Chapel Rock to Pincher Creek Area Transmission Development & Alberta-British Columbia Intertie Restoration

AltaLink Community Workshops

April 10 & 11, 2018
About the AESO

• System reliability is our highest priority

• Obligated to respond to requests to connect new generation to the grid

• Not-for-profit, statutory corporation
  – Must operate in the public interest
  – No financial interest in any generation unit, transmission or distribution infrastructure

• A source of information for you
AESO’s enabling legislation
Transmission planning – overview

• Long-term planning essential to providing a safe and reliable grid
  – Enables growth
  – Supports generation additions
  – Provides access for investors

• Long Term Transmission Plan (LTP)
  – 20-year vision for Alberta’s transmission system
  – Not a decision document; regulatory approval of projects required
  – Updated every two years

• Transmission development plans are submitted by AESO to the AUC as a Need application
Planning the grid

• Transmission planning is an ongoing process, with continuous monitoring of needed transmission plans in response to changes such as
  – economics
  – government policies
  – electricity market participant’s connection requests

• Accountable to all Albertans to ensure the right amount of transmission is built at the right time and in the right area
Alberta’s electricity landscape is evolving

- Integrating more renewables
- Phase out emissions from coal-fired generation
- Introducing a capacity market
Solar & wind resource potential


Annual total global solar radiation, 1971 to 2000

- < 4200 MJ/sq.m
- 4200 to 4400 MJ/sq.m
- 4400 to 4600 MJ/sq.m
- 4600 to 4800 MJ/sq.m
- > 4800 MJ/sq.m

Based on 1971 to 2000 data from Environment Canada, Alberta Environment and the U.S. National Climate Data Center. Map displayed on Township generalization.
Need for transmission development remains

• Diligent review of approved plans in the Pincher Creek area confirms the need for transmission remains to efficiently integrate renewables

• Two technically viable solutions identified
  – two 240 kV transmission circuits between a planned substation, to be called Chapel Rock and either the
    • existing Castle Rock Ridge substation
    OR
    • existing Goose Lake substation

• Opportunities to stage development may also be available
Restoring Alberta’s Intertie with British Columbia

• To assist with reliability of electricity supply for Albertans as grid evolves

• Involves
  – additional equipment underneath the existing 1201L
  – clearance mitigation work on 1201L
  – increase transformer capacity at the Bennett substation, near Calgary
  – Chapel Rock to Pincher Creek Transmission development will also contribute
Next steps

• Detailed routing and siting information is required

• AltaLink will develop potential routes and sites for both alternatives, working with stakeholders

• In mid 2019, we plan to seek approval from the Alberta Utilities Commission
Connect with us

• Visit our website
  – www.aeso.ca/grid/projects/SATR-CRPC
  – www.aeso.ca/grid/projects/Intertie-Restoration

• Email us
  – stakeholder.relations@aeso.ca

• Call us
  – 1-888-866-2959