

**TRANSMISSION COST RECOVERY RIDER
DESCRIPTION OF PROJECTS PROPOSED
TO BE ELIGIBLE UNDER SDCL 49-34A-25.1**

The following projects were approved for recovery by the Commission in the Company's last Transmission Cost Recovery Rider filing, Docket No. EL12-035, and there have been no substantive changes to the projects' scopes since their approval in that docket:

- CapX2020 Brookings – Twins Cities 345 kV transmission line
- CapX2020 Bemidji
- CapX2020 Fargo – Twin Cities 345 kV transmission line
- CapX2020 La Crosse-Local 345 kV transmission line
- CapX2020 La Crosse-MISO
- CapX2020 La Crosse-WI
- Pleasant Valley – Byron
- Glencoe – Waconia
- Sioux Falls Northern
- Grove Lake – Glenwood
- Sauk Center – Osakis
- Hollydale
- Meadow Lake
- Chisago – Apple River

The following projects are included in base rates per the Company's last concluded rate case proceeding (Docket No. EL11-019):

- BRIGO 115 kV transmission lines
- Blue Lake – Wilmarth transmission modification

The Company seeks eligibility determination for the following projects:

1. Bluff Creek – Westgate transmission line

Project Description and Context

The Bluff Creek – Westgate project consists of upgrading approximately 20 miles of 69 kV transmission line to 115 kV capacity near the cities of Westgate Chaska,

Shakopee, Chanhassen, Shorewood, Excelsior, Greenwood, Deephaven, Minnetonka, and Eden Prairie located southwest of the Twin Cities metro area. The project also includes converting approximately 5.3 miles of 115/69 kV double circuit transmission line to 115/115 kV double circuit line between the Scott County Substation and Structures #57 near the cities of Shakopee and Chaska. The line is needed to prevent significant low voltage and line overload conditions during certain contingencies.

Efforts to Ensure Lowest Cost to Ratepayers

All major materials (steel structures, switches, transformers, breakers and conductors) and construction labor for this project will take advantage of contracts that have been negotiated by the Company's sourcing group. These contracts were negotiated based on Xcel Energy system-wide use of materials and components resulting in lowest cost.

2. Chaska Area transmission line

Project Description and Context

The Chaska Area project consists of upgrading approximately 9 miles of existing 69 kV transmission line to 115 kV capacity near the cities of Chaska and Carver through Laketown, Dahlgren and Jackson townships. The project also includes construction of about 3 miles of new 115 kV line, upgrades at two existing substations and a new West Creek substation in the city of Chaska. The line is needed to prevent significant low voltage and line overload conditions during certain contingencies.

Efforts to Ensure Lowest Cost to Ratepayers

All major materials (steel structures, switches, transformers, breakers and conductors) and construction labor for this project will take advantage of contracts that have been negotiated by the Company's sourcing group. These contracts were negotiated based on Xcel Energy system-wide use of materials and components resulting in lowest cost.

3. Minn Valley transmission line

Project Description and Context

This project reconstructs 27 miles of 115 kV line to a higher capacity. This line runs from the Minnesota Valley substation to the transmission tie at Kerkhoven just east of the city of Willmar in West Central Minnesota. This project is required to mitigate excessive transmission line loading during transmission outages. This project is required to meet the TPL-003 standard in the near term and TPL-002 standard in the future without shedding load. The loss of the Morris 115 kV source combined with the loss of the Wilmar - Granite Falls 230 kV line would overload the Minn Valley - Maynard - Kerkhoven tap 115 kV line by the year 2015 to 126%. To avoid this

overload, approximately 22 MW of load would need to be shed. In the out year 2020, the loss of the Willmar - Granite Falls 230 kV line alone would result in overloading this line to 130% during high wind conditions in Southwestern Minnesota. This line was built in the late 1930s or early 1940s and is reaching the end of its useful life, meaning it may fail and no longer have the physical properties to function reliably; therefore upgrading this line would also help alleviate any reliability concerns due to the age of the line.

Efforts to Ensure Lowest Cost to Ratepayers

All major materials (steel structures, switches, transformers, breakers and conductors) and construction labor for this project will take advantage of contracts that have been negotiated by the Company's sourcing group. These contracts were negotiated based on Xcel Energy system-wide use of materials and components resulting in lowest cost.

4. Maple River – Red River

Project Description and Context

This project is to build a new 5.16 mile 115 kV line between Maple River and Red River substations in Fargo, North Dakota. This project is needed to meet the NERC TPL-003 standard without shedding load. The scope of this project involves

- 1) Building 5.16 miles of new 115 kV line from Maple River to Red River substation.
- 2) Converting the Red River substation to 3 position ring bus.
- 3) Adding a new line termination at the Maple River substation.

This project is required to:

- 1) Avoid overloading the Sheyenne transformers to 144% for the loss of the Maple River - Red River 115 kV line combined with the loss of one of the Sheyenne transformers.
- 2) Avoid overloading the Sheyenne - Cass County 115 kV line for the loss of the Sheyenne - Moderow 115 kV line combined with the loss of the Maple River - Red River 115 kV line.
- 3) Avoid overloading the Sheyenne - Moderow 115 kV line for the loss of the Sheyenne - Cass County 115 kV line combined with the loss of the Maple River - Red River 115 kV line.

Efforts to Ensure Lowest Cost to Ratepayers

All major materials (steel structures, switches, transformers, breakers and conductors) and construction labor for this project will take advantage of contracts that have been

negotiated by the Company's sourcing group. These contracts were negotiated based on Xcel Energy system-wide use of materials and components resulting in lowest cost.

5. Big Stone – Brookings 345 kV Line

Project Description and Context

This project constructs a portion of a 70-mile 345 kV transmission line between Big Stone County and Brookings County in eastern South Dakota. This project will serve multiple regional needs, including load-serving, generation outlet, and the improvement of energy market performance. Otter Tail Power will construct and own a portion of the line; NSP will be a participant in this project and other project participants will be determined. It is anticipated that recovery of costs of this project will be shared among all Midwest ISO ratepayers under the MISO Tariff.

We have only included in our petition the portion of costs for which Xcel Energy will be responsible as listed below:

- Add protective equipment for a new transmission line.
- Add line reactors and protective equipment.
- Construct an approximately 45 mile double-circuit capable 345 kV line.

Efforts to Ensure Lowest Cost to Ratepayers

All major materials (steel structures, switches, transformers, breakers and conductors) and construction labor for this project will take advantage of contracts that have been negotiated by the Company's sourcing group. These contracts were negotiated based on Xcel Energy system-wide use of materials and components resulting in lowest cost.

In addition, see CapX2020 Brookings – Twins Cities discussion above regarding the benefits of working with other utilities on transmission projects.

6. Lake Marion – Burnsville

Project Description and Context

This project upgrades the capacity of approximately 14 miles of the 115 kV line between the Lake Marion and Burnsville substations in Dakota County in Minnesota. The project is located just south of Minneapolis between Burnsville and Lakeville. Lake Marion is an underlying facility associated with CapX2020 Brookings – Twin Cities 345 kV line. In previous TCR Rider filings, this project was included as part of the CapX2020 Brookings Project costs, but within Xcel Energy it is a stand-alone project, so it was decided that it is more transparent to report it as such.

Efforts to Ensure Lowest Cost to Ratepayers

All major materials (steel structures, switches, transformers, breakers and conductors) and construction labor for this project will take advantage of contracts that have been negotiated by the Company's sourcing group. These contracts were negotiated based on Xcel Energy system-wide use of materials and components resulting in lowest cost.

In addition, see CapX2020 Brookings – Twins Cities discussion above regarding the benefits of working with other utilities on transmission projects.

7. Maple Lake – Annandale***Project Description and Context***

This project is to re-build 6.1 miles of 69 kV line to higher capacity between Maple Lake and Annandale substations in West Central Minnesota. The scope of work is to replace the existing 2/0 A conductor with 477 ACSR conductor, which is significantly larger, requiring that the pole structures be replaced to carry this new conductor. This project is required to avoid thermal overload and low voltages during transmission outages. This project is required to avoid thermal overload on the Maple Lake – Annandale line during scheduled transmission outages at the higher voltage source, that feeds this line, additionally, the same outage in the area can cause voltage loss as low as 92% at the Fairhaven substation. Upgrading the existing line is the most effective way to address these concerns as it mitigates both planning and reliability (age and condition) related deficiencies described. Other alternatives would involve building new lines or substations on this line, that would be significantly more expensive compared to the proposed line rebuild.

Efforts to Ensure Lowest Cost to Ratepayers

All major materials (steel structures, switches, transformers, breakers and conductors) and construction labor for this project will take advantage of contracts that have been negotiated by the Company's sourcing group. These contracts were negotiated based on Xcel Energy system-wide use of materials and components resulting in lowest cost.

8. Wilmarth – Carver County***Project Description and Context***

This project includes reconstructing 10 miles of existing 69 kV line between the Arlington Substation, a 3-way switch structure that serves as a tap to the City of Arlington Substation, to the Green Isle Substation and ending at the double circuit

portion of the line to Carver County Substation. The project also includes the associated work required at the Arlington Substation and Crystal Foods Substation in Gaylord, MN. This project has been proposed to help reduce flows on the underlying 69kV system in the area, for the loss of Wilmarth – Blue Lake 345kV line.

Efforts to Ensure Lowest Cost to Ratepayers

All major materials (steel structures, switches, transformers, breakers and conductors) and construction labor for this project will take advantage of contracts that have been negotiated by the Company's sourcing group. These contracts were negotiated based on Xcel Energy system-wide use of materials and components resulting in lowest cost.