

The background image for the header section shows a large, multi-story brick building with a flat roof. The building has several windows and a small entrance on the right side. To the left of the building is a tall, dark evergreen tree. In the foreground, there is a grassy area and a paved road. The sky is clear and blue.

# STRATHCONA AREA TRANSMISSION UPGRADE

## MARCH 2018 PROJECT UPDATE

In September 2017 we sent stakeholders information about the Strathcona Area Transmission Upgrade Project. In preparation for the next phase of the project, we are sending you this package to inform you of updates to the proposed project and ask you for your feedback.

### Project overview

As detailed in the previous project notice, EPCOR is proposing to:

- Construct a new 72 kilovolt (kV) above-ground transmission line from the Strathcona substation (5140 99 Street) to the Dome substation (2720 Parsons Road). The transmission line will be approximately four to five kilometres in length, depending on the route selected.
- Add a 240 kV/72 kV transformer, 240 kV circuit breaker, and 72 kV circuit breaker; and associated switches and equipment to the Dome substation.

This will help us to reliably meet increased demand for electricity in Edmonton and reduce the risk of outages to our customers. For more details about the proposed upgrades, visit our website: [epcor.com/consultation](http://epcor.com/consultation).

# WHAT'S NEW?

Over the past several months, we discussed this project with more than 660 landowners, occupants and other stakeholders located near this proposed transmission development. Thank you to everyone who took the time to share your comments and input with us.

We have refined our route options following consultation and additional study of the route options. We have also determined our preferred and alternate routes for the new transmission line.

Throughout consultation, we heard a number of common concerns around potential impacts, and feedback around line routing. This project notice contains additional details about potential impacts — see page 9.

## Routing Decisions

The project team will prepare a facility application to be filed in mid-2018 with the Alberta Utilities Commission (AUC). This application will present a preferred route and an alternate route. The public will continue to be able to provide feedback for consideration by both EPCOR and the AUC. If the project is approved, the AUC will make the final decision on routing.

## Transmission line route refinements

In an effort to find transmission line routes with lower levels of overall impact, we have refined the route options to take into consideration a variety of factors, including:

- Input from local stakeholders
- Health, safety and environment
- Electrical requirements
- Cost
- Existing infrastructure
- Visual impacts
- Special constraints

Taking into account these factors, we have identified a preferred route and alternate route for the transmission line. The map at right shows both routes, as well as the side of the road on which we propose to build and where we propose to "overbuild" with existing distribution lines. See "Proposed structure types" on pages 4 – 7 for more information regarding the different types of structures that will be used for the project.

## Other routing options

As shown on the map on the next page, we are considering a number of variants to the preferred route.

The new 72-kV line will need to cross three existing 240-kV transmission lines south of 31 Ave. on Parsons Road that are owned by AltaLink. For this segment, we are considering the following options:

- Bury a portion of the new 72-kV line underneath the 240-kV lines, as outlined in the map. The section to be buried would be approximately 75 metres in length.
- Work with AltaLink to construct a new transmission tower that will allow the new 72-kV line to cross underneath the 240-kV line as an all-aerial line. The 72-kV line would cross at a short distance east of the right-of-way in order to meet clearance requirements.

On the preferred route, we propose to build the line on the west side of 99 Street for approximately 0.7 km between 35 and 39 Ave. We are also considering a variant of the preferred route that would build this section of the line on the east side of the road.

Only one route will be built. The map shows preferred and alternate routes currently under consideration.





## LEGEND

- Existing Strathcona substation
- Existing Dome substation
- Preferred route
- Preferred route variant
- Alternate route
- Section of route with distribution line underneath
- Underground portion

*Please note: As a result of the route refinements shown on page 3, the 33 Ave. and 45 Ave. route options have been eliminated. Going forward, stakeholders on these rejected route options will no longer receive project communications.*

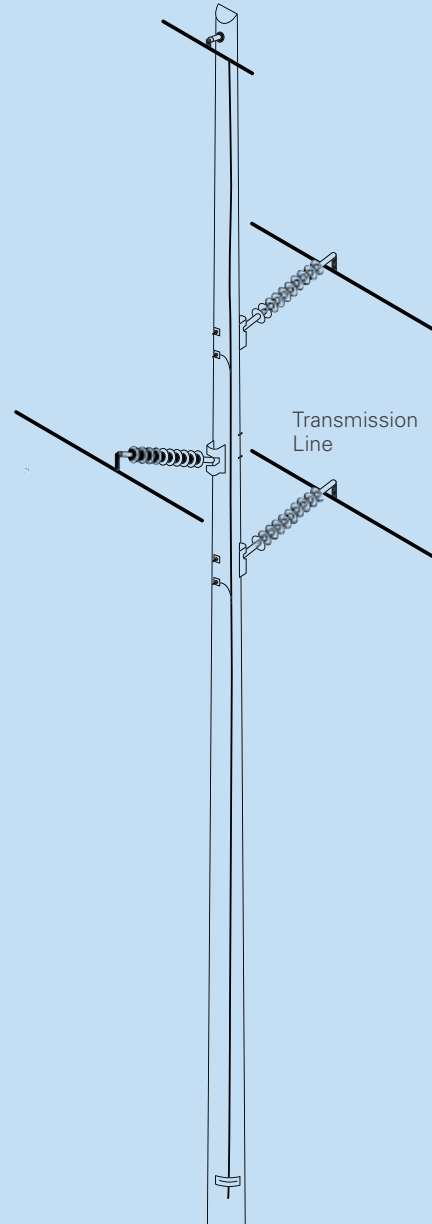
### Proposed structure types

We propose to build the transmission line using wood, steel or composite poles, ranging in height from approximately 18 to 26 metres. Where the proposed transmission line turns corners or has to span larger distances, non-typical poles may be required. This may include the use of guy-wires and anchors as well as larger poles with wider bases that range in height from approximately 18 to 30 metres.

The diameter of the typical structures at the ground surface will range between approximately 0.65 to 1.0 metres. The diameter of non-typical structures will range between approximately 1.0 to 1.5 metres.

**Here are examples of structures we anticipate using for this project:**

### STRUCTURE A TRANSMISSION ONLY

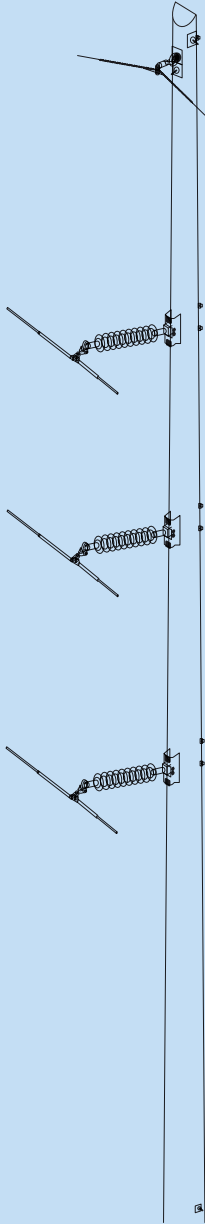


#### Structure A Transmission Only

Portions of the route will be primarily single-circuit, meaning they will have three wires strung across them and one overhead shield wire on top. This is the most common pole type.

\*Images not to scale

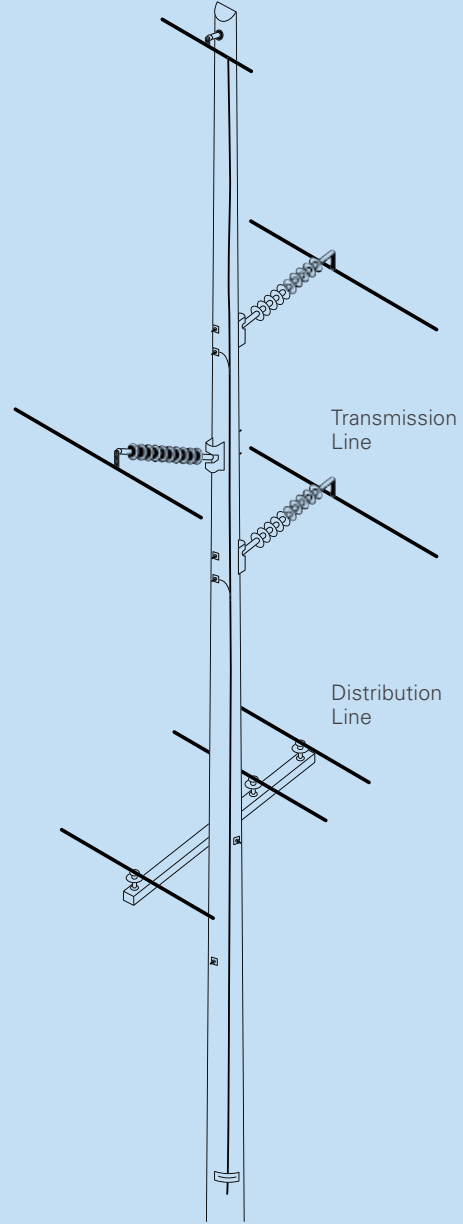
## STRUCTURE B TRANSMISSION ONLY



### Structure B Transmission Only

Where aerial clearance is limited, a structure that has three wires strung to one side may be used.

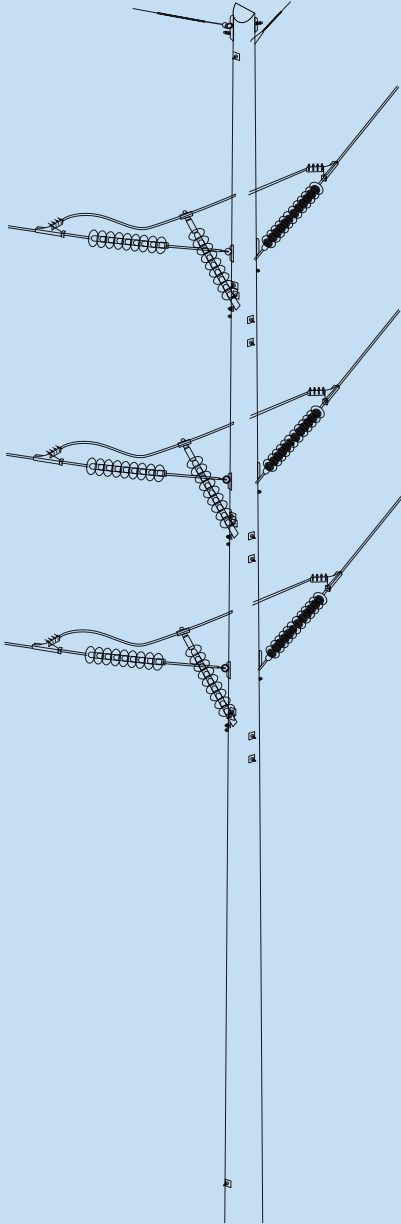
## STRUCTURE C TRANSMISSION AND DISTRIBUTION



### Structure C Transmission and Distribution

Portions of the routes under consideration follow existing distribution lines. For these sections, we propose to remove some of the current poles (approximately 14 metres tall) and installing new poles (as mentioned above ranging from 18 to 26 metres in height) that will have the new transmission line on top and the existing distribution line(s) underneath.

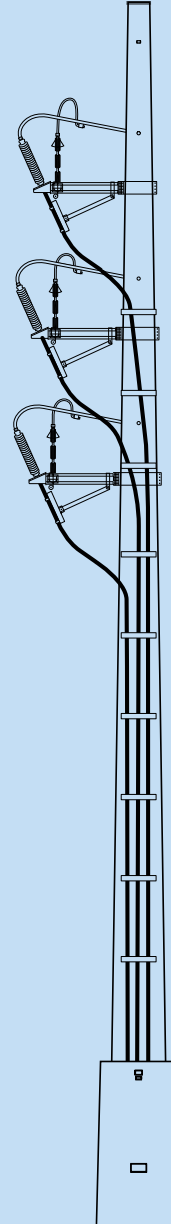
## STRUCTURE D SINGLE-POLE VERTICAL DEAD-END



### Structure D Single-Pole Vertical Dead-End

A larger pole such as this may be used where the proposed transmission line turns corners.

## STRUCTURE E RISER STRUCTURE

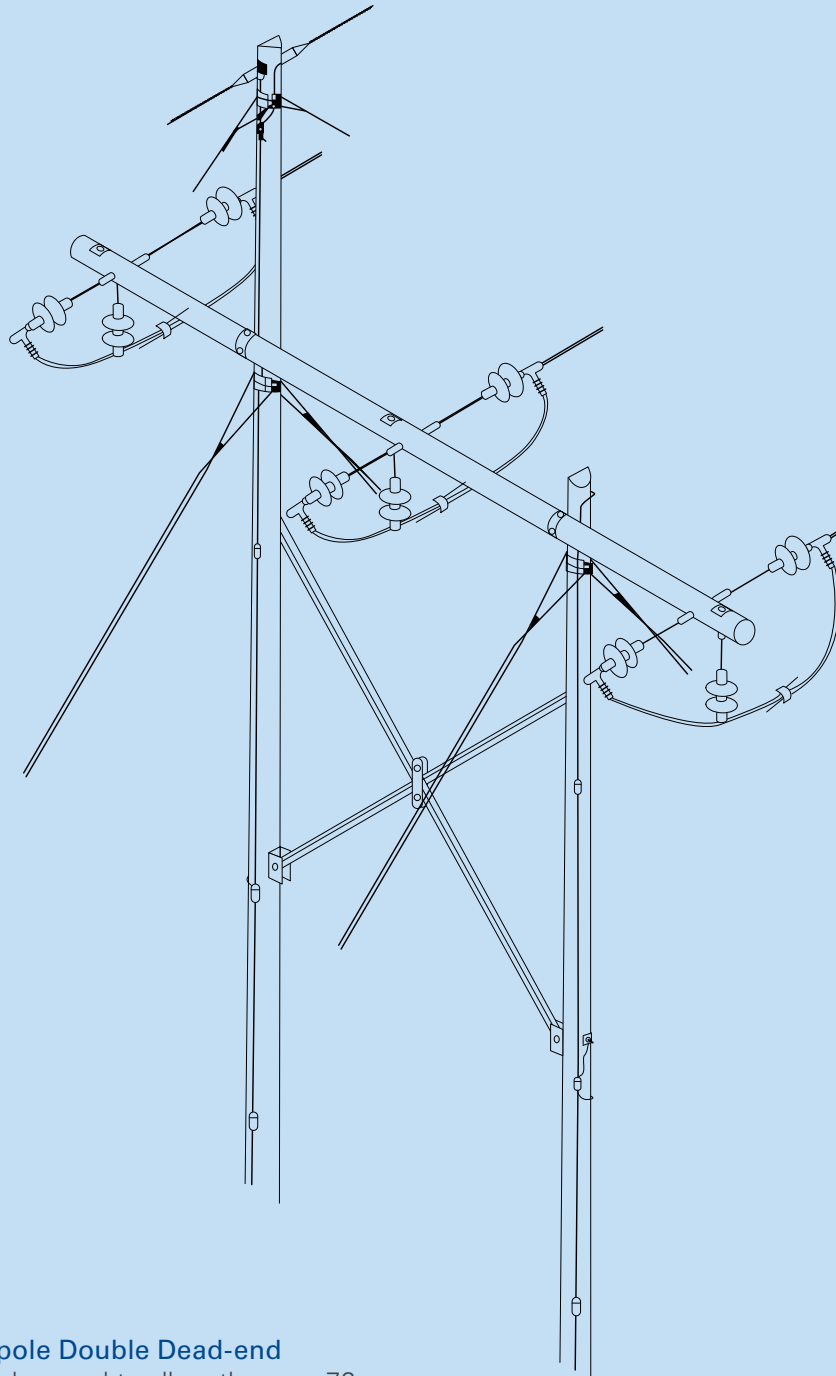


### Structure E Riser Structure

Where the new 72-kV line crosses under the existing 240-kV lines, this structure may be used to convert the line from aerial to underground.

\*Images not to scale

## STRUCTURE F TWO-POLE DOUBLE DEAD-END



### **Structure F Two-pole Double Dead-end**

This structure may be used to allow the new 72-kV line to cross underneath the existing 240-kV lines without burying it.

# DEFINITIONS

## Transmission lines and substations

Transmission lines are like highways, moving high-voltage electricity from generating stations to distribution points (called substations) where the high-voltage electricity gets stepped down to lower voltages.

## Distribution lines

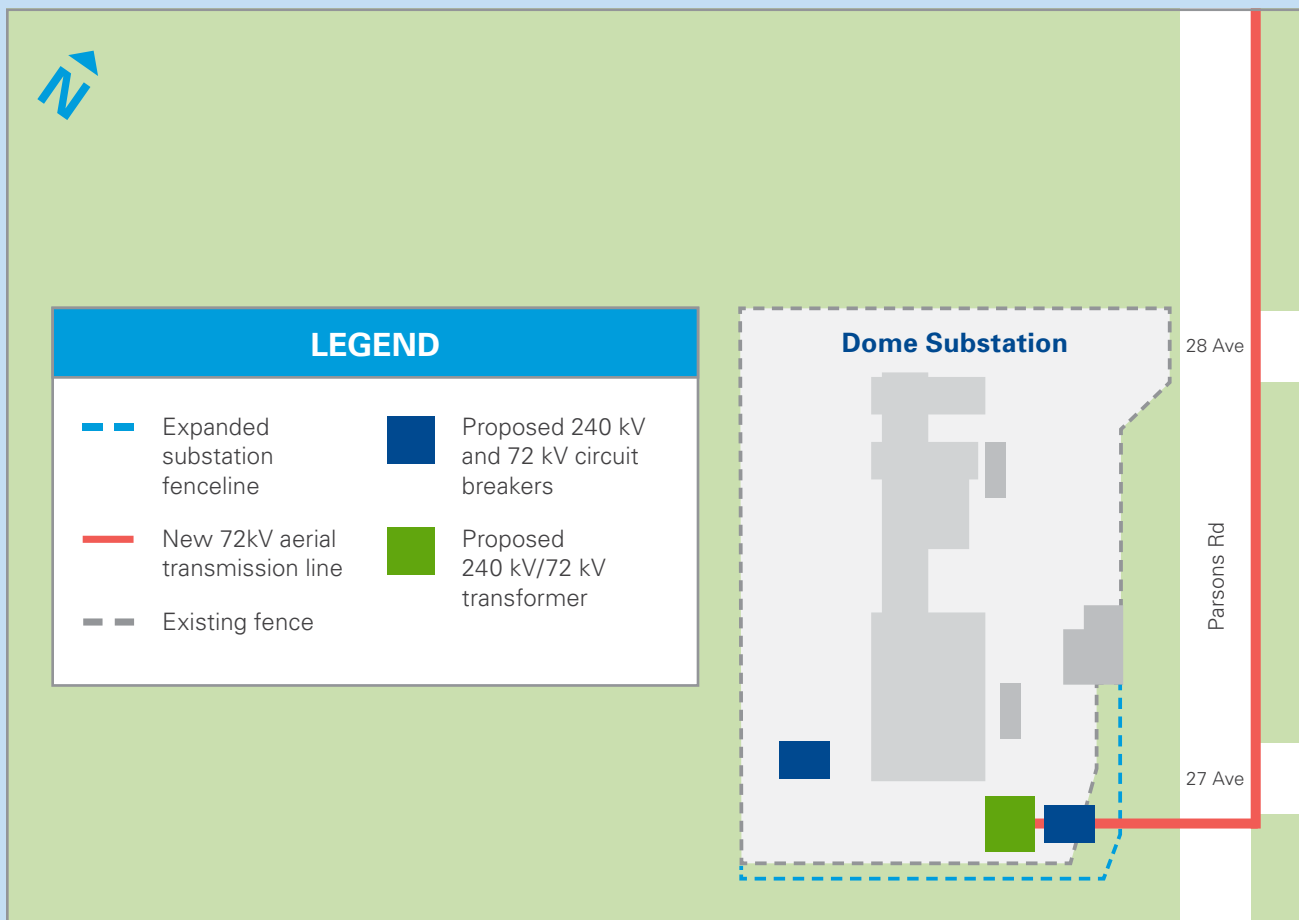
Once voltages are stepped down at a substation, the electricity travels along lower-voltage distribution lines. These lines are the ones that leave a substation and make their way to our homes or businesses.

## DOMÉ SUBSTATION

To accommodate the proposed transmission line, upgrades are needed at the Dome substation, including:

- Adding a 240 kV/72 kV transformer, 240 kV circuit breaker and 72 kV circuit breaker with associated disconnect switches.

- Expanding the fence at the Dome substation by approximately seven metres by six metres on the east and south sides of the substation. The new section of fence will match the existing fence. Trees within the expanded fenceline will be removed to meet safety clearance requirements.



# CONSULTATION UPDATES

Throughout our discussions with stakeholders, various concerns and questions were brought forward. This section addresses the feedback we commonly heard.

## What to expect during construction

If the project is approved, construction is planned to begin late 2018 and finish in late 2019. We anticipate our hours of work to be Monday to Friday from 7:30 a.m. to 5:00 p.m.; however, occasional evening or weekend work may be required. We will provide you with more detailed information regarding potential construction impacts prior to any work starting.

During construction, you can expect typical activity such as vehicles, equipment and crews in the area. We understand that construction impacts can be challenging; however, they are generally short term in nature and our construction staff will work as quickly and safely as possible to minimize any potential inconvenience.

### **Temporary lane closures**

We anticipate needing to temporarily close a lane of traffic on the side of the road where crews will be working. Our goal is to maintain access to businesses during construction. EPCOR will attempt to provide advance notice of any work in the area.

### **Power interruptions**

During construction of the transmission line, temporary power outages may be required to allow us to safely complete work. The timing and extent of outages will be determined as we complete detailed engineering once a route is approved by the AUC. We understand this is an inconvenience to our customers, and will work with affected customers to minimize the impact of the outages and ensure customers are notified in advance.

### **Vegetation**

In some areas, we may need to trim or remove trees or other vegetation near transmission poles, wires or guy lines. This is to ensure that we meet minimum safety clearance requirements per the Alberta Electrical Utility Code.

### **Visual impacts**

We are taking several steps in routing and siting the line to reduce the potential visual impacts associated with the project. Where possible, we propose to:

- Follow existing linear disturbances (roads, transmission/distribution lines).
- Overbuild on existing wood pole distribution lines rather than add a separate line.
- Build taller structures or place poles to reduce obstruction of commercial signage.

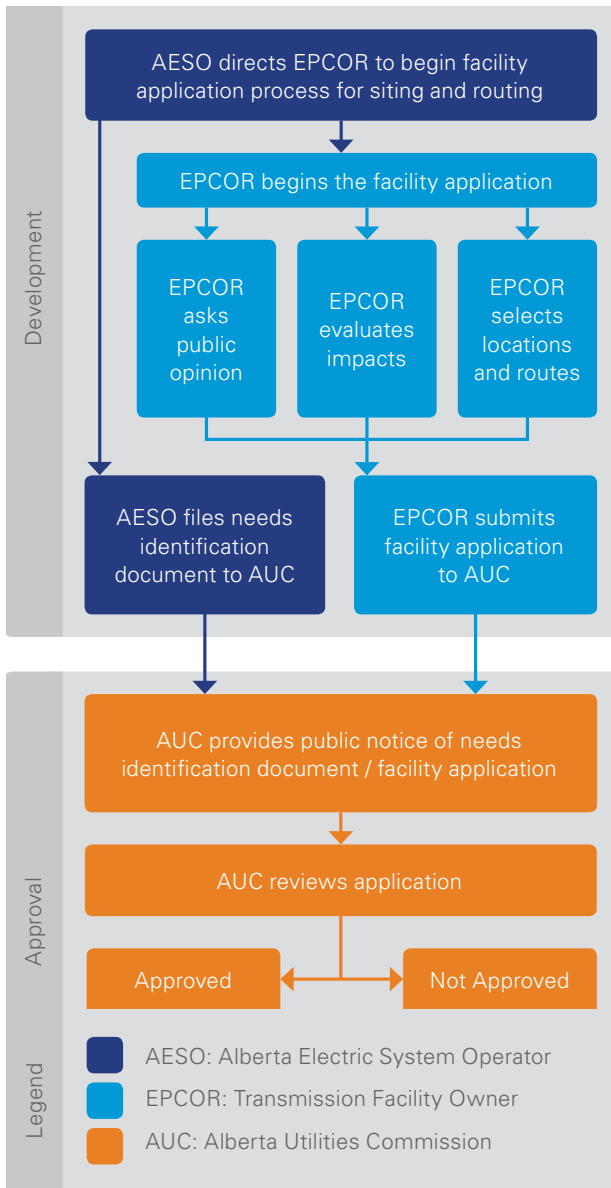
### **Noise**

Work will create typical noise associated with construction. We will take measures to ensure we comply with the City of Edmonton's Community Standards Bylaw for Noise Control. If it's necessary to temporarily exceed acceptable noise levels, we will work with the City of Edmonton to obtain the required permits.

## Concerns about potential communications interference

Some stakeholders asked about the potential impact of the project on wireless signals such as radio and television transmitters, wireless internet and cellular phone networks. We do not anticipate any interference with most types of signals resulting from the transmission line, as they are typically broadcast at much higher frequencies, whereas transmission lines are classified as extremely low-frequency (the same as household appliances and wiring). There is the potential for interference with AM radio and analog television signals; however, any potential interference diminishes significantly with distance from the line.

# REGULATORY INFORMATION



# NEXT STEPS

The Alberta Electric System Operator (AESO) is responsible for determining the proposed transmission development, which involves adding the transmission line and the equipment to the Dome substation. The AESO will submit a needs identification document (NID) with the AUC in mid-2018 in support of this project.

The EPCOR project team is preparing a facility application to be filed in mid-2018 with the AUC. Feedback we receive from stakeholders regarding the project will be incorporated as part of the facility application.

The AUC must approve the NID and facility application before upgrades to the transmission system can begin. Although EPCOR may propose more than one route, the AUC will make the final decision on routing, if the project is approved. No construction can begin until all required approvals are in place.

## About the Alberta Electric System Operator (AESO)

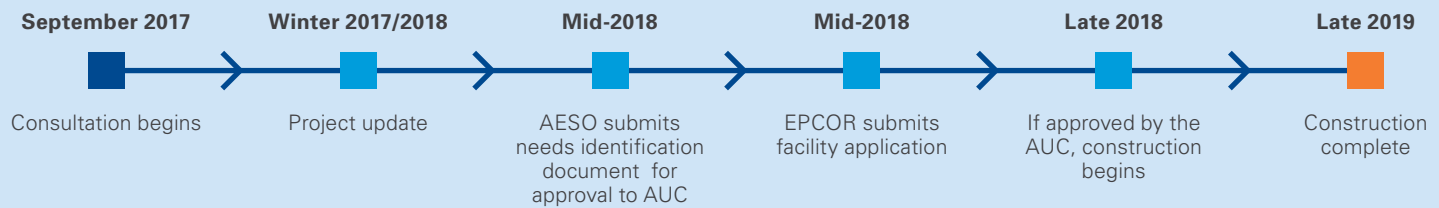
The AESO is an independent, not-for-profit organization responsible for the safe, reliable, and economic planning and operation of the provincial transmission grid. If you have any questions or concerns about the need for this project you may contact the AESO directly or visit [www.aeso.ca](http://www.aeso.ca). You can make your questions or concerns known to an EPCOR representative who will collect your personal information for the purpose of addressing your questions and/or concerns to the AESO. This process may include disclosure of your personal information to the AESO.

## About the Alberta Utilities Commission (AUC)

The AUC is an independent, quasi-judicial agency of the province of Alberta. The AUC is responsible to ensure that the delivery of Alberta's utility service takes place in the public's interest. The AUC must approve this project before upgrades to the system can begin. For more information on how you can participate in the process, visit the AUC website:

**[www.auc.ab.ca/regulatory\\_documents/Reference/PublicInvolvementBrochure.pdf](http://www.auc.ab.ca/regulatory_documents/Reference/PublicInvolvementBrochure.pdf)**

## PROPOSED SCHEDULE



## ABOUT EPCOR

EPCOR, through its subsidiaries, builds, owns and operates electrical, natural gas and water transmission and distribution networks; water and wastewater treatment facilities; sanitary and stormwater systems; and infrastructure in Canada and the United States. The company also provides electricity, natural gas and water products and services to residential and commercial customers. EPCOR, headquartered in Edmonton, is an Alberta Top 70 employer.

## PARTICIPATE IN THE PROCESS

As we move forward, we remain committed to consulting with you about this project and welcome your comments and questions. Your feedback regarding this project is important to us and will be incorporated into the facility application that we will file with the AUC.

### Questions about the project?

If you have any questions or would like to provide input on the project, please contact us:

**Phone:** 780-412-4040

**Email:** [consultation@epcor.com](mailto:consultation@epcor.com)

**Website:** [www.epcor.com/consultation](http://www.epcor.com/consultation)

### Questions about the need?

For more information about the need for this project, refer to the Need Overview that was included in the original project package (available at [epcor.com/projects](http://epcor.com/projects)) or contact the AESO:

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

**Email:** [stakeholder.relations@aes0.ca](mailto:stakeholder.relations@aes0.ca)

**Website:** [www.aes0.ca/grid/projects](http://www.aes0.ca/grid/projects)

### Questions about the regulatory process?

For more information about the regulatory process, read the brochure titled *Public Involvement in a Proposed Utility Development*

**[www.auc.ab.ca/regulatory\\_documents/Reference/PublicInvolvementBrochure.pdf](http://www.auc.ab.ca/regulatory_documents/Reference/PublicInvolvementBrochure.pdf)**

or contact the AUC:

**Phone:** 780-427-4903 (for toll-free access, dial 310-0000 before the 10 digit number)

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



*EPCOR respects your right to privacy. Any personal information we collect about you — including your name, address, phone number and email address — will be used only in regards to this project. In accordance with AUC Rule 007, this information will be filed with the AUC and may be available to the public through their website during the regulatory proceeding for this project. Please visit [www.auc.ab.ca/AUCPublicInvolvement](http://www.auc.ab.ca/AUCPublicInvolvement) for more information about the AUC's public involvement process for proposed utility developments. For information about EPCOR's Privacy Policy, visit [epcor.com/privacy](http://epcor.com/privacy).*