

Downtown Calgary Transmission Reinforcement

August 2014

At the Alberta Electric System Operator (AESO), we plan the province's electric transmission system. We study the transmission system to determine what future upgrades and expansions will be needed to continue to serve Alberta's growing power demands.

Why is transmission reinforcement needed?

As downtown Calgary continues to develop and grow, demand for electricity is on the rise. The AESO has determined that the existing transmission system in downtown Calgary can become overloaded under certain conditions. Overloaded transmission lines reduce the reliability of your power supply and increase the likelihood of interruptions in power supplied to homes and businesses. The AESO has therefore identified the need for transmission reinforcement into the downtown area.

The AESO is proposing to develop additional transmission capacity between the existing East Calgary 5S and ENMAX No. 8 Substations. This reinforcement will help to accommodate forecast growth and increase the reliability of the power supply into the area.

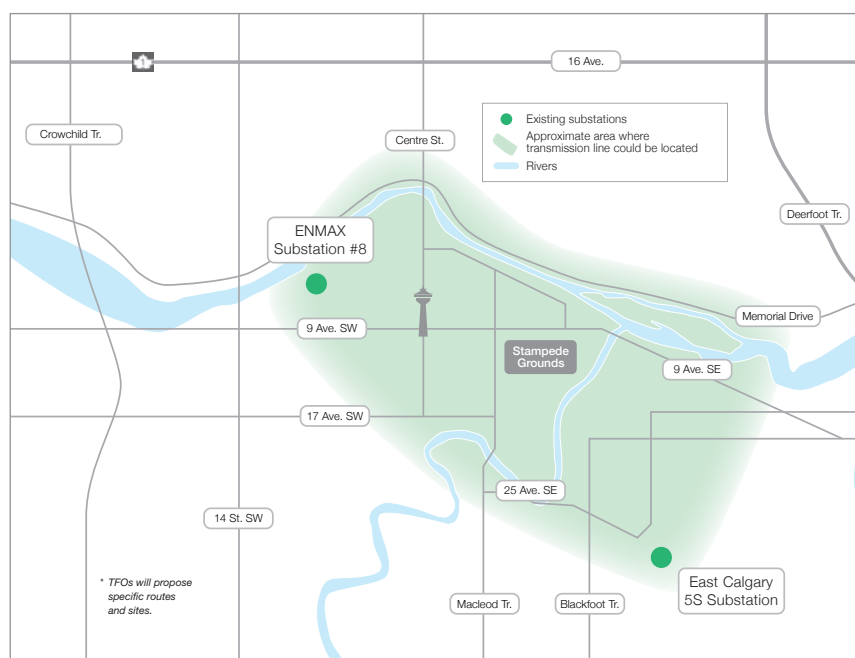
■ The Downtown Calgary Area

Over the next 20 years, electricity consumption in the downtown Calgary area is forecast to almost double from approximately 300 MW today to close to 600 MW. This is equal to a 3.2% annual increase.

> HOW DOES THE AESO DETERMINE THE NEED FOR TRANSMISSION DEVELOPMENT?

Alberta's growing population and expanding industry are driving an increasing demand for power. Power generation developers are planning and building new power plants to meet this demand. The transmission system must have enough capacity to transmit power from where it is generated to where it will be used.

The AESO forecasts both demand from consumers and supply from generators. We study the location and amount of new generation and growing demand and develop plans to ensure Albertans continue receiving reliable power.



The AESO is proposing a new transmission line between the existing East Calgary 5S and ENMAX No. 8 Substations. ENMAX Power Corporation (ENMAX) is the primary transmission facilities owner (TFO) in the area. In a separate application called a facilities application, ENMAX will later propose specific routes and siting details for the developments. Modifications to some existing AltaLink Management Ltd. (AltaLink) facilities will also be proposed by AltaLink. Both TFOs will request AUC approval to construct and operate these specific transmission facilities. For more information on AESO and TFO roles, see page 2. The specific transmission line routes applied for by ENMAX may extend beyond the area shown.

About the Downtown Calgary Transmission Reinforcement

In order to reinforce the downtown Calgary transmission system, the AESO is proposing the following transmission developments:

- A new 240 kV transmission line from the existing East Calgary 5S to the existing ENMAX No. 8 Substations
- Two new 240/138 kV auto transformers at the existing ENMAX No. 8 Substation
- Associated modifications to the existing East Calgary 5S Substation and the existing ENMAX No. 8 Substation

The AESO understands that ENMAX may propose underground cables for all or parts of its proposed transmission line routes.



> 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 ENMAX are the transmission facilities owners (TFOs) in the area. While the AESO is responsible for identifying that transmission system development is needed, ENMAX and AltaLink 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. As a provincial regulator, it operates independently of government.



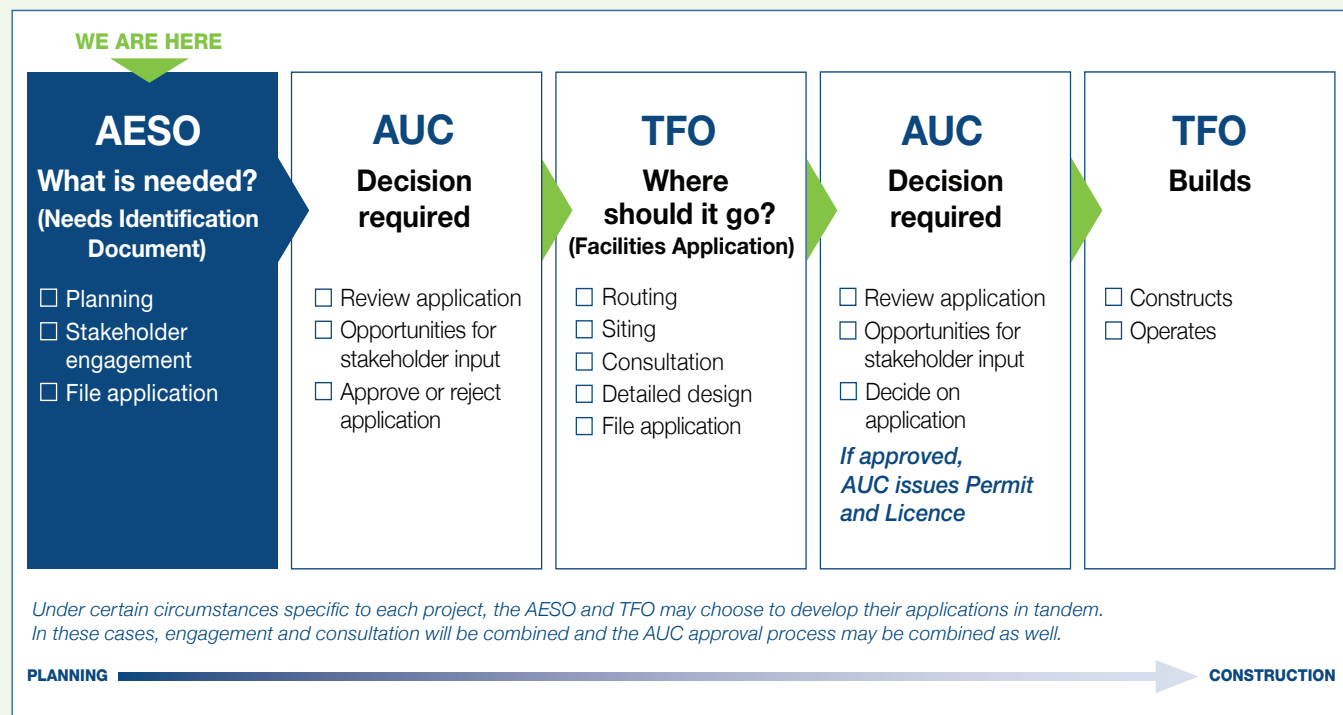
WHO IS THE ALBERTA ELECTRIC SYSTEM OPERATOR?

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 gets generated to where it gets used.



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.

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.

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.



FAST FACT

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

Open Houses

> YOU'RE INVITED

Please join the AESO at the upcoming open houses for the Downtown Calgary Transmission Reinforcement. AESO staff will be available to discuss our plans and the proposed transmission developments.

September 9, 2014

Fort Calgary – JOW Gallery
750 – 9th Avenue SE
2:00 p.m. – 7:00 p.m.

September 10, 2014

Blackfoot Hotel – Heritage Room
5940 Blackfoot Trail SE
2:00 p.m. – 7:00 p.m.

September 16, 2014

Hotel Arts – Spectrum 1/2 Room
119 – 12 Avenue SW
2:00 p.m. – 7:00 p.m.

September 18, 2014

Sheraton Suites Eau Claire Hotel –
Wildrose North Ballroom
255 Barclay Parade SW
2:00 p.m. – 7:00 p.m.

A virtual open house will also be available on www.poweringalberta.com during this time.

After receiving your comments, we will prepare and file a Needs Identification Document (NID) with the Alberta Utilities Commission (AUC) for approval.



> Next Steps

Over the coming months we will respond to any of your questions or comments. Before the proposed transmission developments can be built, the AUC must approve the AESO's NID application. Following this, AltaLink and ENMAX must apply to the AUC for approval to build the transmission facilities.

We will apply to the AUC in Fall 2014. When we submit our NID application to the AUC, it will be available on our website at www.aeso.ca/downtowncalgary

> 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 reinforcement in the downtown Calgary area, or our application regarding this need, please contact:

Brandy Eagleson

AESO Stakeholder Relations

Email: stakeholder.relations@aesoc.ca

Phone: 1-888-866-2959

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

Electricity is the lifeblood of the economy. It is needed to power the vibrant downtown area businesses and homes. To learn more about the electricity industry please visit www.poweringalberta.com

If you have any questions or concerns, please contact us at 1-888-866-2959 or at stakeholder.relations@aesoc.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.

