



Delivering electricity you can rely on

Brookings County-Hampton 345 kV transmission line

PROJECT UPDATE

Project overview

The Brookings County-Hampton project is a double circuit 345 kilovolt (kV) transmission line (some segments constructed as double circuit capable) built between the Brookings County Substation near Brookings, S.D., and the Hampton Substation south of the Twin Cities in Hampton, Minn. The line is comprised primarily of single pole structures attached to concrete foundations, spaced about five per mile. Construction began in April 2012, and the line was placed in service on March 26, 2015.

Project quick facts

345 kV line, double circuit

250 miles

In-service date – March 26, 2015

Project need

The Brookings County-Hampton project will help meet projected electric growth in southern and western Minnesota, and the growing areas south of the Twin Cities metro area, particularly

Scott and Dakota counties where population has more than doubled since the last major transmission upgrade. Additionally, Minnesota has one of the nation's most aggressive renewable energy standards, requiring 25 percent of electricity to come from renewable sources like wind (30 percent for Xcel Energy). The Brookings County-Hampton project connects into the central part of the Buffalo Ridge, one of the nation's windiest areas.

Project route

The final route, determined after a lengthy regulatory process by the Minnesota Public Utilities Commission (MN PUC), was developed over the course of several years and with the input of thousands of landowners, state and local officials and other stakeholders. CapX2020 utilities held several rounds of open houses and working groups to identify potential areas for the eventual route. Utilities proposed two routes in the Route Permit application, and additional routes were proposed by members of the public during regulatory proceedings.

Regulatory proceedings

The MN PUC must grant two approvals before transmission lines can be built—a Certificate of Need and a Route Permit.

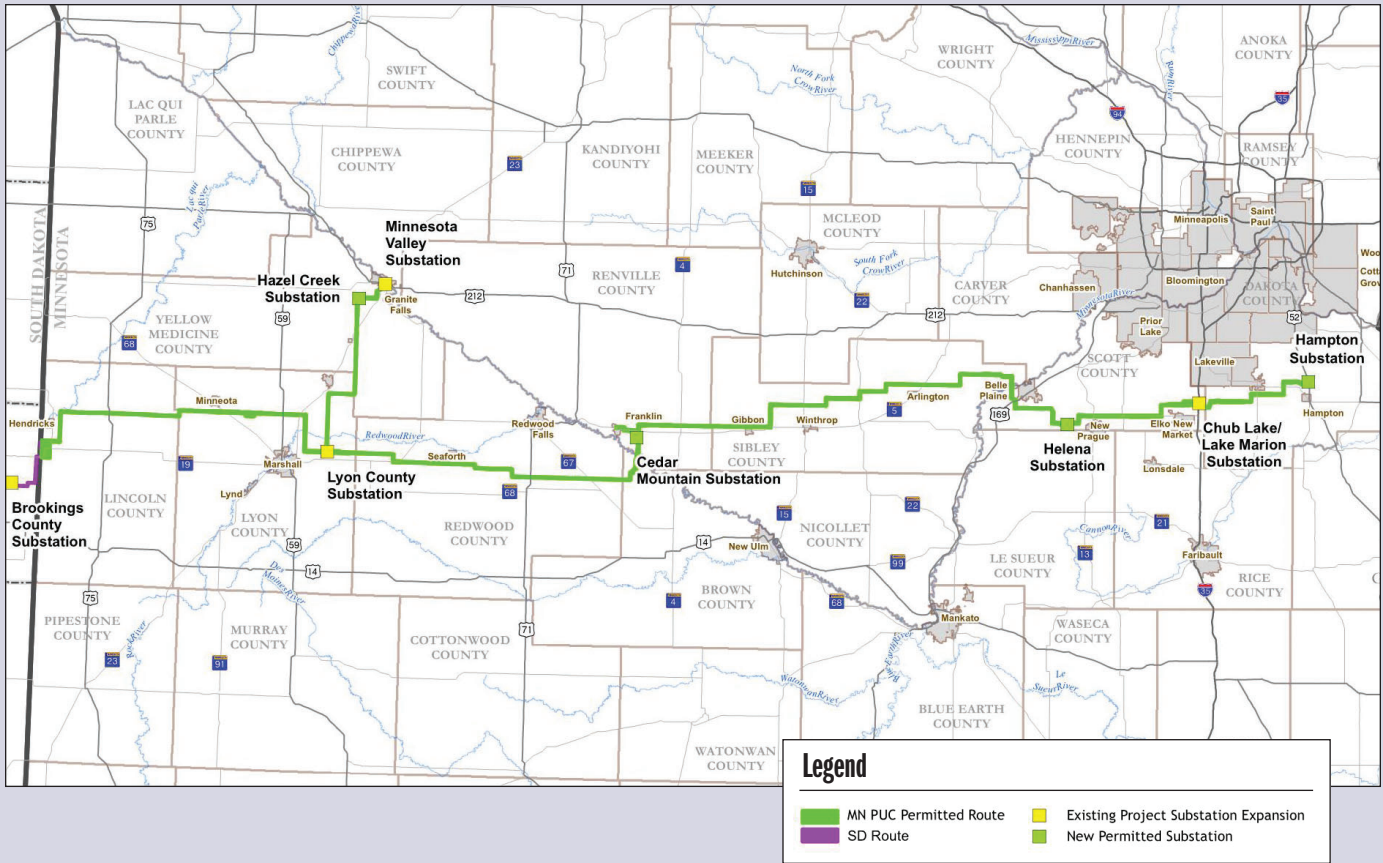
The CapX2020 utilities were granted a Certificate of Need for three 345 kV projects, including Brookings County-Hampton, on May 29, 2009. To view documents in that proceeding, including an environmental report prepared by the Department of Commerce, visit the MN PUC website at www.puc.state.mn and search for eDocket 06-1115. The MN PUC can also be reached by phone at 1-800-657-3782.

The project was granted a final Route Permit from the MN PUC on February 3, 2011. To view Route Permit documents, visit the MN PUC website and search for eDocket 08-1474.



Single pole steel structures were used to reduce land impacts; some locations required two pole structures. Poles are between 140 and 170 feet tall and about 1,000 feet apart. Typically, a 150-foot wide right-of-way was required.

Brookings County-Hampton 345 kV route



A Facility Permit was granted by the South Dakota Public Utilities Commission in June 2011. Visit the SD PUC website at <http://www.puc.sd.gov/> or call 605-773-3201 for more information on the regulatory process.

The Midcontinent Independent System Operator (MISO) granted the project approval as a multi-value project (MVP) in December 2011.

What's next?

Crews will continue restoration efforts along the transmission line. In addition, crews will finish installing interphase spacers this year, with work on the segment between the Cedar Mountain Substation and the Helena Substation scheduled to take place June through August. Installation on the segment between the Lyon County Substation and the Cedar Mountain Substation will take place in August and September.

Interphase spacers are devices that help prevent “galloping”, or movement of the conductors during certain weather conditions.

Galloping can stress or damage components of the line and cause outages.

About CapX2020

CapX2020 is a joint initiative of 11 transmission-owning utilities in Minnesota and the surrounding region formed to upgrade and expand the electric transmission grid to ensure continued reliable and affordable service. CapX2020 projects include 345 kV transmission lines in Minnesota, North Dakota, South Dakota, and Wisconsin, and a 230 kV line in northern Minnesota.

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