

Provost to Edgerton and Nilrem to Vermilion Transmission Development

THE PROPOSED TRANSMISSION DEVELOPMENT INCLUDES:

- A new 240 kV transmission line, originally energized at 138 kV, from the existing Hansman Lake 650S substation to the existing Edgerton 899S substation
- A new 240 kV transmission line, originally energized at 144 kV, from the existing Nilrem 574S substation to a new substation, to be named Drury 2007S, in the Vermilion area

The AESO plans to file our application for the need for this development in Winter 2016/17.

AltaLink Management Ltd. (AltaLink) and ATCO Electric Ltd. (ATCO) are the two transmission facilities owners (TFOs) in the area. At a later date, AltaLink and ATCO will each propose specific routes and siting details for the developments in separate facilities applications to the AUC. For more information on AESO and TFO roles, see page 2. The specific transmission line routes applied for by AltaLink and ATCO may extend beyond the area shown.

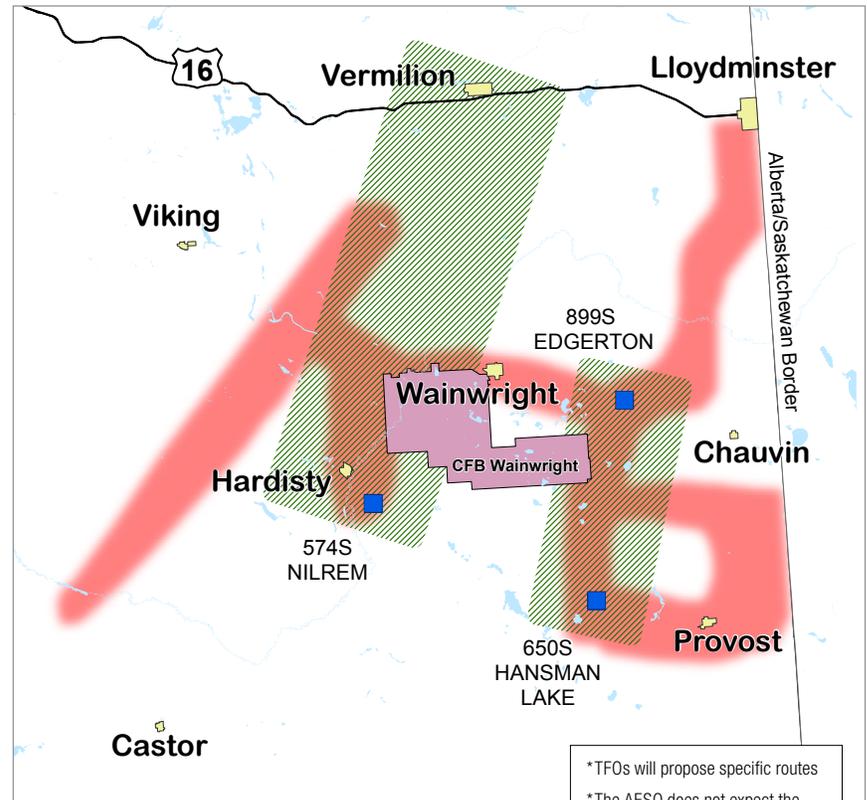
Map legend

-  Approximate area where newly proposed transmission facilities could be located (PENV)
-  Previous transmission development proposed areas. No longer proceeding (CETD) See page 2
-  Existing substation

Electricity system improvements near you

The existing transmission system in your area is reaching its capacity to reliably transmit electricity. New transmission system development is required to maintain the reliability of electricity supply to homes, businesses and industry in the area as demand for electricity increases. Transmission reinforcement will also provide expanded options to connect renewable generation, should it develop in the area.

The AESO is proposing a 240 kV transmission development that will initially operate at a lower voltage, 138/144 kV, to reinforce the existing transmission system. As demand increases, or if renewable generation develops in the area, the development can be upgraded to a higher 240 kV voltage, with moderate additional transmission facilities. If the need to upgrade arises, the AESO will be required to seek additional approvals, and will inform stakeholders of such plans, before energizing at 240 kV.



*TFOs will propose specific routes
 *The AESO does not expect the TFOs to develop transmission facilities within CFB Wainwright



> PREVIOUS TRANSMISSION PLANS IN THE AREA

In April 2014, we first informed stakeholders about our plans to cancel certain transmission system developments previously approved in 2011 as part of the [*Central East Transmission Development Amendment*](#) (CETD). As part of its application to the AUC for the proposed PENV transmission development, the AESO will also apply for approval to cancel certain unconstructed CETD components that are no longer needed.

In July 2014, the AESO informed stakeholders of the need for transmission development referred to as the [*Vermilion to Red Deer, Edgerton to Provost Transmission Development*](#) (VREPTD). As part of its ongoing planning process, the AESO has decided not to proceed with that development. The Provost to Edgerton and Nilrem to Vermilion Transmission Development (PENV) is proposed to replace parts of the VREPTD. Further developments west of PENV may be required in the future, and if so we will notify you of our plans at that time.



WHO IS THE ALBERTA ELECTRIC SYSTEM OPERATOR?

The AESO is an independent, not-for-profit organization acting in the public interest of all Albertans. We plan Alberta's transmission system, which is made up of the transmission lines, substations and other related equipment that allow electricity to flow from where it is generated to where it is used.

> AESO AND TFO ROLES

The AESO operates the provincial transmission system so that all Albertans can count on safe and reliable electricity to power our homes and businesses each and every day. The AESO also carefully plans upgrades and reinforcements to the system to ensure the transmission system keeps pace with Alberta's growing demand for power and provide for future growth.

AltaLink and ATCO are the transmission facilities owners (TFOs) in the area. While the AESO is responsible for identifying that transmission system development is needed, AltaLink and ATCO are responsible for detailed siting and routing, constructing, operating and maintaining the associated transmission facilities.

TFOs IN ALBERTA

There are four major TFOs in Alberta:

ATCO Electric Ltd.

AltaLink Management Ltd.

EPCOR Utilities Inc.
(owned by The City of Edmonton)

ENMAX Power Corporation
(owned by The City of Calgary)

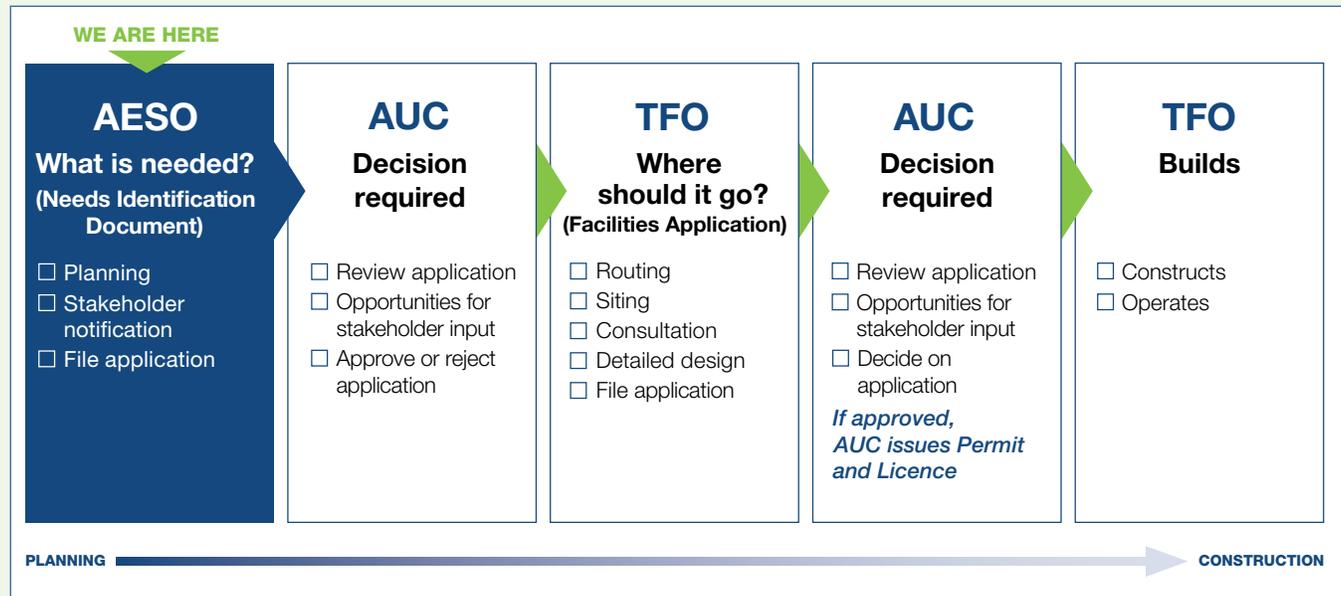
ALBERTA UTILITIES COMMISSION (AUC) ROLE

The Alberta Utilities Commission (AUC) regulates investor-owned electric and natural gas utilities. It is responsible for approving the need, transmission siting and construction, including all associated costs of construction and operation of Alberta's electricity system.



Transmission development in Alberta

IN ALBERTA, SEVERAL STEPS MUST BE COMPLETED IN ORDER TO BUILD NEW TRANSMISSION LINES AND SUBSTATIONS.



TRANSMISSION DEVELOPMENT APPROVALS: A TWO PART PROCESS

1 PART ONE: APPROVAL OF NEED

The AESO studies the transmission system to identify needed upgrades or expansions, and applies to the AUC for approval of our plans. The AUC is the regulator for transmission development in Alberta. The AESO's application to the AUC is called a Needs Identification Document, or NID. The NID outlines our specific plans to upgrade or expand the transmission system. Stakeholders have opportunities to become involved during the development of a NID application and during the AUC's review of it.

2 PART TWO: APPROVAL TO BUILD

TFOs build what is in the AESO's plans. They consult with stakeholders to find locations for new transmission lines and substations and then file facilities applications with the AUC for approval. Stakeholders also have opportunities to become involved during the development of a facilities application and during the AUC's review of it.



A NEEDS IDENTIFICATION DOCUMENT is a formal application that the AESO files with the AUC when transmission development is needed. It explains what transmission development is needed and why it is needed.

A FACILITIES APPLICATION is a formal application that TFOs file with the AUC. TFOs use this document to propose specific locations for new transmission lines, substations and related equipment.



FAST FACT

> In Alberta's electricity industry, transmission lines, substations and other related equipment used to move power are called facilities.



Planning the future of the system and its infrastructure

As Alberta grows, so does its need for electricity. We plan ahead and expand the grid, ensuring the right transmission lines are built as efficiently as possible. As the province moves away from coal-fired power plants, we're enabling investment in renewable energy. In everything we do, our eye is always on the future.



> Next Steps

We will respond to any questions or comments you may have about the need for transmission development in your area. Before the proposed transmission developments can be built, the AUC must approve the AESO's NID application. Following this, AltaLink and ATCO must apply to the AUC for approval to build the transmission facilities.

We will apply to the AUC in Winter 2016/2017. When we submit our NID application to the AUC, it will be available on our website at www.aeso.ca/PENV

> We want to hear from you

We appreciate your views, both on the need for transmission system development and our proposed transmission plans. Your comments are encouraged. If you have any questions or comments regarding our proposed transmission system development in your area, or our application regarding this need, please contact:

Laurie Hunka
AESO Stakeholder Relations

Email: stakeholder.relations@aeso.ca

Phone: 1-888-866-2959

Address: 2500, 330 – 5th Avenue SW, Calgary, Alberta T2P 0L4

To learn more about the electricity industry please visit www.aeso.ca

If you have any questions or concerns, please contact us at 1-888-866-2959 or at stakeholder.relations@aeso.ca. The AESO is committed to protecting your privacy. Your feedback, comments and/or contact information collected by the AESO will be used to respond to your inquiries and/or to provide you with further information about the project. The AESO will not use your personal information for any other purposes and will not disclose your information without consent or a legal obligation.

If you choose to communicate by email, please note, email is not a secure form of communication. Security of your communication while in transit cannot be guaranteed.