

**Transmission Cost Recovery Rider  
Descriptions 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 Transmission Cost Recovery Rider filing in Docket No. EL12-035 and re-affirmed for cost recovery most recently in Docket No. EL18-036:

- CapX2020 Brookings – Twins Cities 345 kV transmission line
- CapX2020 Fargo – Twin Cities 345 kV transmission line
- CapX2020 La Crosse-Local 345 kV transmission line
- CapX2020 La Crosse-MISO
- CapX2020 La Crosse-WI
- Glencoe – Waconia
- Sioux Falls Northern

The following projects were approved for recovery by the Commission in the Company's Transmission Cost Recovery Rider filing in Docket No. EL13-006 and re-affirmed for cost recovery most recently in Docket No. EL18-036:

- Bluff Creek – Westgate transmission line
- Chaska Area transmission line
- Minn Valley transmission line
- Big Stone – Brookings 345 kV Line
- Lake Marion – Burnsville
- Maple Lake – Annandale

The following project was approved for recovery by the Commission in the Company's Transmission Cost Recovery Rider filing in Docket No. EL15-030 and re-affirmed for cost recovery most recently in Docket No. EL18-036:

- Minot Load Serving Transmission Line

The following project was approved for recovery by the Commission in the Company's Transmission Cost Recovery Rider filing in Docket No. EL18-036:

- Huntley-Wilmarth 345 kV Transmission Line

## **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.

### **Huntley –Wilmarth 345 kV Transmission Line**

The Minnesota Public Utilities Commission (MPUC) issued its Order approving the Huntley-Wilmarth 345 kV Transmission Line project and the final route on August 5, 2019 in MPUC Docket Nos. E002, ET6675/CN-17-184 and E002, ET6675/TL-18-185. As discussed in Docket No. EL18-036, the final route decision impacts the final project costs. The Commission approved a route that reduces impacts to landowners and the environment by requiring 23 miles of new line to be co-located with an existing 345 kV line, and specified the use of monopole structures rather than H-frames to reduce impacts to farming. We have updated the forecasted project cost to account for the final route decision, which is the primary driver of the 31% increase to the project cost compared to the forecast presented in last year's TCR Petition. The Company will own 50 percent of the Huntley-Wilmarth line, while ITC Midwest will own the other 50 percent. We have also included a map of the final route as Attachment 18-1.

### **CapX2020 – Brookings**

The CapX2020 – Brookings project went into service in 2015, and now that the final costs have been recorded, we are closing the accounting records for the project. During the project closing process, we identified some Right of Way costs that had been inadvertently and inaccurately classified as Removal Work in Progress (RWIP) expenses that were actually Construction Work in Progress (CWIP) expenses. We made an accounting adjustment to reclassify those costs in 2019. Because RWIP costs are excluded from our rider revenue requirements, this adjustment appears as a new \$8.6 million capital expense on Attachment 3. These expenditures are not new expenditures, but are only now showing as expenses to be recovered through the rider because of the reclassification.

### **CapX2020 – La Crosse MISO – WI**

As discussed below, the CapX2020 – La Crosse MISO – WI line interconnects with the La Crosse – Madison line. In its Order approving the La Crosse – Madison line, the PSCW approved a line swap with the existing CapX2020 – La

Crosse line so that the lines did not have to cross one another. To avoid this cross and extra expenditure, ownership of a portion of the La Crosse – Madison line was transferred to the CapX2020 – La Crosse project; and a portion of the CapX2020 – La Crosse line was transferred to the La Crosse – Madison project. As a result, the purchase shows as a new capital expenditure to the CapX2020 – La Crosse in 2018. In turn, the transferred expenses are no longer part of the La Crosse – Madison project expenditures. The ownership transfer of this line segment was also approved by the FERC.

## **New Projects**

The Company seeks eligibility determination for the following projects:

### **1. West St. Cloud – Black Oak**

#### *Project Description and Context*

The West St. Cloud – Black Oak Project involves rebuilding the Company's Line 0795, which is a 63-year old 69 kV transmission line that originates at Great River Energy's West St. Cloud Substation in St. Joseph, Minnesota and runs westerly approximately 25 miles to the Millwood Tap Switch in Freeport, Minnesota. This line is important because it serves the Company's as well as other utilities' distribution loads in the area.

This project was initially identified as part of the Company's systematic Major Line Rebuild Program. Through the Company's Line Prioritization Matrix, the Company identified Line 0795 as being a poor performer due to its age and condition. The 1953 vintage line consists of direct embedded cedar wood poles. Many of the poles are past their useful life and over the years, many have been replaced through Storm and Emergency program (S&E Lines) due to their poor condition. Continuing to replace singular structures is no longer a cost effective option due to the number of structures requiring replacement as well as the poor condition of the existing cross arms and conductor. The cross arms show evidence of physical decay and the conductor has failed in several locations.

### **2. Eau Claire 345 kV Upgrade**

#### *Project Description and Context*

The Eau Claire 345 kV Upgrade project is a sequenced rebuild program on the 345kV transmission line between our AS King Substation located in Bayport, MN and Arpin

Substation located approximately 17 miles west of Stevens Point, WI. This project that will likely require a Certificate of Authority permit from the Public Service Commission of Wisconsin (PSCW). The project is broken into three sequenced segments for construction: 1) Rebuild of line number 0981 between AS King Substation and the St. Croix River Crossing (19.8 miles), 2) Rebuild of line number 3101 between the St. Croix River Crossing and Company's Eau Claire Substation (63.9 miles), and 3) Rebuild of line number 3102 between the Eau Claire Substation and Arpin Substation (80 miles). The project is needed because the existing structures are have degraded and are experiencing structural loading limitations. Additionally this 345kV line is important because it ties Minnesota to Wisconsin, transferring hundreds of generated MWs from the Dakotas and Minnesota to western Wisconsin. Having this line out of service hampers the ability to serve western Wisconsin with energy including renewable energy and could cause potential voltage issues. NSP-Wisconsin has about 1300 MWs of load and the King-Eau Claire 345 kV line helps support reliability for loads in Wisconsin.

### **3. Bayfront to Ironwood 88 kV**

#### *Project Description and Context*

Line W3351 (88kv) and Line W3316 were originally built in the 1950s and run cross-country through difficult terrain, posing challenges for construction and maintenance, and nearing the end of their useful life. In addition, our 50-year permit from the Bureau of Indian Affairs for the portion across the Bad River Indian Reservation has expired for Line W3351 and will expire in 2025 for Line W3316. The Company is working with the general public, and local and tribal governments to find a more accessible location for these two lines in the area. The project proposes relocation of these lines and is dependent on input from landowners, and a permit from the PSCW. The Company anticipates this project will occur over a 10-year period with anticipated in-service in 2025/2026 and final restoration and removal of existing line by 2030. We note that the project route is still under consideration, pending input from the public and a final determination by the PSCW. Final project costs will be determined once the route has been finalized.

### **4. La Crosse – Madison 345 kV Line**

#### *Project Description and Context*

This project is a Multi-Value Project (MVP) approved by MISO in December 2011 and jointly developed with American Transmission Company (ATC). The project consists of construction of a new 345 kV transmission line beginning at Northern

States Power Company-Wisconsin's (NSPW) Briggs Road substation in Onalaska, Wisconsin, connecting at ATC's North Madison substation in Madison, Wisconsin, and then terminating at ATC's Cardinal substation in Middleton, Wisconsin. NSPW, Dairyland Power Cooperative, SMMPA Wisconsin, LLC, WPPI Energy and ATC will share ownership of the Briggs Road to North Madison section and ATC will own and have responsibility for the North Madison to Cardinal section. Construction on the approximately 182 mile project began in 2016, and the line was placed in-service in December 2018.

Based on their own independent planning analyses, Xcel Energy and ATC confirmed MISO's conclusion that this project provides substantial net economic, reliability, and policy benefits to the region. Overall, MVPs help expand and enhance the region's transmission system, reduce congestion, provide improved access to affordable energy sources, and meet public policy requirements, including renewable energy mandates. In addition, the project interconnects with the CapX2020 La Crosse projects, which will support the reliability of the regional transmission infrastructure by increasing transfer capability between the NSPM system and the NSPW system.