



## Transmission Reinforcement in Yellowhead and surrounding areas

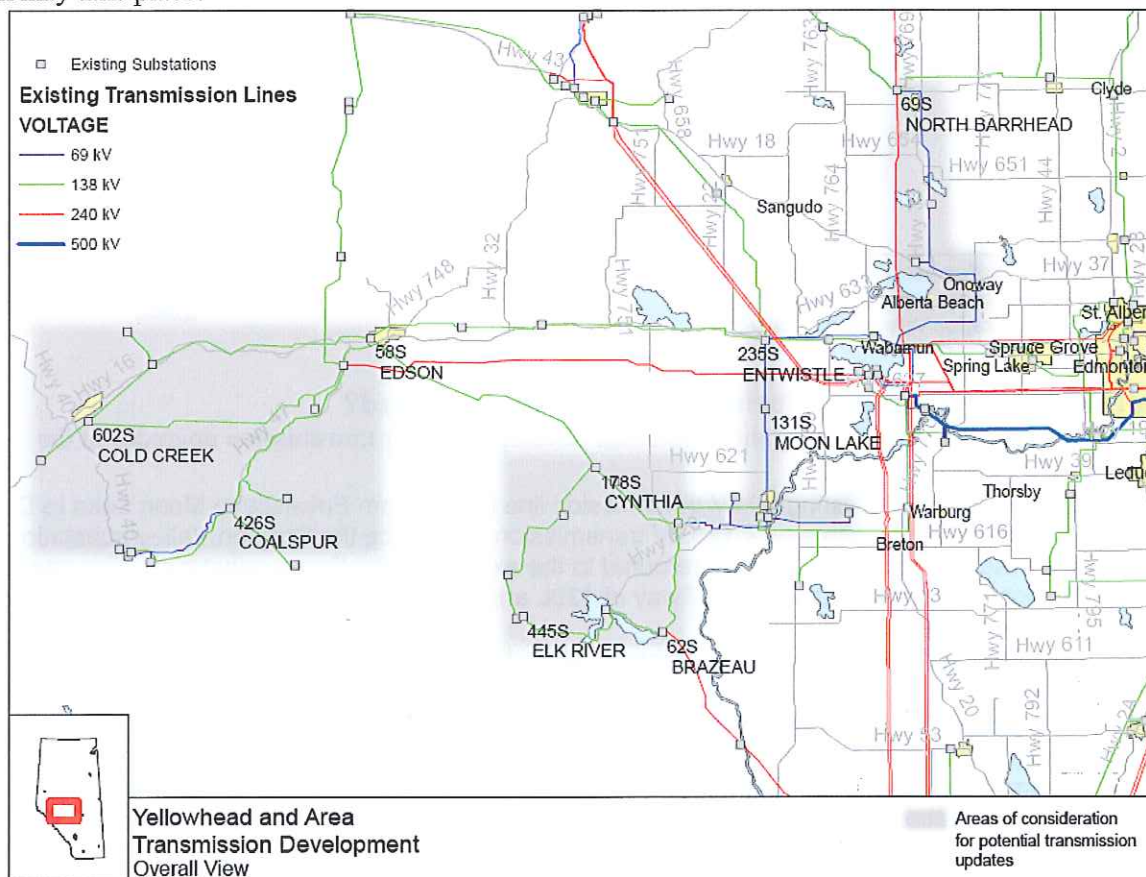
For more information please contact the AESO at 1.888.866.2959, [www.aeso.ca](http://www.aeso.ca) or [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca)

### Who is the AESO?

Alberta's interconnected electric system is planned and operated by the Alberta Electric System Operator (AESO). The higher-voltage lines, towers and equipment transmit electricity from generators to lower-voltage systems that distribute it to cities, towns, rural areas and large industrial customers. Our job is to maintain safe, reliable and economic operations on the provincial transmission grid.

### Why Transmission system reinforcement is needed for Yellowhead and Area

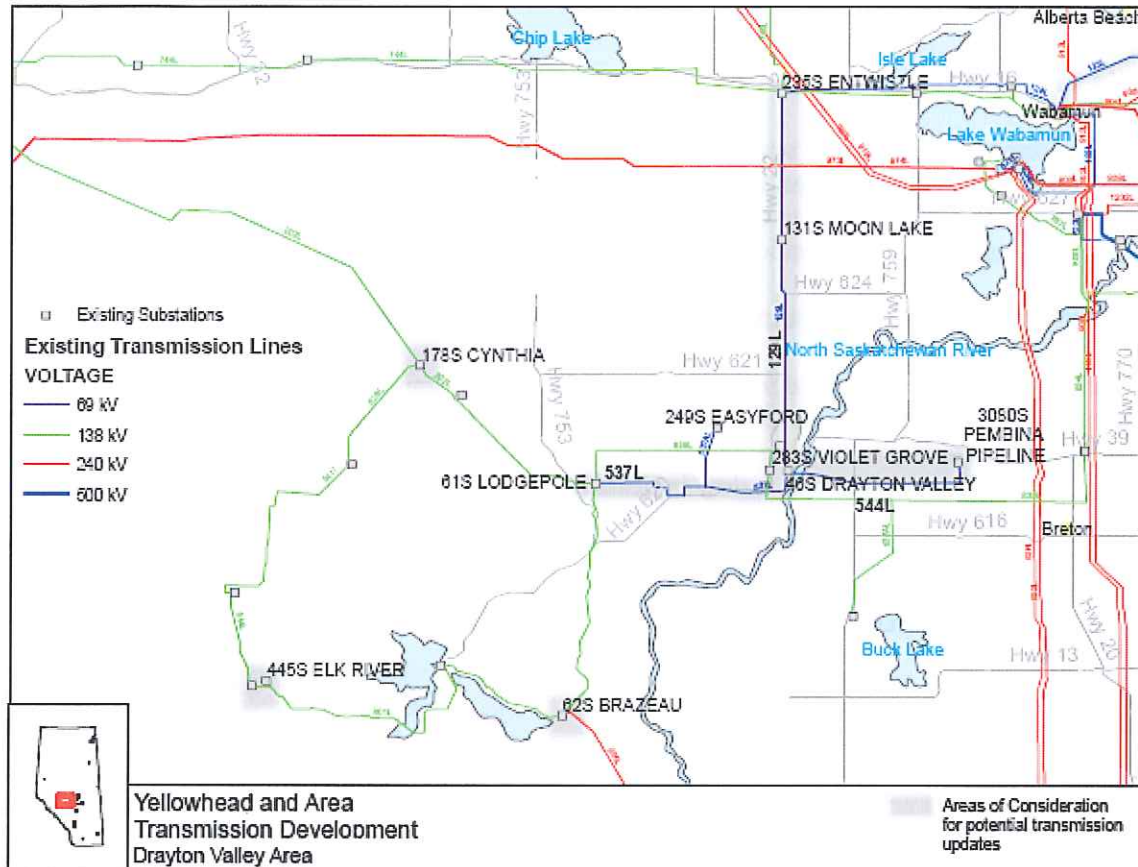
The AESO has identified the need for a number of electric transmission additions and upgrade developments to replace facilities that have deteriorated with age in the Drayton Valley, Edson, Hinton and Alberta Beach areas; and to meet the growing residential and commercial demand for electricity in the area. The grey areas in the map below indicate the general areas in which transmission reinforcement work may take place.



## Areas for Transmission Reinforcement

### Drayton Valley Area

To meet increased demand for electricity and replace aging infrastructure, the AESO has identified the need to reinforce the transmission system in the Drayton Valley area.



### **What kind of electric transmission reinforcement is needed?**

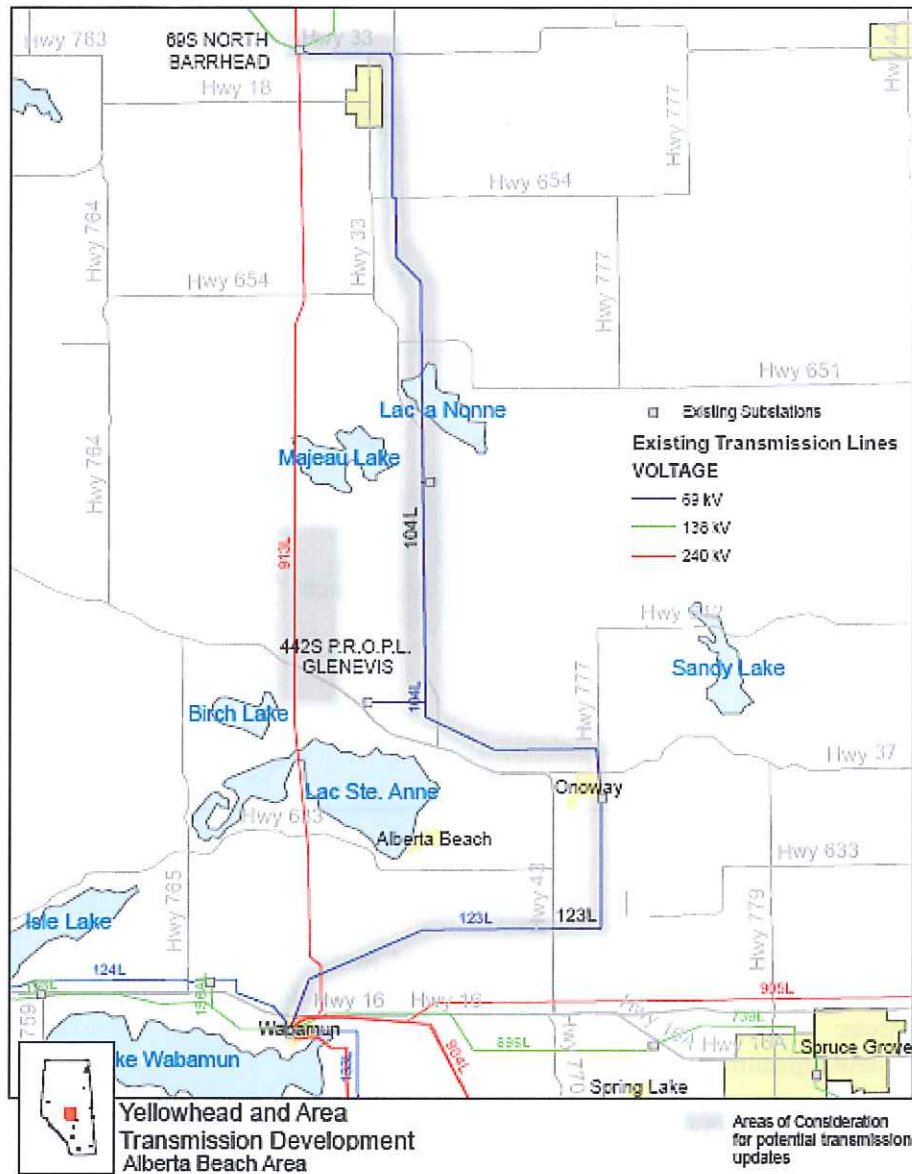
The AESO is currently considering these potential developments for transmission upgrades in the Drayton Valley area.

- Replace 46 km of existing 69 kV transmission line (129L) from Entwistle to Moon Lake to Drayton Valley substations with a new 138 kV transmission line. Since the Drayton Valley substation is to be salvaged, the new line will be rerouted to the existing Violet Grove substation. The new line will mostly use the existing right of way of 129L and will require replacing existing wood poles with taller wood poles.
- Replace existing 69/25 kV transformers at Moon Lake substation with two 138/25 kV transformers.
- Salvage and remove all 69/25 kV equipment at Entwistle substation.
- Salvage and remove existing Drayton Valley substation.
- Decommission approximately 27 km of the 69 kV line 537L from Lodgepole substation to Drayton Valley substation, and approximately 12 km of the 69 kV line 544L from Drayton Valley substation to Pembina Pipelines substation.
- To maintain voltages, in particular under abnormal conditions such as when a transmission line is out of service because of a fault, new capacitor banks will be placed at the existing Cynthia, Amoco Brazeau and Brazeau substations.



## Alberta Beach Area

To meet increased demand for electricity and replace aging infrastructure, the AESO has identified the need to reinforce the transmission system in the Alberta Beach Area.



### **What kind of electric transmission reinforcement is needed?**

The AESO is currently considering the following potential development options for transmission upgrades in the Alberta Beach Area:

Either:

- Build a new 240/25 kV substation in the Cherhill Area and decommission the existing 69 kV line (104L) from North Barrhead to Onoway substation and Lac La Nonne and PROPL Glenevis substations.

OR

- Rebuild existing 104L from North Barrhead substation to Onoway substation to current standards on the existing right-of-way.
- Replace the existing 138/69 kV transformer at North Barrhead substation with a transformer of larger capacity

- Add a capacitor bank at Onoway substation

The AESO will recommend a preferred alternative at each location based on stakeholder feedback, as well as technical and economic analysis.

### **Where will the new lines be proposed?**

The AESO intends to file a Needs Identification Document (NID) with the Alberta Utilities Commission (AUC). The NID will include information about the potential location of proposed transmission lines and other related facilities; as well as a high-level assessment of overall land use and social impacts.

The Transmission Facility Owner, AltaLink, will develop and file one or more detailed Facilities Applications as required, with the AUC for permit to construct and licence to operate the proposed facilities. These applications will include recommendations for specific siting and routing and will be developed with further public consultation and submitted to the AUC for approval.

The target in-service date for these developments is the period from the second quarter of 2010 to the third quarter of 2013.

For more information, or to provide comment on these proposals please contact:

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