

GREAT RIVER ENERGY

MINNESOTA PUBLIC UTILITIES COMMISSION

MPUC DOCKET NO. ET2/TL-24-132  
OAH DOCKET NO. 21-2500-40445

DIRECT TESTIMONY OF NICK GOATER

April 22, 2025

1 I. INTRODUCTIONS AND QUALIFICATIONS

2  
3 **Q. Please state your name, employer, and business address.**

4 A. My name is Nick Goater. I am a Transmission Planning Engineer with Great River  
5 Energy. My business address is 12300 Elm Creek Boulevard, Maple Grove,  
6 Minnesota 55369.

7  
8 **Q. Please briefly describe your educational and professional background and  
9 experience.**

10 A. I have a Master's degree in Electrical Engineering from the University of Bristol. I  
11 am a licensed Professional Engineer in the state of Minnesota. I joined Great River  
12 Energy as a Transmission Planning Engineer in 2019. In my role as a  
13 Transmission Planning Engineer, I am involved in transmission planning and  
14 engineering and am part of a team developing and studying the need for  
15 transmission projects. I had 5 years of experience as an electrical engineer prior  
16 to joining Great River Energy.

17  
18 **Q. What is your role with respect to the Laketown 115 kilovolt ("kV")  
19 transmission line project ("Project")?**

20 A. I studied the transmission reliability impacts and need for the Project.  
21

22 **Q. What is the purpose of your Direct Testimony?**

23 A. The purpose of my Direct Testimony is to: discuss the purpose of the Project; and  
24 provide information related to loading reliability for the route alternatives studied in  
25 the Environmental Assessment ("EA") prepared for the Project.

## II. THE PROJECT

**Q. Please describe the purpose of the Project.**

A. As identified in Section 1.5 of the Application<sup>1</sup>, the purpose of the Project is to provide electric energy to the new Laketown Substation. The Laketown Substation will provide service to end users within Minnesota Valley Electric Cooperative's ("MVEC") service territory, which includes portions of Carver, Sibley, Scott, Rice, and LeSueur counties. The Project is needed to provide reliable electrical service to current and future end-use customers in the rapidly growing area near the Project.

**Q. When developing the Project's Proposed Route, did Great River Energy consider reliability?**

A. Yes. Section 4.2 of the Application describes route options that Great River Energy considered but did not pursue. The first option described would have interconnected with Xcel Energy's existing 115-kV transmission system. When my team reviewed that configuration, we did not recommend carrying it forward because this configuration 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. In comparison, the Proposed Route will allow for the distribution substations to be served more evenly between two different 115 kV circuits, resulting in less exposure and fewer outages to consumers due to a fault on either transmission circuit. Even though Great River Energy rejected this configuration due to these issues, I understand that it is nonetheless being studied as Route Alternative B in the EA.

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<sup>1</sup> Route Permit Application (Aug. 19, 2024) (eDocket No. [20248-209604-02](#)) ("Application").

### III. RELIABILITY ANALYSIS

**Q. Please describe the term “reliability.”**

A. Reliability of electrical service refers to the ability of both the transmission and distribution systems to maintain continuous and stable power delivery to consumers, taking into account expected outages of system elements. Reliability includes several factors such as redundancy, exposure to environmental and operational influences, and the ability to withstand system disturbances.

**Q. Please describe the proposed Laketown Substation transmission system.**

A. The proposed Laketown Substation will include two 115/12.47 kV distribution transformers (Laketown 1 and Laketown 2) separated by a 115 kV bus-tie breaker. The substation will be served from the Project.

**Q. Please describe the existing local 115 kV transmission system in the Project area.**

A. The current 115kV transmission system in the Project area includes 28 miles of transmission line and serves four distribution substations: Victoria, Augusta, Lake Bavaria, and West Creek. The Victoria and Augusta distribution substations are operated by MVEC. The Lake Bavaria and West Creek distribution substations are operated by Xcel Energy. The current 115kV transmission system is segmented by 115 kV breakers at the Scott County and West Waconia substations, which are both operated by Xcel Energy.

**Q. What is MVEC’s projected 2026-megawatt (MW) load at the Victoria and Augusta distribution substations?**

A. Without the proposed Laketown Substation, MVEC’s projected 2026 MW loads are as follows:

- Augusta Substation: 15.8 MW
- Victoria Substation: 14.2 MW

1 Incorporating the Laketown Substation, MVEC's projected 2026 MW loads at the  
2 Laketown, Augusta, and Victoria substations are as follows:

- 3 • Laketown Substation: 4.3 MW
- 4 • Augusta Substation: 12 MW
- 5 • Victoria Substation: 13.7 MW
- 6

7 **Q. Is the Proposed Route anticipated to reliably meet the need identified for the**  
8 **Project?**

9 A. Yes. The Proposed Route would provide improved reliability by reducing  
10 transmission exposure to the existing substations in the area and providing  
11 redundant service to the new Laketown substation.

12  
13 **Q. Can routing affect reliability?**

14 A. Yes. Certain routes can better divide the transmission system more than others.  
15 Splitting the transmission system into multiple circuits separated by breakers  
16 allows for a better ability to isolate a fault, therefore reducing the number of  
17 consumers affected and the duration of potential outages.

18  
19 **A. Are the Applicants reviewing the route alternatives studied in the EA for**  
20 **reliability?**

21 A. Yes. That analysis is underway and will be provided as part of the Applicants'  
22 forthcoming comments on the EA.

#### 23 24 **IV. CONCLUSION**

25  
26 **Q. Does this conclude your Direct Testimony?**

27 A. Yes.