

June 2019

# **NEWSLETTER** **TO THE COMMUNITY**

**Central East Transfer-Out Project**

**UPDATE: Transmission line routes and structure types**



**NEW  
PROJECT  
IN YOUR AREA**

You are receiving this newsletter because you are near the proposed Central East Transfer-Out Project, and we want to provide you with a project update.



## IMPORTANT

If you have any questions about the need for this project, please contact the AESO directly at [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca) or 1.888.866.2959.

# Central East Transfer-Out Project

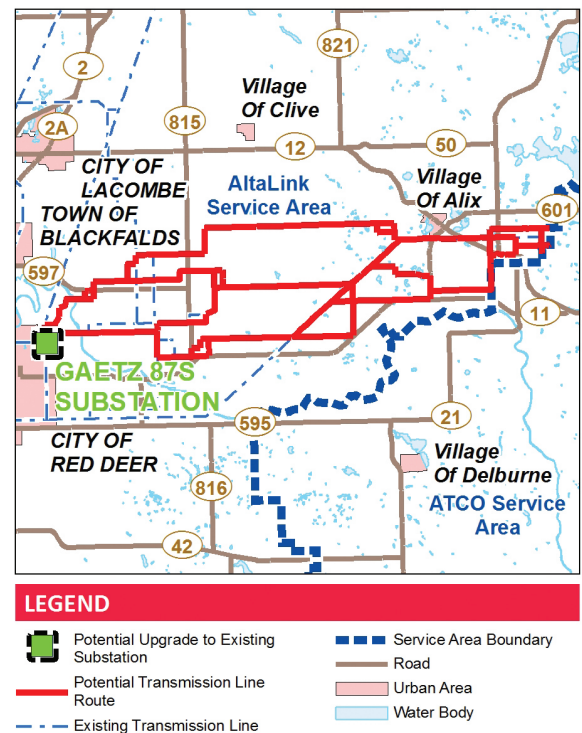
Thank you for your participation in this project, your input is important to us. We began consulting with stakeholders on this proposed project in January 2019. Throughout our consultation process we've received valuable feedback that has helped us in our project planning.

With the input we've received from stakeholders, along with information gathered through ongoing field studies and detailed engineering, we have refined the **transmission** line routes proposed for this project and removed others from consideration.

If you are near a removed route, you will no longer receive information from us about this project. Please contact us if you have any questions or wish to stay informed. You can also continue to receive updates by subscribing on our website at [www.altalink.ca/projects](http://www.altalink.ca/projects).

Please refer to the maps included with this newsletter to help you identify routes near your property.

*Please note: The red lines on the map represent the potential route options that are still under consideration. Please refer to the enclosed maps for a more detailed view of where lines may be located in your area.*



## DEFINITIONS

### Transmission

Transmission lines make up Alberta's electric highway, linking the places where power is generated to where power is used. Transmission lines transport large amounts of power over long distances across the province. The transmission system connects diverse sources of power generation.

### Kilovolt (kV)

A kilovolt is equal to one thousand volts and is commonly used when describing transmission and distribution lines. AltaLink's transmission lines range from 69 kV (69,000 volts) to 500 kV (500,000 volts). Light bulbs typically range from 120 to 300 volts.

### Circuit

A circuit is three wires. Transmission line structures can be single or double circuit, and this affects how much electricity the structure carries. Single circuit transmission lines have three wires strung along the structures. A double circuit transmission line has six wires and carries double the amount of electricity. Photos of single and double circuit structures can be found on page 5.

# Project details

AltaLink’s portion of the proposed Central East Transfer-Out Project is located in the counties of Red Deer, Lacombe and Stettler.

## If approved, the project involves:

- Approximately 55-60 kilometres of new 240 kilovolt (kV) transmission line connecting the Gaetz Substation, located east of the City of Red Deer, to a new ATCO Electric transmission line, located southeast of the Village of Alix.
- Installing new equipment at the Gaetz Substation. AltaLink initially indicated that additional land would be required at the substation site but we have determined that land is no longer required.

ATCO Electric is also planning a portion of the project in its service area. You may receive information from ATCO Electric if that portion of the proposed project is near you. Please see the back of this newsletter for ATCO Electric’s contact information if you have questions regarding their portion of the project.

# What’s new – proposed options

The Alberta Electric System Operator (AESO) manages the Alberta electric system and has identified the need for this project to enhance the reliability of the transmission system in the area. When we started consulting on this project in January 2019, it was proposed to be staged to align with generation milestones in the area so that additional transmission capacity is built as generation targets are met. The AESO initially asked AltaLink to plan for two new circuits, with one needed by 2023 and the second by 2027-2029. We included our proposed options to meet this need in the newsletter that we mailed in January 2019.

Since then, the AESO has continued to monitor the need in the area and the possibility that generation milestones can change over time. As a result, they have now asked us to consider including two potential options in the application that we file for this project.

Option 1 aligns with the generation milestones already identified as 2023 for the first circuit and 2027-2029 for the second circuit. Option 2 plans for the scenario that the first circuit is still needed as early as 2023 but the need for the second circuit is delayed beyond 2029. In this circumstance, a standalone application would be filed in the future for the construction of the second circuit.

## WHAT WE’RE PROPOSING

### Option 1 – originally included in this project

Based on stakeholder feedback, engineering, field studies and a cost analysis we determined that the lowest overall impact way to meet the need for this option is with one double circuit transmission line instead of two single circuit transmission lines. When compared to the two single circuit options, the double circuit option had greater stakeholder support as it minimizes the footprint of the project and the disturbance associated with building two separate lines.

### Option 2 – new

We were able to use the information gathered so far on this project to help us determine our proposed routes and structure types to address the first stage of this scenario. AltaLink plans to use single circuit monopole structures in this scenario and would use the same proposed alignments as the double circuit structures proposed for option 1.

On the following pages you will find details about the routes and structures proposed for each option and how you can provide your input.

	PROPOSED SOLUTION	FIRST STAGE (BY 2023)	SECOND STAGE (BY 2027-2029)
<b>Option 1</b> <i>Originally included in this project</i>	One double circuit transmission line <b>Selected to move forward</b>	One line built but only one circuit will be energized	The second circuit will be energized
	Two single circuit transmission lines – parallel alignments <b>Removed from consideration</b>	One line built	The second line will be built on an alignment parallel to the first line
	Two single circuit transmission lines – different alignments <b>Removed from consideration</b>	One line built	The second line will be built along a different alignment
<b>Option 2</b> <i>New</i>	One single circuit transmission line <b>New proposed option</b>	One line built	A standalone application would be filed in the future for the construction of the second circuit

# Updated transmission line routes

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AltaLink takes several factors into consideration in an effort to find routes with low overall environmental, social and economic effects. In addition to stakeholder input we also consider agricultural, residential, environmental and visual impacts, as well as cost.

Although there are two options proposed for this project, the route options are the same for each. After our first round of consultation, we have refined the proposed routes, which includes adding some proposed variants to the existing routes and removing some route segments from consideration.

The route options that are still under consideration represent lower overall impacts than the routes that have been removed. We would like to get your further input on these refined routes to help us determine what we file in our application for this project.

## ROUTES THAT HAVE BEEN REMOVED FROM CONSIDERATION

A description of the routes that have been removed is included below. The designation points listed for each can be seen on the DP1 and DB1 maps included in this package.

- **A10-A20:** This route segment crosses the Canyon Ski Resort and has been removed due to potential impacts to the operations of the ski resort. This segment also requires more tree clearing than the comparable route segment from B5-B10.
- **D5 & C10 (crossing the Red Deer River):** As a result of stakeholder feedback and environmental field work, we have made some modifications to the proposed routing near the crossing of the Red Deer River. The updated route option in this area avoids nest sites along the C5-C10 segment.
- **E7-E20-F10-F30-F40 (north of Township Road 390):** This route has been removed from consideration because when compared to other available route options it has a higher potential for agricultural impacts based on the following:
  - **E7-E20-F10:** This route segment was proposed to parallel AltaLink's existing 240 kV transmission line. Through ongoing engineering we have determined that we are unable to match the structure spans for the new line with the spans of the existing line. Since the existing line is located in agricultural fields, not along quarter lines, the new line would result in additional obstacles for farming on these lands.
  - **Note:** The route segment that parallels the existing transmission line south of Township Road 390 remains a proposed route option coming out of the Gaetz Substation.
  - **East of F10:** To avoid two existing pipelines, this route segment needs to be located in agricultural fields instead of along quarter lines, making it a higher impact route when compared to other available route options.
- **A25-A30-A50, B40-B60 and D31-D60:** During consultation, stakeholders expressed support for route options in road allowance in order to reduce agricultural impacts. As a result, these route segments have all been removed from consideration because there are comparable route segments available in these areas that are located in road allowance (C30-C50 and B15-A40-A45).
- **C20-B40:** This route segment crosses a riparian area and the northern edge of a nature trail system in NW-4-39-25 W4M. It also received less support from stakeholders when compared to other route options in the area so it has been removed from consideration.
- **D10-C10-C20-B20:** When compared to a similar route in the area (B5-B15), this route is longer in length and has greater agricultural impacts, so it has been removed from consideration.
- **B85-A110:** This route segment was removed from consideration because of the presence of pivot irrigation. As a result, several other route segments that connect to this route have also been removed.
- **A115-A120-ATCO and A120-A125:** There is a nature conservation site located on the south side of Highway 12, east of A115. Because of this, these route segments have been removed from consideration.

# Rebuilding existing transmission lines

During the first round of consultation, some stakeholders suggested rebuilding transmission lines between the Gaetz Substation and the NOVA Joffre Plant to accommodate the new lines required for this project. We are currently evaluating this option but have not yet determined if it is feasible. We will update stakeholders about this option when we have more information.

## Structure types

Based on the information gathered, we have selected monopole structures for both of the options proposed for this project for the following reasons:

- Allows for the opportunity to locate the line within road allowance, where circumstances warrant
- Greater stakeholder support than other structure types
- Anticipated to be lower in cost than other structure types (double circuit)
- Comparable in cost to H-frame structures (single circuit)



### PROPOSED STRUCTURE TYPES

All dimensions are approximate and subject to change with further detailed engineering. If the project is approved, only one of these structures will be used depending on which option is selected.

### DEFINITIONS

#### Right-of-way

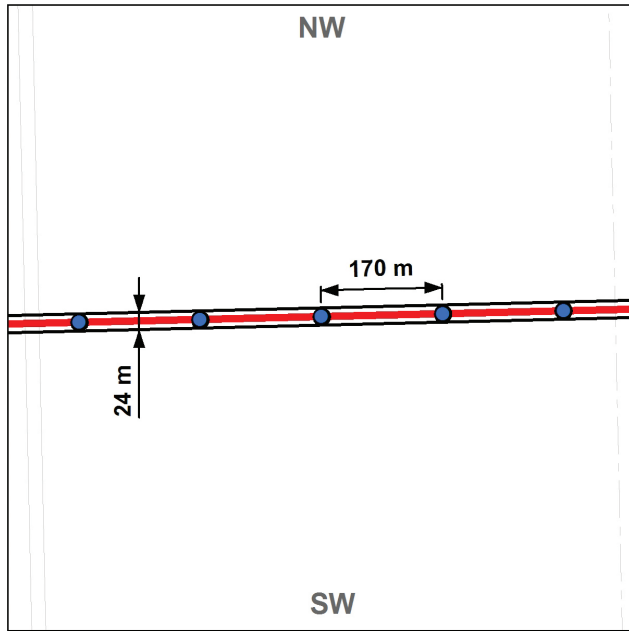
The right-of-way is a strip of land required for the construction and safe operation of a transmission line. A right-of-way refers to the physical space a transmission line encompasses including areas on either side of the line. The majority of the right-of-way can still be used by the landowner. Buildings cannot be placed on the right-of-way, but can be built up to the edge of the right-of-way.

SINGLE CIRCUIT MONOPOLE		
	Structure height	25-35 m
	<b>Right-of-way</b> width: <ul style="list-style-type: none"> <li>• When on private property</li> <li>• When in road allowance <i>(from the edge of the road allowance)</i></li> </ul>	24 m 12 m
	Distance between structures	Approximately 170 m
	Can be placed in road allowance*	Yes
	Can be placed on private property	Yes
	Requires guy wires?	Yes, for angle and corner structures
DOUBLE CIRCUIT MONOPOLE		
	Structure height	30-40 m
	<b>Right-of-way</b> width: <ul style="list-style-type: none"> <li>• When on private property</li> <li>• When in road allowance <i>(from the edge of the road allowance)</i></li> </ul>	24 m 12 m
	Distance between structures	Approximately 210 m
	Can be placed in road allowance*	Yes
	Can be placed on private property	Yes
	Requires guy wires?	No

\*Where located in road allowance, structures may be within road allowance or straddling the road allowance boundary, depending on the specific location and circumstances.

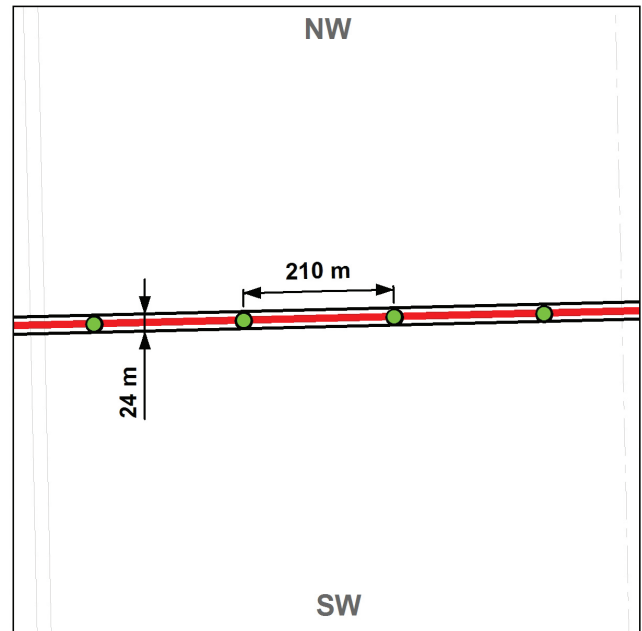
## POTENTIAL STRUCTURE LOCATIONS

Potential structure locations are still being determined and will depend on which option will be approved. To give you an idea of the spacing of each structure type on a quarter section, please refer to the drawing below. We will provide an update on potential structure locations as the project progresses and will work with individual landowners on structures that may be located on their property.



### LEGEND

- Single Circuit Monopole Structure
- Potential Transmission Line Route
- 24m Right of Way Boundary



### LEGEND

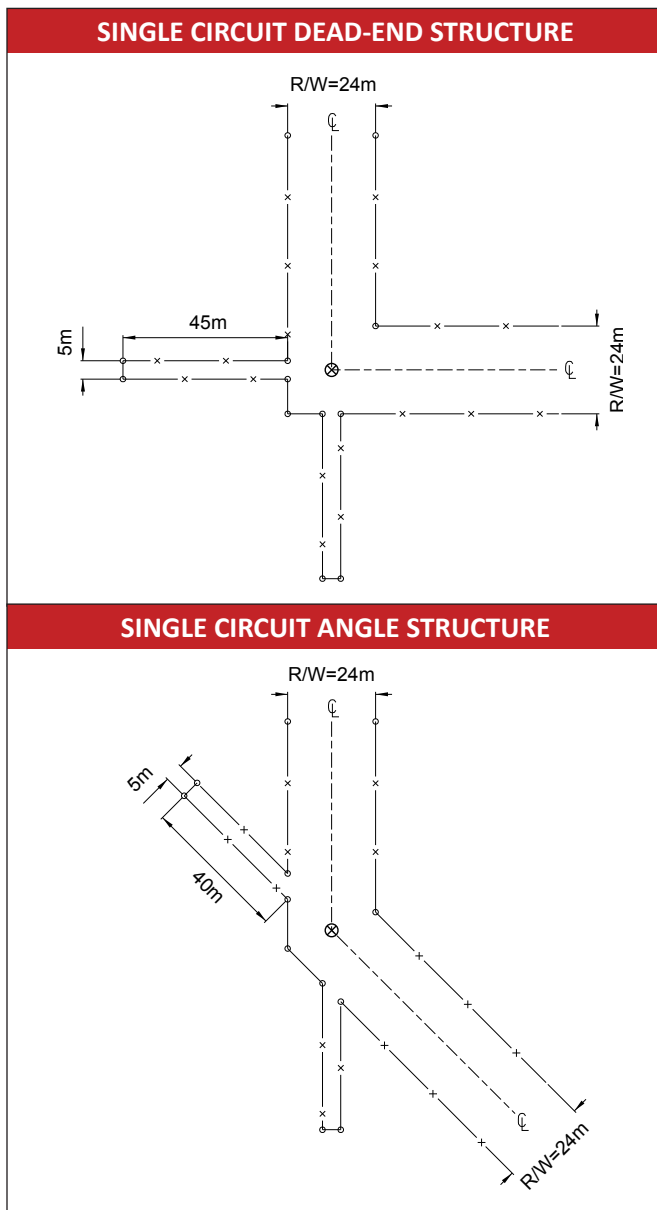
- Double Circuit Monopole Structure
- Potential Transmission Line Route
- 24m Right of Way Boundary

## RIGHT-OF-WAY, ACCESS TRAILS AND CONSTRUCTION WORKSPACE

On the enclosed maps we have included right-of-way, access trails and construction workspace along the proposed routes.

### Right-of-way for guyed structures

If the single circuit option is approved, guy wires will be required for corner and angle structures. In these instances, an area of approximately 5x45 metres will be needed to accommodate guy boxes. An illustration of the right-of-way requirements for guyed corner and angle structures is included below.



### Access trails

Access trails are required in areas where access may be limited for a number of reasons, including steep terrain, wetlands or lack of access directly to the right-of-way. Typically, an access trail is approximately eight metres wide, but this width may vary depending on the terrain.

### Construction workspace

Workspace, in addition to the transmission line right-of-way, is required for the safe construction of the transmission line. The requirements for this workspace vary depending on the location:

- Where the transmission line is proposed on property, AltaLink may require 10 metres of construction workspace on either side of the right-of-way.
- Where the transmission line is proposed in road allowance, AltaLink may require an additional 10 metres of construction workspace beyond the right-of-way, on the property side.
- AltaLink may also need construction workspace areas up to 120 metres long for stringing behind some corner structures.

The construction workspace, including potential stringing areas, is shown on the strip mosaic maps.

AltaLink will consult with all affected landowners regarding potential construction workspace and access trails. Not all of this construction workspace and off right-of-way access shown on the strip mosaic maps will be required. Access trails shown on the strip mosaic maps have been identified mainly through aerial imagery – AltaLink may request access to your property to further assess access requirements and suitability.

### LEGEND

- — x — - RIGHT-OF-WAY (R/W)
- - - - - TRANSMISSION LINE CENTRE LINE (CL)

# Substation requirements

The proposed transmission line connects to the existing Gaetz **Substation**, located in Red Deer County, just east of the City of Red Deer. As part of this development we will need to install four new circuit breakers and associated equipment at the substation. Two will be added during the first stage of the development and two will be added during the second stage. If the single circuit option is approved for this project, only two new **circuit breakers** will be added.

No expansion of the substation fence line is required. In our first round of consultation we indicated that approximately 250 m x 50 m of additional land south of the existing substation property would be required to accommodate future capacity needs at the substation, however, we have determined that this additional area is no longer needed at this time.



Existing Gaetz Substation



A typical 240 kV circuit breaker

## DEFINITIONS

### Substation

Substations are the connection points between power lines of varying voltages and contain equipment that controls and protects the flow of power. Substations include transformers that step down and step up the voltage so power can be transmitted through transmission lines or distributed to your community through distribution lines.

### Circuit breakers

Circuit breakers are electrical switches inside a substation that protect substation equipment. Circuit breakers help ensure the safety and reliability of the electric system.

# Ongoing survey activity

## ENVIRONMENTAL SURVEYS

From now until fall 2019, AltaLink will be conducting seasonal environmental surveys along the potential routes for the proposed Central East Transfer-Out Project. The surveys are conducted by helicopter or on the ground. Ground based surveys on private land will only occur after landowner permission is received. When conducting all surveys we work to minimize disruption to residences, area users, livestock and wildlife.

## GEOTECHNICAL SURVEYS

AltaLink will be conducting geotechnical drilling to perform soil investigation at various locations within the project area as required. Where these activities require access to private property, an AltaLink representative will be in contact with you.

## WETLAND DISTURBANCE

AltaLink may be required to file an application(s) under the provisions of the Water Act to permanently disturb wetlands for the purpose of placing the transmission structures on the approved route. An in-lieu payment for wetland loss will be paid in accordance with the Alberta Wetland Policy. Any person who is directly affected by a Water Act application may submit a statement of concern to Environment and Parks at the time of application.





## How to provide your input

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**Stakeholder input is critical to identifying the lowest overall impact route for this project. You can provide your input in any of the following ways.**

### ATTEND OUR PUBLIC EVENTS

We want to hear your thoughts and concerns to help us understand what is important to you as we move forward with the project. Please join us at one of our public events in the project area.

Members of our consultation, environment, electrical effects and siting teams will be available to discuss the project during the sessions. The AESO will also be available to answer questions about the need for this transmission development.

### PARTICIPATE IN A ONE-ON-ONE CONSULTATION

We will contact all occupants, residents and landowners who are on or directly adjacent to the proposed transmission line route options to gather input through one-on-one consultations.

During the one-on-one process we will document the information you provide and respond to any questions or concerns you may have about the project.

AltaLink is committed to sharing information about its projects and working with the public to gather and respond to stakeholder input and concerns. A summary of stakeholder comments will be incorporated into the application we submit to the [Alberta Utilities Commission \(AUC\)](#).

### CONTACT US DIRECTLY

You can contact us by telephone, email, mail or through our website. Our contact information is on the back page of this newsletter.

### EVENT INFORMATION

**JULY 16, 2019 | 5 - 8 PM**

Alix Community Hall - 5008 49 Ave, Alix AB

**JULY 17, 2019 | 5 - 8 PM**

Canyon Ski Resort & Recreation Area  
38433 RR 264A, Red Deer County



# Next steps

The AESO has determined that this transmission system development is needed and will file a **Need Application** with the AUC. After our consultation process is complete we will file a **Facilities Application** with the AUC that includes our proposed options to meet the need identified in each scenario. The AUC will review both the Need Application and the Facilities Application at the same time through a process in which stakeholders can participate.

You can find more information about the need for this project on the AESO's website at [www.aeso.ca/grid/projects](http://www.aeso.ca/grid/projects). To learn more about the AUC process and how you can become involved, please refer to the brochure included in this package titled *Public involvement in a proposed utility development*.

## ANTICIPATED PROJECT SCHEDULE

### Notify and consult with stakeholders

January to October 2019

### File application with Alberta Utilities Commission (AUC)

December 2019

### Start construction if project is approved

Winter 2021

### Complete construction

2023 (first circuit); 2027-2029 (second circuit – if needed)

Although we attempt to follow the anticipated project schedule it is subject to change. We will continue to provide you with updated schedule information if required as the project progresses.

## ELECTRIC AND MAGNETIC FIELDS (EMF)

**AltaLink recognizes that people have concerns about exposure to Electric and Magnetic Fields (EMF) and we take those concerns very seriously. Everyone in our society is exposed to EMF from many sources, including:**

- power lines and other electrical facilities
- electrical appliances in your home
- building wiring

National and international organizations such as Health Canada and the World Health Organization have been conducting and reviewing research about EMF for more than 40 years. Based on this research, these organizations have not recommended the general public take steps to limit their everyday exposure to EMF from high voltage transmission lines.

If you have any questions about EMF please contact us:

**visit:** [www.altalink.ca/emf](http://www.altalink.ca/emf) **email:** [emfdialogue@altalink.ca](mailto:emfdialogue@altalink.ca) **phone:** 1-866-451-7817 (toll-free)

## PRIVACY COMMITMENT

AltaLink is committed to protecting your privacy. Your personal information is collected and will be protected under AltaLink's Privacy Policy and Alberta's Personal Information Protection Act. As part of the regulatory process for new transmission projects, AltaLink may provide your personal information to the Alberta Utilities Commission (AUC).

For more information about how AltaLink protects your personal information, visit our website at [www.altalink.ca/privacy](http://www.altalink.ca/privacy) or contact us directly via email [privacy@altalink.ca](mailto:privacy@altalink.ca) or phone at **1-877-267-6760**.

## DEFINITIONS

### Alberta Utilities Commission

The Alberta Utilities Commission (AUC) ensures the fair and responsible delivery of Alberta's utility services. AltaLink submits applications for new transmission projects to the AUC and the AUC reviews them in a public process.

### Need Application

The AESO submits Need Applications to the AUC for review. A Needs Application describes why a transmission project is required. The AUC may review a Needs Application at the same time it reviews a Facilities Application, or may review each application separately. The AUC must approve a Needs Application before construction can begin.

### Facilities Application

AltaLink submits Facilities Applications to the AUC for review. A Facilities Application describes how AltaLink proposes to meet the requirements for a transmission project. It includes routing details, results of the participant involvement program and technical details. Facilities Applications must be approved by the AUC before construction can begin.

# Contact us

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To learn more about the proposed Central East Transfer-Out Project, please contact:

## **ALTALINK**

**1-877-267-1453 (toll-free)**

**stakeholderrelations@altalink.ca**

AltaLink's transmission system efficiently delivers electricity to 85 per cent of Albertans. Dedicated to meeting the growing need for electricity, AltaLink connects Albertans to renewable, reliable and low-cost power. With a commitment to community and environment, AltaLink is ensuring the transmission system will support Albertans' quality of life for years to come. Learn more at [www.altalink.ca](http://www.altalink.ca).

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To learn more about the application and review process, please contact:

## **ALBERTA UTILITIES COMMISSION (AUC)**

**780-427-4903 (toll-free 310-0000 before the number)**

**utilitiesconcerns@auc.ab.ca**

The Alberta Utilities Commission (AUC) ensures the fair and responsible delivery of Alberta's utility services. AltaLink submits applications for new transmission projects to the AUC and the AUC reviews them in a public process.

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To learn more about Alberta's electric system and the need for the project, please contact:

## **ALBERTA ELECTRIC SYSTEM OPERATOR (AESO)**

**1-888-866-2959 (toll-free)**

**stakeholder.relations@aeso.ca**

The Alberta Electric System Operator (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 visit [www.aeso.ca](http://www.aeso.ca). If you have any questions or concerns about the need for this project you may contact the AESO directly. You can make your concerns known to an AltaLink 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.

A copy of the AESO's Need Overview for the Central East Transfer-Out Transmission Development can be found here:

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

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For more information about ATCO Electric's portion of the project, please contact:

## **ATCO ELECTRIC**

**1.855.420.5775 (toll-free)**

**consultation@atcoelectric.com**

## **INCLUDED IN THIS INFORMATION PACKAGE:**

- Project maps
- AUC brochure:  
*Public involvement in a proposed utility development*

## **SUBSCRIBE TO THIS PROJECT**

1. Visit [altalink.ca/projects](http://altalink.ca/projects)
2. Search for the project title
3. Click **Subscribe to Updates**

## **LET'S TALK TRANSMISSION**

 [www.facebook.com/altalinktransmission](http://www.facebook.com/altalinktransmission)

 [www.twitter.com/altalink](http://www.twitter.com/altalink)

