

# INFO

## MINNESOTA ENERGY CONNECTION FAQ



### PROJECT OVERVIEW

#### What is the Minnesota Energy Connection?

Xcel Energy is building a new double-circuit 345-kilovolt (kV) transmission line between the retiring Sherburne County (Sherco) coal plant and the Garvin Substation in southwest Minnesota's Lyon County. The new infrastructure is designed to enable more than 2,000 megawatts of renewable energy to provide low-cost renewable energy to the existing Sherco grid as the coal plants retire.

We are required to reuse the grid connections in Becker or lose the right to connect at that location to serve customers. Reusing the connections for this new infrastructure opens a new path for renewable energy in the wind-rich southern and southwest Minnesota regions.

The new transmission line will make it possible to build new renewable energy, creating new jobs in the communities where the infrastructure is located. The new renewable energy that will connect to this project will also bring new property tax revenue and lease payments to landowners.

#### What communities does this project benefit?

Minnesota's Energy Connection (MNEC) will provide benefits to all communities Xcel Energy serves in the Upper Midwest. The energy that replaces the retiring Sherco plant will serve all Xcel Energy customers in the region. Reusing the grid connections at Sherco will provide a new connection to renewable energy in the wind-rich regions of southern and southwest Minnesota and deliver that energy to customers through the existing transmission grid. This project will bring us closer to reducing our carbon emissions by more than 80% from 2005 levels by 2030 and meeting Minnesota's requirement to deliver 100% carbon-free electricity by 2040.

Additionally, the project will create jobs and economic benefits to rural communities in southern and southwest Minnesota. Project construction will require substantial amounts of labor and resources. We often source material such as cement and concrete locally, and our employees and construction contractors will provide additional direct economic impact to communities as the project is under construction.

The completed MNEC will drive ongoing job opportunities and employment in the clean energy sector by enabling the construction of the new wind and solar that will connect to the power lines.

#### What is the Minnesota Energy Connection project schedule?

We began working with landowners and local governments in late 2022 to identify potential route corridors and held public open houses in February and March 2023 to gather feedback on those options.

We filed a Certificate of Need application in March 2023, kicking off a comprehensive review process by the State of Minnesota and including considerable opportunity for public involvement. The Minnesota Public Utilities Commission (MPUC) approved the Certificate of Need and Route Permit in 2025.

Project construction will begin in mid-2026 at the Garvin Substation and near Renville and Redwood counties, progressing southwest. Work on the eastern segments is expected to begin in 2027.

**Are wind farms being developed as part of the Minnesota Energy Connection?**

Wind farms are not part of the transmission project and are being developed in a separate process. New renewable energy projects will connect to the Garvin Substation, where energy will be delivered to the Sherco transmission infrastructure.

**Will the Lyon County Generating Station connect to this transmission line?**

Yes, the Lyon County Generating Station, a new natural gas power plant, will be located adjacent to the Garvin Substation and will provide electricity to customers when renewables are not available and during peak demand, such as the hottest days of summer and the coldest days of winter.

**TRANSMISSION LINES****What is the difference between a transmission line and a distribution line?**

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

**Can transmission line poles withstand floods?**

When locating pole structures, we evaluate the possibility of keeping them out of flood plain or wet areas. The poles are set on a concrete foundation and can withstand significant weather conditions, such as flooding and strong winds.

**Will the presence of a transmission line on my property decrease my overall property value?**

When we purchase an easement, landowners are typically paid a one-time payment equal to the easement's fair market value, based on the appraised land value. We will use market data from recent sales of similar properties to determine fair and appropriate compensation for the easement. Most land will remain usable for the same purpose after construction of the transmission line and associated activities, and agriculture can continue outside the small area occupied by the transmission structures.

The question of the effect of a transmission line on property values often comes up when new lines are proposed. We've found that while some property sales may take longer, several studies indicate limited impact on property values due to proximity to transmission lines. In fact, real estate studies have found that property buyers are most concerned with other property features and amenities, such as lot size, schools and similar considerations.

Additionally, landowners can continue to use the property as they had previously, such as for agriculture, with some limitations. Generally, easement restrictions limit the type of trees and vegetation in the right-of-way (ROW), as tall trees could grow into and damage the transmission line, and prohibit new buildings or structures within the ROW.

The Department of Commerce's Energy Environmental Review and Analysis unit, also evaluated property values and transmission lines in its environmental review documents.

**What will the new transmission line look like?**

The MNEC is a 345-kV double-circuit transmission line using a single-pole structure. The poles will be spaced about 800–1,000 feet apart, depending on the terrain and other considerations, and will be approximately 100–150 feet tall with a concrete foundation at the base. Some poles that are built on angles or where the route turns (called dead-end structures) may be two poles located side by side with slightly larger foundation. In general, the poles will have cross arms (called davit arms) on each side of the pole, 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.

### **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. The typical distance for the MNEC is about 800–1000 feet.

### **How long do transmission lines last?**

The life of a transmission project depends on a lot of factors, primarily how it’s maintained. The initial installation of a transmission line typically lasts from 50–80 years, but many can last 100 years depending on weather conditions and maintenance.

### **Why aren’t the transmission lines being buried?**

Undergrounding electrical lines is a common topic. Unlike lower-voltage distribution power lines, which deliver electricity to homes and businesses, high voltage transmission lines are not frequently installed underground because of several factors, including the high cost, which is generally estimated to be up to ten times the cost of building similar lines overhead.

### **Will the electric and magnetic fields produced by the transmission line harm my family’s health?**

No. Power lines, including high-voltage transmission and lower-voltage power lines serving neighborhoods, produce electric and magnetic fields (EMF) just like household appliances and office equipment, such as toasters, hair dryers, computers and lamps. Since the 1970s, a large amount of scientific research has been conducted on EMF and health. This large body of research has been reviewed by many leading public health agencies such as the U.S. National Cancer Institute, the U.S. National Institute of Environmental Health Sciences and the World Health Organization, among others. These reviews do not show that exposure to electric power EMF causes or contributes to adverse health effects.

### **How does Xcel Energy ensure the safety of nearby residents?**

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 the construction, operation and maintenance of transmission lines. For information on safe distances for specific activities near any power line, contact the utility operating the line directly. Transmission lines are designed to withstand extreme weather conditions, and protective devices at line terminals stop the electricity flow under abnormal operating circumstances.

All power lines in our system are monitored 24/7 for line contact, meaning an object comes in contact with the transmission line conductors. If there is an unanticipated event in the line, the line is de-energized to protect the public and the line from operating under unsafe conditions. We inspect all our system lines annually to check for line connections and damage. While designing the line, we follow national design standards to ensure the lines are robust and can withstand several extenuating circumstances.

**Power lines are inspected regularly (usually during fall or winter months) and by air and ground to look for the following:**

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

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

**NONCOMPATIBLE LOCATION AND PERMITTING****How was the transmission line route determined?**

We used a multistep process to develop the two transmission line routes we proposed in the Route Permit application, and that process included significant outreach to the public, landowners, local governments and other stakeholders. The Minnesota Public Utilities Commission (MPUC) determined the final route at a hearing in spring 2025, following the state's comprehensive review process.

Throughout our routing process, we asked for feedback on routing considerations, including current and planned land use, cultural and historical resources, technical and engineering requirements, environmental constraints, factors related to construction and operations and other factors local landowners and officials told us were important.

In the case of the MNEC, we began with a wide area between the Sherco power plant near Becker and a western endpoint in Lyon County, where we will connect to new wind and solar energy proposed in the region. The specific location in western Minnesota is not yet determined.

We worked with landowners and local governments to provide information about land use issues and the effect the various route options may have on land use, such as agriculture, proximity to homes, environmental factors and other related issues.

We also worked with state agencies to gather feedback on the route options and their effects on roadways, natural resources, and related issues.

Finally, our engineering and construction teams reviewed the routes to ensure the route options we've presented to the public can be safely and effectively built, operated and maintained.

We completed analysis and tracked that data to identify routes that limit impacts to landowners and meets all project requirements and state regulations. This data was included in the Route Permit application.

In September 2023, we submitted a Route Permit application with the MPUC, which will evaluate our proposals through an evidentiary hearing and public engagement process that includes public meetings and hearings throughout the project area.

**What does Minnesota's "Buy the Farm" law mean for this project?**

Minnesota's "Buy the Farm" law grants some landowners the option to require the company to purchase all or a portion of a landowner's property that is crossed by a transmission line.

For similar projects in recent years, many "Buy the Farm" elections have led to real estate transactions that were completed before the projects were built, providing certainty to both landowners and transmission line developers. If the energy company and landowner can't agree on a price for the property, the issue is generally resolved through the eminent domain process.

**What is right-of-way? What is an easement?**

A right-of-way (ROW) is the actual land area acquired for a specific purpose, such as a transmission line, roadway or other infrastructure. The typical ROW width required for the transmission line is generally 150 feet (75 feet on either side of the center of the structures). In some instances, the ROW may be slightly wider due to site conditions.

An easement is the legal document that must be signed by a landowner before the utility can proceed and explains what uses a landowner can continue to conduct within the ROW. If a route was approved to be located on your property, we would purchase an easement to build, operate and maintain the transmission line on the property. You would continue to own the property and, in most cases, continue to use your property as you do currently, as long as it does not interfere with the safe operation and maintenance of the transmission line.

**Will Xcel Energy use eminent domain for this project?**

We have a good track record of working with landowners to negotiate a fair settlement when purchasing easements from landowners. We understand that is not always the case, and Minnesota law does allow for the use of eminent domain if the utility and landowner can't come to a negotiated agreement.

The eminent domain process is generally overseen by a three-person panel with knowledge of real estate values in the area. The landowner, or their representative, and utility will present information about the project, land values, impact on the property and other factors to the panel, which will make an award for the value of the easement.

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

We applied for and received a Certificate of Need and a Route Permit from the Minnesota Public Utilities Commission (MPUC) for the project.

The MPUC must grant a Certificate of Need before we can build new infrastructure like we're proposing. The Certificate of Need application described why the project is needed, identified what issues will be solved by building it and included details such as engineering, operational details, environmental impacts and alternatives that were considered before submitting the application.

The Certificate of Need process included public meetings and hearings held throughout the project area.

Separate from the Certificate of Need, Xcel Energy identified potential routes for the new transmission line and submitted a Route Permit application to the MPUC. In Minnesota, the law requires that we propose at least two feasible route options for the MPUC to consider.

The Route Permit application included 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 we evaluated.

The MPUC referred the proceedings to an administrative law judge, who reviewed all information, held public meetings and hearings and made a recommendation to the MPUC.

## CONSTRUCTION

### What is the construction timeline?

We expect to begin construction in mid-2026 with completion in 2028 and additional substation construction through 2030.

### Will there be staging areas for construction materials? Are they being delivered by rail or truck?

There are typically staging areas and laydown yards every 20-30 miles along the transmission line route. Staging areas tend to be 10-20 acres in size, and we will work with the community and landowners to find good locations.

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

We plan to create a safe working and operating environment for this project, which will require the clearing of the 150-foot ROW. We will work with property owners to locate the line on their property to limit tree removal as much as practicable. Xcel Energy will ensure safety and compliance with our internal and electrical code standards.

Trees growing near power lines can be a safety hazard and are a major contributor to electric service interruptions nationwide. That's why Xcel Energy prunes and removes trees near power lines in your community. Tree pruning is the selective removal of branches that are too close to power lines or that will grow too close to power 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.

Trees can cause outages in two ways: mechanical and electrical. Mechanical outages occur when entire trees or portions of trees fall and physically damage facilities (knocking down wires, poles, etc.). Electrical outages can occur when a portion of a tree becomes a short-circuit path for electricity to flow, causing a protective device to stop the flow of electricity. An electrical outage could also ignite fires if a spark meets dry debris or fuel. Trees must be maintained at an adequate distance from the conductors to prevent electric service interruptions or ignition.

