Plymouth-area power grid upgrade

Alternative C selected

Xcel Energy is planning to construct a modified version of Alternative C. This alternative relies on existing infrastructure, requiring less construction of new facilities and minimizing human and environmental impacts. In addition, Alternative C provides the best electrical performance of the three alternatives and is the best long-term solution for the area’s electrical needs.

Following the public meetings, Xcel Energy modified Alternative C by moving the location of the proposed Pomerleau Lake Substation to a parcel of city-owned land north of Schmidt Lake Road and just west of I-494. In addition to constructing the new Pomerleau Lake Substation, Alternative C includes re-energizing the existing 3.4 mile 69 kV line between the new Pomerleau Lake Substation and Hollydale Substation, constructing a half-mile of new 69 kV line either parallel to or double-circuited with an existing transmission line from the existing 69 kV line to the new Pomerleau Lake Substation, and building three 13.8 kV distribution lines (total of 3.3 miles) from the Hollydale Substation. The Hollydale substation will be upgraded on land own by Xcel Energy. Alternative C requires no installation of additional pad-mounted transformers in Plymouth.

Great River Energy (GRE) owns the existing 69 kV line and easements in Plymouth. Xcel Energy is negotiating to purchase the line from GRE. In taking ownership of the 69 kV line and easements, Xcel Energy has agreed to restrict the operating voltage of the existing Hollydale to Pomerleau Lake line route to 69 kV.

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Xcel Energy has been working with the community to develop a solution to address electric deficiencies in the Plymouth area for more than six years. After Xcel Energy withdrew its Hollydale 115 kilovolt (kV) transmission line proposal in 2013, the company began working to develop new distribution alternatives to ensure the community has reliable electricity service. While the population in the city of Plymouth has quadrupled over the last 40 years, the four primary electric substations, as well as the majority of distribution and transmission lines serving the Plymouth area are between 25 and 60 years old.

Three different electric solutions were developed with careful consideration of public input along with a focus on minimizing impacts to the community. Xcel Energy presented these three alternatives (A, B, and C) at two public meetings in May, 2016. The three power grid alternatives would improve reliability by reducing outages caused by overloaded equipment, and by decreasing the amount of time necessary to recover from an outage. Following the public meetings, Xcel Energy carefully reviewed all input, and compared the alternatives using both public input and a data-based comparison. View more information on planned next steps inside.

Alternative C modified route

Common to all three alternatives is the addition of a 0.8 mile distribution line to an existing line that runs north of Gleason Lake Drive and reinforcement of underground distribution lines near the Parkers Lake Substation.
Vegetation management

Utilities must conduct routine vegetation management to maintain a safe distance between the energized power line and vegetation. Clearances are required to prevent tree branches from contacting energized wires and causing outages. As part of re-energizing the 3.4 miles of the Hollydale-Pomerleau Lake 69 kV line, Xcel Energy will work with landowners to minimize vegetation impacts where possible while at the same time maintaining the appropriate clearances between vegetation and the 69 kV line.

For more information

There is more information, including an engineering study, fact sheets and project maps available on our website at www.xcelenergy.com/Plymouth. If you have questions, please call 612-330-6644 or email us at Plymouth@xcelenergy.com.

Construct new substation

The new Pomerleau Lake Substation is an essential component of creating a long-term solution for the Plymouth-area electrical infrastructure. The substation’s location north of Schmidt Lake Road was selected based on community input and its proximity to other existing electrical infrastructure.

Approximate timeline (subject to change)

December 2016: File Conditional Use Permit Application and negotiate land purchase with city of Plymouth for Pomerleau Lake Substation
June 2017: Start construction of Pomerleau Lake Substation
Spring 2018: Start construction of a half-mile of new 69 kV line to connect existing Hollydale 69 kV line to Pomerleau Lake Substation
December 2018: Estimated in-service date for Pomerleau Lake Substation and re-energization of 69 kV line between Hollydale and Pomerleau Lake (including a half-mile of new 69 kV line)
2019-2020: Construction of Hollydale Substation upgrades and associated distribution feeders