OVERVIEW

The Mankato-Mississippi River Transmission Project will **improve reliability**, **deliver low-cost renewable energy and provide other regional benefits** by building new, more resilient 'backbone' infrastructure to serve customers.

We are proposing:

- About 120 miles of new and upgraded 345 kilovolt (kV) transmission infrastructure between the Wilmarth Substation located near Mankato and at the Mississippi River near Kellogg.
- About 20 miles of new 161 kV transmission infrastructure between the North Rochester Substation near Pine Island and an existing transmission line northeast of Rochester.

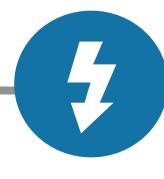












2022

Project identified by MISO

2023

- Preliminary route development process
- Public and stakeholder engagement
- Preliminary engineering

2024-2026

- Submit Certificate of Need and Route Permit Application
- Minnesota Public
 Utilities Commission
 reviews applications,
 reviews public
 comments from
 landowners and
 stakeholders. MPUC
 decision expected in
 late 2025
- Detailed engineering
- Negotiate with landowners to purchase easements
- Obtain local and federal permits required for construction

2027-2028

Construction

2028-2030

- In-service
- Restoration









IMPROVING TRANSMISSION INFRASTRUCTURE

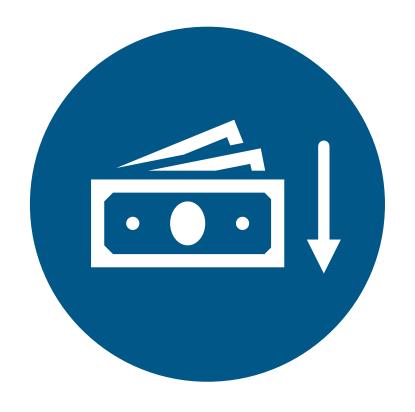
IN MINNESOTA AND THE UPPER MIDWEST

The Mankato-Mississippi River Transmission Project is one of several long-range transmission projects identified by MISO, the regional grid operator, to support energy needs in Minnesota and throughout the region.

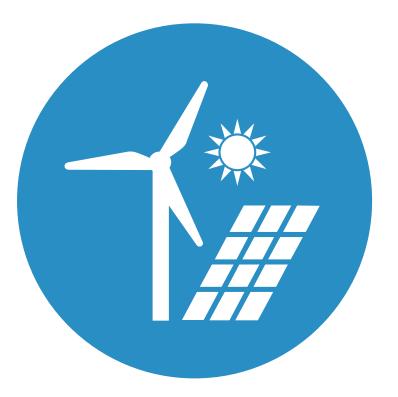
Transmission line projects like this one strengthen the grid by:



Improving reliability and system resilience in the Upper Midwest.



Creating greater access to low-cost renewable energy.



Adding transmission capacity to accommodate increasing amounts of renewable energy as aging power plants retire.



Supporting regional economic growth through new energy infrastructure.



Upgrading and updating infrastructure facilitates job growth and increases tax revenue for communities in southern Minnesota.







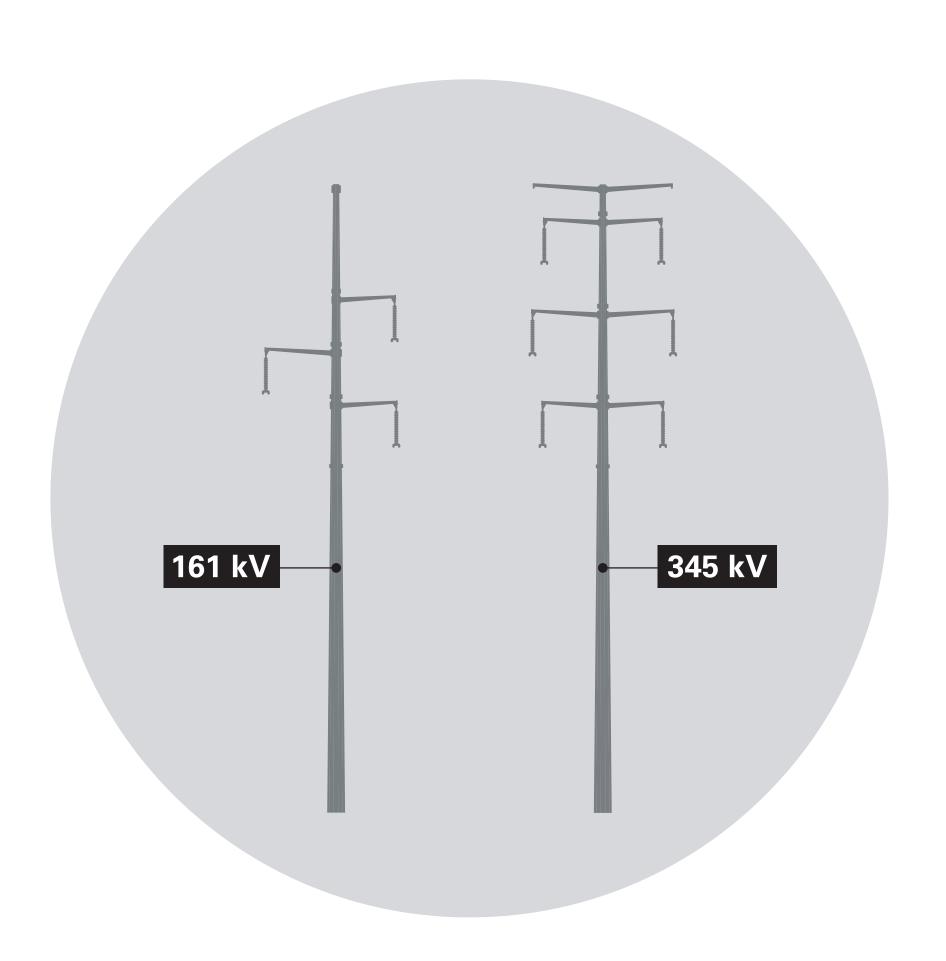


TRANSMISSION LINE INFRASTRUCTURE

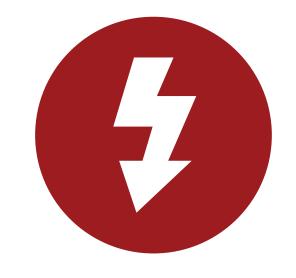
ANTICIPATED DESIGN*:

- Steel transmission structures
- Single pole style for most structures
- Typical pole height is 100-150 feet (depending on the terrain)
- Typical Right-of-Way is 150 feet wide for a 345 kV line
- Typical Right-of-Way is 80-100 feet wide for a 161 kV line
- 800-1,000 feet between structures for 345 kV segments
- 300-500 feet between structures for the 161 kV segments

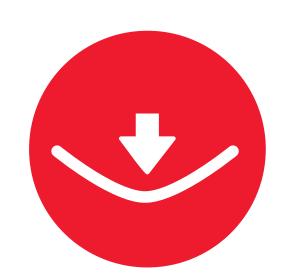
^{*}Design is subject to change based on final detailed engineering and other factors.



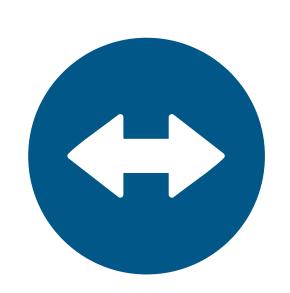
TRANSMISSION LINE STRUCTURES VARY IN HEIGHT BASED ON FACTORS LIKE:



Voltage



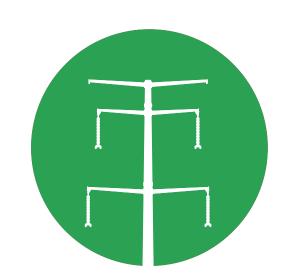
Sag of the conductor



Distance between structures



Terrain



Structure types



Minimum clearance prescribed by National Electric Safety Code and Company standards









CONSTRUCTION AND RESTORATION ACTIVITIES

Our typical transmission line construction process includes the following steps:



1. Soil surveys and property staking



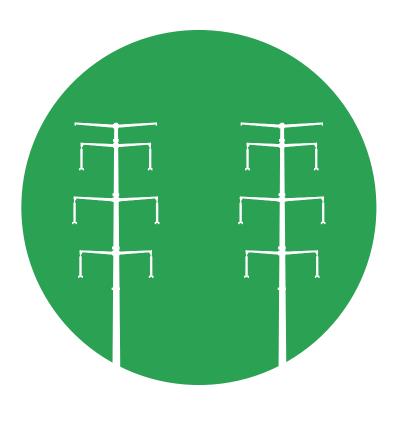
2. Construction access and vegetation clearing



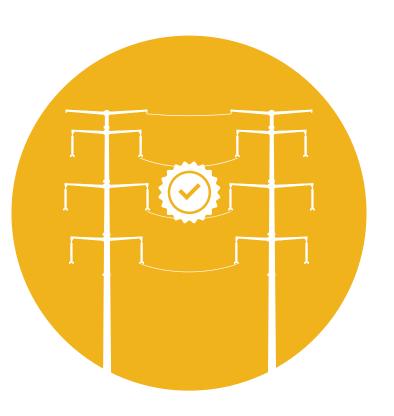
3. Mobilizing equipment and delivering material



4. Foundation construction



5. Installing structures and stringing conductor



6. Land restoration

We currently expect construction to start in 2027 with the project in-service 2028-2030.







