

City of Edmonton Transmission Reinforcement Project

JANUARY 2023

EPCOR is responsible for building, maintaining, and upgrading the electrical transmission and distribution systems in Edmonton. New transmission development is being proposed for your area to provide long-term reliable electricity and replace aging infrastructure in this part of the city.

PROJECT INFORMATION

Electrical grids rely on transmission lines to transport power from substation to substation. Substations convert electricity from higher voltage power lines (transmission lines) to lower voltages that can be safely distributed to homes and businesses in the area through distribution lines. The Alberta Electric System Operator (AESO) has identified a need to reinforce the electrical system and replace aging infrastructure in your area. To meet this need, the AESO has directed EPCOR to prepare a Facility Application for this proposed transmission development. This will ensure that EPCOR can continue to provide safe and reliable power to Edmontonians.

This project will include:

- Construction of a new substation
- Construction of approximately 6 km of new above ground 240 kV double circuit transmission line
- Construction of approximately 6 km of new above ground 72 kV double circuit transmission line
- Decommissioning the existing Kennedale Substation (located at 5035 – 129 Avenue)
- Decommissioning four existing 72 kV underground transmission lines
- Installing new fibre optic cables and wires

This booklet provides information on the need for the project, the proposed transmission development, regulatory process and opportunities for feedback. Your feedback is an important part of the process.

Join Us At One of Our Virtual Question and Answer Sessions:

January 31 at 12:00 p.m.
and February 2 at 7:00 p.m.
Sign up by emailing
CETR@epcor.com or visit
epcor.com/CETR

Double Circuit Transmission Lines






These will be double circuit transmission lines, which are two transmission lines using mostly one set of structures. They will have six wires strung on the structures (three on each side) and one or two shield wires strung on top. By using double circuit transmission lines, we can meet the demand for electricity in the area with the least amount of transmission line routes and structures.



PROJECT STUDY AREAS



LEGEND

-  72 kV Transmission Line Route Area
-  240 kV Transmission Line Route Area
-  Existing 138 kV AltaLink Transmission Line
-  Existing 240 kV AltaLink Transmission Line
-  Proposed New Substation Site

Detailed information on the route and site options near you is included in this package. For information on all the proposed transmission developments for this project, go to epcor.com/CETR or contact us using the information provided in this notice.

TRANSMISSION LINE ROUTE OPTIONS

We considered factors such as the environment, cost, visual aspects, proximity to residential areas and constructability to find above ground transmission line routes with the lowest overall impact. Using these factors, we have identified possible options on which we need your feedback. Your input is valuable to further assessing these options and will be included in EPCOR's application. Information about the transmission line route options near you is included in this package for your review.

Over the next few months our contractors will be in the project area collecting data that will also help us evaluate the route options. This will include activities such as surveys and soil sampling.

PROPOSED NEW SUBSTATION

A new substation is being planned to replace the existing Kennedale Substation, which does not have the space to accommodate the proposed upgrades.

We have identified a possible substation site in the Industrial Heights area (see areas in blue on the map). If approved, the new substation will be approximately 230 by 170 metres in size and include the following equipment:

- Six (6) 240 kV circuit breakers
- Two (2) 240/72 kV transformers
- Four (4) 72 kV circuit breakers
- Two (2) 240/15 kV transformers
- Substation building

For more information about this equipment, visit epcor.com/CETR

NEXT STEPS

We are beginning our public consultation program and invite you to contact us with any comments or questions you may have about this project.

As we continue planning we will have additional information to share with you, including what the substation and transmission lines could look like and refinements to the route alignments.

WHY ARE THE LINES PLANNED ABOVE GROUND?

Above ground transmission lines are less costly for Alberta ratepayers and faster to build. Compared to underground infrastructure, above ground lines can mean quicker access to complete maintenance or repairs, enabling us to potentially restore power faster for customers.

Underground transmission lines need to be placed in concrete duct banks. In urban areas, space to install these duct banks is limited. Additionally, an underground double circuit transmission line would require two separate duct banks to prevent overheating, which would require more space and cost Alberta ratepayers considerably more. For these reasons, we are proposing to use above ground double circuit transmission lines, which are two transmission lines along one route using mostly one set of structures.

TRANSMISSION LINES AND SUBSTATIONS

Transmission lines are like highways, moving high-voltage electricity from generating stations and switching stations to substations. Substations then reduce the high-voltage electricity to lower voltages so it can be used by homes and businesses in the area.

ABOUT THE ALBERTA ELECTRIC SYSTEM OPERATOR (AESO)

The AESO is an independent, not-for-profit organization responsible for the safe, reliable and economic planning and operation of the provincial transmission grid. For more information about why this project is needed, please refer to AESO’s Need Overview included in this package or visit www.aeso.ca. If you have any questions or concerns about the need for this project or the proposed transmission development to meet the need, you may contact the AESO directly.

You can also make your questions or concerns known to an EPCOR representative who will collect your contact information for the purpose of addressing your questions and/or concerns to the AESO. This process may include disclosure of your contact information to the AESO.

Alberta Electric System Operator (AESO)

Phone: 1 (888) 866-2959

Email: stakeholder.relations@aeso.ca

Website: www.aeso.ca

ABOUT THE ALBERTA UTILITIES COMMISSION (AUC)

Alberta’s electric system is regulated by the AUC. The AUC is an independent quasi-judicial agency that ensures the delivery of Alberta’s utility service takes place in a manner that is fair, responsible and in the public’s interest. The AUC must approve this project before EPCOR can begin construction. For more information about how you can participate in the process, please refer to the AUC’s brochure included in this package entitled *Participating in the AUC’s independent review process to consider facility applications*, or visit the AUC website.

Contact the AUC

Toll-free: 1 (833) 511-4282

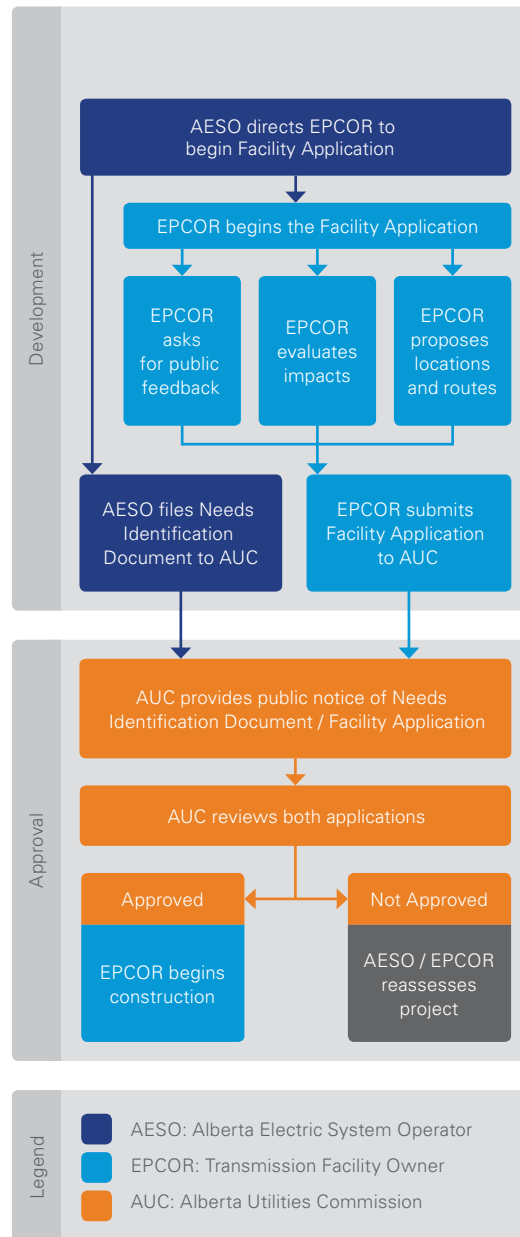
Phone: 310-4282

Website: www.auc.ab.ca

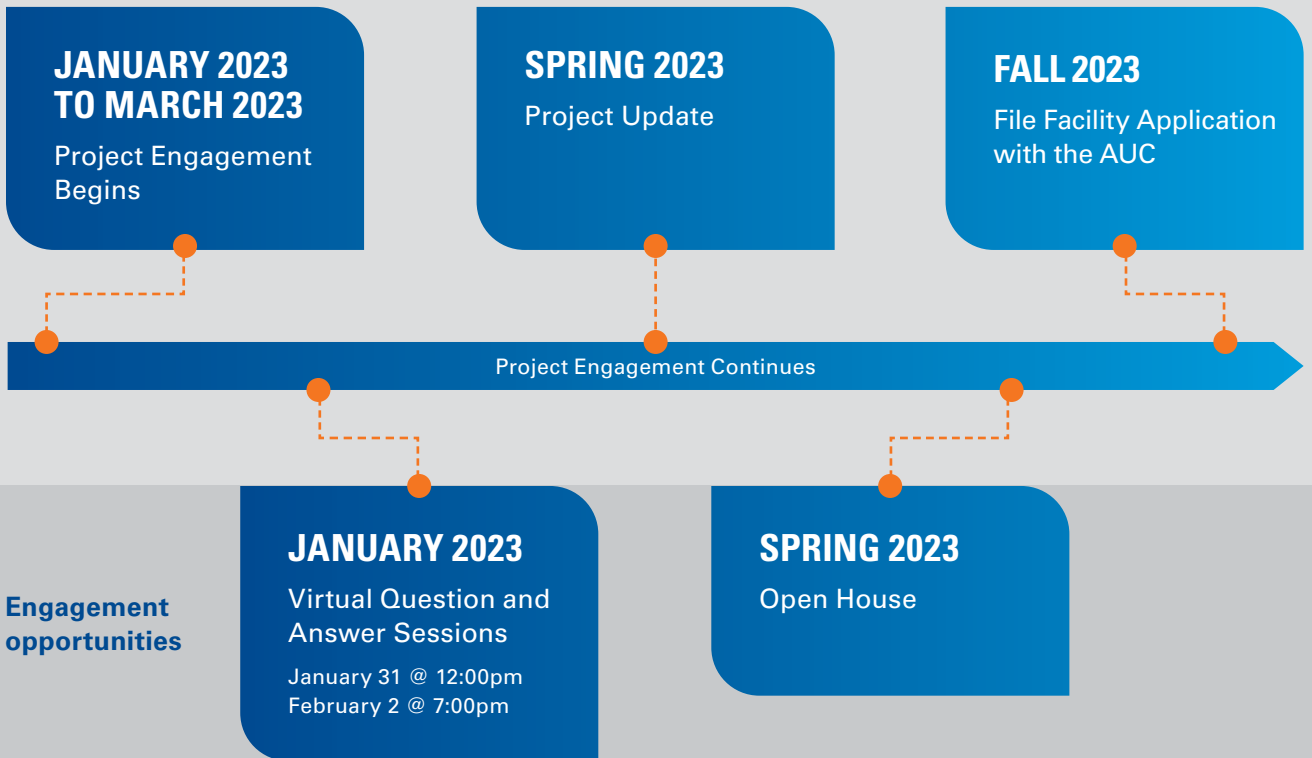
This project requires two regulatory approvals from the AUC before construction can begin:

- Approval of the AESO’s Needs Identification Document Application
- Approval of EPCOR’s Facility Application

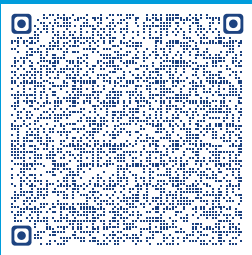
THE REGULATORY PROCESS



SCHEDULE



WE WANT YOUR INPUT



We encourage everyone who is interested in the project to contact us. There are many steps in planning a new transmission development like this one and there are opportunities to provide feedback and ask questions throughout the process.

Phone: 780-412-8800
Email: CETR@epcor.com
Website: epcor.com/CETR

FEEDBACK FORM

Prefer to comment on your own time? Fill out the feedback form included in this package.

VIRTUAL QUESTION AND ANSWER SESSIONS

We will be hosting two virtual events in January and February 2023. This will be an opportunity to ask questions and provide feedback to the project team.

- January 31 @ 12:00pm
- February 2 @ 7:00pm

Please email CETR@epcor.com or visit epcor.com/CETR to sign up for one of the Virtual Question and Answer Sessions.