CapX2020 Transmission Lines Complete

Largest development of new transmission in the area in over 40 years

It’s quite the accomplishment, and one that has changed the energy landscape of the Upper Midwest. As of September 8, 2017, all of the CapX2020 transmission lines are up and running in Minnesota, North Dakota, South Dakota and Wisconsin. The accomplishment has entailed 13 years, a $2 billion investment, 800 miles of transmission, and 11 utility partners all working together.

An event was held in August in South Dakota to celebrate the final CapX2020 project going in-service. The Big Stone South-Brookings County transmission line is a 70-mile 345-kilovolt (kV) line that runs between the new Big Stone South Substation near Big Stone City and the existing Brookings County Substation northeast of Brookings.

“These significant investments are essential to positioning South Dakota for future renewable energy production. We’re excited about the new paths for solar and wind energy that will be opened up as a result of this important initiative,” said Gov. Dennis Daugaard.

“CapX2020 is a great example of collaboration. Investor-owned electric utilities, electric cooperatives, and municipally-owned electric utilities all worked together in an unprecedented way through transmission expansion to ensure we can continue to provide safe, reliable, and affordable energy to our customers,” said Tim Rogelstad, President of Otter Tail Power Company.

“In this respect, we’re a model for the rest of the country in transmission development. We’ve accomplished much more together than we ever could do alone.”

“The CapX2020 lines have strengthened the backbone of the grid,” said Teresa Mogensen, Xcel Energy’s Senior Vice President Transmission. We have addressed local reliability issues from Fargo to Rochester to La Crosse, Wisconsin so those communities can continue to grow and prosper.”

Renewable energy super highway

The 800 miles of CapX2020 transmission lines and substations have created a virtual renewable energy super highway in the Upper Midwest.

“If you build it, they will come,” said Teresa Mogensen, Xcel Energy’s Senior Vice President Transmission. “Transmission provides options. Without it, the new tax revenue generated by wind farms, the royalty payments to landowners and the new jobs don’t happen.”

The recently completed 70-mile CapX2020 Big Stone South to Brookings County 345 kV project has nine wind projects and one natural gas generation facility totaling over 2,000 megawatts (MW) of electricity requesting interconnection. The 600 MW Crowned Ridge wind project will be the largest in South Dakota and will result in tens of millions of dollars funneling into the state. There is another 10 projects totaling 1,900 MW of wind energy seeking to interconnect to the CapX2020 Brookings County, S.D. to Hampton, Minn. line. And the 240-mile Fargo to Monticello line is helping unlock and provide an outlet for thousands of MWs of wind generation being planned and built in North Dakota. CapX2020 is helping to provide low-cost clean energy to customers and communities across the Midwest.

“Major transmission lines, like the CapX2020 project, are helping to unlock the potential for a major build out of wind energy in the Midwest, while also offering important reliability benefits for customers” said Beth Soholt, executive director of Wind on the Wires.

### 3,600 MW of Wind Connecting to CapX2020 Lines Will:

- **Power over:** 1.5 million homes
- **Avoid:** 6.3 million tons of CO2 per year
- **Generate:** Approximately $15 million in annual landowner royalty payments

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**CapX2020 Project Status**

**Economy Boost**

**Crowned Ridge Wind Farm**

Wind farms help power the economy. Xcel Energy’s proposed 600 MW Crowned Ridge Wind Project in eastern South Dakota will:

- Generate $75 million in property taxes over the life of the project
- Generate $3.4 million in annual landowner royalty payments
- Create 600 construction jobs and 35 full time jobs
Construction Challenges

CapX2020 crews faced many challenges including constructing a transmission line across the Mississippi River, using a heavy lift helicopter to install structures in a wetland, working in record cold temperatures and overcoming challenges in unstable soil conditions.

CapX2020 Project Overview

Big Stone South-Brookings County
Completed in 2017
This 70-mile, 345-kV line runs between the new Big Stone South Substation near Big Stone, SD, and the Brookings County Substation near Brookings, SD.

Brookings County-Hampton
Energized spring 2015
This 250-mile, 345-kV line runs between the Brookings County Substation near Brookings, SD, and the Hampton Substation south of the Twin Cities.

Fargo-St. Cloud-Monticello
Energized spring 2015
This 240-mile, 345-kV line runs between the Bison Substation near Fargo, ND, and the Monticello Substation near Monticello, Minn.

Bemidji-Grand Rapids
Energized fall 2012
This 70-mile, 230-kV line runs between the Wilton Substation near Bemidji, MN, and the Boswell Substation in Grand Rapids, Minn.

Hampton-Rochester-La Crosse
Energized in 2016
This 150-mile, 345/161-kV transmission line spans between the Hampton Substation south of the Twin Cities, the North Rochester Substation north of Pine Island, Minn., and the Briggs Road Substation north of La Crosse, Wis.

Thank you

The CapX2020 utilities would like to extend our sincere appreciation to businesses, local government leaders, environmental agencies and others who helped ensure the completion of all the CapX2020 projects. In particular, we thank the property owners along the power line routes.

THE FIVE CAPX2020 PROJECTS INCLUDE

- 26 MILLION FEET OF CONDUCTOR
- NEARLY 5,000 TRANSMISSION LINE STRUCTURES
- 500,000 CUBIC YARDS OF CONCRETE

CapX2020 partners

Central Municipal Power Agency/Services • Dairyland Power Cooperative • Great River Energy • Minnesota Power • Minnkota Power Cooperative • Missouri River Energy Services • Otter Tail Power Company • Rochester Public Utilities • Southern Minnesota Municipal Power Agency • WPPI Energy • Xcel Energy