BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Katie J. Sieben	Chair
Hwikwon Ham	Commissioner
Valerie Means	Commissioner
Joseph K. Sullivan	Commissioner
John A. Tuma	Commissioner

In the Matter of the Application of Great River Energy and Minnesota Power for a Certificate of Need and Route Permit for an Approximately 180-Mile, Double-Circuit 345-kV Transmission Line from Itasca County to Benton County, Minnesota

SERVICE DATE: March 6, 2024

DOCKET NO. E-015,ET-2/CN-22-416;
E-015,ET-2/TL-22-415

The above-entitled matter was considered by the Commission on February 29, 2024, and the following disposition made:

1. **Adopted the Department of Commerce, Energy Environmental Review and Analysis' (EERA) recommended scope of the environmental assessment as modified below.**

2. **Requested that EERA include in the scope of the environmental assessment all timely filed proposed routes except the following:**

    a. **Route I**
    b. **Winkleman's proposal**
    c. **COLA – Route D1**
    d. **COLA – Route D2**
    e. **Hillman Area – Route I**
    f. **COLA – Alignment Alternative 5**
    g. **LLA – Alignment Alternative 11**

3. **Requested that EERA study infrastructure stacking in the environmental assessment.**

4. **Requested that EERA include the following proposed routes for study in the environmental assessment:**

    a. **Route K**
    b. **Alternative Alignment 14**
    c. **Karen Burthwick 1**

The Commission agrees with and adopts the recommendations of the Department of Commerce, which are attached and hereby incorporated into the Order.[1] This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Will Seuffert
Executive Secretary

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[1] In addition to adopting EERA's recommended scope of the environmental assessment, the Commission requested that EERA study infrastructure stacking and proposed routes in the environmental assessment consistent with ordering paragraphs 2, 3, and 4. The Applicants and EERA supported the ordering paragraphs.

COMMERCE DEPARTMENT

February 13, 2024

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

RE: EERA Comments and Recommendations on the Scoping Process and Routing Alternatives for the Northland Reliability 345 kV Transmission Line Project, Docket Nos. E015, ET2/CN-22-416| E015, ET2/TL-22-415

Dear Mr. Seuffert,

Attached are comments and recommendations of Department of Commerce, Energy Environmental Review and Analysis (EERA) staff in the following matter:

> In the Matter of the Application of Minnesota Power and Great River Energy for a Certificate of Need and Route Permit for up to an approximately 180 mile, double-circuit 345 kV transmission line from Itasca County to Benton County, Minnesota

The application was filed on August 4, 2023, by:

Minnesota Power
Jim Atkinson
30 West Superior Street
Duluth, MN 55802
(218) 355-3561
jbatkinson@mnpower.com

Great River Energy
Dan Lesher
12300 Elm Creek Boulevard
Maple Grove, MN 55369
(763) 445-5975
dlesher@GREnergy.com

In accordance with the Commission's October 5, 2023, Order, EERA staff is providing the Commission with a scoping process summary for the Northland Reliability Project including routing alternatives. EERA staff is available to answer any questions the Commission may have.

Sincerely,

James E. Sullivan
Environmental Review Manager
Energy Environmental Review and Analysis Unit
Minnesota Department of Commerce

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BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

ENERGY ENVIRONMENTAL REVIEW AND ANALYSIS
COMMENTS AND RECOMMENDATIONS

NORTHLAND RELIABILITY PROJECT
DOCKET NO. E015, ET2/CN-22-416|E015, ET2/TL-22-415

Date: February 13, 2024

EERA Staff: Jim Sullivan | 651.539.1059| jim.sullivan@state.mn.us

In the Matter of the Application of Minnesota Power and Great River Energy for a Certificate of Need and Route Permit for up to an approximately 180 mile, double-circuit 345 kV transmission line from Itasca County to Benton County, Minnesota.

Issues Addressed: These comments and recommendations address the environmental assessment (EA) scoping process, the routing alternatives proposed during the scoping process, and those alternatives which Department of Commerce, Energy Environmental Review and Analysis staff (EERA) recommends for inclusion in the EA scope.

Documents Attached:
(1) Routing Alternatives Maps

Additional documents and information can be found on eDockets: https://www.edockets.state.mn.us/EFiling/search.jsp (TL-22-415, CN-22-416) and on the Department of Commerce's website: http://mn.gov/commerce/energyfacilities.

This document can be made available in alternative formats (i.e., large print or audio) by calling 651-296-0391 (voice).

Introduction

On August 4, 2023, Minnesota Power and Great River Energy (Applicants) filed a combined certificate of need and route permit application to construct and operate approximately 140 miles of new double-circuit 345 kV transmission line and to replace approximately 40 miles of existing transmission line with double-circuit 345 kV transmission line. The project would connect the existing Iron Range substation, near Grand Rapids, Minn., to a new Big Oaks substation near Monticello, Minnesota.[1]

[1] Minnesota Power and Great River Energy Certificate of Need and Route Permit Application for the Northern Reliability Project Transmission Line Project, August 4, 2023, eDockets Numbers 20238-198009-03 and 20238-198009-04 with attachments including maps found in eDockets Numbers 20238-198009-06 (through -20), 20238-

On October 5, 2023, the Minnesota Public Utilities Commission (Commission) accepted the application as complete and requested that the Department of Commerce (Department) submit to the Commission, for review and input, the route alternatives suggested during the environmental assessment (EA) scoping process.[2]

The subsequent comments detail the scoping process and route alternatives proposed during scoping. Following the Commission's review of these alternatives, and based on any Commission input, the Department will finalize and issue the scoping decision for the EA.

Proposed Project

The Applicants submitted a joint certificate of need and route permit application to the Commission for construction of the Northland Reliability Project (Project). The Applicants proposed a route that is located along existing high-voltage transmission lines for more than 85 percent of its length. By locating the Project next to existing high-voltage transmission lines and other existing rights-of-way, the Project can leverage existing corridors rather than creating new ones (Attachment 1, Map 1).

The Project consists of two major segments:

1. Segment 1: construction of a new, approximately 140 mile long, double-circuit 345 kilovolt (kV) transmission line connecting the existing Iron Range Substation, a new Cuyuna Series Compensation Station (described below), and the existing Benton County Substation; and
2. Segment 2: replacement of two existing high-voltage transmission lines:
    a. Replace an approximately 20 mile 230 kV line with two 345 kV circuits from the Benton County Substation to the new Xcel Energy Big Oaks Substation along existing high-voltage transmission right-of-way on double-circuit 345 kV structures; and
    b. Replace an approximately 20 mile 345 kV line from the Benton County Substation to the existing Xcel Energy Sherco Substation in Sherburne County along existing high-voltage transmission right-of-way using double-circuit 345 kV structures.

The Project will also involve the following improvements to the power grid:

1. Expansion of the existing Iron Range Substation, located near Grand Rapids, and expansion of the existing Benton County Substation, located near St. Cloud, and rerouting existing transmission lines at the Iron Range Substation and Benton County Substation; and
2. Construction of a new Cuyuna Series Compensation Station near the existing Riverton Substation and the rerouting of existing transmission line in the Riverton area.

198010-02 (through -20), 20238-198011-01 (through -17), 20238-198012-01 (through – 15), 20238-198013-01 (through -15), (hereinafter Application).

[2] Commission Order Accepting Applications as Complete and Establishing Procedural Requirements, October 5, 2023, eDockets Numbers 202311-200529-01 and 202311-200529-02 (hereinafter Commission Completeness Order).

Project Purpose

The Applicants indicate that the proposed Project will address transmission system reliability issues in central and northern Minnesota, particularly regional voltage, and transient stability issues. The Applicants note that the project will provide voltage support, improve transmission system strength, and provide local sources of power delivery. The Project will also increase the ability to move power across regions ensuring electric power resources during extreme weather events.

The Project was studied, reviewed, and approved as part of the Long-Range Transmission Plan Tranche 1 Portfolio by the Midcontinent Independent System Operator. The Project is anticipated to be in service by June 2030.

Regulatory Process and Procedures

The proposed Project requires two approvals from the Commission – a certificate of need and a route permit.[3] In its October 5th 2023, order, the Commission authorized joint hearings and combined environmental review for these two approvals.[4] Accordingly, Department of Commerce, Energy Environmental Review and Analysis (EERA) staff is preparing an environmental assessment (EA) that will inform Commission decisions on the Applicants' certificate of need and route permit applications. The first step in preparing the EA is scoping. The purpose of scoping is to provide citizens, local governments, tribal governments, and agencies an opportunity to focus the EA on those issues and alternatives that are relevant to the proposed project.[5]

Scoping Process Summary

Commission and EERA staff held a total of seven public information and EA scoping meetings. Six of the meetings were in-person, and one meeting was virtual. The in-person meetings began on October 23, 2023, at the Spang Town Hall, Hill City, Minnesota; followed by meetings on October 24, 2023, at Ironton and Brainerd, Minnesota; October 25, 2023, at Pierz and Clear Lake, Minnesota; and October 26, 2023, at Sauk Rapids, Minnesota. The virtual meeting was held on October 27, 2023. Total attendance at these meetings was approximately 232 persons.

Comments were received from 62 persons at these meetings, who expressed concern on a variety of potential impacts associated with the Project, including impacts to property value and land use, human health, satellite and mobile phone interference, noise, changes in the local aesthetic and quality of life, loss of habitat and wildlife, increased trespass, reduced climate resiliency due to tree loss, and the likelihood of future high voltage transmission lines in the area. [6]

A 47-day comment period, which began on October 5th, 2023, and closed on November 21, 2023, provided the public an opportunity to submit comments to EERA staff on potential impacts and mitigation measures for consideration during the EA scope development process. Comments were

[3] Ibid, p. 2.
[4] Ibid, Order #4, p. 4.
[5] Minnesota Rules, part 7850.3700, subpart 2.
[6] See 202311-200862-01 and 202311-200862-02.

received from one Tribal government,[7] two state agencies,[8] seven nonprofits,[9] the Applicants,[10] and from 65 citizens.[11] Several of these comments proposed specific route or alignment alternatives for consideration in the EA. In accordance with the Commission's October 5, 2023, order, public comments received prior to application acceptance were included with the EA scoping comments.[12]

After close of the comment period, EERA staff conferred with the Applicants and the Minnesota Department of Natural Resources (DNR) on proposed route alternatives for study in the EA, consistent with the Commission completeness order.[13] Additionally, the Applicants filed responses to public comments received during the scoping process.[14]

EERA Staff Analysis and Comments

When reviewing routing alternatives proposed during the scoping process, the Department is charged with including in the EA scope those alternatives which will "assist in the [Commission's] decision on the [route] permit application."[15] EERA staff initially analyzes proposed routing alternatives using five criteria:

1. Was the alternative submitted in a timely manner, i.e., prior to the end of the public comment period for scoping?
2. Does the alternative contain an explanation of why the route should be included in the EA?[16] EERA staff interprets this criterion to require that route alternatives, to be included in the scope

[7] Written Tribal Comments on the EA Scope received from the Leech Lake Band of Ojibwe (202311-200866-15 and 202311-200866-16) [hereinafter Tribal Comments].

[8] Written Agency Comments on the EA Scope: Minnesota Department of Natural Resources (202311-200866-09 and 202311-200866-10) [August 22, 2023 Minnesota Department of Natural Resources comment 20238-198420-01], and the Minnesota Department of Transportation (202311-200867-01 and 202311-200867-02) [hereinafter Agency Comments].

[9] Written Nonprofit Organization Comments on the EA Scope: Citizens Utility Board of Minnesota (202312-201585-01 and 202312-201585-02), Crow Wing County Historical Society (202311-200866-07 and 202311-200866-08), International Union of Operating Engineers – North Central States Regional Council of Carpenters (202311-200866-12 and 202311-200866-13), Laborers' International Union of North America (202311-200866-13 and 202311-200866-14), Minnesota Mississippi Parkway Commission (202311-200867-03 and 202311-200867-04), and the National Loon Center (202312-201583-01 and 202312-201583-02), and, No CAPX 2020 (20238-198415-02) [hereinafter Nonprofit Group Comments].

[10] Applicants' Comments on the EA Scope (202311-200866-17 and 202311-200866-18) [hereinafter Applicants' Comments].

[11] Written Citizen Comments on the EA Scope are found in eDocket numbers 202311-200421-01, 202311-200492-02, 202311-200662-01, 202311-200858-02 (through -18), 202311-200859-01 (through -17), 202311-200862-02, 202311-200866-02 (through -06), 202311-200867-05 (through -09), 202312-201003-02 (through -04), 202312-201003-02 (through -04), 202312-200984-01, 20235-195779-01, 20235-196183-02, 20237-197708-01, 20238-198274-02, 20238-198282-01, 20238-198595-01, 20238-198596-01, 20238-198597-01, 20238-198603-01, 20239-198898-01, 20239-199165-02, and, 20239-199245-01 (through -03) [hereinafter Written Public Comments].

[12] See Commission Completeness Order, Order #10, p. 4.

[13] Ibid, Order #7, p. 4.

[14] Applicants' Response Comments on EA Scope (202312-201101-02, 202312-200917-02).

[15] Minnesota Rule 7850.3700, Subpart 2, Item B.

[16] Minnesota Rule 7850.3700, Subpart 7.

of the EA, must mitigate a potential impact of the proposed project, and this mitigation must be, in general terms, explained by the proposer of the alternative.

3. Is the alternative outside of areas prohibited in Minnesota Rule 7850.4300 (e.g., state and national parks)?
4. Does the alternative meet the applicants' stated need for the project?
5. Is the alternative feasible? Can the alternative be constructed and is it permittable by state and federal agencies with authority for construction or operation of the project?

After utilizing these criteria, EERA staff then analyzes the remaining alternatives to determine if including them in the EA would aid in the Commission's decision on the route permit application. EERA staff compares each proposed alternative to other alternatives, if any, that could also avoid or mitigate the impact(s) described by the proposer. If the proposed alternative impacts relatively more human and environmental resources, it is likely that the proposed alternative would not aid in the Commission's decision on the route permit application.

EERA staff applied the criteria listed above to analyze proposed routing alternatives collected during the Project scoping process. All proposed alternatives are indicated on the attached maps (see Attachment 1) and discussed here. During the public scoping process, 25 route alternatives (Route), and 17 alignment alternatives (AA), were identified for the Project. An additional route and alignment alternative were provided after the close of the public comment period.

To aid in the discussion of route and alignment alternatives, the comments here are organized by geography. EERA staff has divided the project into seven, distinct study areas, designated by geographic names and presented from north to south (See Attachment 1, Map 2):

- Iron Range Substation Area (IRSA)
- Hill City to Little Pine Area (HCLPA)
- Cole Lake Area (COLA)
- Riverton Area (RIVA)
- Long Lake Area (LLA)
- Hillman Area (HILA)
- Benton County Elk River Corridor Area (BCERCA)

All the proposed route and alignment alternatives were timely received (with exceptions noted, below), provided adequate explanation of the mitigated impact(s), are outside the areas prohibited in Minnesota Rule 7850.4300, meet the stated need for the Project, and are feasible. As discussed further, below, EERA staff recommends that Alignment Alternative 5 (AA5), Alignment Alternative 11 (AA11), and Routes D1, D2, and I, not be carried forward for further study in the EA. A route alternative and an alignment alternative in the Long Lake Area were received six weeks after close of the public comment period (Route K and AA14). These alternatives, though not timely, could be included in the EA scope.

EERA staff recommends the following route and alignment alternatives for inclusion in the EA scope:

- Iron Range Substation Area (IRSA): Routes A1, A2, and A3; Alignment Alternative AA15.
- Hill City to Little Pine Area (HCLPA): Routes B and C; Alignment Alternatives AA1, AA2, and AA16.
- Cole Lake Area (COLA): Route D3; Alignment Alternatives AA3, AA4, and AA6.
- Riverton Area (RIVA): Routes E1 through E5, F, and G; Alignment Alternatives AA8 through AA10.
- Long Lake Area (LLA): Routes H1 through H7; Alignment Alternatives AA12, AA13, and AA17.
- Benton County Elk River Corridor Area (BCERCA): Routes J1 through J3.

The proposed route and alignment alternatives are summarized and presented in Table 1, with a visual overview provided in the Attachment 1 Maps.

Table 1. Routing Alternatives Recommend for Inclusion in the Scope of the EA

Routing Alternatives	Source
Routes A1 and A2	DNR
Route A3	Public
Route B	DNR
Route C	DNR
Alignment Alternatives 1 and 2	Public
Route D3	Public
Alignment Alternative 3	Applicant
Alignment Alternatives 4 and 6	DNR
Routes E1 and E2	Applicant/DNR
Routes E3 through E5	Public
Route F	Public
Route G	Public
Alignment Alternatives 7 and 8	DNR
Alignment Alternative 9	Applicants
Alignment Alternative 10	Public
Routes H1 and H2	DNR
Routes H3 through H7	Public
Alignment Alternatives 12 and 13	Public
Routes J1 through J3	DNR
Alignment Alternatives 15, 16, and 17	Public

Table 2. Routing Alternatives Not Recommended for Inclusion in the Scope of the EA

Routing Alternative	Source
Route I	Public
Alignment Alternative 5	Public
Alignment Alternative 11	Public
Route D1	Public
Route D2	Public

Table 3. Routing Alternatives after the Close of the Public Comment Period

Routing Alternative	Source
Route K	Public
Alignment Alternative 14	Public

Alternatives Recommended for Inclusion in the Scope of the EA

Iron Range Substation Area (IRSA)

The IRSA is the northernmost portion of the Project, located in Trout Lake and Blackberry Townships, Itasca County characterized by the interconnection with the Iron Range Substation (See Attachment 1, Map 3). The Project will be routed on Minnesota Power's property into the substation, with details determined as substation and transmission design are completed.[17] The Applicants indicate that the "Proposed Route in this location was chosen to minimize impacts to existing homes near County Road 10 and the Swan River."[18]

The DNR provided comment on this area, expressing concern over the Applicants' proposed Swan River crossings and the potential for adverse impacts to public lands, and offering two route alternatives.[19] A public comment was provided by Karen and Budd Burthwick, expressing their concern over potential impacts from the proposed Project, and offering a route alternative to abate these concerns. Jeffrey and Jamie Nelson provided an alignment alternative to address potential impacts to property values and natural resources.

[17] January 19, 2024, email from Mr. Brian Hunker, Project Manager, Great River Energy Northland Reliability, to Jim Sullivan, EERA, Department of Commerce, explaining the proposed Iron Range Substation route and connection details.

[18] November 21, 2023, Applicants' scoping comments, Northland Reliability Project, Environmental Assessment Scoping Comments & Proposed Alternative Routes, p. 5. 202311-200866-18

[19] November 21, 2023, Minnesota Department of Natural Resources comment letter, Evaluation Memorandum, p. 1, on the Northland Reliability Project EA scope. 202311-200866-10

IRSA - Route A

The DNR provided two route alternatives in response to the Applicants' proposed route: an eastern option (A1), and a western option (A2):

IRSA - Route A1

Route A1 follows the Applicants' proposed route but shifts to the west of the state property and onto the Applicants' property at the northern Iron Range Substation terminus. This alternative turns south and crosses County Road 10 southeast of the Applicants' proposed route, then follows County Road 221 south, crossing the Swan River at a previously disturbed bridge crossing. This route would minimize or reduce impacts to riparian habitat and floodplain.[20] (See Attachment 1, Map 3-1). Per their scoping comment, this is the DNR's preferred route in this area of the Project. EERA staff recommends that this route alternative be carried forward for further study in the EA.

IRSA - Route A2

Route A2 follows the Applicants' proposed route, shifting to the west of the state property and onto the Applicants' property at the northern Iron Range Substation terminus, turning south and crossing County Road 10 southeast of the Applicants' proposed route, then following County Road 445, connecting to a long driveway/edge of an agricultural field south, then crossing the Swan River. (See Attachment 1, Map 3-2). From the DNR scoping comment, this crossing is considered less impactful than the Applicants' proposed route which consists of a longer swath of riparian habitat and floodplain.[21] EERA staff recommends that this route alternative be carried forward for further study in the EA.

IRSA – Route A3

Karen and Budd Burthwick provided a route alternative to address property value and future land use impacts (Route A3). Route A3 follows "the existing Minnesota power line that comes from the North and crosses Hwy #10 at an angle going Southwest past some homes on the North side of the Swan River. It then comes up over the hill across our property continuing Southwest and over County Road 434, where the road runs West to East, (this road then turns North, goes over the Swan River and Hwy #10, to the project). After crossing County 434, to the South and West of our home, it then continues South across an 80-acre swampland" and "when it gets to the Swamp on the South side of County 434, the line would have to be adjusted to the East" to miss a nearby resident (See Attachment 1, Map 3-1).[22] The Burthwick's maintained that their proposed Route A3 would require a westward adjustment to avoid the existing homes north of the Swan River and to ensure it remains unobtrusive to the current residents. EERA staff recommends that this route alternative be carried forward for further study in the EA.

[20] November 21, 2023, Applicants' scoping comments, Northland Reliability Project, Environmental Assessment Scoping Comments & Proposed Alternative Routes, p. 1. 202311-200866-18

[21] November 21, 2023, Minnesota Department of Natural Resources comment letter, Evaluation Memorandum, p. 1. 202311-200866-10

[22] September 12, 2023, public comment received from Ms. Karen and Mr. Budd Burthwick, on the Northland Reliability Project EA scope. 20239-198898-01

IRSA – AA15

Jeffrey and Jamie Nelson provided an alignment alternative located just south of the Iron Range Study Area (AA15, Attachment 1, Map 3-3). Their comment presented impact concerns related to property value, loss of timber and other natural resources, EMF exposure, and gate and fence replacement. They explained that their proposed alignment alternative "could be placed on the opposite side of the current transmission line on land that is Itasca County tax forfeit land and would not have the same negative impact."[23]

EERA staff notes that AA15 requires crossing over existing transmission infrastructure and then crossing back. These crossings introduce construction, maintenance, and reliability concerns along with additional costs. EERA staff believes that whether these concerns and costs are balanced by the putative benefits of utilizing tax forfeit land is an open question. Additionally, it may be that the inclusion of AA15 in the EA scope suggests other mitigation measures – measures other than crossing existing transmission lines – that could be responsive to the Nelson's concerns. On whole, EERA staff recommends that this alignment alternative be carried forward for further study in the EA.

Hill City to Little Pine Area (HCLPA)

The HCLPA is an approximately 33-mile section of the Project (See Attachment 1, Map 4-1), and covers portions of Aitkin and Crow Wing counties. EERA received three scoping comments on this section of the Project: the DNR, Mr. Tom Hendrickson, and Mr. David Peterson. The DNR identified two route alternatives – the Hill City to Swatara alternative (Route B), and Mud Brook Riparian alternative (Route C). Mr. Tom Hendrickson provided two alignment alternatives (AA1 and AA2). Mr. David Peterson also provide an alignment alternative (AA16).

HCLPA – AA16

An alignment alternative was provided by Mr. David Peterson, which would combine the proposed Project with an existing 115 kV and 230 kV transmission line (AA16) to mitigate environmental and aesthetic impacts to individual landowners (Attachment 1, Map 4-2). Mr. Peterson described this location, writing "The 100-KV line joins the easement Southeast of Blackberry, MN and runs parallel to the 230-KV line for approximately 10 miles where it exits the easement south of Split Hand Lake. With the proposed 345-KV line that makes 3 separate power lines in that 10 mile section of the easement."[24] His proposed alignment alternative would join with this length of existing transmission line to leverage existing land use and easements. EERA staff recommends that this alignment alternative be carried forward for further study in the EA.

HCLPA – Route B

The DNR proposes using a route previously reviewed but rejected by the Applicants,[25] herein referred to as Route B, emphasizing its potential to significantly diminish impacts on sites of biodiversity

[23] August 15, 2023, public comment received from Mr. Jeffrey and Ms. Jamie Nelson on the Northland Reliability Project EA scope. 20238-198282-01

[24] November 3, 2023, public comment received from Mr. David Peterson on the Northland Reliability Project EA scope. 202311-200858-14

[25] From the Combined Certificate of Need and Route Permit Application for the Northland Reliability Project, August 4, 2023, p. 147, the Applicants explained that the "Rejected Route Alternative that follows Minnesota

significance, such as Moose Willow Peatlands North. This alternative aims to minimize adverse effects on rare Natural Plant Communities (NPCs), potential Rare Natural Communities (RNCs), various wetlands, and sensitive soils, contributing to the reduction of detrimental impacts on rare species and their habitats. Importantly, it eliminates further encroachment onto Moose Willow Wildlife Management Area (WMA) and reduces state land crossing distance from over 10 miles to approximately 7.5 miles (See Attachment 1, Map 4-3).

The DNR maintains that Route B is expected to curtail impacts on current and future timber resources and avoid impacts to the School Trust Fund lands. The DNR also maintains that the route proposal seeks a comprehensive approach to balance infrastructure development with environmental conservation, addressing concerns related to biodiversity, rare species, and the sustainable use of natural resources.

The Applicants rejected this route in their application for two reasons: "because it is located 0.3 miles north of the Hill City-Quadna Mountain Airport, close enough in proximity to adversely impact airport operations. In addition, there are more residences within 1,000 feet of the 11 Line than the 92 Line and it is adjacent to a rural subdivision centered around McKinney Lake."[26] EERA staff recognizes the concerns with Route B noted by the Applicants. This said, EERA staff believes Route B would aid in the Commission's decision on a route permit. Potential impacts to the Hill City-Quadna Mountain Airport could be mitigated by specialty structures that are consistent in height with the existing 11 and 92 Lines.

EERA staff believes additional evaluation of potential impacts to residences along Route B – as compared with the Applicants' proposed route and with impacts to natural resources in the area – would aid in the Commission's decision on a route permit. EERA staff recommends that this route alternative be carried forward for further study in the EA.

HCLPA – Route C

The DNR's scoping comment also proposes using Route C in this area, a route alternative that follows existing roads and disturbed corridors. DNR notes that Route C reduces the number of public water crossings from a concentrated cluster of five public water crossings, to two, less impactful crossings, thereby eliminating a public water wetland crossing. (See Attachment 1, Map 4-4). The DNR scoping comment explains that Route C would be a considerable impact reduction to the Upper Dean Lake MBS site of high biodiversity significance, which includes an abundance of sensitive soils, riparian habitat, floodplain, wetlands, and unique habitat. They further add that crossings of six State Trust Fund land parcels administered by the DNR's Division of Forestry could be avoided.[27] EERA staff recommends that this route alternative be carried forward for further study in the EA.

Power's existing 11 Line from where it deviates from the 92 Line in Section 2 of Northwest Aitkin Township, 0.4 miles south of the Itasca/Aitkin County Line, for approximately 26 miles before it rejoins the 92 Line corridor, in Section 26 of Little Pine Township."

[26] Ibid.

[27] Ibid, p. 3.

HCLPA – AA1

EERA received a scoping comment from Mr. Tom Hendrickson proposing alignment alternative AA1.[28] (See Attachment 1, Map 4-5). Mr. Hendrickson maintains that AA1 would avoid property where future building is planned. In addition, Mr. Hendrickson suggested that all new and existing lines should be consolidated. EERA staff recommends that this alignment alternative be carried forward for further study in the EA.

HCLPA – AA2

EERA received a second alignment alternative from Mr. Hendrickson (AA2), which departs the Applicants' proposed route, avoiding the Hendrickson property, and rejoins the Applicants' route following state road Minnesota 6 (See Attachment 1, Map 4-5). Mr. Hendrickson maintains that this alignment would be capable of mitigating impacts to personal property and future development. EERA staff recommend that this alignment alternative be carried forward for further study in the EA.

Cole Lake Area (COLA)

The COLA is located along the midpoint of the Project, in Wolford Township, Crow Wing County (See Attachment 1, Map 5-1). COLA's southern portion extends into the northern edge of the Riverton area, containing three proposed route alternatives and four alignment alternatives. Scoping comments were received from the Applicant, the DNR, and a member of the public, Mr. Donald Boucher, collectively presenting three route alternatives and four alternative alignments.

COLA - Route D

The general Route D area is located near Cole Lake, in Wolford Township, Crow Wing County (See Attachment 1, Map 5-2). Route D was presented in three versions, Routes D1 through D3, by Mr. Donald Boucher. EERA staff recommends that only Route D3 be carried forward for further study in the EA. Staff recommends that Routes D1 and D2 not be carried forward (discussed below).

COLA – Route D3

Mr. Donald Boucher proposed a route alternative (Route D3) which departs from the Applicants' proposed route on the east, heading due south for approximately two miles, then turning due west to reconnect with the Applicants' proposed route for approximately one and one-third miles (See Attachment 1, Map 5-2). Route D3 crosses an undeveloped parcel of land currently owned by Manganese Properties, LLC., with potential plans for future development. This route alternative is offered to reduce potential adverse aesthetic, land use, and property value impacts.[29] EERA staff recommend that this route alternative be carried forward for further study in the EA.

[28] October 25, 2023, public comment received from Mr. Tom Hendricks on the Northland Reliability Project EA scope. 202311-200858-08

[29] October 24, 2023, public comment on the Northland Reliability Project from Mr. Donald Boucher, to Jim Sullivan, EERA, Minnesota Department of Commerce. 202311-200859-03

COLA – AA3

During the EA scoping meetings, numerous landowners with properties on or near Cole Lake expressed a preference for the Project's route to align with Minnesota Power's existing 115 kV lines (13 Line and 11 Line) and 230 kV line (92 Line) in the area. In response, the Applicants introduced an alignment alternative known as the "Cole Lake Way Alignment Alternative," (AA3) (See Attachment 1, Map 5-3).[30]

AA3 involves consolidating the 11 Line and 92 Line on the same structures, facilitating the placement of the Project on the right-of-way currently utilized by the 92 Line in this area. Co-location of the 11 Line and the 92 Line is not the Applicants' preferred choice; however, they indicate that it is a feasible albeit more costly alternative aimed at addressing public concerns in this area of the Project. The Applicants explained that this alignment alternative would locate the Project closer to existing residences than the proposed alignment.[31] EERA staff recommends that this alternative alignment be carried forward for further study in the EA.

COLA – AA4

The DNR provided an alignment alternative (AA4), noting that it offers a significant reduction in required right of way (ROW) clearing, as it both aligns with the existing ROW and has the potential to share portions of the current ROW (See Attachment 1, Map 5-4). The DNR notes that stacking infrastructure in this area is seen as a preventative to prolonged impacts on private property. They argue that adopting AA4 would not only sidestep any repercussions on the Rabbit Lake Uplands MBS site of biodiversity significance but would also steer clear of the wetland impacts associated with the Applicants' proposed route.

Furthermore, the DNR emphasized that AA4 comes with the added benefit of avoiding impacts on a section of forestry-administered lands, preserving current and future timber production. It is considered a less intrusive option for the existing habitat compared to introducing an entirely new corridor across intact blocks of habitat. EERA staff recommends that this alternative alignment be carried forward for further study in the EA.

COLA – AA6

Alignment alternative AA6 was suggested by the DNR (See Attachment 1, Map 5-4). The DNR maintains that this alternative would reduce the amount of clearing needed since it runs adjacent to a road, Cole Lake Way, as well as avoiding wetland impacts resulting from the Applicants' proposed route. AA6 would also avoid impacts to a portion to DNR Forestry administered lands and current/future timber production. The DNR offered that AA6 would not be favorable for the state managed timber stands that it crosses; however, this alternative would reduce impacts to the Rabbit Lake Uplands MBS site of biodiversity significance and be less impactful to the habitat by comparison to the Applicants' current

[30] January 25, 2024, email from Mr. Brian Hunker, Project Manager, Great River Energy Northland Reliability, to Jim Sullivan, EERA, Department of Commerce, characterizing alternative alignment AA3 as "a tie-line between the Cole Lake Way Route Alternative and the Cuyuna Series Compensation Station."

[31] November 21, 2023, Applicants' scoping comments, Northland Reliability Project, Environmental Assessment Scoping Comments & Proposed Alternative Routes, p. 3. 202311-200866-18

proposal.[32] EERA staff recommends that this alternative alignment be carried forward for further study in the EA.

Riverton Area (RIVA)

The RIVA is located south of, and slightly overlaps, the southern edge of the COLA, along the Project midpoint (Attachment 1, Map 6-1). It is characterized by the Town of Riverton and the Cuyuna Country State Recreation Area, in Crow Wing County, and has garnered the highest volume of public comments. This area features seven proposed routes and four alignment alternatives. EERA received comments from the Applicants, DNR, Mr. Troy Turcotte, Ms. Marla Britton and Ms. Debra Woitalla, Nancy and Jerry Doucette, Mr. Dan Eller, a member of the public identified by email address, and a group of Hay Lake property owners represented by Ms. Kate Swanson.

RIVA – Route E

Route E features five proposed route alternatives around the Riverton area, offered through scoping comments from the Applicants, DNR, and the public, to alleviate potential impacts to high value natural resources and natural recreational areas, as well as aesthetics and personal property (See Attachment 1, Map 6-2 and 6-3).

RHLA – Route E1

The Applicants and DNR proposed a route alternative (Route E1) that follows existing Minnesota Power and Great River Energy transmission line routes in the Riverton area (See Attachment 1, Maps 6-2 and 6-3). Route E1 follows approximately seven miles of the current line, that DNR explains avoids any impact on the Cuyuna Country State Recreation Area. Despite this route having been initially reviewed and dismissed by the Applicants in their August 4, 2023, application, the DNR maintains that there are strategic advantages in analyzing this route alternative, as it circumvents a state land parcel near the proposed Cuyuna Series Compensation Station. They further argue that the state land crossing is unnecessary, given the company's ownership of adjacent property.

Route E1 crosses the western edge of the Cuyuna Country State Recreation Area. The DNR has determined that this location is already exposed to visual and ecological impacts. Choosing Route E1 prevents subjecting an unaffected part of the recreation area to new impacts and eliminates the need for a crossing at the Irondale 36 MBS high biological significance site. While acknowledging that Route E1 encroaches further onto the Loerch WMA, the DNR anticipates that creating a new right of way to the east would have greater impacts on wildlife compared to following the existing transmission lines in this location. Examining the west side of the Sagamore unit, existing trails are not likely to be affected, as a steep hill separates them from the anticipated project location.

The Applicants have explained Route E1 would require a significant effort to construct and will require substantial modifications of existing transmission lines in the area, as well as removal of the existing Riverton substation and re-routing and configuring of connections to a new, relocated Riverton substation.[33] Route E1, referred to by the Applicants as the Riverton Route Alternative, would use the

[32] Ibid, p. 7.

[33] The Applicants have provided Project details outlining the necessary modifications and reconfigurations to facilitate the Riverton Route Alternative, referred to as Route E1. These details encompass transmission line

existing 230 kV 92 transmission line route, with the new 345 kV line taking over the old 230 kV 92 line for approximately one and one-half miles until it crosses Little Rabbit Lake. The existing 230 kV 92 line would be relocated and consolidated with an existing 115 kV line in a nearby existing corridor. EERA staff recommends that this route alternative be carried forward for further study in the EA.

RHLA – Route E2

Route E2, proposed by the DNR, commences at Township 46 North, Range 29 West, Section 7, diverging southeast at a distinct angle from the Applicants' proposed route. It then progresses south along the Applicants' proposed route, trending southeast towards Hay Lake. It maintains a direct southern trajectory along County Road 128, spans over Snowshoe Mine Pit, traverses Highway 59, and eventually crosses Highway 210. The route then adopts a southwest orientation to connect with the Applicants' proposed route (See Attachment 1, Maps 6-2 and 6-3).

Route E2 avoids traversing state land managed by the DNR's Division of Forestry, particularly in proximity to the Project's proposed Cuyuna Series Compensation Station, located in Section 7 of Irondale Township, Crow Wing County.[34] Route E2 aligns with the DNR's objective of limiting new infrastructure, where possible, to the land already owned by the Applicants, thereby mitigating public land impacts. Notably, Route E2 steers clear of Hay Lake, mitigating encroachment and preserving the integrity of public water, ecology, hydrology, and visual aesthetics.

While acknowledging a slight encroachment onto the Loerch WMA, DNR maintains that Route E2 minimizes wildlife impacts compared to the installation of a new swath of ROW to the east. Despite potential visual impacts on the east side of the Sagamore unit, a prominent recreation gateway, the decision to follow the existing road is deliberate, aimed at reducing the overall impact on natural resources. Furthermore, DNR argues that the proposed route avoids disruptions to public water accesses at Hay Lake, Snowshoe Lake, and Little Rabbit Lake. EERA staff recommends that this route alternative be carried forward for further study in the EA.

RHLA – Route E3

Route E3 was proposed by a member of the public. [35] Route E3 generally follows Route E1; however, it trends to the southeast approximately one-third mile south of State Highway 210, where it departs Route E1, travels approximately one-mile to the southeast, crossing Hay Creek, and then reconnecting with the Applicants' proposed route (See Attachment 1, Maps 6-2 and 6-3). Route E3 was offered to mitigate and avoid impacts to cabins on Hay Lake. EERA staff recommend that this route alternative be carried forward for further study in the EA.

routes and substation connections, as offered in their comment letter dated November 21, 2023. For specific information regarding the Riverton Substation, please refer to page 6 of the Applicants' comment letter.

[34] The proposed Project Cuyuna Series Compensation Station details are not yet completed; however, general siting details for this Project element are identified on Maps 6-2 and 6-3, Attachment 1.

[35] October 20, 2023, and November 20, 2023, public comments from MrOakdale@aol.com on the Northern Reliability Project EA scope. 202311-200866-04

RHLA – Route E4

During the public comment period, a group identified as the Hay Lake Property Owners provided a scoping comment that presented a route alternative (Route E4) which they argue would reduce the impact to human settlement and wildlife habitat on Hay Lake.[36] The overall route length is 11 miles, with two Mississippi River crossings. Route E4 begins at the Applicants' proposed route southwest of the Cole Lake area, heading southwest following the Misty Trail orientation, then shifting to a more southerly orientation for approximately two and one-half miles. North of Sunde Road, Route E4 begins a sinuous path edging to the west where two Mississippi River crossings are required, eventually rejoining with Route E1 to the east. Route E4 follows Route E1 until it terminates north of Woodrow Road, rejoining the Applicants' proposed route (See Attachment 1, Maps 6-2 and 6-3). EERA staff recommends that this route alternative be carried forward for further study in the EA.

RHLA – Route E5

The Hay Lake Property Owners submitted a second route alternative (Route E5) to avoid Hay Lake and surrounding property.[37] Route E5 departs the Applicants' proposed route through a westward three and half mile long path that features two Mississippi River crossings, rejoining Route E1 until it reconnects with the Applicants' proposed route. Route E5 is approximately eight and one-half miles in length and is a shorter version of Route E4 (See Attachment 1, Maps 6-2 and 6-3). The Hay Lake Property Owners maintain that Route E5 will alleviate impacts to property values, aesthetics, and wildlife habitat. EERA staff recommends that this route alternative be carried forward for further study in the EA.

RHLA – AA7

Alignment alternative AA7 was proposed by the DNR; AA7 starts southeast of the Applicants' proposed route in Township 46 North, Range 29 West, Section 7.[38] It then aligns southward along the Applicants' route, avoiding a state land near the proposed Project Cuyuna Series Compensation Station (See Attachment 1, Map 6-4). The DNR explains that AA7 avoids unnecessary state land crossing as the Applicants owns adjacent property and aims to contain infrastructure on the Applicants' property, minimizing encroachment on public land. From DNR's perspective, AA7 avoids Hay Lake, eliminating damage to ecology, hydrology, and visual quality.

DNR recognizes that although AA7 encroaches on Loerch WMA, they maintain it is less impactful than a new right-of-way to the east. According to the DNR, the east side of the Sagamore unit, a recreational trailhead, might experience visual impacts, but following the existing road reduces disruption to natural resources. Considerations include avoiding impacts on public water accesses at Hay Lake, Snowshoe Lake, and Little Rabbit Lake. EERA staff recommends that this alignment alternative be included for further study in the EA.

[36] November 20, 2023, public comments on the Northland Reliability Project EA scope from Hay Lake Property Owners (Ms. Kate Swanson). 202312-201003-02 and 202312-201003-04

[37] Ibid.

[38] November 21, 2023, Minnesota Department of Natural Resources comment letter, Evaluation Memorandum, p. 10. 202311-200866-10

RHLA – AA8

The DNR proposed an alignment alternative (AA8) that follows County Road 59 along the eastern side of the road, to avoid disturbance and impacts of the Cuyuna Recreational Area (See Attachment 1, Map 6-5).[39] AA8 is approximately one and two-thirds miles in length and is oriented in a north-south direction. EERA staff recommends that this alignment alternative be included for further study in the EA.

RHLA – AA9

Similar to AA8, the Applicants have proposed an alignment alternative (AA9) on the western edge of County Road 59.[40] AA9's orientation and length are similar to the AA8 (See Attachment 1, Map 6-5). However, AA9 is proposed along the western edge or County Road 59. AA9 was suggested as a means to mitigate potential impacts to the Cuyuna Recreational Area. EERA staff recommends that this alternative alignment be included for further study in the EA.

RHLA – AA10

An alternative alignment (AA10), proposed by Mr. Dan Eller during the public comment period, begins about a quarter mile north of Woodrow Road, and extends west, perpendicular to the Applicants' proposed alignment for approximately three quarters of a mile, then due south for about a quarter of a mile until it resumes connection with the Applicants' proposed alignment (See Attachment 1, Map 6-6). Mr. Eller proposed AA10 to avoid his property as the Applicants' proposed alignment would cut his property in half and impact his buildable land, thereby impacting property value and land use.[41] ERRA staff recommends that this alignment alternative be included for further study in the EA.

RHLA – Route F

During the public comment period, Nancy and Jerry Doucette proposed a route alternative (Route F) that they believe would reduce the amount of tree removal and habitat degradation. Route F departs the Applicants' proposed route approximately one-quarter mile south of Woodrow Road, traveling south for approximately two and one-half miles, before rejoining the Applicants' proposed route (See Attachment 1, Map 6-6).[42] EERA staff recommends that this route alternative be included for further study in the EA.

RHLA – Route G

Mr. Troy Turcotte, along with a comment submitted by Ms. Marla Britton and Ms. Debra Woitalla, provided a route alternative (Route G) between Oak Lawn and Nokay Lake Township that would avoid residential areas near the Applicants' proposed route.[43] Route G would follow the existing right of way,

[39] Ibid, p. 9. 202311-200866-10
[40] November 21, 2023, Applicants' scoping comments, Northland Reliability Project, Environmental Assessment Scoping Comments & Proposed Alternative Routes, p. 3. 202311-200866-18
[41] November 8, 2023, comment from Mr. Dan Eller on the Northland Reliability EA scope. 202311-200858-04
[42] October 24, 2023, and November 20, 2023, comments received from Mr. Jerry and Ms. Nancy Doucette on the Northland Reliability Project EA scope. 202311-200858-04
[43] October 24, 2023, comment received from Mr. Troy Turcotte on the Northland Reliability Project EA scope. 202311-200858-18; October 24, 2023, comment received from Ms. Marla Britton and Ms. Debra Woitalla, on the Northland Reliability Project EA scope. 202311-200858-04

then cross along the edges of agricultural fields (See Appendix 1, Map 6-7). The overall route length is approximately three and three-quarter miles. EERA staff recommends that this proposed route alternative be carried forward for further study in the EA.

Long Lake Area (LLA)

The LLA is located east of the Upper and Lower Long Lakes, in Maple Grove Township, Crow Wing County, south of the RHLA (See Attachment 1, Map 7-1). According to the DNR, an Aquatic Management Area, a substantial wetland complex, and portions of the Nokasippi Lakes and Dagget Brook MBS are notable features within this evaluation area.[44] This area includes seven proposed route alternatives and four alignment alternatives, from the Applicant, the DNR, Mr. Stan Erickson, Kevin and Linda Schilling, Greg and Doris Finch, Mr. John McElfresh, and Mr. Brent Hayes.

LLA – Route H

The LLA – Route H grouping contains seven route alternatives along with four alignment alternatives (See Attachment 1, Map 7-2).

LLA – Route H1

Route H1, suggested by the DNR, shifts eastward from the Applicants' proposed route, running north of North Long Lake, then follows an alternative transmission line corridor north of County Road 24 SE for 0.25 miles, eventually heading south along Schilling Road for 2 miles before turning southwest for 1.9 miles back to the Applicants' proposed route (See Attachment 1, Map 7-2). The DNR maintains that Route H1 avoids the Wolvert's Aquatic Management Area (AMA) minimizing impacts on wetlands and biodiversity at Dagget Brook MBS site. The DNR acknowledges that despite introducing a new corridor in an undisturbed area, Route H1 significantly reduces impacts compared to the Applicants' proposed route and avoids all state-managed School Trust Fund lands.[45] EERA staff recommends that this proposed route alternative be carried forward for further study in the EA.

LLA – Route H2

Route H2, also suggested by the DNR, proceeds eastward from the Applicants' proposed route, closely tracing the edges of agricultural fields and uplands for 1.2 miles, then heading south along Highway 8 for 1.75 miles, continuing to Highway 108, and reaching County Road 22 SE. Here, Route H2 turns west for 2.75 miles, eventually intersecting with an existing transmission line and proceeds south to reconnect with the Applicants' proposed route (See Attachment 1, Map 7-2).

The DNR explains that Route H2 steers clear of Wolvert's AMA, avoiding significant wetland and forested areas by running alongside the roadway instead of creating a new corridor. They also indicate that Route H2 reduces impacts on the Dagget Brook MBS site of biodiversity significance and minimizes effects on the Nokassippi Lakes MBS site, and entirely avoids the state-managed School Trust Fund lands affected

[44] November 21, 2023, Minnesota Department of Natural Resources comment letter, Evaluation Memorandum, p. 12, on the Northland Reliability Project EA scope. 202311-200866-10

[45] November 21, 2023, Minnesota Department of Natural Resources comment letter, Evaluation Memorandum, p. 12. 202311-200866-10

by the Applicants' proposed route.[46] EERA staff recommends that this route alternative be carried forward for further study in the EA.

LLA – Route H3

Route H3, provided by Mr. Stan Erickson during the public comment period, is located east of the Upper and Lower Long Lakes, and departs the Applicants' proposed route approximately one-eighth mile south of County Road 24, in a southeast direction, for approximately three-quarters of a mile. From there, it trends back to the southwest approximately one and three-quarter miles to rejoin the Applicants' proposed route (See Attachment 1, Map 7-2).[47] Route H3 is proposed to avoid impacts to land owned by Mr. Erickson, which is enrolled in the Minnesota Sustainable Forest Incentive Act (SFIA). EERA staff recommends that this route alternative be carried forward for further study in the EA.

LLA – Route H4

Greg and Doris Finch provided a route alternative (Route H4) during the public comment period that would avoid private property by re-routing the Applicants' proposed route through tax-forfeited land in Maple Grove Township (See Attachment 1, Map 7-3).[48] The Applicants' proposed route trends in a north-south direction at this location, approximately one-mile east of County Road 108, crossing County Road 22 to the south, for approximately one-mile, then turning 90 degrees to the west for approximately one and three-quarter miles.

Route H4 removes the 90-degree turn by inserting a line approximately one and quarter mile north of the County Road 22 and 108 intersection (then east one mile), which connects back to the Applicants' proposed route, approximately one and one-half miles along the Applicants' western route orientation. The proposed route length is approximately two and one-fifth miles. EERA staff recommends that this route alternative be carried forward for further study in the EA.

LLA – AA12

In addition to Route H4, Greg and Doris Finch provided an alignment alternative (AA12), received during the public comment period, which shifts the Applicants' proposed alignment to the east approximately one-quarter mile (See Attachment 1, p. Map 7-3).[49] This alignment would avoid the Finch's property and reduce visual or health-related impacts as well as maintain existing wildlife habitat conditions. EERA staff recommend that this alignment alternative be carried forward for further study in the EA.

[46] Ibid, p. 12. 202311-200866-10
[47] November 15, 2023, comments from Mr. Stan Erickson on the Northland Reliability Project EA scope. 202311-200866-02
[48] November 8, 2023, and November 15, 2023, comments from Mr. Greg and Ms. Doris Finch on the Northland Reliability Project EA scope. 202311-200858-06
[49] Ibid. 202311-200858-06

LLA – Routes H5 through H7

In his scoping comment, Mr. John McElfresh provided three distinct route alternatives (H5, H6, and H7), and one alignment alternative (AA13), described below. All the proposed McElfresh alternatives are proposed to mitigate impacts to property and wildlife habitat by following tax-forfeited land.[50]

- Route H5 modifies the Applicants' proposed route near the intersection of County Road 108 and 22, in Maple Grove Township (See Attachment 1, Map 7-3). Mr. McElfresh indicates that Route H5 crosses tax-forfeited land, mitigating impacts to private property and wildlife habitat.

- Route H6 uses existing transmission lines and tax-forfeited lands to mitigate impacts to private property and wildlife habitat. Route H6 begins where the Applicants' proposed route crosses County Road 22, following the road right of way for approximately one-half mile to the west, combining with an existing transmission line for approximately another one-half mile to the west, then south, crossing tax-forfeited land, to rejoin the Applicants' proposed route (See Attachment 1, Map 7-3). Mr. McElfresh indicates that Route H6 crosses tax-forfeited land, mitigating impacts to private property and wildlife habitat.

- The third route alternative proposed by Mr. McElfresh, Route H7, proceeds south from the Applicants' proposed route approximately one-half mile, crossing some private land holdings and tax-forfeited land (See Attachment 1, Map 7-3). Mr. McElfresh notes that Route H7 crosses tax-forfeited land, mitigating impacts to private property and wildlife habitat.

- Mr. McElfresh also proposed an alignment alternative (AA13) that is similar to Route H7 and is located approximately one-quarter mile north of Route H7. Consistent with Mr. McElfresh's three route proposals, Mr. McElfresh indicates that AA13 mitigates impacts to private property and wildlife habitat (See Attachment 1, Map 7-3).

EERA staff recommends that Mr. McElfresh's three route alternatives and one alignment alternative be carried forward for further study in the EA.

LLA – AA17

Mr. Brent Hayes provided an alignment alternative to save trees in the area (AA17).[51] AA17 is located where the proposed Project route crosses County Highway 2, in Crow Wing County, Platte Lake Township, and shifts the Applicants' proposed alignment to the west approximately 80 yards, beginning north of County Highway 2, extending south for approximately one mile, then rejoining the Applicants' proposed Project (Attachment 1, Map 7-4).

AA17 presents construction, maintenance, and reliability concerns similar to those noted for AA15 (discussed above). On whole, EERA staff recommends that this alignment alternative be carried forward for further study in the EA.

[50] September 28, 2023, and October 25, 2023, comments from Mr. John McElfresh on the Northland Reliability Project EA scope. (September 28, 2023) 202311-200867-05; (October 25, 2023) 202311-200859-17.

[51] October 24, 2023, public comment received from Mr. Brent Hayes on the Northland Reliability Project EA scope. 202311-200858-06

Benton County Elk River Corridor Area (BCERCA)

The BCERCA extends approximately 10 miles from the Popple Creek area, Mayhew Lake Township, Benton County, extending south along the Elk River to the southern boundary of Benton County. The DNR provided three route alternatives (J1, J2, and J3) for consideration in this area (See Attachment 1, Map 8-1). The primary DNR concerns are tree clearing near the river and adverse impacts due to a loss of riparian habitat, and river crossings.[52]

BCERCA – Route J1

The DNR notes that Route J1 avoids 14 Elk River crossings and multiple pole structures in the Elk River's 100-year floodplain, and bypasses residential structures and pivot irrigation, closely following existing roads (See Attachment 1, Maps 8-2 and 8-3). Deviating from the Applicants' proposed route, Route J1 initially heads west along 75th Street NE for 0.5 miles, then turns south onto 55th Avenue NE, covering a two-mile distance. Upon reaching 55th Street NE, facing a one-mile stretch of agricultural fields or pasture, the alternative angles slightly south around residences, then follows a westward half-mile-wide corridor.

Continuing, Route J1 merges with Golden Spike Road NE, traveling south for 0.8 miles. To accommodate the higher residential density along Golden Spike Road, a wider route width (0.5-miles) allows flexibility for routing. Route J1 follows the curve of Golden Spike Road, angles across an agricultural field, intersects with 55th Avenue NE for 0.33 miles, turns east along 35th Street NE, and finally reconnects with the Applicants' proposed route.[53] EERA staff recommends that this route alternative be carried forward for further study in the EA.

BCERCA – Route J2

Route J2 continues south after crossing Golden Spike Road NE, departing from the Applicants' proposed route. Navigating through an agricultural field, it aligns with 25th Street NE for approximately 1.25 miles, avoiding the Elk River corridor and residential structures. As 25th Street NE turns sharply west, Route J2 crosses agricultural fields and pastures for one mile before reaching MN Trunk Highway 23. It then rejoins 55th Avenue NE (Quail Road) for 1.33 miles, eventually turning east to connect with the Benton County substation (See Attachment 1, Maps 8-2 and 8-3).

According to the DNR, Route J2 not only sidesteps an additional eight Elk River crossings (in addition to the 14 crossings to the north) but also avoids over one-mile of route directly within the 100-year floodplain, including the 1.5 miles of pole structure placement to the north. To allow flexibility in routing between 25th Street NE and MN Trunk Highway 23, the DNR recommends a 0.5-mile route width.[54] EERA staff recommends that this route alternative be carried forward for further study in the EA.

[52] November 21, 2023, Minnesota Department of Natural Resources comment letter, Evaluation Memorandum, p. 14, on the Northland Reliability Project EA scope. 202311-200866-10

[53] November 21, 2023, Minnesota Department of Natural Resources comment letter, Evaluation Memorandum, p. 16, on the Northland Reliability Project EA scope. 202311-200866-10

[54] Ibid, p. 18.

BCERCA – Route J3

Route J3 is a deviation from the Applicants' proposed route to follow MN Trunk Highway 23. Route J3 follows Highway 23 for about two-thirds of a mile. Continuing south, it would then connect with and follow Route J2. Collaborating with Route J1, this approach aligns with the Applicants' proposed route for an additional 1.3 miles, effectively avoiding eight river crossings and over one mile of constructing pole structures within the 100-year floodplain of the Elk River (See Attachment 1, Map 8-4).[55] To enhance flexibility in connecting from 55th Avenue NE back to the Applicants' preferred route, the DNR recommends a 0.5-mile-wide route width for this alternative. EERA staff recommends that this route alternative be carried forward for further study in the EA.

Alternatives That Are Not Recommended for Inclusion in the Scope of the EA

Cole Lake Area (COLA) Routes D1 and D2

Routes D1 and D2 requires crossing over existing transmission infrastructure and then crossing back. These crossings introduce construction, maintenance, and reliability concerns along with additional costs. In this area (See Attachment 1, Map 5-2), there are other routing options that mitigate the same impacts as Routes D1 and D2 but do not require two crossings of existing transmission lines (e.g., Route D3, AA4, AA6). Accordingly, EERA staff believes that Routes D1 and D2 would not aid in the Commission's decision on a route permit. Staff recommends that D1 and D2 not be carried forward for further study in the EA.

COLA – Route D1

Route D1 was proposed by Mr. Donald Boucher. Route D1 diverges from the Applicants' proposed route to the west. It first proceeds southeast for about two-tenths of a mile, then shifts due west for approximately one-third of a mile, and subsequently turns due south for around one-half mile before reconnecting with the Applicants' proposed route (See Attachment 1, Map 5-2). Mr. Boucher offered this route alternative to reduce potential adverse aesthetic, land use, and property value impacts.[56] EERA staff recommends that this route alternative not be carried forward for further study in the EA based on the rationale provided above.

COLA – Route D2

The second route alternative provided by Mr. Boucher (Route D2) departs from the Applicants' proposed route on the west, heading due west approximately one-quarter mile, then heading due south approximately one-half mile, changing direction again to the southeast for approximately one-third mile, where it rejoins the Applicants' proposed route (See Attachment 1, Map 5-2). This route alternative is offered to reduce potential adverse aesthetic, land use, and property value impacts.[57] EERA staff recommends that this route alternative not be carried forward for further study in the EA based on the rationale provided above.

[55] Ibid, p. 20.
[56] October 24, 2023, public comment on the Northland Reliability Project from Mr. Donald Boucher, to Jim Sullivan, EERA, Minnesota Department of Commerce. 202311-200859-03
[57] November 21, 2023, public comment on the Northland Reliability Project from Mr. Donald Boucher, to Jim Sullivan, EERA, Minnesota Department of Commerce. 202311-200859-01

Hillman Area (HILA) – Route I

Route I was provided by Mr. Nathan Britz during the public comment period (See Attachment 1, Map 9).[58] Mr. Britz described the proposed route alternative in general terms, writing "to avoid this section between North of Lastrup to south of 153rd Street could be take that line east to the Hillman are where building sites are not as prominent." Per Mr. Britz, the proposed route would continue: "So take that line and run it straight east while north of Lastrup to Hillman where there is more open property until you get past 153rd Street and can refollow the current line." Mr. Britz identified impacts to quality of life, property values, potential electronic interferences, stray voltage, impacts to cattle grazing, forestry resources, and wildlife habitat.[59] The only route description provided was the comment narrative, with no map or diagram to support route alternative identification.

Department and Commission staff reached out to Mr. Britz, providing him with several maps and images via email to facilitate his route alternative development; however, neither the Department nor the Commission received a map from Mr. Britz. Accordingly, EERA staff developed Route I based on its interpretation of the description provided by Mr. Britz.

To evaluate whether Route I would aid in the Commission's decision on a route permit, EERA staff compared the potential impacts of Route I with the Applicants' proposed route (See Table 4).

Table 4. Comparison of Proposed Route I and the Applicants' Proposed Route.

Metric	Route I	Applicants' Proposed Route
Length (miles)	19.9	6.3
Number of houses within 500 feet of alignment	32	3
DNR land crossed (acres)	0	0
Potential tree removal (acres)	194.47	16.81
Number of wetlands crossed[a]	95	3
Number of waterbodies crossed[b]	9	4

[a] National Wetland Inventory
[b] National Hydrography Dataset

Based on this comparison, EERA staff finds that Route I would have substantially more human and environmental impacts than the Applicants' proposed route in this area. EERA staff believes that Route I would not aid in the Commission's decision on a route permit. Accordingly, staff recommends that this route alternative not be carried forward for further study in the EA.

[58] November 21, 2023, comment from Mr. Nathan Britz on the Northland Reliability Project EA scope. 202311-200858-02
[59] Ibid.

Cole Lake Area (COLA) – AA5

Alignment alternative AA5 was provided by Mr. Boucher; it effectively follows existing right-of-way to avoid impacts to property use and value, as well as aesthetics, around Cole Lake Way, which follows along the eastern edge of the current transmission line right-of-way (See Attachment 1, Map 5-4).[60] AA5 is nearly identical to DNR's alignment alternative in this area (AA4, discussed above). Because AA4 addresses the same impacts as AA5 and offers the same potential benefits, analysis of both alignment alternatives in the EA would be redundant. Accordingly, EERA staff recommends that AA5 not be carried forward for further study in the EA.

Long Lake Area (LLA) – AA11

Kevin and Linda Schilling provided an alternative alignment (AA11) "to avoid property by going through DNR Land."[61] AA11 modifies the Applicants' proposed alignment by routing the line from the point where the Applicants' proposed alignment diverts to the southeast, and extending the alignment further south, approximately one-tenth of a mile, then trending back to and rejoining the Applicants' proposed alignment (See Attachment 1, Map 7-2).

Subsequently, the Schillings provided an improvement on AA11 – an alignment alternative that moves the transmission line completely off of the Schillings' land (AA14, discussed below). AA11 and AA14 are nearly identical; they address the same impacts and offer the same potential benefits. Because AA14 is the later-submitted alternative and, to EERA staff's understanding, an improvement on AA11, staff recommends that AA11 not be carried forward for further study in the EA.

Route Alternatives Received after the Close of the Public Comment Period

Kevin and Linda Schilling provided a route alternative and an alignment alternative approximately 6 weeks after the close of the public comment period (Route K and Alignment Alternative AA14) (See Attachment 1, Map 10).[62] The two alternatives are in the Long Lake Area, and were offered to reduce costs, and mitigate or eliminate the need for excessive timber harvest, soil erosion, water contamination, and habitat loss.

The Applicants analyzed but rejected Route K in their application, due in part to the heavily populated, narrow land between the lakes, the possibility of resident displacement, close proximity to a resort and a DNR boat launch, as well as safety concerns and possible limitations imposed on resort and business owners in the area.[63]

EERA staff recognizes the Applicants' concerns with Route K. The information in the route permit application indicates that there are relatively more residences along Route K than the Applicants'

[60] October 24, 2023, public comment on the Northland Reliability Project from Mr. Donald Boucher, to Jim Sullivan, EERA, Minnesota Department of Commerce. 202311-200859-03

[61] October 24, 2023, and October 31, 2023, comments from Mr. Kevin and Ms. Linda Schilling on the Northland Reliability Project EA scope. 202311-200858-18

[62] January 8, 2023, comments from Mr. Kevin and Ms. Linda Schilling on the Northland Reliability Project EA scope (Received after close of the November 21, 2023, comment period). 20241-201943-01; 20241-201943-03; and 20241-201943-05.

[63] From the Applicants' August 4, 2023, Combined Certificate of Need and Route Permit Application for the Northland Reliability Project, Section 5.3.6, p. 5-35.

proposed route in this area.[64] However, staff notes that the Commission is charged with considering the use of existing transmission line and highway ROW in routing new transmission lines.[65] Accordingly, EERA staff believes inclusion of Route K in the EA scope would aid in the Commission's decision regarding a route permit.

Other than timeliness, EERA staff finds that Route K and AA14 meet the criteria noted above for the evaluation of routing alternatives. EERA staff believes that Route K and AA14 would aid in the Commission's decisions regarding a route permit for the Project. Thus, if the Commission has no objection to these alternatives being late-filed, EERA staff recommends that they be included for further study in the EA.

EERA Staff Recommendations

EERA staff recommends that the Applicants' proposed route,[66] the route and alignment alternatives noted in Table 1 (above) and Route K and AA14 be included in the EA scoping decision. EERA staff recommends that Routes D1, D2, and I, and alignment alternatives AA5 and AA11 not be included in the EA scoping decision.

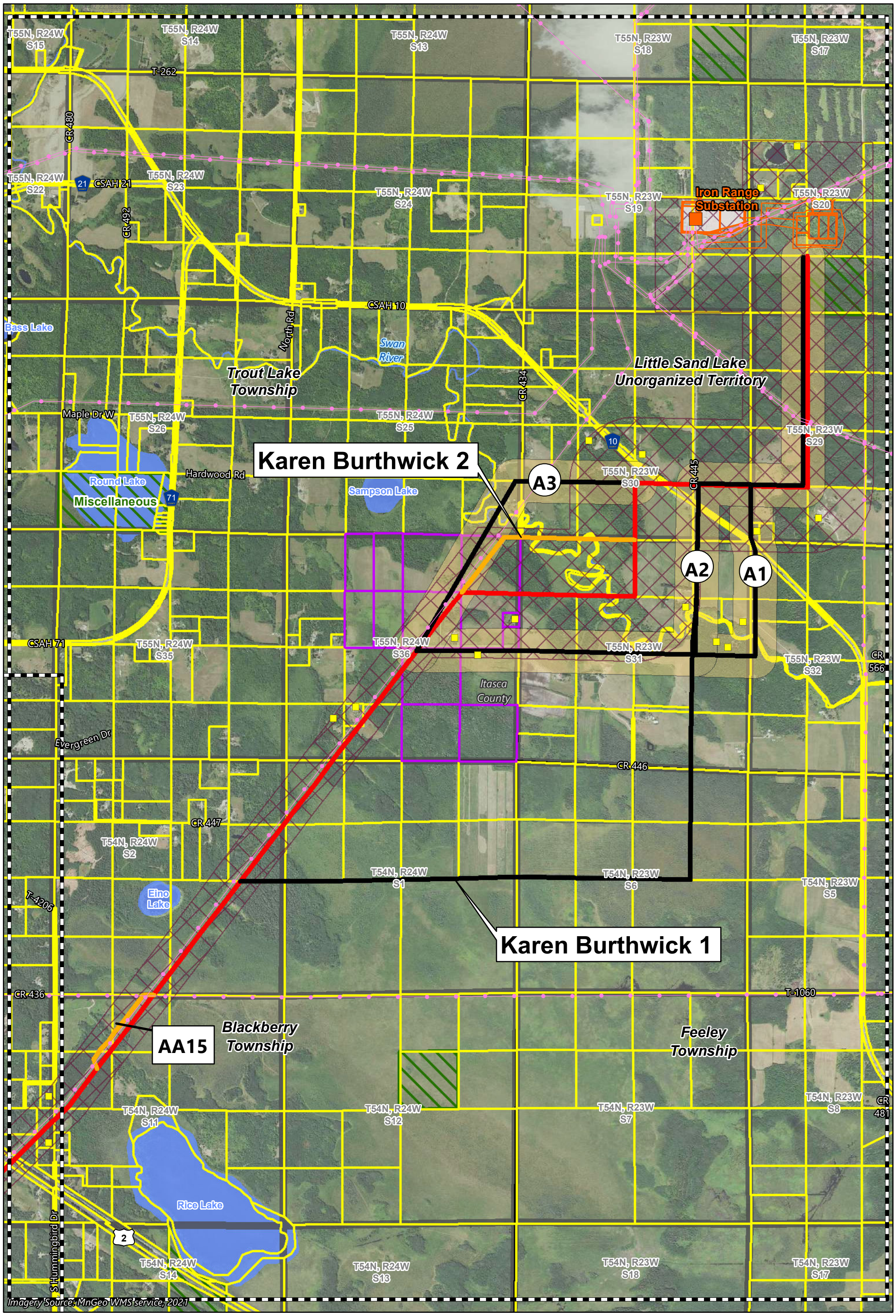
To EERA staff's understanding, if the Commission concurs or takes no action, the Department will proceed to finalize and issue an EA scoping decision as described herein. If the Commission takes an action other than concurring and modifies the Department's recommendations, the Department will incorporate the Commission's input and will finalize and issue an EA scoping decision that reflects this input.

Attachment 1. Scoping Alternatives Maps

[64] Ibid.

[65] Minnesota Statute 216E.03, Subd. 7(15)(e).

[66] As proposed in the Applicants' route permit application and modified by the Applicants' Comments.



Proposed Alignment
Proposed Route
Route Alternative
Alignment Alternative
Route Alternative Width
Study Area

Existing Transmission Line
Iron Range Substation
Residence Location
PWI Waterway
PWI Basin
Burthwick Family Parcel Boundary

Parcel Boundary
Other DNR Land

Feet
0 1,000 2,000

Map 3-1

IRON RANGE SUBSTATION AREA (IRSA)
Scoping Alternatives
Northland Reliability Project