



Queenstown Power Plant Connection

Needs Identification Document

1.0 Participant Involvement Program (PIP)

From June 2014 to February 2015, the AESO conducted a Participant Involvement Program (PIP) to assist in preparing its Queenstown Power Plant 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 800 metres of the proposed development, as well as to other interested parties, including the following government bodies, agencies and other stakeholder groups (Stakeholders):

- Alberta Culture
- Alberta Transportation
- Alberta Environment and Sustainable Resource Development, Fish and Wildlife
- Alberta Environment and Sustainable Resource Development, Public Lands
- Ducks Unlimited Alberta
- Fortis Alberta Inc.
- Vulcan County
- Telus Corporation
- Industry Canada
- NAV Canada
- Transport Canada Civil Aviation, Aerodrome and Air Aviation
- Alberta Agriculture and Rural Development (Office of the Farmer's Advocate)
- Crescent Point Energy Corporation
- Husky Oil Operations Limited
- Atco Gas and Pipelines Limited
- ConocoPhillips Canada Resources Corporation

The AESO used a variety of methods to notify stakeholders on the need for the Queenstown power plant 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/30708.html on June 19, 2014. A copy of the need overview is included as Attachment 1.

The need overview was also included with AltaLink's project-specific information package mailed on June 16, 2014 to the Stakeholders noted above. Attachment 2 includes a copy of AltaLink's brochure.

The AESO updated the 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/30708.html on January 27, 2015. A copy of the updated need overview is included as Attachment 3.

The updated need overview was also included with AltaLink's project-specific information package mailed in December 2014 to the Stakeholders noted above. Attachment 4 includes a copy of AltaLink's 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 (<u>stakeholder.relations@aeso.ca</u>). AESO contact information, along with the AESO's mailing address (2500, 330 5th Ave, SW, Calgary) and website address (<u>www.aeso.ca</u>), 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/30708.html on February 11, 2015 and in the Stakeholder Newsletter on February 12, 2015. Copies of the Public Notification of NID Filing and the Stakeholder Newsletter posting have been included as Attachment 5 and 6, 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.

Alberta Electric System Operator



1.4 **List of Attachments**

- Attachment 1 AESO Need Overview
- Attachment 2 AltaLink's Information Brochure "BowArk Queenstown" Power Plant Interconnection" (June 2014)
- Attachment 3 Updated AESO Need Overview
- Attachment 4 AltaLink's Project Update "BowArk Queenstown Power Plant Interconnection project update" (December 2014)
- Attachment 5 AESO Public Notification of NID Filing (AESO Website Posting)
- Attachment 6 AESO Stakeholder Newsletter Posting

Alberta Electric System Operator



Attachment 1 – AESO Need Overview

Need for the BowArk Queenstown Connection in the Vulcan Area



Transmission Development Information for Stakeholders

Why is this transmission development needed?

BowArk Energy Ltd. (BowArk) has requested transmission system access for its proposed Queenstown Power Plant Facility (Facility) in the area northeast of Vulcan. BowArk's request can be addressed by modifying the existing Queenstown 504S substation and constructing a new 138 kV single circuit transmission line to connect the Facility to the existing Queenstown 504S substation. Connection of the Facility also requires associated upgrades and modifications to transmission telecommunication facilities between the existing Vulcan 255S and Queenstown 504S substations.

The Alberta Electric System Operator (AESO) is processing BowArk's request, including providing information to landowners, occupants, residents and agencies that may be near the proposed transmission and telecommunication developments. The AESO intends to apply to the Alberta Utilities Commission (AUC) for approval of this need in the fall of 2014. 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 Vulcan 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 developments.

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 developments in the Vulcan 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

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 owner 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

1336 June 2014



Attachment 2 – AltaLink's Information Brochure – "BowArk Queenstown Power Plant Interconnection" (June 2014)



proposed BowArk Queenstown Power Plant Interconnection and we want your input.

A new transmission line is required to connect the proposed BowArk Queenstown power plant to the provincial power grid. Modifications to the existing Queenstown 504S substation are also required to facilitate this connection.

Connecting this generating facility to the grid means an additional source of power to serve Alberta's growing demand.

We are providing you with:

- project details
- 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.

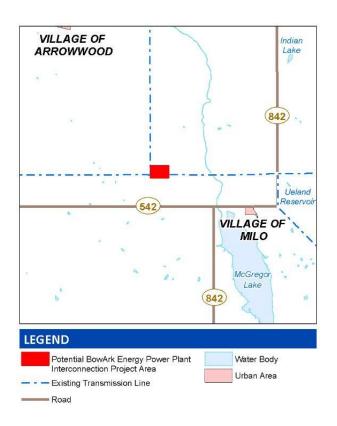
Contact Us

1-877-267-5903

stakeholderrelations@altalink.ca

www.altalink.ca/regionalprojects

ALTALINK





If approved, the proposed 853L and 475L lines will include the above structures

Project details

The proposed project involves constructing a transmission line to connect BowArk Energy Ltd.'s proposed McGregor Lake 200S substation to the existing Queenstown 504S substation. The project is located approximately 10 kilometres (six miles) northwest of the Village of Milo in SW-17-19-22-W4.

The McGregor Lake 200S substation will be connected to BowArk Energy's proposed power plant. Connecting the McGregor Lake 200S substation to the Queenstown 504S substation will allow the plant to supply electricity to the provincial power grid.

The length of the connecting transmission line (475L) will be approximately 100 metres (328 feet) and consist of single-circuit 138 kilovolt (kV) wood pole structures. The proposed structures will be approximately 18 to 25 metres (59 to 82 feet) tall and exist in an approximately 20 metre (66 foot) wide right-of-way on both AltaLink and Bowark property. To accommodate the new transmission line connection, AltaLink will also be adding one 138 kV circuit breaker to the Queenstown 504S substation.

The 853L line will be rebuilt west of its current alignment to accommodate the route of proposed 475L line. To allow for this, approximately 70 metres (230 feet) of the existing 853L line needs to be salvaged. Please refer to the attached focus detail map (FP1) for details.

As part of this project, AltaLink will also salvage the existing telecommunications tower from the Vulcan 255S substation, located approximately two kilometres (one mile) south of the Town of Vulcan. Please refer to the attached map (DP2) for a detailed view of the site. AltaLink will also be constructing approximately 11 kilometres (seven miles) of optical grounding wire between the Vulcan 255S substation and the Queenstown 504S substation. The wire will be built along the same alignment as the 161L line and will allow the two substations to communicate.



Anticipated project schedule

Notify and consult with stakeholders	May to June 2014
File application with Alberta Utilities Commission (AUC)	October 2014
Start construction if project is approved	January 2016
Construction completed	August 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 if required as the project progresses.

Other projects in your area

AltaLink's Blackie Area 138 kV Line Re-configuration project is currently in the consultation phase and includes the replacement of a transmission line that connects to the Queenstown 504S substation, along with substation upgrades. The project also includes some minor work that involves the salvage of the 852L line near the BowArk Queenstown Power Plant Interconnection project (see FP1). The Blackie Area 138 kV Line Re-configuration project is expected to be complete in early 2016 and is separate from the BowArk Queenstown Generator Interconnection project. For more information on the Blackie Area 138 kV Line Re-configuration project, please visit www.altalink.com/regionalprojects.

Electric and Magnetic Fields (EMF)

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

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

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

If you have any questions about EMF please contact us:

Website: www.altalink.ca/emf Email: emfdialogue@altalink.ca

Toll-free 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 BowArk Queenstown Power Plant Interconnection, 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 BowArk Queenstown Power Plant, please contact:

BowArk Energy Ltd.: Shelley Sammartino at 403-237-0211

Email: ssammartino@bowark.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 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 – Updated AESO Need Overview

Need for the BowArk Queenstown Connection in the Vulcan Area



Update for Stakeholders

In June 2014, the AESO provided project information to you on the need for the BowArk Queenstown Connection in the Vulcan area. Based on further engineering studies, the AESO has determined that telecommunication upgrades and modifications for this project are no longer required.

BowArk Energy Ltd. (BowArk) has requested transmission system access for its proposed Queenstown Power Plant Facility (Facility) in the area northeast of Vulcan. BowArk's request can be addressed by modifying the existing Queenstown 504S substation and constructing a new 138 kV single circuit transmission line to connect the facility to the existing Queenstown 504S substation.

The Alberta Electric System Operator (AESO) is processing BowArk's request, including providing information to landowners, occupants, residents and agencies that may be near the proposed transmission developments. The AESO intends to apply to the Alberta Utilities Commission (AUC) for approval of this need 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.

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How is AltaLink Management Ltd. (AltaLink) involved?

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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 comments regarding the need for the proposed developments in the Vulcan 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

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.

1336 November 2014



Attachment 4 – AltaLink's Project Update – "BowArk Queenstown Power Plant Interconnection project update" (December 2014)



December 3, 2014

RE: BowArk Queenstown Power Plant Interconnection project update

You may have received previous communications from AltaLink concerning the proposed BowArk Queenstown Power Plant Interconnection project in June 2014. Based on further engineering and analysis, we are proposing several changes to the project and notifying stakeholders prior to filing a facility application with the Alberta Utilities Commission (AUC) in the winter of 2015.

Proposed project changes

In the June 2014 project newsletter, we stated that AltaLink was planning to relocate a portion of the existing 853L line that currently connects to the Queenstown Substation in order to accommodate the new proposed 475L line. AltaLink has identified that relocating the 853L transmission line will no longer be required and it will remain connected to the substation. Instead, the proposed 475L line will be extended west, and connect to the Queenstown Substation at a point west of the originally proposed connection point. Please refer to the attached map (DP1) for details.

In addition, we proposed to salvage the existing telecommunications tower at the Vulcan Substation, located approximately two kilometres (one mile) south of the Town of Vulcan. After further analysis, we have determined that this salvage is no longer required, and the telecommunications tower will remain at the Vulcan Substation. It has also been determined that we will not need to construct the 11 kilometres (seven miles) of optical grounding wire that we had originally proposed in the June 2014 project newsletter.

For details regarding this project update, please refer to the amended AESO need overview document included in this package.

We believe these changes do not present any new project impacts. However, we are available to gather any further input you have or address any questions or concerns. Please contact us at stakeholderrelations@altalink.ca or 1-877-267-1453. Further information about this project and maps are available on www.altalink.ca/regionalprojects. You will find the project in the list in alphabetical order.

Sincerely,

Dave Lee

Manager, Stakeholder Engagement



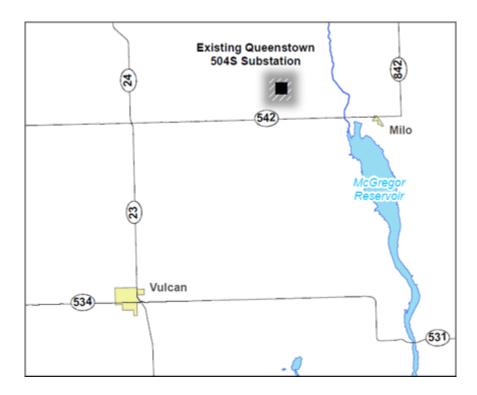
Attachment 5 – AESO Public Notification of NID Filing (AESO Website Posting)

Alberta Electric System Operator

AESO Public Notification of NID Filing Addressing the Need to Connect the Queenstown Power Plant near the Town of Vulcan

The Alberta Electric System Operator (AESO) advises you that it intends to file a Needs Identification Document (NID) for the connection of the Queenstown Power Plan Facility with the Alberta Utilities Commission (AUC) on or after February 27.

BowArk Energy Ltd. (BowArk) has requested transmission system access for its proposed Queenstown Power Plant Facility (Facility) in the area northeast of Vulcan. BowArk's request can be addressed by modifying the existing Queenstown 504S substation and constructing a new 138 kV single circuit transmission line to connect the Facility to the Queenstown 504S substation.



The black square on the map indicates the approximate location of the existing Queenstown 504S substation, which is at SW-17-19-22W4. The shaded area on the map indicates the approximate location where the transmission connection is needed. In a separate application called a Facility Application, AltaLink Management Ltd. (AltaLink), the transmission facilities owner (TFO) near the Town of Vulcan, will describe the specific upgrades to be performed 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 June 2014 to February 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/30708.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 6 – AESO Stakeholder Newsletter Posting

Queenstown Power Plant near the Town of Vulcan– Notification of Needs Identification Document (NID) Filing

BowArk Energy Ltd. (BowArk) has requested transmission system access for its proposed Queenstown Power Plant Facility (Facility) in the area northeast of Vulcan. BowArk's request can be addressed by modifying the existing Queenstown 504S substation and constructing a new 138 kV single circuit transmission line to connect the facility to the existing Queenstown 504S substation.

The AESO will be filing Queenstown Power Plant Connection NID application with the Alberta Utilities Commission (AUC) on or after February 27, 2015, recommending that the AUC approve this NID.

The AESO has posted the public notification for its NID filing on its website for the Queenstown Power Plant Connection. Please <u>click here</u> to view the document or visit the AESO website at <u>www.aeso.ca</u> and follow the path Transmission > Needs Identification Documents > BowArk Queenstown Connection to see all the relevant documents, including the NID once it is filed with the AUC.