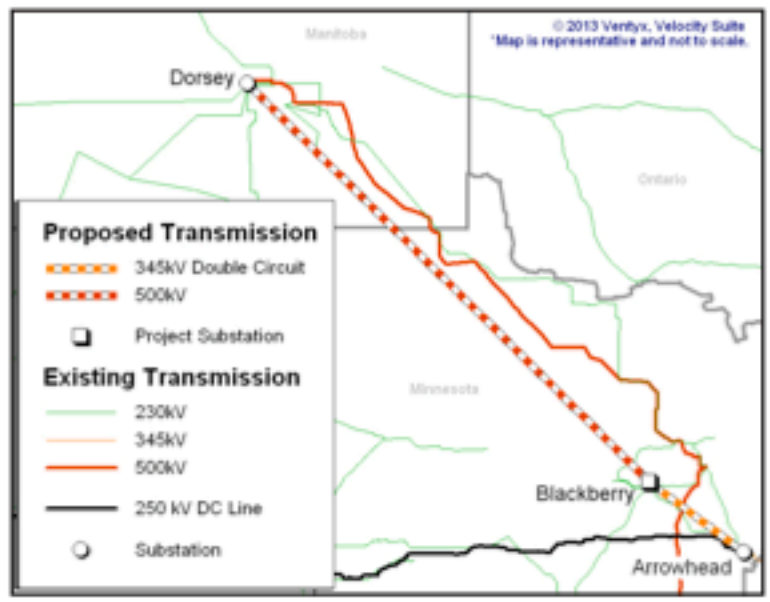
Great Northern Transmission Line



Description: The Great Northern Transmission Line Project includes high-voltage connections between the province of Manitoba in Canada and the Arrowhead Substation in St. Louis County, Minnesota, to enable additional deliveries from Manitoba Hydro to meet existing and future energy needs. Minnesota Power is proposing to construct a 500 kV transmission line from the border that would terminate at the Blackberry Substation in Itasca County, Minnesota, (approximately 225 to 300 miles) and a 345 kV double-circuit transmission line from Blackberry to the Arrowhead Substation near Hermantown, Minnesota (approximately 50 to 70 miles).

The Great Northern Transmission Line is intended to provide delivery and access to power generated by Manitoba Hydro's hydroelectric stations in Manitoba, Canada. Minnesota Power needs this line to deliver at least 250 MWs of energy and capacity by June 1, 2020 under an approved Power Purchase Agreement (PPA). Several other items are driving the need for a new transmission line to be built from Manitoba, Canada, to the Arrowhead Substation. These include access to clean, renewable energy for Minnesota Power and the region, increased industrial load growth on the Iron Range, and strengthening regional reliability. The Project is intended to facilitate increased imports from Manitoba of up to 1,100 MWs to support the regional transmission system and to serve load.

The project consists of a 500 kV build and a 345 kV build. The 500 kV build includes the new 500 kV transmission line and expansion of the Blackberry Substation to accommodate the new line and a 500/230 kV transformer. This part of the project is planned to be in-service by June 1, 2020, in order to meet the terms of Minnesota Power's PPA. For the 345 kV build, the Blackberry Substation will be expanded to include 500/345 kV transformation and a new double-circuit 345 kV line will be built from Blackberry to the Arrowhead Substation. The 345 kV build of the project is planned to be implemented in 2025.

Cost: Approximately $960 million.

Status: Minnesota Power plans to submit a Certificate of Need application to the State of Minnesota in early 2013, followed by a Route Permit Application in late 2013. Since the proposed line crosses the international border, Minnesota Power will also be submitting a Presidential Permit Application to the federal government in 2013. Assuming that permitting for the project is completed by 2015, Minnesota Power would plan to start construction in 2017.

Phase I Project Investment Partners: Minnesota Power, others pending.

Phase II Project Investment Partners: Minnesota Power, American Transmission Company, others pending.

Benefits: The project will provide access to at least 1,100 MWs of clean, emission-free energy for Minnesota Power and the region.

http://www.eei.org/ourissues/ElectricityTransmission/Documents/TaaG_M-O.pdf