

# Foothills Area Transmission Development

## South Calgary

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 Development Needed in South Calgary?

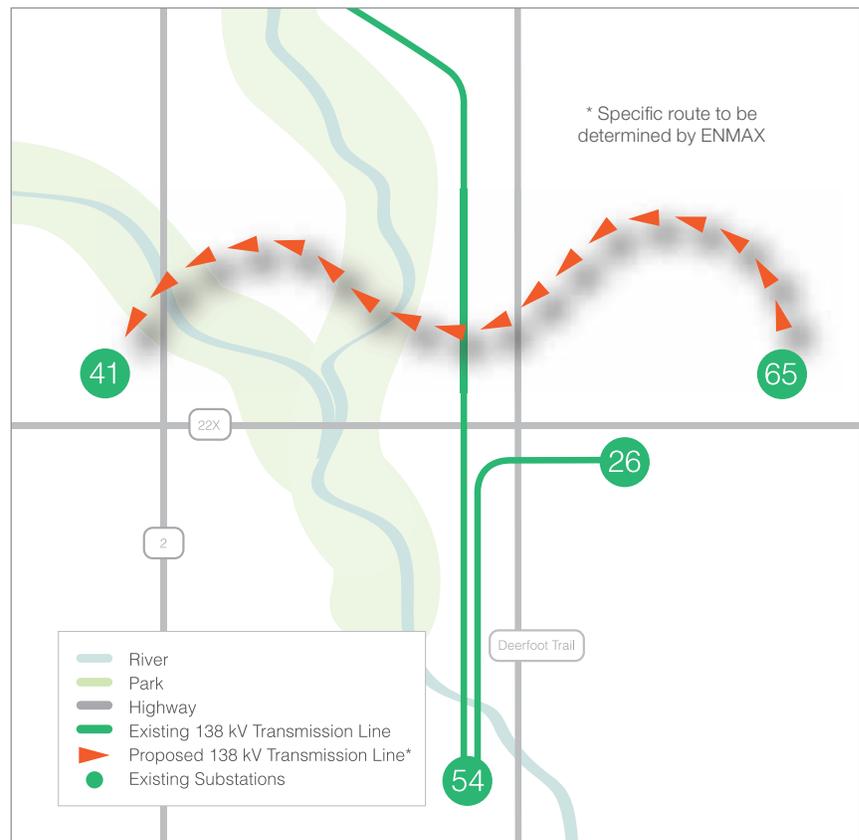
Calgary continues to grow, and along with that growth comes an increasing demand for power. The AESO has determined that the existing transmission system in south Calgary will become overloaded under certain conditions. Overloaded transmission lines reduce the reliability of your power supply by increasing the likelihood of outages.

As the province's transmission system planner, we plan upgrades or expansions to the transmission system to avoid outages. In this case, the AESO is proposing a new transmission line from ENMAX No. 65 Substation to ENMAX No. 41 Substation to reduce the likelihood of outages.

### ▶ 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.

As Alberta's transmission system planner, 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 ENMAX No. 65 and ENMAX No. 41 substations. ENMAX Power Corporation will be consulting with stakeholders on the specific routes it is considering for the construction of this line.

## > AESO AND TFO ROLES

The AESO plans the provincial transmission system, but the job of building, operating and maintaining the transmission facilities is the responsibility of companies known as Transmission Facility Owners (TFOs). ENMAX Power Corporation (ENMAX), the TFO in Calgary, is responsible for identifying routes for new transmission lines and for building the lines once they are approved.

## > TFOs IN ALBERTA

There are four major TFOs in Alberta:

- AltaLink Management Ltd.
- ATCO Electric Ltd.
- ENMAX Power Corporation
- EPCOR Utilities Inc.



# Foothills Area Transmission Development *South Calgary*

## PROPOSED TRANSMISSION DEVELOPMENTS

The proposed transmission system developments include:

- A new single-circuit 138 kV transmission line from the new ENMAX No. 65 Substation (located at Highway 22X and 88 Street S.E.) to the existing ENMAX No. 41 Substation (located at Macleod Trail and Shalom Way S.W.).
- Associated modifications to the ENMAX No. 65 and ENMAX No. 41 substations and some existing transmission lines in the area.

## RELATED TRANSMISSION PLANS

We are referring to this transmission development as Foothills Area Transmission Development (FATD) South Calgary because it is a part of our broader FATD Plan. Many parts of the broader FATD Plan have already been approved for construction by the Alberta Utilities Commission (AUC). Also, the Southern Alberta Transmission Reinforcement (SATR) was approved by the AUC in 2009 and is being

implemented throughout southern Alberta. Together, SATR and FATD are major new transmission developments designed to gather power from new wind developments and other generation sources and supply it to Calgary and the surrounding communities. FATD South Calgary is an extension of these developments, providing the ability to move power into south Calgary.

## WHAT ARE THE OTHER COMPONENTS OF THE FATD PLAN?

### East Calgary and Shepard Energy Centre Generator Connection

- Approved in November 2012 by the AUC, with construction nearing completion

### FATD-East

- Approved in October 2013 by the AUC and currently under construction

There is one remaining component to the FATD Plan that has not yet been filed with the AUC for approval. This is a future double-circuit transmission line planned from the recently approved Foothills 237S substation near High River, to the Sarcee 42S substation in Calgary. AESO studies indicate this development is not needed until sometime after 2020.



## 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 transmit electricity from where electricity is generated to where it will ultimately be used.



# Transmission Development Approval in Alberta

## 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 Alberta Utilities Commission (AUC) for review and 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, which the AUC must approve.

### 2 PART TWO: APPROVAL TO CONSTRUCT

TFOs build what is in the AESO's plans. They consult with stakeholders to find specific routes for transmission lines and sites for substations.

Before TFOs begin building, they submit details to the AUC in what are called Facility Applications (FAs). The AUC must review and approve the specific routes and facility locations in the TFOs' applications.



### FAST FACT

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

### AESO Process

AESO identifies need for transmission development

AESO stakeholder engagement (mailouts, open houses, meetings)

AESO submits a NID to the AUC for approval of need and plan

### TFO Process

TFO consultation, detailed design, routing and siting

TFO submits a FA to the AUC for approval of siting and routing, and to construct and operate

### AUC Review and Approval



Approval of need



Approval of siting and routing, and to construct and operate

To learn more about the transmission approval process please contact the Alberta Utilities Commission (AUC):

**Web:** [www.auc.ab.ca](http://www.auc.ab.ca)

**Phone:** 780-427-4903

Dial 310-0000 before the 10-digit number to be connected toll-free from anywhere in Alberta.

*The AUC must review and provide a decision on both the AESO's and the TFO's applications before developments can proceed. In some cases, such as for FATD South Calgary, the processes can be run in parallel.*

# Open Houses

## > YOU'RE INVITED

Please join the AESO and ENMAX at an upcoming open house for FATD South Calgary. AESO staff will be on hand to discuss our plans and the proposed transmission development. Representatives from ENMAX will be available at the open houses to discuss detailed siting and routing, and the construction and maintenance of the associated transmission facilities.

Please refer to ENMAX's project brochure included in this package for details, including dates and times of upcoming open houses.

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



## > 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 suggestions regarding our proposed transmission system development in the south Calgary area, or our application regarding this need, please contact:

**Megan Harris**  
*AESO Stakeholder Relations*

2500, 330-5th Avenue SW  
Calgary, Alberta T2P 0L4

**Email:** stakeholder.relations@aeso.ca

**Phone:** 1-888-866-2959

To learn more about the complex electricity industry and its importance to our quality of life and the province's economic well-being, please visit [www.poweringalberta.com](http://www.poweringalberta.com)

## > Next Steps

We will discuss our plan with you over the coming months and are happy to respond to any of your questions or comments. Before the proposed transmission developments can be built, the AUC must approve our plan. ENMAX, the company that builds, owns and maintains transmission facilities in Calgary, must also apply to the AUC for approval to build the transmission facilities. We will apply to the AUC in the spring or summer of 2014, and ENMAX expects to file its application shortly afterward. The AUC will review both applications through a process in which you will have the opportunity to participate.

When we submit our NID application to the AUC, it will be available on our website at [www.aeso.ca/transmission/8969.html](http://www.aeso.ca/transmission/8969.html)

