

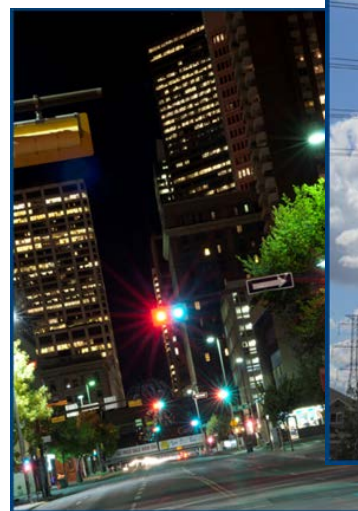
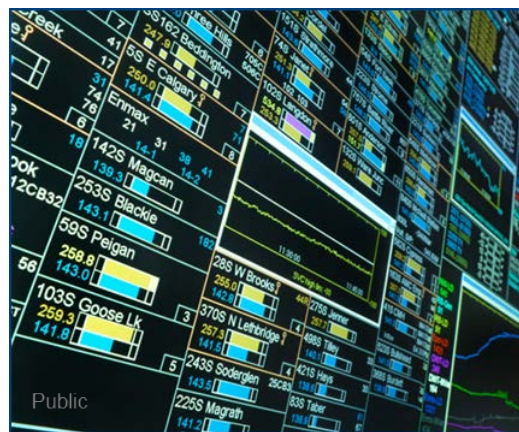
# Chapel Rock to Pincher Creek Area Transmission Development & Alberta-British Columbia Intertie Restoration

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



Province of Alberta

**ELECTRIC UTILITIES ACT**


Statutes of Alberta, 2003  
Chapter E-5.1

Current as of March 31, 2017

Office Consolidation

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Province of Alberta

**HYDRO AND ELECTRIC ENERGY ACT**


Revised Statutes of Alberta 2000  
Chapter H-16

Current as of March 31, 2017

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Province of Alberta

**ELECTRIC UTILITIES ACT**

**TRANSMISSION REGULATION**


Alberta Regulation 86/2007

With amendments up to and including Alberta Regulation 175/2014

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Province of Alberta

**RENEWABLE ELECTRICITY ACT**

Statutes of Alberta, 2016  
Chapter R-16.5

Current as of March 31, 2017

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# 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



FILED JANUARY 2018

- 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



COAL



6,299 MW



COGEN



405 MW



GAS-  
FIRED



6,858 MW



COAL-TO-GAS



790 MW

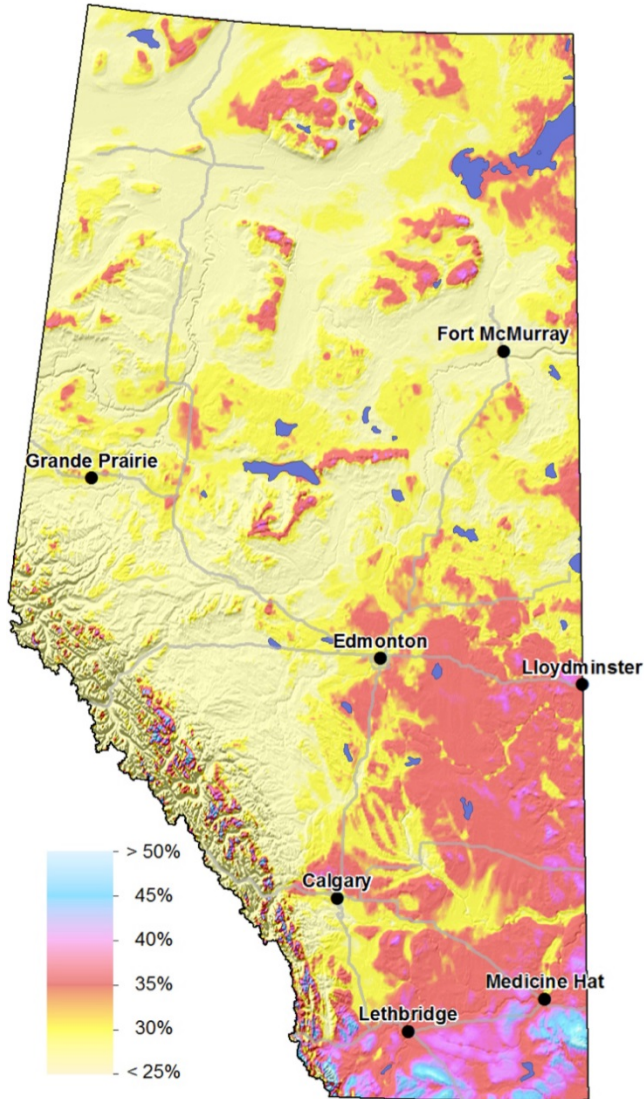


RENEWABLES

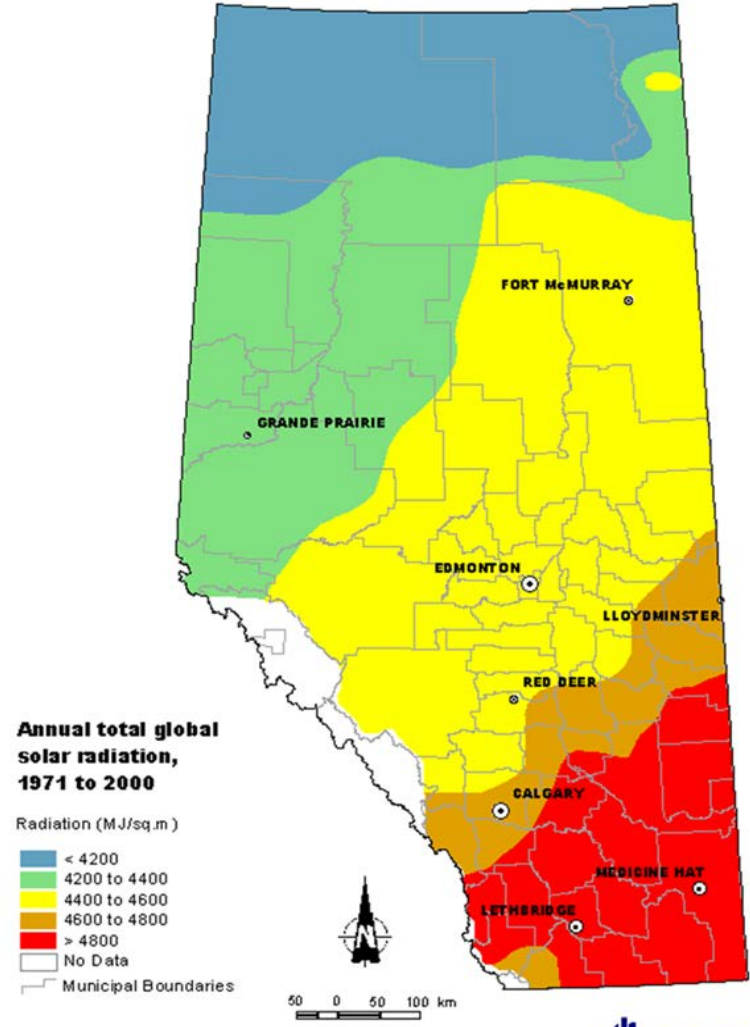
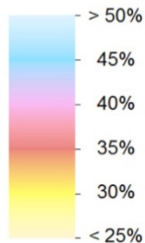


6,350 MW

# Solar & wind resource potential



Source:  
CanWEA,  
Alberta  
WindVision  
Technical  
Overview  
Report, 2013



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





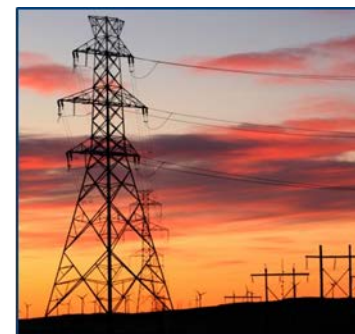
# Restoring Alberta's Intertie with British Columbia

- 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](http://www.aeso.ca/grid/projects/SATR-CRPC)
  - [www.aeso.ca/grid/projects/Intertie-Restoration](http://www.aeso.ca/grid/projects/Intertie-Restoration)
- Email us
  - [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca)
- Call us
  - 1-888-866-2959



