has identified a portion of the route for potential future annexation into the City, with subsequent development. As stated in Great River Energy’s Response to Scoping Comments, according to an August 2018 map provided by the City of Carver, the Project would cross 1.7 miles of land that is outside the city but within the City of Carver’s “ultimate growth boundary,” 1.5 miles of which is identified with the future land use type of “low density residential” and 0.2 mile of which is along Hampshire Road, identified with the future land use type of “commercial/industrial.” This land has not yet been annexed and remains outside City boundaries and is primarily in agricultural use.¹⁶⁵

146. The Applicants met with the City of Carver initially on November 1, 2024, and again on May 7, 2025. During these meetings the Applicants discussed the Project routing process along with the state permitting process and committed to ensuring the City of Carver was kept informed of the Project moving forward. More recently, Great River Energy again offered to meet with City representatives or present to the City Council.¹⁶⁶

147. The Applicants have stressed that the Project as proposed is compatible with all current and future land use types considered by the City of Carver for potential future annexation in this area, including agriculture, low density residential, and/or commercial/industrial. 115-kV systems commonly exist in areas with similar zoning. Should these areas be annexed in the future, the Proposed Route would not preclude future development within the area considered by the City of Carver for future annexation. Rather, the timing of the Project (now) and potential future development (approximately 15 years in the future, based on the 2040 Comprehensive Plan’s post-2040 growth timeline for this area) is compatible, such that the timing and placement of the Project’s Proposed Route does not interfere with identified planned developments. The Applicants explained that 115-kV service is critical to reliable service, and should the areas considered by the

¹⁶³ Ex. APP-21 at 12 (Comments regarding EA).

¹⁶⁴ Ex. EERA-11 at IV (EA).

¹⁶⁵ Ex. APP-21 at 13 (Comments regarding EA).

¹⁶⁶ Applicants’ Post-Hearing Comments (June 9, 2025) (eDocket No. ____).

City of Carver be annexed for growth and development down the road, the 115-kV system put in place as part of the Project will support that growth.¹⁶⁷

148. Based on other existing 115-kV systems, Great River Energy explained that, in its experience, residential and commercial development can and will proceed around the transmission line. For example, the Commission recently approved Great River Energy's application to rebuild a transmission line in Burnsville, Eagan, Apple Valley; commercial and residential development had grown up substantially around the line, and there was no indication in the record that the line had at all inhibited growth.²⁴ Here, too, the Project's proposed 100-foot right-of-way (approximately 55 feet on private land where following roadways) is not anticipated to materially impact future residential, commercial, or industrial development along the Proposed Route.¹⁶⁸

149. The Project's compatibility with future orderly development is highlighted by the development along and within Route Alternative C directly adjacent to a 230-kV line, a higher voltage than the Project. Where that line existed first, residential and commercial development has continued to grow up in close proximity (indeed, directly adjacent to) that line.¹⁶⁹

150. The EA acknowledges that Route Alternative A may result in "some interference with planning of future development along CSAH 10."¹⁷⁰ Specifically, Carver County plans to expand the roadway to a four-lane divided highway, realign, and relocate portions of CSAH 10 in the 5 to 10 years. Final highway plans are still under development. As such, attempting to design the Project's alignment around preliminary future highway modification designs would involve speculation and could still require structures built by Great River Energy to be relocated, depending on final plans.¹⁷¹

151. The City of Victoria has stated that Route Alternative C would impact land that has "have been highly anticipated for the last few decades to become the commercial hub for the city. An additional power line and easement adjacent to the existing Xcel Energy power line and easement would severely prohibit development of this highly anticipated growth area."¹⁷² Moreover, the City of Victoria has continued to proceed with development in this area, and these development plans did not contemplate the presence of an additional transmission line right-of-way intersecting development properties. Development plans have progressed to the point where commercial structures, such as the Kwik Trip gas station, have been approved by the City of Victoria, are presently under construction, and will be directly impacted by the Route Alternative C.¹⁷³

152. The record demonstrates that the Proposed Route will not preclude future development, and that conclusion is correct when considering appropriate sequencing and planning (i.e., a 115-kV line is not incompatible with residential, commercial, and industrial

¹⁶⁷ Ex. APP-21 at 12-14 (Comments regarding EA); Applicants' Post-Hearing Comments (June 9, 2025) (eDocket No. ____).

¹⁶⁸ Ex. APP-2 at 1-3, 4-11; Ex. APP-21 at 13 (Comments regarding EA).

¹⁶⁹ Applicants' Post-Hearing Comments (June 9, 2025) (eDocket No. ____).

¹⁷⁰ Ex. EERA-11 at 32 (EA).

¹⁷¹ Ex. APP-21 at 14 (Comments regarding EA).

¹⁷² Ex. APP-2 at 4-9 (Application).

¹⁷³ Ex. APP-21 at 13 (Comments regarding EA).

development when planned prior to that development); contrarily, Route Alternative A and Route Alternative C have greater potential conflicts with existing land use.¹⁷⁴

5. Cultural Values.

153. According to the Carver County 2040 Comprehensive Plan, Carver County's population is expected to grow 50% by 2040. By this time, 27% of the land within the county will be part of a city. Growth will especially affect Dahlgren and Laketown Townships – where the Project is located – as the cities of Waconia, Victoria, and Carver are planning to annex large portions of these townships. Carver County has committed to carefully considering where and how growth will take place. As the County grows, the transportation, parks and trails networks will need to be expanded, upgraded, and maintained to meet increased demand. Carver County plans to grow while preserving the viability of the agricultural economy for future generations and maintain the County's unique and rural agricultural character.¹⁷⁵

154. The majority of Carver County supports agriculturally based industries; however, it has diversified with commercial, industrial, and housing developments in 11 separate communities. Within the county, there are 4,000 acres of managed parks and 115 lakes in addition to the 1,200-acre Minnesota Landscape Arboretum, managed by the University of Minnesota. Other attractions include the Chaska Curling Center, Chanhassen Dinner Theater, Hazeltine Golf Course, and Prince's Paisley Park. The county is known for its combination of urban amenities and a small-town atmosphere, rolling farmland, natural prairies, woodlands, and lakes.¹⁷⁶

155. For all routes, cultural values are expected to have a minimal to negative impact.¹⁷⁷

156. The construction and operation of the Project is not anticipated to impact or alter the work and leisure pursuits of residents in the Project Area or land use in such a way as to impact the underlying culture of the area, and no mitigation is proposed.¹⁷⁸

6. Recreation.

157. Multiple recreational opportunities exist in the local vicinity including sports, fishing, swimming, biking, hunting, and snowmobiling. There is a snowmobile trail that generally runs west to east through the Project Area. Pierson Lake Public Water Access Site is located 0.8 miles northeast of the proposed Laketown Substation. Marsh Lake Hunting Preserve is located just northeast of the route width of Route Alternative A. Augusta Ballfield is located along Hampshire Road just outside of the route width of the Applicants' Proposed Route.¹⁷⁹

¹⁷⁴ See Ex. APP-2 at 4-3 - 4-11 (Application); Ex. APP-21 at 4-5, 6-10 (Comments regarding EA); City of Victoria Comments (May 22, 2025) (eDocket No. [20255-219194-01](#)); Carver County Public Works Comments (May 13, 2025) (eDocket No. [20255-218997-01](#)).

¹⁷⁵ Ex. APP-2 at 6-10 – 6-11 (Application).

¹⁷⁶ Ex. APP-2 at 6-11 (Application).

¹⁷⁷ Ex. EERA-11 at 96 (EA).

¹⁷⁸ Ex. EERA-11 at 28 (EA).

¹⁷⁹ Ex. EERA-11] at 39 (EA).

158. Potential impacts to recreational opportunities are anticipated to be minimal for all routing options.¹⁸⁰

7. Socioeconomics.

159. Economic factors related to construction and operation of the Project are anticipated to be short-term and positive, but minimal, for all routing options. Positive impacts come from increased expenditures at local businesses during construction, the potential for some materials to be purchased locally, and the use of local labor.¹⁸¹

160. During construction, there may be short-term positive impacts to the nearby communities. Potential increases in local revenue may occur for businesses, such as hotels, grocery stores, gas stations and restaurants to support utility personnel and contractors. Long term benefits of the Project include the ongoing reliable electrical services and the ability to serve existing and new local load growth.¹⁸² The Applicants anticipate the Project to employ between 22 and 35 daily contract workers. The Applicants indicate that Great River Energy has a “buy local” policy that will give preference to local (Minnesota, Wisconsin and North Dakota) suppliers and contractors for materials and labor for the Project.¹⁸³ Because economic impact is expected to be positive, no mitigation is proposed.¹⁸⁴

8. Environmental Justice.

161. Environmental justice is the “fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income in the development, implementation, and enforcement of environmental laws, regulations, and policies, and is intended to ensure that all people benefit from equal levels of environmental protection and have the same opportunities to participate in decisions that might affect their environment or health.”¹⁸⁵

162. Minnesota Statute § 216B.1691, subdivision 1(e) was recently updated to reflect the definition of an environmental justice area. The data does not define the Project Area as an environmental justice area based on the population residing in surrounding census tracts. This means that none of the census tracts contain: (1) 40 percent or more nonwhite populations; (2) 35 percent or more households with income ≤ 200 percent of the poverty level; (3) 40 percent or more residents with limited English proficiency; or (4) Indian country.¹⁸⁶

163. There are no environmental justice areas impacted by the Project. The Project Area is not within any census tracts which Minnesota statute deems an environmental justice area;

¹⁸⁰ Ex. EERA-11 at V (EA).

¹⁸¹ Ex. EERA-11 at 40 (EA).

¹⁸² Ex. APP-2 at 6-10 (Application).

¹⁸³ Ex. EERA-11 at 40 (EA).

¹⁸⁴ Ex. APP-2 at 6-10 (Application); Ex. EERA-11 at 40 (EA).

¹⁸⁵ Ex. EERA-11 at 29 (EA).

¹⁸⁶ Ex. EERA-11 at 29 (EA).

therefore, disproportionate and adverse impacts to these populations are not expected, and mitigation is not proposed.¹⁸⁷

9. Public Service and Infrastructure.

164. The Project is in a principally agricultural and rural residential area. Private landowners in the Project Area have their own private wells and individual sewage treatment systems. The residents also have access to other utility services by various providers, including waste collection, natural gas, cable television, electricity, and telephone.¹⁸⁸

165. There are several existing overhead transmission and distribution lines in the Project Area. The Proposed Route will follow existing distribution lines maintained by MVEC for a short distance along Hampshire Road, along Augusta Road, and along CSAH 10. The Proposed Route is collocated with existing distribution lines for about 2.4 miles.¹⁸⁹

166. Construction of the Project will require planned power outages to the existing MVEC customers. These electrical outages will be intermittent and short-term. Outages are generally not necessary when crossing perpendicular to local distribution lines—using temporary protective guards or clearance structures alleviates electrical clearance concerns. No customer is expected to lose electrical service for an extended period. All outages will be coordinated with MVEC. Impacts are unavoidable. No negative long-term impacts are anticipated. Long-term positive impacts associated with operation of the Project include a more reliable electrical grid.¹⁹⁰

167. The Project Area includes County Highways 10, 43, and 140.¹⁹¹ During construction short-term localized traffic delays and re-routes might occur. These delays, should they occur, would most likely be associated with material delivery and worker transportation. Road crossings might also necessitate short-term impacts to traffic when stringing conductors. Great River Energy does not intend to locate structures within road right-of-way, though the Project right-of-way will overlap with road right-of-way. Because NESC clearances must be met, this will not affect the safety of the traveling public or road and highway operations. Additional costs to maintain road right-of-way will not be incurred because of the Project.¹⁹²

168. Carver County's anticipated plans to expand and widen CSAH 10 result in additional, significant impacts for Route Alternative A. Aligning the Project along the existing CSAH 10 would result in more impacts to residential landowners along CSAH 10 as compared to the Proposed Route. Not only would affected landowners be subject to two major construction projects in the course of several years, but the Project's alignment would need to be shifted closer to 13 existing homes that are located within 200 feet. The density of residential homes and businesses on either side of the highway would require that Great River Energy make several crossings of the road, approximately 12, to avoid impacts to existing structures and provide proper

¹⁸⁷ Ex. APP-2 at 6-10 (Application); Ex. EERA-11 at 29–30 (EA).

¹⁸⁸ Ex. APP-2 at 6-12 (Application).

¹⁸⁹ Ex. APP-2 at 6-13 (Application); Ex. EERA-11 at 41 (EA).

¹⁹⁰ Ex. EERA-11 at 42 (EA).

¹⁹¹ Ex. EERA-11 at 41 (EA).

¹⁹² Ex. EERA-11 at 42 (EA).

setbacks.¹⁹³ Great River Energy explained that attempting to design the Project around future plans for CSAH 10 is not only speculative because those plans have not been finalized, but would also move the Project farther into fields and could potentially require the displacement of homes.¹⁹⁴

169. Transmission pipelines are not located in the Project Area. Impacts will not occur. No long-term impacts are anticipated.¹⁹⁵

170. The Project may cross the railway and may require a crossing permit from Twin Cities & Western Railroad (TCWR). Given the Applicants must follow the terms and conditions established in the crossing permit developed by TCWR, and will coordinate any potential power outages with them, no impacts are expected.¹⁹⁶

171. The nearest airport is over 9 miles away, and the Applicants do not anticipate any impact to aviation services. Great River Energy utilized the FAA's Notice Criteria Tool³³ to determine if it would be required to file notice to the FAA prior to construction. The Project does not exceed Notice Criteria based on location, elevation, and maximum pole height. Therefore, there will be no impacts to airports.¹⁹⁷

172. Sections 5.3.4 and 5.3.14 of the Draft Route Permit address utilities and infrastructure.¹⁹⁸

173. Potential impacts can be avoided by marking underground utilities prior to construction and avoiding these areas during construction. The Applicants would coordinate with landowners to identify the location of wells and septic systems to avoid potential impacts.¹⁹⁹

10. Electronic Interference.

174. Interference associated with electrical infrastructure is related with a phenomenon known as corona. Corona is the result of small electrical discharges at discrete locations along the surface of a conductor that ionize surrounding air molecules. These discharges generate radio frequency noise. If the radio frequency noise is excessive relative to the strength of the broadcast signal it can interfere with signal reception. Additionally, structures might block line-of-sight communication signals.²⁰⁰

175. Because the likelihood of significant corona formation on the Project is minimal, the likelihood of radio and television interference due to corona discharges associated with the Project is also minimal. Great River Energy is unaware of any complaints related to radio or

¹⁹³ Ex. APP-21 at 13 (Comments regarding EA).

¹⁹⁴ Applicants' Post-Hearing Comments (June 9, 2025) (eDocket No. ____).

¹⁹⁵ Ex. EERA-11 at 42 (EA).

¹⁹⁶ Ex. EERA-11 at 42 (EA).

¹⁹⁷ Ex. APP-2 at 6-14 (Application).

¹⁹⁸ Ex. EERA-11, Appendix B at §§ 5.3.4; 5.3.14 (Draft Route Permit).

¹⁹⁹ Ex. EERA-11 at 43 (EA).

²⁰⁰ Ex. EERA-11 at 23 (EA).

television interference resulting from the operation of any of its existing 115-kV facilities and does not expect radio and television interference to be an issue along the Proposed Route.²⁰¹

176. Section 5.4.3 of the Draft Route Permit requires that any “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 Facility, the Permittee shall take whatever action is necessary to restore or provide reception equivalent to reception levels in the immediate area just prior to the construction of the Transmission Facility.”²⁰²

B. Effects on Public Health and Safety.

177. Minnesota’s HVTL routing factors require consideration of the Project’s potential effect on health and safety.²⁰³

178. Impacts to human health and safety are assessed by looking at three main issues: electric and magnetic fields, stray voltage, and induced voltage.²⁰⁴

1. Electromagnetic Fields (EMF).

179. There are no federal regulations regarding allowable electric or magnetic fields produced by transmission lines in the United States. The Commission has imposed a maximum electric field limit of 8 kV per meter (kV/m).²⁰⁵

180. In the Application, the Applicants calculated electric fields associated with the Project. These calculations are based on the maximum operating voltage of the Transmission Line (121-kV). The Applicants indicate that “because the magnitude of the voltage on a transmission line is near-constant (ideally within +/- five percent of design voltage), the magnitude of the electric field will be near-constant regardless of the power flowing on the line.” The maximum electric field is approximately 1.7 kV/m. This field strength is well below the Commission permit standard of 8.0 kV/m.²⁰⁶

181. The Project will be constructed to maintain proper safety clearances, etc. The substation site will not be accessible to the public. EMF diminishes with distance; therefore, EMF exposure can be minimized by routing HVTLs away from residences and other locations where people congregate to the extent practicable. No health impacts due to EMF are anticipated; therefore, no mitigation is proposed.²⁰⁷

²⁰¹ Ex. APP-2 at 5-7 (Application).

²⁰² Ex. EERA-11, Appendix B at § 5.4.3 (Draft Route Permit).

²⁰³ Minn. Stat. § 216E.03, subd. 7(b)(1); Minn. R. 7850.4100, subp. B.

²⁰⁴ Ex. EERA-11 at 43-48, 50-52 (EA).

²⁰⁵ Ex. EERA-11 at 51-52 (EA).

²⁰⁶ Ex. APP-2 at 6-15 – 6-16 (Application); Ex. EERA-11 at 46 (EA).

²⁰⁷ Ex. EERA-11 at 48 (EA).

2. Stray Voltage.

182. Impacts to residences, businesses, or farming operations resulting from neutral to earth voltage are not anticipated. Stray is most associated with local distribution lines and electrical wiring within the affected building. The Project – a transmission line – does not create stray voltage as it does not directly connect to businesses, residences, or farms.²⁰⁸

3. Induced Voltage.

183. The electric field from a transmission line can extend to nearby conductive objects, for example, farm equipment, and induce a voltage upon them.²⁰⁹

184. The primary concern with induced voltage is not the voltage, but rather the current that flows through a person to the ground when touching the object. To ensure safety in the proximity of transmission lines, the NESC requires that any discharge be less than five milliamperes. In addition, the Commission's electric field limit of 8 kV/m is designed to prevent serious shock hazards due to induced voltage. Proper grounding of metal objects under and adjacent to HVTLs is the best method of avoiding these shocks.²¹⁰

185. The Project might induce a voltage on insulated metal objects within the final right-of-way; however, Section 5.4.2 of the Draft Route Permit requires that transmission lines be constructed and operated to meet NESC standards as well as the Commission's own electric field limit of 8 kV/m reducing these impacts. As a result, impacts due to induced voltage are not anticipated to occur.²¹¹

C. Effects on Land-Based Economies.

186. Minnesota's HVTL routing factors require consideration of the Project's impacts to land-based economies—specifically, agriculture, forestry, tourism, and mining.²¹²

1. Agriculture.

187. Farming occurs in Carver County; however, it constitutes a small percentage of overall state agriculture sales at approximately one percent.²¹³

188. The proposed right-of-way will cross about 2.5 miles of cultivated cropland. The Project right-of-way is consistent for use as pasture, hay, or other crop cultivation. No organic farms will be impacted by the Project.²¹⁴

²⁰⁸ Ex. EERA-11 at 51 (EA).

²⁰⁹ Ex. EERA-11 at 51 (EA).

²¹⁰ Ex. EERA-11 at 51–52 (EA).

²¹¹ Ex. EERA-11 at 52 (EA).

²¹² Minn. Stat. § 216E.03, subd. 7(b)(5); Minn. R. 7850.4100, subp. C.

²¹³ Ex. EERA-11 at 52 (EA).

²¹⁴ Ex. APP-2 at 6-22 (Application).

189. Some agricultural land may be temporarily removed from production during Transmission Line construction. Determination of temporary agricultural impacts that will result from construction is dependent upon final engineering design. The acreage anticipated to be included in temporary construction access points includes some cultivated lands. Construction of the proposed transmission structures will require repeated access to structure locations to install the structures and to string conductors. Equipment used in the construction process will include backhoes, cranes, boom trucks and assorted small vehicles. Operation of these vehicles on adjoining farm fields can cause rutting and soil compaction, particularly during springtime and otherwise wet conditions.²¹⁵

190. Overall, impacts to agriculture are expected to be minimal for all routing options.²¹⁶

191. The Application noted that portions of the Proposed Route cross land enrolled in the Metropolitan Agricultural Preserves Program (MAPP) and subject to Minn. Stat. Ch. 473H.²¹⁷ The parcels are primarily concentrated in Dahlgren Township in the area subject to an orderly annexation agreement with the City of Carver. EERA's June 2, 2025, comments also discuss MAPP. The purpose of the statute is to encourage the use and improvement of the metropolitan area's agricultural lands for producing food and other agricultural commodities. It establishes a local planning process to designate agricultural areas as a long-term land use and provides benefits to maintain viable, productive farm operations. Moreover, Minn. Stat. § 473H.11 puts limitations on certain public projects that are inconsistent with agricultural uses. Great River Energy stated that transmission lines, such as the Project, are generally compatible with continued agricultural uses, and the Laketown Substation is not sited on property subject to MAPP.³ As such, the Applicants stated that they do not anticipate that any restrictions included in MAPP will apply to the Project, and, as discussed above, the EA concluded that impacts to agriculture are anticipated be minimal.²¹⁸

192. The Applicants committed to working with landowners "to minimize impacts to agricultural activities" and compensating landowners "for any crop damage/loss and soil compaction that may occur during construction." Further measures are described in Section 6.5.1 of the Application. Individual easement or purchase agreements can compensate farmers for loss of agricultural production or lands.²¹⁹

2. Forestry.

193. Desktop research indicates that active forestry operations, such as commercial timber harvest, do not occur in the route width.²²⁰

²¹⁵ Ex. APP-2 at 6-23 (Application).

²¹⁶ Ex. EERA-11 at 97 (EA).

²¹⁷ Ex. APP-2 at 6-21 (Application).

²¹⁸ Ex. EERA-11 at 52 (EA).

²¹⁹ Ex. EERA-11 at 55 (EA).

²²⁰ Ex. EERA-11 at 23 (EA).

194. Because the Project will not cross commercial forestry operations, no mitigation is proposed.²²¹

3. Mining.

195. The *Aggregate Source Information System*, maintained by MnDOT, shows no aggregate sources within the route width of all alternative routing segments. Impacts to mining resources are not anticipated; mitigation is not proposed.²²²

4. Tourism.

196. Popular activities near the Project Area include sports, fishing, swimming, biking, hunting, and snowmobiling. There is a snowmobile trail that generally runs west to east through the Project Area. Pierson Lake Public Water Access Site is located 0.8 miles northeast of the proposed Laketown Substation. Marsh Lake Hunting Preserve is located just northeast of the route width of Route Alternative A. Augusta Ballfield is located along Hampshire Road just outside of the route width of the Applicants' Proposed Route.²²³

197. The Augusta Ball Field is not located within the Proposed Route. The Transmission Line would be visible from the Augusta Ball Field as it is approximately 0.3 mile away; however, existing distribution lines are already in the viewshed. The Marsh Lake Hunting Preserve and city parks are located at such a distance that construction and operation of the Project will not be visible. The proposed right-of-way parallels the local snowmobile trail around CR 43 for about 0.6 mile. Transmission line rights-of-way are compatible with snowmobile trails, but the Transmission Line will be a new visual impact and the presence of poles will also be a new impact. Great River Energy currently plans to construct the Transmission Line from fall 2027 to summer of 2028. If construction activities overlap the seasonal use of this trail system, Great River Energy will coordinate with the trail association regarding any trail closures to mitigate impacts by assisting in finding alternate routes. Where the trail system crosses the Laketown Substation parcel, MVEC will work with the trail organization to determine the need for alternate routes. Depending on the ultimate final location of the Laketown Substation components and fence line, the trail location may need to be permanently modified.²²⁴

198. Impacts to tourism from the Project are expected to be long-term, but localized, for all route options as they avoid public lands and places designated as tourist areas.²²⁵

D. Effects on Archaeological and Historic Resources.

199. Minnesota Rule 7850.4100, subparagraph D, requires consideration of the effects of the Project on historic and archaeological resources.²²⁶

²²¹ Ex. APP-2 at 6-24 (Application).

²²² Ex. APP-2 at 6-24 (Application); Ex. EERA-11 at 24 (EA).

²²³ Ex. EERA-11 at 39; 55 (EA).

²²⁴ Ex. APP-2 at 6-12 (Application).

²²⁵ Ex. EERA-11 at 55 (EA).

²²⁶ See Minn. R. 7850.4100, subp. D.

200. The Applicants retained a consultant which retrieved cultural resources site information (archaeological sites and historic structures) and retrieved previous survey files from the SHPO. The consultant's Cultural Resource Specialists reviewed archaeological site files on the Office of the State Archaeologist (OSA) online portal, as well as the General Land Office maps and available historical aerial photography accessed online through the OSA Portal.²²⁷

201. Three previously documented archeological sites were identified in the study area. Two of these sites are considered alpha sites, which means they were identified by historic documentation, but were not verified in the field. For all routes, the transmission lines are projected to run along existing right-of-way or cultivated fields. As such, impacts to these resources are not anticipated. Fifteen historic buildings and structures were identified within the study area. None of the routes examined in this EA will displace any of these buildings and given the collocation of the Proposed Route, the viewshed is not expected to change for these sites.²²⁸

202. Fifteen historic buildings and structures were identified within the review area. There is potential for Historic-period sites within the Project Area because the area has been inhabited at least since the 1930s; however, given that the Project is an overhead transmission line proposed partially within already disturbed rights-of-way, there is a low potential for intact historic sites.²²⁹

203. If any archaeological sites are identified during placement of the poles along the permitted Route, construction work will be stopped and SHPO staff consulted as to how to proceed. If human remains are encountered during construction activities, all ground disturbing activity will cease, and local law enforcement will be notified per Minn. Stat. § 307.08.²³⁰

204. A cultural resource literature review was conducted for the Project and provided to SHPO in a letter dated March 13, 2024. SHPO responded on May 14, 2024. In its correspondence, SHPO recommended a Phase 1 archaeological survey for the Project due to the lack of prior survey in the area. Prior to construction, Great River Energy will complete the survey recommended by SHPO on the route selected by the Commission and at the Laketown Substation location.²³¹

E. Effect on Natural Environment.

205. 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.²³²

²²⁷ Ex. APP-2 at 6-25 (Application).

²²⁸ Ex. EERA-11 at 56 (EA).

²²⁹ Ex. APP-2 at 6-26 (Application).

²³⁰ Ex. APP-2 at 6-26 (Application).

²³¹ Ex. APP-2 at 6-25 (Application); Ex. APP-19 (Direct Testimony of M. Swenson).

²³² Minn. Stat. § 216E.03, subd. 7(b)(1)–(2); Minn. R. 7850.4100, subp. E.

1. Air Quality.

206. Air emissions associated with construction are highly dependent upon weather conditions and the specific activity occurring. For example, traveling to a construction site on a dry gravel road will result in more fugitive dust than traveling the same road when wet.²³³

207. Watering exposed surfaces, covering disturbed areas, and reducing speed limits are all standard construction practices and can mitigate fugitive dust from construction. The Applicants indicate they will use appropriate measures to minimize fugitive dust emissions during construction. When applying these mitigation measures, potential impacts are anticipated to be similar for all routing options.²³⁴

208. At the completion of construction activities, all construction-related air impacts would cease.²³⁵

209. During operation, power lines produce ozone and nitrous oxide through the corona effect—the ionization of air molecules surrounding the conductor. Ozone production from a conductor is proportional to temperature and sunlight and inversely proportional to humidity. These compounds contribute to smog and adverse health effects. Minnesota has an ozone standard of 70 parts per billion measured over a daily eight-hour average of the three-year average of the annual fourth-highest daily maximum. The national ozone standard is 0.070 parts per million over a 3-year average of the annual fourth-highest daily maximum eight-hour average concentration. Ozone and nitrous oxide emissions are anticipated to be well below these limits.²³⁶

2. Greenhouse Gas Emissions (GHG).

210. Greenhouse gases (GHG) are gaseous emissions that trap heat in the atmosphere. These emissions occur from natural processes and human activities. The most common GHGs emitted from human activities include carbon dioxide, methane, and nitrous oxide.²³⁷

211. Construction of the Transmission Line and Laketown Substation will result in temporary minor GHG emissions from fuel combustion in construction equipment, commuter vehicles, and delivery trucks.²³⁸

212. The USEPA's GHG Reporting Tool shows emissions within Minnesota totaled 34,929,605 metric tons of carbon dioxide equivalent (CO_{2e}) (38,502,906 tons) in 2020. Accordingly, the preliminary estimate of Project GHG emissions identified here would be negligible.²³⁹

²³³ Ex. EERA-11 at 58 (EA).

²³⁴ Ex. EERA-11 at 59-60 (EA).

²³⁵ Ex. APP-2 at 6-28 (Application).

²³⁶ Ex. EERA-11 at 59 (EA).

²³⁷ Ex. EERA-11 at 58 (EA).

²³⁸ Ex. APP-2 at 6-29 (Application).

²³⁹ Ex. APP-2 at 6-30 (Application).

213. The Applicants will mitigate vehicle emissions by limiting vehicle idling to only times when necessary. The Applicants will also monitor the sulfur hexafluoride (SF₆), a greenhouse gas used as an insulating material in substation breakers, gas levels in the breakers as part of routine monitoring of substation equipment. When gas losses are detected, the SF₆ is extracted to a separate tank to allow the breaker to be repaired. Any gas collected from decommissioned breakers is shipped offsite for recycling.²⁴⁰

3. Climate Change.

214. Climate change could result in an increased risk of flooding in the Project Area, increased temperatures, extreme weather events such as high winds, and excessive rainfall. The Project as proposed will be designed to withstand these changes and will increase reliability in the Project Area.²⁴¹

215. Heat wave events could change demands on the electrical transmission and generation systems, especially as more indoor space is equipped with cooling systems. Because this is a reliability project, it will improve the electrical transmission system making it more resilient and reducing potential for peak overloads during heat wave events.²⁴²

4. Geology and Topography.

216. Bedrock depth in this subregion varies from 100 to 400 feet. Neither the substation foundations nor the Project structures/foundations will reach bedrock; therefore, impacts will not occur.²⁴³

217. Topography of the area is characteristically gently to moderately rolling. Construction of the Project will not alter the topography along the proposed right-of-way; therefore, no mitigation is proposed.²⁴⁴

5. Soils.

218. Potential impacts of construction are soil compaction and rutting which may occur from movement of construction vehicles along the right-of-way and near the substation. Installing structures requires removing and handling soils, which, along with vegetation clearing and grading, will expose soils to wind and water erosion.²⁴⁵

219. Ground disturbance and soil exposure would be primarily limited to the pole locations, which would typically consist of a hole 10 to 20 feet deep and 36 to 60 inches in diameter for each pole. Impacts to physiographic features should be minimal during and after installation of

²⁴⁰ Ex. APP-2 at 6-29 (Application).

²⁴¹ Ex. APP-2 at 6-30 (Application).

²⁴² Ex. EERA-11 at 60 (EA).

²⁴³ Ex. APP-2 at 6-46 (Application); Ex. EERA-11 at 24 (EA).

²⁴⁴ Ex. APP-2 at 6-45 – 6-46 (Application); Ex. EERA-11 at 21 (EA).

²⁴⁵ Ex. EERA-11 at 64 (EA).

the Transmission Line structures, and these impacts will be short term. Long-term impacts to soils are not anticipated, and no impact from Project operations are expected.²⁴⁶

220. Potential impacts to soils can be mitigated by using BMPs and standard construction practices. A variety of methods can be employed to minimize soil erosion, including the prompt revegetation of disturbed soils. Additionally, Section 5.3.8 of the Draft Route Permit has requirements that the permittee must follow to mitigate impacts to soil.²⁴⁷

6. Water Quality and Resources.

221. The Application and EA analyzed impacts to water quality and resources, including groundwater, surface water, wetlands, impaired waters, and floodplains.²⁴⁸

(1) Groundwater.

222. The Project is within the Central Groundwater Province, which is “characterized by buried sand aquifers and relatively extensive surficial sand plains, part of a thick layer of sediment deposited by glaciers overlying the bedrock,” because of this, the province is “underlain by sedimentary bedrock with good aquifer properties.” Springs and karst are not present in the Project area. The water table is high along portions of the Project.²⁴⁹

223. Potential impacts to domestic water supplies are not expected, because the Chaska Wellhead Protection Area and Drinking Water Supply Management Area are outside any of the studied route widths and are in a location that has low vulnerability to human caused contaminants.²⁵⁰

224. Moreover, no impacts to groundwater are anticipated because of construction or operation of the Transmission Line or Laketown Substation. Dewatering activities are not expected for this Project, and any effects on water tables would be localized and short term and would not affect hydrologic resources.²⁵¹ Should dewatering be used it should be directed away from wetlands and done in a manner to prevent erosion, that is, using an appropriately sized dewatering containment system that is carefully monitored. As directed by the Minnesota Department of Health (MDH), the Applicants stated that they will coordinate with landowners regarding well locations and access, should it be necessary, if a route is permitted.²⁵²

(2) Wells.

225. Domestic wells exist throughout the Project Area.²⁵³

²⁴⁶ Ex. APP-2 at 6-47 (Application).

²⁴⁷ Ex. EERA-11 at 65 (EA).

²⁴⁸ See Ex. APP-2 at 6-30 – 6-36 (Application); Ex. EERA-11 at 61-64, 65-68, 70-75 (EA).

²⁴⁹ Ex. EERA-11 at 61 (EA).

²⁵⁰ Ex. EERA-11 at 61 (EA).

²⁵¹ Ex. APP-2 at 6-34 (Application).

²⁵² Ex. EERA-11 at 64 (EA).

²⁵³ Ex. EERA-11 at 62 (EA).

226. Fourteen wells are within the route width of the Applicants' Proposed Route segment and vary in depth from 130 to 525 feet deep; twenty-four wells are within the Alternative A route width and range from 127 to 525 feet deep; Alternative B also has 14 wells within the route width ranging from 130 to 525 feet; and Alternative C route width contains 15 wells ranging from 127 to 525 feet. None of the studied routes have any wells within their right-of-way.²⁵⁴

227. As directed by the MDH, the Applicants will coordinate with landowners regarding well locations and access, should it be necessary.²⁵⁵

(3) *Surface Water.*

228. The majority of all routes are within the Lower Minnesota River watershed, which is part of the Minnesota River Basin. A small portion of Route Alternative A is located in the Twin Cities Mississippi River watershed, located in the Mississippi River Basin. "The Lower Minnesota River watershed includes the lowest reach of the Minnesota River and flows into the Mississippi at Fort Snelling. The second-largest watershed in the Minnesota River Basin, it covers 1,760 square miles, divided by the Minnesota River itself."²⁵⁶

229. Potential impacts to surface waters are anticipated to be minimal for all routing options. The Project does not cross any impaired waters; therefore, impacts to these resources will not occur.²⁵⁷

230. The alignment for the Applicants' Proposed Route would cross an unnamed creek delineated as a public watercourse. The route widths of Route Alternatives A and C, as well as the alignment for Route Alternative C, cross an unnamed public water wetland along the eastern portion of the routes, bisected by the railroad.²⁵⁸

231. All the studied routes have a lake within their route width near the proposed Laketown Substation, at the southeast corner of the CSAH 10 and Jersey Avenue intersection. None of the alignments are currently planned to span that lake. Route Alternatives A and C have each an additional public water basin within their route widths, but the alignments do not span the water bodies.²⁵⁹

232. The Applicants' Proposed Route would cross an intermittent stream once, a perennial stream three times, and a wetland connector once. Route Alternative A crosses three different intermittent streams. Route Alternative B crosses an intermittent stream once and a perennial stream twice. Route Alternative C crosses six separate intermittent streams seven times and has an additional intermittent stream within its proposed alignment's right-of-way.²⁶⁰

²⁵⁴ Ex. EERA-11 at 62 (EA).

²⁵⁵ Ex. EERA-11 at 63 (EA).

²⁵⁶ Ex. EERA-11 at 65 (EA).

²⁵⁷ Ex. EERA-11 at VII (EA).

²⁵⁸ Ex. EERA-11 at 66 (EA).

²⁵⁹ Ex. EERA-11 at 66 (EA).

²⁶⁰ Ex. EERA-11 at 66 (EA).

233. Potential impacts to surface waters can be avoided by selecting routes, alignments, and structure placements outside of surface waters. Additionally, spanning waterbodies avoids direct impacts to surface waters within the selected route. Other mitigation measures include using BMPs to reduce the potential for erosion and sedimentation.²⁶¹

234. There is greater potential for indirect impacts to surface waters along the Route Alternative C and Alignment Alternative D.²⁶²

(4) *Wetlands.*

235. There are no public water wetlands or basins located within the Proposed Route or crossed by the proposed right-of-way.²⁶³

236. Overall, potential impacts to wetlands are anticipated to be greater along Route Alternatives A and C and Alignment Alternative D. These are predominantly emergent wetlands, so the potential impacts are anticipated to be minimal. Potential impacts will be short- and long-term and of a relatively small size when compared to total wetland acres in Carver County.²⁶⁴

237. In addition, route Alternatives A and C cross the most acres of forested wetlands.²⁶⁵

238. The Applicants' Proposed Route has 0.03 acres of non-delineated wetland within the right-of-way, and 38.5 acres of non-delineated wetland within the route width. Route Alternative A contains 3.5 acres of non-delineated wetland within the right-of-way, and 78.95 acres of non-delineated wetland within the route width. Route Alternative B contains 0.0 acres of non-delineated wetland within the right-of-way, and 21.53 acres of non-delineated wetland within the route width. Route Alternative C contains 5.19 acres of non-delineated wetland within the right-of-way, and 81.17 acres of non-delineated wetland within the route width.²⁶⁶

239. Route Alternative C crosses a Public Water Basin where it also crosses the Twin Cities and Western Railroad. The crossing of the public water is approximately 475 feet long, but the National Wetlands Inventory (NWI) wetlands surrounding the public water shape is 603 feet. Depending upon ultimate span widths, a pole may need to be placed within the Public Water Basin, necessitating the need for additional MDNR permitting and permanent impacts to wetlands.²⁶⁷

240. Based on NWI data, the Proposed Route crosses the least mileage of wetlands (less than 0.01 mile), which consists of a small "lotic river throughflow" within a drained/farmed wetland which could be easily avoided during pole placement. Route Alternative A and Route

²⁶¹ Ex. EERA-11 at 67 (EA).

²⁶² Ex. EERA-11 at 97 (EA).

²⁶³ Ex. APP-2 at 6-33 (Application).

²⁶⁴ Ex. EERA-11 at VII (EA).

²⁶⁵ Ex. EERA-11 at 70 (EA).

²⁶⁶ Ex. EERA-11 at 72-73 (EA).

²⁶⁷ Ex. APP-2 at 4-6 (Application); Ex. EERA-11 at 74 (EA).

Alternative C cross 0.3 mile and 0.4 mile of wetlands, respectively, with only Route Alternative A having impacts to forested wetlands (0.1 mile).²⁶⁸

241. Overall, potential impacts to wetlands are anticipated to be short- and/or long-term and of a relatively small size when compared to total wetland acres in Carver County. Impacts will affect a unique, but common resource.²⁶⁹

242. Construction of the Project largely avoids wetlands, with the exception of the crossing at MP 1.5. There are no wetlands within the Laketown Substation site. Wetland impact avoidance measures that will be implemented during design and construction of the Transmission Line includes spacing and placing the pole structures at variable distances to span and avoid all wetlands. Based on the Proposed Alignment, Great River Energy does not anticipate pole placement within wetlands. If the final Transmission Line route design cannot enable the Project to span discrete wetland segments, permanent impacts to wetlands will occur where a structure is in the wetland (approximately five to seven feet in diameter of permanent impact per structure).²⁷⁰

243. In addition, Section 5.3.9 of the Draft Route Permit requires the Permittee to construct within wetlands in frozen ground conditions when possible and to use wooden or composite mats when frozen construction conditions are not possible. The Applicants also committed to the following in section 6.7.2 of the Application, in reference to crossing a wetland:

When possible, construction will be scheduled during frozen ground conditions. When construction during frozen ground conditions is not possible, construction mats (wooden or composite) will be used to protect wetland vegetation. Additionally, low ground pressure construction vehicles may be used, which are designed to minimize impact to soils in damp areas. Construction crews will attempt to access wetlands with the least amount of physical impact to the wetlands. Staging or stringing setup areas will not be placed within or adjacent to water resources to the extent practicable. Once construction of the Project is completed, Great River Energy will restore disturbed areas within wetlands to pre-construction conditions.²⁷¹

(5) *Impaired Waters.*

244. The Project will not impact impaired waters and will not cause a water to be newly listed as impaired. Potential impacts along all routes are expected to be minimal.²⁷²

(6) *Floodplains.*

²⁶⁸ Ex. APP-2 at 4-7 (Application).

²⁶⁹ Ex. EERA-11 at 70 (EA).

²⁷⁰ Ex. APP-2 at 6-35 (Application).

²⁷¹ Ex. EERA-11, Appendix B at §§ 5.3.9; 6.7.2 (Draft Route Permit).

²⁷² Ex. APP-2 at 6-35 (Application); Ex. EERA-11 at 65-66 (EA).

245. The Project lies within the Lower Minnesota River watershed, in the northeast portion of the Minnesota River Basin.²⁷³

246. The Project area has only one area identified as having a flooding potential. FEMA has identified an area along Guernsey Avenue as a flood zone A, which has a 1 percent chance of flooding in a calendar year. The proposed connection points of all routing alternatives and alignments are not located in this area. Even so, if they were to be built, the structures of the poles do not create enough impermeable surfaces, or change the topography of the area, such that it will affect the floodplain in any significant way.²⁷⁴

247. No impacts to floodplains are anticipated from the Project, therefore no mitigation measures are proposed.²⁷⁵

7. Flora.

248. Construction and operation of the Project may cause short-term and/or long-term impacts on vegetation. The Applicants will clear approximately five acres of trees within the 100-foot-wide right-of-way. Tree clearing will be largely limited to forest edge along Hampshire Road at MP 0.0 to avoid impacts to a residential property across the road, and then near MP 2.2 where the proposed right-of-way heads north and crosses the Twin Cities and Western Railroad, to stay along a property edge and away from the MDNR public water and wetland to the northeast of the forested area. The Applicants designed the Project to avoid clearing the trees near MP 3.8 on the west side of Jersey Avenue, and some minor clearing will be needed within the Laketown Substation site. All trees are located on private property.²⁷⁶

249. The Project falls in the Eastern Broadleaf Forest Province, Minnesota & Northeast Iowa Morainal Section, and Big Woods subsection. Pre-settlement vegetation was comprised of oak woodland and maple-basswood forests with aspen dominated forest located along the western margin of the subsection.²⁷⁷ The current vegetation and land use is primarily made up of cropland (75 percent) and pasture (5–10 percent). The remaining areas of the subsection are comprised of upland forest or wetland. The proposed right-of-way will cross about 0.2 mile of forested land, which consists of North-Central Interior Dry-Mesic Oak Forest and Woodland, North-Central Interior Maple-Basswood Forest, and Boreal Jack Pine-Black Spruce Forest.²⁷⁸

250. Short-term impacts will result from grading and other physical disturbances. Long-term impacts include removal of woody vegetation within the right-of-way, which will result in conversion to low-stature vegetation (shrubs and grasses) throughout its length. The Applicants would routinely clear woody vegetation from the right-of-way to ensure it does not interfere with the safe operation of the Project.²⁷⁹

²⁷³ Ex. APP-2 at 6-31 (Application).

²⁷⁴ Ex. EERA-11 at 23 (EA).

²⁷⁵ Ex. EERA-11 at 23 (EA).

²⁷⁶ Ex. APP-2 at 6-37 (Application).

²⁷⁷ Ex. APP-2 at 6-37 (Application); Ex. EERA-11 at 68 (EA).

²⁷⁸ Ex. APP-2 at 6-37 (Application).

²⁷⁹ Ex. EERA-11 at 69 (EA).

251. The Applicants' Proposed Route will primarily follow existing road and distribution line corridors or be in agricultural fields, which will minimize impacts to previously undisturbed vegetation in that area.²⁸⁰ The Applicants will further mitigate potential impacts to forest resources by implement its Vegetation Management Plan during construction and operation of the Transmission Line; compensating individual landowners through negotiated easement agreements for the removal of vegetation in the right-of-way, and providing individual landowners with the option to keep any portions of the trees (e.g., timber, branches, chips, shreds) cut within the easement area.²⁸¹

252. Section 5.3.10 of the Draft Route Permit requires the Permittees to minimize the number of trees to be removed in selecting the right-of-way, and to leave undisturbed, to the extent possible, existing low growing species in the right-of-way or replant such species in the right-of-way.²⁸²

8. Fauna.

253. There are no MDNR Wildlife Management Areas (WMAs) crossed by the Proposed Route. The closest MDNR WMA is the Raguet WMA, which is located approximately 4.75 miles to the east of the Proposed Route. The Minnesota Valley National Wildlife Refuge is located over 2 miles to the southeast along the Minnesota River.²⁸³

254. There are no mapped Wildlife Action Network areas or Reinvest in Minnesota Reserve program (RIM Reserve) easements within the local vicinity or the Project area.²⁸⁴ Further, there are no DNR Wildlife Management Areas, Scientific and Natural Areas, or Migratory Waterfowl Feeding and Resting Areas or National Audubon Society Important Bird Areas within the local vicinity of any routing option.²⁸⁵

255. The Proposed Route will primarily follow existing road and distribution line corridors or be along agricultural fields, which will minimize impacts to previously undisturbed vegetation in that area.²⁸⁶

256. Wildlife using the route width are expected to be displaced during construction due to increased human activity or other disturbance of habitat. The distance animals are displaced depends on the species and the tolerance level of each animal. Most wildlife would likely return to the area after construction; however, others might be permanently displaced. Because other suitable habitat is available in and near the Project Area, potential temporary impacts to wildlife are not expected to cause permanent changes to local populations. Should Route Alternative C be permitted, structures built within a wetland could directly impact fish or fish habitat.²⁸⁷ Potential

²⁸⁰ Ex. APP-2 at 6-38 (Application).

²⁸¹ Ex. APP-2 at 6-38 and Appendix H (Application; Vegetation Management Plan).

²⁸² Ex. EERA-11, Appendix B at § 5.3.10 (Draft Route Permit).

²⁸³ Ex. APP-2 at 6-38 (Application); Ex. EERA-11 at 75 (EA).

²⁸⁴ Ex. EERA-11 at 75–76 (EA). One RIM Reserve easement is intersected by the Project Area, slightly less than one mile west of Route Alternative B. Ex. EERA-11 at 76 (EA).

²⁸⁵ Ex. EERA-11 at 75 (EA).

²⁸⁶ Ex. APP-2 at 6-38 (Application).

²⁸⁷ Ex. EERA-11 at 76 (EA).

long-term impacts to terrestrial and aquatic species are anticipated to be minimal along all route segments.²⁸⁸

257. Potential impacts to wildlife can be avoided by routing power lines away from quality habitat or migratory corridors.²⁸⁹ Impacts can be minimized by spanning habitats and minimizing the number of structures to the extent practicable.²⁹⁰ Impacts to avian species can be mitigated by winter construction (nesting activities would not be occurring, and most species would have migrated out of the local vicinity) and by diverting birds away from transmission lines using bird diverters placed on shield wires.²⁹¹

258. In addition, section 5.3.16 of the Draft Route Permit requires that permittees “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 Applicants stated they will use Avian Safe Design recommendations and bird diverters, if needed.²⁹²

F. Rare and Unique Natural Resources.

259. Minnesota’s HVTL routing factors require consideration of the Project’s effect on rare and unique natural resources.²⁹³

260. To determine if a Project will impact a state listed threatened or endangered species, the Applicants consulted with the Minnesota Department of Natural Resources (MDNR) Natural Heritage and Nongame Research Program, which collects, manages, and interprets information about nongame species, through the Minnesota Conservation Explorer (MCE) system.²⁹⁴

261. No state-listed endangered or threatened species have been documented in the vicinity of the Project.²⁹⁵ One state-listed species of special concern, the least darter, a small vertebrate fish species, is noted to have occurred in the Project vicinity.²⁹⁶ Its habitat is the littoral zone of lakes, small rivers, and streams, and the MCE review recommended avoidance of suitable habitat.²⁹⁷ The Project will avoid suitable habitat; therefore, no impacts are expected.²⁹⁸

262. Five federally protected species were identified as having a potential of being within the Project area: the northern long-eared bat, the tricolored bat, the whooping crane, the

²⁸⁸ Ex. EERA-11 at 77 (EA).

²⁸⁹ Ex. EERA-11 at 77 (EA).

²⁹⁰ Ex. EERA-11 at 77 (EA).

²⁹¹ Ex. EERA-11 at 77–78 (EA).

²⁹² Ex. EERA-11 at 87 (EA); Ex. EERA-11, Appendix B at § 5.3.16 (Draft Route Permit).

²⁹³ Minn. Stat. § 216E.03, subd. 7(b)(1); Minn. R. 7850.4100, subp. F.

²⁹⁴ Ex. APP-2 at 2-5 (Application).

²⁹⁵ Ex. APP-2 at 6-40 (Application); Ex. EERA-11 at VI (EA).

²⁹⁶ Ex. APP-2 at 6-40 (Application); Ex. EERA-11 at 80 (EA).

²⁹⁷ Ex. APP-2 at 6-44 (Application).

²⁹⁸ Ex. APP-2 at 6-44 (Application).

monarch butterfly, and the rusty patch bumblebee.²⁹⁹ No federally designated critical habitat is present within the Project area.³⁰⁰

263. The EA identified Minnesota Biological Survey (MBS) Native Plant Communities and MBS Sites of Biodiversity Significance in the Project area.³⁰¹

264. Four MBS Sites of Biodiversity Significance are within the Project area: Marsh Lake, Marsh Lake Hunting Club, Laketown 32 and Dahlgren 9.³⁰² While none of these sites are within the anticipated right-of-way of any routing option, the Laketown 32 site, has a biodiversity rank of “moderate,” is within the route width of the Route Alternative B. Sites ranked moderate “contain occurrences of rare species, moderately disturbed native plant communities, and/or landscapes that have strong potential for recovery of native plant communities and characteristic ecological processes.”³⁰³

265. The Project area intersects ten MBS Native Plant Communities. Only one of these intersects the route width of Route Alternative B.³⁰⁴ Based on the Applicants’ review of the MDNR’s Calcareous Fen geospatial dataset, the Seminary Fen is located within five miles of the easternmost portion of the Project, and seven miles from the Laketown Substation.³⁰⁵ Fens are protected under Minn. Stat. § 103G.223, which provides that calcareous fens may not be filled, drained, or otherwise degraded, wholly or partially, by an activity, unless approved by the MDNR through a fen management plan.

266. The Applicants will continue to coordinate with the MDNR and USFWS to avoid and minimize Project impacts on sensitive species, including state-designated calcareous fens.³⁰⁶

G. Application of Various Design Considerations.

267. 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.³⁰⁷

268. The Project enables Great River Energy to provide 115-kV service to the Laketown Substation to meet long-term electricity planning needs.³⁰⁸ The Project is designed to maintain necessary reliability requirements in the area and is designed maximize energy efficiencies and accommodate expansion capacity.³⁰⁹

²⁹⁹ Ex. EERA-11 at 80 (EA).

³⁰⁰ Ex. APP-2 at 6-41 (Application).

³⁰¹ Ex. EERA-11 at 78 (EA).

³⁰² Ex. EERA-11 at 78 (EA).

³⁰³ Ex. EERA-11 at 78 (EA).

³⁰⁴ Ex. EERA-11 at 79 (EA).

³⁰⁵ Ex. APP-2 at 6-34 (Application); Ex. EERA-11 at 79 (EA).

³⁰⁶ Ex. APP-2 at 6-44 (Application).

³⁰⁷ Minn. Stat. § 216E.03, subd. 7(b)(2); Minn. R. 7850.4100, subp. G.

³⁰⁸ Ex. APP-2 at 1-1 (Application).

³⁰⁹ Ex. APP-2 at 3-6 (Application).

269. The record supports the Proposed Route as the best route for the Project considering both reliability and potential human and environmental impacts. In contrast, Route Alternative A is opposed by Carver County because it would interfere with Carver County's planned highway expansion and relocation; this alternative also impacts the greatest number of residences and crosses a recently annexed area of the City of Victoria. Route Alternative B would reduce the reliability of the system as compared to the Proposed Route. Finally, Route Alternative C is opposed by the City of Victoria because it conflicts with current development. This alternative crosses a recently annexed area of the City of Victoria and would travel over the top of two currently planned developments, one of which is presently under construction.³¹⁰

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

270. Minnesota's HVTTL routing factors require consideration of the Project's use of or paralleling of existing right-of-way, survey lines, natural division lines, and agricultural field boundaries.³¹¹

271. Approximately 2.4 miles, or 53.5 percent of the Project will be collocated with existing right-of-way.³¹² In some of these areas, the road rights-of-way are also adjacent to existing aboveground MVEC distribution lines.³¹³ During the public hearing, a member of the public noted a concern about the Project passing through farm fields.³¹⁴ Great River Energy noted during the public hearing that the construction of the Project would generally follow property lines where not already following a roadway.³¹⁵

272. In written comments, Great River Energy further stated that, although Great River Energy initially considered routing along Hampshire Road until its intersection with Augusta Road to maximize collocation with existing infrastructure, there are existing residences on that portion of the road and in close proximity to the road. Great River Energy sought to distance the project from this concentrated development. Thus, instead, the Proposed Route follows property lines between Hampshire Road and Augusta Road to limit residential impacts. Given agricultural activities in this area, Great River Energy specifically designed the Proposed Route to follow these property lines (rather than traversing through fields) to avoid and limit potential impacts to agricultural operations.³¹⁶

273. While Route Alternatives A and C utilize more existing right-of-way than the Proposed Route, Alternatives A and C would result in more significant human impact than the Proposed Route would.³¹⁷ Alignment Alternative D does utilize any existing right-of-way, and as

³¹⁰ Ex. APP-21 at 1-2 (Comments regarding EA).

³¹¹ Minn. Stat. § 216E.03, subd. 7(b)(9); Minn. R. 7850.4100, subp. H.

³¹² Ex. APP-2 at 3-2 (Application).

³¹³ Ex. APP-2 at 3-2 (Application).

³¹⁴ Public Hearing Transcript at 40-43 (May 21, 2025).

³¹⁵ Public Hearing Transcript at 15 (May 21, 2025)

³¹⁶ Applicants' Post-Hearing Comments (June 9, 2025) (eDocket No. ____).

³¹⁷ Ex. APP-21 at 1-2 (Comments regarding EA).

recognized in the EA, “In the half mile span of both alternatives, the Applicants’ Proposed Alignment is significantly more collocated than the Alignment Alternative D.”³¹⁸

274. Regarding Route Alternative A, considering the present alignment of CSAH 10, residential homes and businesses are located on either side, and near, to the highway. This would require that Great River Energy make several crossings of the road to avoid impacting existing structures and provide proper setbacks. Great River Energy would need to make 12 crossovers of CSAH 10 because of the density of structures that are close to the highway right-of-way. In addition, Carver County has indicated plans to realign CSAH 10 in the next 5-10 years, which presents significant difficulties when planning a new transmission line, in that should the Transmission Line be built along the present highway alignment, there would be significant disruptions to the highway project and the operating transmission line when the roadway is expanded, and then moved, in some locations. Depending on the location of the Project, Carver County may be responsible for those re-location costs. In this scenario, the line would also move closer to existing residences.³¹⁹

275. The Proposed Route seeks to balance maximizing co-location while minimizing impact, and avoids the planned CSAH 10 highway improvements that would result from Route Alternative A.³²⁰

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

276. Minnesota HVTL routing factors require consideration of the Project’s use of existing transportation, pipeline, and electrical transmission system rights-of-way.³²¹

277. The Project could potentially cross the TCWR railway in the central or northeastern portion of the Project Area, depending on which route may be selected.³²² There are no natural gas transmission pipelines or hazardous liquid (oil) pipelines near the Project Area.³²³

278. While Route Alternative C would collocate the Project with an existing Xcel Energy 230-kV transmission line, the City of Victoria notified Great River Energy that this Route Alternative is located within land that would eventually become part of the City of Victoria through an annexation agreement with Laketown Township, and that the City would like to develop this property for commercial and industrial use in the near future.³²⁴ Indeed, since the filing of the Application, a portion of the subject annexation has been annexed into the City of Victoria municipal boundaries and a developer is proceeding with a commercial development there.³²⁵ For example, Route Alternative C as proposed would cross directly over the southern portion of a to-be-developed Kwik Trip gas station recently approved by the City of Victoria, including two new

³¹⁸ Ex. EERA-11 at 85; 97 (EA).

³¹⁹ Ex. APP-2 at 4-7 – 4-8 (Application); Ex. APP-19 at 6-7 (Direct Testimony of M. Swenson).

³²⁰ Ex. APP-21 at 19-20 (Comments regarding EA).

³²¹ Minn. Stat. § 216E.03, subd. 7(b)(8); Minn. R. 7850.4100, subp. J.

³²² Ex. EERA-11 at 41 (EA).

³²³ Ex. EERA-11 at 41 (EA).

³²⁴ Ex. APP-2 at 4-9 (Application); Ex. APP-19 at 7 (Direct Testimony of M. Swenson).

³²⁵ Ex. APP-21 at 7 (Comments regarding EA).

roads: Crossings Parkway [the access point to the Kwik Trip off of County Road 11] and Ridgeview Boulevard, associated tree plantings along the road, and near the gas pumps.³²⁶ Adjustment of Route Alternative C to avoid the planned Kwik Trip would likely interfere with other future development plans, including building collector roadways (with a possible connection to CSAH 10), utilities, and potential future commercial/retail, dining, and high-density residential and senior living facilities.³²⁷ In addition, because the existing 230-kV line is cross-country (does not follow a road), placing another right-of-way along that existing line would increase the magnitude of potential impact.³²⁸

279. The Proposed Route seeks to balance maximizing co-location while minimizing impact and avoids impacting land that the City of Victoria has already planned to host future commercial, industrial, and residential developments in the near term.³²⁹

J. Electrical System Reliability.

280. Minnesota's HVTL routing factors require consideration of the Project's impact on electrical system reliability.³³⁰

281. The Applicants have designed the Project to accommodate availability and reliability requirements in the area and, because it is proposed at 115-kV, it is sized to accommodate future expansion when electric loads increase.³³¹ Accordingly, the Project is anticipated to have a positive impact on electrical system reliability.³³²

282. Because all routing alternatives will be constructed and operated to the same standards, the reliability of each individual alternative is anticipated to be the same. Analysis of the reliability of the local electrical grid as a result of the Project, conducted by the Applicants, concludes that local reliability is roughly the same for the Applicants' Proposed Route and Route Alternatives A and C.³³³

283. The Applicants indicate that use of Route Alternative B would make the local electrical grid relatively less reliable.³³⁴ Great River Energy initially analyzed a similar route option as Route Alternative B during Project development and in the Application, but did not consider or study the configuration further because this configuration would result in an uneven distribution of loading on the electrical system in the area and thus would not meet the identified need as well as the Project's Proposed Route. Route Alternative B would also result in multiple substations, including the proposed new Laketown Substation, to be co-dependent on a single 115-

³²⁶ Ex. APP-21 at 7-8 (Comments regarding EA).

³²⁷ Ex. APP-21 at 8 (Comments regarding EA).

³²⁸ Ex. APP-19 at 8 (Direct Testimony of M. Swenson).

³²⁹ Ex. APP-21 at 20 (Comments regarding EA).

³³⁰ Minn. R. 7850.4100, subp. K.

³³¹ Ex. APP-2 at 5-1 (Application).

³³² Ex. APP-2 at 6-30 (Application); *see* Ex. EERA-11 at 41 and Appendix C (EA; Great River Energy Reliability Review).

³³³ Ex. APP-21 at 10-12 (Comments regarding EA).

³³⁴ Ex. EERA-11 at 97 (EA).

kV circuit, resulting in a higher level of exposure to outages resulting in less reliability.³³⁵ Route Alternative B would require a new breaker station on the existing line between Augusta and Victoria.³³⁶ No comments in support of Route Alternative B were submitted during the public hearing period.

284. The Applicants' Proposed Route would provide improved reliability by reducing transmission exposure to the existing substations in the area and providing redundant service to the new Laketown Substation.³³⁷

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

285. Minnesota's HVTL routing factors require consideration of the Project's cost of construction, operation, and maintenance.³³⁸

286. The Applicants estimate that the total cost of the Project will be approximately \$18 million using the Proposed Route.³³⁹

287. Route Alternative A is estimated to cost approximately \$18,331,214; Route Alternative B is estimated to cost approximately \$15,549,987; Route Alternative C is estimated to cost approximately \$16,708,249; and Alignment Alternative D is estimated to cost approximately \$17,696,444.³⁴⁰

288. To achieve the same level of reliability, Route Alternative B would require a new breaker station on the existing line between Augusta and Victoria. This would require a new approximately 20-acre greenfield breaker station site that would need to be purchased from a private landowner and would cost approximately \$8- 10 million, and would result in permanent aboveground facility impacts that would not occur under the Proposed Route.³⁴¹

289. The Applicants estimate the annual operation and maintenance costs for the Transmission Line to be approximately \$2,000 per mile.³⁴²

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

290. Minnesota's HVTL routing factors require consideration of the adverse human and natural environmental effects that cannot be avoided.³⁴³

³³⁵ Ex. APP-2 at 4-1 (Application); Ex. APP-21 at 6 (Comments regarding EA).

³³⁶ Ex. APP-21 at 11 (Comments regarding EA).

³³⁷ Ex. APP-20 at 4 (Direct Testimony of N. Goater).

³³⁸ Minn. R. 7850.4100, subp. L.

³³⁹ Ex. APP-2 at 1-3 (Application); Ex. EERA-11 at 18 and 97 (EA).

³⁴⁰ Ex. EERA-11 at 18 (EA).

³⁴¹ Ex. APP-21 at 11 (Comments regarding EA).

³⁴² Ex. APP-2 at 3-8 (Application).

³⁴³ Minn. Stat. § 216E.03, subd. 7(b)(6); Minn. R. 7850.4100, subp. M.

291. Unavoidable adverse impacts include the physical impacts to the land due to construction of the Project. However, as detailed in the Application and the EA, the Applicants will employ avoidance, minimization, and mitigation measures to limit Project impacts.³⁴⁴

M. Irreversible and Irretrievable Commitments of Resources.

292. Minnesota's HVTL routing factors require consideration of the irreversible and irretrievable commitments of resources that are necessary for the Project.³⁴⁵

293. The Project will require only minimal commitments of resources that are irreversible and irretrievable. Irreversible commitments of resources are those that result from the use or destruction of a specific resource that cannot be replaced within a reasonable timeframe. Irretrievable resource commitments are those that result from the loss in value of a resource that cannot be restored after the action. For the Project, those commitments that do exist are primarily related to construction. Construction resources will include the use of water, aggregate resources, hydrocarbons, steel, concrete, wood, and other consumable resources.³⁴⁶

294. The Proposed Route seeks to balance maximizing co-location while minimizing impact on irreversible resources; avoids the adverse impact of Route Alternative A's impact on Carver County's future CSAH 10 redevelopment plans; avoids reliability constraints and faults of Route Alternative B; and avoids adverse impact of Alternative C on land that the City of Victoria is presently developing to host future commercial, industrial, and residential developments.³⁴⁷

N. Summary of Factors Analysis.

295. The review of the various human and environmental data sets indicates that although there are differences in the Proposed Route and Route Alternatives, the Proposed Route compares favorably when considering human and environmental impacts as a whole.³⁴⁸

296. Although the Proposed Route is longer and less collocated than Route Alternatives A and C, the Proposed Route avoids impacting current development, as well as planned and imminent future development, and minimizes impacts on existing residences. Route Alternative A would interfere with Carver County's published plans to realign and widen CSAH 10 in the next 5-10 years.³⁴⁹ Likewise, the City of Victoria noted that Route Alternative C would "severely prohibit development" of an area that has been "highly anticipated for the last few decades to become the commercial hub for the city," including residential and commercial development.³⁵⁰ Recent comments from Carver County and the City of Victoria maintain that both local units prefer the Proposed Route. Carver County noted in written comments dated May 13, 2025, that the County supports the Proposed Route, and opposes the adoption of Route Alternative A due to the

³⁴⁴ Ex. APP-2 at 6-47 to 6-48 (Application); Ex. EERA-11 at 89-90 (EA).

³⁴⁵ Minn. Stat. § 216E.03, subd. 7(b)(11); Minn. R. 7850.4100, subp. N.

³⁴⁶ Ex. APP-2 at 6-48 (Application); Ex. EERA-11 at 90 (EA).

³⁴⁷ Ex. APP-21 at 19-20 (Comments regarding EA).

³⁴⁸ Ex. APP-2 at 4-11 (Application).

³⁴⁹ Ex. APP-2 at 4-8 – 4-9 (Application); Ex. APP-21 at 4 (Comments regarding EA).

³⁵⁰ Ex. APP-2 at 4-9 – 4-11 (Application); Ex. APP-21 at 6-7 (Comments regarding EA).

conflict with the future realignment and reconstruction of CSAH 10.³⁵¹ The City of Victoria noted in written comments dated May 22, 2025, that many properties within Route Alternative C are in the City's future commercial and flex-employment growth areas for the city, and that development of these properties is in its current comprehensive plan and has been highly anticipated for the last few decades. Moreover, the area impacted by Route Alternative C is planned and expected to become the commercial hub for Victoria with the City's first commercial project currently underway.³⁵²

297. Although the City of Carver has expressed opposition to the Proposed Route because of concerns about impacts on future development, the record reflects that there are no near-term plans for development in this area, and that orderly development regularly occurs around existing 115-kV lines like the Project, and the type of future development contemplated by the City of Carver is consistent with a 115-kV line, particularly one that follows roads and property lines like the Proposed Route. Further, Great River Energy has committed to continued engagement with the City of Carver to ensure that the City is kept well-informed of the Project.³⁵³

298. Route Alternative B would result an uneven distribution of loading on the electrical system in the area and thus would not meet the identified need as well as the Project's Proposed Route, and would result in the proposed new Laketown Substation to be co-dependent on a single 115-kV circuit. This would cause a higher level of exposure to outages resulting in less reliability, and would not improve system reliability.³⁵⁴

299. Route Alternatives A and C cross both the most acres of emergent wetlands, and the most acres of forested wetlands.³⁵⁵ Based on the Applicants' review, these routes would require the placement of structures within wetlands. The EA further concludes that "The Applicants' Proposed Alignment would impact the least area of wetlands."³⁵⁶ Based on the Proposed Alignment, Great River Energy does not anticipate pole placement within wetlands.³⁵⁷

300. While the Proposed Route will span the most farmland, the EA recognizes that impacts to agriculture are expected to be minimal for all routing options.³⁵⁸ The EA also concludes that the Proposed Route is anticipated to clear less than two acres of vegetation, as compared to less than one acre for other alternatives.³⁵⁹ These potential impacts are minimal and comparative across alternatives.

301. Alignment Alternative D is less co-located than the Proposed Route Alignment, it has a greater potential for indirect impacts to surface waters, it crosses the most acres of emergent

³⁵¹ Drew Pflaumer, on behalf of Carver County Public Works Public Comment (May 16, 2025) (eDocket No. [20255-218997-01](#)).

³⁵² City of Victoria Public Comment (May 22, 2025) (eDocket No. [20255-219194-01](#)).

³⁵³ APP-17 at 2 (Response to Scoping Comments); Applicants' Post-Hearing Comments (June 9, 2025) (eDocket No. _____).

³⁵⁴ Ex. APP-2 at 4-1 (Application); Ex. APP-21 at 6 (Comments regarding EA).

³⁵⁵ Ex. EERA-11 at 70 (EA).

³⁵⁶ Ex. EERA-11 at 68 (EA).

³⁵⁷ Ex. APP-2 at 6-35 (Application).

³⁵⁸ Ex. EERA-11 at 97 (EA).

³⁵⁹ Ex. EERA-11 at 97 (EA).

wetlands, and it does not utilize any existing infrastructure.³⁶⁰ This alignment would result in structures within a wetland—both temporary and permanent wetland impacts.

302. Evidence in the record suggests that the Proposed Route best balances the Commission's routing criteria.³⁶¹

XVI. ROUTE PERMIT CONDITIONS

303. The EA and Draft Route Permit prepared by EERA included various recommendations and potential route permit conditions related to the Project, to which Great River Energy responded in Direct Testimony.³⁶²

304. With the above-referenced response to the Draft Route Permit, the record in this matter supports the inclusion of the special condition identified in the paragraph that follows.³⁶³

305. The record also supports the inclusion of the following special permit condition, which EERA proposed in the Draft Route Permit and Great River Energy stated it had no objection to inclusion of this special condition:³⁶⁴

6.1 Phase 1 Archaeological Survey

The Permittee shall conduct a Phase 1 archeological survey of the permitted route. The Permittee shall share the results of the survey with the State Historic Preservation Office (SHPO). The Permittee shall implement any recommendations received from SHPO resulting from the survey. The Permittee shall keep records of compliance with this section and provide them upon the request of Commission staff.

306. In its June 2, 2025, comments, MDNR also recommended special conditions related to listed species, calcareous fens, vegetation removal, avian flight diverters, facility lighting, dust control, and wildlife-friendly erosion control. The Applicants do not object to the recommended special conditions regarding calcareous fens, avian flight diverters, facility lighting, dust control, and wildlife-friendly erosion control, noting that these have been required in prior permits issued by the Commission. With respect to listed species, Applicants stated that they will comply with all required laws regarding listed species.³⁶⁵

³⁶⁰ Ex. EERA-11 at 85; 87; 97 (EA).

³⁶¹ Ex. APP-2 at 4-11 (Application).

³⁶² Ex. EERA-11 at Appendix B (Draft Route Permit); Ex. APP-19 at 9-10 (Direct Testimony of M. Swenson).

³⁶³ Ex. EERA-11 at Appendix B (Draft Route Permit); Ex. APP-19 at 9-10 (Direct Testimony of M. Swenson).

³⁶⁴ Ex. EERA-11 at Appendix B (Draft Route Permit); Ex. APP-19 at 9-10 (Direct Testimony of M. Swenson).

³⁶⁵ Applicants' Post-Hearing Comments (June 9, 2025) (eDocket No. ____).

307. With respect to vegetation removal, MDNR recommends a special condition that Applicants conduct only winter tree-clearing for the Project. Applicants stated that they will comply with applicable regulations and USFWS requirements related to tree-clearing, and will continue to coordinate with USFWS prior to construction of the Project. However, Applicants do not support MDNR's recommendation because it is broader than typically required by the Commission and not necessitated by this Project. The MDNR's MCE review MCE-23-00902, referenced in its June 2, 2025, comments, indicated that no state-listed endangered or threatened species, including bats, have been documented within the vicinity of the Project. In addition, the USFWS Determination Key completed by the Applicants and provided as an appendix to the Application indicated that "the action area is not located within 0.5-miles of a known northern long-eared bat hibernaculum" and "the Project does not intersect known sensitive areas for northern long-eared bats."³⁶⁶

308. Further, the Applicants stated that limiting tree clearing to the winter months is not always feasible or practical. Applicants have already committed to taking measures to minimize the impact of vegetation clearing on birds and wildlife, including the use of best management practices and conducting clearing in wetlands when the ground and wetlands are frozen, or using construction mats to minimize impacts to vegetation. Overall, the record does not support inclusion of MDNR's recommendation requiring winter tree-clearing.³⁶⁷

XVII. NOTICE

309. Minnesota statutes and rules require an Applicant to provide certain notice to the public and local governments before and during the Application for a Route Permit process.³⁶⁸

310. The Applicants provided notice to the public and local governments in satisfaction of Minnesota statutory and rule requirements.³⁶⁹

311. EERA and the Commission likewise provided notices in satisfaction of Minnesota statutes and rules.³⁷⁰

XVIII. COMPLETENESS OF EA

312. The EA process is the alternative environmental review approved by the Environmental Quality Board for HVTLS. The Commission is required to determine the

³⁶⁶ Ex. APP-2 at 6-44, Appendix E (Application); Applicants' Post-Hearing Comments (June 9, 2025) (eDocket No. ____).

³⁶⁷ See Applicants' Post-Hearing Comments (June 9, 2025) (eDocket No. ____).

³⁶⁸ Minn. Stat. § 216E.03, subd 4 (2023); Minn. R. 7850.2100, subps. 2 and 4.

³⁶⁹ Exs. APP-1 (Notice of Intent to File Route Permit Application under the Alternative Permitting Process); APP-13 (Notice of Filing Route Permit); and APP-15 (Notice of Filing Route Permit Application).

³⁷⁰ Exs. PUC-3 (Notice of Public Information and EA Scoping Meeting); PUC-7 (Notice of Availability and Public Hearing).

completeness of the EA. An EA is complete if it and the record address the issues and alternatives identified in the Scoping Decision.³⁷¹

313. The Applicants proposed clarifications to portions of the EA and offer additional analysis and explanation as to why Route Alternatives A, B, and C and Alignment Alternative D are more impactful and less beneficial than the Applicants' Proposed Route. Those clarifications are supported by the record.³⁷²

314. 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.³⁷³

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

CONCLUSIONS OF LAW

1. Any of the forgoing Findings of Fact more properly designated as Conclusions of Law are hereby adopted as such.
2. The Commission has jurisdiction to consider the Application.
3. The Commission determined that the Application was substantially complete and accepted the Application on October 1, 2024.³⁷⁴
4. EERA has conducted an appropriate EA of the Project for purposes of this proceeding, and which 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.
5. 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.
6. A public hearing was conducted near the Proposed Route. Proper notice of the public hearing was provided, as required by Minn. Stat. § 216E.04, subd. 6, 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.

³⁷¹ Minn. R. 4410.4400, subp. 6; Minn. R. 7850.3900, subp. 2.

³⁷² See Ex. APP-21 (Comments regarding EA).

³⁷³ Ex. EERA-6 (EA Scoping Decision).

³⁷⁴ Ex. PUC-2 (Order Accepting Application as Complete).

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.

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, with the revisions and clarifications proposed by the Applicants.³⁷⁵

11. The evidence in the record demonstrates that the special condition identified in Section XVI, above, is appropriate for the Project.

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

Based upon these Conclusions, the Administrative Law Judge makes the following:

RECOMMENDATIONS

Based upon these Conclusions, the Administrative Law Judge recommends that the Commission issue a Route Permit for the Applicants' Proposed Route to Great River Energy and Minnesota Valley Electric Cooperative to construct and operate the Project and associated facilities in Carver County, and that the permit include the draft permit conditions as set forth in the Conclusions above.

THIS REPORT IS NOT AN ORDER AND NO AUTHORITY IS GRANTED HEREIN. THE MINNESOTA PUBLIC UTILITIES COMMISSION WILL ISSUE THE ORDER THAT MAY ADOPT OR DIFFER FROM THE PRECEDING RECOMMENDATION.

Dated:

KIMBERLY MIDDENDORF
Administrative Law Judge

³⁷⁵ See Ex. APP-21 (Comments regarding EA).; Ex. APP-19 (Direct Testimony of M. Swenson); Ex. APP-20 (Direct Testimony of N. Goater).