

Long-term Transmission System Plan identifies need for critical transmission system investments

CALGARY, Alberta (June 2, 2009) – Several critical transmission infrastructure projects are needed between 2010 and 2017 to meet the current and future electricity needs of Albertans, the Alberta Electric System Operator (AESO) said today in the latest update of its Long-term Transmission System Plan (the Plan).

“We need to reinforce the transmission “backbone,” that runs through the province and links vital parts of the system,” said David Erickson, AESO president and chief executive officer (interim). “Despite rapid growth in Alberta over the past several years, no major backbone transmission projects have been built for more than 20 years.”

Due to inefficiencies with Alberta’s transmission system, \$220 million worth of electricity was lost in the form of heat from transmission lines in 2008 alone. Also, using technology such as high voltage-direct current lines will minimize land-use impacts and accommodate long-term economic growth.

In addition, transmission development will unlock geographic constraints for all forms of electricity generation, including “green energy” such as wind, solar and water power.

The projects identified in the Plan, filed today with the Alberta Utilities Commission, are currently estimated to cost \$14.5 billion. While some of the transmission projects identified in the Plan are new, most have been studied for some time as part of the AESO’s comprehensive long-term planning process, so technical evaluations and stakeholder consultation are well advanced.

Five critical transmission infrastructure projects are highlighted in the Plan and have been classified by the AESO as “CTI-Tier 1.” One of these projects is transmission development in southern Alberta to integrate wind energy and is currently in the regulatory process. The need for the other four is expected to be approved later this year by the provincial government under legislation related to the government’s Provincial Energy Strategy.

“These critically important projects are aligned with the Provincial Energy Strategy, which includes building critical transmission infrastructure so it leads business investment decisions that rely upon electricity,” Mr. Erickson said.

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The CTI-Tier 1 projects are:

- Two 500 kV HVDC high-capacity lines from the Edmonton area to the Calgary and South regions.
- One 500 kV double circuit AC line from the Edmonton area to the Industrial Heartland area (parts of Sturgeon, Strathcona and Lamont counties).
- Two 500 kV lines to Fort McMurray; one from the Wabamun Lake area and one from the industrial Heartland area northeast of Edmonton.
- The AESO is looking at various options to strengthen the transmission system in the south Calgary area and will conduct further analysis and stakeholder consultation. These reinforcements may include an additional substation and/or new transmission.
- New transmission development in southern Alberta to integrate wind energy. This project is currently in the regulatory process.

The CTI-Tier 1 projects are estimated to cost \$8.1 billion, which will result in an increase of about \$8 per month to the transmission charge on an average residential customer's bill, after the projects are completed. Transmission costs are recovered through charges paid by all electricity users in Alberta based on their use of the system and as specific facilities are put into place.

The Plan also includes additional critical transmission infrastructure (CTI-Tier 2) projects, with a current estimated cost of \$6.4 billion that are at a less advanced stage of planning. These include upgrades and regional projects.

Potential intertie projects that will improve Alberta's interconnections with neighbouring provinces and states are also identified within the scope of the Plan. These projects enable imports of power when required and exports of surpluses. This flexibility supports and encourages market development, helping to create the necessary environment for competitive prices and a more reliable system for Albertans.

"The projects represent investments in Alberta," said Mr. Erickson. "Transmission infrastructure is an asset that typically lasts 40 years."

The Plan is part of the AESO's comprehensive long-term planning process for the provincial electric system. An update of the Plan is filed with the Alberta Utilities Commission every two years for information.

Stakeholder consultation is an important part of developing the Plan. Generators, transmission facility owners, municipalities and other industry groups provided feedback on the plan while it was developed. The AESO also consults with stakeholders on a project-by-project basis and other planning reports. The AESO's reports are available on the company's website at www.aeso.ca.

As an independent system operator, the AESO leads the safe, reliable and economic planning and operation of Alberta's interconnected power system. The AESO also facilitates Alberta's fair, efficient and openly competitive wholesale electricity market, which has about 200 participants and approximately \$9 billion in annual energy transactions.

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