

Transmission Cost Recovery Rider Descriptions of Projects

The following projects were approved for recovery by the Commission in the Company's Transmission Cost Recovery Rider filing in Docket No. EL19-032:

- Eau Claire 345 kv Upgrade

The following projects were approved for recovery by the Commission in the Company's Transmission Cost Recovery Rider filing in Docket No. EL20-025:

- Line 0795 Rebuild: Freeport to West St. Cloud
 - Avon to Albany
- Belgrade to Paynesville Rebuild
- Canisota Junction to Salem Rebuild
- CEN LCO 69 kV Rebuild
- Long Lake to Baytown

The following projects were approved for recovery by the Commission in the Company's Transmission Cost Recovery Rider filing in Docket No. EL21-025:

- Bayfield Loop
- Helena to Scott County MISO Interconnections
- Line 0723 Rebuild: Bird Island to Atwater
 - Bird Island to Lake Lillian
 - Cosmos to Lake Lillian
- Line 0761 Rebuild: Lake City to Zumbrota
- Line 0790 Rebuild: Dassel to Delano¹
 - Dassel to Cokato
- Line 0794 Rebuild: Black Oak to Douglas County
- Line 0795 Rebuild: Freeport to West St. Cloud
 - Avon to Brockway Tap
 - St. John's to Watab River
- Line 5401 Rebuild: Maple Lake to Wakefield

¹ We have updated the Line 0790 project name to "Dassel to Delano" to better reflect the end points of the project.

The following projects were approved for recovery by the Commission in the Company's Transmission Cost Recovery Rider filing in Docket No. EL22-022:

- Huntley-South Bend 161 kV Rebuild
- Line 0714 Rebuild: Watonwan to Madelia
- Line 0717/0771 Thru Flow Mitigation
- Line 0726 Rebuild: Pipestone to Rock River to Woodstock
- Line 0741 Rebuild: Big Swan to Atwater
- Line 0749 Rebuild: Waseca to ITC Tap
- Line 0754 Rebuild: Linn Street to Becker
- Line 0782 Rebuild: Westgate to Gleason Lake
- Line 0795 Rebuild: Freeport to West St. Cloud New Segments in 2023
- Line 0859 Rebuild: Inver Hills to Chemolite

The following projects were approved for recovery by the Commission in the Company's Transmission Cost Recovery Rider filing in Docket No. EL23-026:

- Brookings Second Circuit
- Line 0708 Rebuild: Eagle Lake to Waterville
- Line 0736 Rebuild: Arden Hills to Lawrence Creek
- Line 0822 Rebuild: Str 107 to Empire

The following projects were approved for recovery by the Commission in the Company's Transmission Cost Recovery Rider filing in Docket No. EL24-030:

- Line 0732 Rebuild: Black Oak to Elrosa
- Line 0982 Rebuild: Crandall to Lake Crystal
- MISO LRTP2 Alexandria to Big Oaks
- MISO LRTP4 Wilmarth to North Rochester to Tremval
- MISO LRTP5 Tremval to Eau Claire to Jump River
- MISO LRTP6 Tremval to Rocky Run to Columbia

Project Updates

Below we discuss project scope changes and any significant variances between projects' current capital cost forecast and the forecast presented in last year's TCR Rider Petition.

- **Line 0732 Rebuild: Black Oak to Elrosa**

The primary reason for an overall cost increase to the Line 0732 Black Oak to Elrosa Rebuild project is further definition of the project needs and added coordination with the Meire Grove Substation upgrade project near Meire Grove, Minnesota.

- **MISO LRTP5 Tremval to Eau Claire to Jump River**

The primary reason for an overall forecasted capital cost increase to the MISO LRTP5 Tremval to Eau Claire to Jump River project is further definition of the transmission line route and the necessary substation equipment increasing the overall cost of the project.

- **MISO LRTP6 Tremval to Rocky Run to Columbia**

The primary reason for an overall forecasted capital cost increase to the MISO LRTP6 Tremval to Rocky Run to Columbia project is further definition of the route length, increasing the overall cost of the project along with aligning cost share percentage agreements with the joint venture partner utilities (American Transmission Company, Wisconsin Public Power Incorporated, and Southern Minnesota Municipal Power Agency) on the project.

- **MISO LRTP2 Alexandria to Big Oaks**

The forecasted capital cost decrease for the MISO LRTP2 Alexandria to Big Oaks project is further refining of the project needs and gaining efficiencies through coordination of construction resources planned for the transmission line and substation work.

- **Line 0782 Westgate to Gleason Lake Rebuild**

The primary reasons for an overall cost increase to the Line 0782 Westgate to Gleason Lake Rebuild project is added pole replacements, an extensive siting and land rights process, and construction complexity associated with working in a tightly packed suburban area. This has added to the timeline of construction needed to complete the project.

- **Line 0717/0771 Thru Flow Mitigation**

The forecasted capital cost increase for the Line 0717/0771 Thru Flow Mitigation project is unanticipated delays of material delivery, causing the timeline of construction to be increased.

- **Line 0714 Watonwan to Madelia (municipal) Rebuild**

The primary reason for an overall cost increase to the Line 0714 Watonwan to Madelia (municipal) Rebuild project is additional construction costs related to unanticipated poor soil conditions along the route which required larger poles to accommodate the new design and the addition of OPGW shield wire.

- **Line 0708 Rebuild str 78 to 476 Eagle Lake-WAT**

The forecasted capital cost decrease for the Line 0708 Rebuild str 78 to 476 Eagle Lake-WAT project is due to further definition of the scope and gained efficiencies through continued coordination of project with MISO Tranche 1 LRTP 4 Project.

- **Huntley to South Bend 161kV**

The primary reason for an overall cost increase to the Hunley to South Bend 161kV project is unanticipated large changes in commodity prices from initial estimates (i.e., Steel, Conductor, hardware and insulators).

- **Canisota Junction to Salem**

The forecasted capital cost increase for the Canisota Junction to Salem Rebuild project is caused by construction delays due to adverse weather, and ongoing coordination with East River Power causing construction timelines to be extended.

- **Brookings Second Circuit**

The forecasted capital cost decrease for the Brookings Second Circuit project is due to the removal of contingency risk dollars from the forecast and overall construction efficiencies during the first phase of the project from Brookings to Lyon County substations.

- **Line 0795 Avon to Brockway Tap 69kV Rebuild**

The forecasted capital cost increase for the Line 0795 Avon to Brockway Tap 69kV Rebuild project is due to unanticipated delays of material delivery causing the timeline of construction to be increased.

- **Line 0795 Line 0795 St. John's to Watab River 69kV Rebuild**

The forecasted capital cost increase for the Line 0795 St. John's to Watab River 69kV Rebuild project is due to additional coordination of the transmission line work with St. John's University and local landowners along with unanticipated delays of material delivery.

- **Line 0859 Rebuild: Inver Hills to Chemolite**

The forecasted capital cost decrease for the Line 0859 Inver Hills (str. 16) to Chemolite Rebuild project is due to sectionalizing this project to better coordinate the permitting needed for the Mississippi River crossing. These decreased costs will be incorporated as a separate project on the transmission Line 0859, and we anticipate those costs will be incorporated in a future TCR Petition.

New Projects

The Company seeks eligibility determination for the following projects:

1. **Minnesota Energy Connection - Sherco to Lyon County**

The Minnesota Public Utilities Commission granted a Certificate of Need for the Minnesota Energy Connection transmission project in MPUC Docket No. E002/CN-22-131 and issued a route permit in MPUC Docket No. E002/TL-22-132, authorizing the Company to build a new double-circuit 345-kilovolt (kV) transmission line between the current site of the Sherco coal plant near Becker, Minnesota, and Lyon

County in southwest Minnesota. The new transmission infrastructure is designed to enable more than 2,000 megawatts of energy from renewable resources and combustion turbines. The new transmission line will re-use the existing grid connections in Becker. Xcel Energy must meet federal requirements to re-use the grid connections when the final coal unit retires or may lose valuable interconnection rights that substantially benefit our customers.

See the Project Map (Attachment 18) for the estimated construction start date and estimated in-service date for this project.

2. Line 0986/0987 Major Line Rebuild Double Circuit

The Line 0986/0987 Major Line Rebuild Double Circuit project consists of replacement of K-Frame wood structures installed in the 1960s, that have not been previously replaced, with new steel structures and new foundations. This project work takes place from approximately the Prairie Island substation near Welch, Minnesota to the Red Rock substation near St. Paul, Minnesota. The new steel structures are being designed for future capacity increase to a larger conductor.

See the Project Map (Attachment 18) for the estimated construction start date and estimated in-service date for this project.