

Strengthening Alberta's Electricity Transmission Intertie Infrastructure

Sponsor:

Lethbridge Chamber of Commerce

Co-sponsors:

Grande Prairie & District Chamber of Commerce

Drumheller & District Chamber of Commerce

Issue

Affordable, reliable electricity is critical to the sustainability of the Canadian economy.

Background

Reliable and affordable electricity are essential components of a well-functioning, competitive economy. Provincial interties, of which there are three (connecting to B.C., Saskatchewan, Montana) operating in Alberta, are a key aspect of Alberta's integrated transmission system. These interties enable the import and export of electricity from neighbouring jurisdictions that both supports Alberta's robust, competitive, energy only market and provides system reliability, which is of utmost importance to residential, farm and small business and industrial consumers throughout the province. Alberta is currently the least interconnected province, as a percentage of electrical load, in Canada.

On June 7, 2020, Alberta experienced rolling blackouts around the province due to a lightning strike in southern British Columbia that tripped the B.C.-Alberta intertie. The blackouts that occurred were not only disruptive to Alberta residents and businesses, they were economically costly due to lost productivity because of the interruption to business operations. Moreover, the Alberta Electricity System Operator (AESO) has since imposed a significant reduction in import capacity (curtailment) for the MATL and B.C. interties, which is having a negative effect on transmission system operations and, more importantly, is leading to an estimated \$300 – 500 million in additional costs annually for Alberta electricity consumers.¹

Berkshire Hathaway Energy Canada's Montana-Alberta Transmission Line (MATL) Intertie Enhancement Project

The Montana Alberta Transmission Line (MATL) is a 344-kilometer, 230 kV 300 MW merchant transmission line connecting the Great Falls, Montana and Lethbridge, Alberta. Analysis by Berkshire Hathaway Energy Canada shows that having a 450 MW back-to-back DC converter on the MATL intertie will increase transfer capacity for both the B.C. and MATL interties, optimizing the intertie system and improving grid reliability to help avoid future blackouts. With the support of the Canada Infrastructure Bank, BHE Canada is proposing to invest in a \$200M back-to-back DC converter station on the line, a private investment in nonregulated transmission assets funded without any increase to rate base for Alberta ratepayers.

¹ AESO's curtailments of the Montana – AB -- BC interties cost Alberta consumers \$70m in the first 46 days.

It is anticipated the additional capacity of the MATL intertie enhancement project would result in AESO's easing of the current curtailment, in turn, leading to significant cost benefits for Alberta electricity consumers. In addition to reducing electricity costs for rate payers, the project would generate an estimated \$2.4m - \$3.1m in property taxes (Lethbridge or Warner County), employment opportunities for First Nations, along with substantial tax revenue for Alberta. The project would produce more than 200 construction and engineering jobs during build out and result in 5 full-time operations jobs when complete.

Expanding intertie infrastructure is of strategic interest to Alberta and Canada's economic and climate goals. Alberta's current intertie infrastructure limits access to hydropower produced in BC and Manitoba, as well as renewable power produced in southern Alberta and the United States. Interties complement high penetrations of variable renewable electricity by enabling jurisdictions to trade surplus renewable generation with other markets when output is high, and to import electricity when output is low.² Finding ways to improve the transmission system's reliability, lower electricity costs for consumers and improve access to renewable energy sources are critical objectives to enable a less carbon-intensive and sustainable Canadian economy.

The Alberta Chambers of Commerce recommends the Government of Alberta:

1. Support private investment in provincial interties for purposes of enabling competition in Alberta's energy only market, lowering electricity costs, and improving grid reliability, including BHE Canada's MATL intertie and back-to-back DC converter station project; and,
2. Promote development of interjurisdictional interties to improve access to electricity produced by renewable resources and increase opportunities for interprovincial and Canada-U.S. electricity trade.

² [Strategic Electricity Interties Report of the Standing Committee on Natural Resources 2017](#)