APPENDIX C PARTICIPANT INVOLVEMENT PROGRAM (PIP)

1.0 Participant Involvement Program (PIP)

From September 2014 to April 2017, the AESO conducted a Participant Involvement Program (PIP) to assist in preparing its *ATCO Power Heartland Generating Station Connection Needs Identification Document* (NID). The AESO directed the transmission facility owner (TFO), in this case AltaLink Management Ltd. (AltaLink), in its capacity as general partner of AltaLink, L.P., to assist the AESO in providing notification as part of the AESO's PIP.

The AESO's PIP has been conducted in accordance with the requirements of Section 6.2.1, NID19 and Appendix A2 of the current Alberta Utilities Commission (Commission) Rule 007, effective February 1, 2016.

1.1 Stakeholder Notification

The AESO's PIP was designed to notify the parties notified in the TFO's PIP, including but not limited to:

i. occupants, landowners or residents;
ii. local authorities, agencies and government which have responsibilities related to electric transmission line development;
iii. First Nations and Métis; and
iv. market participants

(collectively, Stakeholders).

The AESO did not identify any other parties outside of the TFO's PIP that required notification.

The AESO developed three *Transmission Development Information for Stakeholders* documents (Need Overviews) that notified Stakeholders of the following items:

- a description of the need for development;
- a description of the AESO's preferred option to respond to the system access service request;
- identification of the general area where facilities could be installed to implement the AESO's preferred option to respond to the system access service request;
- the AESO's contact information, including telephone, email and website, for further information; and
- the AESO's next steps, including the AESO's intention to apply to the Commission for approval of the need.

A copy of the initial Need Overview (September 2014 Need Overview) was posted to the AESO website at https://www.aeso.ca/grid/projects/heartland-generating-station-interconnection/ on September 19, 2014, and a notice was published in the AESO Stakeholder Newsletter on September 23, 2014. The September 2014 Need Overview was also included with the TFO project-specific information packages that were distributed to Stakeholders between September 18, 2014 and February 10, 2015.

After the September 2014 Need Overview was distributed, the estimated NID filing date changed. An updated version of the Need Overview (December 2015 Need Overview) was posted on the AESO website at https://www.aeso.ca/grid/projects/heartland-generating-station-interconnection/ on March 30, 2016 and a notice was published in the AESO Stakeholder Newsletter on March 31, 2016. The December 2015 Need Overview was also included with the TFO's project-specific information packages that were distributed to Stakeholders between December 1, 2015 and October 6, 2016.

After the December 2015 Need Overview was distributed, the customer's plans for Phase 2 of its generation facility were cancelled. This resulted in a change to the facilities included in the AESO's preferred option to respond to the system access service request. An updated version of the Need Overview (September 2016 Need Overview) was posted on the AESO website at https://www.aeso.ca/grid/projects/heartland-generating-station-interconnection/ on October 12, 2016 and a notice was published in the AESO Stakeholder Newsletter on October 13, 2016. The September 2016 Need Overview was also included with the TFO's project-specific information packages that were distributed to Stakeholders between October 7, 2016 and March 13, 2017.

Copies of the Need Overviews and the AESO Stakeholder Newsletter notices have been included as Attachments 1 and 2, respectively.

The notified Stakeholders included the following interested parties.

- 11 private occupants, landowners or residents
- Access Pipeline Inc.
- Air Products Canada Ltd.
- Alberta Culture and Tourism
- Alberta Energy Regulator (AER)
- Alberta Environment and Parks (AEP)
- Alberta Transportation
- Alberta's Industrial Heartland Association
- ATCO Energy Solutions Ltd.
- ATCO Gas Ltd.
- ATCO Investments Ltd.
- ATCO Pipelines Ltd.
- ATCO Power Canada Inc.
- AUX Sable Canada Ltd.
- Battle River Power Coop
- Canadian National Railway Company

- Canadian Pacific Railway
- Enbridge Pipelines Inc.
- Fort Air Partnership
- FortisAlberta Inc.
- Gibson Energy ULC
- Imperial Oil Resources Ltd.
- Innovation, Science and Economic Development Canada
- Inter Pipeline Propelyne Ltd.
- John S. Batiuk Regional Water Commission
- Keyera Energy Ltd.
- Lamco Gas Co-Op Ltd.
- NAV Canada
- Northeast Capital Industrial Association
- NOVA Chemicals Corporation
- Pembina Marketing Ltd.
- Petrogas Energy Corp.
- Praxair Canada Corp.
- Shaw Cable Systems G.P.
- Shell Canada Limited
- Strathcona County
- Suncor Energy Inc.
- Tamarack Valley Energy
- Telus Communications
- TransCanada Pipelines Limited
- Transport Canada – Aerodromes and Air Navigation

Attachment 3 includes the TFO project newsletters, which were included in the four TFO's project-specific information packages that were distributed to stakeholders between September 2014 and March 2017. The TFO project newsletters included the AESO's contact information, a description of the AESO's role, and a reference to the relevant AESO Need Overview.

The TFO's project newsletters and the AESO Need Overviews were also posted on the TFO's project-specific webpage at http://www.altalink.ca/projects/view/21/atco-power-heartland-generating-stationinterconnection

1.2 Filing Notification

Most recently, the AESO notified Stakeholders of its intention to submit the NID to the Commission by posting a Notification of NID Filing to the AESO website at https://www.aeso.ca/grid/projects/heartland-generating-station-interconnection/ and publishing a notice in the AESO Stakeholder Newsletter on April 4, 2017. Copies of the Notification of NID Filing posting and the AESO Stakeholder Newsletter notice have been included as Attachments 4 and 5, respectively.

1.3 Responding to Questions and Concerns

To ensure that Stakeholders had the opportunity to provide feedback, the AESO provided Stakeholders with the AESO contact information, including a dedicated, toll-free telephone line (1-888-866-2959) and a dedicated email address (stakeholder.relations@aeso.ca). The AESO contact information, along with the AESO's mailing address (2500, 330 5th Ave. SW, Calgary) and website address (www.aeso.ca), and a privacy statement that described how the AESO is committed to protecting Stakeholders' privacy, were included in the AESO Need Overviews.

As directed by the AESO, the TFO was prepared to direct any Stakeholder questions addressed to the AESO, or questions regarding the AESO Need Overviews, to the AESO.

1.4 Concerns and Objections Raised

The TFO has advised that Stakeholders have not identified any concerns or objections with the need for development or the AESO's preferred option to respond to the system access service request. The AESO has not received any indication of concerns or objections from any party about the need for development or the AESO's preferred option to respond to the system access service request.

1.5 List of Attachments

- Attachment 1 – AESO Need Overviews (September 2014, December 2015, September 2016)
- Attachment 2 – AESO Stakeholder Newsletter Need Overview Notices (September 2014, March 2016, October 2016)
- Attachment 3 – TFO's Project Newsletters – *ATCO Power Heartland Generating Station Interconnection* Volumes 1-4 *(*September 2014, February 2015, November 2015, October 2016)
- Attachment 4 – AESO Public Notification of NID Filing (AESO Website Posting)
- Attachment 5 – AESO Stakeholder Newsletter NID Filing Notice

Attachment 1 – AESO Need Overviews

Need for the Heartland Generating Station Interconnection near the City of Fort Saskatchewan

Transmission Development Information for Stakeholders

ATCO Power (ATCO) has requested transmission system access for its proposed Heartland Generating Station Facility (Facility) near the city of Fort Saskatchewan. In response to this request, the Alberta Electric System Operator (AESO) has determined that this request can be addressed by building two new 240 kV transmission lines, of approximately 5 kilometres each, to connect ATCO Power's proposed Heartland Generating Station to the transmission system and modifying the existing Josephsburg 410S substation.

The AESO is processing ATCO's request, including providing information to landowners, occupants, residents and agencies that may be near the proposed transmission development. The AESO intends to apply to the Alberta Utilities Commission (AUC) for approval of this need in the summer of 2015. The AESO's needs identification document (NID) application will be available on the AESO's website at www.aeso.ca/transmission/8969.html at the time of its application to the AUC.

Who is the AESO?

Alberta's transmission system, sometimes referred to as the Alberta Interconnected Electric System (AIES), is planned and operated by the AESO. The transmission system comprises the high-voltage lines, towers and equipment (generally 69 kV and above) that transmit electricity from generators to lower voltage systems that distribute electricity to cities, towns, rural areas and large industrial customers.

The AESO's role is to maintain safe, reliable and economic operation of the AIES. The AESO's planning responsibility includes determining the need for transmission system development and the manner in which that need is met. The AESO is also mandated to facilitate the interconnection of qualified market participants to the AIES. The AESO is regulated by the AUC and must apply to the AUC for approval of its NID.

How is AltaLink involved?

AltaLink Management Ltd. (AltaLink) is the transmission facilities owner (TFO) in the Fort Saskatchewan area. While the AESO is responsible for identifying that transmission system development is needed, AltaLink is responsible for detailed siting and routing, constructing, operating and maintaining the associated transmission facilities. The AESO has directed AltaLink to provide information to stakeholders on this need and to file a facility proposal application with the AUC which will include a detailed description and location of the proposed transmission development.

Further Information

The AESO appreciates your views on the need for transmission system development and your comments are encouraged. If you have any questions or suggestions regarding the need for the proposed transmission system development in the Fort Saskatchewan area or the AESO's application regarding this need, please contact:

Marina Lakhani
AESO Stakeholder Relations
1-888-866-2959
stakeholder.relations@aeso.ca
2500, 330 – 5th Avenue SW
Calgary, Alberta T2P 0L4

The AESO is committed to protecting your personal privacy in accordance with Alberta's Personal Information Protection Act. Any personal information collected by the AESO with regard to this project may be used to provide you with further information about the project, may be disclosed to the Alberta Utilities Commission (and as a result, may become public), and may also be disclosed to AltaLink as the legal owners of transmission facilities in your area. If you have any questions about how the AESO will use and disclose your personal information, please contact us at 1-888-866-2959 or at stakeholder.relations@aeso.ca

2500, 330-5th Avenue SW, Calgary, Alberta T2P 0L4 Phone: 403-539-2450 Fax: 403-539-2949
www.aeso.ca www.poweringalberta.com

Need for the Heartland Generating Station Interconnection near the City of Fort Saskatchewan

Transmission Development Information for Stakeholders

Stakeholder Update

ATCO Power (ATCO) has requested transmission system access for its proposed Heartland Generating Station Facility (Facility) near the city of Fort Saskatchewan. In response to this request, the Alberta Electric System Operator (AESO) has determined that this request can be addressed by building two new 240 kV transmission lines, of approximately five kilometres each, to connect ATCO Power's proposed Heartland Generating Station to the transmission system and modifying the existing Josephsburg 410S substation.

The AESO is processing ATCO's request, including providing information to landowners, occupants, residents and agencies that may be near the proposed transmission development. The AESO intends to apply to the Alberta Utilities Commission (AUC) for approval of this need in the summer of 2016. The AESO's needs identification document (NID) application will be available on the AESO's website at www.aeso.ca/nid at the time of its application to the AUC.

Who is the AESO?

Alberta's transmission system, sometimes referred to as the Alberta Interconnected Electric System (AIES), is planned and operated by the AESO. The transmission system comprises the high-voltage lines, towers and equipment (generally 69 kV and above) that transmit electricity from generators to lower voltage systems that distribute electricity to cities, towns, rural areas and large industrial customers.

The AESO's role is to maintain safe, reliable and economic operation of the AIES. The AESO's planning responsibility includes determining the need for transmission system development and the manner in which that need is met. The AESO is also mandated to facilitate the interconnection of qualified market participants to the AIES. The AESO is regulated by the AUC and must apply to the AUC for approval of its NID.

How is AltaLink involved?

AltaLink Management Ltd. (AltaLink) is the transmission facilities owner (TFO) in the Fort Saskatchewan area. While the AESO is responsible for identifying that transmission system development is needed, AltaLink is responsible for detailed siting and routing, constructing, operating and maintaining the associated transmission facilities. The AESO has directed AltaLink to provide information to stakeholders on this need and to file a facility proposal application with the AUC which will include a detailed description and location of the proposed transmission development.

Further Information

The AESO appreciates your views on the need for transmission system development and your comments are encouraged. If you have any questions or suggestions regarding the need for the proposed transmission system development in the Fort Saskatchewan area or the AESO's application regarding this need, please contact:

Susan Haider
AESO Stakeholder Relations
1-888-866-2959
stakeholder.relations@aeso.ca
2500, 330 – 5th Avenue SW
Calgary, Alberta T2P 0L4

The AESO is committed to protecting your privacy. Your feedback, comments and/or contact information collected by the AESO will be used to respond to your inquiries and/or to provide you with further information about the project. The AESO will not use your personal information for any other purpose and will not disclose your information without consent or a legal obligation. If you choose to communicate by email, please note, email is not a secure form of communication. Security of your communication while in transit cannot be guaranteed.

2500, 330-5th Avenue SW, Calgary, Alberta T2P 0L4 Phone: 403-539-2450 Fax: 403-539-2949
www.aeso.ca www.poweringalberta.com

Need for the Heartland Generating Station Interconnection near the City of Fort Saskatchewan

ATCO Power (ATCO) has requested transmission system access for its proposed Heartland Generating Station Facility (Facility) near the city of Fort Saskatchewan. ATCO's request can be met by the following solution:

PROPOSED SOLUTION

- One new 240 kV transmission line, approximately 5.5 kilometres long, to connect ATCO's proposed Heartland Generating Station to the transmission system
- Modifications to the existing Josephburg 410S substation

NEXT STEPS

- The AESO intends to apply to the Alberta Utilities Commission (AUC) for approval of the need in winter 2016/2017.
- The AESO's needs identification document (NID) application will be available on the AESO's website at **www.aeso.ca/grid/projects** at the time of its application to the AUC.

The following organizations have key roles and responsibilities in providing access to the transmission system:

THE AESO:

- Must plan the transmission system and enable access to it for generators and other qualified customers
- Is regulated by the AUC and must apply to the AUC for approval of its NID

ALTALINK MANAGEMENT LTD:

- Is the transmission facility owner in the Fort Saskatchewan area
- Is responsible for detailed siting and routing, constructing, operating and maintaining the associated transmission facilities
- Is regulated by the AUC and must apply to the AUC for approval of its transmission facilities applications

FAST FACT

Alberta's electric transmission system comprises the towers, wires and related equipment that are a part of moving electricity from where it is generated to where it is used.

CONTACT US

We appreciate your views, both on the need for transmission system development and proposed transmission plans. If you have any questions or comments, please contact us directly.

Alberta Electric System Operator
Jennifer Vollmer
AESO Stakeholder Relations

stakeholder.relations@aeso.ca
1-888-866-2959

2500, 330-5th Avenue SW
Calgary, AB T2P 0L4
Phone: 403-539-2450
Fax: 403-539-2949

www.aeso.ca
www.poweringalberta.ca
@theaeso

WHO IS THE AESO?

The Alberta Electric System Operator (AESO) is a not-for-profit organization with no financial interest or investment of any kind in the power industry. We plan and operate Alberta's electricity grid and wholesale electricity market safely, reliably and in the public interest of all Albertans.

Attachment 2 – AESO Stakeholder Newsletter Need Overview Notices

Heartland Generating Station Interconnection – Need for Transmission System Development near the City of Fort Saskatchewan

On September 19, 2014 the AESO posted a Need Overview for the Heartland Generating Station Interconnection. Please click here to view the document or visit the AESO website at www.aeso.ca and follow the path Transmission > Needs Identification Documents > Heartland Generating Station Interconnection

Stakeholder Update: Heartland Generating Station Interconnection – Need for Transmission System Development near the City of Fort Saskatchewan

ATCO Power has requested transmission system access for its proposed Heartland Generating Station Facility (Facility) near the city of Fort Saskatchewan. The AESO has determined that this request can be addressed by building two new 240 kV transmission lines, of approximately five kilometres each, to connect ATCO's proposed Heartland Generating Station to the transmission system and by modifying the existing Josephburg 410S substation.

The AESO has posted an updated Need Overview for this project on its website. Please click here to view the document or visit the AESO website at www.aeso.ca and follow the path Transmission > Needs Identification Documents > Heartland Generating Station Interconnection.

Stakeholder Update: Need for the Heartland Generating Station Interconnection – Need for Transmission System Development in the Fort Saskatchewan area

ATCO Power (ATCO) has requested transmission system access for its proposed Heartland Generating Station Facility (Facility) near the city of Fort Saskatchewan. In response to this request, the Alberta Electric System Operator (AESO) has determined that this request can be addressed by building one new 240 kV transmission line, approximately 5.5 kilometres long, to connect ATCO Power's proposed Heartland Generating Station to the transmission system and modifying the existing Josephburg 410S substation.

The AESO has posted a Need Overview for this project on its website. Please click here to view the document or visit the AESO website at www.aeso.ca and follow the path Grid > Projects > Heartland Generating Station Interconnection.

Attachment 3 – TFO's Project Newsletters

ALTALINK

September 2014

Electric system improvements near you

ATCO Power Heartland Generating Station Interconnection

DID YOU KNOW?

According to the Alberta Electric System Operator, Alberta's economy is forecast to be the fastest growing in Canada with an average annual Gross domestic product (GDP) growth rate of 2.7 per cent until 2032. New transmission infrastructure will support Alberta's economic growth now and into the future.

You are receiving this newsletter because you are near the proposed ATCO Heartland Generating Station Interconnection and we want your input.

New **transmission** lines are required to connect ATCO Power's proposed Heartland Generating Station to Alberta's electric system. Connecting this generating facility to the grid means an additional source of power to meet Alberta's growing demand.

You may have previously received information from ATCO Power about its proposed Heartland Generating Station Project. Please contact ATCO Power directly for more information about their project. ATCO Power's contact information is included on the back page of this newsletter.

We are providing you with:

- project details
- a maps of the potential transmission line route
- information about how you can provide your input
- the project schedule

DEFINITION

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 including wind, high-efficiency coal, natural gas and more.

CONTACT US

1-877-267-1453
stakeholderrelations@altalink.ca

Visit us online at
www.altalink.ca/regionalprojects

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.

About the ATCO Heartland Generating Station

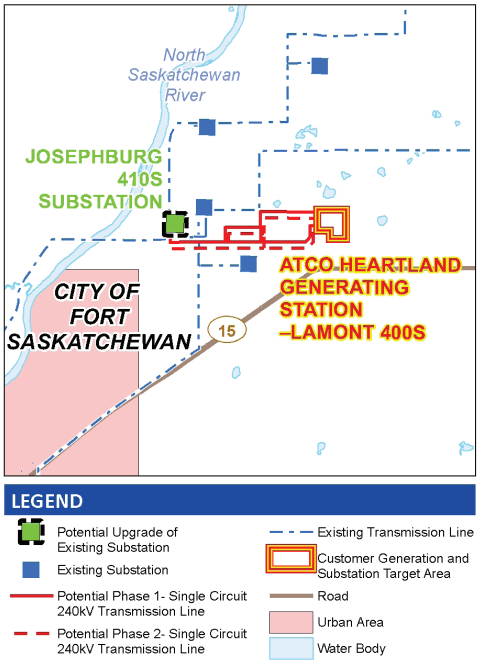
ATCO Power is proposing to build and operate a nominal 400 megawatt (MW) natural gas-fired power generation station called the Heartland Generating Station in Strathcona County. The station will use clean and efficient natural gas-fired combined cycle technology that will produce enough electricity for approximately 400,000 homes in Alberta.

With Alberta's power demand forecast to increase by over 50% by 2022, and a retiring coal-fired power fleet, Alberta will need to build 7,000 MW over the next 10 years to be sure the province can continue to power our homes and the economy. Completing this project will provide Alberta's electric grid with a new source of power that will support industrial and residential growth across the province.

The Alberta Utilities Commission approved ATCO Power's facility application for phase one of this generating station on September 3, 2014. The application for phase two is expected to be submitted in 2015.

ATCO Power Heartland Generating Station Interconnection

AltaLink's proposed project involves constructing two new transmission lines to connect ATCO Power's proposed Heartland Generating Station (in NW-27-55-21-W4) to the electric grid. The project is located approximately 2 kilometres (one mile) northeast of the City of Fort Saskatchewan in Strathcona County. Please see the attached maps (DP1 and DB1) for location details.



Project details

The project will include:

- constructing two single-circuit 240 kV (**kilovolt**) transmission lines to connect the substation at the ATCO Heartland Generating Station (named Lamont 400S) to the existing Josephburg 410S Substation
- a fenceline expansion within AltaLink's existing property boundary at the Josephburg 410S Substation
- adding three new **circuit breakers** and associated equipment to the Josephburg 410S Substation
- substation upgrades

This potential transmission line project is proposed to be completed in two phases. The initial phase will service phase one of ATCO Power's Heartland Generating Station, and the second phase will service phase two of the Heartland Generating Station. Anticipated schedules for both phases are included in the *Next steps* section of this newsletter. Preliminary route options for both phases are shown on the attached maps (DP1 and DB1).

PHASE ONE INVOLVES:

- constructing a new approximately 4.5 kilometre (2.8 mile) 240 kV transmission line (to be named 1181L) to connect ATCO's Lamont 400S Substation to the Josephburg 410S Substation
- expanding the western fenceline of the Josephburg 410S Substation within AltaLink's existing property boundary
- adding two new circuit breakers to the Josephburg 410S Substation
- adding new equipment (including a 240 kV cross bus) and modifying existing equipment at the Josephburg 410S Substation to accommodate the new transmission line connections

PHASE TWO INVOLVES:

- constructing a second 240kV transmission line (to be named 1182L), approximately 4.5 kilometres (2.8 miles) long to connect ATCO's Lamont 400S substation to the Josephburg 410S Substation
- adding one new circuit breaker to the Josephburg 410S Substation

We will provide additional transmission line details for the Heartland Generating Station Interconnection (located in NW-27-55-21-W4) during the second round of stakeholder consultation that will occur after the first round is complete.

DEFINITION

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.

DEFINITION

Circuit Breaker

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

DEFINITION

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.

A typical single-circuit 240 kV wooden H-frame structure

Structure information

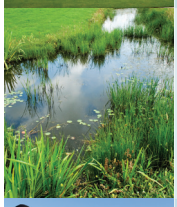
An example of the typical structure type proposed for the new transmission lines is pictured to the left.

The typical structures will:

- be single-circuit 240 kV
- be wooden H-frame structures
- have a height of approximately 20 to 30 metres (66 to 98 feet)
- have a width of approximately 12 to 14 metres (39 to 46 feet)
- have a **right-of-way** width of approximately 55 metres (180 feet) when both lines are constructed side by side (as shown on the attached maps). If the lines are not constructed side by side, each will require an independent right-of-way of approximately 35 metres (115 feet)
- have an optical ground wire strung on the structures to provide telecommunications capabilities

Route selection

Prior to consultation with stakeholders, AltaLink performs a desktop analysis within a defined study area to identify a number of preliminary route options. Routes are then field verified to validate the desktop information. When identifying route options, AltaLink takes several factors into consideration in an effort to find routes with a low overall impact. Where possible, the identified route options (as shown on the attached maps) parallel existing linear developments, such as pipelines and roads, to reduce potential impacts and land fragmentation. Overall, the factors we take into consideration include agricultural impacts, residential impacts, environmental impacts, electrical considerations, cost, visual impacts and special considerations.

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.

If both phases of the ATCO Heartland Generating Station Interconnection project are approved, two transmission lines will be constructed. These transmission lines may run parallel to each other or diverge at certain points along the route. Please see the attached maps for details on the potential route options.

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.

DEFINITION

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.

DEFINITION

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 HYPERLINK "http://www.aeso.ca"www.aeso.ca. If you have any questions or concerns about the need for this project you may contact the AESO directly.

Providing your input

We will contact landowners, residents and occupants near the proposed transmission line project to gather input and address questions or concerns.

After the consultation process is complete we will file an application with the **Alberta Utilities Commission** (AUC). The AUC will review the application through a process in which stakeholders can participate.

We will notify stakeholders when we file the application and again once the AUC has reached a decision about the project. 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*.

Next steps

The **Alberta Electric System Operator** (AESO) determined this transmission system development is needed and will file a Needs 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 Needs Application and the Facilities Application at the same time 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.

First round of consultation with stakeholders	September 2014
Second round of consultation with stakeholders	March – May 2015
File application with Alberta Utilities Commission (AUC)	August 2015
Start phase one construction	January 2016
Phase one construction completed	September 2016
Start phase two construction	Fall 2017
Phase two construction completed	Spring 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 if required as the project progresses.

Electric and Magnetic Fields

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 phone number: 1-866-451-7817

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
Bannerman Substation and Transmission Line Project	This project involves a new substation and transmission line in the Redwater area to connect the North West Sturgeon Refinery to the electric system.	Approved by the AUC
Maxim Deerland Peaking Station	This project involves adding a new circuit breaker in the Deerland 13S Substation and constructing a short transmission line.	Public consultation underway
Amelia 108S Substation Upgrade	This project involves another phase of upgrades to the Amelia Substation in the Fort Saskatchewan area.	Public consultation underway
Shell Scotford 409S Substation Upgrade	This project involves adding a 138kV transformer and associated equipment to the Shell Scotford 409S Substation in the Fort Saskatchewan area.	Public consultation underway

DID YOU KNOW

According to the Canadian Electricity Association, Canada's electricity grid was built for a population of about 20 million, but is today servicing around 35 million people. Provinces across Canada, including Alberta, are working to reinforce their aging electric systems so they can continue to provide customers with reliable power.

INCLUDED IN THIS INFORMATION PACKAGE:

- Project maps
- AESO Need Overview
- AUC brochure: *Public Involvement in Needs or facilities applications*

Contact us

To learn more about the proposed ATCO Heartland Generating Station Interconnection, please contact:

AltaLink
1-877-267-5903 (toll-free)
E-mail: stakeholderrelations@altalink.ca
Website: www.altalink.ca/regionalprojects

To learn more about the ATCO Power's Heartland Generating Station, please contact:

ATCO Power
David Carmichael, Business Development Director
403-209-6977
Email: David.Carmichael@atcopower.com
Website: http://www.atcopower.com/Projects/Heartland/

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)
E-mail: 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 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.

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.)
E-mail: utilitiesconcerns@auc.ab.ca

ALTALINK
2611 - 3rd Avenue SE
Calgary, Alberta T2A 7W7

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ALTALINK
A BERKSHIRE HATHAWAY ENERGY COMPANY

February 2015

Electric system improvements near you

ATCO Power Heartland Generating Station Interconnection

DID YOU KNOW?

According to the Alberta Electric System Operator, Alberta's economy is forecast to be the fastest growing in Canada with an average annual Gross domestic product (GDP) growth rate of 2.7 per cent until 2032. New transmission infrastructure will support Alberta's economic growth now and into the future.

You are receiving this newsletter because you are near the proposed ATCO Heartland Generating Station Interconnection and we want to provide you with an update.

New **transmission** lines are required to connect ATCO Power's Heartland Generating Station to Alberta's electric system. Connecting this generating facility to the grid means an additional source of power to meet Alberta's growing demand.

We have completed the first stage of consultation regarding the ATCO Heartland Generating Station Interconnection. During our first round of consultation we gathered valuable feedback from stakeholders that helped us refine our preliminary route options. This newsletter is to provide you with a project update and information about next steps.

If you have questions or concerns about ATCO's Heartland Generating Station project, please contact ATCO directly for more information. Their contact information is on the back of this newsletter.

We are providing you with:

- project details regarding the preferred route and route variant
- maps of the proposed project sites
- information about how you can provide your input
- the project schedule

DEFINITION

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 including wind, high-efficiency coal, natural gas and more.

CONTACT US

1-877-267-1453
stakeholderrelations@altalink.ca

Visit us online at
www.altalink.ca/regionalprojects

DEFINITION

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.

DEFINITION

Circuit Breaker

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

DEFINITION

Alberta Utilities Commission

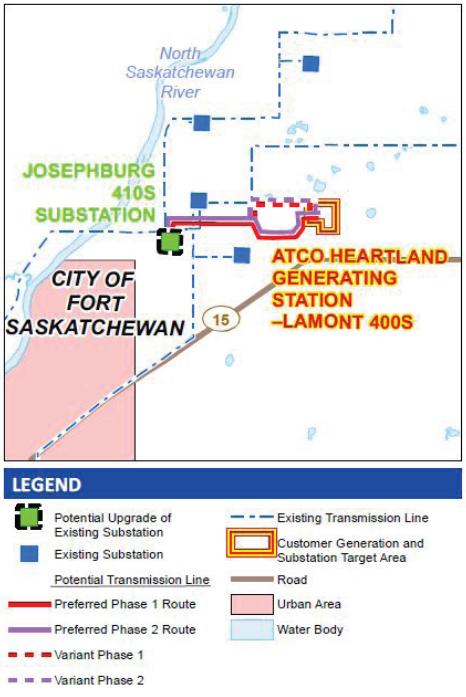
The Alberta Utilities Commission (AUC) ensures the fair and responsible delivery of Alberta's utility services. AltaLink submits applications for new transmission projects to the AUC and the AUC reviews them in a public process.

Project details

The ATCO Heartland Generating Station Interconnection Project is located approximately two kilometres (one mile) northeast of the City of Fort Saskatchewan boundaries in Strathcona County (NW-30-55-21-W4). Refer to the included maps for location details. The project will include:

- constructing two single-circuit 240 kV (**kilovolt**) transmission lines to connect the substation at the ATCO Heartland Generating Station (named Lamont 400S) to the existing Josephburg Substation
- a fenceline expansion within AltaLink's existing property boundary at the Josephburg Substation
- adding three new **circuit breakers** and associated equipment to the Josephburg Substation
- installation of underground and overhead fibre optic cables
- substation upgrades

In an effort to determine a route with a low overall impact, we have revised and refined our route options from the previous newsletter. We have identified a potential preferred route option, shown in solid red and purple on the map below, and one variant route shown by a dashed red and purple line to include in our Facilities Application to the **Alberta Utilities Commission**.



Construction Phases

This transmission line project is proposed to be completed in two phases. The initial phase will service phase one of ATCO Power's Heartland Generating Station, and the second phase will service Phase Two of the Heartland Generating Station. Anticipated schedules for both phases are included in the Next steps section of this newsletter. The potential route options for the phases are shown on the attached maps (DP1, DB1, FP1-DP1 and FP2-DP1).

PHASE ONE INVOLVES:

- constructing a new approximately 4.5 kilometre (2.8 mile) 240 kV transmission line (to be named 1181L) to connect ATCO's Lamont 400S Substation to the Josephburg Substation
- expanding the western fenceline of the Josephburg Substation within AltaLink's existing property boundary
- adding two new circuit breakers to the Josephburg Substation
- adding new equipment (including a 240 kV cross bus) and
- modifying existing equipment at the Josephburg Substation to accommodate the new transmission line connections

PHASE TWO INVOLVES:

- constructing a second 240kV transmission line (to be named 1182L), approximately 4.5 kilometres (2.8 miles) long to connect ATCO's Lamont 400S Substation to the Josephburg Substation
- adding one new circuit breaker to the Josephburg Substation

If the ATCO Heartland Generating Station Interconnection project is approved, two transmission lines will be constructed. After consulting with stakeholders, a preferred route option and route variant has been selected. Please see the attached maps for details on these routes.

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.

PRIVACY COMMITMENT

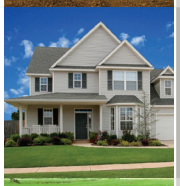
AltaLink is committed to protecting your privacy. Your personal information is collected and will be protected under AltaLink's Privacy Policy and the Freedom of Information and Protection of Privacy Act. As part of the regulatory process for new transmission projects, AltaLink may provide your personal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

Route selection

Following AltaLink's first round of consultation, we have used the input gathered from stakeholders, along with information from field studies and constructability analysis, to refine our preliminary route options.

When identifying route options, AltaLink takes several factors into consideration in an effort to find routes with a low overall impact. Some of the factors we take into consideration are included in the table below.

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.

DID YOU KNOW?

Alberta marked a new peak electricity demand record in December 2014 as residents across the province turned to the power grid to beat the cold. The transmission system works behind the scenes 24 hours a day so your comfort is uncompromised despite the heat of summer or the chill of winter.

Preferred and variant route options

In the previous ATCO Heartland Station Interconnection project newsletter you may have received in September 2014, we provided two potential routes for transmission lines 1181L and 1182L. From September 2014 to January 2015, AltaLink consulted with stakeholders regarding these potential route options to identify routes with a low overall impact.

On the maps included with this package, Phase One of the preferred route is identified in red and a route variant of the preferred route is indicated by a dashed red line. Phase Two of the preferred route is identified in purple and a route variant is indicated by a dashed purple line.

After evaluating the initial routes and considering the input we received from stakeholders, we have identified the preferred route to be a combination of the potential route options. The preferred route starts at the Josephburg Substation and follows point designations A5/B5, A10/B10, A18/D18, A32/D32, A38/D38, A46/D46 and A52/D52. While the variant routes start at the Josephburg Substation and follows designation points A5/B5, A10/B10, B18/C18, B28/C28, B40/C40, B60/C60. Both route options terminate at the Lamont 400S Substation on ATCO Power's property.

In the previous project newsletter, both routes terminated on the south side of the Josephburg Substation. After consulting with stakeholders, a new north termination of the transmission lines into the Josephburg Substation and an associated route segment (Josephburg Substation to A10/B10 on the included maps) has been introduced to address stakeholder concerns and reduce the need for additional deadend structures.

Please note that from point designation A52/D52 into the Lamont 400S Substation, a 163 metre (535 foot) right-of-way will be required to terminate the lines into the Lamont 400S Substation on ATCO Power's property.

AltaLink will be required to complete additional transmission line work at the Josephburg Substation to accommodate the north transmission line connections for Phase One and Phase Two. All line rework will be within the existing Josephburg Substation land parcel, and will not require an expansion of the Josephburg Substation property. However, an expansion of the substation fence line will be required.

Please refer to the project maps included in this package to view the preferred and variant routes. The grey dashed lines represent routes that are no longer being considered. For details on the structure types that will be used, please refer to Typical Structure Information sheet.

Right-of-way access, material storage and guy anchor boxes

AltaLink has identified access trails along the proposed routes that will be used to bring equipment and materials to the construction areas. Access trails are required in areas where access may be limited for a number of reasons, including ditches or coulees that make driving along the right-of-way impractical. Undeveloped road allowances may be used as access trails.

Two temporary workspace locations have also been identified and will be used to store transmission line materials and substation equipment during construction. Where a guyed structure is identified, additional land space may be required for the guy anchors. Access trails and additional land requirements are shown on the included focus photo maps (FP1 and FP2).

Providing your input

We will contact landowners, residents and occupants near the proposed transmission line project to gather input and address questions or concerns.

After this round of consultation is complete we will file an application with the AUC. The AUC will review the application through a process in which stakeholders can participate.

Both the preferred route option and the route variant of Phase One and Phase Two will be included in our application to the Alberta Utilities Commission (AUC). The AUC ensures the fair and responsible delivery of Alberta's utility services and will make a decision about whether the project is approved, and if the project is approved, which route option will be built.

We will notify stakeholders when we file the application and again once the AUC has reached a decision about the project. 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*.

Next steps

The **Alberta Electric System Operator** determined this transmission system development is needed and will file a Needs 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 Needs Application and the Facilities Application at the same time 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.

Second round of consultation with stakeholders	March – May 2015
File application with Alberta Utilities Commission	August 2015
Start phase one construction	January 2016
Start phase two construction	Fall 2016
Phase two construction completed	Spring 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 if required as the project progresses.

DEFINITION

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 HYPERLINK "http://www.aeso.ca"www.aeso.ca. If you have any questions or concerns about the need for this project you may contact the AESO directly.

About the ATCO Heartland Generating Station

ATCO Power is proposing to build and operate a 400 megawatt (MW) natural gas-fired power generation station called the Heartland Generating Station in Strathcona County . The station will use clean and efficient natural gasfired combined cycle technology that will produce enough electricity for approximately 400,000 homes in Alberta.

With Alberta's power demand forecast to increase by over 50% by 2022, and a retiring coal-fired power fleet, Alberta will need to build 7,000 MW over the next 10 years to be sure the province can continue to power our homes and the economy. Completing this project will provide Alberta's electric grid with a new source of power that will support industrial and residential growth across the province.

ATCO Power submitted a facility application to the Alberta Utilities Commission in December 2013. The application was approved in September 2014.

DID YOU KNOW

According to the Canadian Electricity Association, Canada's electricity grid was built for a population of about 20 million, but is today servicing around 35 million people. Provinces across Canada, including Alberta, are working to reinforce their aging electric systems so they can continue to provide customers with reliable power.

Electric and Magnetic Fields

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 phone number: 1-866-451-7817

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
Bannerman Substation and Transmission Line Project	**This project involves a new substation and transmission line in the Redwater area to connect the North West Sturgeon Refinery to the electric system.**	**Construction underway**
Maxim Deerland Peaking Station	**This project involves adding a new circuit breaker in the Deerland 13S Substation and constructing a short transmission line.**	**Project approved**
Amelia 108S Substation Upgrade	**This project involves another phase of upgrades to the Amelia Substation in the Fort Saskatchewan area.**	**Application filed**
Shell Scotford 409S Substation Upgrade	**This project involves adding a 138kV transformer and associated equipment to the Shell Scotford 409S substation in the Fort Saskatchewan area.**	**Project approved**

INCLUDED IN THIS INFORMATION PACKAGE:

- Project maps
- AUC brochure: *Public Involvement in Needs or facilities applications*
- Typical Structure Information sheet

Contact us

To learn more about the proposed ATCO Heartland Generating Station Interconnection, please contact:

AltaLink
1-877-267-1453 (toll-free)
E-mail: stakeholderrelations@altalink.ca
Website: www.altalink.ca/regionalprojects

To learn more about the ATCO Power's Heartland Generating Station, please contact:

ATCO Power
403-209-6951
Email: heartland@atcopower.com
Website: http://www.atcopower.com/Projects/Heartland/

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)
E-mail: stakeholder.relations@aeso.ca

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ALTALINK
A BERKSHIRE HATHAWAY ENERGY COMPANY

November 2015
Volume 3

Electric system improvements near you

ATCO Power Heartland Generating Station Interconnection

DID YOU KNOW?

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We are providing you with an update regarding the ATCO Power Heartland Generating Station Interconnection.

Using stakeholder input gathered during our first and second rounds of consultation, we have refined our routes for the proposed **transmission** lines.

As a follow-up to the second round of consultation on the ATCO Power Heartland Generating Station Interconnection, we are providing you with:

- project details regarding the preferred route and route variant
- maps of the proposed project sites
- information about how you can provide your input
- the project schedule

What progress have we made?

The feedback gathered from stakeholders during one on one consultation, along with results from field work, preliminary engineering and further analysis, have been used to refine the route options for the project. AltaLink is planning to file a facility application with the **Alberta Utilities Commission (AUC)** in April 2016. The routes and project details are described in this information package.

DEFINITION

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 including wind, high-efficiency coal, natural gas and more.

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.

CONTACT US

1-877-267-1453
stakeholderrelations@altalink.ca

Visit us online at
www.altalink.ca/regionalprojects

DEFINITION

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.

DEFINITION

Circuit Breaker

Circuit breakers are electrical switches inside a substation that protect substation equipment.

Circuit breakers help ensure the safety and reliability of the electric system.

Project details

New transmission lines are required to connect ATCO Power's Heartland Generating Station to Alberta's electric system. Connecting this generating facility to the grid means an additional source of power to meet Alberta's growing demand. The ATCO Power Heartland Generating Station Interconnection project is located approximately two kilometres (one mile) northeast of the City of Fort Saskatchewan in Strathcona County (NW-30-55-21-W4). With the addition of the new scope, the project will include:

- constructing two single-circuit 240 kV (kilovolt) transmission lines to connect the substation at the ATCO Power Heartland Generating Station (to be named Lamont 400S) to the existing Josephburg Substation
- dividing part of the existing 942L transmission line into two separate lines (942L and 1131L) and connecting them to the Josephburg Substation
- relocating the 997L transmission line into a new bay within the Josephburg Substation
- relocating the 1120L transmission line within the Josephburg Substation
- a fenceline expansion within AltaLink's existing property boundary at the Josephburg Substation
- adding five new 240 kV circuit breakers and associated equipment to the Josephburg Substation
- installation of underground and overhead fibre optic cables along the transmission line rights-of-way
- modifying existing transmission lines in the project area to accommodate crossings
- salvaging structures to accommodate the relocation of transmission lines at the Josephburg Substation

New scope

Since the previous project newsletter was distributed in February 2015, the Alberta Electric System Operator (AESO) has determined that the existing 942L transmission line will be required to connect to the Josephburg **Substation** via two short transmission lines (to be named 942L and 1131L). As a result of the new scope, additional **circuit breakers** will be required and some of the existing transmission lines will need to be relocated within the Josephburg Substation parcel boundaries. For details on the proposed work at the Josephburg Substation related to this new scope, please refer to the included Side by Side Comparison Map (SSC1).

Telecommunications

Telecommunications equipment installations and upgrades are required as part of this project to ensure the safe and reliable operation of the transmission lines. AltaLink is proposing to install optical ground wire (OPGW) along the 1181L transmission line right-of-way between the Joesphburg Substation and ATCO Power's proposed Lamont 400S Substation during Phase 1 construction. Phase 2 will use the OPGW installed during Phase 1 for telecommunications. This wire will be used for power line protection and control, and to transmit operational data from the connected facilities through AltaLink's telecommunications system to the AESO.

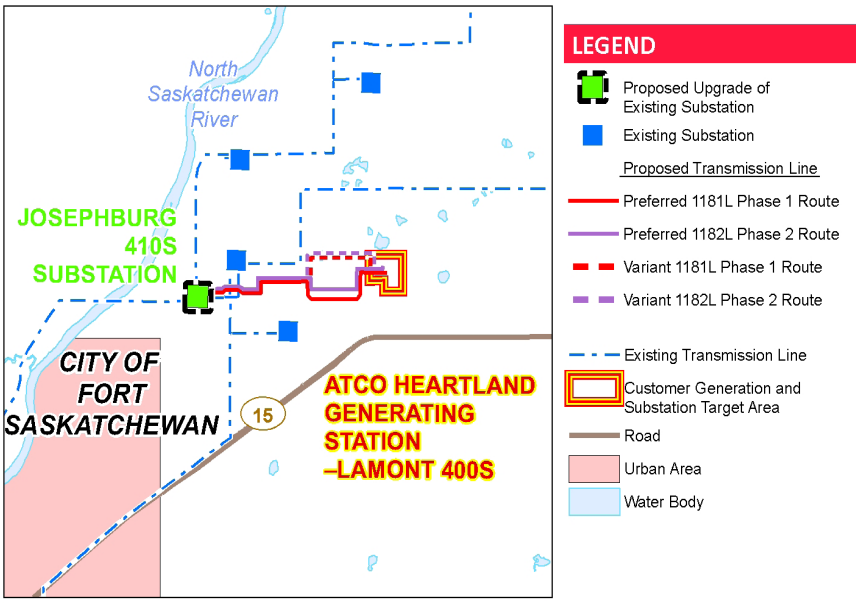
Reduced right-of-way width and new structure type

During the first and second round of consultation, landowners in the area suggested that we reduce the size of the right-of-way to minimize the overall footprint of the transmission line and preserve available land for future industrial development.

AltaLink is proposing to accommodate these requests and achieve a narrower right-of-way with a new steel monopole structure, instead of the previously proposed wooden H-frame structures. Please see the included *Typical Structure Information* sheet for structure details.

Using this new structure type reduces the required right-of-way width from approximately 55 metres (180 feet) to approximately 24 metres (80 feet) when both proposed lines (1181L and 1182L) are routed side by side. The right-of-way of each line will be approximately 12 metres (40 feet). The right-of-way for both Phase 1 and Phase 2 of the project will be acquired at the same time.

For visual details on the structure types that will be used, please refer to the *Typical Structure Information* sheet.



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- electrical appliances in your home
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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 phone number: 1-866-451-7817

Updates to 1181L (Phase 1) and 1182L (Phase 2) routes

AltaLink is proposing one preferred route with one route variant. Both routes are approximately 5.5 kilometres (3.4 miles)long and are composed of the structures listed on the included *Typical Structures Information* sheet. These routes have been refined based on consideration of site specific requests from landowners, long range industrial development plans, new linear infrastructure projects, existing infrastructure, further engineering analysis, constructability assessments and environmental surveys.

PREFERRED ROUTE:

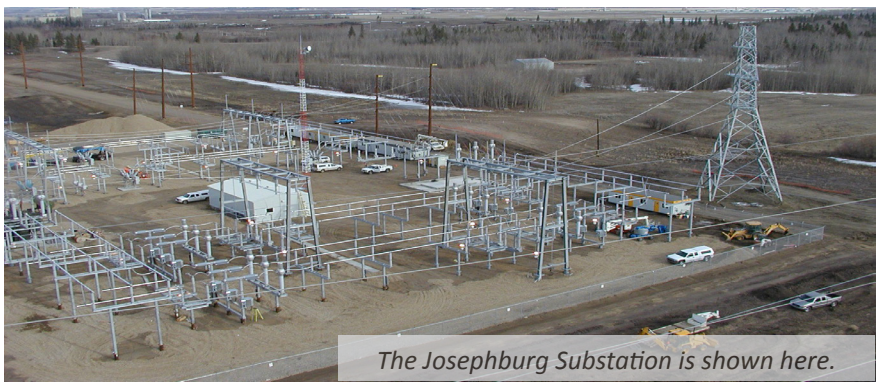
The following changes have been made to the preferred routing presented in the previous project information package:

- the positions of the Phase 1 (1181L) line and the Phase 2 (1182L) line have been switched (i.e. Phase 2 is now the northern line)
- the route has been split from point designation A25 to A44 and D25 to D44 to distribute impacts among two landowners
- between point designations A3/B3 and A8/B8, routing has been moved south to run directly adjacent to existing and future pipeline corridors
- between D50/A54 and the ATCO Heartland Generating Station (Lamont 400S), the transmission lines have been moved to avoid impacts to site development on NW-27-55-21-W4
- between A15/D15 and A25/D25, the transmission line routing has been moved west to run adjacent to pipelines and other linear infrastructure along Range Road 214

VARIANT ROUTE:

The following changes have been made to the variant routing presented in the previous project information package:

- the right-of-way between points B25/C25 and B38/C38 has been moved south to accommodate newly approved and planned pipelines
- the Phase 1 (1181L) and Phase 2 (1182L) lines have been reorganized to make access to construction sites safer and more efficient



The Josephburg Substation is shown here.

Construction Phases

This transmission line project is proposed to be completed in two phases. Anticipated schedules for both phases are included in the *Next Steps* section of this newsletter.

PHASE 1 INVOLVES:

- constructing one new 240 kV transmission line (to be named 1181L), approximately 5.5 kilometres (3.4 miles) long to connect ATCO's proposed Lamont 400S Substation to the Josephburg Substation
- adding one new circuit breaker to the Josephburg Substation
- modifying existing equipment at the Josephburg Substation to accommodate the new transmission line connections
- installing OPGW along 1181L transmission line right-of-way to provide telecommunications capabilities
- relocating the existing 1120L transmission line within the Josephburg Substation
- salvaging structure 807L28 and replacing it with a new structure
- salvaging structure 1120L28B and replacing it with a new structure
- lowering a portion of the 807L transmission line to accommodate the crossing of 1181L and 1182L
- removing the existing shield wire on 856L and 776L/857L to accommodate the crossing of 1181L and 1182L

PHASE 2 INVOLVES:

- constructing a second 240kV transmission line (to be named 1182L), approximately 5.5 kilometres (3.4 miles) long to connect ATCO's proposed Lamont 400S Substation to the Josephburg Substation
- expanding the western fence line of the Josephburg Substation within AltaLink's existing property boundary
- adding four new circuit breakers to the Josephburg Substation
- relocating the existing 1120L transmission line within the Josephburg Substation
- relocating the existing 997L transmission line within the Josephburg Substation
- constructing two short sections of transmission line to connect the existing 942L transmission line to the Josephburg Substation

The details for each phase are shown on the detail photo map included with this package.

Material storage and laydown areas, structure locations, temporary workspace, construction access is shown on the maps (FP1-DP1 and FP2-DP1) included in this package.

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Providing your input

Stakeholder input is critical to identifying a route with a low overall impact for this project. Any further input received will be considered and evaluated against the existing routes. A summary of stakeholder comments will be incorporated into the application we submit to the AUC. You can provide your input in any of the following ways. Your input is important to us.

CONTACT US DIRECTLY

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

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 routes and substation location 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.

Next steps and anticipated schedule

The **Alberta Electric System Operator** determined this transmission system development is needed and will file a Needs 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 Needs Application and the Facilities Application at the same time 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 a Proposed Utility Development.

Third round of consultation with stakeholders	November – December 2015
File application with Alberta Utilities Commission (AUC)	April 2016
Start Phase 1 construction	February 2018
Phase 1 construction completed	November 2018
Start Phase 2 construction	July 2019
Phase 2 construction completed	August 2020

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
Shell Scotford 409S Substation Upgrade	**This project involves adding a 138 kV transformer and associated equipment to the Shell Scotford 409S substation in the Fort Saskatchewan area.**	**Construction underway**

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.

INCLUDED IN THIS INFORMATION PACKAGE:

- Project maps
- AUC brochure: *Public Involvement in a Proposed Utility Development*
- *Typical Structure Information* sheet
- Need Overview

Contact us

To learn more about the proposed ATCO Power Heartland Generating Station Interconnection, please contact:

AltaLink
1-877-267-1453 (toll-free)
E-mail: stakeholderrelations@altalink.ca
Website: www.altalink.ca/regionalprojects

To learn more about the ATCO Power's Heartland Generating Station, please contact:

ATCO Power
403-209-6951
Email: heartland@atcopower.com
Website: http://www.atcopower.com/Projects/Heartland/

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)
E-mail: stakeholder.relations@aeso.ca

The 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. You can also make your questions or 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 my include disclosure of your personal information to the AESO.

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.)
E-mail: utilitiesconcerns@auc.ab.ca

ALTALINK
A BERKSHIRE HATHAWAY ENERGY COMPANY

2611 - 3rd Avenue SE
Calgary, Alberta T2A 7W7

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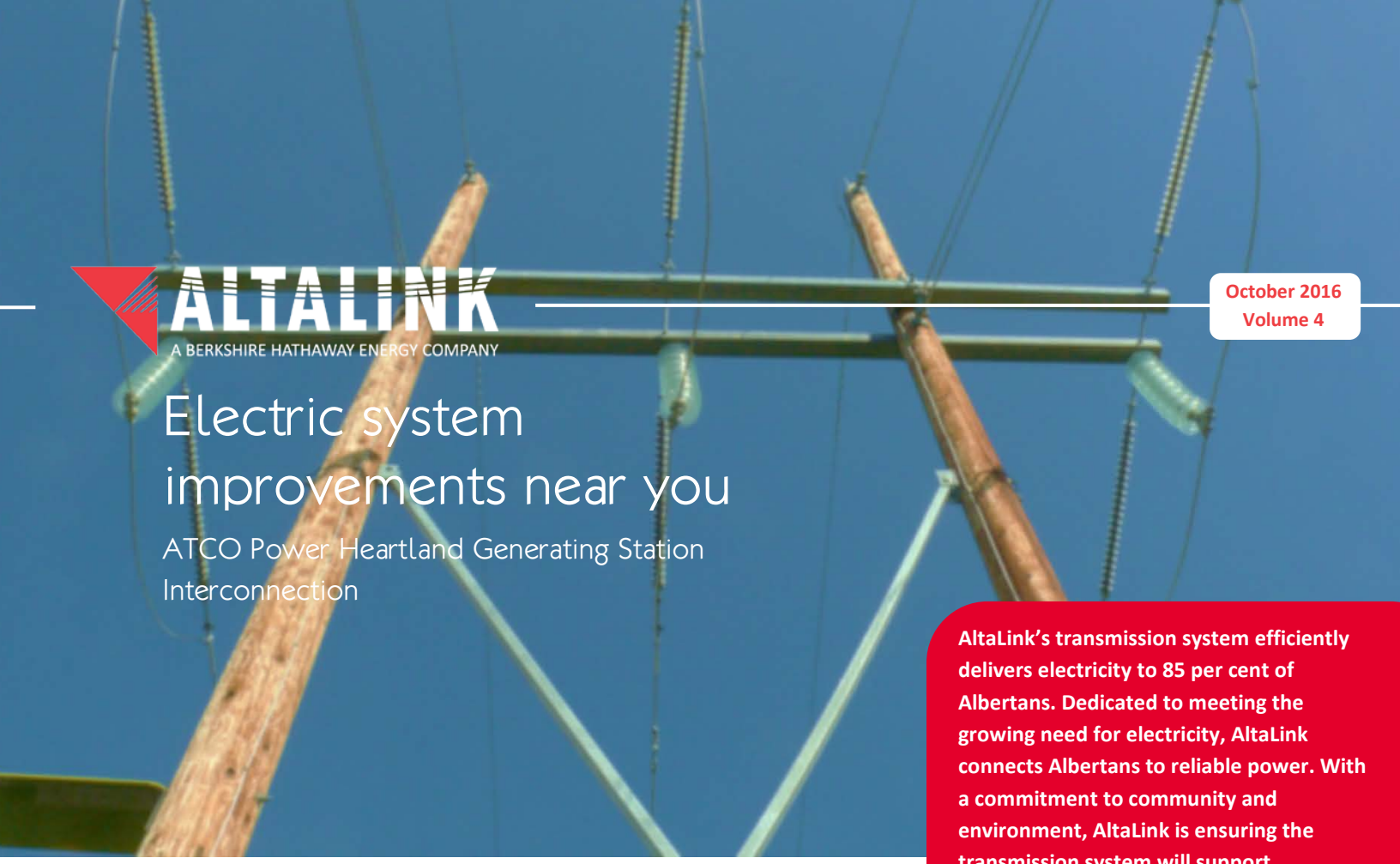


ALTALINK
A BERKSHIRE HATHAWAY ENERGY COMPANY

October 2016
Volume 4

Electric system improvements near you

ATCO Power Heartland Generating Station Interconnection

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 reliable 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 providing you with an update regarding the ATCO Power Heartland Generating Station Interconnection.

Project update

In AltaLink's November 2015 project newsletter, we stated that AltaLink would be building two **transmission** lines to connect Phase 1 and Phase 2 of ATCO Power's Heartland Generating Station to the electric system. At this time, ATCO Power has chosen not to move forward with Phase 2 of its proposed Heartland Generating Station. As a result, AltaLink is proposing to build one transmission line to connect Phase 1 of ATCO Power's Heartland Generating Station to the electric system.

Using stakeholder input gathered during three rounds of consultation and due to changes in scope of the project, we have refined our route for the proposed transmission line. We are providing you with:

- project details regarding the preferred route and preferred route variant
- maps of the proposed project sites
- information about how you can provide your input
- the project schedule

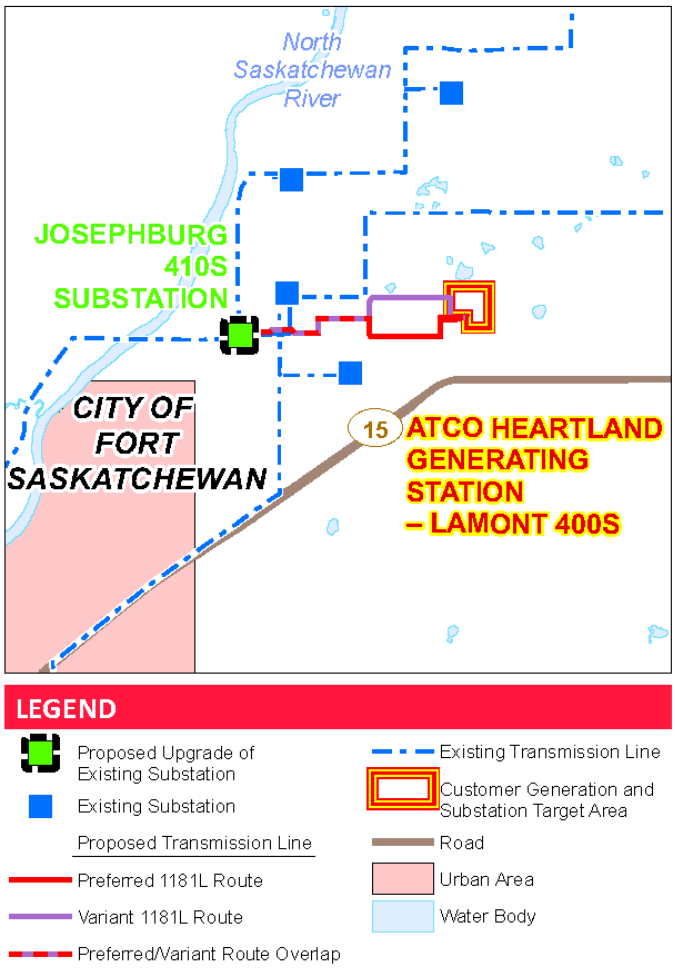
DEFINITION:

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

1-877-267-1453
stakeholderrelations@altalink.ca
www.altalink.ca/regionalprojects



The structures on the proposed 1181L line will look mostly similar to the above, but the insulators may be configured differently.

Project details

The ATCO Power Heartland Generating Station Interconnection project is located approximately two kilometres northeast of the City of Fort Saskatchewan in Strathcona County. With the removal of Phase 2 scope, the project will include:

- constructing one single-circuit 240 kV (kilovolt) transmission line (to be named 1181L) to connect a planned substation at the ATCO Power Heartland Generating Station (to be named Lamont 400S) to the existing Josephburg Substation
- adding one new 240 kV circuit breaker and associated equipment to the Josephburg Substation
- installation of an overhead fibre optic cable on the transmission structures
- modifying existing transmission lines in the project area to accommodate crossings and connections to the substation
- salvaging structures to accommodate the relocation of transmission lines at the Josephburg Substation

Removed scope and new structure type

The AESO has directed us to build only one transmission line, designated as 1181L. Additionally, there will be no site expansion and no interconnection of the 942L line at the existing Josephburg Substation as previously required. Only one new circuit breaker will be added to the Josephburg Substation, instead of the previously proposed five.

AltaLink will be using a new structure type for the proposed 1181L transmission line. These structures will be compact H-frames and exist within the previously proposed 24 metre right-of-way. Please refer to the included *Typical structure information* sheet for details.

Route revisions

The right-of-way from point A26 to point A37 (as referenced on the included maps) has been moved to accommodate a more direct alignment along the south edge of NE/NW-28-55-21-W4M. Additional line modifications near the Josephburg Substation have also been made to accommodate the reduction in scope resulting from the removal of the second transmission line. Please refer to the maps included in this package for more detailed information.

Electric and Magnetic Fields (EMF)

AltaLink recognizes that people have concerns about exposure to Electric and Magnetic Fields (EMF) and we take those concerns 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.

Website: www.altalink.ca/emf
Email: emfdialogue@altalink.ca
Toll-free phone number: 1 -866-451-7817

Providing your input

The Alberta Electric System Operator (AESO) has determined this transmission system development is needed and will file a Needs 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 Needs Application and the Facilities Application at the same time 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 a Proposed Utility Development*.

Anticipated project schedule

Notify and consult with stakeholders	October – November 2016
File application with Alberta Utilities Commission (AUC)	Late 2016/Early 2017
Start construction if project is approved	Spring 2019
Construction completed	Winter 2019

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.

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Contact us

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ALTALINK
1-877-267-1453 (toll free)
E-mail: stakeholderrelations@altalink.ca
Website: www.altalink.ca/regionalprojects

To learn more about the ATCO Power's Heartland Generating Station, please contact:

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ALBERTA ELECTRIC SYSTEM OPERATOR (AESO)
1-888-866-2959
E-mail: stakeholder.relations@aeso.ca

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

ALBERTA UTILITIES COMMISSION (AUC)
780-427-4903 (toll-free by dialing 310-0000 before the number.)
E-mail: consumer-relations@auc.ab.ca

Other projects in your area

The 807L Transmission Line Rebuild is located eight kilometres north of the City of Fort Saskatchewan. AltaLink is proposing to upgrade the wires on two portions of the existing 807L line to help meet the growing industrial demand for power in the Fort Saskatchewan area. Consultation is currently underway.

PRIVACY COMMITMENT

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

INCLUDED IN THIS INFORMATION PACKAGE:

- Project maps
- AUC brochure: *Public involvement in a proposed utility development*
- *Typical structure information* sheet
- AESO Need Overview Document

DEFINITION:

AESO

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. You can also make your questions or 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.

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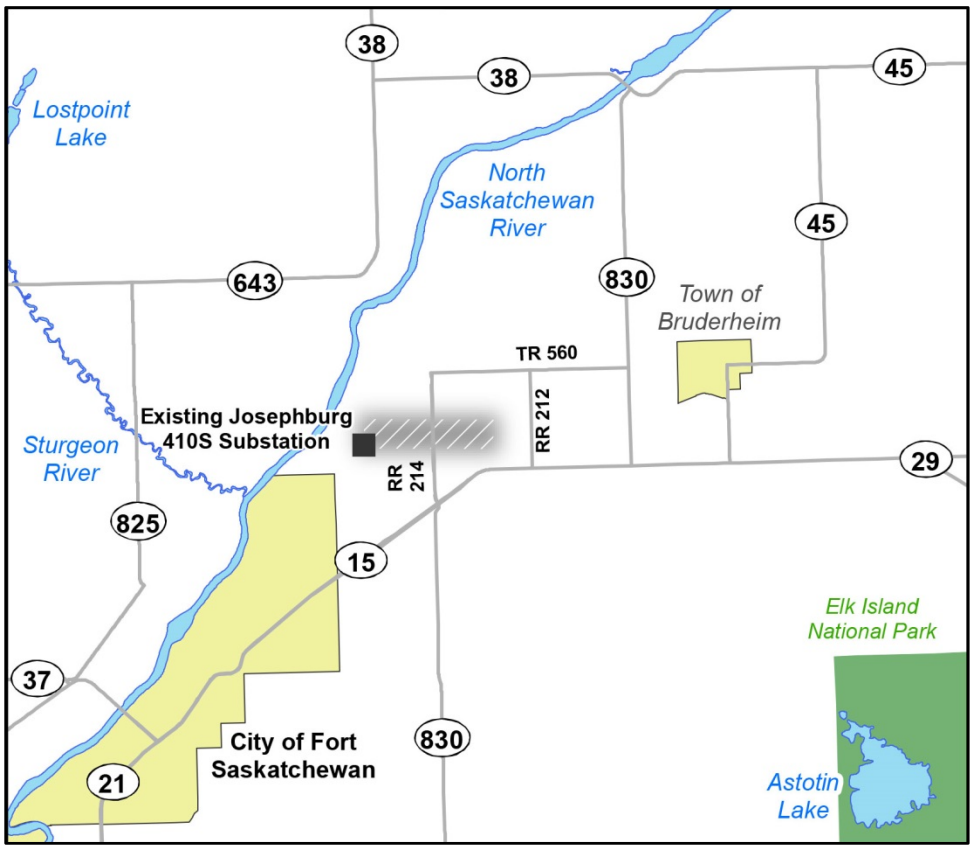
Attachment 4 – AESO Public Notification of NID Filing (AESO Website Posting)

AESO Public Notification of NID Filing
Addressing the Need for the Heartland Generating Station Connection in the Fort Saskatchewan Area

The Alberta Electric System Operator (AESO) advises you that it intends to file a Needs Identification Document (NID) for the Heartland Generating Station Connection with the Alberta Utilities Commission (AUC) on or after April 19, 2017

ATCO Power Canada Ltd. (ATCO) has applied to the AESO for transmission system access to connect its approved Heartland Generating Station near the City of Fort Saskatchewan. ATCO's request can be met by the following solution:

- Add one 240 kV transmission line to connect ATCO's approved Lamont 400S substation to the existing Josephburg 410S substation in a radial configuration
- Modify the existing Josephburg 410S substation, including adding one 240 kV circuit breaker
- Add or modify associated equipment as required for the above transmission development



The black square indicates the approximate location of the existing Josephburg 410S substation, which is at NE-30-55-21-W4. The shaded area on the map indicates the approximate location of the 240 kV transmission line. In a separate application called a Facility Application, AltaLink Management Ltd. (AltaLink), the transmission facility owner (TFO) in the Fort Saskatchewan area, will describe the proposed developments and locations and request AUC approval to construct and operate the specific transmission facilities.

The AESO and AltaLink presented this need to stakeholders, including residents, occupants and landowners, from April 2014 to April 2017. The AESO has considered feedback gathered from stakeholders, and technical and cost considerations, and will apply to the AUC for approval of the need for this transmission development. Once it is filed, the NID will be posted on the AESO website at https://www.aeso.ca/grid/projects/heartland-generating-station-interconnection/

Please visit our website, www.aeso.ca for more information, or contact the AESO at 1-888-866-2959 or stakeholder.relations@aeso.ca

Attachment 5 – AESO Stakeholder Newsletter NID Filing Notice

Heartland Generating Station Connection – Notice of NID Filing

ATCO Power Canada Ltd. (ATCO) has applied to the AESO for transmission system access to connect its approved Heartland Generating Station near the City of Fort Saskatchewan. ATCO's request can be met by the following solution:

- Add one 240 kV transmission line to connect ATCO's approved Lamont 400S substation to the existing Josephburg 410S substation in a radial configuration
- Modify the existing Josephburg 410S substation, including adding one 240 kV circuit breaker
- Add or modify associated equipment as required for the above transmission development

The AESO intends to file the Heartland Generating Station Connection NID application with the Alberta Utilities Commission on or after April 19, 2017, requesting that the AUC approve this NID**.**

The AESO has posted the public notification for its NID filing on its website. Please click here to view the document or visit the AESO website at www.aeso.ca and follow the path Grid > Projects > Heartland Generating Station Interconnection to see all the relevant documents, including the NID application once it is filed with the Commission.