APPENDIX C AESO PIP

1. Introduction

The AESO's Participant Involvement Program (PIP) is designed to notify the parties notified in the transmission facility owner's (TFO's) PIP and any other parties that the AESO determines may have an interest in the needs identification document, 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'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 (AUC Rule 007), effective April 2, 2018.

From June 2015 to December 2015, the AESO conducted a PIP to assist in preparing its original *McLaughlin Wind Energy Connection Needs Identification Document* (NID). A summary of the original PIP is included as Attachment 1.

From November 2018 to May 2019, the AESO conducted a PIP to assist in preparing its amended *McLaughlin Wind Power Plant Connection Needs Identification Document* (NID). The AESO directed the TFO, in this case AltaLink Management Ltd., in its capacity as general partner of AltaLink, L.P., to assist the AESO in providing notification as part of the AESO's PIP.

2. Stakeholder Notification

The AESO developed a one-page AESO Need Overview Update document with the purpose of notifying 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 amend the NID application submitted to the Commission in December 2015.

A copy of the Need Overview Update was posted to the AESO website at https://www.aeso.ca/grid/projects/mclaughlin-wind-power-plant-connection/ and a notice was published in the AESO Stakeholder Newsletter on November 27, 2018. Copies of the Need Overview posting and the AESO Stakeholder Newsletter notice have been included as Attachments 2 and 3, respectively. The Need Overview was also included with the TFO's project-specific information packages that were distributed to Stakeholders, as further described in Section 2.1.

Alberta Electric System Operator
Calgary Place, 2500, 330-5th Avenue SW Calgary, AB T2P 0L4
Phone: 403-539-2450 | Fax: 403-539-2949
www.aeso.ca
@theaeso

2.1 Stakeholders Notified in the TFO's PIP

The TFO has advised the AESO that its PIP included notification within 800 metres of the proposed transmission right-of-way and notification within 100 m of the proposed underground fibre optic installation as recommended by the Commission in Appendix A1 of AUC Rule 007.[1]

The TFO notified a total of approximately 18 Stakeholders, of which 5 were classified as private or individual landowners. The other 13 notified Stakeholders and the TFO's rationale for their inclusion in the PIP are listed in Table 1.

Table 1: Summary of Notified Agency and Industry Stakeholders

Stakeholder	TFO's Rationale for Inclusion in the PIP
Alberta Agriculture and Forestry	Provincial requirements
Alberta Culture and Tourism	Provincial requirements
Alberta Environment and Parks	Provincial requirements
Alberta Transportation	Provincial requirements
FortisAlberta Inc.	Distribution Facility Owner the project notification area in notification area
Kettles Hill Wind Energy Inc.	Generation facility owner in project notification area
Municipal District of Pincher Creek	Municipal requirements
NAV CANADA	Air Navigation System requirements
Renewable Energy Services Ltd.	Generation facility owner in project notification area
Telus Communications Company	Communication Facility Owner in the project notification area notification area
Town Of Pincher Creek	Municipal requirements
TransAlta Corporation	Oil & gas facility owner in project notification area
Transport Canada	Federal requirements

Attachment 4 includes the TFO's project update letter, which was included with the AESO Need Overview Update in the TFO project-specific information package that was distributed to the Stakeholders described above between November 23 and December 19, 2018. The TFO's project update letter and the AESO Need Overview were also posted on the TFO's project-specific webpage at http://www.altalink.ca/projects/view/114/mclaughlin-wind-aggregated-generating-facility-connection on November 27, 2018. The TFO's project update letter included the AESO's contact information, a

[1] AltaLink has identified its facility application to be of the type: *Overhead or underground transmission line and/or new substation upgrades and/or minor transmission line replacements within the original right-of-way – urban*, as categorized in AUC Rule 007, Appendix A1, Section 5.

description of the AESO's role, a reference to the AESO Need Overview, and an invitation to contact the TFO or the AESO for additional information.

3. Stakeholders Notified by the AESO

The AESO also notified 6 market participants that the AESO determined may have an interest in the NID. The AESO identified that, under certain potential system conditions, these market participants may be affected following the connection of McLaughlin Wind Power Plant. A Market Participant Notification Letter, which included the AESO Need Overview Update, was sent to the notified market participants on April 30, 2019.

The 6 notified market participants are as follows:

- BowArk Energy Ltd.
- Irrigation Canal Power Co-op Ltd.
- Signalta Resources
- Stirling Wind Project LP by its General Partner, Stirling Wind Project Ltd.
- Suncor Energy Inc.
- TransAlta Corporation

A generic version of the Market Participant Notification Letter was posted to the AESO website on April 30, 2019 at https://www.aeso.ca/grid/projects/mclaughlin-wind-power-plant-connection/ A copy has been included as Attachment 5.

4. Filing Notification

On May 27, 2019 the AESO notified Stakeholders of its intention to submit the amended NID to the Commission by posting a Notification of NID Amendment Filing to the AESO website at https://www.aeso.ca/grid/projects/mclaughlin-wind-power-plant-connection/ and a publishing notice in the AESO Stakeholder Newsletter on May 28, 2019. Copies of the Notification of NID Amendment Filing posting and the AESO Stakeholder Newsletter notice have been included as Attachments 6 and 7, respectively.

5. Responding to Questions and Concerns

To ensure that Stakeholders had the opportunity to provide feedback, the AESO provided Stakeholders with 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 Need Overview included this 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.

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

6. Concerns and Objections Raised

One Stakeholder that received the AESO's Market Participant Notification Letter raised questions and concerns related to how its operations may be affected following the connection of the McLaughlin Wind Power Plant. The AESO responded to the Stakeholder by providing information about the following:

- the timing of the AESO's forthcoming NID application;
- how to participate in the AUC proceeding;
- how the Stakeholder's operations might be affected following the connection of the McLaughlin Wind Power Plant;
- how the Remedial Action Schemes (RAS's) and the *Real Time Transmission Constraint Management* (TCM) Rule apply to the Stakeholder's operations;
- the AESO's approach to long-term planning of the Alberta interconnected electric system (AIES);
- the AESO's approach to planning for connection projects; and
- the rationale for the AESO's market participant notification letter.

The Stakeholder did not have any additional questions that the AESO could address prior to filing. However, the AESO did commit to following up with the Stakeholder after the NID application is filed to discuss any further questions the Stakeholder may have.

The TFO has advised the AESO that none of the Stakeholders notified by the TFO identified any concerns or objections regarding the AESO's preferred option to respond to the system access service request or the need for development.

Apart from the inquiry above from the one Stakeholder, the AESO has not received any indication of concerns or objections about the AESO's preferred option to respond to the system access service request or the need for development.

7. List of Attachments

- Attachment 1 – AESO PIP (December 2015)
- Attachment 2 – AESO Need Overview Update (November 2018)
- Attachment 3 – AESO Stakeholder Newsletter Need Overview Update Notice (November 27, 2018)
- Attachment 4 – TFO's Project Update Letter (November 19, 2018)
- Attachment 5 - AESO Market Participant Notification Letter (April 30, 2019)
- Attachment 6 – AESO Public Notification of Amended NID Filing Website Posting (May 2019)
- Attachment 7 – AESO Stakeholder Newsletter Amended NID Filing Notice (May 28, 2019)

Attachment 1 – AESO PIP (December 2015)

Alberta Electric System Operator
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Phone: 403-539-2450 | Fax: 403-539-2949
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APPENDIX C AESO PIP

1.0 Participant Involvement Program (PIP)

From June to December 2015, the AESO conducted a Participant Involvement Program (PIP) to assist in preparing its McLaughlin Wind Energy 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):

- Nav Canada
- Alberta Agriculture and Rural Development
- Alberta Culture and Tourism, Archaeological Survey Section
- Alberta Environment and Parks, Regional Resource Management
- Alberta Environment and Parks, Land Approvals
- Alberta Transportation and Infrastructure, Development Planning
- Municipal District of Pincher Creek
- Town of Pincher Creek
- TELUS Communications Company
- FortisAlberta Inc.

The AESO used a variety of methods to notify Stakeholders on the need for the McLaughlin wind energy 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/32092.html and a notice was published in the AESO Stakeholder Newsletter on June 2, 2015. Copies of the Need Overview and the AESO Stakeholder Newsletter notice have been included as Attachments 1 and 2, respectively.

The Need Overview was also included with AltaLink's project-specific information package mailed on June 1, 2015 to the Stakeholders noted above. Attachment 3 includes a copy of AltaLink's information 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 is committed to protecting Stakeholders' privacy, 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/32092.html on November 25, 2015 and a notice in the AESO Stakeholder Newsletter on November 26, 2015. Copies of the Public Notification of NID Filing and the AESO Stakeholder Newsletter notice have been included as Attachments 4 and 5, respectively.

1.3 Concerns and Objections Raised

The AESO has not received any 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 – AESO Stakeholder Newsletter Need Overview Notice
- Attachment 3 – AltaLink's Information Brochure – *McLaughlin Wind Aggregated Generating Facility Connection (*May 2015)
- Attachment 4 – AESO Public Notification of NID Filing (AESO Website Posting)
- Attachment 5 – AESO Stakeholder Newsletter NID Filing Notice

Attachment 1 – AESO Need Overview

Need for the RESL McLaughlin Wind Energy Connection in the Pincher Creek Area

Transmission Development Information for Stakeholders

Why is this transmission development needed?

Renewable Energy Services Ltd. (RESL) has applied to the Alberta Electric System Operator (AESO) for transmission system access to connect its proposed McLaughlin Wind Generating Facility (Facility) in the Pincher Creek area. RESL's request can be met by constructing a short 138 kV transmission line to connect the Facility to the existing 164L transmission line.

The AESO is processing RESL'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 late 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 application.

How is AltaLink Management Ltd. (AltaLink) involved?

AltaLink is the transmission facilities owner (TFO) in the Pincher Creek 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 connection.

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 transmission system development in the Pincher Creek 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

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.

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

Attachment 2 – AESO Stakeholder Newsletter Need Overview Notice

RESL McLaughlin Wind Energy Connection - Need for Transmission System Development in the Pincher Creek Area

Renewable Energy Services Ltd. (RESL) has applied to the AESO for transmission system access to connect its proposed McLaughlin Wind Generating Facility (Facility) in the Pincher Creek area. RESL's request can be met by constructing a short 138 kV transmission line to connect the Facility to the existing 164L transmission line.

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 Transmission > Needs Identification Documents > RESL McLaughlin Wind Energy Connection.

Attachment 3 – AltaLink's Information Brochure – *McLaughlin Wind Aggregated Generating Facility Connection* (May 2015)

ALTALINK
A BERKSHIRE HATHAWAY ENERGY COMPANY

May 2015

Electric system improvements near you

McLaughlin Wind Aggregated Generating Facility Connection

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 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.

You are receiving this newsletter because you are near the McLaughlin Wind Aggregated Generating Facility Connection project and we want your input.

This project will connect Renewable Energy Services Ltd.'s McLaughlin Wind Farm to the electric system, providing Alberta with a new source of renewable energy. Additionally, underground fibre optic cable will be installed at three different geographic locations to provide the required telecommunication links for the project. Please refer to the project details for more information on the location that is nearest to you.

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

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

The proposed structure on the 164AL line will look similar to the structure above.

Project details

The proposed project involves connecting the McLaughlin Wind Farm to the electric system and is located approximately eight kilometres (five miles) east of the Town of Pincher Creek in SW-22-6-29-W4.

We are proposing to construct 120 metres (395 feet) of new 138 kilovolt (kV) transmission line, to be called 164AL, to connect Renewable Energy Service Ltd.'s planned McLaughlin Substation to the existing 164L transmission line.

New transmission line: 164AL

The new transmisison line will be single circuit and consist of wood pole structures, approximately 20 metres (65 feet) tall and have a right-of-way approximately 20 metres (65 feet) wide. These new structures will be supported by guy wires.

Modifications to the existing 164L transmission line

To connect the proposed 164AL line to the existing 164L line, two existing structures (164L30 and 164L31, shown on the attached map as point A1 and A3, respectively) and 150 metres (490 feet) of 164L line will need to be salvaged between these two points.

Approximately 150 metres(490 feet) of the 164L line will then be rebuilt on the same alignment with five new steel or wood structures to accommodate the proposed 164AL connection. These structures will be supported by guy anchors and require additional right-of-way space on the west side of the line. Please refer to the included Detail Photo DP1 map for details.

Underground fibre optic cable installation

Fibre optic cable will be installed underground in three separate locations for communication between the McLaughlin Substation and the electric system.

Approximately 400 metres (1300 feet), shown on the Detailed Photo DP1 map, will be buried alongside the 164L line near the McLaughlin Substation in SW-22-6-29-W4.

Approximately 300 metres (985 feet) of cable will be buried alongside the existing 955L line in NW-33-6-29-W4, where it connects to the 164L line, as shown on the Detailed Photo DP2 map.

The third installation, outlined on the Detailed Photo DP3 map, will include 45 metres (148 feet) of buried cable alongside the 164L line near the Drywood Substation in SE-23-4-29-W4.

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: 1 -866-451-7817

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*.

Anticipated project schedule

Notify and consult with stakeholders	May - July 2015
File application with Alberta Utilities Commission (AUC)	October 2015
Start construction if project is approved	March 2017
Construction completed	July 2017

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

The BowArk Drywood Substation Interconnection Project is near the McLaughlin Wind Aggregated Generation Facility Connection and involves constructing a transmission line to connect BowArk Energy Ltd.'s proposed generating facility to the existing Drywood Substation. Modifications to the existing Drywood Substation are also required to facilitate this connection. Consultation is currently underway.

ALTALINK
A BERKSHIRE HATHAWAY ENERGY COMPANY

Contact us

To learn more about the proposed project please contact:

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

To learn more about the McLaughlin Wind Farm development:

RENEWABLE ENERGY SERVICES LTD.
Henri Knapen, Operations and Project Manager
1-902-442-8195 or 1-902-476-0996
E-mail: henriknapen@resl.ca
Website: www.resl.ca/projects/late-stage-developments/mclaughlin-wind-farm/

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
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 or you can make your concerns known to an AltaLink representative who will communicate them to the AESO on your behalf.

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

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

PRIVACY COMMITMENT

AltaLink is committed to protecting your privacy. Collected personal information 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 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 Needs or Facilities Applications*
- AESO Need Overview Document

DID YOU KNOW?

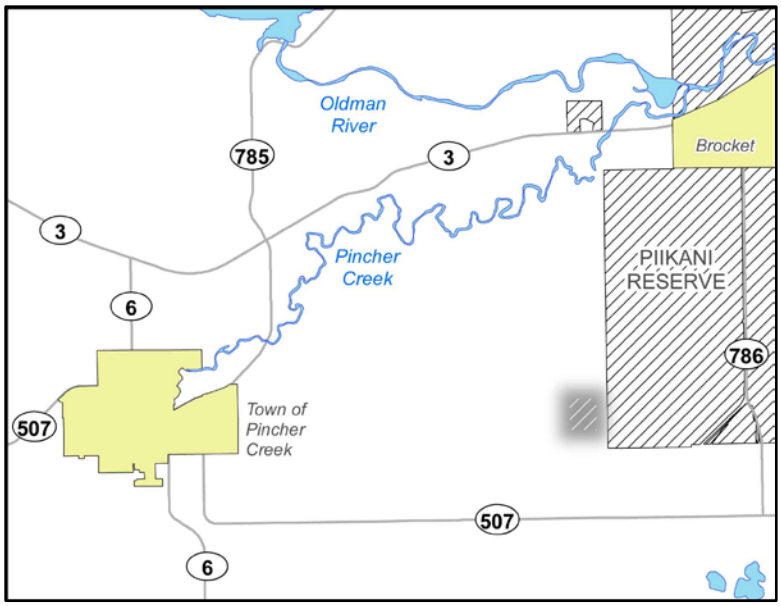
According to the Canadian Electricity Association, Canada's electricity grid was built for a population of about 20 million, but is today servicing around 35 million people. Provinces across Canada, including Alberta, are working to reinforce their aging electric systems so they can continue to provide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

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

AESO Public Notification of NID Filing
Addressing the Need for the RESL McLaughlin Wind Energy Connection in the Pincher Creek Area

The Alberta Electric System Operator (AESO) advises you that it intends to file a Needs Identification Document (NID) for the McLaughlin Wind Energy Connection with the Alberta Utilities Commission (AUC) on or after December 11, 2015.

Renewable Energy Services Ltd. (RESL) has applied to the AESO for transmission system access to connect its proposed McLaughlin wind generating facility (Facility) in the Pincher Creek area. RESL's request can be met by constructing a short 138 kV transmission line to connect the Facility to the existing 164L transmission line.



The shaded area on the map indicates the approximate location of the proposed transmission development, which is at 22-6-29W4. In a separate application called a Facility Application, AltaLink Management Ltd. (AltaLink) the transmission facility owner (TFO) in the Pincher Creek 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 June 2015 to November 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 it is filed, the NID will be posted on the AESO website at http://www.aeso.ca/transmission/32092.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 NID Filing Notice

RESL McLaughlin Wind Energy Connection – Notice of NID Filing

Renewable Energy Services Ltd. (RESL) has applied to the AESO for transmission system access to connect its proposed McLaughlin wind generating facility (Facility) in the Pincher Creek area. RESL's request can be met by constructing a short 138 kV transmission line to connect the Facility to the existing 164L transmission line.

The AESO intends to file the McLaughlin Wind Energy Connection Needs Identification Document application with the Alberta Utilities Commission (AUC) on or after December 11, 2015, requesting that the AUC approve this NID**.**

The AESO has posted the public notification for its NID filing on its website for the RESL McLaughlin Wind Energy 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 > RESL McLaughlin Wind Energy Connection to see all the relevant documents, including the NID application once it is filed with the AUC.

Attachment 2 – AESO Need Overview Update (November 2018)

Need for the McLaughlin Wind Power Plant Connection in the Pincher Creek Area

Renewable Energy Services Ltd. (RESL) has applied to the Alberta Electric System Operator (AESO) for transmission system access to connect its proposed McLaughlin Wind Power Plant (Facility) in the Pincher Creek area.

Distribution of the original AESO Need Overview began in May 2015 and the AESO filed a needs identification document (NID) application in December 2015. As a result of a change in schedule, the AESO determined that an amendment to the filed NID application will be required. The AESO intends to submit the amended NID as described below.

RESL's request can be met by the following solution:

PROPOSED SOLUTION

- Add one 138 kilovolt (kV) transmission line to connect the Facility to the existing 138 kV transmission line 164L.
- Add or modify associated equipment as required for the above transmission developments.

REVISED NEXT STEPS

- The AESO has determined that the NID application submitted in December 2015 needs to be amended. The AESO now intends to submit the amended NID application to the Alberta Utilities Commission (AUC) for approval of the need in early 2019.
- 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

- Is the transmission facility owner in the Pincher Creek Area.
- Is responsible for detailed siting and routing, constructing, operating and maintaining the transmission facilities.
- Is regulated by the AUC and must apply to the AUC for approval of its transmission facilities applications.

WHO IS THE AESO?

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

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.

CONTACT US

Alberta Electric System Operator

AESO Stakeholder Relations
stakeholder.relations@aeso.ca
1-888-866-2959

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

www.aeso.ca | **@theaeso**

Attachment 3 – AESO Stakeholder Newsletter Need Overview Update Notice (November 27, 2018)

November 27, 2018

AESO Stakeholder Newsletter

GRID

Information Update for the McLaughlin Wind Power Plant Connection – Need for Transmission Development in the Pincher Creek area

Renewable Energy Services Ltd. (RESL) has applied to the Alberta Electric System Operator (AESO) for transmission system access to connect its proposed McLaughlin Wind Power Plant (Facility) in the Pincher Creek area.

Distribution of the original AESO Need Overview began in May 2015 and the AESO filed a needs identification document (NID) application in December 2015. As a result of a change in schedule, the AESO determined that an amendment to the filed NID application will be required. The AESO intends to submit the amended NID as described below.

RESL's request can be met by the following solution:

- Add one 138 kilovolt (kV) transmission line to connect the Facility to the existing 138 kV transmission line 164L
- Add or modify associated equipment as required for the above transmission developments

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 > Project > McLaughlin Wind Power Plant Connection.

Attachment 4 – TFO's Project Update Letter (November 19, 2018)

ALTALINK
A BERKSHIRE HATHAWAY ENERGY COMPANY
2611 3rd Ave SE, Calgary, Alberta, T2A 7W7
www.altalink.ca

November 19, 2018

McLaughlin Wind Aggregated Generating Facility Connection
Project update

Thank you for your ongoing participation in the McLaughlin Wind Aggregated Generating Facility Connection project. We submitted an application for the project to the Alberta Utilities Commission (AUC) on December 16, 2015. We would like to inform you of changes to the project and share an updated schedule with you.

Project details
AltaLink is proposing to connect Renewable Energy Services Ltd.'s McLaughlin Wind Farm to the electric system, providing Alberta with a new source of renewable energy. This project involves:

- Based on the approved customer substation location AltaLink will be constructing approximately 110 metres (360 feet) of new transmission line, which will be called 164AL
- modifying the existing 164L transmission line
- installing fibre optic cable in three locations

Project update
The five (5) Guy-wire supported structures initially proposed will no longer be required on the 164L. As a result, the previously proposed guy wire easement and additional right-of-way along the existing transmission 164L line will no longer be required. AltaLink is also no longer proposing to salvage any structures as previously proposed along the 164L.

Instead, a proposed self-supporting steel structure will be built on the 164L line that will look similar to the structure shown on the right.

Updated anticipated project schedule

File amendment with Alberta Utilities Commission (AUC)	April 2019
Start construction if project is approved	June 2020
Construction completed	August 2020

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.

Next Steps
AltaLink will consult with directly affected landowners on the changes to the project noted in the Project update.

We will file an amendment with the AUC in Spring 2019 for the updated schedule outlined above, as well as the updated project cost. Please note that all costs for this project will be paid by Renewable Energy Services Ltd. In an effort to keep you updated we ask that you review the information and contact us if you have any concerns.

The AUC will review the amended application and can approve, approve with conditions, or deny the project. We will notify stakeholders when we file the amendment and again when the AUC has reached a decision about the project.

Contact us
We are available to address any questions or concerns you may have regarding the project or the project amendment. Please contact us at stakeholderrelations@altalink.ca or 1.877.269.5903.

Further information about this project and maps are available at:
http://www.altalink.ca/projects/view/114/mclaughlin-wind-aggregated-generating-facility-connection

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 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 or the proposed transmission development to meet the need you may contact the AESO directly. You can make your questions or concerns known to a transmission facility owner 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.

Sincerely,

Dave Lee
Manager, Consultation

Attachment 5 – AESO Market Participant Notification Letter (April 30, 2019)

SENT VIA EMAIL

April 30, 2019

[Notified Market Participant]

[Notified Market Participant Address]

Dear **Notified Market Participant:**

Re: **Planned Generating Facility Connections in the AESO's South Planning Region**

The Alberta Electric System Operator (AESO) would like to advise you that the proponents of two planned generating facilities (planned Facilities) have each applied for transmission system access to connect their respective planned Facilities to the Alberta interconnected electric system (AIES) in the AESO's South Planning Region.

Planning for the connection of these facilities is undertaken by the AESO as part of the *AESO Connection Process.* The planned Facilities are as follows:

- the Drywood Expansion Power Plant; and
- the McLaughlin Wind Power Plant.

The AESO has produced Need Overview documents that describe the AESO's proposed transmission development to connect each of the planned Facilities to the AIES and the AESO's next steps, which includes submitting needs identification document (NID) applications to the Alberta Utilities Commission (AUC) for approval. Copies of the applicable AESO Need Overview documents are attached for your information.

The purpose of this letter is to advise you that the AESO has identified that, under some potential system conditions, the operation of the **[Notified Market Participant Facility]** may be affected following the connection of one or more of the above-noted planned Facilities.[1]

Connection Assessment Findings

Engineering connection assessments were carried out by the AESO in order to assess the transmission system performance following the connection of the planned Facilities. The connection assessments identified the potential for system performance issues, under some future system conditions, following the connection of one or more of the planned Facilities.

Transmission Constraint Management

To mitigate these potential system performance issues, existing and planned remedial action schemes (RASs) may be modified.

[1] The studies were performed assuming the following Rate STS, *Supply Transmission Service*, contract capacities: the Drywood Expansion Power Plant Connection, Rate STS of 34 MW; and the McLaughlin Wind Power Plant Connection, Rate STS of 47 MW.

Alberta Electric System Operator
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www.aeso.ca
@theaeso

The AESO may also make use of real-time operational measures to mitigate these potential system performance issues in accordance with Section 302.1 of the ISO rules, *Real Time Transmission Constraint Management* (TCM Rule). When applied, the TCM Rule could result in the AESO issuing directives for curtailment to source assets that are effective in managing a constraint.

The connection assessments have identified source assets, including the **[Notified Market Participant Facility]**, which are effective in mitigating the potential transmission constraints.

Renewable Generation Integration

The actual impacts of these connection projects depend on their actual energization timing, as well as the energization timing of other planned renewable generation connection projects in the area. The AESO will ensure plans are in place when impacts of the Drywood Expansion Power Plant Connection, the McLaughlin Wind Power Plant Connection, and the other planned renewable generation connection projects in the area become certain. As mentioned in the AESO's *Transmission Capability Assessment for Renewables Integration* report and addendum,[2] renewable integration capability could be achieved through use of RASs, which is consistent with the findings of the engineering connection assessments.

For Further Information

The engineering connection assessment will be included in the AESO's Drywood Expansion Power Plant Connection and McLaughlin Wind Power Plant Connection NID applications. Following submission of the NID applications to the AUC, the NID applications will be posted on the AESO website at: https://www.aeso.ca/grid/projects/

If you have any questions or concerns, please contact the AESO at 1-888-866-2959 or stakeholder.relations@aeso.ca

Yours truly,

"Electronically signed by"

Maz Mazadi, PhD, P.Eng., SMIEEE
Manager, Project and System Access Studies

Attachments:
AESO Need Overview: *Need for the Drywood Expansion Power Plant Connection in the hamlet of Twin Butte area*
AESO Need Overview Update: *Need for the McLaughlin Wind Power Plant Connection in the Pincher Creek Area*

[2] Available on the AESO website at https://www.aeso.ca/grid/long-term-transmission-plan/

Need for the Drywood Expansion Power Plant Connection in the hamlet of Twin Butte area

BowArk Energy Ltd. (BowArk) has applied to the Alberta Electric System Operator (AESO) for transmission system access to connect its proposed Drywood Expansion Power Plant (Facility) in the hamlet of Twin Butte area. BowArk's request can be met by the following solution:

PROPOSED SOLUTION

- Add a 138 kilovolt (kV) transmission line to connect the Facility to the existing 138 kV transmission line 164L.
- Add or modify associated equipment as required for the above transmission development.

NEXT STEPS

- The AESO intends to apply to the Alberta Utilities Commission (AUC) for approval of the need in mid-2019.
- 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

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

WHO IS THE AESO?

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

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.

CONTACT US

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1-888-866-2959

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Need for the McLaughlin Wind Power Plant Connection in the Pincher Creek Area

Renewable Energy Services Ltd. (RESL) has applied to the Alberta Electric System Operator (AESO) for transmission system access to connect its proposed McLaughlin Wind Power Plant (Facility) in the Pincher Creek area.

Distribution of the original AESO Need Overview began in May 2015 and the AESO filed a needs identification document (NID) application in December 2015. As a result of a change in schedule, the AESO determined that an amendment to the filed NID application will be required. The AESO intends to submit the amended NID as described below.

RESL's request can be met by the following solution:

PROPOSED SOLUTION

- Add one 138 kilovolt (kV) transmission line to connect the Facility to the existing 138 kV transmission line 164L.
- Add or modify associated equipment as required for the above transmission developments.

REVISED NEXT STEPS

- The AESO has determined that the NID application submitted in December 2015 needs to be amended. The AESO now intends to submit the amended NID application to the Alberta Utilities Commission (AUC) for approval of the need in early 2019.
- 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

- Is the transmission facility owner in the Pincher Creek Area.
- Is responsible for detailed siting and routing, constructing, operating and maintaining the transmission facilities.
- Is regulated by the AUC and must apply to the AUC for approval of its transmission facilities applications.

WHO IS THE AESO?

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

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.

CONTACT US

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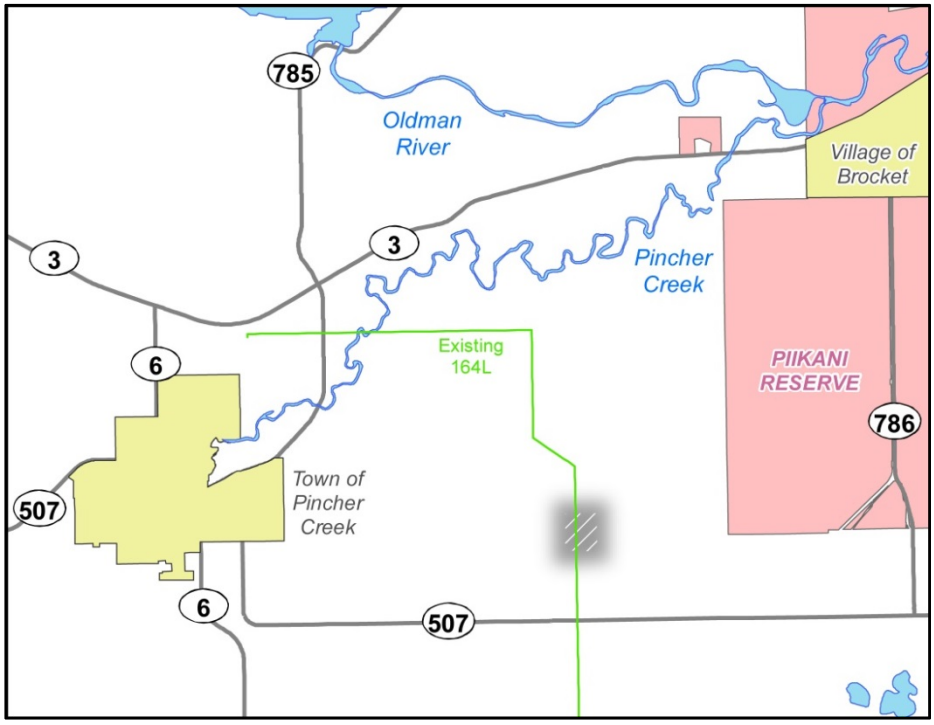
Attachment 6 – AESO Public Notification of Amended NID Filing Website Posting (May 2019)

Notification of Amended Needs Identification Document Filing Addressing the Need for the McLaughlin Wind Power Plant Connection in the Pincher Creek Area

The Alberta Electric System Operator (AESO) advises you that it intends to file an amended Needs Identification Document (NID) for the McLaughlin Wind Power Plant Connection with the Alberta Utilities Commission (AUC) on or after June 12, 2019.

Renewable Energy Services Ltd. (RESL) has applied to the AESO for transmission system access to connect its proposed McLaughlin Wind Power Plant (Facility) in the Pincher Creek area. RESL's request can be met by the following solution:

- Add one 138 kilovolt (kV) transmission line to connect the Facility to the existing 138 kV transmission line 164L.
- Add or modify associated equipment as required for the above transmission developments.



The grey shaded area on the map indicates the approximate location of the proposed transmission developments, including the 138 kV transmission line. The specific transmission facilities may extend beyond the grey shaded area shown.

AltaLink Management Ltd. is the transmission facility owner (TFO) in the Pincher Creek area. In November 2018, the AESO and the TFO presented updated information about the need to stakeholders, including residents, occupants, and landowners. The AESO will file an amended NID application with the AUC requesting approval of the need for this transmission development. This amended NID application will replace the original NID application that was filed in December 2015. Once filed with the AUC, the amended NID will be posted on the AESO website at https://www.aeso.ca/grid/projects/mclaughlin-wind-power-plant-connection/

In a separate application, called a Facility Application, the TFO will amend its Facility Application and provide more details about the specific facilities associated with the AESO's proposed transmission development, and will request AUC approval to construct and operate these facilities.

For more information, please visit our website, www.aeso.ca or contact us at 1-888-866-2959 or stakeholder.relations@aeso.ca

Attachment 7 – AESO Stakeholder Newsletter Amended NID Filing Notice (May 28, 2019)

May 28, 2019

AESO Stakeholder Newsletter

GRID

McLaughlin Wind Power Plant Connection – Notice of Amended NID Filing

Renewable Energy Services Ltd. (RESL) has applied to the AESO for transmission system access to connect its proposed McLaughlin Wind Power Plant (Facility) in the Pincher Creek area. RESL's request can be met by the following solution:

- Add one 138 kilovolt (kV) transmission line to connect the Facility to the existing 138 kV transmission line 164L.
- Add or modify associated equipment as required for the above transmission developments.

The AESO intends to file the amended McLaughlin Wind Power Plant Connection Needs Identification Document (NID) application with the Alberta Utilities Commission (AUC) on or after June 12, 2019 requesting that the AUC approve this amended NID. This amended NID application will replace the original NID application that was filed in Dec. 2015.

The AESO has posted the Notification of 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 > Project > McLaughlin Wind Power Plant Connection to see all the relevant documents, including the amended NID application once it is filed with the AUC.