



Sharp Hills Wind Farm Connection

PIP Summary

1.0 Participant Involvement Program (PIP)

From September 2016 to October 2017, the AESO conducted a Participant Involvement Program (PIP) to assist in preparing its *Sharp Hills Wind Farm Connection Needs Identification Document* (NID). The AESO directed one of the transmission facility owners (TFOs) involved in the Project, in this case ATCO Electric Ltd. (ATCO), to assist the AESO in providing notification as part of the AESO's PIP.

The AESO's PIP has been conducted in accordance with the requirements of Section 6.2.2, NID27 and Appendix A2 of the current Alberta Utilities Commission (Commission) Rule 007, effective July 4, 2017.

1.1 Stakeholder Notification

The AESO's PIP was designed to notify the parties notified in ATCO's PIP and other parties that the AESO has determined may have an interest in a needs identification document, including but not limited to:

- 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 developed a one-page AESO Need Overview document that notified Stakeholders of the following items:

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

A copy of the Need Overview was posted to the AESO website at https://www.aeso.ca/grid/projects/sharp-hills-energy-connection/ on September 7, 2016 and a



notice was published in the AESO Stakeholder Newsletter on September 8, 2016. Copies of the Need Overview posting and the AESO Stakeholder Newsletter notice have been included as Attachments 1 and 2, respectively.

Stakeholders Notified in ATCO's PIP

ATCO has advised the AESO that its PIP included notification within 800 m of the proposed New Brigden 2088S substation and the proposed in/out configuration in accordance with AUC Rule 007.

In total, ATCO notified a total of 4 occupants, residents or landowners and 9 local authorities, government agencies and industry stakeholders. The Need Overview was included with the TFO's project-specific information packages that were distributed to these Stakeholders between August 30, 2016 and October 14, 2016.

The 9 notified local authority, government agency and industry stakeholders and ATCO's rationale for their inclusion in the PIP are listed in the following table.

Table 1: Summary of Notified Local Authority, Government Agency and Industry Stakeholders

Stakeholder	Rationale for Inclusion in PIP
Alberta Culture and Tourism	Provincial Requirement
Alberta Environment and Parks- Fish and Wildlife	Provincial Requirement
Dry Country Gas Co-Op Ltd	Land Rights
EDP Renewable SH Project GP Ltd	Land Rights
Harvest Operations Corp	Land Rights
Municipal Affairs Special Areas 4 Board	Municipal Requirement
Municipal District of Stewart No. 302	Land Rights
Municipal District of Neutral Hills No. 331	Land Rights
Telus Communications Inc	Provincial Requirement

Attachment 3 includes ATCO's project newsletter, which was included in ATCO's project-specific information packages. ATCO's project newsletter included the AESO's contact information, a description of the AESO's role, a reference to the AESO Need Overview, and an invitation to contact ATCO or the AESO for additional information.

Stakeholders Notified by the AESO

The AESO also notified 9 market participants that the AESO has determined may have an interest in the NID. The AESO identified that, under certain abnormal (Category B) system conditions, these market participants may be affected following the connection of the Facility and/or two other planned generating facilities. A Market Participant Notification Letter, which included the applicable Need Overviews was sent to the notified market participants on September 8, 2017. The 9 notified market participants are as follows:

- Alberta Power (2000) Ltd.
- Balancing Pool



- BluEarth Renewables Inc.
- FortisAlberta Inc.
- Ghost Pine Windfarm LP
- Halkirk Wind Power LP
- Irma Wind Farm LP
- Suncor Energy Products Inc.
- TransAlta Corporation

A generic version of the Market Participant Notification Letter was posted to the AESO website on September 11, 2017 at https://www.aeso.ca/grid/projects/sharp-hills-energy-connection/. A copy has been included as Attachment 4.

1.2 Filing Notification

Most recently, the AESO notified Stakeholders of its intention to submit the NID to the Commission by posting a Notification of NID Filing to the AESO website at https://www.aeso.ca/grid/projects/sharp-hills-energy-connection/ and a notice in the AESO Stakeholder Newsletter on October 12, 2017. Copies of the Notification of NID Filing posting and the AESO Stakeholder Newsletter notice have been included as Attachments 5 and 6, respectively.

1.3 Responding to Questions and Concerns

To ensure that Stakeholders had the opportunity to provide feedback, the AESO provided Stakeholders with the AESO contact information, including a dedicated, toll-free telephone line (1-888-866-2959) and a dedicated email address (<u>stakeholder.relations@aeso.ca</u>). The Need Overview included this 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 is committed to protecting Stakeholders' privacy.

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

1.4 Concerns and Objections Raised

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



1.5 List of Attachments

- Attachment 1 AESO Need Overview
- Attachment 2 AESO Stakeholder Newsletter Need Overview Notice
- Attachment 3 ATCO's Project Newsletter Sharp Hills Transmission Project
- Attachment 4 Market Participant Notification Letter
- Attachment 5 AESO Public Notification of NID Filing (AESO Website Posting)
- Attachment 6 AESO Stakeholder Newsletter NID Filing Notice



Attachment 1 - AESO Need Overview



Need for the Sharp Hills Energy Connection in the Sedalia Area North of Oyen

EDP Renewables SH Project Limited Partnership (EDPR) has applied to the Alberta Electric System Operator (AESO) for transmission system access to connect its proposed Sharp Hills wind generating facility in the Sedalia area north of Oyen. EDPR's request can be met by the following solution:

PROPOSED SOLUTION

- Add the New Brigden 2088S 240 kilovolt (kV) switching substation that includes four 240 kV circuit breakers and associated equipment.
- Connect the New Brigden 2088S switching substation to the existing 240 kV transmission line 9L46 using and in-and-out connection configuration.

NEXT STEPS

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

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

ATCO ELECTRIC LTD.:

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



FAST FACT

Alberta's electric transmission system comprises the towers, wires and

related equipment that are a part of moving electricity from where it is generated to where it is used.

CONTACT US

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

Alberta Electric System Operator Jennifer Vollmer

AESO Stakeholder Relations

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

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

Fax: 403-539-2949

www.aeso.ca

www.poweringalberta.ca

@theaeso

WHO IS THE AESO?

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

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



Attachment 2 - AESO Stakeholder Newsletter Need Overview Notice

Sharp Hills Energy Connection – Need for Transmission System Development in the Sedalia Area North of Oyen

EDP Renewables SH Project Limited Partnership (EDPR) has applied to the AESO for transmission system access to connect its proposed Sharp Hills wind generating facility in the Sedalia area north of Oyen. EDPR's request can be met by the following solution:

- Add the New Brigden 2088S 240 kilovolt (kV) switching substation that includes four 240 kV circuit breakers and associated equipment.
- Connect the New Brigden 2088S switching substation to the existing 240 kV transmission line 9L46 using and in-and-out connection configuration.

The AESO has posted a need overview for this project on its website. 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 > Sharp Hills Energy Connection



Attachment 3 – ATCO's Project Newsletter – Sharp Hills Transmission Project

ATCO

conversation

PROJECT NEWSLETTER

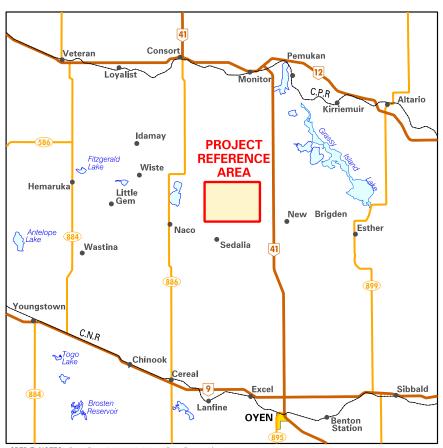
August 2016

SHARP HILLS TRANSMISSION PROJECT

This newsletter provides you with information about electric transmission facilities being planned in your area, and we are seeking your input on how the project may affect you. This package provides important project information and outlines our public consultation process. We invite any comments, questions or concerns you may have.

The proposed Sharp Hills Transmission Project will be located approximately 7 kilometres (km) north of Sedalia, and is needed to connect new customer wind generation facilities to the electrical grid. If approved, the project will include the construction of a new 240-kilovolt (kV) switching station (called New Brigden 2088S). The existing 9L46 transmission line will be altered in order to connect the new switching station and wind generation facilities to the electrical grid. These alterations will include the removal of approximately 400 metres (m) of the existing 240-kV transmission line 9L46, the construction of an approximately 225 m extension to the existing transmission line 9L46, and the construction of an approximately 320 m extension to the existing transmission line 9L46, to be renumbered 9L51.

ATCO is seeking your input on how this project may affect you. If you are in the direct vicinity of the planned facilities, ATCO will contact you in the coming weeks.



Project Need

When upgrades to Alberta's electrical system are needed, they are identified by the Alberta Electric System Operator (AESO). The AESO is an independent, not-for-profit organization responsible for the safe, reliable and economic planning and operation of the provincial electric transmission grid. For more information about why this project is needed, please refer to the AESO's Need Overview included with this newsletter, or visit 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 ATCO representative who will communicate them to the AESO on your behalf.

Included in this package

- Technical Details Sharp Hills
 Transmission Project
- Sharp Hills Transmission Project Planned Site Layout Diagram
- AUC brochure: Public Involvement in a Proposed Utility Development
- AESO Need Overview
- Reply form and postage paid envelope

CONTACT INFORMATION

Your comments and concerns are important to us. Please contact us if you would like to learn more about this project or if you would like to share information with us.

Call us toll free at 1-855-420-5775 or contact the project planner directly:

Breanna Wise Right-of-Way Planning ATCO 10035-105 Street Edmonton, AB T5J 2V6

Phone: 780-420-5003

Email: consultation@atcoelectric.com

Website: www.atcoelectric.com

Fax: 780-420-5030



August 2016

Notification to landholders, agencies and other interested parties.

December 2016

Submission of applications to the Alberta Utilities Commission (AUC) and Industry Canada.

July 2017

If approved, construction will commence.

June 2018

Facilities completed and operating.

*Timing may be adjusted to reflect final plans.

Approval Process

Alberta's electrical system is regulated by the AUC, an independent agency of the province that ensures the fair and responsible delivery of utility services. Before ATCO can begin construction on a project, the AUC must approve the facilities application, which includes details such as location of electric transmission facilities and routes. For more information about how you can participate in the AUC approval process, please refer to the enclosed AUC brochure, *Public Involvement in a Proposed Utility Development*.

Next Steps

The consultation process for this project is ongoing. Please let us know if you have any questions, concerns or suggestions regarding this project. You can provide feedback and share other information using the enclosed reply form and postage paid envelope, by contacting us (toll free) at 1-855-420-5775, or by emailing us at consultation@atcoelectric.com.



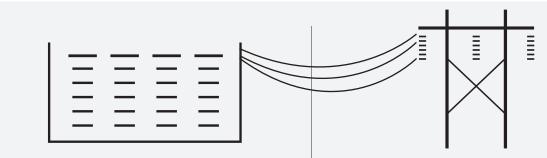
ATCO

The Technical Details

August 2016

SHARP HILLS TRANSMISSION PROJECT

The technical details of facilities associated with the Sharp Hills Transmission Project are described in this fact sheet. Designs may vary as plans are finalized.



New Brigden 2088S Switching Station

The project will require the construction of a new 240-kV switching station (to be called New Brigden 2088S), located approximately 7 km north of Sedalia, in SW 16-32-5 W4M.

Modification of Existing 240-kilovolt (kV)

Transmission Line 9L46

If approved, transmission line 9L46 will be altered to connect the proposed switching station to the electrical grid. The portion of existing 240-kV transmission line north of the proposed switching station will be renumbered 9L51, while the existing 240-kV transmission line south of the switching station will remain named 9L46.

THE DETAILS

If approved, the switching station will consist of the following new equipment (please refer to the back of this fact sheet for definitions):

- Four 240-kV circuit breakers
- Associated switches, equipment, and buildings

The planned New Brigden 2088S switching station site was chosen based on proximity to the customer's planned wind generation facilities and to ensure suitable site conditions, good access and sufficient space for the incoming transmission line.

THE DETAILS

If approved, the alignment change will include the construction of an approximately 225 m extension to transmission line 9L46 and the construction of an approximately 320 m extension to transmission line 9L46, to be renumbered 9L51. These lines will consist of three bundled conductor wires and one fibre optic shield wire supported on wood structures.

Following construction, a 400 m segment of 9L46 will be decommissioned. The existing conductor along this segment will be removed.

What It Will Look Like

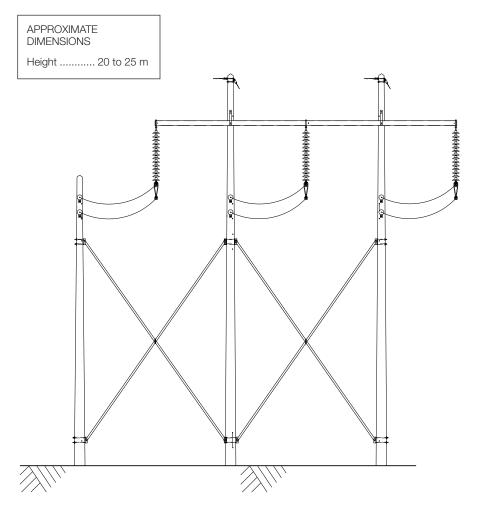
If approved by the Alberta Utilities Commission (AUC), the altered segment of 240-kV transmission line will be built with single-circuit wooden three-pole structures similar to the one shown here.

Structures will be single-circuit. This means they will have one set of three bundled conductor wires strung across them, plus one additional fibre optic shield wire at the top of the structure. The distance between structures will range from 30 to 100 metres.

The proposed structures will be guyed, with the guys extending from the tops of the poles to the ground at an approximate 45-degree angle.

Non-typical structures may be taller in height or have wider bases. Guy wires and anchors may be required where the line ends, bends, goes around corners, or avoids obstacles. In all cases minimum clearance will meet or exceed provincial safety regulations.

Note: Details may change as the project develops and designs are finalized.



Typical right-of-way for this project - 25 metres

Rights-of-way are cleared of trees, bush and debris to allow access for construction and ongoing maintenance.

Definitions

Circuit: A circuit is a group of wires electricity flows through.

ATCO's transmission lines can be single or double circuit. A single circuit line has three wires and a double circuit line has six. A transmission line may also have one or two shield wires on the top of the structures to protect the line from lightning.

Circuit breaker: A circuit breaker is an automatic switch that is designed to protect an electrical circuit from

overloading by shutting off the flow of electricity.

Consultation: A consultation is a meeting where advice, information,

and views are exchanged.

Kilovolt (kV): A kilovolt is equal to one thousand volts. This unit

of measurement is most commonly used when describing transmission and distribution lines. Distribution and transmission lines in Alberta carry between 4-kV (4,000 volts) and 500-kV (500,000 volts).

Right-of-way: A right-of-way is the use of a strip of land acquired

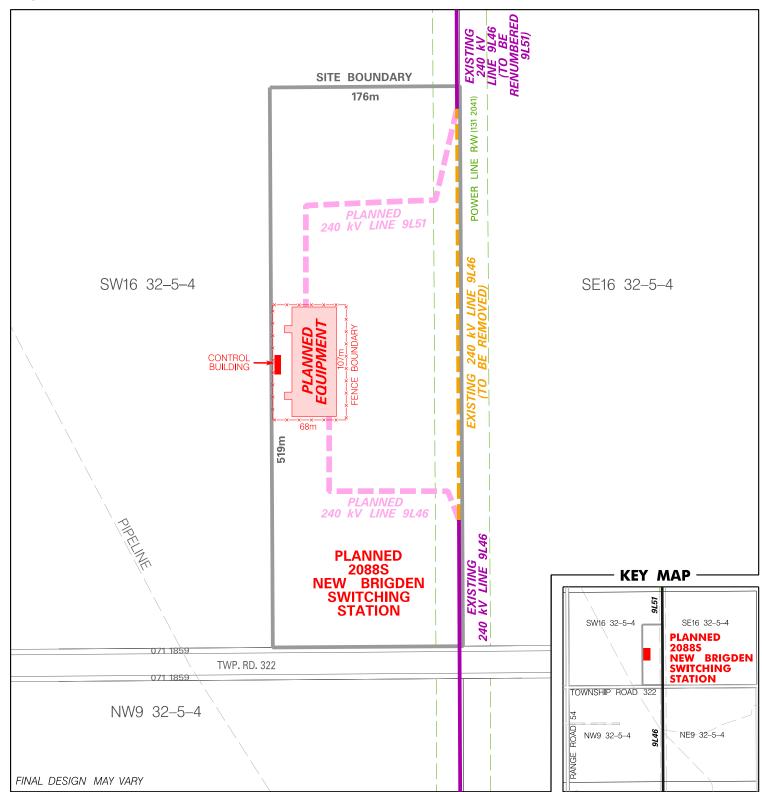
for the construction and operation of a transmission line. The term right-of-way is also used to refer to the physical space a transmission line encompasses

including areas on either side of the line.

Termination: A termination is the point where a power line ends

and connects to a substation.

PLANNED SITE LAYOUT





Sharp Hills Transmission Project

2088S NEW BRIGDEN SWITCHING STATION PLANNED SITE LAYOUT



Attachment 4 – Market Participant Notification Letter



September 7, 2017

[Notified Market Participant]
[Notified Market Participant Address]

Attention: [Notified Market Participant Primary Contact]

Dear [Notified Market Participant Primary Contact]:

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

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

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

- Sharp Hills Wind Farm
- Paintearth Wind Farm
- Halkirk 2 Wind Power Project

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 three 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 certain abnormal (Category B) system conditions, the operations of the **[Notified Market Participant Facility]** may be affected following the connection of the planned Facilities.

Connection Assessment Findings

Connection assessments were carried out by the AESO to assess the transmission system performance following the connection of the planned Facilities. These assessments did not identify any system performance issues under normal (Category A) system conditions. However, the connection assessments identified the potential for system performance issues under certain Category B system conditions that may be exacerbated following the connection of the planned Facilities.

To mitigate these identified system performance issues, namely potential transmission constraints, existing and planned remedial action schemes (RASs) may be modified. In addition, new RASs may be required.

Page 1 Public

Transmission Constraint Management

The AESO manages transmission constraints in accordance with the procedures set out in 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]**, that are effective in mitigating the potential transmission constraints. These effective source assets could be curtailed to manage the potential transmission constraints under certain Category B system conditions.

For Further Information

A completed connection assessment will be included in each of the AESO's NID applications for the above listed projects. Following submission to the AUC of each of AESO's NID applications, the NID application 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,

Mohamed Kamh, P.Eng., Ph.D., Manager, Project and System Access Studies

Attachments:

AESO Need Overview: Need for the Sharp Hills Energy Connection in the Sedalia Area North of Oyen AESO Need Overview: Need for the Halkirk 2 Wind Power Project Connection in the Tinchebray area in

the County of Paintearth

AESO Need Overview: Need for the Paintearth Wind Project Connection in the Halkirk area

Page 2 Public



Need for the Sharp Hills Energy Connection in the Sedalia Area North of Oyen

EDP Renewables SH Project Limited Partnership (EDPR) has applied to the Alberta Electric System Operator (AESO) for transmission system access to connect its proposed Sharp Hills wind generating facility in the Sedalia area north of Oyen. EDPR's request can be met by the following solution:

PROPOSED SOLUTION

- Add the New Brigden 2088S 240 kilovolt (kV) switching substation that includes four 240 kV circuit breakers and associated equipment.
- Connect the New Brigden 2088S switching substation to the existing 240 kV transmission line 9L46 using and in-and-out connection configuration.

NEXT STEPS

- The AESO intends to apply to the Alberta Utilities Commission (AUC) for approval of the need in late-2017.
- 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.

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

ATCO ELECTRIC LTD.:

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

FAST FACT

Alberta's electric transmission system

comprises the towers, wires and related equipment that are a part of moving electricity from where it is generated to where it is used.

CONTACT US

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

Alberta Electric System Operator Jennifer Vollmer

AESO Stakeholder Relations

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

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

www.aeso.ca

www.poweringalberta.ca

@theaeso

WHO IS THE AESO?

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

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



Need for the Paintearth Wind Project Connection in the Halkirk area

Paintearth Wind Project LP (Paintearth), by its general partner Paintearth Wind Project Ltd., has applied to the Alberta Electric System Operator (AESO) for transmission system access to connect its proposed Paintearth Wind Project (Facility) in the Halkirk area. Paintearth's request can be met by the following solution:

PROPOSED SOLUTION

- Add a substation (Pioneer 805S) with two 240 kilovolt (kV) circuit breakers.
- Add two 240 kV transmission lines to connect the proposed Pioneer 805S substation to the existing 240 kV transmission line 9L93.
- Add a 240 kV transmission line to connect the Facility to the proposed Pioneer 805S substation.
- Add or modify associated equipment as required for the above transmission developments.

NEXT STEPS

- In late 2017, the AESO intends to submit a needs identification document (NID) to the Alberta Utilities Commission (AUC) for approval.
- Once submitted, the NID will be posted on the AESO's website at www.aeso.ca/grid/projects/

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.

ATCO ELECTRIC LTD.:

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

FAST FACT

Alberta's electric transmission system

comprises the towers, wires and related equipment that are a part of moving electricity from where it is generated to where it is used.

CONTACT US

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

Alberta Electric System Operator Jennifer Vollmer

AESO Stakeholder Relations

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

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

www.aeso.ca | y @theaeso

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.

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



Need for the Halkirk 2 Wind Power Project Connection in the Tinchebray area in the County of Paintearth

Capital Power L.P. (Capital Power) has applied to the Alberta Electric System Operator (AESO) for transmission system access to connect its proposed Halkirk 2 Wind Power Project (Facility) in the Tinchebray area in the County of Paintearth. Capital Power's request can be met by the following solution:

PROPOSED SOLUTION

- Modify the existing Tinchebray 972S substation, including adding a 240 kilovolt (kV) circuit breaker.
- Add a 240 kV transmission line to connect the Facility to the Tinchebray 972S
- Add or modify associated equipment as required for the above transmission developments.

NEXT STEPS

- In late 2017, the AESO intends to submit a needs identification document (NID) to the Alberta Utilities Commission (AUC) for approval.
- Once submitted, the NID will be posted on the AESO's website at www.aeso.ca/grid/projects/

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.

ATCO ELECTRIC LTD.:

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

FAST FACT

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

CONTACT US

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

Alberta Electric System Operator Jennifer Vollmer

AESO Stakeholder Relations

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

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

www.aeso.ca | y @theaeso

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.

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



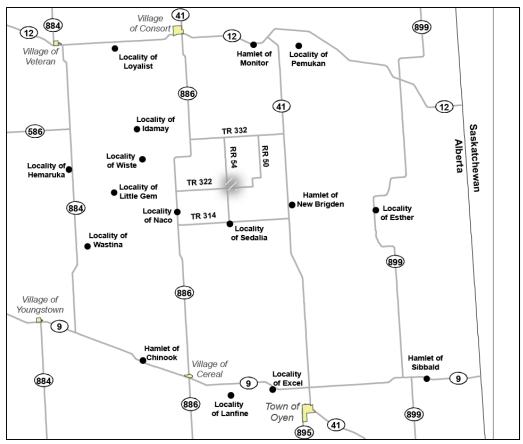
Attachment 5 – AESO Public Notification of NID Filing (AESO Website Posting)

Notification of Needs Identification Document Filing Addressing the Need for the Sharp Hills Wind Farm Connection in the Sedalia Area

The Alberta Electric System Operator (AESO) advises you that it intends to file a Needs Identification Document (NID) for the Sharp Hills Wind Farm Connection with the Alberta Utilities Commission (AUC) on or after October 27, 2017.

EDP Renewables SH Project Limited Partnership (EDPR) has applied to the AESO for transmission system access to connect its proposed Sharp Hills Wind Farm (Facility) in the Sedalia area. EDPR's request can be met by the following solution:

- Add the New Brigden 2088S substation, including four 240 kV circuit breakers.
- Connect the New Brigden 2088S substation to the existing 240 kV transmission line 9L46 using an in-and-out configuration, including adding two 240 kV transmission lines.
- Connect the Facility to the New Brigden 2088S substation.
- Add or modify associated equipment as required for the above transmission developments.



The shaded area on the map indicates the approximate location of the proposed transmission developments, including the New Brigden 2088S substation and the 240 kV transmission lines. The specific transmission facilities may extend beyond the shaded area shown.

ATCO Electric Ltd. (ATCO) is the transmission facility owner (TFO) in the Sedalia area. In August 2016, the AESO and the TFO began presenting this need to stakeholders, including residents, occupants and landowners. The AESO will apply to the AUC for approval of the need for this transmission development. Once filed with the AUC, the NID will be posted on the AESO website at https://www.aeso.ca/grid/projects/sharp-hills-energy-connection/. In a separate application, called a Facility Application, the TFO will 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.

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 NID Filing Notice

Sharp Hills Wind Farm Connection – Notice of NID Filing

EDP Renewables SH Project Limited Partnership (EDPR) has applied to the AESO for transmission system access to connect its proposed Sharp Hills Wind Farm (Facility) in the Sedalia area. EDPR's request can be met by the following solution:

- Add the New Brigden 2088S substation, including four 240 kV circuit breakers.
- Connect the New Brigden 2088S substation to the existing 240 kV transmission line 9L46 using an in-andout configuration, including adding two 240 kV transmission lines.
- Connect the Facility to the New Brigden 2088S substation.
- Add or modify associated equipment as required for the above transmission developments.

The AESO intends to file the Sharp Hills Wind Farm Connection Needs Identification Document (NID) application with the Alberta Utilities Commission (AUC) on or after October 27, 2017, requesting that the AUC approve this NID.

The AESO has posted the Notification of NID filing on its website. Please <u>click here</u> to view the document or visit the AESO website at <u>www.aeso.ca</u> and follow the path Grid > Project > Sharp Hills Energy Connection to see all the relevant documents, including the NID application once it is filed with the AUC.