

APPENDIX C PARTICIPANT INVOLVEMENT PROGRAM (PIP)

Boreal 193S Substation Connection

Needs Identification Document

1.0 Participant Involvement Program (PIP)

From July 2014 to May 2015, the AESO conducted a Participant Involvement Program (PIP) to assist in preparing its Boreal 193S Substation Connection Needs Identification Document (NID). The AESO directed transmission facility owner (TFO), AltaLink Management Ltd. (AltaLink), to assist the AESO in providing notification in accordance with NID14 and Appendix A2 of Alberta Utilities Commission Rule 007.

1.1 Stakeholder Notification

The AESO's PIP was designed to notify and provide information to all occupants, residents and landowners within the notification area of the proposed development, as well as to other interested parties, including the following government bodies, agencies and other stakeholder groups (Stakeholders):

- Alberta Culture and Tourism
- Alberta Energy Regulator
- Alberta Environment and Sustainable Resource Development – Fisheries
- Alberta Environment and Sustainable Resource Development – Public Lands
- Alberta Environment and Sustainable Resource Development – Parks
- Alberta Environment and Sustainable Resource Development – Fish and Wildlife
- Alberta Transportation
- Nav Canada
- Transport Canada
- Transport Canada – Navigation Protection Program
- Regional Municipality of Wood Buffalo
- Alberta Wilderness Association
- Trout Unlimited Canada
- Access Pipeline Inc.
- Alberta Pacific Forestry Industries
- AltaGas Ltd.
- Cenovus FCCL Ltd.
- Devon Canada Corporation
- Enbridge Pipelines Ltd.
- FortisAlberta Inc.
- MEG Energy Corp.

- Nova Gas Transmission Ltd. (TransCanada Pipelines Ltd.)
- Perpetual Energy Operating Corp.
- Talisman Energy Inc.
- TAQA North Ltd.
- Telus
- Beaver Lake Cree Nation
- Chard Métis Local #214
- Chipewyan Prairie First Nation, Chipewyan Prairie Industry Relation Corporation
- Christina River Dene Nation Council
- Conklin Métis Local #193
- Heart Lake First Nation
- Métis Nation of Alberta, Region 1
- Whitefish Lake First Nation #128

The AESO used a variety of methods to notify stakeholders on the need for the Boreal 193S Substation connection. The AESO developed a one-page need overview document that described the need for the proposed transmission development. A copy of this document was posted to the AESO website at <http://www.aeso.ca/transmission/30804.html> on July 18, 2014. A copy of the need overview has been included as Attachment 1.

The need overview was also included with AltaLink's project-specific information package mailed on July 16, 2014 to the Stakeholders noted above. Attachment 2 is a copy of AltaLink's brochure. An update brochure was mailed to Stakeholders November 26, 2014. Attachment 3 is a copy of AltaLink's update brochure.

To ensure that Stakeholders had the opportunity to provide feedback, the AESO also provided stakeholders with a dedicated, toll-free telephone line (1-888-866-2959) and a dedicated email address (stakeholder.relations@aeso.ca). 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 honours Alberta's Personal Information Protection Act, were included on the need overview related to this application.

As directed by the AESO, the TFO was prepared to direct any inquiries or concerns about the project need to the AESO. The TFO has indicated that Stakeholders have not identified any concerns or objections with the need for the proposed transmission development.

1.2 Public Notification

Most recently, the AESO published a Public Notification of NID Filing to the AESO website at <http://www.aeso.ca/transmission/30804.html> on May 14, 2015 and in the Stakeholder Newsletter on May 14, 2015. Copies of the Public Notification of NID Filing and the Stakeholder Newsletter posting have been included as Attachment 4 and 5, respectively.

1.3 Concerns and Objections Raised

The AESO has received no indication of concern or objections from any party about the need for the proposed transmission development.

1.4 List of Attachments

- Attachment 1 – AESO Need Overview
- Attachment 2 – AltaLink's Information Brochure – *Boreal 193S Substation Connection Project* (July 2014)
- Attachment 3 – AltaLink's Information Brochure update – *Boreal 193S Substation Connection Project* (November 2014, volume 2)
- Attachment 4 – AESO Public Notice of NID Filing (AESO Website Posting)
- Attachment 5 – AESO Stakeholder Newsletter Posting

Attachment 1 – AESO Need Overview

Need for the Boreal 193S Substation Connection in the Christina Lake Area

Transmission Development Information for Stakeholders



Cenovus FCCL Ltd. (Cenovus) has requested transmission system access for its proposed Boreal 193S substation in the Christina Lake area. Cenovus's request can be met by developing a new 240 kV transmission line between Cenovus's proposed Boreal 193S substation and the existing 240 kV transmission line 971L.

The Alberta Electric System Operator (AESO) is processing Cenovus's request, including providing information to landowners, occupants, residents and agencies in the Christina Lake area that may be near the proposed transmission development. The AESO intends to apply to the Alberta Utilities Commission (AUC) for approval of this need for transmission development in the first quarter of 2015. 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 Management Ltd. (AltaLink) involved?

AltaLink is the transmission facilities owner (TFO) in the Christina Lake 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 Christina Lake area or the AESO's application regarding this need, please contact:

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

If you have any questions or concerns, please contact us at 1-888-866-2959 or at stakeholder.relations@aesO.ca. 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 purposes 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.

**Attachment 2 – AltaLink’s Information Brochure – *Boreal 193S
Substation Connection Project* (July 2014)**



JULY 2014

Electric system improvements near you

Boreal 193S Substation Connection Project

You are receiving this newsletter because you are near the proposed Boreal 193S Substation Connection Project and we want your input.

A new 240 Kilovolt (kV) **transmission** line is required to connect the proposed Cenovus FCCL Ltd. Boreal 193S Substation to AltaLink's existing 971L transmission line. This will allow Cenovus' proposed Narrows Lake Oil Sands Project to receive power from the Alberta Interconnected Electric System.

You may have questions or concerns about Cenovus' Narrows Lake Oil Sands Project or the proposed Cenovus FCCL Ltd. Boreal 193S Substation. Please contact Cenovus directly for more information about these projects. Their contact information is on the back of this newsletter.

We are providing you with:

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

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.

DEFINITION:

Transmission

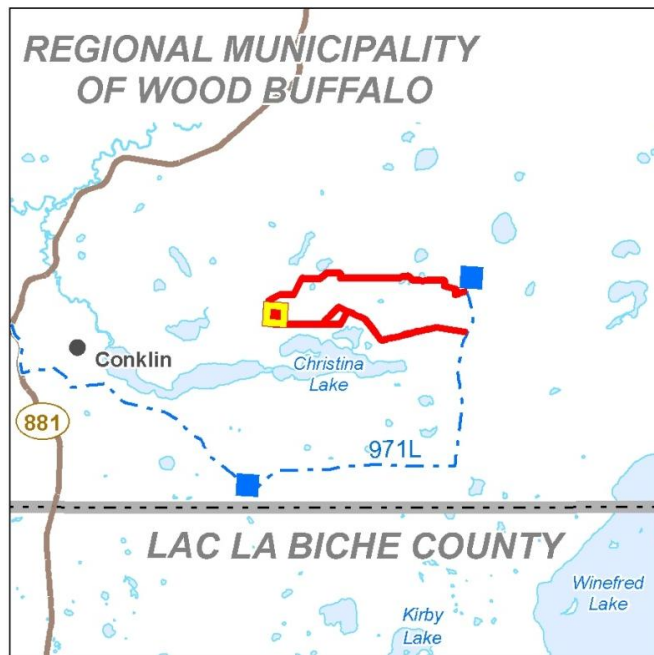
Transmission lines make up Alberta's electric highway, linking the places where power is generated to your community where power is used. Transmission lines transport large amounts of power over long distances from power plants across the province. The transmission system connects diverse sources of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

Contact Us

1-877-267-5903

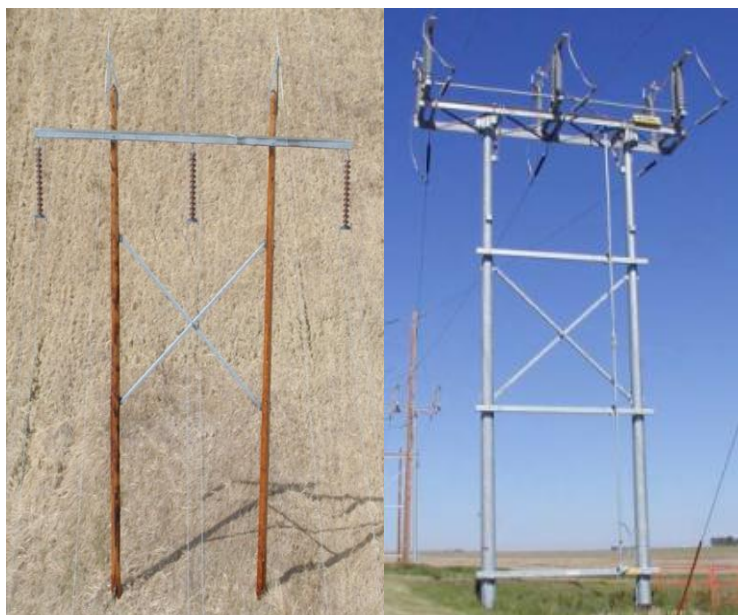
stakeholderrelations@altalink.ca

www.altalink.ca/regionalprojects



LEGEND

	Potential Customer Substation		Hamlet or Locality
	Existing Substation		Municipal or County Boundary
	Potential 971AL Transmission Line		Road
	Existing Transmission Line		Water Body



The proposed H-frame structures will look similar to the structure pictured above.

The proposed airbreak structure will look similar to the structure pictured above.

Project details

The Boreal 193S Substation Connection Project is located 12 kilometres (7 miles) east of Conklin. We are proposing to construct one 240 kV single-circuit transmission line approximately 15 kilometres (nine miles) in length that will connect to the existing 971L line between existing Black Spruce 154S substation and Conklin 762S substation.

This proposed transmission line will be supported using wooden H-frame structures that will:

- be approximately 19-27 m (60-90 feet) tall
- have a width of approximately 12-15 metres (40-50 feet)
- have a distance between structures of approximately 220 metres (720 feet)
- have a right-of-way of approximately 35 m (115 feet)

In addition, some corner structures may be supported by guy wires and may require additional land outside of the right-of-way to anchor the guy wires.

To accommodate the connection of the proposed 971AL line to the 971L line, one airbreak structure will be added on the new line. An airbreak is a piece of equipment that isolates portions of transmission line so that future maintenance can be performed without the need for outages.

We have identified two potential route options, with one route variant for the proposed transmission line. Where possible, both route options parallel existing linear developments to reduce potential environmental impacts and land fragmentation. If the Boreal 193S Substation Connection Project is approved, only one route option will be built. Please see the maps included in this package to view the 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 include agricultural, residential, environmental, electrical, cost, visual and other special considerations. Stakeholder input with respect to the criteria listed is an important part of our planning process. Please let us know what other factors are important to you so we can consider them when refining route options.

Anticipated project schedule

Notify and consult with stakeholders	June – December 2014
File application with Alberta Utilities Commission (AUC)	March 2015
Start construction if project is approved	September 2015
Construction completed	March 2016

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

Other Projects in your area

Project name	Description	Status
Pike Substation and Transmission Line	As part of the three-phase Christina Lake Area Transmission Development, AltaLink is proposing to construct approximately 22 km (13.75 miles) of new 240 kV transmission to connect that will connect a new substation called Pike 17S and the existing Black Spruce Switching Station.	The project has been approved and is currently in construction.

Electric and Magnetic Fields (EMF)

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

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

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

Website: www.altalink.ca/emf

Email: emfdialogue@altalink.ca

Toll-free phone number: 866-451-7817

Providing your input

We will notify or contact landowners, residents and occupants near the proposed transmission line project to gather input and address questions or concerns. After this 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 you may participate.

You will be notified 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*.

Contact us

To learn more about the proposed Cenovus Boreal 193S Substation Connection Project, please contact:

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

To learn more about the Cenovus FCCL Ltd. Narrows Lake Oil Sands Project or the proposed Cenovus Boreal 193S Substation, please contact:

Cenovus Energy: Troy Schwab at 403-766-3279
Email: troy.schwab@cenovus.com

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

Alberta Electric System Operator (AESO) at 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) at 780-427-4903
(You can call toll-free by dialing 310-0000 before the number.)
E-mail: utilitiesconcerns@auc.ab.ca

Privacy Commitment

AltaLink is committed to protecting your privacy. Your personal information that is collected 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 at privacy@altalink.ca or phone at 1-877-267-6760.

Included in this information package:

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

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.

Attachment 3 – AltaLink’s Information Brochure update – *Boreal 193S Substation Connection Project* (November 2014, volume 2)



ALTALINK

Electric system improvements near you

Boreal 193S Substation Connection Project

November 2014
Volume 2

We have completed the first stage of consultation regarding the Boreal 193S Substation Connection Project. This newsletter is to provide you with a project update and information about next steps. Thank you for your input.

A new 240 Kilovolt (kV) **transmission** line is required to connect the proposed Cenovus FCCL Ltd. Boreal 193S Substation to AltaLink's existing 971L transmission line. This will allow Cenovus' proposed Narrows Lake Oil Sands Project to receive power from the Alberta Interconnected Electric System.

You may have questions or concerns about Cenovus' Narrows Lake Oil Sands Project or the proposed Cenovus FCCL Ltd. Boreal 193S Substation. Please contact Cenovus directly for more information about these projects. Their contact information is on the back of this newsletter.

We are providing you with:

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

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.

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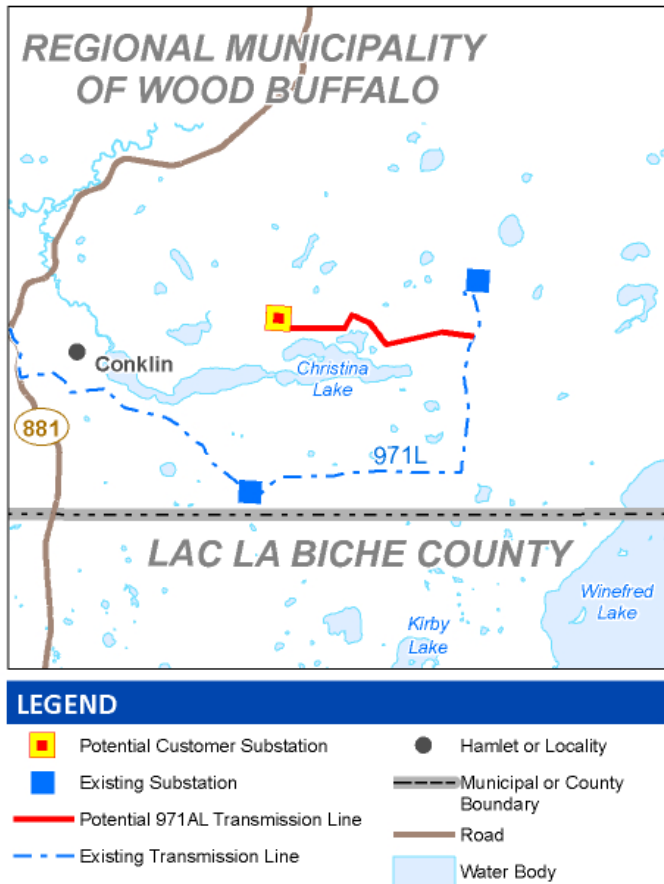
Transmission lines make up Alberta's electric highway, linking the places where power is generated to your community where power is used. Transmission lines transport large amounts of power over long distances from power plants across the province. The transmission system connects diverse sources of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

Contact Us

1-877-267-5903

stakeholderrelations@altalink.ca

www.altalink.ca/regionalprojects



Project details

The Boreal 193S Substation Connection Project is located approximately 12 kilometres (7 miles) east of Conklin, in the Regional Municipality of Wood Buffalo. We are proposing to construct one 240 kilovolt (240,000 volts) single-circuit transmission line approximately 13 kilometres (eight miles) in length that will connect to the existing 971L line between the existing Black Spruce 154S and Conklin 762S substations.

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 one potential route option, shown in red on the map on the left, to include in our Facilities Application to the Alberta Utilities Commission (AUC). This route has lower environmental impact by paralleling more existing linear developments, is the shortest route identified and was the preferred route by the majority of stakeholders who provided input in the area. Please see the maps included in this package to view the route option.

This proposed transmission line will be supported using wood or steel 240 kV H-frame structures that will:

- be approximately 19-27 metres (60-90 feet) tall
- have a width of approximately 12-15 metres (40-50 feet)
- have a distance between structures of approximately 220 metres (720 feet)
- have a right-of-way of approximately 35 metres (115 feet)

To accommodate the connection of the proposed 971AL line to the 971L line, one airbreak structure will be added on the new line. An airbreak is a piece of equipment that isolates portions of transmission line so that future maintenance can be performed without the need for outages.

In addition, some corner structures may be supported by guy wires and may require additional land outside of the right-of-way to anchor the guy wires. A Vegetation Control Easement (VCE) may be required along the outside of the right-of-way. The VCE requirements for each line will be determined after further engineering design.



The proposed H-frame structures may look similar to the structure pictured above.

The proposed airbreak structure will look similar to the structure pictured above.

Anticipated project schedule

Notify and consult with stakeholders	June – January 2015
File application with Alberta Utilities Commission (AUC)	March 2015
Start construction if project is approved	September 2015
Construction completed	March 2016

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

Other projects in your area

The Ipiatik Lake Substation and Transmission Lines project is Phase 3 of the Christina Lake Area Transmission Development. This project is needed to meet increasing industrial demand for power and to improve the reliability of the electric system in the Christina Lake area. The project has been approved and is currently under construction. For more information about this project please visit, <http://www.altalink.ca/projects/other/c-e.cfm>.

Electric and Magnetic Fields (EMF)

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

- power lines and other electrical facilities
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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:

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Email: emfdialogue@altalink.ca

Toll-free phone number: 866-451-7817

Providing your input

We will notify or contact landowners, residents and occupants near the proposed transmission line project to gather input and address questions or concerns. After this 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 you may participate. You will be notified 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*.

Contact us

To learn more about the proposed Cenovus Boreal 193S Substation Connection Project, please contact:

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

To learn more about the Cenovus FCCL Ltd. Narrows Lake Oil Sands Project or the proposed Cenovus Boreal 193S Substation, please contact:

Cenovus Energy:
Troy Schwab, Community Relations
Christina Lake Region
Phone: 403-766-3279
E-mail: troy.schwab@cenovus.com

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

Alberta Electric System Operator (AESO) at 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) at 780-427-4903
(You can call toll-free by dialing 310-0000 before the number.)
E-mail: utilitiesconcerns@auc.ab.ca

Privacy Commitment

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Included in this information package:

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

DID YOU KNOW?

A reliable transmission system keeps costs low by connecting diverse sources of power generation to the grid. Transmission costs make up about 10 per cent of the average residential utility bill. Generation costs – the cost of actually creating power – make up the largest portion of a bill, at more than 50 per cent. The transmission system always hooks up the lowest priced generator to the grid first, so generators compete to provide Albertans with cost-effective electricity.

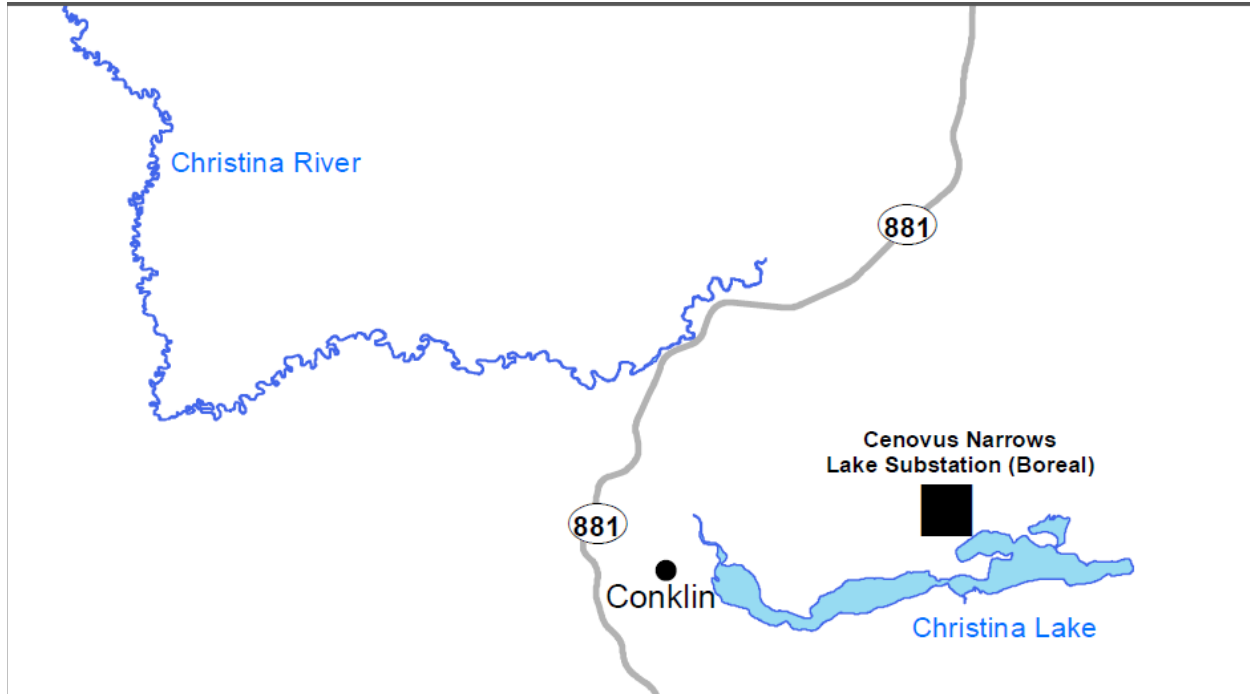
Attachment 4 – AESO Public Notification of NID Filing (AESO Website Posting)

AESO Public Notification of Regulatory Filing

Addressing the Need for the Boreal 193S Substation Connection in the Christina Lake Area

The Alberta Electric System Operator (AESO) advises you that it intends to file a Needs Identification Document (NID) for the Boreal 193S Substation connection with the Alberta Utilities Commission (AUC) on or after May 29, 2015.

Cenovus FCCL Ltd. has requested transmission system access for its proposed Boreal 193S substation in the Christina Lake area. Cenovus' request can be met by developing a new 240 kV transmission line between Cenovus's proposed Boreal 193S substation and the existing 240 kV transmission line 971L.



The black square on the map indicates the approximate location of the Boreal 193S Substation, which is approximately 12 km east of Conklin. In a separate application called a Facility Application, AltaLink Management Ltd. the transmission facility owner (TFO) in the Christina Lake area, will describe the specific upgrades to be performed and request AUC approval to construct and operate the specific transmission facility.

The AESO and AltaLink presented this need to stakeholders, including residents, occupants and landowners, from July 2014 to April 2015. 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 filed, the NID will be posted on the AESO website at <http://www.aeso.ca/transmission/30804.html>

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 Posting

Boreal 193S Substation Connection in the Christina Lake Area – Notice of NID Filing

Cenovus FCCL Ltd. has requested transmission system access for its proposed Boreal 193S substation in the Christina Lake area. Cenovus' request can be met by developing a new 240 kV transmission line between Cenovus' proposed Boreal 193S substation and the existing 240 kV transmission line, 971L.

The AESO will be filing the Boreal 193S Substation Connection NID application with the Alberta Utilities Commission on or after May 29, 2015 and requesting that the Commission approve this NID.

The AESO has posted the public notification for its NID filing on its website for the Boreal 193S Substation Connection. Please [click here](#) to view the document or visit the AESO website at www.aeso.ca and follow the path Transmission > Needs Identification Documents > Boreal 193S Substation Connection to see all the relevant documents, including the NID once it is filed with the Commission.