



August 2020

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

**Chapel Rock to Pincher Creek Area  
Transmission Development**

**UPDATE: Transmission line routes and substation sites**



**PROJECT  
UPDATES**  
IN YOUR AREA

You are receiving this newsletter because you are near the proposed Chapel Rock to Pincher Creek Area Transmission Development, 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

# Chapel Rock to Pincher Creek Area Transmission Development

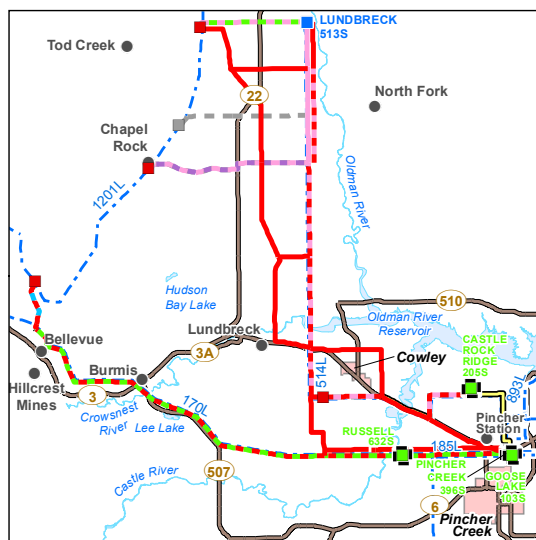
Thank you for your ongoing participation in this project, your input is important to us. We began consulting with stakeholders on this proposed project in September 2018. In May 2019 we provided an update that included refined options for the proposed **transmission** line route and **substation** site.

Since that time we have continued to gather feedback from stakeholders. We have also considered options for the rebuild of an existing transmission line in the area (called 514L) that is near the end of its life but is still required to serve customers in the area.

With the input we received, along with information gathered through ongoing field studies, further engineering and input from the Alberta Electric System Operator (AESO), we have refined the transmission line routes and substation sites proposed for this project, added new potential options and removed others from consideration.

If you are near a removed route or substation location, you will no longer receive information from us about this project. Please contact us if you have any questions or wish to stay informed.

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



### LEGEND

■ Proposed Substation	— Proposed 170L and 412L Replacement with 240kV Transmission Line Route
■ Substation No Longer Under Consideration	— Proposed Re-use of Existing Transmission Line Route
■ Proposed Substation Upgrade	— Proposed Salvage of Existing Transmission Line
■ Existing Substation	— Route No Longer Under Consideration
— Proposed 240kV Transmission Line Route	— Existing Transmission Line
— Proposed 240kV/69kV Double Circuit Transmission Line Route	● Hamlet or Locality
— Proposed 240kV/69kV Double Circuit or 69kV Single Circuit Transmission Line Route	— Highway
— Proposed 240kV/138kV Double Circuit Transmission Line Route	— Urban Area
— Proposed 69kV Transmission Line Route	— Water Body

## 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.

### 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.

### 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.

### Rights-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.

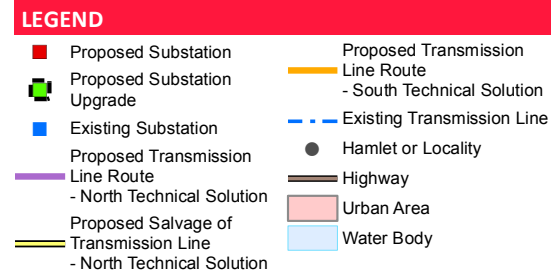
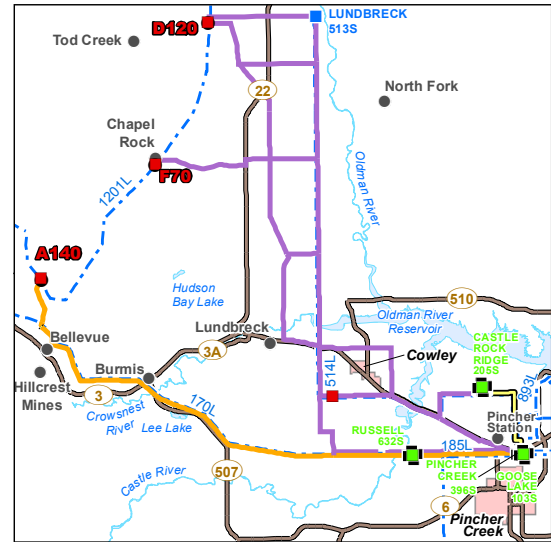
# Project update

In May 2019 we introduced two potential scenarios to meet the technical solutions for this project that are proposed by the Alberta Electric System Operator (AESO). Both scenarios are still proposed and under consideration but we have made some updates to the North Technical Solution that we want to get your input on. The updates to the North Technical Solution include:

- adding a new proposed substation location and associated transmission line routes
- removing a previously considered substation location and associated route
- proposed new configurations to address an existing 69 kilovolt (kV) transmission line in the area (called 514L) that is near the end of its life

Details about the proposed updates for the North Technical Solution are included on the following pages. The proposed routes and substation locations for the South Technical Solution have generally not changed since we initially communicated it to stakeholders in May 2019.

**Please note:** If the project is approved, only one of these technical solutions will be built.



	NORTH TECHNICAL SOLUTION <i>Shown in purple on the map above</i>	SOUTH TECHNICAL SOLUTION <i>Shown in orange on the map above</i>
<b>Substation work</b>	<p>A new Chapel Rock Substation to be built at one of two proposed sites:</p> <ul style="list-style-type: none"> <li>• NW-31-8-2-W5M (designation point F70 on the maps included in this package)</li> <li>• <b>NEW:</b> NW-33-9-2-W5M (designation point D120 on the maps included in this package)</li> <li>• <b>REMOVED:</b> NE-8-9-2-W5M (designation point D90 on the maps included in this package)</li> </ul> <p>This technical solution can connect at either the Goose Lake or Castle Rock Ridge substation In any case, modifications are required at the Goose Lake Substation If the line connects to Castle Rock Ridge, modifications will also be required at the Goose Lake substation</p>	<p>A new Chapel Rock Substation to be built at one proposed substation site:</p> <ul style="list-style-type: none"> <li>• SW-8-8-3-W5M (designation point A140 on the maps included in this package)</li> </ul> <p>This technical solution only connects at the Goose Lake Substation Modifications will be required at the Russell, Goose Lake and Pincher Creek substations</p>
<b>New transmission line</b>	<p>This route will generally travel west and north from either the Goose Lake or Castle Rock Ridge substation to the new Chapel Rock Substation Several route options are proposed for this technical solution, only one of which will be built</p>	<p>This route will travel west from the Goose Lake Substation to the new Chapel Rock Substation There is only one proposed route for this option, primarily using a portion of the existing 170L and 412L <b>rights-of-way</b></p>
<b>514L (69 kV) rebuild</b>	<p>This will be addressed with the proposed substation and transmission line reconfigurations on pages 6 and 7 of this newsletter The existing 514L line will be removed</p>	<p>This will be addressed as part of a separate project application at a later date, if the South Technical Solution is approved</p>
<b>Structure types*</b>	<p>We will generally use monopole or H-frame structures which may be either single or double circuit Monopoles will be primarily used when routes are located along road allowances H-frames are used when paralleling other transmission lines in the area or in some select areas to address terrain Other structures may be used depending on the option being considered</p>	<p>We will use a mixture of H-frame and monopole structures</p>

\*For details about the proposed structures for each technical solution, please refer to the **Proposed transmission structures** document and maps included in this package.



## Updated substation sites and transmission line routes (North Technical Solution)

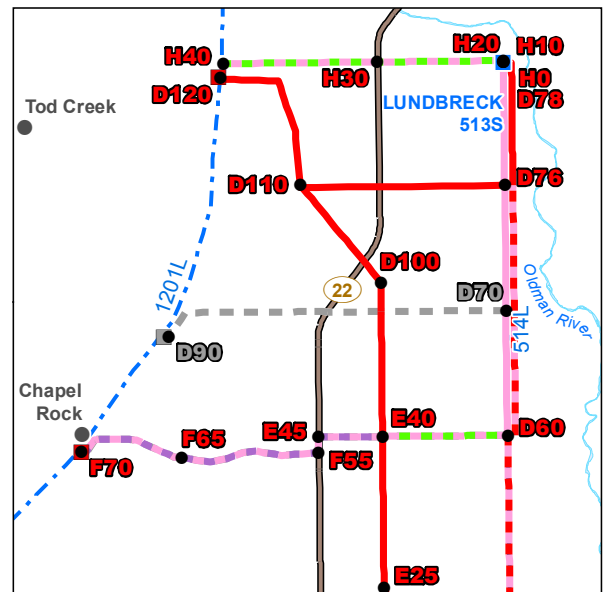
We are proposing to build one new substation, called Chapel Rock, that will connect the new transmission line with the existing 1201L transmission line, which is the Alberta/British Columbia intertie.

### NEW PROPOSED SUBSTATION LOCATION AND ASSOCIATED ROUTES

During the last round of consultation, a new substation site and associated route was suggested north of the project study area. After consulting with some stakeholders and completing ongoing environmental and engineering work on the suggested site and route, we determined that it is a viable option. We have also added route options based on stakeholder feedback and in consideration of the proposed 69kV work in the area (explained on pages 6 and 7). This is how the new site and routes compare to the other proposed options:

- The substation location is not visible from local roads or highways and avoids conservation easements
- The substation and routes are anticipated to have comparable or fewer residential impacts but will have longer overall transmission line lengths
- These options are anticipated to have comparable or higher overall costs

The new substation location (designation point D120 on the maps included in this package) is located north of Willow Valley Road in NW-33-9-2-W5M. The substation site at this location will be approximately 190x194 metres. A long existing access road will need to be upgraded to be used for access to the D120 substation.



#### LEGEND

- |   |   |
|---|---|
| ● Point Designation   | Proposed Re-use of Existing Transmission Line Route |
| ■ Proposed Substation   | Route No Longer Under Consideration                 |
| ■ Substation No Longer Under Consideration  | Existing Transmission Line                          |
| ■ Existing Substation   | ● Hamlet or Locality                                |
| — Proposed 240kV Transmission Line Route  | — Highway   |
| — Proposed 240kV/69kV Double Circuit Transmission Line Route                        | ■ Water Body  |
| — Proposed 240kV/69kV Double Circuit or 69kV Single Circuit Transmission Line Route |   |
| — Proposed 69kV Transmission Line Route   |   |



The Chapel Rock Substation will look similar to the one pictured here.

## REMOVED FROM CONSIDERATION

With the addition of the new substation site (D120), we compared the three proposed substation sites for the North Technical Solution (F70, D90 and D120) and their associated routes. Based on this assessment and ongoing stakeholder feedback, we have decided to remove the D90 substation location and the associated route segment along Township Road 92 for the following reasons:

- The routes to D90 are comparable in length to F70 but shorter in length to D120
- D90 has greater environmental impacts compared to F70 and D120, including:
  - Greater potential for avian contacts due to proximity to large wetlands
  - Potential to cause disturbance to known habitat for federal and provincial protected amphibian species
  - Proximity to active raptor nesting sites with seasonal setback requirements

- D90 is located in an area with generally less industrial development
  - The F70 substation and associated route are located primarily along a developed road allowance with existing oil and gas infrastructure
  - The D120 substation location is located in a valley with existing oil and gas infrastructure and an access road. Depending on the final route selected, there is an opportunity for portions of the new transmission line route to be located along an existing transmission line alignment and near existing oil and gas infrastructure for a longer distance.

The previously proposed substation site (designation point F70 on the maps) is still under consideration. This proposed site is located at the end of Chapel Rock Road in NW-31-8-2-W5M. The substation site at this location will be approximately 191x213 metres.

# New proposed 69 kV reconfigurations (North Technical Solution)

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In our last newsletter in May 2019, we told you that our existing 69 kV transmission line in the area (called 514L) is nearing the end of its life and needs to be rebuilt. The 514L line provides service to two customers, one connected to our Lundbreck Substation and the other connected to the Cowley Ridge Substation for the Cowley North Wind Farm.

We have been working with the AESO on a solution for this line rebuild and it has been determined that it can be accommodated within this project by leveraging the 240 kV facilities that are proposed as part of the North Technical Solution. This will minimize the impact to stakeholders and result in less transmission lines in the area.

If the South Technical Solution is approved, the 514L rebuild will be addressed in a separate facility application at a later date.

To continue to provide service to our customers, we are proposing the following as part of this project:

- Building a new substation (called Beaver Substation) and transmission line next to the existing Cowley Ridge Substation
- Building a new 69 kV transmission line between our Lundbreck Substation and the proposed Chapel Rock Substation (F70 or D120)
- Adding new equipment to the proposed Chapel Rock Substation to accommodate the 69 kV connection – this new equipment will fit within the proposed substation footprint at each location (F70 or D120).

The existing 514L will need to remain in service until the new 69 kV connection is complete, but the majority of the line will be removed once construction is complete.

In some areas the proposed 240kV transmission line may use the existing 514L alignment, depending on the final route that is approved. See the attached maps for these areas.

## **NEW SUBSTATION AND TRANSMISSION LINE AT COWLEY RIDGE**

To continue to provide service to the Cowley North Wind Farm, we are proposing to build a new 240/69 kV substation, called Beaver Substation, next to the existing Cowley Ridge Substation. The proposed substation site will be approximately 40x45 metres. This location was selected because it is near existing infrastructure including the Cowley Ridge Substation, the Cowley North Wind Farm and the municipal landfill.

To connect the new substation to the electric system, a 240 kV transmission line is required between the new substation and 240 kV transmission line that is proposed as part of this project. The length of this line will be from approximately 40 metres up to four kilometres, depending on the final route that is approved.

Approximately 50 metres of 69 kV transmission line will also be required to connect the new substation with the existing Cowley Ridge Substation.



The new substation at Cowley Ridge will look similar to the one pictured here.

## NEW CONNECTION TO THE LUNDBRECK SUBSTATION

To continue to provide service at the Lundbreck Substation, we are proposing to construct a 69 kV transmission line from either the proposed D120 or F70 Chapel Rock Substation locations to the Lundbreck Substation.

From the D120 substation location, the proposed 69 kV transmission line will be approximately eight kilometres long and will travel east along Township Road 96 to the Lundbreck Substation. Depending on the route that is approved, the 240 kV and 69 kV transmission lines may be combined on the same structures.

From the F70 substation location, we are proposing to combine the proposed 69 kV line with the already proposed 240 kV line into a double circuit line that travels along Chapel Rock Road and Township Road 90. Depending on the route that is approved, the 240 kV and 69 kV lines will separate at either designation point E40 or D60 where the 69 kV line will continue north along the west side of Range Road 15 to the Lundbreck Substation.

The single circuit 69 kV and double circuit 240/69 kV transmission lines will use a mix of steel monopole or H-frame structures. Wood structures may be required in some areas, depending on information gathered through further engineering.

At corner or angle locations along the double circuit route, a two-pole structure is required. The intent is that one of the poles will be located within road allowance and the other will be located on property, approximately 6-10 metres from the property boundary. We are assessing opportunities to use a single pole structure at some angle locations and will inform you of any updates based on this assessment.

For details about all of the structures proposed for this project as part of the North Technical Solution or the South Technical Solution, please refer to the **Proposed transmission structures** document and maps included in this package.



The 69 kV structures will look similar to the structure pictured here.



The double circuit 240/69 kV structures will look similar to the structure pictured here.

## DEFINITIONS

### 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.



## Preliminary structure locations, right-of-way, access trails and construction workspace

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On the enclosed maps we have included preliminary structure locations, right-of-way, access trails and construction workspace along the proposed routes. Where possible we've tried to use existing trails, avoid residences, wetland areas and reduce agricultural and other potential impacts. If you are aware of features that we haven't identified please let us know. Where guy boxes are required for guyed structures, an area of approximately 15x45 metres will be needed.

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.

Workspace area in addition to the transmission line right-of-way is required for the safe construction of the transmission line. Discussions regarding acquiring right-of-way access and construction workspace will be negotiated on an individual basis with landowners.

## Ongoing survey activity

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### ENVIRONMENTAL SURVEYS

From now until our facility application is submitted, AltaLink will be conducting seasonal environmental surveys along the potential routes for the proposed Chapel Rock to Pincher Creek Area Transmission Development. The surveys are conducted by helicopter or on foot. 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 your private property, an AltaLink representative will be in contact with you.







## Providing your input

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AltaLink is closely monitoring the spread of COVID-19. Our priority is maintaining the health and safety of our employees, contractors, and the general public, while ensuring that we are able to continue to operate our system and keep the lights on for Albertans.

Stakeholder input is critical to identifying the lowest overall impact route for this 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).

You can provide your input in any of the following ways.

### **PUBLIC EVENTS**

Based on recommendations from local and national health authorities, AltaLink has made the decision to not hold public stakeholder events on any projects at this time.

While we aren't hosting public events, if you'd like to provide input, you can do so through our online feedback portal, found here: [www.altalink.ca/projects/project-feedback.cfm](http://www.altalink.ca/projects/project-feedback.cfm)

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

At this time we are limiting in-person meetings and will be conducting the majority of meetings via telephone or electronic methods, however, as the situation regarding COVID-19 changes we will re-assess this approach.

We will update you as the situation evolves.

### **CONTACT US DIRECTLY**

You can contact us by telephone, email, mail or through our website. Our contact information is on page 11 of this newsletter.

### **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 at [privacy@altalink.ca](mailto:privacy@altalink.ca) or phone at **1-877-267-6760**.

## Next steps

The AESO has determined 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. The AUC will review both the Need Application and the Facilities Application at the same time through a process in which stakeholders can participate.

For more information about the need for this project please visit the AESO's website at: [www.aeso.ca/grid/projects/SATR-CRPC](http://www.aeso.ca/grid/projects/SATR-CRPC)

To learn more about the AUC process and how you can become involved, please refer to the brochure included in this package titled **Participating in the AUC's independent review process**.

## Electric and Magnetic Fields (EMF)

AltaLink recognizes that people may have concerns about exposure to EMF and we take those concerns seriously.

Everyone in our society is exposed to power frequency 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 (WHO) have been conducting and reviewing research on exposure to EMF for more than 40 years. Based on this research, these agencies have not recommended that the general public needs to take steps to limit their everyday exposure to EMF from high voltage transmission lines, including individuals that are located on the edge of a power line right-of-way.

If you have any questions about EMF please contact us:

**Website:** [www.altalink.ca/emf](http://www.altalink.ca/emf)

**Email:** [emfdialogue@altalink.ca](mailto:emfdialogue@altalink.ca)

**Toll-free phone number:** 1-866-451-7817



## ANTICIPATED PROJECT SCHEDULE

### Notify and consult with stakeholders

Fall 2018 to Fall 2020

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

Fall/Winter 2020

### Start construction if project is approved

2021 (earliest)

### Complete construction

2022-2023 (earliest)

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.

## DEFINITIONS

### 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 Chapel Rock to Pincher Creek Area Transmission Development, 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**.

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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**. 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 newsletter for the Chapel Rock to Pincher Creek Area Transmission Development is included in this package and can be found here: **www.aeso.ca/grid/projects/SATR-CRPC**

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

- Project maps
- Proposed transmission structures
- COVID-19 update
- AUC brochure:  
*Participating in the AUC's independent review process*

### **SUBSCRIBE TO THIS PROJECT**

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

### **PROVIDE INPUT THROUGH OUR ONLINE FEEDBACK PORTAL**

[www.altalink.ca/projects/projectfeedback.cfm](http://www.altalink.ca/projects/projectfeedback.cfm)

### **LET'S TALK TRANSMISSION**

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

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

