ALTALINK

October 2014

Electric system improvements near you

Castle Rock Ridge to Chapel Rock Transmission Project

DID YOU KNOW?

In 2013, Alberta imported nearly ten times the amount of power it exported. Alberta depends on its transmission connections with British Columbia and Saskatchewan to meet its demand for electricity.

You are receiving this newsletter because you are near the proposed Castle Rock Ridge to Chapel Rock **Transmission** Project in the Pincher Creek area and we want your input.

This project will help to connect power generated from existing and new wind farm projects to Alberta's electricity system.

We want to provide you with:

- project details
- information about how you can provide your input
- project schedule
- maps of the proposed development

DEFINITIONS

Transmission

Transmission lines make up Alberta's electric highway, linking the places where power is generated to your community where power is used. Transmission lines transport large amounts of power over long distances from power plants across the province. The transmission system connects diverse sources of power generation including wind, high-efficiency coal, natural gas and more.

CONTACT US

1-877-269-5903
stakeholderrelations@altalink.ca

Visit us online at
www.altalink.ca/satr

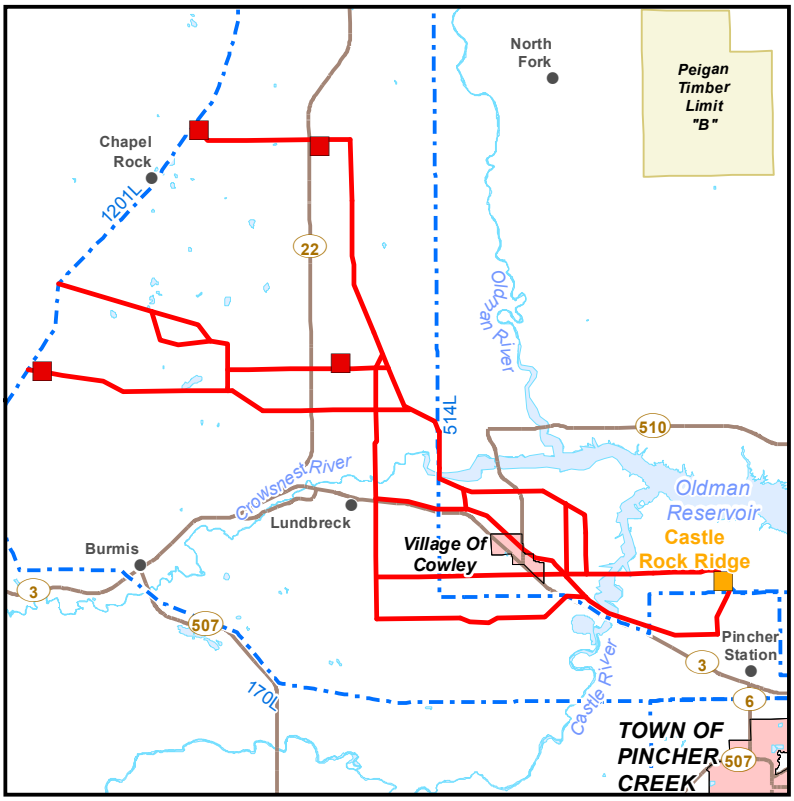
DEFINITIONS

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.

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.



Legend

- Potential Substation
- Potential Substation Upgrade
- Potential Transmission Line
- Existing Transmission Line
- Hamlet or Locality
- Road
- First Nations Reserve
- Urban Area
- Water Body

Project details

This proposed project includes:

- A new **substation**, to be called Chapel Rock Substation, located near the existing 500 **kV** (500,000 volts) 1201L transmission line. The proposed substation will be approximately 250 by 350 metres (820 by 1,148 feet).
- Approximately one to 13 kilometres (0.6 to eight miles) of new 500 kV transmission line will also be required depending on the location of the Chapel Rock Substation.

DEFINITIONS

Circuit

A circuit is a group of wires that electricity flows through. The wires are strung along power line structures. Transmission line structures can be described as single or double circuit. In a single circuit transmission line, three single or bundled wires are strung along the transmission structures. A double circuit transmission line has six single or bundled wires strung along the structures.

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.

Approximately 20 to 41 kilometers (12 to 25 miles) of new double **circuit** 240 kV transmission line from the existing Castle Rock Ridge Substation to the proposed Chapel Rock Substation. Final line length is dependent on the location of the proposed Chapel Rock Substation.

A TYPICAL DOUBLE CIRCUIT 240 KV STEEL LATTICE TRANSMISSION STRUCTURE WILL HAVE A:

- height of 44 to 60 metres (147 to 197 feet)
- width of 22 to 24 metres (72 to 79 feet) at the widest arm
- base of 10 by 10 metres (32 by 32 feet), up to 14 by 14 metres (46 by 46 feet)
- distance between structures averaging 365 metres (1,198 feet)
- a **right-of-way** width of 60 metres (197 feet)

OUR TRANSMISSION LINES TRANSPORT THE POWER YOU USE EVERY DAY

AltaLink's transmission system efficiently delivers electricity to 85% 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.

We are investigating the use of either double-circuit or two single-circuit structure options for the portion of the line within the hills west of Highway 22. Examples of each option are shown below. The final design will be determined prior to our second round of consultation.

A TYPICAL DOUBLE - CIRCUIT STRUCTURE COULD HAVE A:

- height of 44 to 75 meters (144 to 246 feet)
- width of 22 to 30 metres (72 to 98 feet) at the widest arm
- base of 10 by 10 metres (32 by 32 feet), up to 14 by 14 metres (46 by 46 feet)
- distance between structures averaging 365 metres (1,198 feet)
- right-of-way width of 60 to 70 metres (197 to 230 feet)

A TYPICAL SINGLE - CIRCUIT STRUCTURE COULD HAVE A:

- height of approximately 30 to 40 metres (98 to 131 feet)
- width of 25 metres (79 feet) at the widest arm
- base of one by one metres (three by three feet)
- distance between structures averaging 300 metres (984 feet)
- right-of-way width of approximately 120 metres (394 feet) to include both single circuit structures

A new telecommunications tower inside or near the proposed Chapel Rock Substation. This tower will provide additional capacity and signal range within our transmission system, maintaining the safety and reliability of the electric system in the area.

THE NEW TELECOMMUNICATIONS TOWER:

- will be approximately 30 to 35 metres (98 to 114 feet) tall
- will be a self-supporting steel lattice structure
- may be painted and have aircraft lighting to comply with Transport Canada's requirements

RADIO FREQUENCY (RF)

Telecommunication towers use Radio Frequency (RF) signals to transmit and receive information. The point-to-point signals travel along a focused path at low power levels and are well below recommended safety limits. A licensed telecommunications tower will not impact any other licensed telecommunication frequencies such as cellular, over-the-air television, satellite, radio, or GPS.

The radio installation described in this notification will be installed and operated on an ongoing basis so as to comply with Health Canada's Safety Code 6, which defines safe levels of radio frequency (RF) exposure. To ensure the structural adequacy of the tower, the design and installation will follow industry standards and sound engineering practices.

Alberta's natural landscapes are home to many diverse animals, including more than 400 different species of birds. Through Altalink's Avian Protection Program we offer unique solutions for birds including constructing nesting platforms for the endangered ferruginous hawk, relocating osprey nests from power poles to safe nesting places and much more.

We're active in protecting wildlife and have several programs in place including the first-of-its-kind GREENJACKET – a product that protects wildlife from coming into contact with equipment in substations. And that's just the beginning. For more information, including our innovative environmental programs, please visit www.altalink.ca/environment.

Existing Castle Rock Ridge Substation

CASTLE ROCK RIDGE SUBSTATION EXPANSION

The existing Castle Rock Ridge Substation will be expanded as part of this project to accommodate the termination of the proposed new 240 kV transmission line. Exact expansion dimensions will be determined prior to our second round of consultation.

Environment

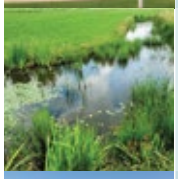
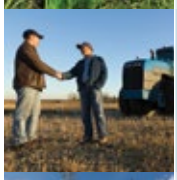
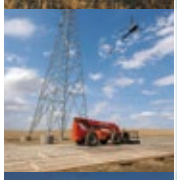
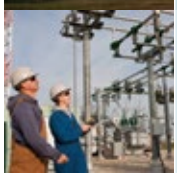
We are committed to the protection of our project areas. The environment is an important consideration in the route and site identification process for new transmission facilities and remains a priority during construction and operation of the facilities.

Wildlife

AltaLink ensures environmental monitors are on-hand to observe species at risk and wildlife during project construction. We implement specific protection measures if required and these measures can include restricted activity periods for construction, ensuring crews keep safe distances from critical wildlife habitats and enhancing species-at-risk habitats elsewhere.

Routes and substation sites selection

When identifying routes and substation site options, AltaLink takes several factors into consideration in an effort to find solutions with low overall impacts. Some of the factors we take into consideration include:

Important Criteria		
	Agricultural	• Impact on crop production • Reduced efficiency of field operations
	Residential	• Proximity to residences • Impact on developable lands and constraints on future development
	Environmental	• Alteration of natural areas and impacts to environmental features
	Cost	• Construction cost and land acquisition costs
	Electrical	• Reliability and reparability of the line
	Visual	• Visual impact of structures and lines as seen from residences and recreational areas
	Special considerations	• Electrical interference with radio transmitting stations and other telecommunication equipment etc.

Please let us know what other factors are important to you so we can consider them when refining route options.

DID YOU KNOW:

Demand for power in Alberta has increased 80 per cent over the past 20 years (5,894MW – 10,609 MW) with the peak demand growth forecasted to average 3.3 per cent per year for the next 10 years and 2.5 per cent per year for the next 20 years.

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.

How to provide your input

Your input is important to help us determine a route with a low overall impact. You can provide your input in any of the following ways.

PARTICIPATE IN A ONE-ON-ONE CONSULTATION

You are welcome to participate in consultation for this round and can do so by calling 1-877-269-5903 (toll-free) to book a one-on-one consultation.

Our second round of consultation is expected to begin in early 2015. We will contact all occupants, residents, and landowners who are on or directly adjacent to the proposed substation locations and 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)**.

INTERACTIVE FEEDBACK SESSIONS

We know that you will have many questions about the project and we want to get you the information you need. Please join us at one of our interactive feedback sessions in the project area.

Members of our consultation and siting teams will be available to discuss the project during the sessions. We want to hear your thoughts and concerns to help us understand what is important to you as we move forward with the project. We look forward to seeing you.

October 22, 2014

4 TO 8 P.M.

Lundbreck Community Hall

304 1 Street

Lundbreck, AB

October 25, 2014

1 TO 4 P.M.

Heritage Inn & Convention Centre

919 Waterton Ave

Pincher Creek, AB

CONTACT US DIRECTLY

Please contact us if there is any information you would like to share regarding the project. Our contact information can be found on the front and back pages 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 the Freedom of Information and Protection of Privacy 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 or contact us directly via e-mail privacy@altalink.ca or phone at 1-877-267-6760.

Southern Alberta Transmission Reinforcement

The Southern Alberta Transmission Reinforcement (SATR) includes several proposed projects in southern Alberta that will provide access to new wind-generated power.

The **Alberta Electric System Operator (AESO)** filed the need for SATR in a formal application with the AUC in December 2008. The AUC held a public hearing to review the need for these projects in 2009 and approved the need later that year.

An amendment to the original SATR approval was applied for by the AESO in August 2013, and approved by the AUC in January 2014. The amendment identified the existing Castle Rock Ridge Substation as the connection point between the proposed Chapel Rock and existing Goose Lake substations.

NEXT STEPS

After our consultation process is complete, we will file a facilities application with the AUC. The AUC will review our application through a process in which stakeholders can participate.

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 Needs* or *Facilities Applications.*

DEFINITIONS

Alberta Electric System Operator

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 refer to the AESO's Need Overview included with this package, or visit www.aeso.ca. If you have any questions or concerns about the need for this project you may contact the AESO directly.

DID YOU KNOW:

The average four-person family in Alberta today has 20 `instant-on' electronics such as laptops, DVD players, music device players and cell phone chargers. This is in addition to the other appliances necessary to run a home - fridges, stoves, microwaves, washers and dryers - all of which require a reliable supply of electricity.

Projects in the area

AltaLink is working on several projects in the area to make sure your lights come on at the flick of the switch.

Project name	Description	Status
Goose Lake to Etzikom Coulee Transmission Project	A new 240 kV transmission line from the Goose Lake Substation to the proposed Journault Substation.	AltaLink and the AESO are currently conducting studies on the design of project facilities. Once these studies are complete and the results assessed, we will resume work on the project.
Goose Lake Telecommunications Upgrade	A new 40 metre (131 feet) tall telecommunications tower at the Goose Lake Substation.	Construction anticipated to be complete in fall 2014.

Anticipated project schedule

Notify and consult with stakeholders – Round 1	Fall 2014
Notify and consult with stakeholders – Round 2	Winter / Spring 2015
File application with Alberta Utilities Commission (AUC)	Fall 2015
Start construction if project is approved	Early 2017
Complete construction	Fall 2018

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

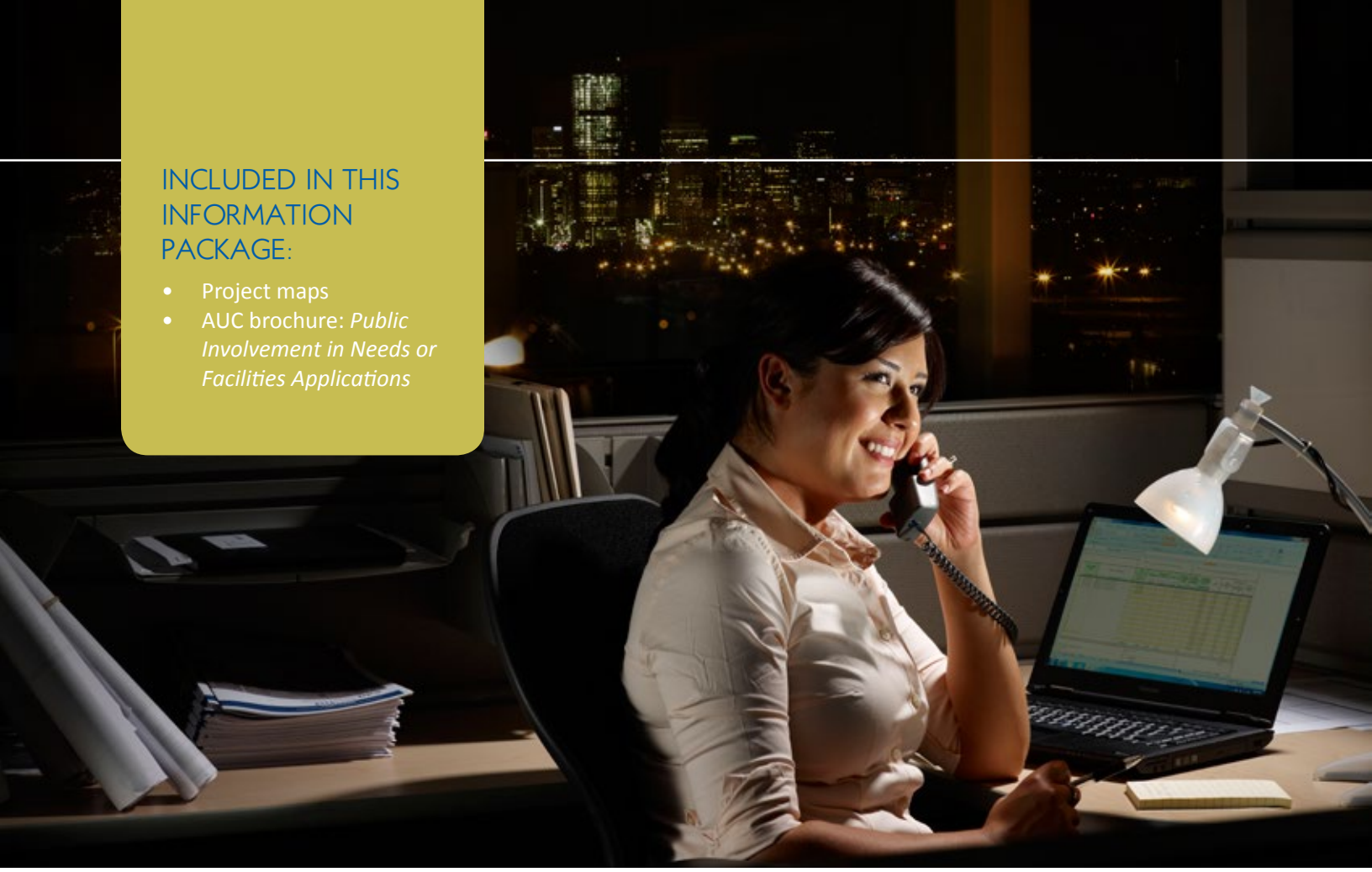
- power lines and other electrical facilities
- electrical appliances in your home
- building wiring

National and international organizations such as the World Health Organization and Health Canada 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.
Website: www.altalink.ca/emf
Email: emfdialogue@altalink.ca
Toll-free number: 1-866-451-7817

INCLUDED IN THIS INFORMATION PACKAGE:

- Project maps
- AUC brochure: *Public Involvement in Needs or Facilities Applications*



More information

To learn more about the proposed project, please contact:

ALTALINK

1-877-269-5903 (toll-free)

Email: stakeholderrelations@altalink.ca

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)

Email: stakeholder.relations@aeso.ca

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

ALBERTA UTILITIES COMMISSION (AUC)

780-427-4903 (You can call toll-free by dialing 310-0000 before the number.)

Email: consumer-relations@auc.ab.ca

ALTALINK

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Calgary, Alberta T2A 7W7

Let's talk transmission

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