Appendix N

Landowner Outreach

Appendix N
Mankato – Mississippi River Transmission Project
Certificate of Need and Route Permit Application
E002/CN-22-532 and E002/TL-23-157

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MMRTP Mailer May 2023

MANKATO-MISSISSIPPI RIVER TRANSMISSION LINE PROJECT

Xcel Energy

414 Nicollet Mall
Minneapolis, MN 55401

Provide feedback on an electric transmission project being proposed to increase electric reliability and resiliency in Minnesota and the Upper Midwest and to provide greater access to more low-cost renewable energy.

SCAN ME

Learn more.

Call: 800-853-3365

Visit: MankatoMississippiRiverTransmission.com

Email: Contact@MankatoMississippiRiverTransmission.com

MANKATO-MISSISSIPPI RIVER TRANSMISSION LINE PROJECT

Xcel Energy

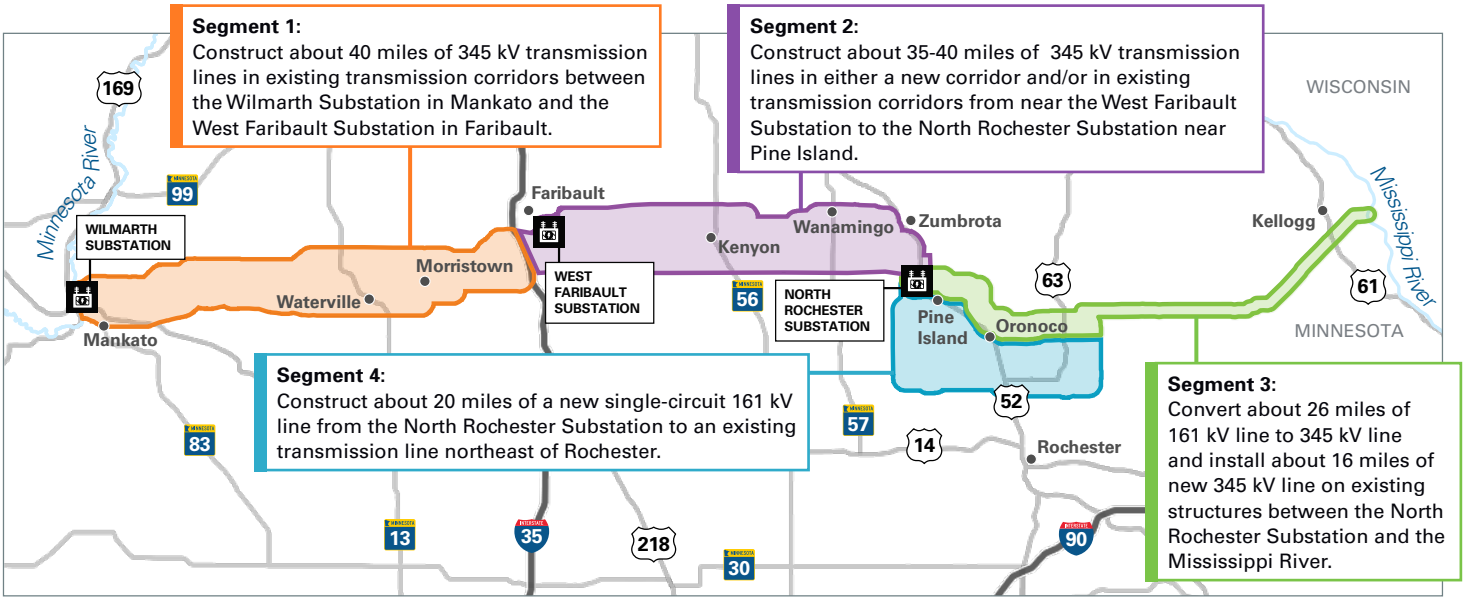
The Mankato-Mississippi River Transmission Line Project will improve reliability, deliver low-cost renewable energy and provide other regional benefits by building new and more resilient 'backbone' electric transmission infrastructure to serve customers.

This project is part of a portfolio of long-range electric transmission projects identified by the regional grid operator, MISO, to strengthen the overall grid, ensuring customers receive the electricity they need as aging generation plants are retired and new wind and solar energy plants are built.

Join us for in-person or virtual public open houses. Learn more inside.

JOIN US TO LEARN ABOUT THE MANKATO-MISSISSIPPI RIVER TRANSMISSION LINE PROJECT

The Mankato-Mississippi River Transmission Project includes about 120 miles of new and upgraded 345 kilovolt (kV) transmission lines between the existing Wilmarth Substation located in Mankato, Minnesota, and a connection point at the Mississippi River near Kellogg. It also includes building about 20 miles of new 161 kV transmission lines between the existing North Rochester Substation near Pine Island, Minnesota, and an existing transmission line northeast of Rochester, which must be added to install the new 345 kV infrastructure.



This map is a general graphic and may not show exact locations.

OPEN HOUSE SCHEDULE

DATE	TIME	LOCATION	ADDRESS
Tuesday, May 23, 2023	11 a.m. – 1 p.m. and 4 – 7 p.m.	Goodhue County Fairgrounds	44279 County 6 Blvd., Zumbrota, MN 55992
Wednesday, May 24, 2023	11 a.m. – 1 p.m. and 4 – 7 p.m.	Rice County Fairgrounds Cannon River Room	1814 2nd Ave. NW, Faribault, MN 55021
Thursday, May 25, 2023	11 a.m. – 1 p.m. and 4 – 7 p.m.	Country Inn & Suites by Radisson	1900 Premier Dr., Mankato, MN 56001
Tuesday, May 30, 2023	1 p.m. and 6 p.m.	Live virtual open house	MankatoMississippiRiverTransmission.com
May 22 through June 9	At your convenience	Self-guided virtual open house	MankatoMississippiRiverTransmission.com

In addition to our open houses, you can:

- Leave a comment on our interactive map at MankatoMississippiRiverTransmission.com
- Request an information packet by calling 800-853-3365 or emailing Contact@MankatoMississippiRiverTransmission.com

PROJECT TIMELINE

We currently anticipate the following schedule during project development. It's subject to change, but you can stay up to date by visiting MankatoMississippiRiverTransmission.com.

2022	2023	2024 – 2026	2027 – 2029	2029
Project identified by MISO	Planning; routing and siting; public and stakeholder engagement; preliminary engineering; Certificate of Need/Route Permit Applications filed with the Minnesota Public Utilities Commission	Minnesota permitting process; final engineering; acquire land rights; other required permits; continued public and stakeholder engagement	Construction	In-service and restoration

Appendix N-2

MMRTP Mailer September 2023

414 Nicollet Mall
Minneapolis, MN 55401

MANKATO-MISSISSIPPI RIVER TRANSMISSION PROJECT

Join us at our upcoming open houses - in person or virtually. We need your feedback on new electric transmission line routes in your area.

Earlier this year, we held open houses to introduce the preliminary route options and get your feedback. We refined those routes based on landowner feedback.

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WE WANT TO HEAR FROM YOU

Call: 800-853-3365
Visit: MMRTProject.com
Email: Contact@MMRTProject.com

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ROCHESTER PUBLIC UTILITIES WE PLEDGE, WE DELIVER™
Southern Minnesota Municipal Power Agency
Xcel Energy®

August 2023

MANKATO-MISSISSIPPI RIVER TRANSMISSION PROJECT

This project will improve reliability, deliver low-cost renewable energy and build new and more resilient 'backbone' electric transmission infrastructure to serve customers in Minnesota and the Upper Midwest.

This project is part of a portfolio of long-range electric transmission projects identified by the regional grid operator, MISO, to strengthen the overall grid.

SCAN ME

Learn more.

Call: 800-853-3365
Visit: MMRTProject.com
Email: Contact@MMRTProject.com

PUBLIC OPEN HOUSES

Join us for in-person or virtual public open houses to learn more and provide your feedback.

- In-person open houses: Sept. 19 – 21 from 4 - 7 p.m.
- Live virtual meeting: Sept. 26 at 1 p.m.
- At your convenience, self-guided virtual open house from: Sept. 5 – Sept. 30

Additional details and a project map are inside this postcard.

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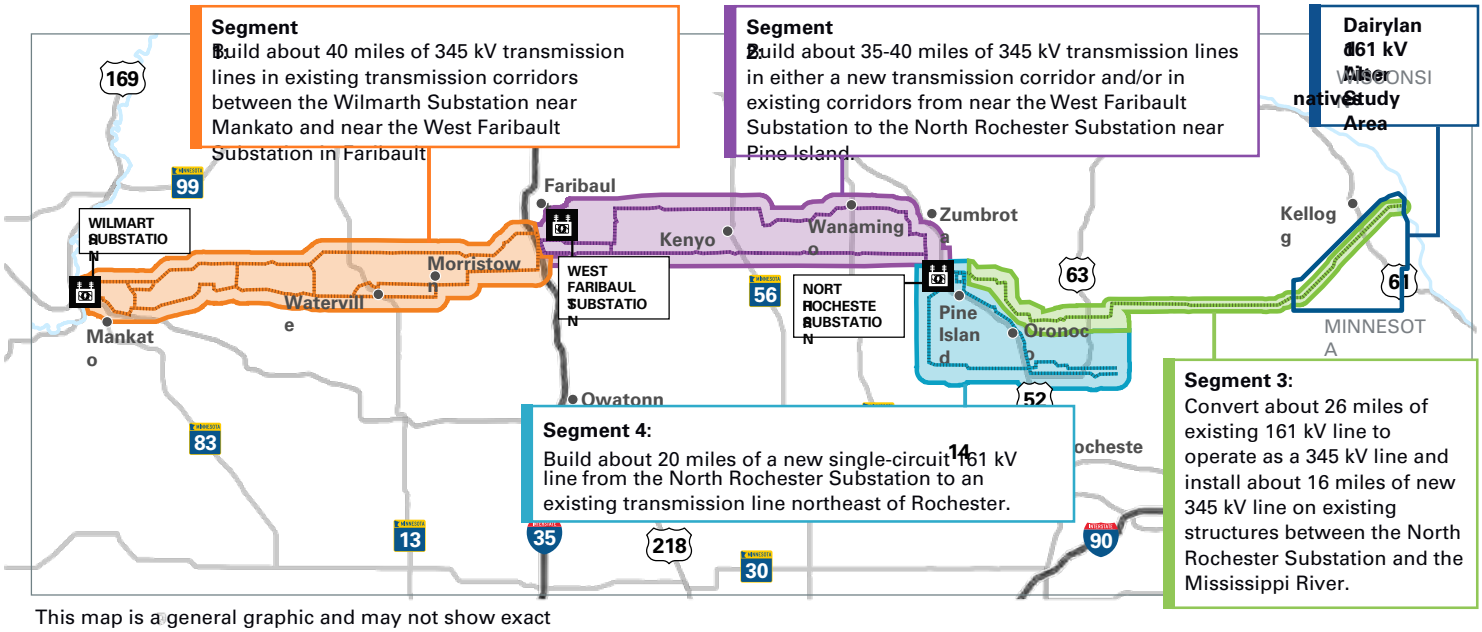
Southern Minnesota Municipal Power Agency
Xcel Energy®

LEARN MORE ABOUT THE MANKATO-MISSISSIPPI RIVER TRANSMISSION PROJECT

The Mankato-Mississippi River Transmission Project includes about 120 miles of new and upgraded 345 kilovolt (kV) transmission lines between the existing Wilmarth Substation located near Mankato and a connection point at the Mississippi River near Kellogg. It also includes building about 20 miles of new 161 kV transmission lines between the existing North Rochester Substation near Pine Island and an existing transmission line northeast of Rochester, which is being relocated from its existing location to install the new 345 kV infrastructure.

WE NEED YOUR FEEDBACK

Join us at a meeting or visit **MMRTProject.com** to participate.



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OPEN HOUSE SCHEDULE

DATE	TIME	LOCATION
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You can also provide your feedback in other ways:

Leave a comment on our interactive map at **MMRTProject.com**

Request an information packet by calling **800-853-3365** or emailing **Contact@MMRTProject.com**

PROJECT TIMELINE

We currently anticipate the following schedule during project development. It's subject to change, but you can stay up to date by visiting MMRTProject.com.

202	202	2024 –	2026 –	202
Project identified by MISO	Planning; route development process begins; public and stakeholder engagement; preliminary engineering; submit Certificate of Need and Route Permit Application	Minnesota permitting review (including public input); final engineering; negotiate with landowners to purchase easements; obtain other required permits; continued public stakeholder engagement	Construction	In-service and restoration

Appendix N-3

MMRTP Open House Boards May 2023

Xcel Energy®

MANKATO-MISSISSIPPI RIVER TRANSMISSION LINE PROJECT

OPEN HOUSE INSIDE

Xcel Energy®

MANKATO-MISSISSIPPI RIVER TRANSMISSION LINE PROJECT

PLEASE SIGN IN

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OVERVIEW

The Mankato-Mississippi River Transmission Line 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 line** between the Wilmarth Substation located in Mankato and near Kellogg at the Mississippi River.
- **About 20 miles of new 161 kV transmission line** between the North Rochester Substation near Pine Island and an existing transmission line northeast of Rochester.

2022
- Project identified by MISO

2023
- Planning
- Route development process begin
- Public and stakeholder engagement
- Preliminary engineering
- Submit Certificate of Need and Route Permit Application

2024-2026
- Minnesota permitting review (including public input)
- Final engineering
- Negotiate with landowners to purchase easements
- Obtain other required permits
- Continued public and stakeholder engagement

2026-2028
- Construction

2028
- In-service
- Restoration

FOUR SEGMENTS, ONE PROJECT

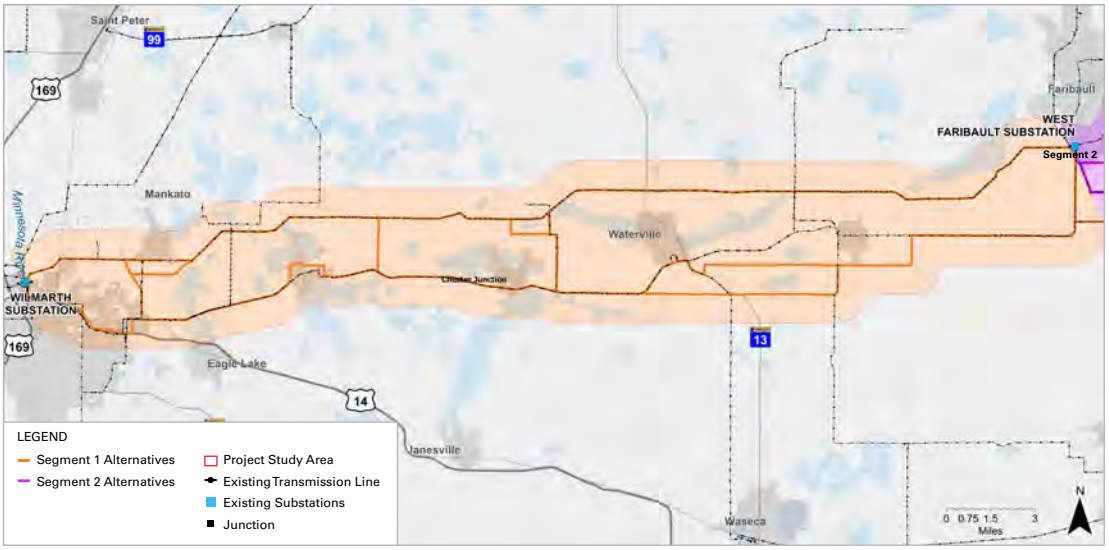
Xcel Energy®

This project has **four segments that include a combination of new transmission lines and upgrades to existing lines.** Where feasible, we've worked to identify opportunities to locate lines in existing utility or transportation corridors.

This map is a general graphic and may not show exact locations.

SEGMENT 1:
MANKATO TO FARIBAULT

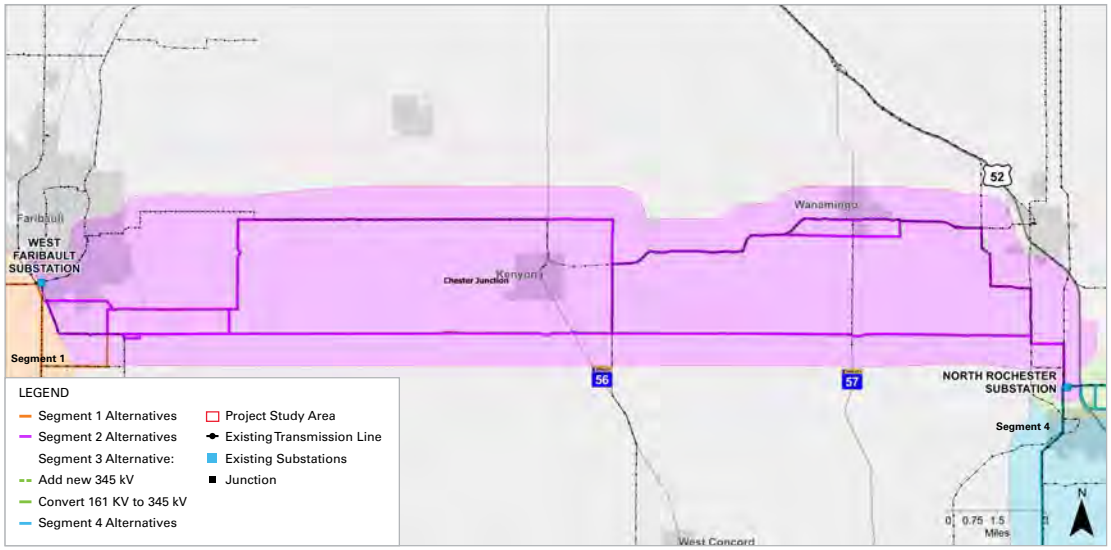
Segment 1: Develop about 40 miles of 345 kV transmission lines in existing transmission corridors between the Wilmarth Substation near Mankato and the West Faribault Substation in Faribault.



This map is a general graphic and may not show exact locations.

SEGMENT 2:
FARIBAULT TO PINE ISLAND

Segment 2: Develop about 35-40 miles of 345 kV transmission lines in either a new corridor and/or in existing transmission corridors from near the West Faribault Substation to the North Rochester Substation near Pine Island.



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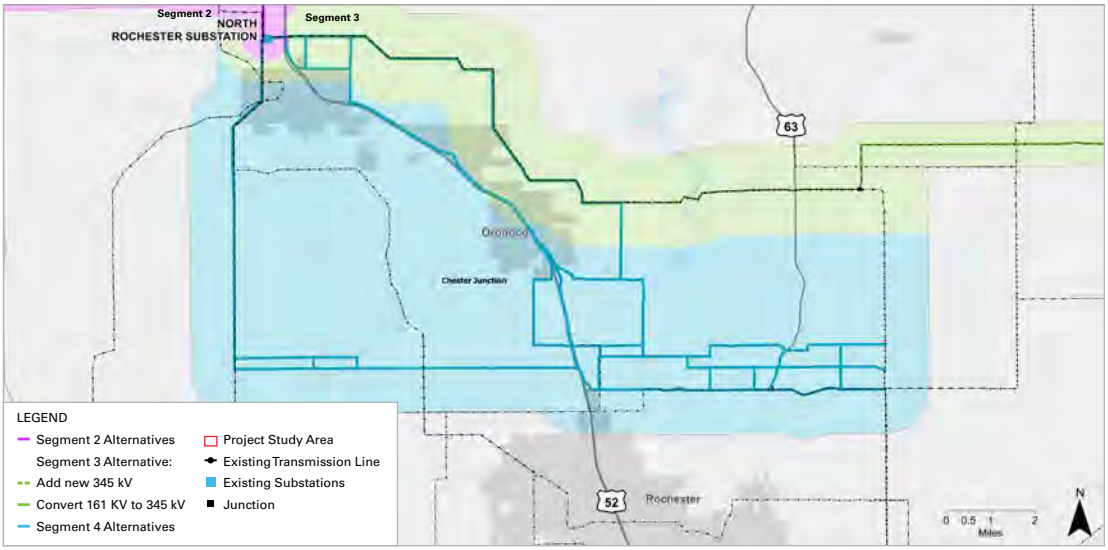
SEGMENT 3:
PINE ISLAND TO KELLOGG

Segment 3: Convert about 26 miles of 161 kV line to 345 kV line and install about 16 miles of new 345 kV line on existing structures between the North Rochester Substation and the Mississippi River.

This map is a general graphic and may not show exact locations.

SEGMENT 4:
ROCHESTER CONNECTOR

Segment 4: Develop about 20 miles of a new single-circuit 161 kV line from the North Rochester Substation to an existing transmission line northeast of Rochester.



This map is a general graphic and may not show exact locations.

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A NEED FOR MORE TRANSMISSION INFRASTRUCTURE IN UPPER MIDWEST

The Mankato-Mississippi River Transmission Line Project is part of a portfolio of long-range transmission projects identified by the regional grid operator, MISO, to support the following in Minnesota and throughout the Upper Midwest:

- Create more system resiliency during extreme weather.
- Support adding new low-cost renewable energy.
- Strengthen the overall "backbone" of the transmission grid.
- Improve reliability.
- Relieve congestion on the grid.

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TRANSMISSION INFRASTRUCTURE BENEFITS OUR COMMUNITIES

The Mankato-Mississippi River Transmission Line Project will bring the following benefits to Minnesota and the Upper Midwest:

- Increasing reliability and resilience in the Upper Midwest.
- Enabling greater access to low-cost renewable energy as aging traditional resources retire.
- Upgrading and updating infrastructure supports companies in the region.
- New renewable energy creates jobs, tax revenue and lease payments for southern Minnesota.
- New jobs for construction workers and companies.

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ROUTE DEVELOPMENT PROCESS

Our route selection process is a multi-step process that identifies route alternatives with minimal impacts to humans and the environment. The process generally includes:

DEVELOPING PRELIMINARY ROUTE OPTIONS – WE ARE HERE.

REFINING AND FIELD VERIFYING PRELIMINARY ROUTE OPTIONS.

SUBMITTING PROPOSED ROUTES TO THE MINNESOTA PUBLIC UTILITIES COMMISSION.

Note: This process is flexible and steps may be revisited based on additional data and feedback from landowners, the public, local governments, Tribes and resource agencies.

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DEVELOPING ROUTES CONSIDERS MANY FACTORS

We evaluate **several criteria to develop new routes** for transmission line projects, including identifying opportunities, constraints and other issues:

OPPORTUNITIES:

- Existing transmission lines and other utilities (pipelines, etc.)
- Roads and highways
- Property, field and section lines

CONSTRAINTS OR ISSUES THAT MAY AFFECT ROUTE DEVELOPMENT:

- Existing homes and businesses
- Farmland impacts
- Airports
- Cemeteries and religious facilities
- Rivers, lakes, streams and wetlands

- Conservation areas, nature preserves, state and local parks
- Cultural and historic resources
- Sensitive animal and plant species

REGULATORY PROCESS

We expect to apply for a combined Certificate of Need and Route Permit with the Minnesota Public Utilities Commission (PUC) in late 2023.

Certificate of Need application:
Describes the project need and the issues it will solve.

Route Permit application:
Includes at least two feasible proposed routes and the factors evaluated in developing those routes.

After submitting these applications, the Minnesota review process will begin:

- Public meetings and hearings will be held with public comment opportunities.
- Written comments can also be submitted to the PUC.

Following this process, **the PUC will decide on the Certificate of Need and Route Permit expected in 2024 or 2025.** The PUC may select one option or a combination of the options identified.

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-foot-wide for a 345 kV line
- Typical Right-of-Way is 80-100-foot-wide for a 161 kV line
- 800-1,200 feet between structures for 345 kV segments
- 300-500 feet between structures for the 161 kV segments

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

*Design is subject to change based on final engineering and other factors.

WORKING WITH LANDOWNERS

EASEMENTS are a permanent right authorizing a utility to use the Right-of-Way (ROW) to build and maintain a transmission line. Landowners are paid a fair market value for the easement and can continue to use the land if their use doesn't interfere with the operation and maintenance of the transmission line.

RIGHTS-OF-WAY are the actual land areas acquired for a specific purpose such as a transmission line, roadway or other infrastructure.

LAND USES IN THE EASEMENT AREA

Agriculture
After initial construction, agricultural activities can continue outside the small area with the transmission structures.

Vegetation Management
Trees growing near power lines can be a safety hazard and are a major contributor to electric service interruptions nationwide. There may be some areas where tree removal and pruning will be needed.

Our goal is to provide safe, reliable electric service while also taking care of one of your community's valuable natural resources.

Buildings and Structures
Generally, buildings or other structures are not allowed in the ROW/easement for transmission lines due to clearance and safety concerns. Landowners can only build structures in the easement area after receiving written approval from the utility.

This picture includes an existing 161 kV transmission line.

MANKATO-MISSISSIPPI RIVER PROJECT PARTNERS

We are working with utility partners to develop portions of the new infrastructure to serve southern and southeast Minnesota and western Wisconsin, including several companies who helped build the Capx2020 transmission projects.

DEVELOPMENT PARTNERS

- Dairyland Power Cooperative
- Rochester Public Utilities
- Southern Minnesota Municipal Power Agency
- Xcel Energy

DEVELOPMENT DETAILS

- Xcel Energy will develop and own the infrastructure between the Wilmarth Substation near Mankato and the North Rochester substation near Pine Island (Segments 1 and 2).
- All project partners will participate in the additional 345 kV infrastructure from the North Rochester substation to the Mississippi River (Segment 3) and the 161 kV line from Pine Island to the Rochester area (Segment 4).
- The permits for Segments 1, 2, 3 and 4 will be submitted in one combined Certificate of Need and Route Permit.
- Dairyland Power will develop a related segment, relocation of the 161 kV portion east of Plainview, which will be permitted separately from this project.

Xcel Energy®

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 2026 with the project in-service in 2028.

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COMMENT FORMS

PLEASE PROVIDE FEEDBACK WE SHOULD CONSIDER DURING ROUTE DEVELOPMENT

Xcel Energy®

WE WANT TO HEAR FROM YOU!

Visit:
MankatoMississippiRiverTransmission.com

Email:
Contact@MankatoMississippiRiverTransmission.com

Call:
800-853-3365

SCAN ME

If you have questions, need more information or want to share your feedback, contact our team. We will respond to you as soon as possible.

Appendix N-4

MMRTP Open House Boards September 2023

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 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
- Submit Certificate of Need and Route Permit Application

2024-2026
- Minnesota permitting review (including public engagement)
- Detailed engineering
- Negotiate with landowners to purchase easements
- Obtain other required permits
- Continued public and stakeholder engagement

2026-2028
- Construction

2028
- In-service
- Restoration

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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 traditional resources retire.

Supporting regional economic growth through new energy infrastructure.

Upgrading and updating infrastructure facilitates more jobs and increases tax revenue for communities in southern Minnesota.

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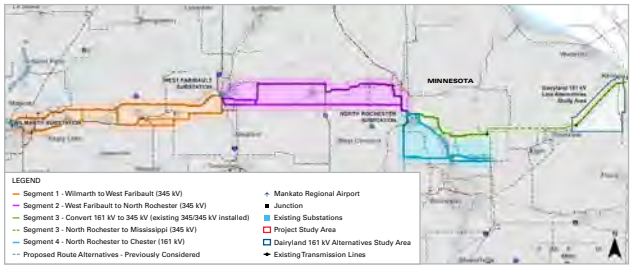
FOUR SEGMENTS, ONE PROJECT

This project has **four segments that include a combination of new transmission lines and upgrades to existing infrastructure**. Where feasible, we've worked to identify opportunities to locate lines in existing utility or transportation corridors.



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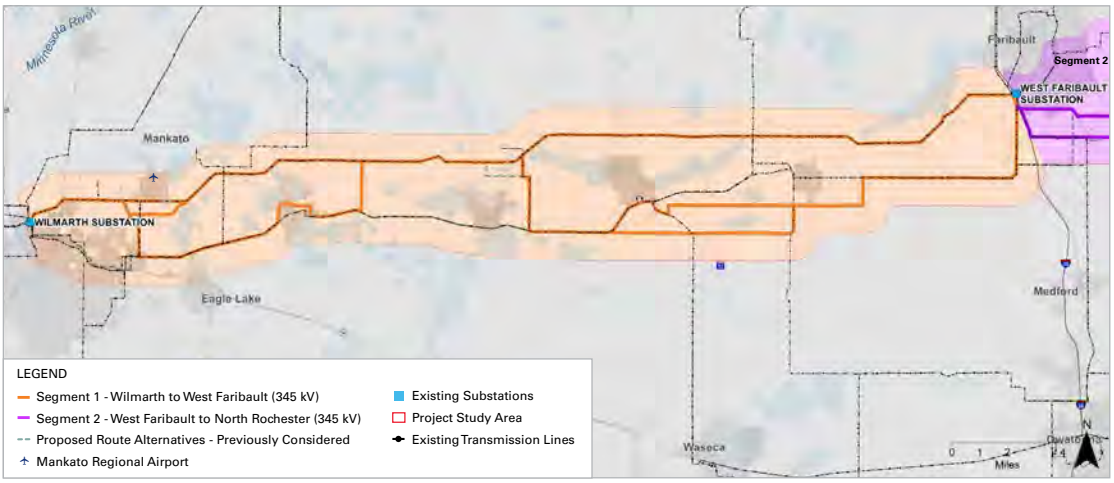

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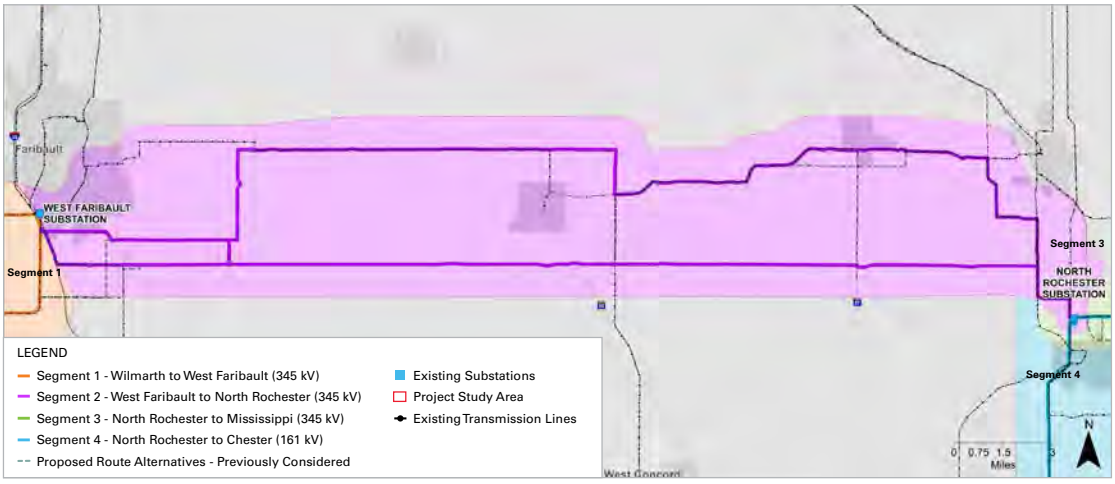

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SEGMENT 3:
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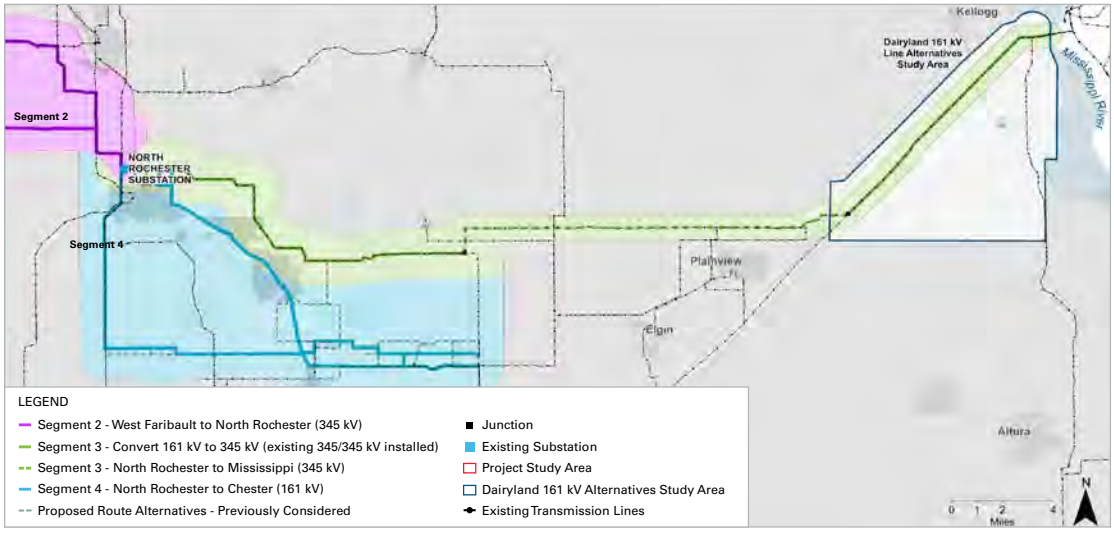

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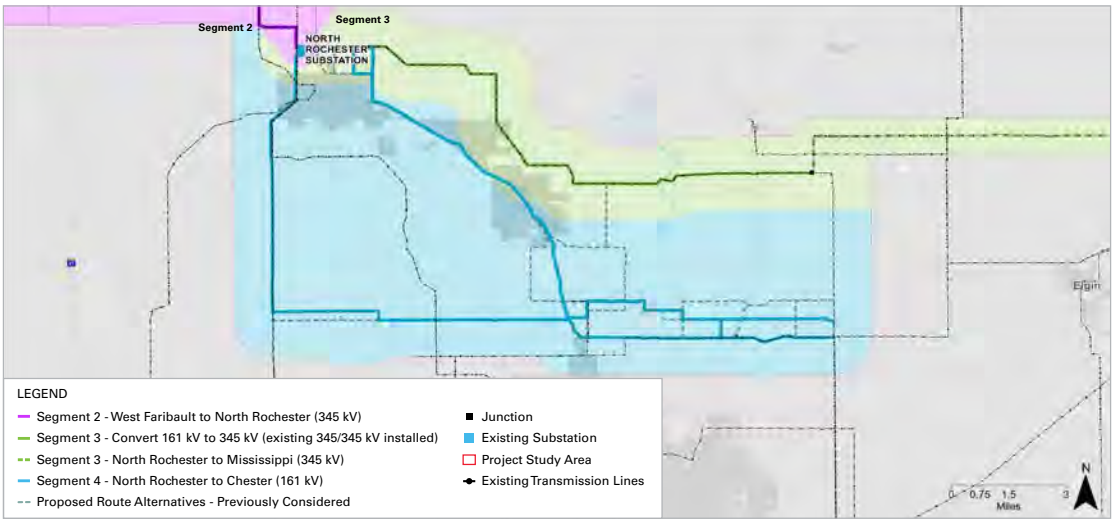

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REGULATORY PROCESS

We expect to apply for a combined Certificate of Need and Route Permit with the Minnesota Public Utilities Commission (PUC) in late 2023.

Certificate of Need application:
Describes the project need and the issues it will solve.

Route Permit application:
Includes at least two feasible proposed routes and the factors evaluated in developing those routes. The Minnesota PUC determines the final route following a full review process.

After submitting these applications, the Minnesota review process will begin:

- Public meetings and hearings will be held with public engagement opportunities.
- Written comments can also be submitted to the PUC.

Following this process, **the PUC will decide on the Certificate of Need and Route Permit expected in 2024 or 2025.** The PUC may select one option or a combination of the route options identified.

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-foot-wide for a 345 kV line
- Typical Right-of-Way is 80-100-foot-wide for a 161 kV line
- 800-1,200 feet between structures for 345 kV segments
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*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

WORKING WITH LANDOWNERS

EASEMENTS are a permanent right authorizing a utility to use the Right-of-Way (ROW) to build and maintain a transmission line. Landowners are paid a fair market value for the easement and can continue to use the land if the use doesn't interfere with the operation and maintenance of the transmission line.

RIGHTS-OF-WAY are the actual land areas acquired for a specific purpose such as a transmission line, roadway or other infrastructure.

LAND USES IN THE EASEMENT AREA

Agriculture
After initial construction, agricultural activities can continue outside the small area with the transmission structures.

Vegetation Management
Trees growing near power lines can be a safety hazard and can contribute to electric service interruptions nationwide. Some areas will require tree removal and pruning.

Our goal is to provide safe, reliable electric service while also taking care of one of your community's valuable natural resources.

Buildings and Structures
Generally, buildings or other structures are not allowed in the ROW/easement for transmission lines due to clearance and safety concerns. Landowners can only build structures in the easement area after receiving written approval from the utility.

This picture includes an existing 161 kV transmission line.

MANKATO-MISSISSIPPI RIVER PROJECT PARTNERS

Multiple utility partners will develop this new infrastructure to serve southern Minnesota and western Wisconsin, including several companies who helped build the CapX2020 transmission projects.

DEVELOPMENT DETAILS

- Xcel Energy will develop and own the infrastructure between the Wilmarth Substation near Mankato and the North Rochester Substation near Pine Island (Segments 1 and 2).
- All project partners will participate in the additional 345 kV infrastructure from the North Rochester Substation to the Mississippi River (Segment 3) and the 161 kV line from Pine Island to the Rochester area (Segment 4).
- Segments 1 2 3 and 4 will be submitted in one combined Certificate of Need and Route Permit.
- Dairyland Power will develop the relocation of the 161 kV portion east of Plainview, which will be permitted separately from this project.

This map is a general graphic and may not show exact locations.

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 2026 with the project in-service in 2028.

DAIRYLAND POWER COOPERATIVE | ROCHESTER PUBLIC UTILITIES | Southern Minnesota Municipal Power Agency | Xcel Energy

WHAT WE HEARD

In spring 2023, we launched a public engagement campaign to collect feedback on the project routing process.

SPRING 2023 ENGAGEMENT EFFORTS

- **6** in-person open houses
- **2** virtual open houses
- **1** self-guided virtual open house
- **1,070** website visits
- **17,000+** postcards mailed
- **43,000** people reached with **11** newspaper ads
- **67,000** people reached with Facebook posts
- **145** total comments received

COMMENTS RECEIVED BY CATEGORY

Top Comment Topics

- **Routing** — 40 Comments
- **Information Request** — 25 Comments
- **Distance from Homes/Structures** — 23 Comments
- **Mapping Request** — 21 Comments
- **Property Development** — 20 Comments

All Comment Topics

Aviation 3	Noise 1	Trails 1
Community Impacts 1	Property Access 2	Trees 4
Cost 1	Property Damage 5	Utilities 2
Cultural Resources 2	Property Development 20	Vegetation Management 5
Endangered Species 1	Property Values 5	Visual/Aesthetic 4
Farming 7	Dist. from Homes/Structures 23	Water 3
General 12	Recreation 2	Wetlands 8
Geography 6	Reliability 1	Wildlife 8
Information Request 25	Renewable Energy 3	
Livestock 3	Routing 40	
Mailing List Request 3	ROW 2	
Mapping Request 21	Safety 2	
Materials 3	System Planning 1	

Every comment we receive is considered during the routing process. Your feedback helped us make adjustments and refinements to the preliminary route options. Thank you for your feedback and participation in the route development process.

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WHAT ARE ELECTRIC AND MAGNETIC FIELDS?

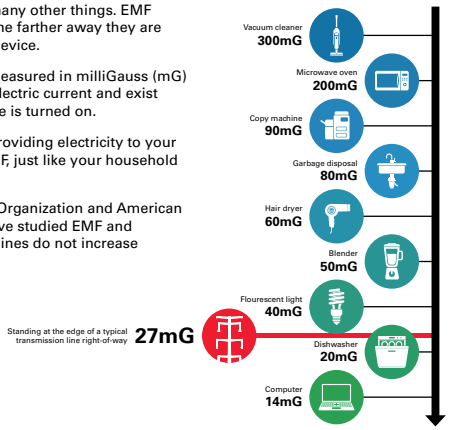
ELECTRIC AND MAGNETIC FIELDS, OR EMF, exist where electricity is produced or used. This includes appliances, lamps, computers, power lines and many other things. EMF dissipate rapidly the farther away they are from a source or device.

Magnetic fields, measured in milliGauss (mG) are produced by electric current and exist only when a device is turned on.

The power lines providing electricity to your home produce EMF, just like your household appliances.

The World Health Organization and American Cancer Society have studied EMF and concluded power lines do not increase risks to cancer.

Typical magnetic fields six inches from common home appliances measured in milliGauss (mG) are depicted in the chart.



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ROUTE DEVELOPMENT PROCESS

Developing route alternatives involves multiple steps. The routes we plan to submit in the Route Permit Application are designed to minimize impacts to the area, including humans, environment and existing land use such as agriculture.

DEVELOPING PRELIMINARY ROUTE OPTIONS

REFINING AND FIELD VERIFYING PRELIMINARY ROUTE OPTIONS — **WE ARE HERE**

SUBMITTING PROPOSED ROUTES TO THE MINNESOTA PUBLIC UTILITIES COMMISSION

Note: This process is flexible and steps may be revisited based on additional data and feedback we receive.

WHAT WE EVALUATE IN DEVELOPING ROUTES

Opportunities:

- Existing transmission line corridors
- Existing utility corridors (like pipelines)
- Roads and highways
- Property, field and section lines

Constraints or issues that may affect route development:

- Existing homes and businesses
- Farmland impacts
- Airports
- Cemeteries and religious facilities
- Rivers, lakes, streams and wetlands
- Conservation areas, nature preserves, and state and local parks
- Cultural and historic resources
- Sensitive animal and plant species

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Appendix N-5

MMRTP Virtual Open House May 2023

THANK YOU FOR JOINING US.

THE PRESENTATION WILL BEGIN SHORTLY

Mankato-Mississippi River Transmission Line Project

Overview

May 2023

AGENDA

1. Project Need
2. Project Description
3. Project Benefits
4. Project Map & Segments
5. Schedule
6. Route Development
7. Regulatory Process
8. Construction
9. Contact Us

QUESTIONS?

Today's Presenters

Grant Stevenson – Presenter
Senior Project Manager

Project Need

The Mankato-Mississippi River Transmission Line Project is part of a portfolio of long-range electric transmission projects identified by the regional grid operator, MISO, in Minnesota and throughout the Midwest that will:

Strengthen the overall “backbone” of the transmission grid so customers receive the electricity they need to power their homes and businesses.

Improve reliability.

Relieve capacity on the grid as electricity use increases and more renewable energy is needed for customers.

Create more system resiliency during extreme weather.

Support adding new low-cost renewable energy.

Project Description

between the Wilmarth Substation in Mankato and a connection point at the Mississippi River near Kellogg.

New Build

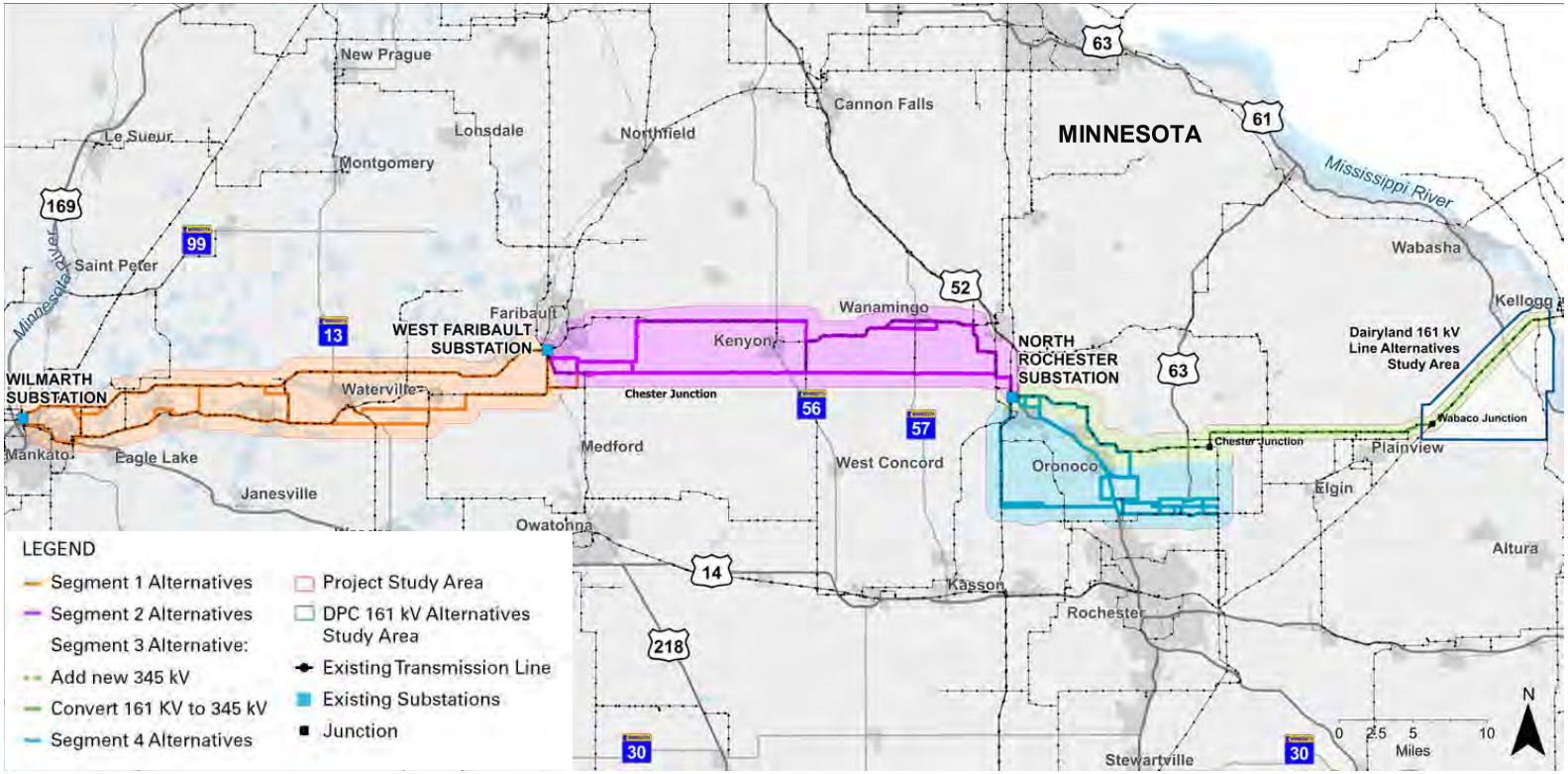
20 miles of new 161 kV transmission lines

between the North Rochester Substation near Pine Island and an existing transmission line northeast of Rochester, which is being displaced by the new 345 kV line.

Project Benefits

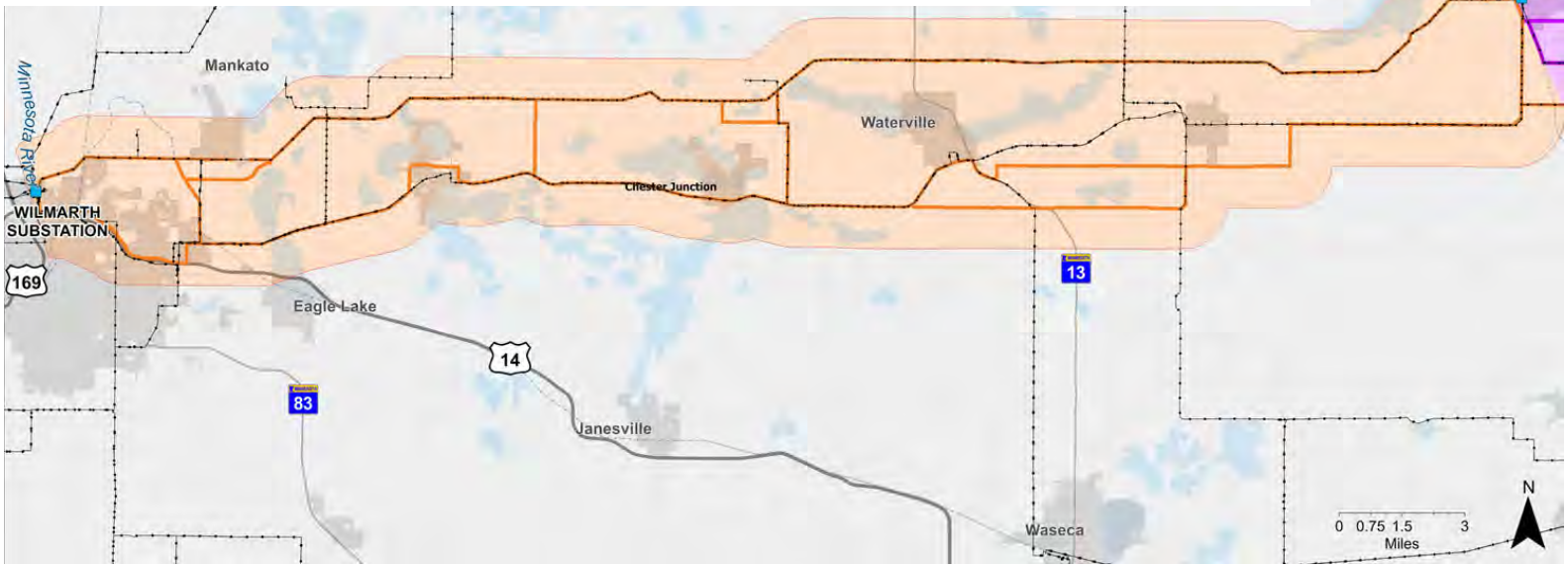
- Adding transmission capacity to deliver increased amounts of renewable energy as aging traditional energy resources retire.
- Increasing the reliability and resilience of the Upper Midwest energy grid.
- Enabling greater access to low-cost renewable electricity.
- Upgrading and updating infrastructure supports the ability for companies in the region to thrive and grow when there is access to reliable, resilient power.
- Hiring local construction workers and companies, when possible, which provides local economic benefits.
- Building new transmission infrastructure encourages wind and solar construction which brings more low-cost renewable energy, construction jobs, lease revenue and increased tax bases.

Project Map



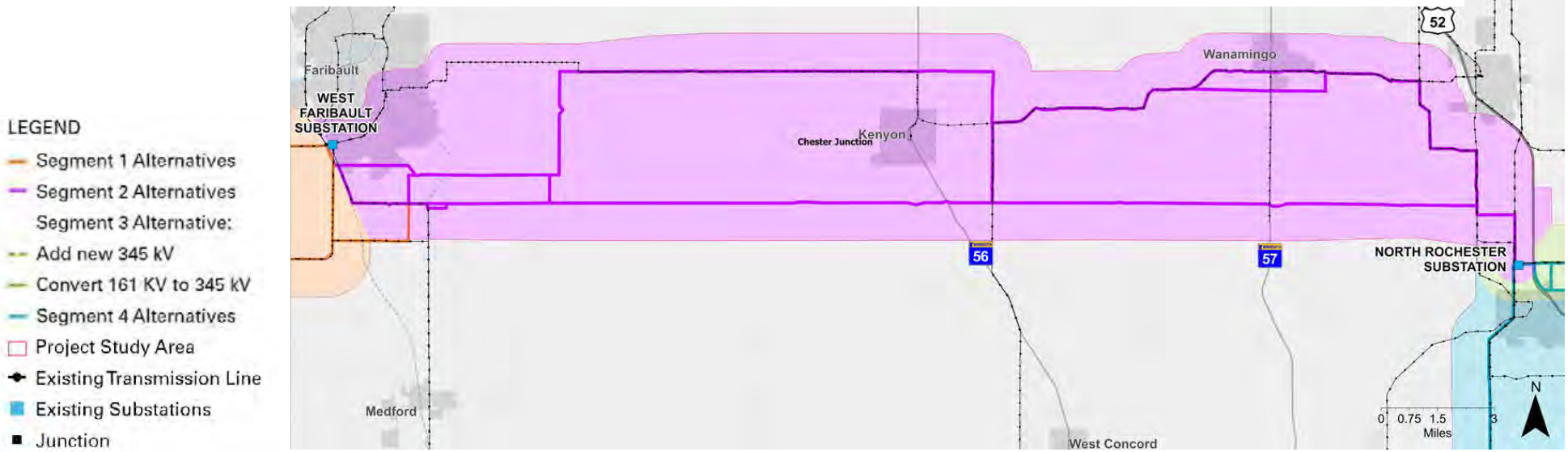
Project Segments

Develop about 40 miles of 345 kV transmission lines in existing transmission corridors between the Wilmarth Substation in Mankato and the West Faribault Substation in Faribault.



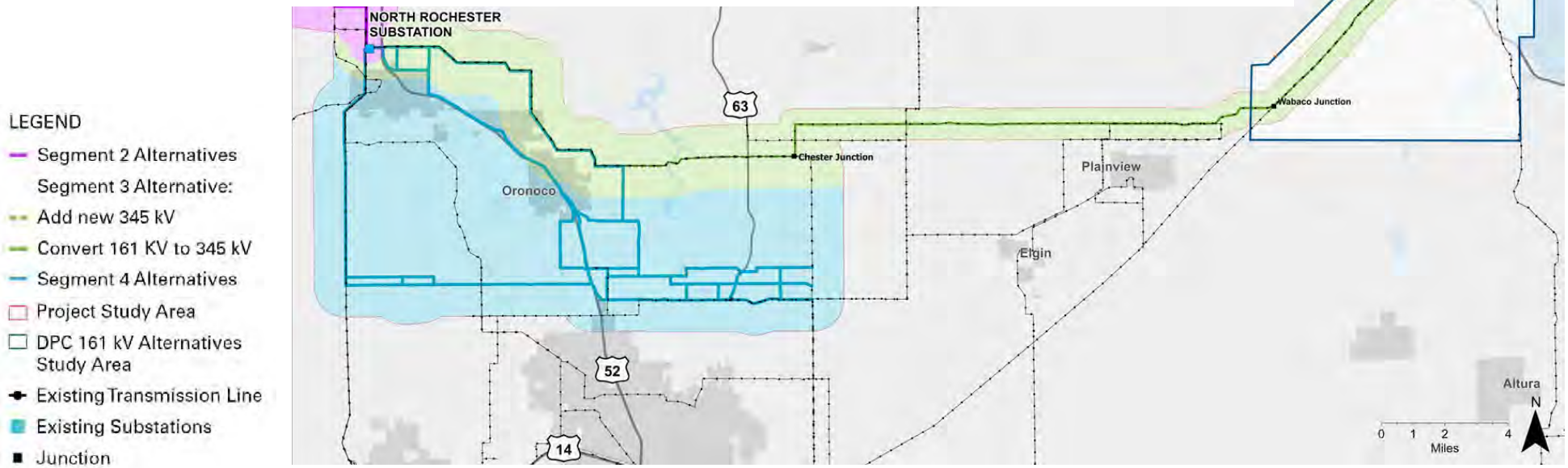
Project Segments

Develop about 35-40 miles of 345 kV transmission lines in either a new corridor and/or in existing transmission corridors from near the West Faribault Substation to the North Rochester Substation near Pine Island.



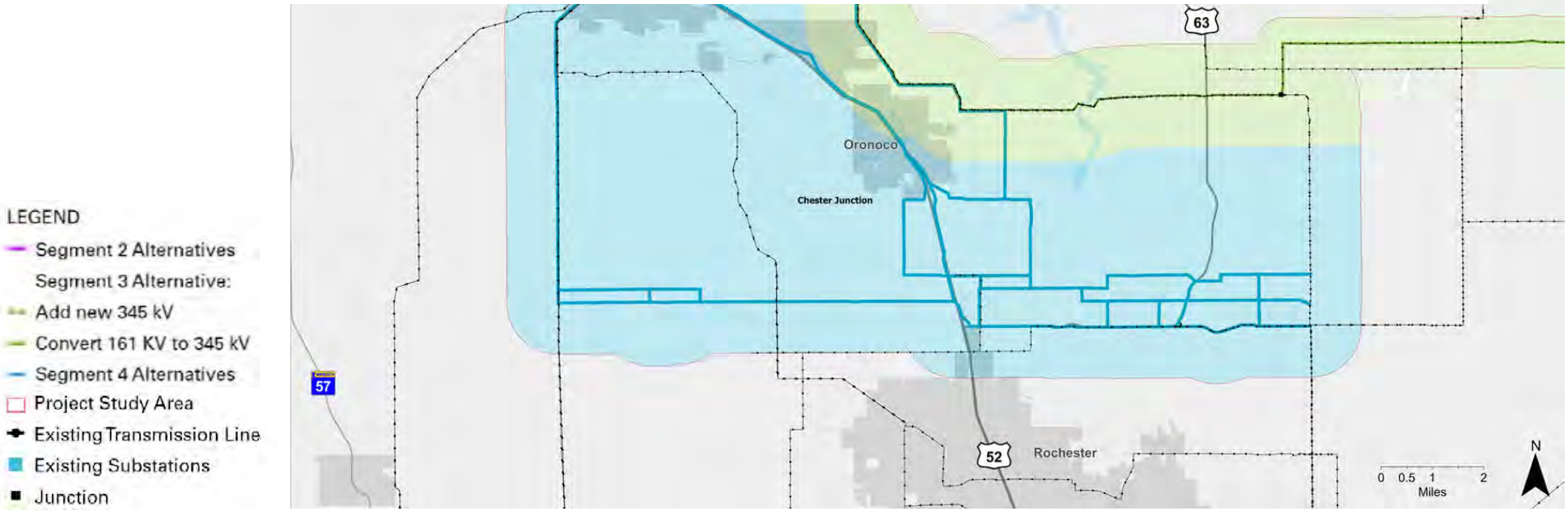
Project Segments

Convert about 26 miles of 161 kV line to 345 kV line and install about 16 miles of new 345 kV line on existing structures between the North Rochester Substation and the Mississippi River.



Project Segments

Develop about 20 miles of a new single-circuit 161 kV line from the North Rochester Substation to an existing transmission line northeast of Rochester.



Project Partners

- Xcel Energy will develop and own the infrastructure in Segments 1 and 2.
- All project partners will participate in Segments 3 and 4.
- All segments will be permitted together.
- Dairyland Power will develop and permit a related project separately, the relocation of the 161 kV portion east of Plainview.

Anticipated Schedule

2022

- Project identified by MISO

- Planning
- Route development process begins
- Public and stakeholder engagement
- Preliminary engineering
- Submit Certificate of Need and Route Permit Application

2024-2026

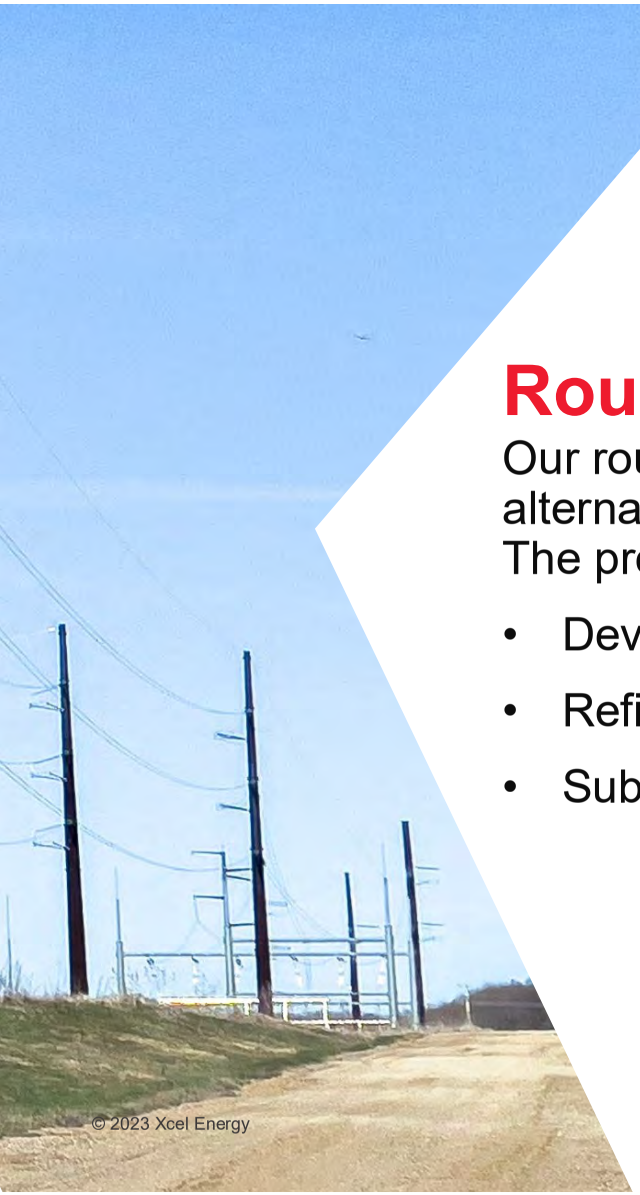
- Minnesota permitting review (including public input)
- Final engineering
- Negotiate with landowners to purchase easements
- Obtain other required permits
- Continued public and stakeholder engagement

2026-2028

- Construction

2028

- In-service
- Restoration



Routing Process

Our route selection process is a multi-step analysis that identifies route alternatives with minimal impacts to humans and the environment. The process generally includes:

- Developing preliminary route options – **we are here**.
- Refining and field verifying preliminary route options.
- Submitting proposed routes to the Minnesota Public Utilities Commission.

Permitting

We expect to apply for a combined Certificate of Need and Route Permit with the Minnesota Public Utilities Commission (PUC) in late 2023.

Route Permit Application

This type of project requires at least two feasible proposed routes. The application includes proposed routes, significant information about each route option, including construction, maintenance and operations considerations, the land use considerations that went into developing the route, and other factors that were evaluated.

Working with Landowners

Rights-of-Way

are the actual land areas acquired for a specific purpose such as a transmission line, roadway or other infrastructure.

Land uses in the easement area may be restricted based on types of activity, but after construction, agricultural activities can continue outside of the small area occupied by the transmission structures.

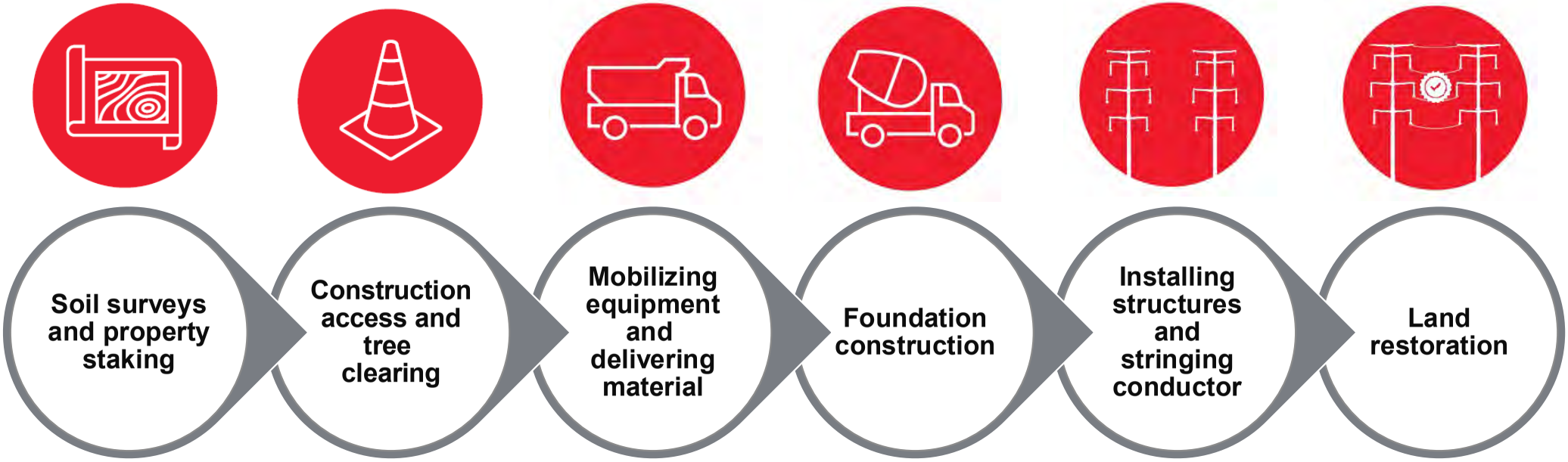
Regulatory Process

Following this process, the PUC will hold a public meeting to decide on the Certificate of Need and Route Permit with a decision expected in 2024 or 2025. The PUC may select one option, or a combination of the options identified.

Transmission Line Infrastructure

Our anticipated design includes:

- Steel transmission structures
- Single pole style for most structures
- Typical pole height is 100-150 feet, depending on the terrain
- **345 kV segments**
  - Typical ROW width is 150 feet
  - 800 – 1,200 feet between structures
- **161 kV segments**
  - Typical ROW width is 80 – 100 feet
  - 300 – 500 feet between structures



MankatoMississippiRiverTransmission.com

Contact@MankatoMississippiRiverTransmission.com

QUESTIONS?

Appendix N-6

MMRTP Virtual Open House September 2023

THANK YOU FOR JOINING US.

THE PRESENTATION WILL BEGIN SHORTLY.

Mankato-Mississippi River Transmission Project

Overview

September 2023

AGENDA

1. Project Need
2. Project Description
3. Project Benefits
4. Project Map & Segments
5. Schedule
6. Route Development
7. Regulatory Process
8. Construction
9. Contact Us

QUESTIONS?

- Please submit questions using the chat function below.
- If you want to submit a question through the phone, please press *3.
- We'llanswerquestionsatthe end of this session.

Today's Presenters

Randy Fordice – Moderator
Manager, Transmission Communications and Public Affairs

Jesse Lyon – Presenter
Transmission Engineer

Joe Sedarski – Presenter
Routing and Permitting Specialist

Improving Transmission Infrastructure

In Minnesota and the Upper Midwest

The Mankato-Mississippi River Transmission Project is one of several long-range transmission project 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:

Adding transmission capacity to accommodate increasing amounts of renewable energy generation as aging traditional generation resources retire.

Improving reliability and system resilience in the Upper Midwest.

Creating greater access to low-cost renewable energy.

Upgrading and updating infrastructure facilitates more jobs and increases tax revenue for communities in southern Minnesota.

Supporting regional economic growth through new energy infrastructure.

Project Description

Install and Upgrade

120 miles of 345 kilovolt (kV) transmission lines

between the Wilmarth Substation in Mankato and a connection point at the Mississippi River near Kellogg.

Build

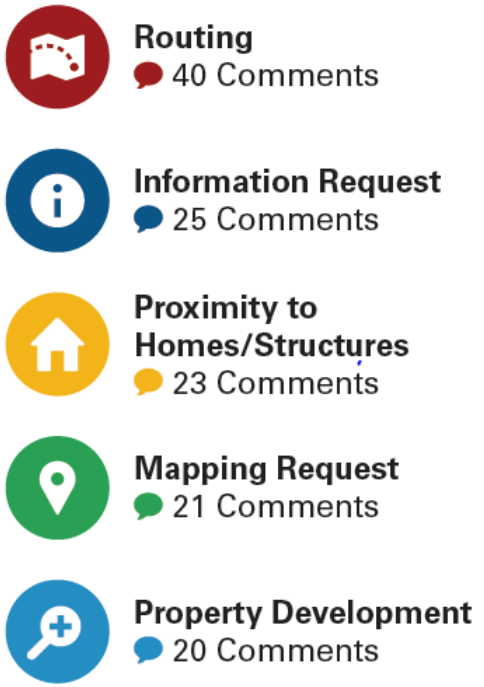
20 miles of new 161 kV transmission lines

between the North Rochester Substation near Pine Island and an existing transmission line northeast of Rochester, which is being relocated from its existing alignment to install the new 345 kV infrastructure.

SPRING 2023 ENGAGEMENT EFFORTS

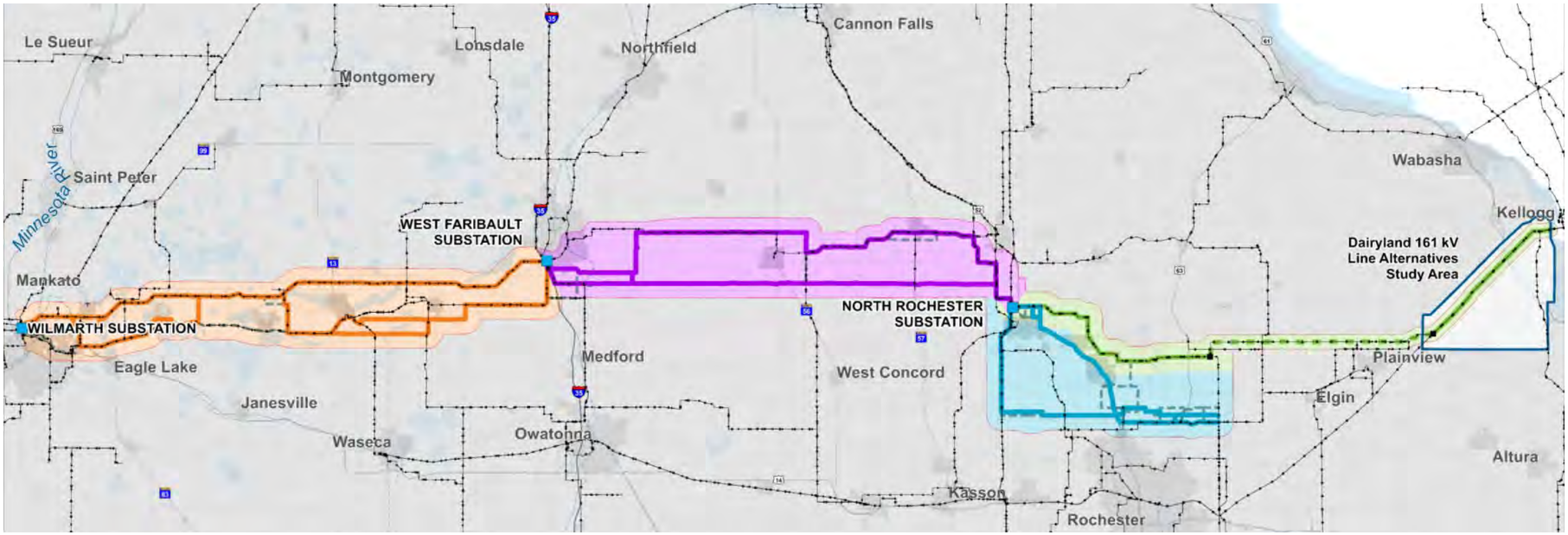
- 6 in-person open houses
- 2 virtual open houses
- 1 self-guided virtual open house
- 1,070 website visits
- 17,000+ postcard mailed
- 43,000 people reached with 11 newspaper ads
- 67,000 people reached with Facebook posts
- 145 total comments received

TOP COMMENT TOPICS



Project Map

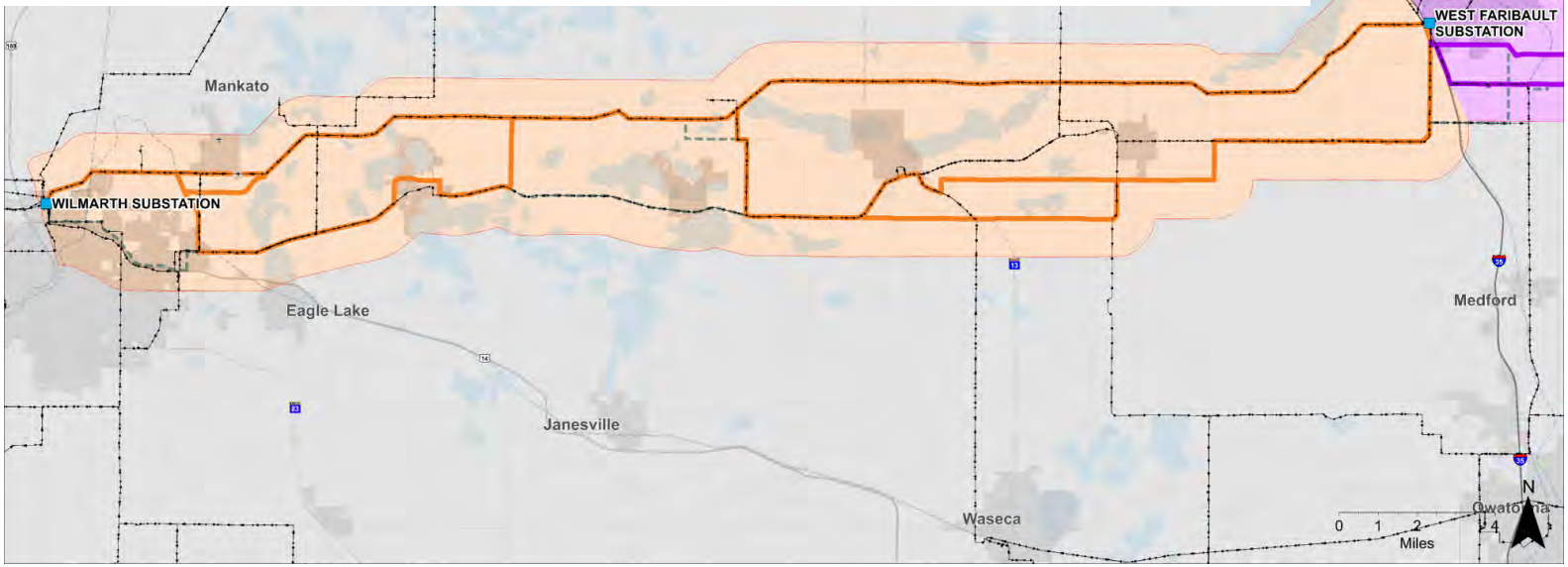
One project with four distinct segments.



Project Segments

Segment 1

Build about 40 miles of 345 kV transmission lines in existing transmission corridors between the Wilmarth Substation in Mankato and the West Faribault Substation in Faribault.



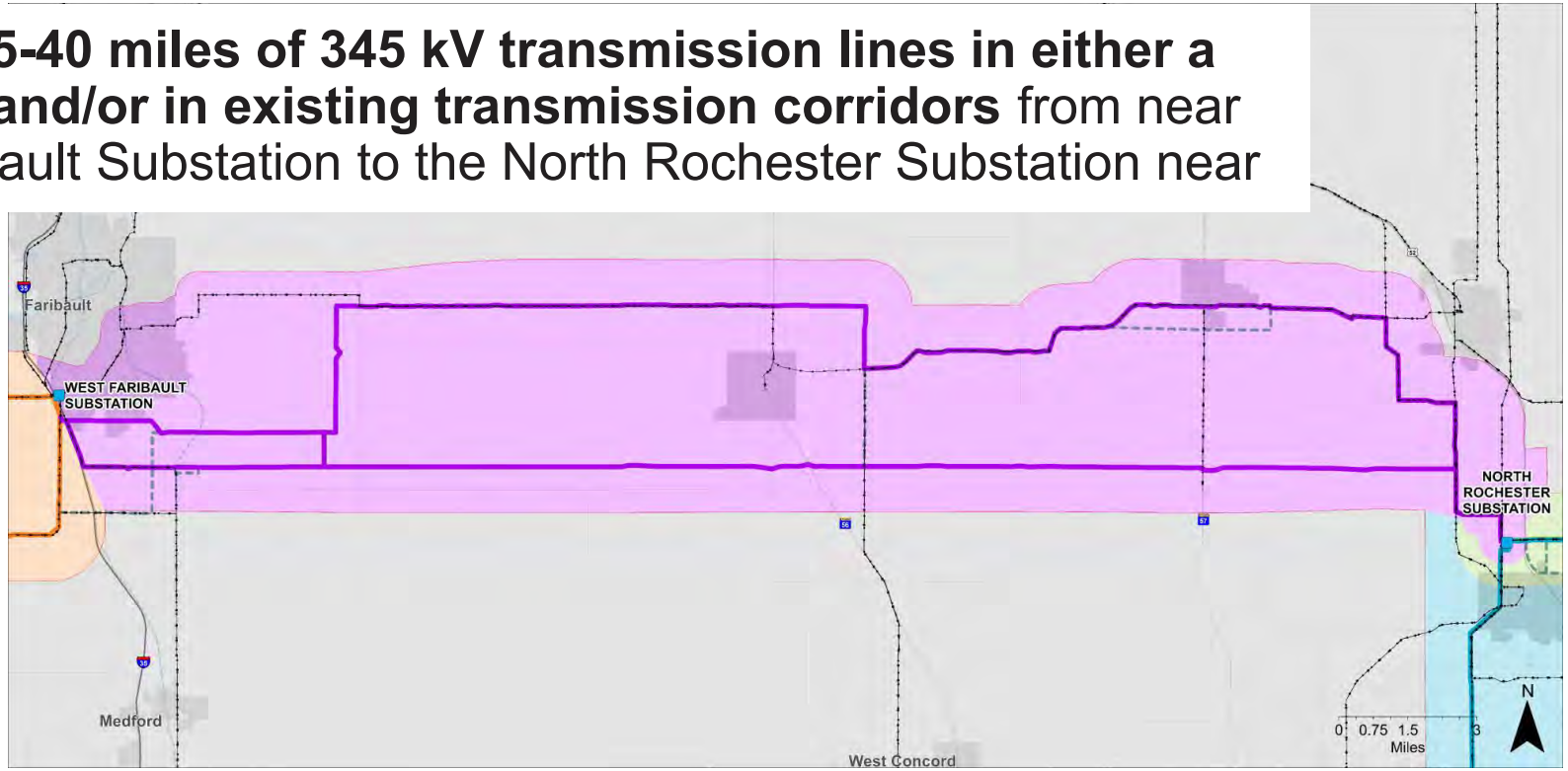
LEGEND

- Segment 1 Alternatives
- Segment 2 Alternatives
- Project Study Area
- Existing Transmission Line
- Existing Substations
- Junction

Project Segments

Segment 2

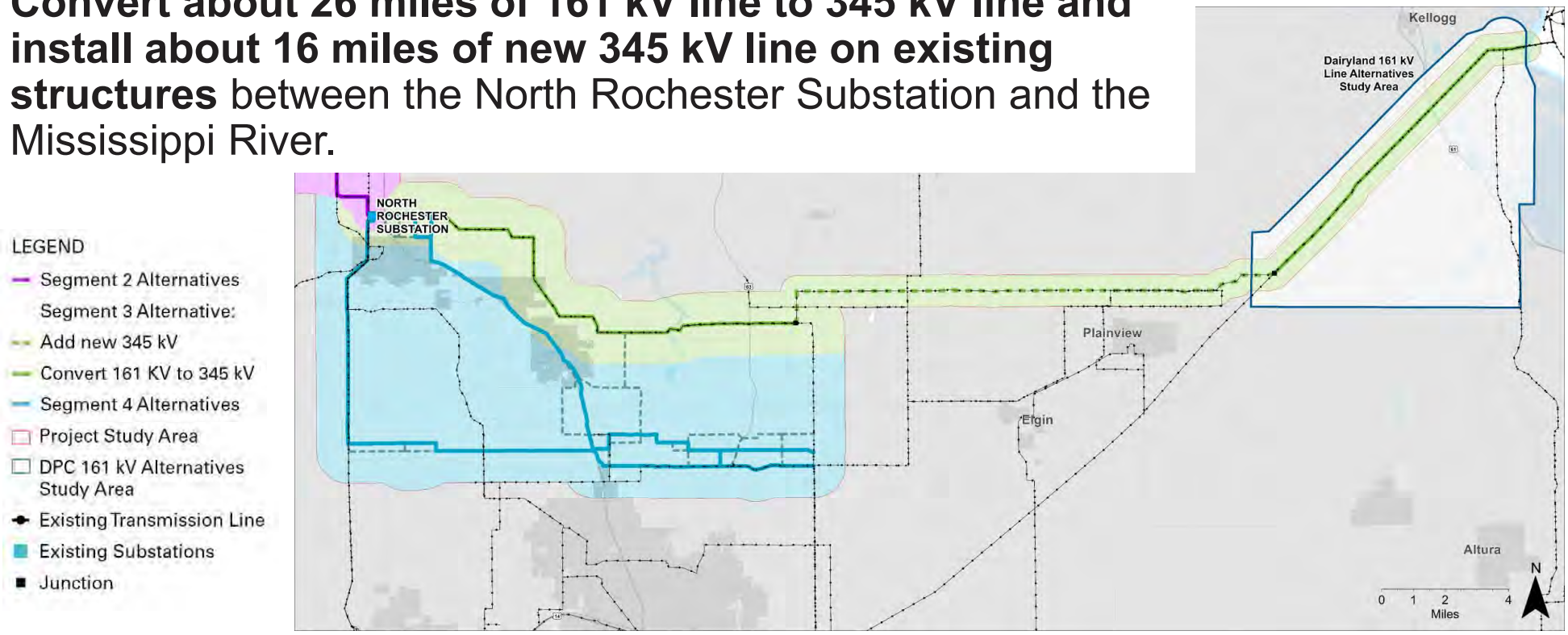
Build about 35-40 miles of 345 kV transmission lines in either a new corridor and/or in existing transmission corridors from near the West Faribault Substation to the North Rochester Substation near Pine Island.



Project Segments

Segment 3

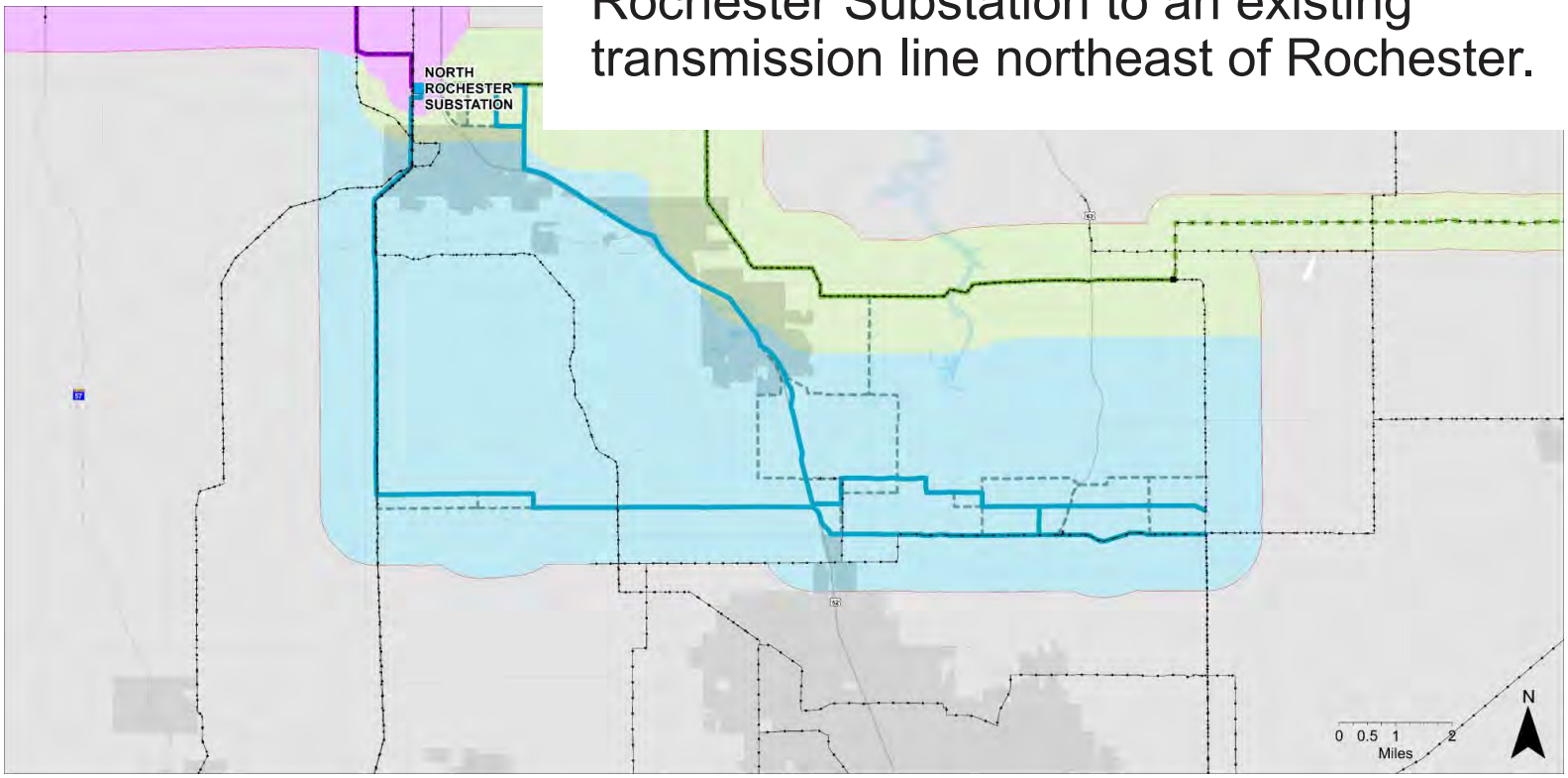
Convert about 26 miles of 161 kV line to 345 kV line and install about 16 miles of new 345 kV line on existing structures between the North Rochester Substation and the Mississippi River.



Project Segments

Segment 4

Build about 20 miles of a new single-circuit 161 kV line from the North Rochester Substation to an existing transmission line northeast of Rochester.



Project Partners

- We're working with utility partners to develop portions of the project.
- **Development details:**
  - Xcel Energy will develop and own the infrastructure in Segments 1 and 2.
  - All project partners will participate in Segments 3 and 4.
  - All segments will be permitted together.
  - Dairyland Power will develop and permit a related project separately: the relocation of the 161 kV portion east of Plainview.

Anticipated Project Schedule

2022

- Project identified by MISO

2023

- Route development process begins
- Public and stakeholder engagement
- Preliminary engineering
- Submit Certificate of Need and Route Permit Application

2024-2026

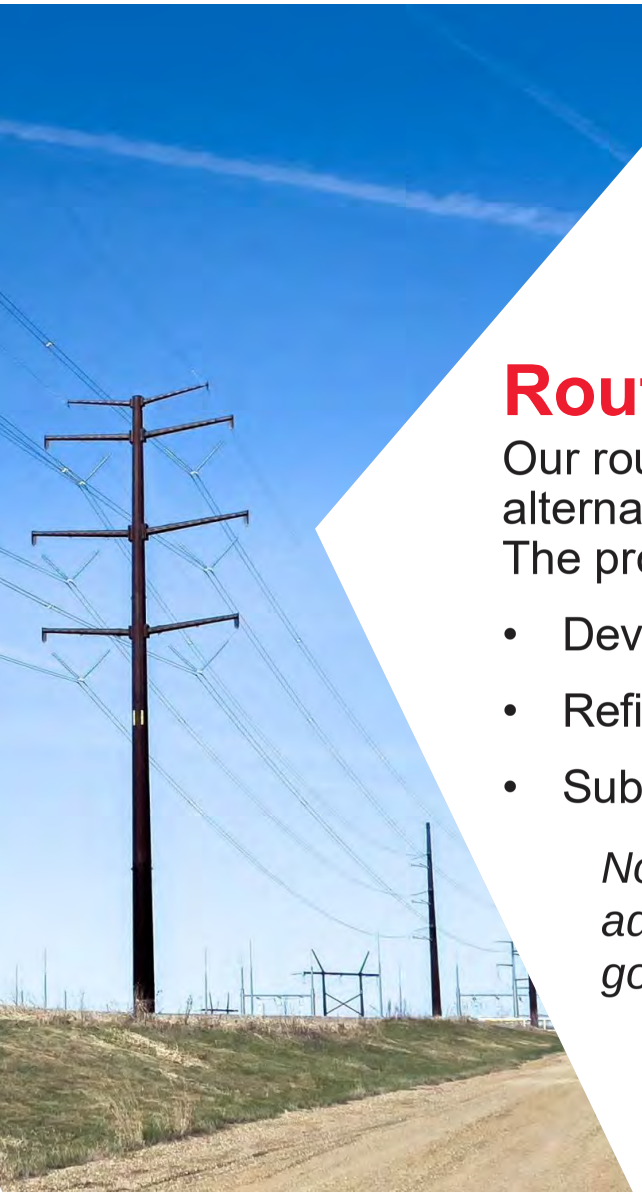
- Minnesota permitting review (including public engagement)
- Final engineering
- Negotiate with landowners to secure easements
- Obtain other required permits
- Continued public and stakeholder engagement

2026-2028

- Construction

2028

- In-service and restoration



Routing Process

Our route selection process is a multi-step analysis that identifies route alternatives that minimize impacts to humans and the environment. The process generally includes:

- Developing preliminary route options.
- Refining and field verifying preliminary route options – **we are here**.
- Submitting proposed routes to the Minnesota Public Utilities Commission.

Note: this process is flexible and steps may be revisited based on additional data and feedback from landowners, the public, local governments, Native American Tribes and resource agencies.

Permitting

We expect to apply for a combined Certificate of Need and Route Permit with the Minnesota Public Utilities Commission (PUC) in late 2023.

Certificate of Need Application

This describes why the project is needed, the issues building it will solve, and includes details such as engineering, operational details, environmental impacts and alternatives considered before submitting the application.

Route Permit Application

This type of project requires at least two feasible proposed routes. The application includes proposed routes, significant information about each route option, including construction, maintenance and operations considerations, the land use considerations that went into developing the route, and other factors that were evaluated.

Working with Landowners

Easement

Easements are a permanent right authorizing a utility to use the Right-of-Way (ROW) to build and maintain a transmission line.

Landowners are paid fair market value for the easement and can continue to use the land for most purposes so long as their use does not interfere with the operation and maintenance of the transmission line.

Right-of-Way

A right-of-way (ROW) is the actual land area acquired for a specific purpose, such as a transmission line, roadway or other infrastructure.

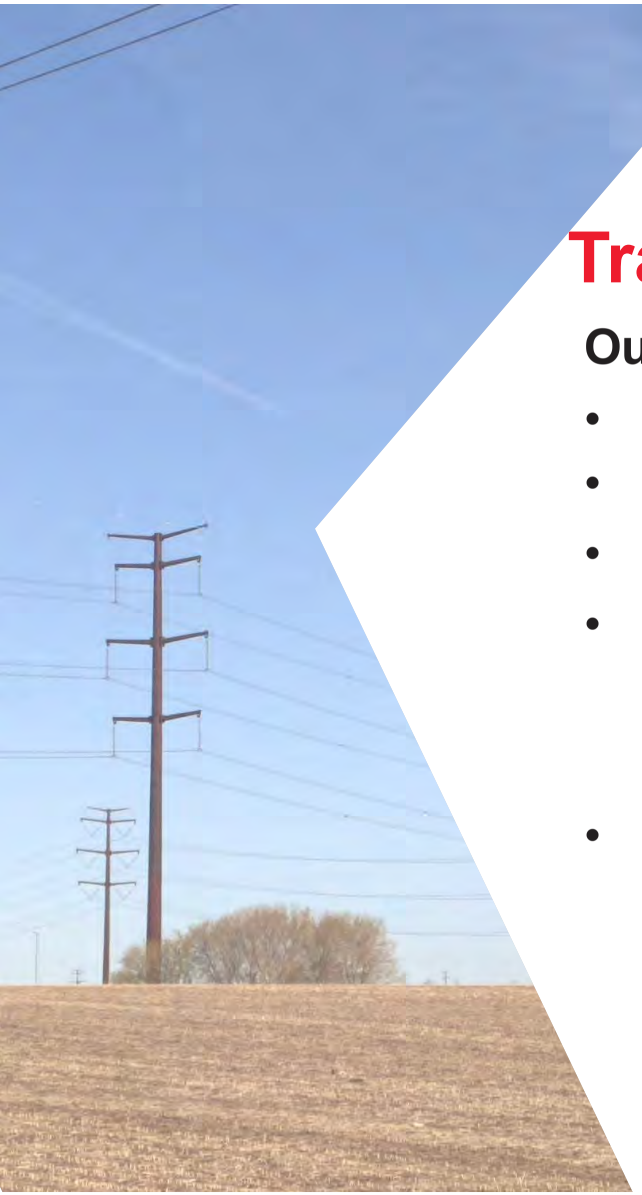
Land uses in the easement area may be restricted based on types of activity, but after construction, agricultural activities can continue outside of the small area occupied by the transmission structures.

Regulatory Process

Public meetings and hearings will be held throughout the project area. Some of those meetings will discuss the scope of the environmental assessment, and at public hearings, local landowners can comment about the overall project.

Landowners, local officials and other stakeholders can also submit written comments to the PUC.

Following this process, the PUC will hold a public meeting to decide on the Certificate of Need and Route Permit, with a decision expected in 2024 or 2025. The PUC may select one option, or a combination of the options identified.



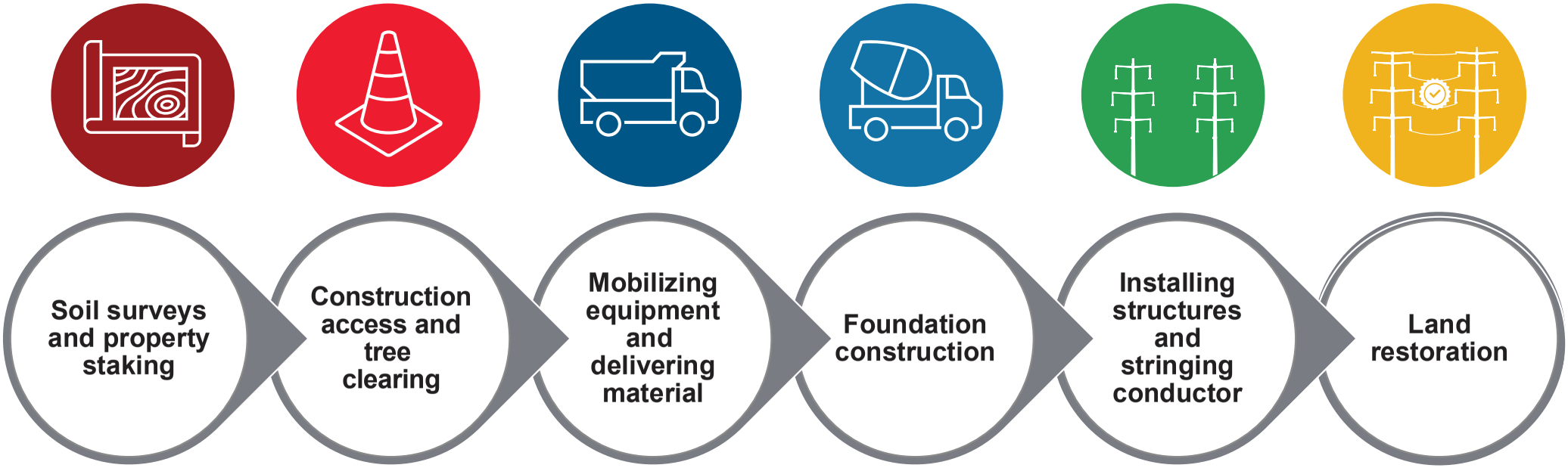
Transmission Line Infrastructure

Our anticipated design includes:

- Steel transmission structures
- Single-pole style for most structures
- Typical pole height is 100-150 feet, depending on the terrain
- **345 kV segments**
  - Typical ROW width is 150 feet
  - 800 – 1,200 feet between structures
- **161 kV segments**
  - Typical ROW width is 80 – 100 feet
  - 300 – 500 feet between structures

Typical Construction Process

Our typical transmission line construction process includes the following steps:



CONNECT WITH US!

If you have questions or need more information, our team will collect your feedback through our website, email and hotline. We'll respond to your comment as quickly as possible.

- **Visit: mmrtproject.com**
- **Email: contact@mmrtproject.com**
- **Call: 800-853-3365**

QUESTIONS?

Please submit questions using the chat function below.

- If you want to submit a question through the phone, please press *3.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Municipal Power Agency


Xcel Energy®

Appendix N-7

MMRTP Social Media Post May 2023

JOIN US FOR A MEETING

Xcel Energy℠

Appendix N-8

MMRTP Social Media Post September 2023

JOIN US FOR A MEETING

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A Touchstone Energy® Cooperative

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Southern Minnesota Municipal Power Agency

Xcel Energy®

Appendix N-9

MMRTP Newspaper Advertisement May 2023

Driver in deadly Texas crash charged with manslaughter

By VALERIE GONZALEZ
Associated Press

BROWNSVILLE, Texas — The driver of an SUV that killed eight people when it slammed into a bus stop in Brownsville, Texas, has been charged with manslaughter, police said Monday as investigators tried to determine if the crash was intentional.

Authorities believe driver George Alvarez, 34, of Brownsville, lost control after running a red light Sunday morning, and plowed into a crowd of Venezuelans outside a migrant center.

Police Chief Felix Sauceda said Alvarez was charged with eight counts of manslaughter and 10 counts of aggravated assault with a deadly weapon. Officials are awaiting toxicology reports to determine whether Alvarez was intoxicated, Sauceda said, adding that there was no motive that he could discuss.

The SUV ran a red light, lost control, flipped on its side and struck 18 people, Sauceda said at a news conference Monday morning. Six people died on the scene and 12 people were critically injured, he said. Officials have said the death toll later rose to eight.

Alvarez tried to flee, but was held down by several people on the scene, he said. His bail was set at $3.6 million.

Victims struck by the vehicle were waiting for the bus to return to downtown Brownsville after spending the night at the overnight shelter, said Sister Norma Pimentel, executive director of Catholic Charities of the Rio Grande Valley.

Most of the victims were Venezuelan men, shelter director Victor Maldonado said. Brownsville has seen a surge of Venezuelan migrants over the last two weeks for unclear reasons, authorities said.

Police retrieved a blood sample and sent it to a Texas Department of Public Safety lab to test for intoxicants.

Appendix N-10

MMRTP Project Information Sheet

MANKATO – MISSISSIPPI RIVER TRANSMISSION PROJECT

INFORMATION SHEET
MINNESOTA

September 2023

About

The Mankato-Mississippi River Transmission Project will strengthen the overall backbone of the transmission grid by improving reliability and resiliency, delivering new low-cost renewable energy and providing other benefits for Minnesota and the Upper Midwest region.

This project is part of a portfolio of long-range electric transmission projects identified by the regional grid operator, MISO, to improve reliability, make the grid more resilient during extreme weather, and ensure customers receive the electricity they need to power their homes and businesses.

Project Details

The Mankato-Mississippi River Transmission Project includes about 120 miles of 345 kilovolt (kV) transmission lines between the existing Wilmarth Substation near Mankato, Minnesota, and a connection point at the Mississippi River near Kellogg.

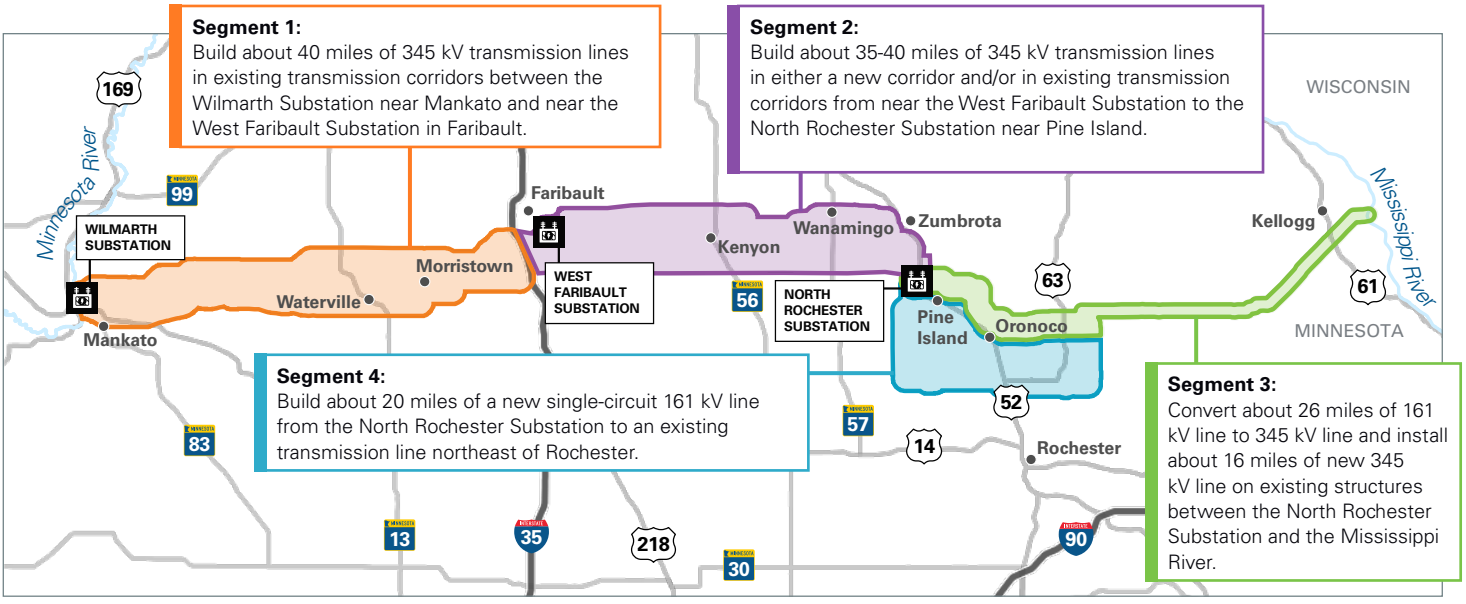
It also includes building about 20 miles of new 161 kV transmission lines between the existing North Rochester Substation near Pine Island, Minnesota, and an existing transmission line northeast of Rochester, which is being relocated from its existing alignment to install the new 345 kV infrastructure.

Routing Process

Our route selection process is a multi-step analysis that identifies route alternatives with minimal impacts to humans and the environment. Preliminary routes are evaluated to identify potential impacts, including proximity to homes, opportunities to share corridors (including roads and other transmission lines), impacts to agriculture, locations of protected lands and resources, aesthetics, and other concerns.

Once preliminary routes are identified, we gather input from the public, local governments, Tribes and resource agencies to help refine the routes. Your feedback about specific constraints or challenges on preliminary routes, or identification of alternative route opportunities, is especially helpful as we develop the project. This feedback will be considered in the preliminary routes, which will then undergo a more detailed comparative analysis. This will inform the selection of proposed routes, which we plan to submit to the Minnesota Public Utilities Commission in late 2023 in a combined Certificate of Need and Route Permit application.

This project includes four segments:



This map is a general graphic and may not show exact locations.

Project Benefits

This project will provide several benefits in southern Minnesota and throughout the Upper Midwest:

- Adding transmission capacity to accommodate increasing amounts of renewable energy generation as aging traditional generation resources retire.
- Increasing the reliability and resilience of the energy grid by developing new high-voltage connections to key substations that serve customers.
- Enabling greater access to low-cost renewable electricity.
- Upgrading and updating infrastructure supports local businesses and industries with reliable, resilient power.
- When possible, we hire local construction workers and companies for construction services, including cement, concrete, equipment rentals and related services. Similar projects have shown that hundreds of workers and companies participate in these projects, providing benefits to the local economy.
- Building new transmission lines encourages construction of wind and solar power to bring more low-cost renewable electricity to help meet the electric needs of our state. These projects provide construction jobs, lease revenue for farmers and increased tax base to support communities.

Schedule

During this project, we'll conduct regular engagement efforts. Our current schedule, while subject to change, is expected to be the following:

2022

- Project identified by MISO

2023

- Route development process begins
- Public and stakeholder engagement
- Preliminary engineering
- Submit Certificate of Need and Route Permit Application

2024 – 2026

- Minnesota permitting review (including public engagement)
- Detailed engineering
- Negotiate with landowners to secure easements
- Obtain other required permits
- Continued public and stakeholder engagement

2026-2028

- Construction

2028

- In-service and restoration

QUESTIONS?

We want to hear from you.

SCAN ME

Call: 800-853-3365

Visit: MMRTProject.com

Email: Contact@MMRTProject.com

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Appendix N-11

MMRTP EMF Fact Sheet

ELECTRIC AND MAGNETIC FIELDS (EMF): THE BASICS

Electric charges are present in all matter, but most objects are electrically neutral because positive and negative charges are present in equal numbers. When the balance of electric charges is altered, electrical effects are experienced, such as the attraction between a comb and our hair or the drawing of sparks after walking on a synthetic rug in the wintertime. The voltage on an electrical wire is caused by electric charges that can exert forces on other nearby charges, and this force is called an "electric field" (E). When charges move they produce an electric current that can exert forces on other electric currents, and this force between electric currents is called a "magnetic field" (M). Together, electric and magnetic fields are called EMF.

EMF exists wherever electricity is produced or used, and EMF surrounds any electrical appliance or wire that is conducting electricity. Everyone is exposed to these fields at home when you turn on a lamp, e-mail a friend, or use an electric oven or microwave to cook your dinner. In all likelihood, you're surrounded by EMF from electrical equipment in your workplace, too. The electric power we use daily is a 60 Hertz (Hz) alternating current, meaning that electric charges move back and forth 60 times a second. We use "EMF" in this fact sheet in reference to these 60 Hz fields, called "extremely low frequency" or "power frequency" fields. These are distinct from the much higher frequency fields associated with radio and TV waves, and cell phone signals.

What are electric and magnetic fields?

Electric fields are created by voltage – the higher the voltage, the stronger the field. Anytime an electrical appliance is plugged in, even if it isn't on, an electric field is created in its vicinity. But these fields are easily blocked by walls, trees, and even your clothes and skin, and the farther away you move from the source of the electric field, the weaker it becomes. Moving even a few feet away from an appliance makes a big difference in the strength of the field that you're exposed to. Electric fields are measured in kilovolts per meter (kV/m).

Magnetic fields, measured in milliGauss (mG), are produced by electric current and only exist when an electric appliance is turned on—the higher the current, the greater the magnetic field. As with electric fields, the strength of a magnetic field dissipates rapidly as you move away from its source. However, unlike electric fields that are easily blocked by ordinary materials, magnetic fields do not interact with and are not affected by walls and clothes and other barriers.

Research studies on the biological effects of EMF often focus on magnetic fields because they are not blocked by ordinary materials and because power line magnetic fields can create weak electric currents in the body by a process called "induction." Induced currents from 60 Hz EMF produced by power lines or home appliances are weaker than the natural currents found in the body, such as those from the electrical activity generated by your brain or your heart. Such induced currents are also much weaker than the currents you might experience from a mild electric shock.

Why are you calling them electric and magnetic fields instead of electromagnetic fields? Is there a difference?

These terms are often used interchangeably, and both electric and magnetic fields from power lines and electromagnetic fields may be abbreviated as EMF. However, there are important differences between low frequency power line EMF and higher frequency radio waves.

The frequency (i.e., the rate of time variation) of fields produced by the generation, transmission and use of electricity—typical of most household and office appliances and power lines—are low, and electric and magnetic fields exist separately. At higher frequencies, such as with radio or TV signals, the fields are interrelated, and are more accurately described by the term "electromagnetic."

Radio and TV electromagnetic waves are meant to transmit away from the antenna and carry radio frequency energy to the receiver. The EMF from power lines is too low in frequency to carry any significant energy away, and the electric power stays on the utility lines.

Thus, the EMF from power lines should not be called radiation or emissions. More importantly, neither power line EMF nor radio frequency electromagnetic waves should be confused with ionizing radiation, such as X-rays. Because of its dramatically higher frequency, ionizing radiation (like X-rays) has enough energy to alter chemical bonds and damage biological molecules, something that lower frequencies in the electromagnetic spectrum (power lines, radio, TV, and infrared) cannot do.

What are some of the things in my home and at work that produce EMF?

Anything that generates, distributes or uses electricity creates electric and magnetic fields. Figure 1 is a list of some appliances and machines commonly found in homes or offices and the magnetic field levels found nearby.

We also encounter a wide variety of EMF in other ways—natural and man-made. The earth's atmosphere creates slowly varying electric fields, and thunderstorms produce very intense electric fields that are occasionally discharged by a lightning bolt. The earth's core produces a steady magnetic field, as can easily be demonstrated with a compass needle which points to magnetic north. This magnetic field has a strength of about 550 mG.

Magnetic fields from the earth or from small magnets exert forces on electric currents or on other magnetic objects, as when a compass needle points toward a nearby magnet. Magnetic fields are common in our lives. Many children's toys contain magnets and many of us use refrigerator magnets, generating fields of about 100,000 to 500,000 mG.

An increasingly common diagnostic procedure, magnetic resonance imaging (MRI), uses fields of about 20,000,000 mG. If you were to spin a magnet at a rate of 60 times a second, you would get an alternating magnetic field like the fields produced by power lines.

FIGURE 1.
Typical 60 Hz magnetic field levels from some common home appliances

Appliance	Magnetic field 6 inches away	Magnetic field 2 feet away
Electric shaver	100 mG	–
Vacuum cleaner	300 mG	10 mG
Electric oven	9 mG	–
Dishwasher	20 mG	4 mG
Microwave oven	200 mG	10 mG
Hair dryer	300 mG	–
Computers	14 mG	2 mG
Fluorescent lights	40 mG	2 mG
Copy machines	90 mG	7 mG
Garbage disposals	80 mG	2 mG

Source: National Institute of Environmental Health Services / National Institutes of Health: EMF Associated with the Use of Electric Power

How can I find out what EMF levels I'm exposed to at home and at work?

You can monitor your daily exposure to magnetic fields by wearing a personal exposure meter (called a magnetometer or gauss meter) or by keeping one close to you. This is the most accurate way to measure your true exposure to magnetic fields during the course of your normal activities. Other meters can be put in a location —like your kitchen or home office—to measure typical EMF levels in that spot. This type of measurement isn't an accurate measure of personal exposure, however, because it doesn't take into account your distance from the source of the fields or the amount of time you might spend in that place. Contact your local electric service provider. Most utilities offer a free measurement service to customers to measure magnetic fields in their homes or businesses.

What are 'typical' residential exposures to magnetic fields?

Exposure levels vary from individual to individual and from home to home, but a study by the Electric Power Research Institute (EPRI) puts the background levels of power line magnetic fields in the typical U.S. home at between 0.5 mG and 4 mG with an average of 0.9 mG. Levels rise the closer you get to the source of the field. Most people are exposed to greater magnetic fields at work than in their homes. See Figure 1.

What EMF levels are found near transmission lines?

All transmission lines produce EMF. The fields are the strongest directly under the lines and drop dramatically the farther away you move. These magnetic fields will change with the amount of electricity flowing on the line that varies with the time of day and the season of the year. Contact your local utility to find out EMF information about a particular transmission line near you.

Do underground lines reduce EMF levels?

Yes. Because magnetic fields are not shielded by ordinary materials, burying power lines won't keep the fields from passing through the ground. In fact, underground lines can produce higher levels of magnetic fields directly above the line at ground level because these lines are located closer to you (5 feet below) compared to overhead lines (25 to 30 feet above). However, the strength of the magnetic field from underground lines falls away more quickly to the side with distance than from overhead lines because of the way the lines are built.

Compared to overhead lines, underground lines are significantly more expensive to install (up to 10 to 20 times more expensive), more difficult to repair and can have greater environmental impacts because of the disturbance of the soil to install the underground lines. Since recent research results provide no conclusive connection between EMF exposure and health effects, burying lines isn't a reasonable alternative.

Are there state or federal standards for EMF exposure?

There are no federal standards limiting residential or occupational EMF exposure. Several states have set standards for the allowed level of magnetic fields from new power lines.

The EMF levels produced by appliances vary from manufacturer to manufacturer and model to model. The designs of many newer model appliances, in general, often produce lower fields than older models. An example is electric blankets where new blankets produce much lower fields than those produced 20 years ago. There is no federal certification program on EMF levels so beware of advertisements on appliances making claims of federal government certification of low or zero EMF levels.

Do exposures to power line EMF affect my health?

This issue has been studied for more than 40 years by government and scientific institutions all over the world. The balance of scientific evidence indicates that exposure to EMF does not cause disease. (See the sources and useful links section of this fact sheet for more information on studies about EMF and health.)

Does EMF interfere with pacemakers or other medical devices?

High levels of power line EMF can interfere with a pacemaker's ability to sense normal electrical activity in the heart. Most often, the electric circuitry in a pacemaker might detect the interference of an external field and direct the pacemaker to fire in a regular, life-preserving mode. This isn't considered hazardous and is actually a life-preserving default feature. There have been cases with dual-chamber pacemakers triggering inappropriate pacing before the life-preserving mode takes over. Newer pacemakers have been designed to be less susceptible to this type of interference.

The American Conference of Governmental Industrial Hygienists (ACGIH) issued guidelines for EMF exposure for workers with pacemakers or implantable defibrillators.

Maximum safe exposure for workers with these medical devices at 60 Hz (the frequency of most transmission lines) is 1 G (1,000 mG) for magnetic fields and 1 kV/m for electric fields. Non-electronic metallic implants (artificial limbs, screws, pins, etc.) can be affected by high magnetic fields like those produced by MRI devices but are generally unaffected by the lower magnetic fields produced by most other sources.

How can I reduce my exposure to EMF?

If you wish to reduce EMF levels in your vicinity you can do so by recognizing that your exposure is determined by the strength of the magnetic fields given off by things around you, your distance from the source of the field and how much time you spend in the field. Creating distance between yourself and the sources of EMF is the easiest way to reduce exposure. Standing back—even an arm's length away—from appliances that are in use is a simple first step.

Remember, EMF decreases dramatically with distance. This is more feasible with some appliances than with others, but the following simple recommendations will help you reduce your EMF exposure at home:

- Move motor-driven electric clocks or other electrical devices away from your bed.
- Be aware that electric motors change electricity into mechanical energy by using magnetic fields, so any motorized appliance (e.g., hairdryers, shavers, fans, vacuum cleaners, air conditioners) will produce magnetic fields.
- Stand away from operating appliances that use a lot of electricity.
- Sit a few feet away from the TV and at least an arm's length from the computer screen. Liquid crystal or plasma displays (LCDs), however, produce very low levels of EMF compared to the older cathode-ray tube (CRT) displays.
- Limit the time you're exposed to a magnetic field by turning appliances, like computer monitors, off when you're not using them.

Sources and Useful Links

The following are links to more information and studies on EMF:

- The National Institute of Environmental Health Services (NIEHS) offers information on a variety of EMF topics. In June of 2002 they prepared EMF: Electric and Magnetic Fields Associated with the Use of Electric Power, Questions and Answers. This booklet, along with other helpful links, can be found at www.niehs.nih.gov/health/topics/agents/emf
- American Cancer Society: Power Lines, Electrical Devices and Extremely Low Frequency Radiation www.cancer.org/cancer/risk-prevention/radiation-exposure/extremely-low-frequency-radiation.html
- Public Service Commission of Wisconsin: Electric & Magnetic Fields psc.wi.gov/Documents/Brochures/EMF.pdf
- Minnesota Public Utilities Commission: A White Paper on Electric and Magnetic Field (EMF) Policy and Mitigation Options apps.commerce.state.mn.us/eera/web/project-file?legacyPath=/opt/documents/EMF%20White%20Paper%20-%20MN%20Workgroup%20Sep%202002.pdf

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MMRTP Regulatory Process Fact Sheet

MINNESOTA REGULATORY PROCESS FOR HIGH VOLTAGE TRANSMISSION LINES

Before a new high-voltage transmission line can be built in the state, two approvals may be required by the Minnesota Public Utilities Commission, a Certificate of Need and a Route Permit.

Certificate of Need

The Certificate of Need details the size, type and timing of new infrastructure to be built and examines if it's necessary to serve customers.

The Certificate of Need is governed by Minnesota Statutes 216B.243, which starts a process that when a utility files and application. Several steps are required before the Commission determines if a Certificate of Need is approved.

Completeness Review

The Commission reviews the application and identifies any additional information needed to begin the formal review process. Interested parties may provide comments on whether an application is complete through the Commission's comment process.

Once the application is found complete, the Commission can refer the case to an independent Administrative Law Judge (ALJ) through either a contested case proceeding, which can include several rounds of testimony and reply testimony, or through the Commission's informal process, which is also overseen by an ALJ.

The ALJ will preside over the hearing process, including setting a hearing schedule, intervention deadlines, and addresses other procedural matters.

Intervention

Anyone can attend meetings and hearings, submit written comments and present written or verbal testimony without being listed as an official intervening party. Parties who formally intervene are typically represented by an attorney (not required) and present a formal case that includes filing written testimony, cross examining witnesses and filing post-hearing briefs. Parties must request intervenor status from the ALJ.

Environmental Report public scoping meetings

The Minnesota Department of Commerce, Energy and Environmental Review Analysis (EERA) prepares an Environmental Report, which examines potential human and environmental impacts associated with the Commission's need-related decisions. Public meetings are conducted to describe the process and gather comments on issues and alternatives that should be addressed.

Scoping decision

Before the environmental report is prepared, the Department of Commerce reviews all public input and publishes a scoping decision, which outlines the issues to be addressed in the report.

Environmental Report

The EERA gathers information, then prepares and publishes the report, which must be done before public hearings on the Certificate of Need can take place. Anyone can provide written or verbal comments on the document during hearings.

Certificate of Need hearings

The Commission requires a public hearing presided over by the ALJ. Notice is published in local newspapers prior to the start of the hearings. Anyone can present testimony and express opinions concerning the utility's proposal or alternatives and the Certificate of Need. After hearing testimony and comments, the ALJ provides a report summarizing the hearing process and makes recommendations to the Commission.

Minnesota Public Utilities Commission Need Decision

In making a determination the Commission considers all information at a public meeting. In some cases, a second meeting is scheduled so commissioners have the necessary time to deliberate prior to making a decision.

Route Permit

A Route Permit is also needed from the Commission prior to building a high-voltage transmission line in Minnesota. Once a Route Permit application is filed, the regulatory process begins. The process described below is the Commission full routing process.

Pre-application route development phase

Route development generally occurs in three stages during which utilities:

- Identify a study area; gather land use and resource information from federal, state and local agencies and governments.
- Identify routing options based on technical considerations, routing criteria and map natural resources; begin public outreach asking for feedback about route options and land use impacts.
- Compare and evaluate the routing options; select two or more routes to be included in the Route Permit application.

Route Permit process

After the utility files a Route Permit application, the process specified in the Commission's regulations begins.

Public meetings

Upon receiving an application, the EERA schedules public meetings to introduce the proposed project and the Route Permit process. Scoping for an Environmental Impact Statement (EIS) begins at these meetings.

Environmental scoping and route alternatives

A full EIS is prepared by the EERA. The first step of the Route Permit process is to establish the scope of the environmental analysis. Prior to preparation of an EIS, public comments are accepted on issues that should be examined in the EIS. Alternate routes to those proposed by the utility can also be proposed; however, the EERA has specific regulations that must be followed. Once the EERA scope of the EIS is published, no new routing options will be considered in the EIS.

Advisory task force

The Commission may choose to establish an advisory task force committee (often comprised of local government and interest group representatives) to help determine the EIS's scope and examine whether routing options should be added to those proposed by the utility.

Draft EIS

The EERA prepares and publishes a Draft EIS that examines potential human and environmental impacts associated with the proposal as well as the alternatives that were identified in scoping.

EIS comment period and public meetings

Once the Draft EIS is published, the EERA establishes a period to receive comments on the document and may hold public meetings to obtain comments on the document.

Public hearings

The ALJ conducts public hearings, which are designed to receive comments, opinions and supporting evidence on where the proposed lines should be located, and how potential impacts should be addressed. The ALJ prepares a report summarizing the hearings and may make routing and mitigation recommendations to the Commission. Notice is published in local newspapers prior to the hearings.

Final EIS

The EERA takes all comments on the Draft EIS, responds to them, and revised the draft accordingly before preparing and publishing the Final EIS.

MN PUC Route Permit decision

At the end of the process, the Commission considers all material presented in the application, testimony and comments. The Commission may ask for verbal comments and ask questions of the participants. The Commission will deliberate and make a decision on the Route Permit application at one of its open meetings. A Route Permit issued by the Commission preempts local zoning, building, and land use regulations, but the project may still be subject to other local, state, or federal requirements.

Stay Informed

The best way to participate is to stay informed. Follow progress on individual agency websites or the project website at www.mmrtproject.com.

You can sign up with the PUC to be informed when new applications are filed, or when documents are submitted in a docket. You'll need to know the year the filing originated and and the following docket number: Docket No. E002/CN-22-532 and TL-23-157.

The Minnesota Public Utilities PUC's website is www.mn.gov/puc.

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MMRTP Routing Process Fact Sheet

ROUTE DEVELOPMENT PROCESS

Our route development process is a multi-step analysis that identifies route alternatives that minimize impacts to humans, the environment and land uses.

The route selection process generally includes:

Developing preliminary route options

- Preliminary routes are evaluated to identify potential impacts, including proximity to homes, opportunities to share corridors (including roads and other transmission lines), impacts to agriculture, locations of protected lands and resources, aesthetics and other concerns.
- Once preliminary routes are identified, we gather input from landowners, the public, local governments, Native American Tribes and resource agencies to help refine the preliminary routes. The feedback provided about specific constraints or challenges on preliminary routes, or identification of alternative route opportunities, is especially helpful during project development.

Refining and field verifying preliminary route options

- Feedback gathered during the development of preliminary route options undergoes a more detailed analysis. Input about specific constraints or challenges on preliminary routes, or identification of alternative route opportunities, is especially helpful as we refine and field-verify preliminary route options. This step also includes verifying information collected and the analyses completed through site visits.

Submitting proposed routes to the Minnesota Public Utilities Commission

- The information we review and comments we receive will help identify the routes that we include in our Route Permit. The State of Minnesota rules require we submit at least two route options for their consideration. The Minnesota Public Utilities will review our permit and make a decision on the final route following its public review process.

Note: this process is flexible and steps may be revisited based on additional data and feedback from landowners, the public, local governments, Native American Tribes and resource agencies.

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MMRTP Safety Around Power Lines Fact Sheet

SAFETY AROUND POWER LINES

The following safety guidelines apply to any power line, including transmission lines. If you see a power line that is down or broken, DO NOT touch it. STAY AWAY from it and call 911 immediately. There is no way to tell if a power line is energized just by looking at it. Always assume it is energized and carries currents strong enough to kill.

Machinery and vehicle guidelines

One of the most important rules to follow when working around power lines with tall equipment is simple: LOOK UP. Know where the power lines are and stay away from them.

How can farm equipment and other machinery be safely operated near power lines?

If you are considering operating machinery around electric lines (up to 345 kV voltage) and cannot maintain more than 20 feet of clearance (50 feet for unknown voltage), please contact your local electric utility.

And always remember:

- Physical contact with power line wires is extremely hazardous and can cause a lethal shock. Equipment SHOULD NOT be operated under a power line in a manner that causes contact or near-contact with the wires.
- DO NOT lift, elevate, build or pass under a power line any object, tool or vehicle that could make contact or near-contact with the wires.
- To help prevent arc flashing, or an electrical explosion, it is recommended that equipment, antennas and people stay at least 20 feet away from any energized power line.

LOOK UP! Equipment that can be extended, such as a grain elevator or stack mower, requires the utmost care when within the easement right of way.

Can I put fuel in my machinery safely near a power line?

Fueling vehicles under transmission lines is not recommended. If you must fuel a vehicle under a transmission line, use a non-metallic or plastic container. The vehicle should also be grounded to eliminate any source of sparks.

Fence Guidelines

Fence wires mounted on wood posts can build up an electrical charge near power lines. Important factors are:

- Length of fence paralleling the line
- Distance between the line and the fence
- Amount of moisture in the fence posts and the ground
- Presence of grounding devices such as metal fence posts or weeds growing next to the fence

What do I need to know about non-electric fences?

Non-electric fences made of barbed wire or similar material directly attached to steel posts are adequately grounded and will not collect an electric charge. If you are planning to install a wire fence parallel to and near a power line, use at least one steel post every150 to 200 feet to ground the fence.

Can electric fences build up an electrical charge?

Electric fences, being specially insulated from the ground, can pick up a charge from transmission lines. Usually, the charge will drain off when the charger unit is connected to the fence; however, when the charger is disconnected either for maintenance or when the fence is being built, a small shock may be produced.

Typically such a shock can be prevented by:

- Shorting out one or more of the fence insulators to the ground with a wire when the charger is disconnected, or
- Installing an electric filter which will ground charges induced from a power line while still allowing the charger to be effective. Contact your energy provider for assistance if you have questions; every situation is unique.

Irrigation and watering guidelines

The potential for water and metal to conduct electricity makes it important to take safety precautions when irrigating near power lines. Additionally, fertilizers and pesticides tend to increase the conductivity of water, making extra precautions necessary. Watering the lawn at your home or business is not problematic; however, you still must prevent a direct, solid stream of water from contacting a transmission line.

Can I irrigate near transmission lines?

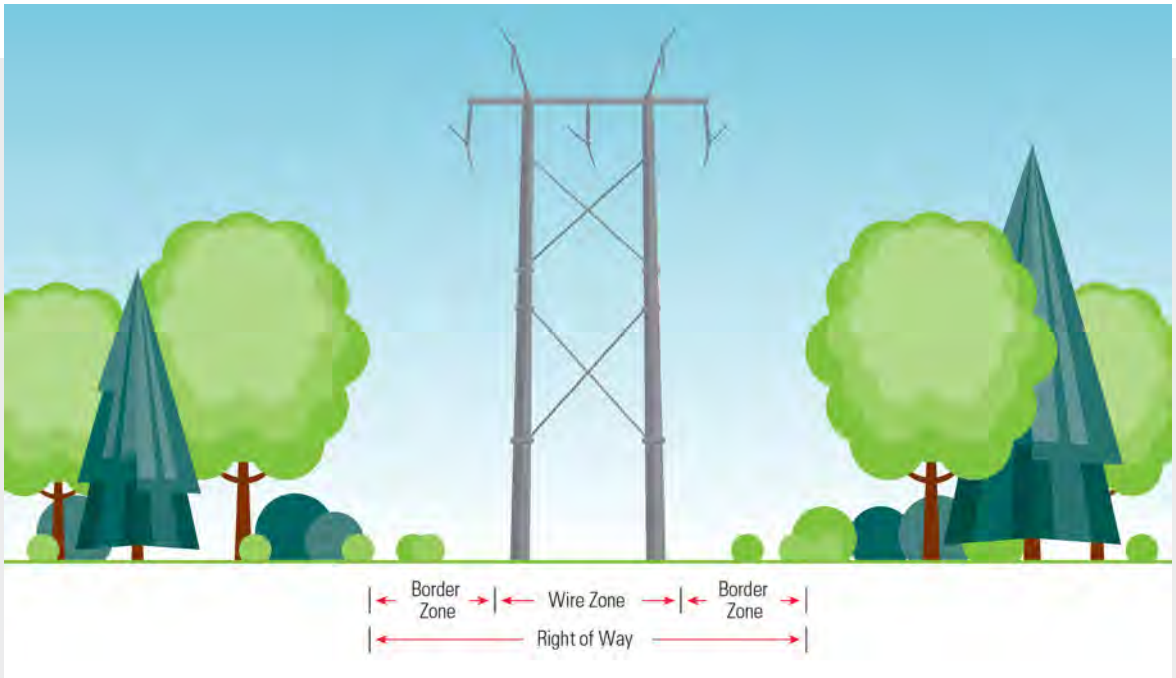
Yes, as long as you take these precautions:

- *Prevent a solid stream of water from hitting the wires.* Equipment with nozzles that are small in diameter or spray a fine mist is typically not problematic because the solid part of the water stream will not reach the power line wires. Also, an intermittent spray of water will not conduct significant amounts of electricity. Even large diameter nozzles operating at their normal spray angle typically will not reach the wires with a solid stream. However, at no time should the solid part of a water stream touch power line wires. Should that happen, turn the water off by switching the pump off before trying to correct the problem.
- *Make sure the irrigation system is well grounded.* If you have questions as to whether or not your irrigation system is adequately grounded, contact your local electric utility.
- *Check with utility before installing a new irrigation system.* Each system should be reviewed on a case-by-case basis; questions about the installation and operation of an irrigation system adjacent to or under a power line should be directed to your electric utility.
- *DO NOT install long lengths of pipe parallel and next to transmission lines.* They should be laid out at right angles to power lines, if possible, to reduce risk of the pipes building up an induced charge.
- *Be careful when moving the pipes.* When unloading irrigation pipes, stay at least 50 feet from power lines to avoid any chance of raising them too close to the wires.

Building or planting guidelines

The North American Electric Reliability Corporation (NERC) requires electric utilities to meet stringent requirements designed to keep our electrical system safe and reliable, including standards for maintaining proper clearances. It is our responsibility to keep a certain amount of distance around power lines clear of anything that may make contact or near-contact with a power line. This includes buildings and incompatible vegetation.

You must call your utility provider before planting any trees, shrubs or building any structures in transmission line rights of way areas to help avoid problems in the future.



Do not plant non-compatible vegetation in the border zone or wire zone of a transmission right of way as they will likely require removal.

Can I plant anything in the right of way area?

For your benefit, DO NOT plant any trees or shrubs in the right of way area before talking to your utility first. As a landowner, even with an easement granted, most property rights do remain with you, but a utility doesn't want to be forced to remove your new tree. Activities in the easement area that do not interfere with the safe construction,operation and maintenance of the line are permitted, i.e. using the land for pastureland,farming or gardening.

Can I construct a building or other structure beneath a power line?

Not without prior written approval from the electric utility. Buildings and other structures are generally not permitted on rights of way. It is important that you discuss projects with the utility in order to avoid creating situations that could become unsafe to the landowner and/or utility workers.

Recreation Guidelines

Can I play with a kite or a model plane near a power line?

No. Here are some rules to follow:

- Do not fly kites or model planes near any power line.
- Always fly kites and model planes so the wind carries them away from power lines,and television or radio antennas.
- Call your electric utility if a kite or plane becomes snagged in a power line. DO NOT pull the string or climb a tower, pole or ladder to get it down.
- If a plane is caught in the line, let go of the control line immediately and call your electric utility for assistance.
- DO NOT attempt to retrieve it yourself.

Can I hunt in areas where there is a power line?

Hunting is allowed on land where there is a power line, if you are the land owner. Intentionally shooting at power lines is illegal. Shooting insulators or conductors can break a wire or cause hazards such as an electrical discharge or arc through the air.

Can I build a bonfire, burn leaves or build another type of fire under a power line?

No. Fires should not be started under a power line. Smoke and hot gases from fires can create a conductive path for electricity creating a dangerous situation.

- A fire could damage the poles or wires and result in an outage.
- It is possible that the power line could flash to the ground through hot air and smoke,which is a serious safety hazard.

Safe construction and maintenance practices

How do I know the lines are safe?

Transmission lines are built and maintained to meet or exceed safety standards, such as those specified by the National Electrical Safety Code and the North American Electric Reliability Corporation. Every effort is made to ensure safety in construction, operation and maintenance of transmission lines. For information on safe distances for specific activities near the power line, contact the utility operating the line directly. Transmission lines and line infrastructure are designed to withstand extreme weather conditions. Protective devices at line terminals stop the electricity flow under abnormal operating circumstances.

How do you monitor the safety of the line?

We follow strict transmission line maintenance standards. We regularly inspect lines by ground (usually during fall or winter months) and by air to look for:

- Non-compatible vegetation within the right of way
- Equipment needing repair or replacement
- Right-of-way encroachments, which can be hazardous to safety and reliable operation
- Anything that might jeopardize safe, reliable operation of the line

Utilities must visit the right of way for these inspections but visits will be minimal and landowners will be contacted prior to inspections or maintenance. However, in cases of emergency, advance contact may not be possible.

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MMRTP Working with Landowners Fact Sheet

WORKING WITH LANDOWNERS

Easement Acquisition and Survey Permission

- An easement is a permanent right authorizing a utility to use the Right-of-Way (ROW) to build and maintain a transmission line.
- Access may be needed for construction and long-term maintenance of the transmission line.
- To assist with transmission line engineering and design, temporary access or permission from landowners would be acquired.
- Engineering, environmental, cultural, and land survey studies would be conducted to develop the final transmission line route.
- Market data from recent sales of similar properties is used to determine fair and appropriate landowner compensation.
- Every effort will be made to reach a fair and reasonable settlement. When negotiations are unsuccessful, which is rare, we may have to exercise our eminent domain authority.

Working in the Right-of-Way

- Normally, access by the landowner within the transmission line easement is not restricted, and agricultural activities can still occur.
- Activities not permitted within the easement are those that jeopardize the integrity of the structures or reduce the ground-to-line clearance, such as construction of buildings.
- Landowners should exercise caution when operating tall equipment, moving irrigation pipes, fueling vehicles, or conducting other activities within the easement to prevent electrical shock or contact with the line.

Easements and Agriculture

Irrigation

- Structures will be placed to avoid conflicts with irrigation equipment and its operation to the extent possible.
- Site-specific circumstances can be addressed with landowners.

Planting and Harvesting

- ROW agents would work with individual landowners to determine when to avoid construction during planting and harvesting seasons.
- If damage to crops cannot be avoided, compensation for crop loss will be offered.

Livestock

- In coordination with the landowner, segments of fences may be removed or access gates may be installed during line construction.
- Crews would construct temporary fences and work with landowners to minimize impacts to and protect livestock.
- If the landowner is in agreement, gates would be left in place to facilitate future maintenance activities.

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MMRTP Frequently Asked Questions Handout

FREQUENTLY ASKED QUESTIONS

INFORMATION SHEET
MINNESOTA

January 2024

What is the Mankato-Mississippi River Transmission Project?

The Mankato-Mississippi River Transmission Project includes about 120 miles of 345 kilovolt (kV) transmission lines between the existing Wilmarth Substation near Mankato, Minnesota, and a connection point at the Mississippi River near Kellogg. It also includes building about 20 miles of new 161 kV transmission lines between the existing North Rochester Substation near Pine Island, Minnesota, and an existing transmission line northeast of Rochester, which is being relocated from its existing alignment to install the new 345 kV infrastructure.

What are the four project segments?

The project includes four segments:

- **Segment 1: Mankato to Faribault (345 kV) –** Build about 40 miles of new 345 kV transmission lines in existing transmission corridors between the Wilmarth Substation near Mankato and near the West Faribault Substation in Faribault.
- **Segment 2: Faribault to North Rochester Substation (345 kV) –** Build about 35-40 miles of 345 kV transmission lines in either a new corridor and/or in existing transmission corridors from near the West Faribault Substation to the North Rochester Substation near Pine Island.
- **Segment 3: North Rochester Substation to the Mississippi River (345 kV) –** Convert about 26 miles of 161 kV line to 345 kV line and install about 16 miles of new 345 kV line on existing structures between the North Rochester Substation and the Mississippi River.
- **Segment 4: North Rochester Substation to Chester Junction (161 kV) –** Build about 20 miles of a new single-circuit 161 kV line from the North Rochester Substation to an existing transmission line northeast of Rochester.

Why is the project needed?

The Mankato-Mississippi River Transmission Project is part of a portfolio of long-range electric transmission projects identified by the regional grid operator, MISO. This project will improve reliability and make the grid more resilient during extreme weather. As electricity use increases and more renewable energy is needed, these new lines will relieve congestion on the grid and support adding new low-cost, renewable energy in Minnesota and throughout the Midwest.

This project, along with a portfolio of other projects in the region, will strengthen the overall backbone of the transmission grid, ensuring customers receive the electricity they need to power their homes and businesses.

How will this project benefit Minnesota?

This project will provide several benefits in southern Minnesota and throughout the Upper Midwest:

- Adding transmission capacity to accommodate increasing amounts of renewable energy generation as aging traditional generation resources retire.
- Increasing the reliability and resilience of the energy grid by developing new high-voltage connections to key substations that serve customers.
- Enabling greater access to low-cost renewable energy.
- Upgrading and updating infrastructure supports local businesses and industries with reliable, resilient power.
- Hiring local construction workers and companies, when possible, for construction services, including cement, concrete, equipment rentals and related services. Similar projects have shown that hundreds of workers and companies participate in these projects, providing benefits to the local economy.
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In general, the poles will have cross arms (called davit arms) on each side, three conductor wires (the double-circuit design means one transmission 'circuit' will be on either side of the pole) and a shield wire installed on top to protect the infrastructure from lightning strikes, helping to maintain a reliable electric system.

We'll continue to share more details as they become available, and we complete more engineering activities.

How far apart will transmission line poles be placed?

The distance between transmission poles, or span lengths, varies and is based on voltage and pole height. For the 345 kV segments, the spacing will typically be between 800-1,200 feet, and for the 161 kV typical span lengths are between 300-500 feet, but this could vary based on final locations and engineering.

What is the difference between a transmission line and distribution line?

A transmission line delivers power over long distances and at higher voltages. A transmission line connects to a substation, where the voltage is then reduced to a lower distribution level. The lower voltage is then sent to a distribution line, which is designed to bring energy to homes and businesses.

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A right-of-way representative will begin the negotiation process by presenting legal documents to the property owner. They will also provide maps of the line route or site, maps showing the landowner's property and an offer of compensation for the easement. The landowner will be provided with a reasonable amount of time to consider the offer and to present material to the energy provider that the property owner believes is relevant to deciding the value of the property.

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Describe the state regulatory process for the project. What permits are required?

We need to receive a Certificate of Need and a Route Permit from the PUC for the project. The Certificate of Need proceeding determines whether the Project is needed and the Route Permit determines where the Project should be built. For this project, we'll file a combined Certificate of Need and Route Permit application and expect to file in early 2024.

A Certificate of Need application describes why the project is needed, the issues building it will solve, and includes details such as engineering, operational details, environmental impacts and alternatives that were considered before submitting the application.

A Route Permit application includes proposed routes for the new transmission line. In Minnesota, the law requires that we propose at least two feasible proposed routes for the PUC to consider. The Route Permit application will also include significant information about each route option, including construction, maintenance and operations considerations, the land use considerations that went into developing the route, and other factors that were evaluated.

The Certificate of Need and Route Permit process will include public meetings and hearings held throughout the project area. We will host public meetings to collect feedback and answer questions about the process and project. Public hearings will be hosted by the PUC for landowners and interested parties to make public comments about the project.

Landowners, local officials and other stakeholders can also submit written comments to the PUC.

Following this process, the PUC will then hold a public meeting to deliberate and decide on the Certificate of Need and Route Permit. We anticipate a decision from the PUC in 2024 or 2025.

If a line is on my property, will my trees be removed?

This project will have a safe working and operating environment, and we will ensure safety and compliance with our internal and electrical code standards. This will require us to clear the full right-of-way. We will work with property owners to locate the line on their property to limit tree removal as much as possible. Trees growing near power lines will be pruned and removed as needed to avoid potential safety hazards. Tree pruning is the selective removal of branches that are too close to power lines or will grow too close to the lines before the next

maintenance cycle. Our goal is to provide safe, reliable service while also taking the best possible care of your community's natural resources.

How can I be involved?

The best way to be involved in this process is to attend public open houses, public meetings and hearings, and sign up for emails from us. If you have questions or want more information, contact us.

QUESTIONS?

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Appendix N-17

Landowner Information Packet

January 2024

Greetings, and thank you for your interest in the Mankato-Mississippi River Transmission Project.

This project is part of a portfolio of long-range electric transmission projects identified by the regional grid operator, MISO, to strengthen the overall backbone of the transmission grid and ensure customers receive the electricity they need to power their homes and businesses. The Mankato-Mississippi River Transmission Project will improve reliability, make the grid more resilient during extreme weather, enable greater access to low-cost renewable energy and provide numerous other benefits.

We appreciate you reviewing this packet to learn about the project and provide feedback into the routing process for this transmission line. In this packet, you will find:

- Information about the project
- A map of the proposed routes
- Background about the routing and regulatory processes
- A comment card if you wish to get in touch with us

At this time, the proposed routes for this project have not been finalized. We are currently refining preliminary routes and continuing to collect your feedback. We plan to file a combined Route Permit Application and Certificate of Need with the Minnesota Public Utilities Commission in early 2024. This process will also include opportunities for public feedback.

If you need more information or want to provide us with your feedback, visit **mmrtproject.com**, email **contact@mmrtproject.com**, fill out and return the comment card in this packet, or leave a message on our information line at **800-853-3365.** Comments received are reviewed and considered during the routing process.

Thank you again for your interest in the Mankato-Mississippi River Transmission Project. We look forward to providing updates as this project progresses.

Sincerely,

Xcel Energy
Dairyland Power Cooperative
Rochester Public Utilities
Southern Minnesota Municipal Power Agency

QUESTIONS?

We want to hear from you.

SCAN ME

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Email: Contact@MMRTProject.com

MANKATO – MISSISSIPPI RIVER TRANSMISSION PROJECT

INFORMATION SHEET
MINNESOTA

January 2024

About

The Mankato-Mississippi River Transmission Project will strengthen the overall backbone of the transmission grid by improving reliability and resiliency, delivering new low-cost renewable energy and providing other benefits for Minnesota and the Upper Midwest region.

This project is part of a portfolio of long-range electric transmission projects identified by the regional grid operator, MISO, to improve reliability, make the grid more resilient during extreme weather, and ensure customers receive the electricity they need to power their homes and businesses.

Project Details

The Mankato-Mississippi River Transmission Project includes about 120 miles of 345 kilovolt (kV) transmission lines between the existing Wilmarth Substation near Mankato, Minnesota, and a connection point at the Mississippi River near Kellogg.

It also includes building about 20 miles of new 161 kV transmission lines between the existing North Rochester Substation near Pine Island, Minnesota, and an existing transmission line northeast of Rochester, which is being relocated from its existing alignment to install the new 345 kV infrastructure.

Routing Process

Our route selection process is a multi-step analysis that identifies route alternatives with minimal impacts to humans and the environment. Preliminary routes are evaluated to identify potential impacts, including proximity to homes, opportunities to share corridors (including roads and other transmission lines), impacts to agriculture, locations of protected lands and resources, aesthetics, and other concerns.

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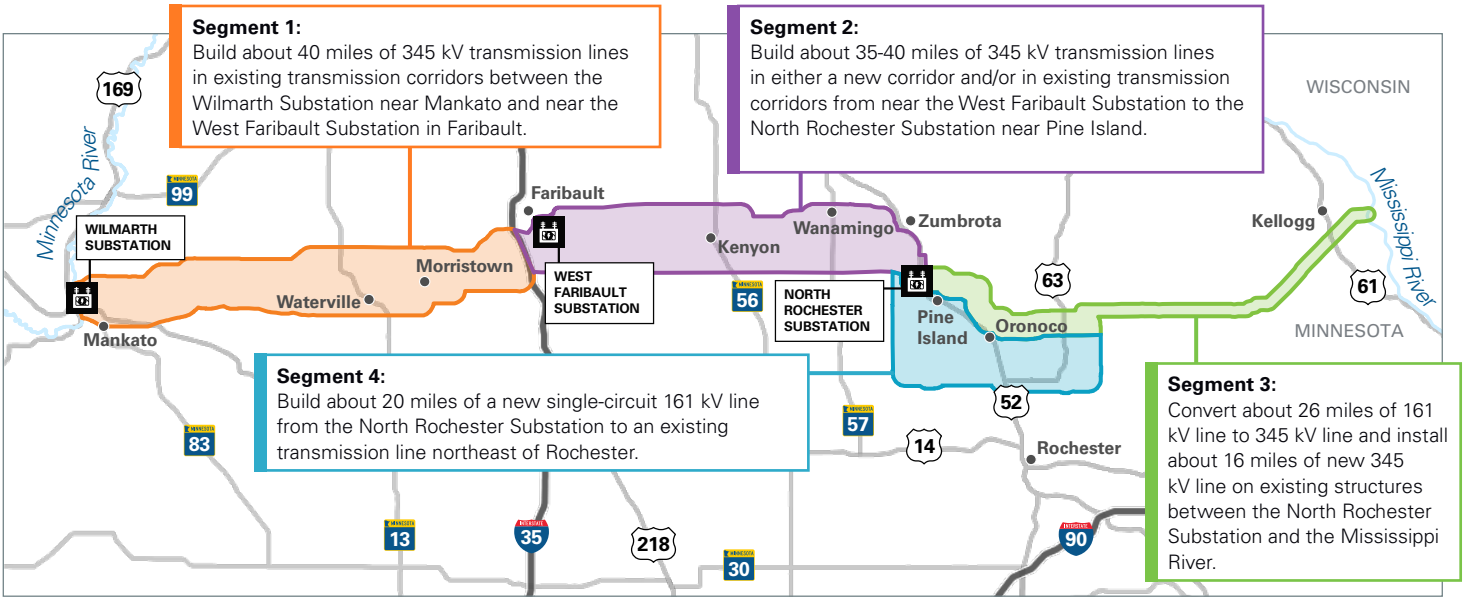
This project includes four segments:



This map is a general graphic and may not show exact locations.

Project Benefits

This project will provide several benefits in southern Minnesota and throughout the Upper Midwest:

- Adding transmission capacity to accommodate increasing amounts of renewable energy generation as aging traditional generation resources retire.
- Increasing the reliability and resilience of the energy grid by developing new high-voltage connections to key substations that serve customers.
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- When possible, we hire local construction workers and companies for construction services, including cement, concrete, equipment rentals and related services. Similar projects have shown that hundreds of workers and companies participate in these projects, providing benefits to the local economy.
- Building new transmission lines encourages construction of wind and solar power to bring more low-cost renewable electricity to help meet the electric needs of our state. These projects provide construction jobs, lease revenue for farmers and increased tax base to support communities.

Schedule

During this project, we'll conduct regular engagement efforts. Our current schedule, while subject to change, is expected to be the following:

2022

- Project identified by MISO

2023

- Route development process begins
- Public and stakeholder engagement
- Preliminary engineering

2024 – 2026

- Submit Certificate of Need and Route Permit Application
- Minnesota permitting review (including public engagement)
- Detailed engineering
- Negotiate with landowners to purchase easements
- Obtain other required permits
- Continued public and stakeholder engagement

2026-2028

- Construction

2028

- In-service and restoration

QUESTIONS?

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FREQUENTLY ASKED QUESTIONS

INFORMATION SHEET
MINNESOTA

January 2024

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What are the four project segments?

The project includes four segments:

- **Segment 1: Mankato to Faribault (345 kV) –** Build about 40 miles of new 345 kV transmission lines in existing transmission corridors between the Wilmarth Substation near Mankato and near the West Faribault Substation in Faribault.
- **Segment 2: Faribault to North Rochester Substation (345 kV) –** Build about 35-40 miles of 345 kV transmission lines in either a new corridor and/or in existing transmission corridors from near the West Faribault Substation to the North Rochester Substation near Pine Island.
- **Segment 3: North Rochester Substation to the Mississippi River (345 kV) –** Convert about 26 miles of 161 kV line to 345 kV line and install about 16 miles of new 345 kV line on existing structures between the North Rochester Substation and the Mississippi River.
- **Segment 4: North Rochester Substation to Chester Junction (161 kV) –** Build about 20 miles of a new single-circuit 161 kV line from the North Rochester Substation to an existing transmission line northeast of Rochester.

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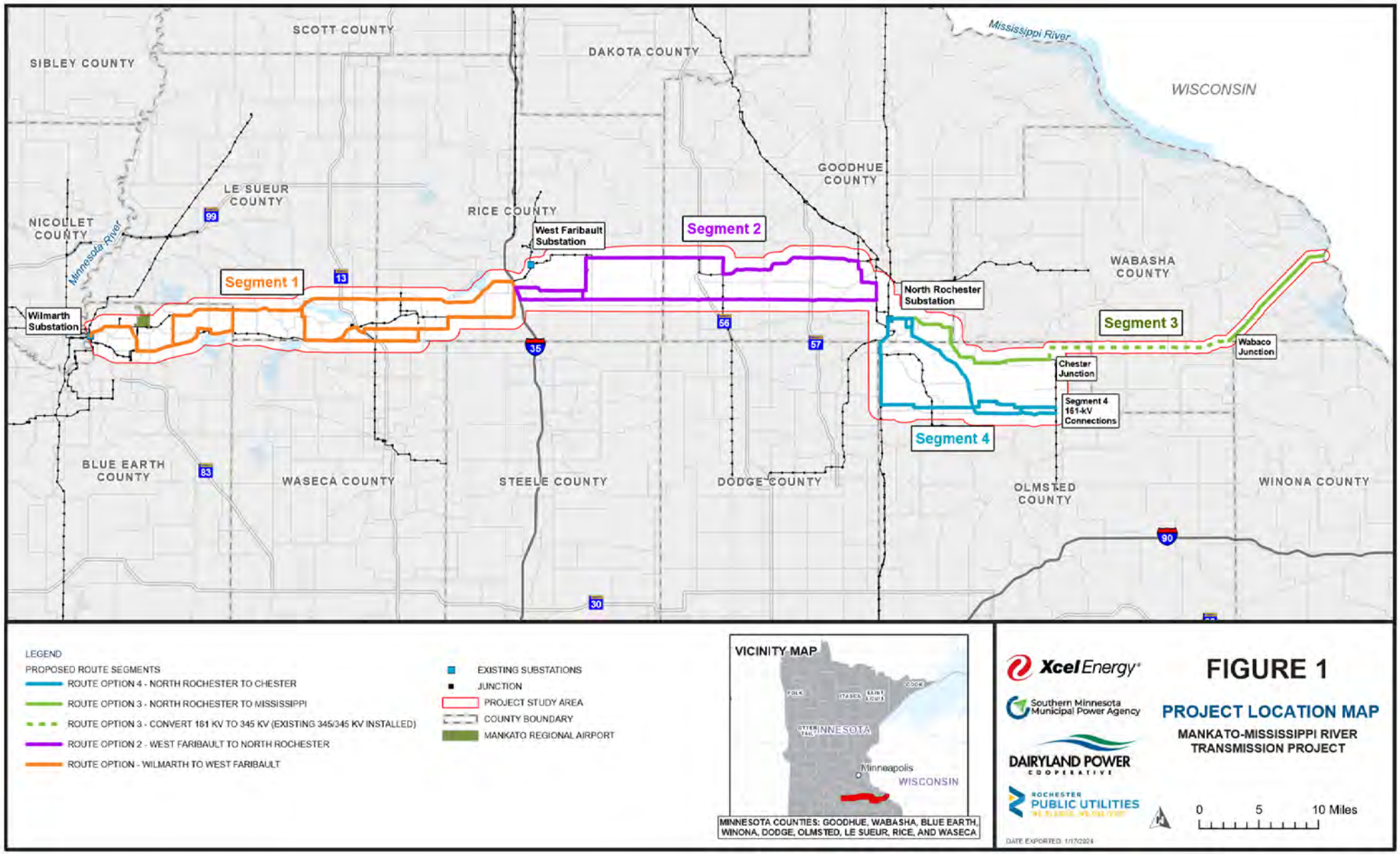
SCOTT COUNTY
SIBLEY COUNTY
DAKOTA COUNTY
Mississippi River
WISCONSIN
GOODHUE COUNTY
LE SUEUR COUNTY
NICOLLET COUNTY
Minnesota River
RICE COUNTY
West Faribault Substation
Segment 2
Segment 1
WABASHA COUNTY
North Rochester Substation
Wilmarth Substation
Segment 3
Wabaco Junction
Chester Junction
Segment 4 161-kV Connections
Segment 4
BLUE EARTH COUNTY
WASECA COUNTY
STEELE COUNTY
DODGE COUNTY
OLMSTED COUNTY
WINONA COUNTY
99
13
35
56
57
83
90
30
LEGEND
PROPOSED ROUTE SEGMENTS
ROUTE OPTION 4 - NORTH ROCHESTER TO CHESTER
ROUTE OPTION 3 - NORTH ROCHESTER TO MISSISSIPPI
ROUTE OPTION 3 - CONVERT 161 KV TO 345 KV (EXISTING 345/345 KV INSTALLED)
ROUTE OPTION 2 - WEST FARIBAULT TO NORTH ROCHESTER
ROUTE OPTION - WILMARTH TO WEST FARIBAULT
EXISTING SUBSTATIONS
JUNCTION
PROJECT STUDY AREA
COUNTY BOUNDARY
MANKATO REGIONAL AIRPORT
VICINITY MAP
Minneapolis
WISCONSIN
MINNESOTA COUNTIES: GOODHUE, WABASHA, BLUE EARTH, WINONA, DODGE, OLMSTED, LE SUEUR, RICE, AND WASECA
Xcel Energy
Southern Minnesota Municipal Power Agency
DAIRYLAND POWER COOPERATIVE
ROCHESTER PUBLIC UTILITIES
FIGURE 1
PROJECT LOCATION MAP
MANKATO-MISSISSIPPI RIVER TRANSMISSION PROJECT
0 5 10 Miles
DATE EXPORTED: 1/17/2024

ROUTE DEVELOPMENT PROCESS

Our route development process is a multi-step analysis that identifies route alternatives that minimize impacts to humans, the environment and land uses.

The route selection process generally includes:

Developing preliminary route options

- Preliminary routes are evaluated to identify potential impacts, including proximity to homes, opportunities to share corridors (including roads and other transmission lines), impacts to agriculture, locations of protected lands and resources, aesthetics and other concerns.
- Once preliminary routes are identified, we gather input from landowners, the public, local governments, Native American Tribes and resource agencies to help refine the preliminary routes. The feedback provided about specific constraints or challenges on preliminary routes, or identification of alternative route opportunities, is especially helpful during project development.

Refining and field-verifying preliminary route options

- Feedback gathered during the development of preliminary route options undergoes a more detailed analysis. Input about specific constraints or challenges on preliminary routes, or identification of alternative route opportunities, is especially helpful as we refine and field-verify preliminary route options. This step also includes verifying information collected and the analyses completed through site visits.

Submitting proposed routes to the Minnesota Public Utilities Commission

- The information we review and comments we receive will help identify the routes that we include in our Route Permit application. State of Minnesota rules require we submit at least two route options for consideration. The Minnesota Public Utilities Commission will review our application and make a decision on the final route following its public review process.

Note: this process is flexible and steps may be revisited based on additional data and feedback from landowners, the public, local governments, Native American Tribes and resource agencies.

MINNESOTA REGULATORY PROCESS FOR HIGH-VOLTAGE TRANSMISSION LINES

Before a new high-voltage transmission line can be built in the state, two approvals may be required by the Minnesota Public Utilities Commission (PUC): a Certificate of Need and a Route Permit.

Certificate of Need

The Certificate of Need details the size, type and timing of new infrastructure to be built and examines if it is necessary to serve customers.

The Certificate of Need process, which starts when a utility files an application, is governed by Minnesota Statutes 216B.243. Several steps are required before the PUC determines if a Certificate of Need is approved.

Completeness Review

The PUC reviews the application and identifies any additional information needed to begin the formal review process. Interested parties may provide comments on whether an application is complete through the PUC's comment process.

Once the application is found complete, the PUC can refer the case to an independent Administrative Law Judge (ALJ) through either a contested case proceeding, which can include several rounds of testimony and reply testimony, or through the PUC's informal process, which is also overseen by an ALJ.

The ALJ will preside over the hearing process, which includes setting a hearing schedule, intervention deadlines, and addressing other procedural matters.

Intervention

Anyone can attend meetings and hearings, submit written comments and present written or verbal testimony without being listed as an official intervening party. Parties who formally intervene are typically represented by an attorney (not required) and present a formal case that includes filing written testimony, cross-examining witnesses and filing post-hearing briefs. Parties must request intervenor status from the ALJ.

Environmental Report public scoping meetings

The Minnesota Department of Commerce, Energy and Environmental Review Analysis (EERA) prepares an Environmental Report, which examines potential human and environmental impacts associated with the PUC's need-related decisions. Public meetings are conducted to describe the process and gather comments on issues and alternatives that should be addressed.

Scoping decision

Before the environmental report is prepared, the Department of Commerce reviews all public input and publishes a scoping decision, which outlines the issues to be addressed in the report.

Environmental Report

The EERA gathers information, then prepares and publishes the report, which must be done before public hearings on the Certificate of Need can take place. Anyone can provide written or verbal comments on the report during hearings.

Certificate of Need hearings

The PUC requires a public hearing presided over by the ALJ. Notice is published in local newspapers prior to the start of the hearings. Anyone can present testimony and express opinions concerning the utility's proposal or alternatives and the Certificate of Need. After hearing testimony and comments, the ALJ provides a report summarizing the hearing process and makes recommendations to the PUC.

Minnesota Public Utilities Commission Need Decision

In making a determination, the PUC considers all information at a public meeting. In some cases, a second meeting is scheduled so commissioners have the necessary time to deliberate prior to making a decision.

Route Permit

A Route Permit is also needed from the PUC prior to building a high-voltage transmission line in Minnesota. Once a Route Permit application is filed, the regulatory process begins. The process described below is the PUC's full routing process.

Pre-application route development phase

Route development generally occurs in three stages during which utilities:

- Identify a study area; gather land use and resource information from federal, state and local agencies and governments.
- Identify routing options based on technical considerations, routing criteria and map natural resources; begin public outreach asking for feedback about route options and land use impacts.
- Compare and evaluate the routing options; select two or more routes to be included in the Route Permit application.

Route Permit process

After a utility files a Route Permit application, the process specified in the PUC's regulations begins.

Public meetings

Upon receiving an application, the EERA schedules public meetings to introduce the proposed project and the Route Permit process. Scoping for an Environmental Impact Statement (EIS) begins at these meetings.

Environmental scoping and route alternatives

A full EIS is prepared by the EERA. The first step of the Route Permit process is to establish the scope of the environmental analysis. Prior to preparation of an EIS, public comments are accepted on issues that should be examined in the EIS. Alternate routes to those proposed by the utility can also be proposed; however, the EERA has specific regulations that must be followed. Once the EERA scope of the EIS is published, no new routing options will be considered in the EIS.

Advisory task force

The PUC may choose to establish an advisory task force committee (often comprised of local government and interest group representatives) to help determine the EIS's scope and examine whether routing options should be added to those proposed by a utility.

Draft EIS

The EERA prepares and publishes a Draft EIS that examines potential human and environmental impacts associated with the proposal as well as the alternatives that were identified in scoping.

EIS comment period and public meetings

Once the Draft EIS is published, the EERA establishes a period to receive comments on the document and may hold public meetings to obtain comments on the document.

Public hearings

The ALJ conducts public hearings, which are designed to receive comments, opinions and supporting evidence on where the proposed lines should be located, and how potential impacts should be addressed. The ALJ prepares a report summarizing the hearings and may make routing and mitigation recommendations to the PUC. Notice is published in local newspapers prior to the hearings.

Final EIS

The EERA takes all comments on the Draft EIS, responds to them, and revised the draft accordingly before preparing and publishing the Final EIS.

MN PUC Route Permit decision

At the end of the process, the PUC considers all material presented in the application, testimony and comments. The PUC may ask for verbal comments and ask questions of the participants. The PUC will deliberate and make a decision on the Route Permit application at one of its open meetings. A Route Permit issued by the PUC preempts local zoning, building, and land use regulations, but the project may still be subject to other local, state, or federal requirements.

Stay Informed

The best way to participate is to stay informed. Follow progress on individual agency websites or the project website at www.mmrtproject.com.

You can sign up with the PUC to be informed when new applications are filed, or when documents are submitted in a docket. You'll need to know the year the filing originated and the following docket number: Docket No. E002/CN-22-532 and TL-23-157.

The Minnesota Public Utilities PUC's website is www.mn.gov/puc.

DAIRYLAND POWER COOPERATIVE
A Touchstone Energy® Cooperative

ROCHESTER PUBLIC UTILITIES
WE PLEDGE, WE DELIVER™

Southern Minnesota Municipal Power Agency

Xcel Energy®

Mankato-Mississippi River Transmission Project

Comment Form

Name: _____ **Organization (if any):** _____

Mailing Address: _____

City: _____ **State:** _____ **Zip:** _____

Phone Number: _____ **Email:** _____

Would you like to join our mailing list? ☐ Yes ☐ No

Comment

_____

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_____

Would you like a response from the project team? ☐ Yes ☐ No

If you answer yes, fill out your email or phone number above.

How to submit a written comment:

- **Mail** this form back to our project team (see back side)
- **Email** Contact@MMRTProject.com

Please fold, fasten, and mail - No envelope necessary

Place Postage Here

Xcel Energy
Attn: Mankato-Mississippi River Transmission Line Project
414 Nicollet Mall
Minneapolis, MN 55401

Appendix N-18

Open House Sign-in Sheet

Mankato-Mississippi River Transmission Project

County:

Date:

Name	Organization and Role	Mailing Address	Phone	Email

Appendix N-19

MMRTP Project Comment Form

Mankato-Mississippi River Transmission Project

Comment Form

Name: _____ **Organization (if any):** _____

Mailing Address: _____

City: _____ **State:** _____ **Zip:** _____

Phone Number: _____ **Email:** _____

Would you like to join our mailing list? ☐ Yes ☐ No

Comment

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Would you like a response from the project team? ☐ Yes ☐ No

If you answer yes, fill out your email or phone number above.

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- **Mail** this form back to our project team (see back side)
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Place Postage Here

Xcel Energy
Attn: Mankato-Mississippi River Transmission Line Project
414 Nicollet Mall
Minneapolis, MN 55401

Appendix N-20

MMRTP Map Request Form

MAP REQUEST FORM

NAME: _____ DATE: _____

PROPERTY ADDRESS: _____

☐ PRINT MY MAP ☐ EMAIL MY MAP ☐ MAIL MY MAP

EMAIL: _____

PHONE: _____

MAILING ADDRESS: (If different from above)_____

_____

COUNTY: _____

COMMENTS:

MAP REQUEST FORM

NAME: _____ DATE: _____

PROPERTY ADDRESS: _____

☐ PRINT MY MAP ☐ EMAIL MY MAP ☐ MAIL MY MAP

EMAIL: _____

PHONE: _____

MAILING ADDRESS: (If different from above)_____

_____

COUNTY: _____

COMMENTS: