

# Welcome

## AltaLink Open House

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### Airdrie Area Transmission Reinforcement

We are here to answer your questions and provide information about the proposed project.

We encourage you to ask questions to get the answers you need.

Please sign in at the registration desk.

**THANK YOU FOR JOINING US**

# Key Players

## **ALTALINK**

AltaLink is a regulated utility that owns and operates approximately 11,800 kilometres of transmission lines and 270 substations. We provide electric service to more than 85 per cent of Albertans and own the majority of the transmission system in central and southern Alberta.

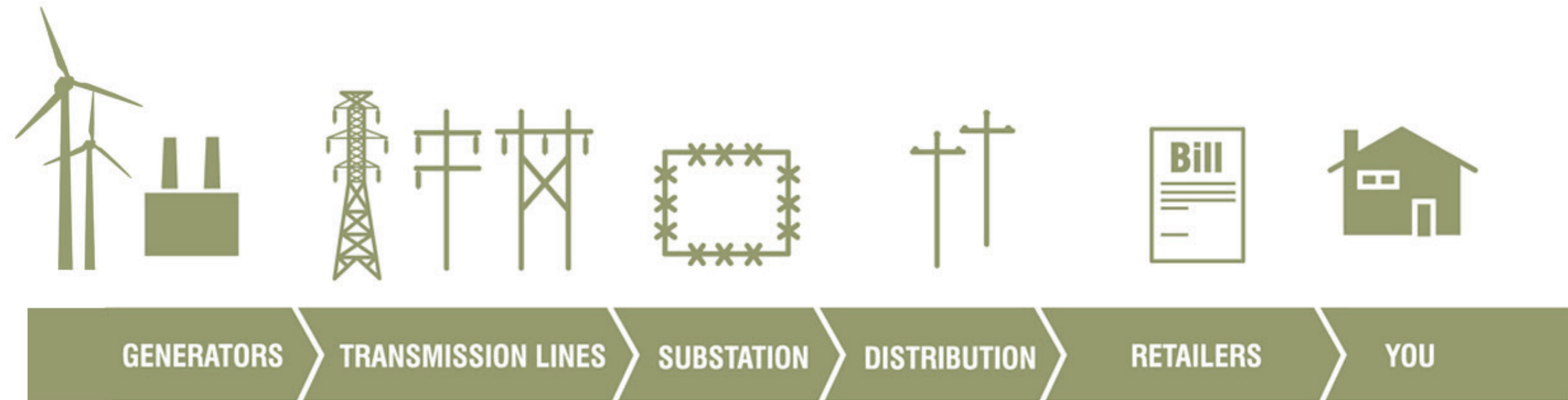
## **THE ALBERTA ELECTRIC SYSTEM OPERATOR (AESO)**

The AESO is an independent, not-for-profit entity responsible for the safe, reliable and economic planning and operation of the Alberta Interconnected Electric System. The AESO determines the need for transmission reinforcement and directs a Transmission Facility Owner, such as AltaLink, to apply for a permit and license to construct and operate transmission facilities.

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

The AUC is a quasi-judicial agency established by the Alberta government that ensures the fair and responsible delivery of our utility services. The AUC is the provincial regulator responsible for reviewing the AESO's Need Identification Document (NID) and the Transmission Facility Owner's Facility Applications (FA).

# Electricity at a glance



## GENERATION

ATCO Power  
TransAlta  
Capital Power Corporation  
ENMAX Energy  
wind turbines  
cogeneration plants

Generating facilities convert various forms of energy into electric power.



## TRANSMISSION

**AltaLink**  
ATCO Electric  
ENMAX Power (Calgary)  
EPCOR (Edmonton)

Transmission lines connect the power produced at generating facilities to substations.



## SUBSTATION

**AltaLink**  
ATCO Electric  
ENMAX Power (Calgary)  
EPCOR (Edmonton)

Substations are the connection points between transmission and distribution systems.



## DISTRIBUTION

FortisAlberta  
ATCO (Electric)  
ENMAX Power (Calgary)  
EPCOR (Edmonton)  
Rural Electrification  
Associations

Distribution lines carry electricity to your homes, farms and businesses.



## RETAILERS

Direct Energy  
ENMAX (Calgary)  
EPCOR Energy (Edmonton)  
Just Energy Alberta  
City of Lethbridge Utilities

Retailers give consumers a choice of electricity service providers.



## YOU

Electricity is then delivered to your homes, businesses and communities.

# Project Details

## New Substation

AltaLink is proposing to build a new 240/138 kV substation called Twin Lakes 248S, east of the city of Airdrie.

The new substation site will:

- Be approximately 250 x 300 metres (820 x 984 feet) in size
- Contain electrical equipment, such as transformers, that reduce the voltage of electricity carried on the transmission system
- Include a 40 metre (131 feet) high telecommunications tower

The Airdrie Substation will be similar to the one pictured below.



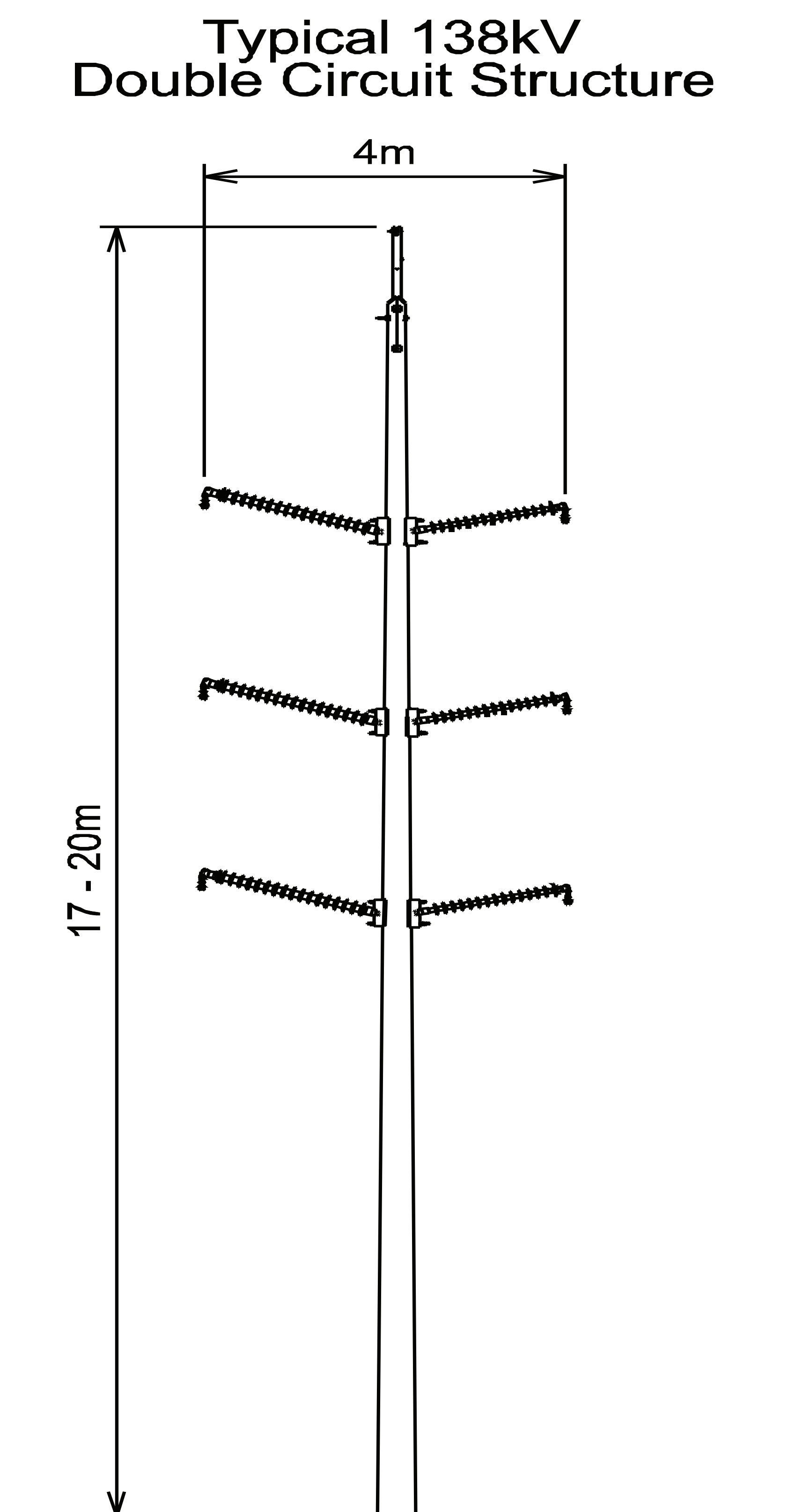
# Project Details

## Transmission Line

AltaLink is proposing to build approximately 12 kilometres of a new 138 kV double circuit transmission line.

The new transmission line will be:

- Called 631L/405L
- Built primarily with single pole steel structures approximately 19 to 24 metres (62 to 78 feet) high and approximately five metres (16 feet) wide
- Placed approximately 150 metres (490 feet) apart
- Double circuit, meaning they will have one set of three wires on each side
- Built from our existing 631L to the proposed Twin Lakes Substation. If it is located on private property, a 20 metre (65 feet) right-of-way will be required



# Project Details

## Transmission Line

AltaLink is proposing to build approximately 0.5 kilometres of a new 240 kV transmission line.

The new 240 kV transmission line will:

- Connect the proposed Twin Lakes Substation to an existing transmission line, called 929L
- The route and structure type has yet to be determined

# Project Details

## Telecommunications Tower

AltaLink is proposing to install a telecommunications tower inside the proposed Twin Lakes Substation site.

The tower will be:

- Approximately 40 metres (122 feet) tall
- Have a triangle base dimension of approximately five metres (16 feet)
- Self-supporting with antennas attached at or near the top of the tower
- May be painted and have obstruction lighting to meet the requirements of Transport Canada



The telecommunications tower will be similar to the one pictured to the left.

# Project Schedule

## **Spring 2010**

Notify and consult with stakeholders

## **Fall 2010**

File application with the Alberta Utilities Commission (AUC)

## **Spring 2011**

Start project construction if approval is granted by the AUC

## **Fall 2011**

Complete project construction

# Why is this project needed?

The Alberta Electric System Operator (AESO) has determined the transmission system in the Airdrie area needs to be reinforced to meet the growing demand for electricity in the area. The AESO has directed AltaLink to determine potential transmission line routes and substation locations for this project. The AESO is an independent, not-for-profit entity responsible for the safe, reliable and economic planning and operation of the Alberta Interconnected Electric System.

# Construction

Depending on where you are in relation to the project you may see or hear:

- Construction crews
- Selective clearing of trees and vegetation along the transmission line right-of-way
- Installation of transmission structures
- Stringing of wires on new transmission structures
- Leveling and grading of the new substation site
- Construction of a substation

Throughout the construction process, AltaLink and its contractors will follow all applicable provincial and federal legislation and requirements.

Any noise associated with the construction and/or operation of new facilities will comply with the AUC's Noise Control Rule 12 and other relevant provincial and municipal noise regulations and standards.

# Environment

AltaLink is committed to limiting environmental impacts. Construction and maintenance activities will comply with applicable provincial and federal environmental legislation, regulations.

AltaLink will ensure its contractors use appropriate techniques to protect water quality, soils, vegetation and wildlife habitat.

# Electric and Magnetic Fields (EMF)

AltaLink recognizes that some people are concerned about EMF and we treat those concerns very seriously.

Based on more than 30 years of research, national and international health agencies have not concluded that EMF associated with high voltage transmission lines will adversely affect your health or the health of plants and animals. They have not recommended the general public take steps to limit their everyday exposure to EMF.

AltaLink will ensure any problems caused by interference from our facilities are corrected and all applicable guidelines are met.

## Where can you find EMF?

- Earth's magnetic field
- Electric facilities
- Appliances
- Building wiring

## Common questions around electrical effects include:

- TV/Radio Interference (TVI/RFI)
- Global Positioning Systems (GPS)
- Wireless internet interference
- Cardiac pacemakers
- Audible noise
- Building and fence induction
- Stray voltage

# Public Consultation

Your involvement is important to us and we will work with you to ensure your concerns and questions are understood and addressed.

Who can you contact for more information?

**AltaLink's Community Consultation:**

1-877-380-0303 (toll-free)  
stakeholderrelations@altalink.ca

**Alberta Electric System Operator (AESO)**

1-888-866-2959 (toll-free)  
stakeholder.relations@aeso.ca

**Alberta Utilities Commission (AUC)**

1-780-427-4903 (you can call toll-free  
by dialing 310-0000 before the number)  
utilitiesconcerns@auc.ab.ca

To learn more about AltaLink visit [www.altalink.ca](http://www.altalink.ca).

To learn more about this project visit  
[www.altalink.ca/regionalprojects](http://www.altalink.ca/regionalprojects) or please contact us  
at the information listed below:

**ALTALINK**

2611 – 3rd Avenue SE  
Calgary, Alberta T2A 7W7  
Phone: 1-877-380-0303 (toll-free)

Thank you!

**ALTALINK**