

AN ALLETE COMPANY

### PACKET OVERVIEW

# Thank you for your interest in the Duluth Loop Reliability Project.

It is important to understand the project and be informed of what's happening in your community. Now is the time to provide your feedback to Minnesota Power. This project will **enhance reliability** by building an additional transmission source to communities in and around Duluth and along the North Shore. Proposed Route Alternatives have been developed and are available for review.

Public engagement remains a top priority for our project team as we navigate and aim to prevent the spread of COVID-19. We appreciate you reviewing this packet of information to learn more about this project. Our team will continue to communicate additional engagement opportunities, pending the status of COVID-19.

### **PACKET MATERIALS**

# Your packet of information includes the following materials:

- > Project Overview Handout
- > Virtual Open House Materials
- > Proposed Route Alternatives Map
- Comment Form and Survey
- > Prepaid Return Envelope

Please read the materials, provide your comments on the map and submit responses to the survey questions to share your valuable input with us. You can:

- **Mail** the comment form, survey and map back to our team using the prepaid return envelope
- Scan and email it to connect@duluthloop.com

#### **CONNECT WITH THE PROJECT TEAM**

🛱 duluthloop.com

@ connect@duluthloop.com

🤳 (218) 755-5512



AN ALLETE COMPANY

# Duluth Loop Reliability project

### **Join the Discussion**

#### VIRTUAL COMMUNITY MEETINGS

Tuesday, March 23 @ 12:00 p.m. Tuesday, March 23 @ 6:00 p.m. Thursday, March 25 @ 12:00 p.m. Thursday, March 25 @ 6:00 p.m.

#### **VIRTUAL OPEN HOUSE**

March 15 – April 2

Visit online anytime!

DuluthLoop.com/onlinemeeting

#### **SCHEDULE A CALL**

**Anytime!** Discuss the project and your interests with the project team.

218-755-5512 or Connect@DuluthLoop.com



Call 218-755-5512 or email Connect@DuluthLoop.com to request mailed project information packet. Packets can also be found at DuluthLoop.com.

### **Our Commitment to Reliable Energy**

Minnesota Power has made significant changes to our generation mix including the retirement of several small coal units. In order to maintain a continuous supply of safe and reliable electricity, we are investing in transmission infrastructure to enhance the stability of our electric system in our communities.



What happens when we **reduce coal** generation?

When we retire coal plants we must do more than just replace the energy they once generated. We must also find ways to replace the reliability and strength they provided to the grid.

# How do we maintain reliability?

When large generators – like coal plants – retire, we must find ways to make sure the grid remains stable by adding other generation sources in the appropriate locations and adding more transmission lines to create redundancy



Additional transmission lines allow for the desired amount of energy to move between regions and ensure that energy needs are met for all hours of the year. They will also mitigate some of the negative impacts that large facility retirements have on system stability and reliability.



As Minnesota Power and its customers continue transitioning from coal-fired generators to lowercarbon sources of energy, transmission projects like the Duluth Loop Reliability Project are needed to ensure continuous safe and reliable operations of the transmission system in the midst of this energy transition.

# **Local and Regional Benefits**

The Duluth Loop Reliability Project is about more than just providing power. This project will:



#### ENHANCE ENERGY RELIABILITY

for communities in Duluth and the North Shore by adding transmission in the area



#### REPLACE GRID STRENGTH AND STABILITY

that was once provided by local coal-fired generation



### **Project Overview**

This project will **enhance reliability** in and around Duluth and along the North Shore by building an additional transmission source.

#### **Project Components**

- Construction of a new 115 kilovolt (kV) transmission line between the Ridgeview and Hilltop substations
- Construction of approximately one-mile extension of an existing 230kV transmission line, connecting to the Arrowhead Substation
- Upgrades to the Ridgeview, Hilltop, Haines Road, and Arrowhead substations, including expansion of the Ridgeview and Hilltop substations and reconfiguring existing transmission lines at the Hilltop Substation



### **Project Timeline**





Image: block with the second secon

### What We Heard From You



### Select the <u>top three</u> Sensitivities that are most important to you?



# **Routing Criteria**

#### **OPPORTUNITIES**

- Existing transmission lines
- Roadways/trails
- Railroads
- Public Land Survey System (e.g. section lines, half-section lines, etc.)
- Property lines (legal divisions of land)
- Natural division lines (e.g. field boundaries)
- Pipelines

#### **SENSITIVITIES**

- Federal/State/County resources
- Non-governmental Organizations (NGOs) lands
- Airports
- Special status species/habitat
- Cultural resources
- Special jurisdictions
- Visual resources
- Public infrastructure
- Land uses
- Natural resources
- Parks/recreation areas
- Community centers
- Assisted living/nursing homes
- Greenfields (new corridors in undeveloped areas)

#### ENGINEERING & CONSTRUCTION CONSIDERATIONS

- Endpoint locations
- Line length
- Cost
- Terrain/soil conditions
- Roadway access to route/construction areas
- Specialty structures
- Angle structures
- Foundation size/type
- Inductive current/interference
- Reliability
- Tree trimming/vegetation management

# **Routing Process**



Project Endpoints, Routing Criteria, Data Review



**Evaluate Stakeholder Input** 

### **Routing Process**

#### **PROPOSED ROUTE ALTERNATIVES**



**Evaluate Stakeholder Input** 



### **Proposed Route Alternatives**



- Minnesota Power reviewed and incorporated comments during the development of the Proposed Route Alternatives.
- The Proposed Route Alternatives are wider than the necessary easement needed for the final construction and operation of the new line.
- Where feasible and in order to minimize impacts, Minnesota Power's preference is to parallel existing transmission lines.

### **Interactive Comment Map**



**Scan Me** With your smartphone



**Detailed Maps** 





#### Scan Me With your smartphone



### **Structure Design**

The structure types and specifications shown below are preliminary and subject to change. Other structure types may be used depending on final route location.



The structure figures shown here are wood pole H-Frame tangent type structures which are anticipated to be common on new lines. Less common structure configurations including but not limited to dead ends, angles, crossings, transpositions, and double circuits may also be necessary and may consist of wood pole, guyed wood pole, or steel pole type structures not pictured here. Typical structure heights and spans indicate the average expected values for the majority of structures of this type based on similar facilities. Actual heights and spans are a function of structure type, wire tension, voltage, route, and topography. Actual span lengths and structure heights may vary outside typical values as necessary.

### **Paralleling Structures**

In the event that the new 115kV transmission line parallels an existing 115kV transmission line, the alignment of typical right-ofways may look similar to what's shown in the diagram.

Different dimensions would apply for a 115kV line paralleling a 230kV line.



### **Real Estate**

#### WHAT IS RIGHT-OF-WAY?

The term right-of-way is typically a strip of land used for a specific purpose such as the construction, operation, and maintenance of a transmission line.

#### WHAT IS AN EASEMENT?

A legal agreement allowing Minnesota Power the right to construct, operate and maintain a transmission line on your property.



# **Right-of-Way Acquisition**

Project representatives will hold individual meetings with **affected landowners** to discuss the project and right-of-way needs once a preferred route has been selected.



**A final route is determined by the MN PUC** Anticipated November 2022

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Minnesota Power contacts landowners to begin right-of-way acquisition process



**Minnesota Power makes offer to landowner based on fair market value** Fair market value will be researched prior to making offers



Minnesota Power and the landowner agree and the easement is recorded



Minnesota Power constructs, operates, and maintains the transmission line within the right-of-way.

### **Preconstruction & Construction**

Once a final route has been approved and easements have been agreed upon in the 2023-2025 timeframe, preconstruction and construction activities will begin.

#### **PRECONSTRUCTION ACTIVITIES**

- Field Surveys
- Wildlife Surveys
- Archaeological Surveys
- Wetland and Stream Surveys
- Soil Surveys

#### CONSTRUCTION



Initial surveying, right-of-way clearing, and access development



Structure staking, surveying, and soils investigations as needed



Foundation installation Foundation type may vary depending on structure.



Assemble and set structures



Wire installation



Clean up and restoration

### **Connect with Us!**

### Thank you for your interest in the Duluth Loop Reliability Project!



# **Proposed Route Alternatives**

Minnesota Power reviewed and incorporated comments during the development of the Proposed Route Alternatives. The Proposed Route Alternatives shown are wider than the necessary easement needed for the final construction and operation of the new line. Where feasible and in order to minimize impacts, Minnesota Power's preference is to parallel existing transmission lines.





This map provides Proposed Route Alternatives for the proposed project by Minnesota Power. These Proposed Route Alternatives were developed to collect information and feedback to identify a Preferred Route. This map does not represent the final route determination. The Minnesota Public Utilities Commission will make the final route determination after considering a variety of factors including human and environmental impacts and stakeholder and public input.









### **DULUTH LOOP RELIABILITY PROJECT**

#### I am interested in the Duluth Loop Reliability Project because: (Check all that apply)

- $\hfill\square$  I live in the area
- □ I own or manage a nearby business
- $\Box$  I work at a local business
- □ I own property in the area
- $\Box$  I work for an agency
- □ Other:

### What information did you find most helpful from your packet of materials?

### In general, how do you prefer to hear about project information?

- Direct mail
- 🗆 Email
- Social media
- 🗆 Radio
- □ Newspaper
- Packet pickups

### Is there any additional information we need to cover in our materials?

#### THANK YOU FOR PROVIDING FEEDBACK ON THE DULUTH LOOP RELIABILITY PROJECT.

Please fill out the information below if you would like someone from our project team to contact you or if you would like to join the mailing list.

Name:			
Organization:			
Mailing Address: _			
City	State	Zip	
Phone:			
Email:			
Contact Me	Join the Mailing	List	

Additional Comments:

Please send this comment form back to the project team using the prepaid return envelope that was include in this information packet. Drop it off or scan it and email it to us at **connect@duluthloop.com.** 

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