APPENDIX F AESO PARTICIPTANT INVOLVEMENT PROGRAM (PIP)

1. Participant Involvement Program

From January 2019 to March 2020, the AESO conducted a Participant Involvement Program (PIP) to assist in preparing its Central East Transfer-out (CETO) Transmission Development Needs Identification Document (NID) Application in accordance with the requirements of NID11 and Appendix A2 of *Alberta Utilities Commission Rule 007: Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations and Hydro Developments*.

1.1 Stakeholder Notification

The AESO's PIP was designed to notify and provide information to stakeholders in the area where the AESO's Preferred Transmission Development could be added to meet the need. Specifically, occupants, landowners and residents; market participants; local authorities, agencies and government that have responsibilities related to transmission facilities development; and Indigenous communities (collectively referred to as Stakeholders) were notified by the AESO:

- Occupants, landowners and residents
- Market participants
- Municipal Government (Municipalities)
  - City of Red Deer
  - Lacombe County
  - Paintearth County
  - Red Deer County
  - Stettler County
  - Village of Alix
- Provincial Government
  - Ministry of Energy
  - Members of the Legislative Assembly (MLAs)
    - Drumheller-Stettler
    - Lacombe-Ponoka
    - Red-Deer North
- Indigenous Communities
  - Blood Tribe
  - Ermineskin Cree Nation
  - Louis Bull Tribe
  - Metis Nation of Alberta Regions 3 and 4
  - Montana First Nation
  - Paul First Nation
  - Piikani Nation
  - Samson Cree Nation
  - Siksika Nation
  - Stoney Nakota Nation (Chiniki, Bearspaw, Wesley)
  - Tsuu T'ina Nation

1.1.1 AESO Newsletter—CETO Transmission Development Newsletter

In early January 2019, the AESO mailed its newsletter titled *Central East Transfer-out Transmission Development – Information for Stakeholders* through direct unaddressed mail via postal code drop to all occupants, residents and landowners in the Preferred Transmission Development notification area. A copy of the newsletter is included as Attachment 1.

1.1.2 AESO Website—CETO Transmission Development Project Overview

A CETO Project Overview, along with a link to the CETO Transmission Development newsletter, was posted on the AESO website on January 9, 2019 at https://www.aeso.ca/grid/projects/central-east-transfer-out-transmission-development/. A copy of the AESO website – CETO Transmission Development Project Overview is included as Attachment 2.

1.1.3 AESO Stakeholder E-newsletter

A notice was included in the AESO Stakeholder e-Newsletter on January 15, 2019 advising that the CETO Transmission Development Project Overview, with an embedded link to the project overview, had been posted on the AESO website. The AESO publishes the e-Newsletter twice weekly via self-directed e-mail subscription. Subscribers include market participants, transmission facility owners (TFOs), distribution facility owners, generation facility owners, government, landowners, industry associations, special interest groups, and other stakeholders. The AESO Stakeholder e-Newsletter CETO notice is included as Attachment 3.

1.1.4 TFO Information Packages

In addition to the CETO Transmission Development newsletter postal code drop, the AESO provided copies of its newsletter to AltaLink Management Ltd. in its capacity as general partner of AltaLink L.P. (AltaLink) and ATCO Electric Ltd. (ATCO), the respective CETO TFOs, for inclusion in their CETO information packages. The TFOs' information packages were delivered in January 2019 to landowners, occupants and residents within 800 metres of the Preferred Transmission Development.

1.1.5 AESO Emails

In late November 2018, emails were sent to the Ministry of Energy and Municipal Chief Administrative Officers (CAOs) to: introduce the Preferred Transmission Development; advise that the AESO and TFOs would be sending information to landowners in early 2019 (the initiation of the formal PIP); and offer to provide additional information upon request. A copy of the email, a high-level map highlighting the Preferred Transmission Development that was attached to the email, and a presentation delivered to interested Municipalities are included as Attachments 4, 5 and 6 respectively.

Emails were sent to the MLAs in late January to provide an overview of the AESO's role, a summary of the Preferred Transmission Development, and information about the TFOs' open houses, which were attended by AESO representatives. Copies of the project newsletter (Attachment 1) and high-level map (Attachment 5) were included with the email. A copy of the text of the email sent to MLAs is included as Attachment 7.

1.1.6 AESO Information Packages

In January 2019, the AESO delivered a cover letter and information package via registered mail to each of the Indigenous communities identified in the Landscape Analysis Indigenous Relations Tool (LAIRT) report generated by the Government of Alberta's Aboriginal Consultation Office.

AltaLink subsequently identified additional Indigenous communities that they engaged at their own discretion, including the Ermineskin Cree Nation, Louis Bull Tribe, Samson Cree Nation, and Metis Nation of Alberta Regions 3 and 4. To maintain consistency in the engagement approach, the AESO included

these additional communities, delivering the cover letter and information package via registered mail in March 2019.

The AESO's cover letter is included as Attachment 8. The accompanying information package contained copies of the previously noted project newsletter (Attachment 1) and high-level map (Attachment 5), along with AESO fact sheets, which are included as Attachment 8.1. Follow-up calls were placed to confirm receipt of the letter and information package, and an offer extended to respond to any question about the project.

1.1.7 TFO Open Houses

Two rounds of open houses were hosted by ATCO and AltaLink in their respective service territories. The TFOs selected the locations.

Date (2019)	Location	Time	Host
Round 1			
February 12	Halkirk Community Hall General Delivery, Halkirk AB	4 p.m. – 8 p.m.	ATCO
February 13	Stettler Community Hall 5101 46 Ave, Stettler AB	4 p.m. – 8 p.m.	ATCO
February 20	Alix Community Hall 5008 49 Ave, Alix AB	5 p.m. – 8 p.m.	AltaLink
February 21	Balmoral Community Hall #20 - 26553 Hwy 11, Red Deer County	5 p.m. – 8 p.m.	AltaLink
Round 2			
July 9	Halkirk Community Hall	4 p.m. – 8 p.m.	ATCO
July 10	Stettler Community Hall	4 p.m. – 8 p.m.	ATCO
July 16	Alix Community Hall	5 p.m. – 8 p.m.	AltaLink
July 17	Canyon Ski Resort & Recreation Area 38433 RR 264A, Red Deer County	5 p.m. – 8 p.m.	AltaLink

AESO personnel were available at the open houses to discuss the need for the project and answer questions. The materials that were included in the AESO Information Packages (see section 1.1.6) sent to Indigenous communities (with the exception of Attachment 8 – Cover Letter) were available at the AESO's information table.

1.1.8 AESO Transmission Projects Information Session

The AESO hosted an information session from 1 p.m. to 4 p.m. on the afternoon of Thursday, October 3, 2019 at the Sheraton Eau Claire in Calgary. Overviews of three proposed transmission system projects that are scheduled to be filed by the AESO in the near future were provided. These projects are the Alberta–British Columbia Intertie Restoration, and the Chapel Rock to Pincher Creek and CETO transmission developments. Links to a copy of the presentation and webinar recording of the Transmission Projects Information Session were posted on the AESO website on each system project overview page, including for the CETO transmission development at: https://www.aeso.ca/stakeholder-engagement/transmission-projects/central-east-transfer-out-transmission-development/.

The information session provided an overview of the planning and regulatory process, need drivers, transmission development options, existing and planned transmission system capability, staging and

timing for each of the three projects. Subsequent to the information session the AESO took additional time to complete key analysis to help inform decision making. This resulted in a shift in timing for submitting the NID Application to the Alberta Utilities Commission (AUC) to Q1 2020 from the previously anticipated timing of Q4 2019, as initially discussed with stakeholders.

A notice to promote awareness of the session was included in the bi-weekly AESO Stakeholder e-Newsletter, starting with the September 19, 2019 edition through final promotion in the October 1, 2019 edition. A copy of this notice is included as Attachment 9.

1.1.9 Opportunities to Directly Contact the AESO

To ensure that Stakeholders have an opportunity to provide feedback, the AESO has a dedicated, toll-free Stakeholder Relations 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), website address (www.aeso.ca), and a statement that describes how the AESO is committed to protecting Stakeholders' privacy, is included in the CETO Transmission Development newsletter.

1.2 Stakeholder Inquiries

The AESO has responded to all Stakeholder inquiries related to the need for the Preferred Transmission Development received through email, telephone, open houses, information sessions and in-person meetings. Reasonable attempts have been made by the project team to address Stakeholders' questions and concerns. The following themes emerged through the course of conversations, meetings and correspondence:

- Clarification of the regulatory process for transmission development generally and renewables specifically.
- Clarification on role and mandate of the AESO.
- Rationale for encouraging renewables development and building related transmission given Alberta's prolific coal resources.
- Rationale for supporting/promoting wind generation in the central east area where it's not wanted and needs to be transferred out, versus developing generation at the load source.
- Justification of need for transmission development during a lengthy economic downturn.
- Rationale for taking good agricultural land out of service for wind and solar development.
- Preference for building two circuits at the same time versus disturbing landowners twice for staged development.
- Rationale for selecting the Tinchebray 972S substation as the east termination point.
  - A group of Stakeholders who reside in the Paintearth Creek Valley area are concerned about the need for the project, and are opposed to the selection of Tinchebray. The substation is perceived to be sited in an environmentally sensitive area and is viewed to be a potential fire hazard and safety threat.
  - The AESO reassessed the Cordel substation as an alternate termination point, but determined that it is not a viable option.

1.3 Notice of Filing

The AESO published and promoted a notice of its intention to file the CETO NID Application (see Attachment 10).

1.3.1 Newspapers

The Notice of Filing was published in the newspapers serving the area where facilities could be installed to implement the Preferred Transmission Development. E-tear sheets with the Notice of Filing from the newspapers are included as Attachment 10.1.

Publication Name	Circulation	CETO Filing Notification Placement (2020)
Bashaw Star	150	Wednesday, March 4
Castor Advance	381	Thursday, February 27
Central Alberta Life (Red Deer)	22,750	Thursday, February 27
Coronation-Stettler East Central Alberta Review	26,131	Thursday, February 27
Lacombe Express	4,655	Thursday, February 27
Red Deer Advocate	8,512	Thursday, February 27
Stettler Independent	1,404	Thursday, February 27

1.3.2 AESO Website & Stakeholder E-Newsletter

The Notice of Filing was published on the AESO website under the CETO Transmission Development Project Overview at https://www.aeso.ca/stakeholder-engagement/transmission-projects/central-east-transfer-out-transmission-development/.

An announcement was included in the AESO Stakeholder e-Newsletter on March 3, 2020, with links to the CETO Transmission Development project overview and Notice of Filing on the AESO website. A copy of the Stakeholder e-Newsletter notice is included as Attachment 10.2.

1.3.3 Email

An email with a link to the Notice of Filing was sent to stakeholders who had engaged with the AESO during the PIP process. A copy of the text of the email is included as Attachment 10.3.

1.3.4 Stakeholder response

Two stakeholders contacted the AESO following publication of the Notice. One inquired if the plan was to construct one versus two full sets of transmission lines through the two-stage project. He was satisfied to receive confirmation that the Preferred Transmission Development would be one tower, two sides strung. The other stakeholder, who had previously engaged with the AESO through the PIP, expressed his thanks for the update, and stated that he looks forward to understanding the process.

1.4 Confirmation of Filing

Due to a delay in filing because of the COVID-19 situation, the AESO will publish and promote an advertisement confirming that the CETO NID Application was filed (see Attachment 11).

1.4.1 Newspapers

The confirmation advertisement will be published in the newspapers serving the area where facilities could be installed to implement the Preferred Transmission Development, i.e., the same newspapers in which the Notice of Filing was published.

Publication Name	Circulation	CETO Filing Notification Placement (2020)
Bashaw Star	150	Wednesday, August 19
Castor Advance	381	Thursday, August 14
Central Alberta Life (Red Deer)	22,750	Thursday, August 14
Coronation-Stettler East Central Alberta Review	26,131	Thursday, August 14
Lacombe Express	4,655	Thursday, August 14
Red Deer Advocate	8,512	Thursday, August 14
Stettler Independent	1,404	Thursday, August 14

1.4.2 AESO Website & Stakeholder E-Newsletter

The confirmation of filing advertisement will be published on the AESO website under the CETO Transmission Development Project Overview at https://www.aeso.ca/stakeholder-engagement/transmission-projects/central-east-transfer-out-transmission-development/.

A confirmation of filing announcement will be included in the AESO Stakeholder e-Newsletter on Thursday, August 14, 2020, with a link to the CETO Transmission Development project overview on the AESO website, where stakeholders can view the NID Application.

1.4.3 Email

An email with a confirmation of filing announcement will be sent to stakeholders who have engaged with the AESO during the PIP process, with a link to the CETO Transmission Development project overview on the AESO website, where stakeholders can view the NID Application.

1.5 List of Attachments

- Attachment 1 – AESO Newsletter (January 2019)
  - Central East Transfer-out transmission development
- Attachment 2 – AESO website CETO project overview
- Attachment 3 – AESO Stakeholder e-Newsletter notice (January 15, 2019)
- Attachment 4 – Email to municipalities (November 28, 2018)
- Attachment 5 – High-level map highlighting preferred transmission development
- Attachment 6 – Municipality presentation
- Attachment 7 – Email to MLAs (January 23, 2019)
- Attachment 8 – Indigenous communities' information packages
  - Cover letter (January 23, 2019)
  - Attachments 8.1 – Fact sheets
    - The AESO: An Overview
    - Planning a safe, reliable electricity grid
    - An overview of the provincial grid
    - The basics of electricity transmission
    - How the grid is operated
    - How is the pool price for electricity determined?
    - Integrating renewables into the grid
    - Alberta's Renewable Electricity Program (REP) attracts lowest renewable pricing in Canada
    - Indigenous partnerships fuel the success of REP Round 2

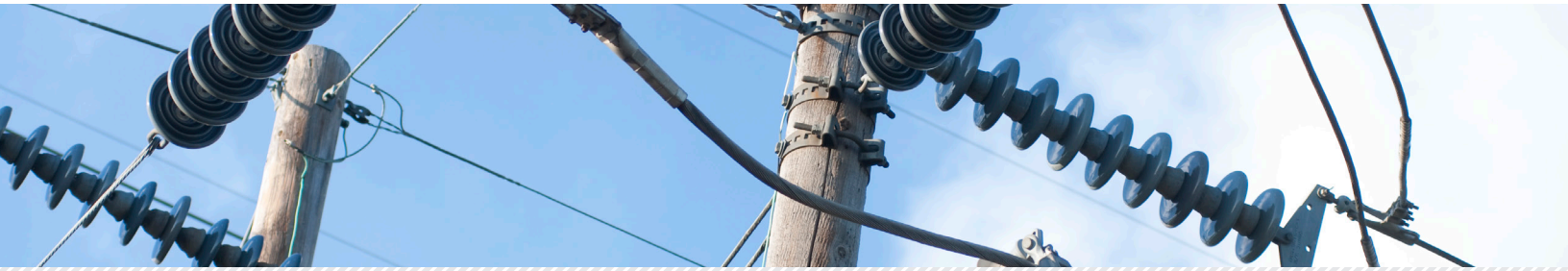
    - REP Round 3 keeps the competitive momentum going
  - AESO Newsletter (see Attachment 1)
  - High-level map (see Attachment 5)
- Attachment 9 – AESO Transmission Projects Information Session presentation (October 3, 2019)
  - Attachment 9.1 – AESO Stakeholder e-Newsletter Notice (September 19 – October 1, 2019)
- Attachment 10 – Notice of Filing
  - Attachment 10.1 – Newspaper e-tear sheets (February 27 and March 4, 2020)

    March 4, 2020
    - Bashaw Star

    February 27, 2020
    - Castor Advance
    - Central Alberta Life (Red Deer)
    - Coronation-Stettler East Central Alberta Review
    - Lacombe Express
    - Red Deer Advocate
    - Stettler Independent
  - Attachment 10.2 – Stakeholder e-Newsletter notice (March 3, 2020)
  - Attachment 10.3 – Stakeholder email (March 3, 2020)
- Attachment 11 – Confirmation of Filing Advertisement

Attachment 1 – AESO Newsletter (January 2019)

- **Central East Transfer-out transmission development**



The transmission system in your area needs improvement

*The **Alberta Electric System Operator** (AESO) plans and operates Alberta's electric transmission system. We study the transmission system to determine what future upgrades and expansions will be needed to continue to serve the province's growing power demands and enable access to generators and other qualified customers. The AESO is regulated by, and must apply to, the Alberta Utilities Commission (AUC) for approval of our Needs Identification Document (NID) application, in which we must demonstrate the need for an expansion or enhancement to the transmission system, and propose a transmission solution to meet that need.*

TRANSMISSION DEVELOPMENT NEEDED IN CENTRAL EAST ALBERTA

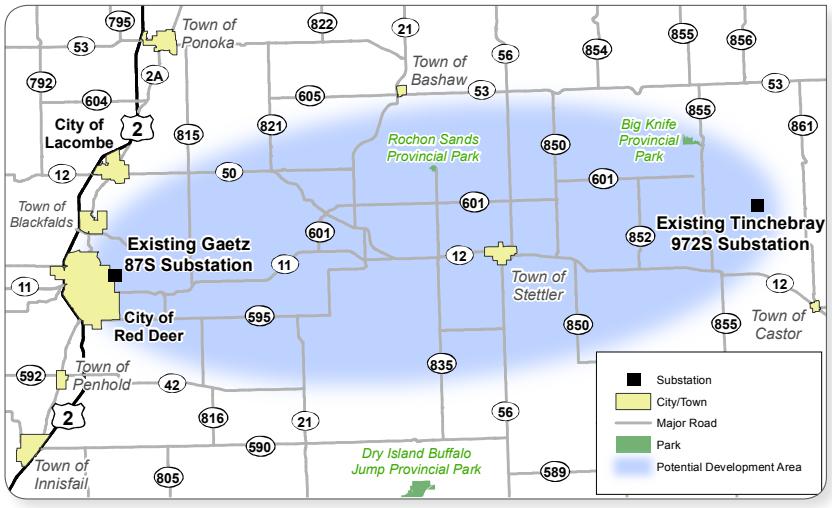
The existing transmission system in the central east area of the province is reaching its capability limits. The AESO has identified the need for the Central East Transfer-out Transmission Development (CETO) to enable additional renewable generation integration capability, and to enhance transmission system reliability.

New and enhanced transmission system infrastructure provides expanded options to connect new generation as it continues to develop in this renewable-resource rich area of the province. It also addresses demand for power, which is projected to rise over the coming years.

WHAT IS THE PROPOSED SOLUTION?

Our studies show that the best option to meet the transmission development need includes adding two staged 240 kilovolt (kV) transmission lines between the existing Gaetz substation near the City of Red Deer and the Tinchebray substation near the Town of Castor, and adding or modifying associated equipment as needed. The AESO is proposing to have CETO developed in two stages to align closer to when additional transmission capability is required, with the first stage anticipated to be in service in 2023.

Based on current information and consistent with the AESO's commitment to ensuring that the right amount of transmission is built at the right time, we anticipate the second stage of CETO will be in service in the 2027-2029 timeframe. However, this could change as the development of a second circuit/line will be tied to a construction milestone based on the actual pace of renewable generation projects, and the coal-fired generation replacement schedule in the central east area.



PREVIOUS TRANSMISSION PLANS IN THE AREA

In July 2014, the AESO informed stakeholders of the need for transmission development referred to as the Vermilion to Red Deer, Edgerton to Provost Transmission Development (VREP). As part of our ongoing planning process, the AESO subsequently informed stakeholders in October 2016 that the Provost to Edgerton and Nilrem to Vermilion Transmission Development (PENV) would replace parts of VREP. At that time, we had also advised that developments west of PENV may be required in the future.

We have determined that transmission development west of PENV is now required, and we are moving forward with plans in the area, which we now refer to as CETO.

OTHER RELATED ACTIVITIES IN THE CENTRAL EAST AREA

CETO and PENV are described in the AESO's 2017 Long-term Transmission Plan. These projects will address growth in electricity demand, improve reliability, and significantly enhance new generation integration capability in the central east area of the province.

The PENV Needs Identification Document (NID) application is currently with the Alberta Utilities Commission (AUC) for consideration. As well, engagement on a potential enhancement of ATCO's Nevis substation, which is located in the County of Stettler, is currently planned for sometime in 2019.

AESO AND TFO ROLES

The **AESO** operates the provincial transmission system so that all Albertans can count on safe and reliable electricity to power our homes and businesses each and every day. We carefully plan transmission upgrades and expansions to keep up with Alberta's growing demand for power.

Transmission facility owners (TFOs) are companies that build, operate and maintain the transmission system in our province. While the AESO is responsible for identifying the need for transmission development and the proposed transmission development to meet that need, TFOs are responsible for detailed siting and routing, constructing, operating and maintaining the associated transmission facilities within their service territories.

The two TFOs in the central east area, AltaLink Management Ltd. (AltaLink) and ATCO Electric Ltd. (ATCO), own and operate the proposed CETO end-points, the existing Gaetz and Tinchebray substations, respectively. They will each be responsible for applying to the AUC for approval of the section of the 240 kV transmission line within their service territory from their substation to the shared boundary.

In preparing their facility applications, AltaLink and ATCO will be consulting with stakeholders about the locations and structure type for the new 240 kV transmission line and related upgrades. They will work collaboratively to align their proposed plans based on public input.

WILL YOU BE AFFECTED?

If you are receiving this newsletter, you:

- have previously received information about VREP from the AESO;
- have been identified as potentially having an interest in CETO; and/or,
- live in an area where transmission facilities related to CETO could potentially be located (please refer to the map for the CETO potential development area).

AltaLink and ATCO will be consulting with stakeholders who reside or have land interests in the CETO area in the coming months to develop and determine potential solutions, routes and sites for the required facilities previously described. Please view the TFOs' information about the CETO Transmission Development on their websites at **www.altalink.ca/projects** and **www.atcoelectric.com/projects**.

QUESTIONS?

At the AESO, we operate on behalf of you and all Albertans. We value the opportunity to listen to your comments and answer your questions about the need, or the AESO's proposed solution to meet the need. Please contact us at:

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

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

NEXT STEPS

The AESO anticipates filing a NID application for the CETO Transmission Development to the AUC in late 2019. Once the NID application has been filed, it will be shared on our website at **www.aeso.ca/grid/projects/CETO Transmission Development.** AltaLink and ATCO will file their facility applications for CETO to the AUC concurrent with the AESO's NID application.

Attachment 2 – AESO website CETO project overview

Grid

About the grid
Connecting to the grid
Long-term Transmission Plan
Forecasting
Base cases
Competitive process
Grid operations
Projects
Project reports
Transmission facility owner templates
Loss factors
Transmission costs
Demand Opportunity Service

View all projects

Central East Transfer-out Transmission Development

The existing transmission system in the central east area of the province is reaching its capability limits. The AESO has identified the need to enable additional renewable generation integration capability, and to enhance transmission system reliability.

Two transmission facility owners (TFOs), AltaLink Management Ltd. (AltaLink) and ATCO Electric Ltd. (ATCO), own, operate and maintain the transmission system in the Central East Transfer-out Transmission Development (CETO) project area. While the AESO is responsible for identifying the need for transmission development and the proposed transmission development to meet that need, AltaLink and ATCO are responsible for detailed siting and routing, constructing, operating and maintaining the associated transmission facilities within their service territories.

Please see the document(s) below for more information on the need for this development.

Key documents

- Central East Transfer-out Transmission Development – Project Need (Newsletter) [Posted: January 9, 2019]

Contact us

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

Latest updates

JAN. 9, 2019 Central East Transfer-out Transmission Development

Attachment 3 – AESO Stakeholder e-Newsletter notice (January 15, 2019)

January 15, 2019

AESO Stakeholder Newsletter

GRID

Central East Transfer-out Transmission Development project

The AESO has posted information about the need for transmission development in the central east area of the province. Studies have shown that east of the City of Red Deer, there is a need to enable additional renewable generation integration capability, and to enhance transmission system reliability.
Please click here to view the document or visit the AESO website at www.aeso.ca and follow the path: Grid > Projects > Central East Transfer Out Transmission Development.

MARKET

REMINDER: New Security Certificate for the Automated Dispatch and Messaging System (ADaMS)

The current security certificate for ADaMS will expire on Jan. 25, 2019. In order to maintain secure access to the ADaMS, a new security certificate will be required. Participants who receive dispatches and/or directives from AESO system controllers will need to make a request for a new security certificate by sending an email to info@aeso.ca. To view the full notice, please click here, or visit the AESO website at www.aeso.ca and follow the path Market > Market updates.

REMINDER: Renewable Electricity Program (REP) stakeholder engagement

The AESO is seeking stakeholder feedback on how REP can continue to provide value for Albertans. Please visit www.aeso.ca/rep to complete our questionnaire by the extended deadline of Jan. 25, 2019.

RULES, STANDARDS AND TARIFF

Attachment 4 – Email to municipalities (November 28, 2018)

Email to Chief Administrative Officers (CAOs)
Project Area Municipalities

Date: November 28, 2018

To: CAOs – Project Area Municipalities (see Section 1.1 Stakeholder Notification)

Subject: Need for Transmission Development in Central East Alberta

Dear _____:

Transmission planning is an ongoing process, and the AESO continually monitors changes in economics, forecasts, government policies and electricity market participants' connection requests to assess and adjust transmission plans, when necessary. Based on our most current information for the central east area of Alberta, we've identified a need to enhance reliability and increase capacity (also referred to as "capability") of the transmission system to integrate renewable-resource generation.

As the independent, not-for-profit organization mandated to plan Alberta's transmission system, the AESO is recommending the **Central East Transfer-out (CETO) Transmission Development** as the most effective solution to meet the need in the area. An upgrade to the Nevis substation, located near the Hamlet of Nevis in the County of Stettler, is also being planned to improve reliability of the system and address renewables integration capability constraints.

The CETO project involves adding two 240 kilovolt (kV) transmission circuits between the existing ATCO-owned Tinchebray 972S substation near Castor, and the existing AltaLink-owned Gaetz 87S substation near Red Deer, and adding or modifying associated equipment, as required.

CETO is being planned in two Stages to align with the anticipated development of renewable resource generation facilities in the area. Based on the information available today, we anticipate Stage 1 (the first circuit) to be developed in 2023, and Stage 2 (the second circuit) in the 2027-2029 timeframe. The development of a second circuit will be tied to a construction milestone based on actual renewable-generation development and the coal-fired generation replacement schedule in the central east area.

This email is intended to provide you with an overview of the need for the project and to advise you that the local transmission facility owners (TFOs), ATCO and AltaLink, are undertaking preliminary route planning, which includes consulting with Municipal Districts in their respective project areas. Once potential options for routes have been identified, information packages will be distributed in early 2019 to area landowners and stakeholders. Information will include an overview of the project need, detailed maps and an invitation to participate in TFO open houses to discuss the project.

I have attached a high-level map which highlights the location of the CETO-project substations (Gaetz and Tinchebray), and the Nevis Substation Upgrade project.

Please don't hesitate to contact me if you have questions, or require additional information. If you or any of your municipal colleagues or representatives would like to meet to further discuss the above projects with the AESO, I would be happy to arrange.

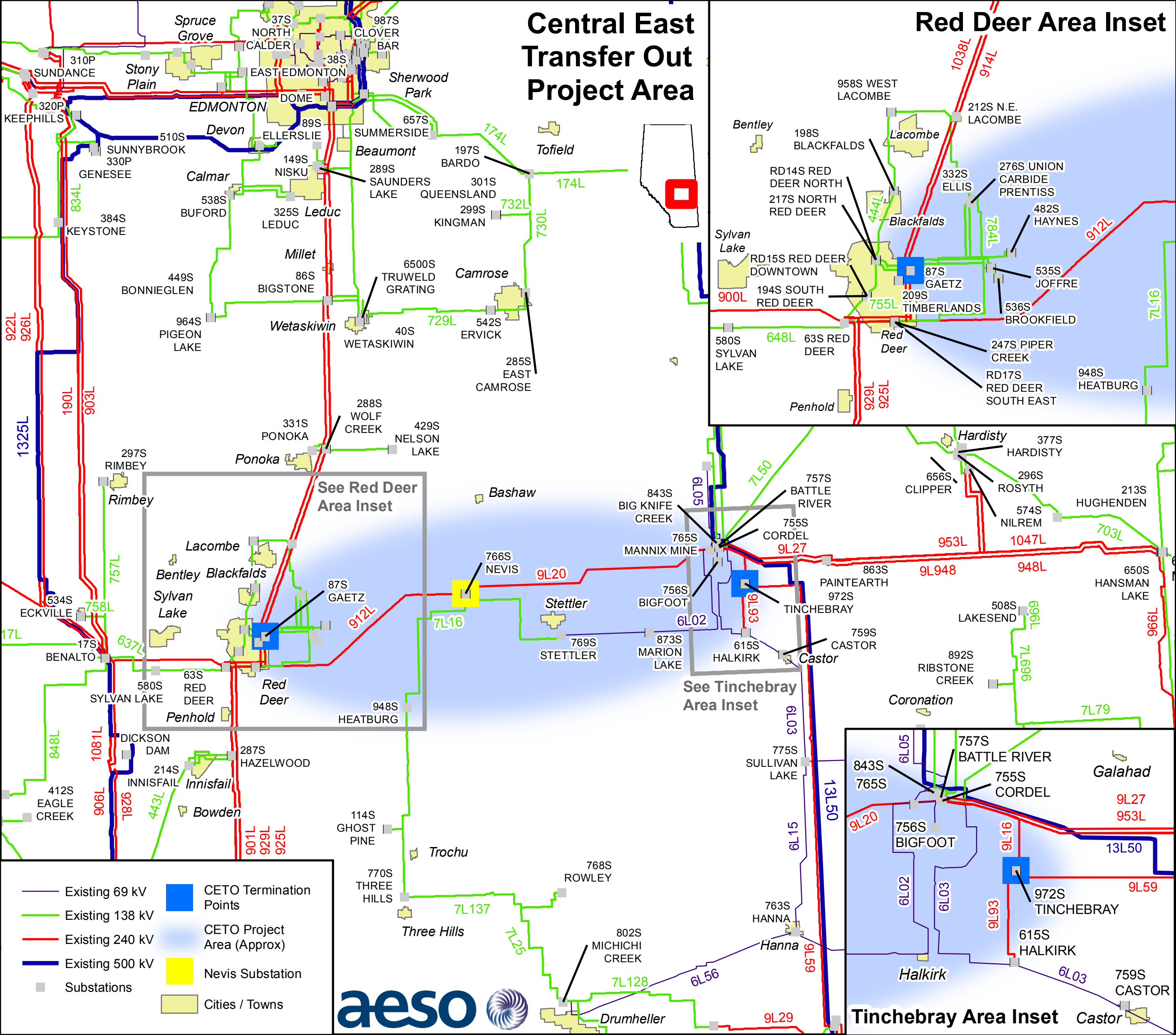
Sincerely,

Diane Kossman
Communications Advisor, Corporate Communications
Direct: 403-539-2777 | Cell: 403-542-9781

Alberta Electric System Operator (AESO)

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

Attachment 5 – High-level map highlighting preferred transmission development



Central East Transfer Out Project Area
Red Deer Area Inset
Tinchebray Area Inset
See Red Deer Area Inset
See Tinchebray Area Inset
Existing 69 kV
Existing 138 kV
Existing 240 kV
Existing 500 kV
Substations
CETO Termination Points
CETO Project Area (Approx)
Nevis Substation
Cities / Towns
aeso
Spruce Grove
Stony Plain
EDMONTON
Sherwood Park
Devon
Beaumont
Tofield
Calmar
Leduc
Millet
Camrose
Wetaskiwin
Ponoka
Rimbey
Bashaw
Lacombe
Bentley
Blackfalds
Sylvan Lake
Red Deer
Penhold
Stettler
Innisfail
Bowden
Trochu
Three Hills
Hanna
Drumheller
Castor
Halkirk
Coronation
Hardisty
Galahad
37S NORTH CALDER
987S CLOVER BAR
38S EAST EDMONTON
DOME
310P SUNDANCE
320P KEEPHILLS
89S ELLERSLIE
657S SUMMERSIDE
510S SUNNYBROOK
330P GENESEE
149S NISKU
289S SAUNDERS LAKE
197S BARDO
301S QUEENSLAND
538S BUFORD
325S LEDUC
299S KINGMAN
384S KEYSTONE
449S BONNIEGLEN
86S BIGSTONE
6500S TRUWELD GRATING
964S PIGEON LAKE
40S WETASKIWIN
542S ERVICK
285S EAST CAMROSE
288S WOLF CREEK
331S PONOKA
429S NELSON LAKE
297S RIMBEY
534S ECKVILLE
17S BENALTO
580S SYLVAN LAKE
63S RED DEER
87S GAETZ
766S NEVIS
948S HEATBURG
769S STETTLER
873S MARION LAKE
843S BIG KNIFE CREEK
765S MANNIX MINE
757S BATTLE RIVER
755S CORDEL
756S BIGFOOT
615S HALKIRK
972S TINCHEBRAY
759S CASTOR
863S PAINTEARTH
656S CLIPPER
296S ROSYTH
574S NILREM
377S HARDISTY
213S HUGHENDEN
650S HANSMAN LAKE
508S LAKESEND
892S RIBSTONE CREEK
775S SULLIVAN LAKE
763S HANNA
802S MICHICHI CREEK
768S ROWLEY
770S THREE HILLS
114S GHOST PINE
287S HAZELWOOD
214S INNISFAIL
412S EAGLE CREEK
DICKSON DAM
958S WEST LACOMBE
212S N.E. LACOMBE
198S BLACKFALDS
RD14S RED DEER NORTH
217S NORTH RED DEER
332S ELLIS
276S UNION CARBIDE PRENTISS
482S HAYNES
RD15S RED DEER DOWNTOWN
194S SOUTH RED DEER
209S TIMBERLANDS
535S JOFFRE
536S BROOKFIELD
63S RED DEER
247S PIPER CREEK
RD17S RED DEER SOUTH EAST
948S HEATBURG
580S SYLVAN LAKE
174L
732L
730L
729L
834L
922L
926L
190L
903L
1325L
757L
758L
637L
912L
9L20
7L16
7L50
6L05
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9L948
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1081L
906L
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443L
901L
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925L
7L137
7L25
7L128
6L56
9L29
17L
1038L
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7L16

Attachment 6 – Municipality presentation

Central East Transfer-out (CETO) Transmission Development

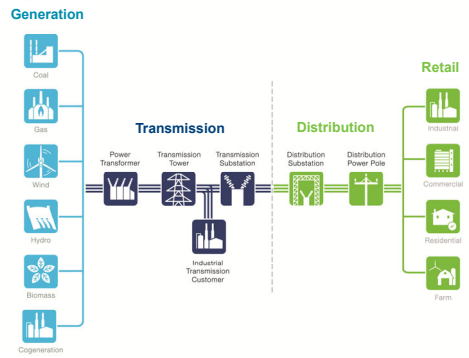
(Municipality) Council Meeting
January XX, 2019

Ramaiah Divi, Ph.D., Lead Engineer, Transmission System Projects

Presentation outline

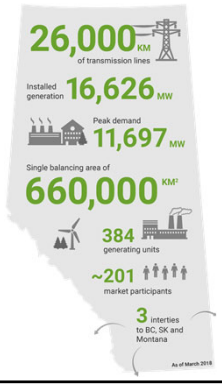
- Overview of:
  - Alberta Electric System Operator (AESO)
  - Alberta Electrical System
  - Transmission Planning Process
  - Regulatory Process for Transmission Development
- Central East Area Development – Need Overview
- Proposed Solution: CETO Transmission Development Project
- Timeline
- Summary

Power industry overview

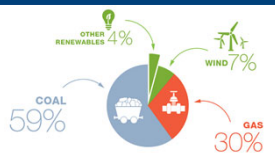


The AESO's role

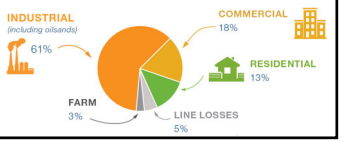
ALBERTA SYSTEM OVERVIEW



NET TO GRID GENERATION



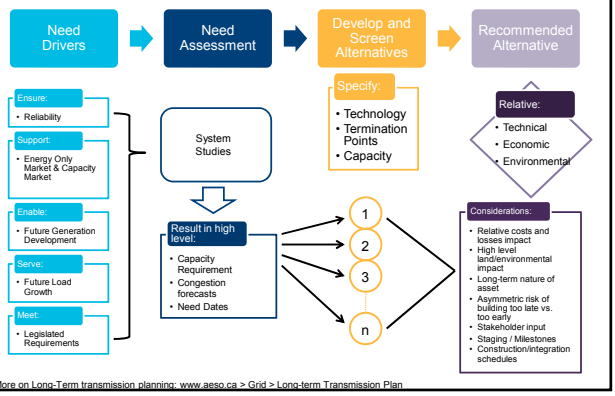
DEMAND



Installed generation capacity in Alberta

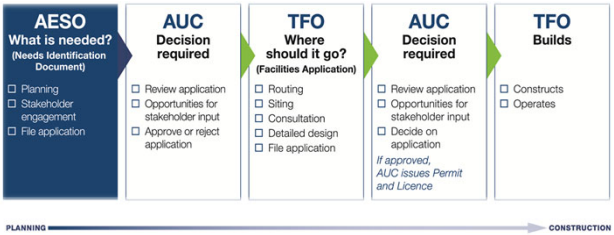
	GAS-FIRED (INCL. COGEN)	COAL	OTHER RENEWABLES	Hydro
2017	38%	45%	12%	5%
2037 *Forecast*	63%	0%	32%	5%

How does the AESO plan?



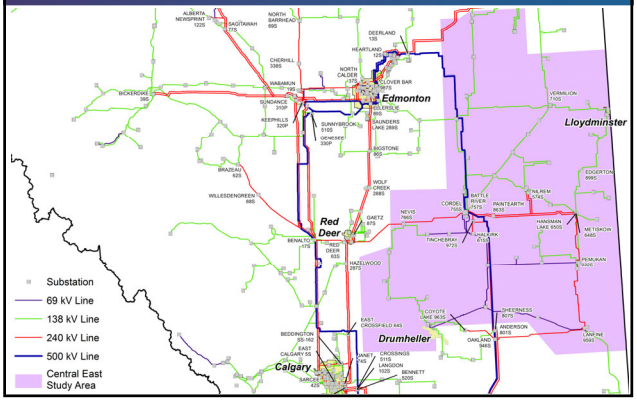
More on Long-Term transmission planning: www.aeso.ca > Grid > Long-term Transmission Plan

Regulatory process



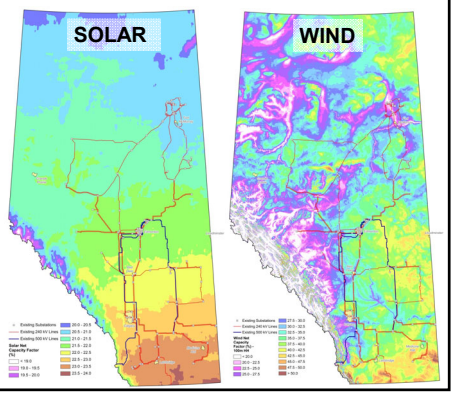
- AESO's NID Application and TFOs' FAs for CETO concurrent filing target late Q4 2019

Central east transmission system



Solar & wind resource potential

- Resource-rich regions are central east, southeast & southwest



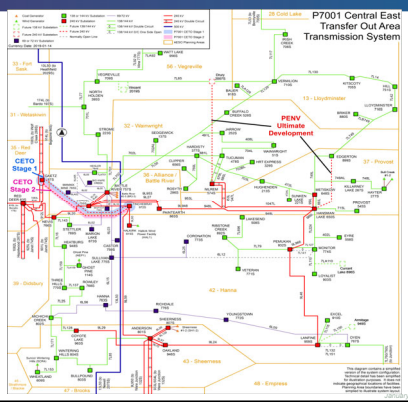
Why central east area?

- Large resource potential and market interest – renewables generation continues to grow
- Diversity and wider choice for REP participants
- Strong existing/planned collector system:
  - Hanna 240 kV loop & Provost to Edgerton and Nilrem to Vermilion (PENV) project
- 240 kV outlet proximity to load centres
- Energization of 3 Rounds of REP projects by 2021 - both SE and SW areas will reach their capability very soon
- Additional renewable capability needs to be integrated to meet 30 by 30 target. 2017 LTP identifies:
  - Southwest: 700 MW (Chapel Rock)
  - Central East: ≈1,000 MW (CETO)

Proposed solution:
Central East Transfer-out (CETO) Transmission Development

- Add two 240 kV circuits between Gaetz 87S and Tinchebray 972S substations
- Anticipated in-service dates:
  - Stage 1: 2023
  - Stage 2: 2027-2029 timeframe
- The AESO will employ milestone(s) for CETO
- Development of Stage 2 (second circuit) will be dependent on construction milestone(s)
  - based on generation projects that cause transfer-out congestion in the central east area
  - milestone details are being developed

CETO area transmission system



CETO notification / engagement schedule

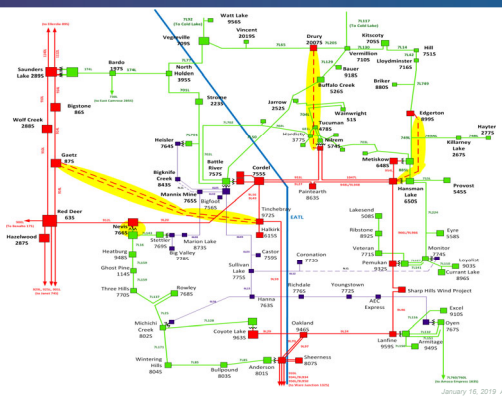
**Estimated: actual date will depend on attainment of construction milestone based on established pace of renewable generation project and coal-fired generation replacement schedule in the central east area.*

Connect

- Visit our website
  - www.aeso.ca/grid/projects/central-east-transfer-out-transmission development
- Email us
  - stakeholder.relations@aeso.ca
- Call us
  - 1-888-866-2959
- Visit TFO websites
  - www.atcoelectric.com/Projects/ProjectPages/Central-East-Transfer-Out-Transmission-Project
  - www.altalink.ca/projects/view/311/central-east-transfer-out-project

Thank you

Planned central east transmission developments (CETO & PENV)



Miscellaneous Information Resources

FAQs

Micro-generation

- Micro-generators:
  - are environmentally-friendly, small-scale generators that produce less than five megawatts (MW) and are connected to the electric distribution system
  - use renewable or alternative energy technologies such as solar panels, small-scale hydro, wind, biomass, and geothermal.
  - classifies generators into two categories based on capacity:
    - Small micro-generators: less than 150 kilowatts (kW)
    - Large micro-generators: at least 150 kW, but less than 5 MW
- Under *Micro-generation Regulation*
  - Albertans can produce electricity to meet their own needs and receive credit on their electricity bill for excess power sent to the grid

Additional Information:

www.aeso.ca/market/market-and-system-reporting/micro-generation-reporting/

Tariff

Rates, terms and conditions for system access service

- Under the *Electric Utilities Act,* the AESO is responsible for the Independent System Operator (ISO) tariff, which includes the rates, terms and conditions that apply to persons connected to the transmission system.
- We submit an ISO tariff update application to the Alberta Utilities Commission for approval every year and file a new, comprehensive ISO tariff application every two to three years.

Additional Information:

www.aeso.ca/rules-standards-and-tariff/tariff/Information

Understanding your electricity bill

- Utilities Consumer Advocate

How do I read my bill?

Even if you have automatic withdrawals or e-bills, it is always a good idea to check your bill on a regular basis. Please click on the image to learn about various line items and charges on your electricity or natural gas utility bills. If you sign a contract with a competitive retailer for electricity and natural gas, you'll receive a single administration fee each month as determined by the contract accepted.

Additional Information:

www.ucahelps.alberta.ca/understanding-your-bill.aspx

Generation cost assumptions

	Unit	Combined Cycle[1]	Simple Cycle	Coal-to-Gas	Wind	PV Solar
Installed Capacity	(MW)	455	47.5	368-406	50	15
Avg. Capacity Factor[2]	(%)	56% - 71%	3% - 25%	2%-13%	33% - 39%	16% - 19%
Heat Rate	(GJ/MWh)	6.7	9.6	10 - 12	-	-
CO_2 Emissions[3]	(Tonne/MWh)	0.375	0.538	0.560-0.672	-	-
Overnight Capital Costs	(2017 $Cdn/kW)	$1,500 - $1,950	$1,000 - $1,500	$225	$2,000	$1,330 - $2,100
Fixed O&M	(2017 $Cdn/kW-yr)	$27	$18	$22	$62	$46
Variable O&M	(2017 $Cdn/MWh)	$8	$4	$4	$0	$0
Natural Gas Price[4]	(2017 $Cdn/GJ)	$2.61 - $3.49				

1. 1x1 combined cycle
2. Model output by technology over forecast horizon
3. Calculated using 56 kg CO_2/GJ and Heat Rate
4. Range represents annual average prices between 2017 to 2039

Source: www.aeso.ca/grid/forecasting > 2017 LTO Data File > Generation Cost tab

Energy Efficiency Alberta

- Energy Efficiency Alberta's programs promote the use of cutting-edge technology to reduce emissions without any changes to your quality of life.
- Programs:
  - Home Energy Plan
  - Custom Energy Solutions
  - Home Improvements
  - Online Rebates
  - Solar
  - Business Energy Savings

Additional Information:

www.aeso.ca/rules-standards-and-tariff/tariff/Information

Climate Leadership Plan

- A made-in-Alberta strategy designed to diversify our economy, create jobs and reduce greenhouse gas emissions that cause climate change.
- Canadian provinces and territories without emission reduction plans in place will have a federal carbon price imposed by January 1, 2019. The Alberta Government is acting today, before the federal government acts for us.
- Key aspects of Alberta's plan include:
  - putting a price on greenhouse gas emissions
  - ending pollution from coal-generated electricity by 2030
  - developing more renewable energy
  - capping oil sands emissions to 100 megatonnes per year
  - reducing methane emissions by 45% by 2025

Additional Information:

www.alberta.ca/climate-leadership-plan.aspx

Attachment 7 – Email to MLAs (January 23, 2019)

E-mail to MLAs

Date: January 17, 2019

To: MLA Drumheller-Stettler / Lacombe-Ponoka / Red-Deer North

Subject: Need for Transmission Development in Central East Alberta

Dear _____:

Transmission planning is an ongoing process, and the Alberta Electric System Operator (AESO) continually monitors changes in economics, forecasts, government policies, and electricity market participants' connection requests to assess and adjust transmission plans when necessary. Based on our most current information for the central east area of Alberta, we've identified a need to enhance reliability and increase capacity (also referred to as "capability") of the transmission system to integrate renewable resource generation.

As the independent, not-for-profit organization mandated to plan Alberta's transmission system, the AESO is recommending the **Central East Transfer-out Transmission Development (CETO)** as the most effective solution to meet the need in the area.

You are receiving this information because you and your constituents may be affected by CETO.

The project involves adding two 240 kilovolt (kV) transmission circuits between the existing ATCO-owned Tinchebray substation near Castor, and the existing AltaLink-owned Gaetz substation near Red Deer, and adding or modifying associated equipment, as required.

CETO is being planned in two Stages to align with the anticipated development of renewable resource generation facilities in the area. Based on the information available today, we anticipate Stage 1 (the first circuit) to be developed in 2023, and Stage 2 (the second circuit) in the 2027-2029 timeframe. The development of a second circuit will be tied to a construction milestone based on actual renewable generation development and the coal-fired generation replacement schedule in the central east area.

I have attached our newsletter to provide you with an overview of the need for the project and to advise you that the local transmission facility owners (TFOs), ATCO and AltaLink, have completed a review of potential options for routes. They are in the process of distributing information packages to area landowners and stakeholders. The information includes an overview of the project need, detailed maps and an invitation to participate in open houses to discuss the project.

Following is the TFO open house schedule – AESO representatives will be in attendance at each event:

ATCO Hosted
Halkirk Community Hall
Tues., Feb. 12
4-8 pm

Stettler Community Hall
Wed., Feb. 13
5101 46 Ave, Stettler AB
4-8 pm

AltaLink Hosted
Alix Community Hall
5008 49 Ave, Alix AB
Wed., Feb. 20
5-8 pm

Balmoral Community Hall (Red Deer City limits)
#20 - 26553 Hwy 11
Thurs., Feb. 21
5-9 pm

In addition to our newsletter, I have attached a high-level map which highlights the location of the CETO substations (Gaetz and Tinchebray).

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

Please don’t hesitate to contact me if you have questions. Or, if you would like to meet to discuss the project at your convenience, I would be happy to arrange.

Sincerely,
Diane Kossman

Diane Kossman
Communications Advisor, Corporate Communications
Direct: 403-539-2777 | Cell: 403-542-9781

Alberta Electric System Operator (AESO)

Attachment 8 – Indigenous communities' information packages

- **Cover letter (January 23, 2019)**

January 23, 2019

«Sal» «FN» «LN»
«Title»
«Organization»
«Address1»
«City», «Province» «Postal_Code»

Dear «Sal» «LN»:

Re: Need Overview - Central East Transfer-out Transmission Development

Transmission planning is an ongoing process, and the Alberta Electric System Operator (AESO) continually monitors changes in economics, forecasts, government policies, and electricity market participants' connection requests to assess and adjust transmission plans when necessary. Based on our most current information for the central east area of Alberta, we've identified a need to enhance reliability and increase capacity (also referred to as "capability") of the transmission system to integrate renewable resource generation.

As the independent, not-for-profit organization mandated to plan Alberta's transmission system, the AESO has identified the **Central East Transfer-out Transmission Development (CETO)** as the most effective solution to meet the need in the area.

I have enclosed our newsletter to provide you with an overview of the need for the project, along with a high-level map which highlights the location of the CETO substations (Gaetz and Tinchebray). You will also find an assortment of fact sheets that provide an overview of the AESO, the regulatory process, transmission planning, operations, and the Renewable Electricity Program.

Please don't hesitate to contact me at (403) 539-2462 or mike.deising@aeso.ca if you have questions.

Yours truly,

Mike Deising
Director, Corporate Communications
Alberta Electric System Operator (AESO)

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

Attachment 8.1 – Fact Sheets

- **The AESO: An Overview**
- **Planning a safe, reliable electricity grid**
- **An overview of the provincial grid**
- **The basics of electricity transmission**
- **How the grid is operated**
- **How is the pool price for electricity determined?**
- **Integrating renewables into the grid**
- **Alberta's Renewable Electricity Program (REP) attracts lowest renewable pricing in Canada**
- **Indigenous partnerships fuel the success of REP Round 2**
- **REP Round 3 keeps the competitive momentum going**

The AESO: an overview

The AESO plays a vital role in making sure that power is available when and where you need it.

We are responsible for:

Planning Alberta's network of towers, wires and related infrastructure.
Operating Alberta's electricity grid. Safely. Reliably. Every minute of every day.
Developing and operating Alberta's wholesale electricity market.
Connecting electricity generators and industrial customers to the grid.

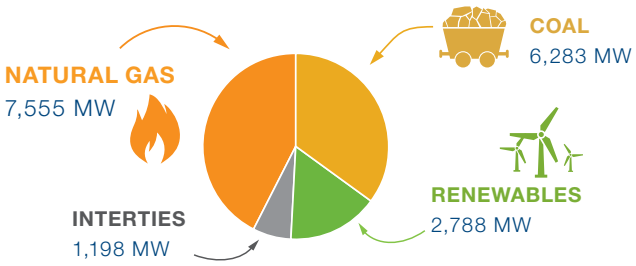
PLANNING, OPERATING, DELIVERING

Alberta's interconnected electric system is complex, dynamic and continually evolving. Monitoring the full spectrum of electricity generation and delivery—how electricity is produced, and where it is used, every single day—is the first step in understanding our current and future needs.

SUPPLY

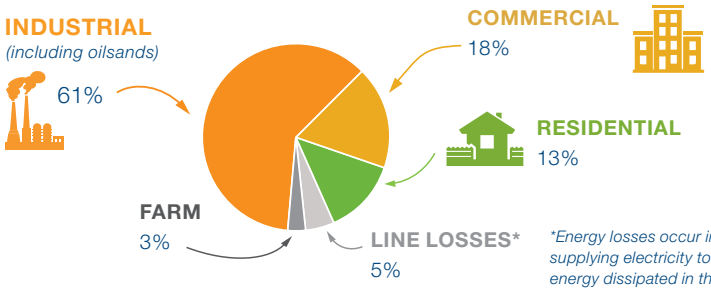
Our sources of electricity *(2017 data)*

(MW = Megawatts)



DEMAND

Who consumes Alberta's electricity *(2017 data)*



**Energy losses occur in the process of supplying electricity to consumers due to energy dissipated in the conductors and equipment used for transmission.*

FAST FACTS

The AESO is:

- Working **24/7** for Albertans
- Supplying power to over **4 million** Albertans

Alberta has:

Over **26,000 KM** of transmission lines

Over **240** generating units

Over **200** market participants

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.

PLANNING OUR GRID

- Alberta's need for power continues to grow.
- The AESO plans the electricity system in a way that not only meets our needs today, it readies us for future demand.
- As part of our planning, we forecast electricity demand, which helps attract private sector investment in new generation.

OPERATING 24/7 FOR ALBERTANS

- AESO System Controllers monitor the grid, actively balancing electricity supply and demand—providing power where and when you need it, every minute, every day, 365 days a year.
- We work closely with Alberta's major transmission facility owners including ENMAX Power Corporation, EPCOR Utilities Inc., ATCO Electric Ltd., and AltaLink Management Ltd. to serve the needs of Albertans.
- The AESO is responsible for producing rules and parameters for electricity industry participants. We work closely with the provincial government, regulatory bodies, generation facility owners and numerous other electricity market participants to ensure that the province's electricity market is fair, efficient and openly competitive.

DELIVERING RELIABLE ELECTRICITY AT COMPETITIVE PRICES

- Alberta has transparent electricity costs—no costs, taxes or fees are hidden in the system.
- Our $3 billion electricity market is a key enabler of Alberta's $300 billion economy.
- Companies that provide electricity into Alberta's competitive market must offer the prices for their electricity ahead of time.
- AESO System Controllers always use the lowest-priced electricity first, followed by the next lowest.

OVER THE PAST 20 YEARS	OVER THE NEXT 20 YEARS
OUR economy HAS NEARLY doubled	GDP* IS FORECAST TO INCREASE ANNUALLY BY 1.9% *Gross Domestic Product
ELECTRICITY DEMAND HAS INCREASED BY 61%	ELECTRICITY DEMAND IS FORECAST TO INCREASE BY 19%
POPULATION HAS INCREASED BY 52%	POPULATION IS EXPECTED TO INCREASE BY 29%

We're working with government and stakeholders to phase-out coal emissions from the grid while encouraging investment in renewable energy.

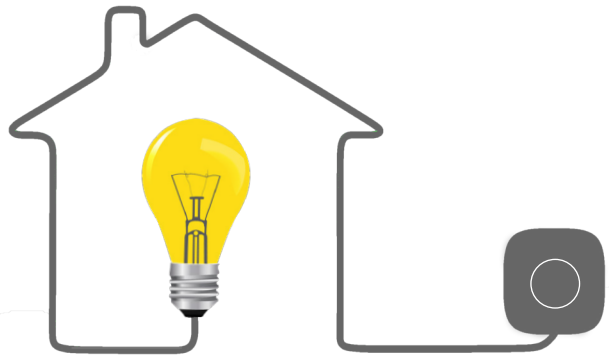
Planning a safe, reliable electricity grid

The transmission network is like a major highway system for electricity, moving large quantities of power from where it is generated to where it is consumed. Over time, this system of lines and towers must be upgraded and expanded as equipment ages, demand for electricity increases and additional sources of energy (generation) are created in different areas of the province.

As Alberta's electricity landscape evolves over time, the transmission system can become constrained, which can lead to challenges with delivering reliable, efficient and economic electricity to Albertans. One of the Alberta Electric System Operator's (AESO) responsibilities is to plan a transmission system that Albertans can count on to power our homes and businesses each and every day.

A RANGE OF FACTORS CONTRIBUTE TO THE NEED TO STRENGTHEN THE TRANSMISSION SYSTEM INCLUDING:

- Fulfilment of reliability requirements as part of a network of electric utilities and independent system operators across North America
- Alberta's economic outlook, including the growth of gross domestic product, population and industrial production
- Electricity demand growth rate and locations
- Timing and location of future electricity generation development
- Condition and age of the transmission assets
- Contributions of new facilities to maintain a competitive market
- Ability of the system to transmit energy during emergency conditions and to allow for maintenance and construction of new facilities



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.

SHARING INFORMATION WITH STAKEHOLDERS

The AESO plans Alberta's transmission system for the province in accordance with legislation, reliability standards, government policies and economic outlook.

The AESO is committed to open and transparent communication with stakeholders. Throughout the transmission development process the AESO is proud to be a source of credible information for all stakeholders.

EXPLORING TRANSMISSION DEVELOPMENT OPTIONS

Following the AESO's identification of the need for transmission, comprehensive planning and engineering studies present high-level technical alternatives that will address the need. These alternatives are then evaluated, compared and ranked based on their technical, economic, environmental and social merits.

THE NEED FOR DEVELOPMENT — OBTAINING APPROVALS

Once the AESO has identified a preferred alternative for transmission development, we will prepare a Needs Identification Document (NID) application. This application is filed with Alberta's independent utility regulator, the Alberta Utilities Commission (AUC), for approval.

Potential locations of needed transmission facilities, including detailed routing and siting, are determined in a standalone Facility Application, either filed concurrently or sequentially with the AESO's NID. Potential routing and siting is proposed by the transmission facility owner (TFO), who constructs, owns and maintains transmission facilities. There are four major TFOs in Alberta: ATCO Electric Ltd., AltaLink Management Ltd., EPCOR Utilities Inc. (owned by the City of Edmonton), and ENMAX Power Corporation (owned by the City of Calgary). The TFO must also file a Facility Application with the AUC for approval of the routing and siting of proposed transmission facilities.

The AUC is Alberta's regulator for the electric industry, and is responsible for reviewing and approving:

- The need
- The preferred option to meet the need
- Transmission siting and construction
- Associated costs of construction and operation of Alberta's electricity system

With unique access to credible, accurate and real-time electricity information, the AESO is the single largest source of transmission planning expertise in Alberta.

An overview of the provincial grid

The Alberta Interconnected Electric System—often referred to as "the grid"—moves electricity from where it is generated to where it is used. The provincial grid has many components. Here are simple explanations of the most important ones.

More information on the grid can be found at **www.aeso.ca/aeso/about-the-aeso/**

A. Generating plants:
Power is generated using a specific fuel source to create electricity. There are several types of generating plants in Alberta, using a variety of fuel sources including gas, coal, hydro, wind and biomass.

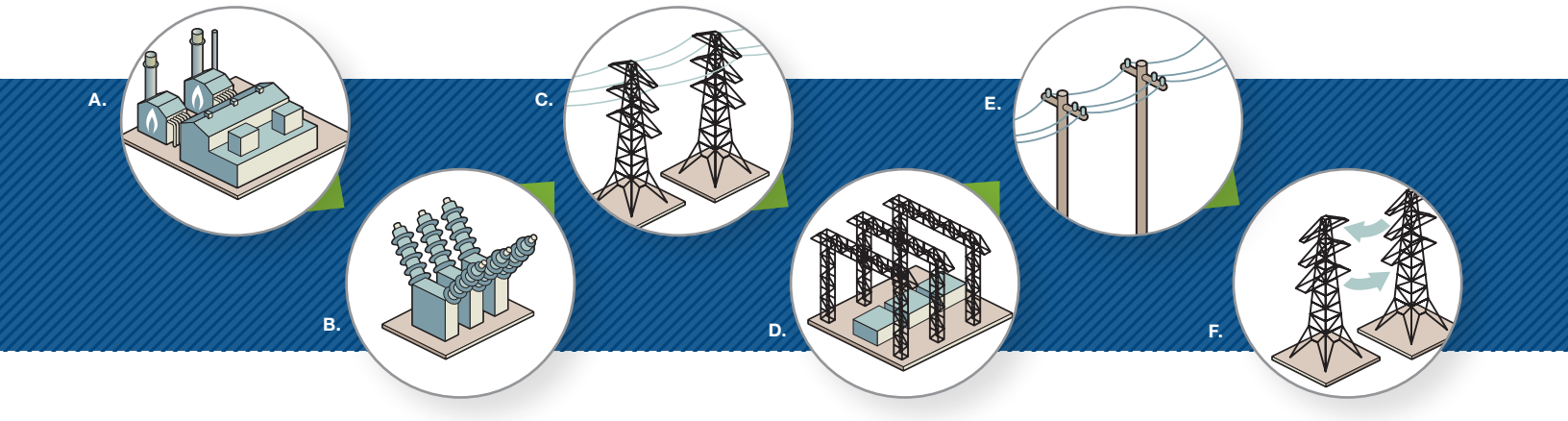
B. Transmission substation:
A set of large transformers (devices that change the voltage of alternating current) increases the voltage coming from a generating plant for the long journey through the grid. Increasing the voltage improves transmission system efficiency and helps limit land use by decreasing the amount of towers and equipment needed.

C. Transmission lines:
Transmission is the backbone of the electrical system, moving power from where it is generated to where it is needed. A network of towers, poles, wires and transmission substations provide high availability as they move electricity to customers throughout the province.

D. Distribution substation:
Power lines enter a substation where a transformer reduces voltage to a level that can be safely delivered to customers.

E. Distribution lines:
Distribution lines carry electricity from a substation to homes, farms and businesses. These lower-voltage power lines are best for transporting electricity over short distances.

F. Interties:
Connections with neighbouring electric systems allow power to move in or out of the province. Interties provide a stable and reliable supply of electricity and are an important component of Alberta's electric system. Primarily, they are used to import power into the province.



The Alberta grid must operate as part of a larger North American interconnected electric system, and must be planned accordingly to comply with North American standards and practices.

The basics of electricity transmission

One of the AESO's key responsibilities is planning an effective transmission system; the towers, wires and related equipment that move electricity from where it is generated to where it is used.

Here is a brief overview of Alberta's electricity transmission system.
For in-depth information, visit **www.aeso.ca**

THE NEED FOR TRANSMISSION

- Transmission is essential to move electricity from where it is produced to where it is needed.
- As the province grows, so does the need for power and Alberta's transmission system must keep pace.
- Our electricity grid is evolving as Alberta phases out coal-fired generation and integrates more renewables.
- Access to a strong transmission system is required to attract investment in new generation.
- Reliable transmission facilitates competition by enabling all generators to get their product to market. This, in turn, promotes competitive pricing for consumers.

Transmission is essential to move electricity from where it is produced to where it is needed.

PLANNING THE GRID

- The AESO is responsible for forecasting electricity supply and demand, planning a transmission system that is able to meet that demand, and connecting new generation.

Here are just a few of the factors we consider:

- Economic, population and industrial growth
- Where electricity demand is growing and the rate at which it is growing
- Condition and age of current transmission infrastructure
- The ability to transmit electricity during emergencies
- Environmental, residential, agricultural and visual impacts, and public safety concerns

BUILDING TRANSMISSION

- The AESO cannot own transmission infrastructure.
- Transmission Facility Owners (TFOs) build, own and operate the transmission system within their service territories.
- There are four major TFOs in Alberta: AltaLink Management Ltd., ATCO Electric Ltd., ENMAX Power Corporation and EPCOR Utilities Inc.
- After the need is identified, transmission is built as directed by the AESO and approved by the Alberta Utilities Commission (AUC).

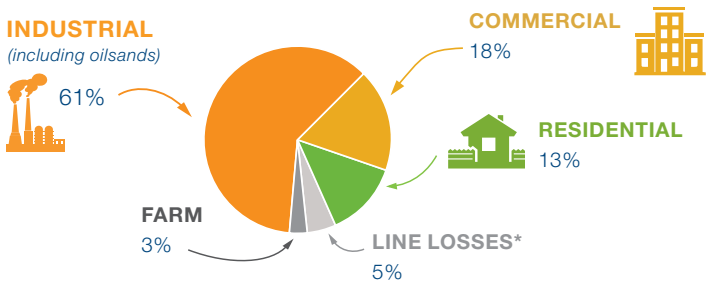
ALBERTANS HAVE A SAY

- Before construction can begin, strict rules for planning, building and maintaining transmission must be adhered to. Alberta has a stringent, comprehensive approval process that provides several opportunities for Albertans to become involved.

TRANSMISSION COSTS

- In most cases, the average cost of transmission is about $20 a month, or around 67 cents a day.
- Transmission charges appear on your residential electricity bill as transmission delivery charges, and cover the cost of building and maintaining the transmission system.
- Transmission costs are based on usage and shared by all Albertans.
- Alberta's transmission charges are approved by the AUC.

The cost of transmission is paid according to usage *(2017 data)*



**Energy losses occur in the process of supplying electricity to consumers due to energy dissipated in the conductors and equipment used for transmission.*

The transmission development process

AESO

Determining need

- Planning
- Stakeholder engagement
- File Needs Identification Document application

ALBERTA UTILITIES COMMISSION

Decision required

- Review application
- Opportunities for stakeholder input
- Approve or reject application

TRANSMISSION FACILITY OWNERS

Location

- Routing
- Siting
- Consultation
- Detailed design
- File facilities application

ALBERTA UTILITIES COMMISSION

Decision required

- Review application
- Opportunities for stakeholder input
- Decide on application
- If approved, issue Permit and Licence

TRANSMISSION FACILITY OWNERS

Build

- Construct
- Operate

The AESO must notify all potentially affected stakeholders and prove the need for transmission development to the AUC.

The TFO that will build and own the proposed transmission infrastructure must consult with people in the affected area.

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.

LEARN MORE ABOUT THE AESO: WWW.AESO.CA

04/18

How the grid is operated

Flick a switch, and instantly the lights come on. We rarely think about where electricity comes from or how it gets to our homes and businesses. It may seem like magic, but it takes immense planning, coordination and perfect execution to ensure we have power when and where we need it.

WHAT IS THE GRID?

The Alberta Interconnected Electric System or "grid," consists of electricity generators—powered by a variety of different fuel sources—and the large high-voltage power lines and equipment that bring electricity to where it's needed. Think of transmission lines like an extension cord in your home; they transport power from where the energy is, e.g., your wall outlet, to where it's needed, such as an appliance.

THE SYSTEM COORDINATION CENTRE

Keeping the lights on requires constant monitoring of the grid, 24 hours per day, every day of the year. Within the AESO's System Coordination Centre (SCC), System Controllers monitor the entire system including *generation* (how much electricity is being created), and *demand* (how much electricity is needed). They ensure the two are connected through the grid.

If a power line goes out of service, other equipment breaks down, or unforeseen circumstances occur in the system, the controllers can reroute electricity through other lines. If one region of the province has exceptionally high electricity demand, System Controllers make sure enough electricity is delivered while never compromising another area.

Alberta's grid isn't completely independent. The SCC ensures electricity can move back and forth between our neighbours through "interties." These are transmission lines connecting us to the rest of western North America through British Columbia, Saskatchewan and Montana.

LOOKING TOWARD THE FUTURE

Planning ahead is a complex task and the AESO must accurately forecast how much electricity we will need, and ensure we have a grid capable of meeting those needs. A robust and unconstrained transmission system is one that provides open access and sufficient transmission capacity, so that all available energy can be transmitted without constraint under normal conditions. If the grid isn't sufficient, the livelihood of all Albertans and our economy is put at risk.

CHECKS AND BALANCES

The *Electric Utilities Act*, passed by the Government of Alberta, is legislation that establishes the AESO's mandate to operate the grid. At all times, we act in the public interest. The AESO must also adhere to rules and reliability standards set forth by several organizations including the Alberta Utilities Commission, the Western Electricity Coordinating Council and the North American Electric Reliability Corporation.

How is the pool price for electricity determined?

In Alberta, electricity is generated, sold and bought in an openly competitive wholesale electricity market. The Alberta Electric System Operator (AESO) plays an instrumental role in developing and operating this market. At approximately $3 billion in energy transactions per year, the market is a key enabler of the province's $300 billion economy.

OPERATING THE MARKET— A BACKGROUND

At the heart of Alberta's electric system is the AESO's System Coordination Centre (SCC), which is staffed 24 hours a day, seven days a week by a team of skilled System Controllers. In addition to managing the real-time operation of Alberta's electric system, the SCC facilitates the operation of Alberta's wholesale electricity market.

A fundamental principle of Alberta's electricity system is that supply (electricity produced by generators) and demand (electricity consumed) must be perfectly matched at all times. An Energy Management System continually collects data from every generator connected to the transmission system, enabling System Controllers to match the supply of electricity with demand and monitor the health of the provincial electric system.

The SCC is also home to the Energy Trading System. The wholesale electricity market in Alberta operates much like a stock exchange, matching offers from market participants who wish to sell electricity with bids from market participants who wish to buy it. A market participant is any organization who generates, buys or sells, transmits, distributes, trades, imports or exports electricity in the Alberta market.

ELECTRICITY SUPPLY AND DEMAND

Market participants who wish to buy or sell electricity submit several supply offers and demand bids to the market on a day-ahead basis for every hour, 24 hours a day.

These supply offers and demand bids are sorted from the lowest to highest price for each hour of the day into a list called a merit order. System Controllers use the merit order to balance the supply of electricity, starting at the lowest priced supply offers and moving up to the highest. In this way, the AESO ensures Alberta's overall electricity needs are met by the most competitively priced electricity.

Typically, the demand for electricity is higher in the morning as Albertans prepare to start their day and declines slightly to a steady level throughout the day. A second increase occurs in the early evening hours as Albertans return home from work or school and place more demand for electricity on the system using home appliances and street lighting. Demand then decreases throughout the night. It shifts with the seasons as well; cold weather increases the demand for electricity required to run heaters, furnaces and lighting, and hot weather increases the demand from air conditioning and refrigeration.

System Controllers constantly monitor these fluctuations in demand, matching the supply from generators with consumers of electricity.

HOW IS THE POOL PRICE SET?

The pool price is the dollar cost of a megawatt hour of electricity at the end of a given hour that is paid to electricity generators for supplying electricity by retailers (such as your local service provider). Typically, retailers purchase this electricity to supply residential and business customers, as well as large industrial customers.

The process of setting the pool price is highly detailed. Every minute, the highest priced offers/bids submitted from the market, and dispatched by System Controllers, is designated as the System Marginal Price (SMP). Each hour, the pool price is calculated by averaging all 60 of these one-minute SMPs. The SMP is posted to the AESO website in real time and the pool price is then posted after the end of the hour and is used in financial settlement to calculate payments to suppliers and charges to wholesale consumers.

In the simplest terms, the pool price is the average of 60 one-minute system marginal prices accumulated over an hour.

WHO IS THE AESO?

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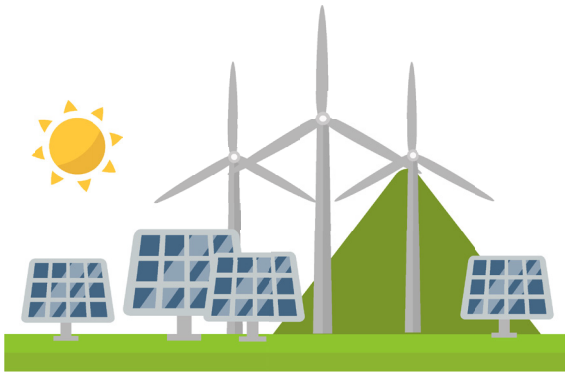
Integrating renewables into the grid

RICH IN RENEWABLE RESOURCES

Alberta is rich in wind and solar resources, with established renewable generation projects in regions where the most potential exists (southwest, southeast and central east). These resource-rich areas are supported by strong existing and planned electricity transmission systems, and are well-positioned to support the development of new renewable generation projects.



30 BY 30

In 2015, the Government of Alberta introduced its Climate Leadership Plan which, among other goals, legislates that by 2030, 30 per cent of the energy produced within Alberta will be from renewable resources and emissions from coal-generated electricity will be phased out.

WHAT'S THE PLAN?

The Renewable Electricity Program (REP) is intended to encourage the development of large-scale renewable electricity generation to support the Government of Alberta's target of 30 by 30. This renewable energy capacity will replace coal-fired electricity generation with cleaner energy sources, such as wind, solar and hydro.

The AESO is responsible for implementing and administering REP, encouraging companies to bid on building renewable energy projects in our province. REP has been designed to ensure new projects won't affect the reliability of our electricity grid, and power is delivered at the lowest possible cost to consumers.

The four REP projects announced during the first competition are located in southwest, southeast and central east Alberta, and it is anticipated that this is where the majority of renewable generation will continue to be developed.

The existing transmission system has an upper-limit capability of approximately 2,600 megawatts (MW). The AESO determined that the optimal and most cost-efficient plan for the integration of new renewable generation into the system, mainly in the renewable-rich areas, includes:

Maximizing the potential of existing collector systems, and using established and planned transmission networks:

- Pincher Creek, Fort Macleod, Lethbridge, southeast Alberta along the Cassils–to–Bowmanton–to–Whitla transmission corridor, the central east area of Alberta stretching between Vegreville in the north and Cypress in the south
- Hanna Region Transmission Development
- Provost–to–Edgerton and Nilrem–to–Vermilion Transmission Development

Moving large surplus renewable energy from where it is produced to where it is needed through previously planned bulk system enhancements:

- Chapel Rock-to-Pincher Creek Transmission Development
- Central East Transfer-out Transmission Development

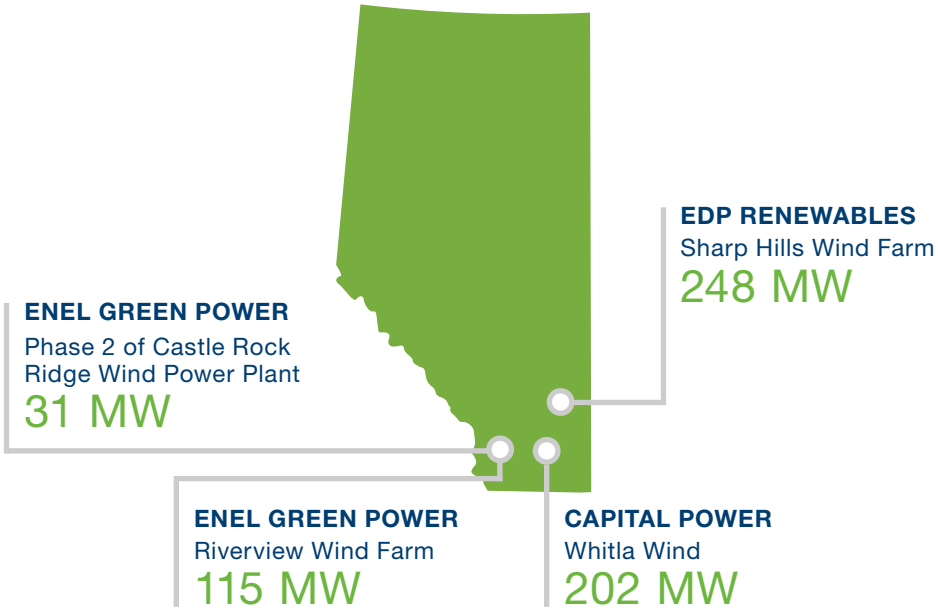
Completion of the planned transmission developments will bring the total grid integration capability to 4,300 MW. The remaining 700 MW required to meet the 30 by 30 target can be achieved through potential future hydroelectric generation developments and increasing the allocated distributed energy resources (DER) integration capacity.

DISTRIBUTED ENERGY RESOURCES

DER is electrical generation and storage performed by a variety of small, grid-connected devices, generally with capacities of 10 MW or less and located close to the demand centres they serve. While not limited strictly to renewable resource generators, DER can include solar panels, small natural gas-fueled generators, electric vehicles and controllable loads, such as heating, ventilation and air conditioning systems and electric water heaters.

Alberta's Renewable Electricity Program attracts lowest renewable pricing in Canada

Round 1 of the Renewable Electricity Program successfully delivered nearly 600 MW of wind generation at bid prices that are competitive globally and record-setting in Canada. The four successful projects for Round 1 are:



$30.90 — $43.30

range of winning bid prices

= $37/MWh

weighted average price

REP Round 1 success

Set new bar for competitive renewable pricing in Canada

Local and international developers eager to invest in Alberta

12 bidders representing 26 projects and 3,600 MW of capacity

No new transmission costs for Albertans

Aligns with the electricity market transition

The Renewable Electricity Program is:

- ROBUST
- FLEXIBLE
- SCALABLE
- SUSTAINABLE

REP Round 1 is certified as FAIR and TRANSPARENT by Fairness Advisor in Dec. 8, 2017 report

30 by 30

2017 **Round 1 600 MW**

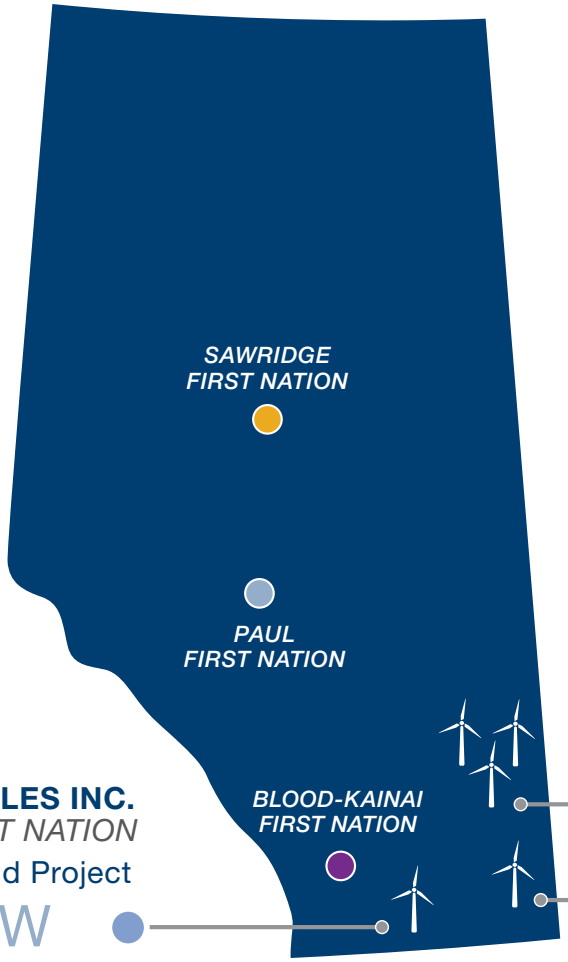
2030 **30% target**

For information on the Renewable Electricity Program, visit aeso.ca/rep

aeso

Indigenous partnerships fuel the success of REP Round 2

REP Round 2 attracted significant interest from local and international developers eager to invest in Alberta. Successful developers partnered with 3 Indigenous communities to build 5 wind projects totalling 363 MW at a weighted average price of under $39/MWh.



CAPSTONE INFRASTRUCTURE CORPORATION
SAWRIDGE FIRST NATION
Buffalo Atlee Wind Farms 1/2/3
48 MW

POTENTIA RENEWABLES INC.
PAUL FIRST NATION
Stirling Wind Project
113 MW

EDF RENEWABLES CANADA INC.
BLOOD-KAINAI FIRST NATION
Cypress Wind Power Project
202 MW

REP Round 2 success

First of its kind Indigenous partnership in Alberta

Indigenous participation from across the province

9 bidders proposed 18 projects and 2,202 MW of capacity

Competition certified by a fairness advisor

No new transmission costs for Albertans

Aligns with the electricity market transition

Range of bid prices and weighted average prices

Round 2

$36.99 $38.97

range of winning bid prices

= $38.69/MWh

weighted average price

Round 1

$30.90 $43.30

range of winning bid prices

= $37.35/MWh

weighted average price

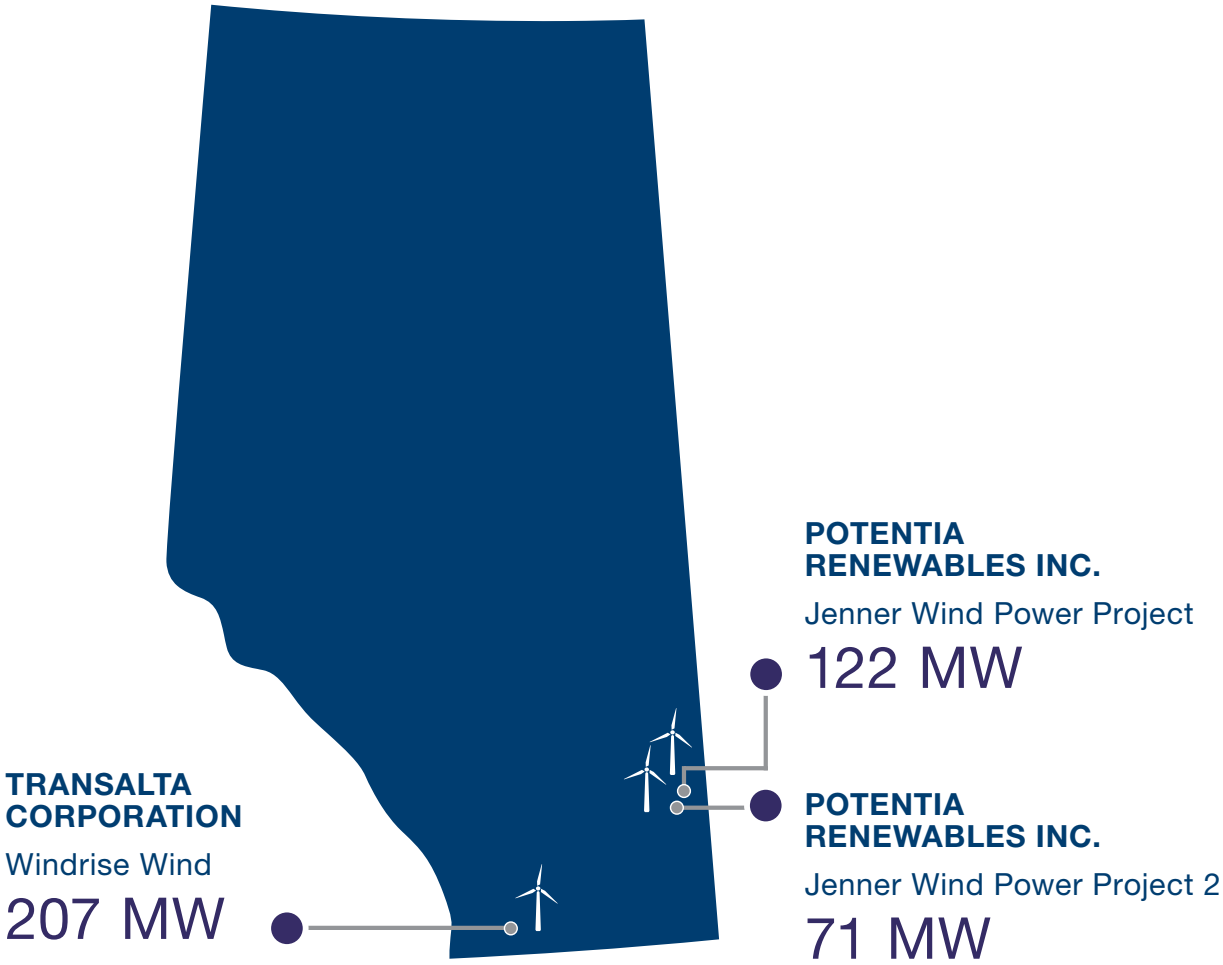
2018 YTD Alberta Pool Price is ~$51/MWh

For information on the Renewable Electricity Program, visit aeso.ca/rep

aeso

REP Round 3 keeps the competitive momentum going

REP Round 3 demonstrates continued interest in investing in renewables in Alberta. Strong competition resulted in 3 successful wind projects totalling 400 MW at a weighted average price of approximately $40/MWh.



REP Round 3 success

Integrity of two parallel competitions maintained

REP continues to attract competitive interest in Alberta

8 bidders proposed 15 projects and 1,686 MW of capacity

Competition certified by a fairness advisor

No new transmission costs for Albertans

Aligns with the electricity market transition

Range of bid prices and weighted average prices

Round 3

$38.60 $41.49

range of winning bid prices

= $40.14/MWh

weighted average price

Round 1

$30.90 $43.30

range of winning bid prices

= $37.35/MWh

weighted average price

2018 YTD Alberta Pool Price is ~$51/MWh

For information on the Renewable Electricity Program, visit aeso.ca/rep

Attachment 9 – AESO Transmission Projects Information Session presentation (October 3, 2019)

Notice

In accordance with its mandate to operate in the public interest, the AESO will be audio and video recording this session and making the recording available to the general public at www.aeso.ca. Video recording will be limited to shared screen presentation slides. The accessibility of these discussions is important to ensure the openness and transparency of this AESO process, and to facilitate the participation of stakeholders. Participation in this session is completely voluntary and subject to the terms of this notice.

The personal information being collected by the AESO will be used for the purpose of capturing stakeholder input for the CRPC, CETO and Intertie Restoration projects. This information is collected in accordance with Section 33(c) of the *Freedom of Information and Protection of Privacy Act*. If you have any questions or concerns regarding how your information will be handled, please contact the Director, Information and Governance Services at 2500, 330 – 5th Avenue S.W., Calgary, Alberta, T2P 0L4 or by telephone at 403-539-2528.

AESO Transmission Projects Information Session

October 3, 2019

Agenda

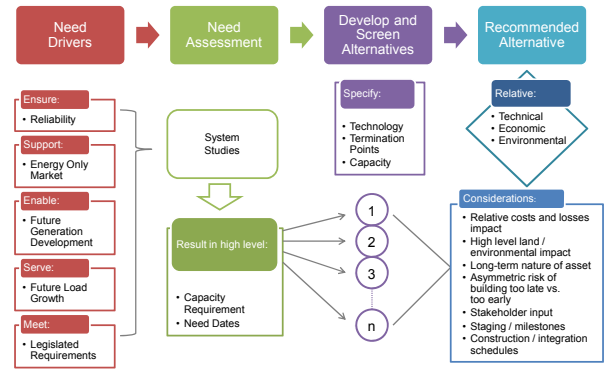
- Welcome and introductions
- Transmission Planning and Regulatory Process
- Alberta–British Columbia Intertie Restoration (AIR)
- Question and answer (Q&A) period
- Break
- Chapel Rock-to-Pincher Creek (CRPC) and Central East Transfer-out (CETO) Generation Integration including Renewables
- Q&A period
- Next steps

Welcome and introductions

- Jerry Mossing, Executive Advisor
- Sami Abdulsalam, Director, Transmission Planning
- Amir Motamedi, Manager, System Planning
- Lei Xiong, Manager, Transmission Analytics Support
- David Johnson, Manager, Forecasting & Market Simulation

Transmission Planning and Regulatory Process

How does the AESO plan?

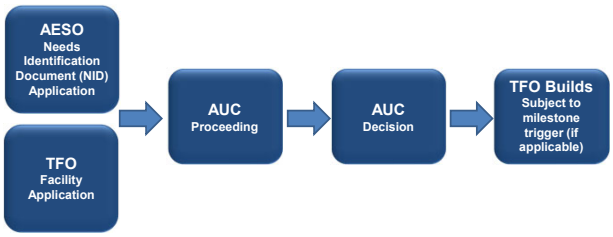


More on Long-Term transmission planning: www.aeso.ca > Grid > Long-term Transmission Plan

The AESO's planning approach

- Flexibility
  - Meet near-term needs while being flexible to adapt to credible future scenarios
  - Plan for uncertainty as the new norm; adopt scenario-based planning
- Optimization
  - Make use of existing facilities; timely planning for new facilities
  - While enabling continued development of resources
  - Maintaining system reliability
- Staged Developments
  - Construction milestones enable incremental transmission capability
    - Defer transmission rate impact
    - Opportunities to adjust pace of development
    - Prioritize development as needs/pace shifts

Regulatory process



AB-BC Intertie Restoration (AIR)

AIR Background

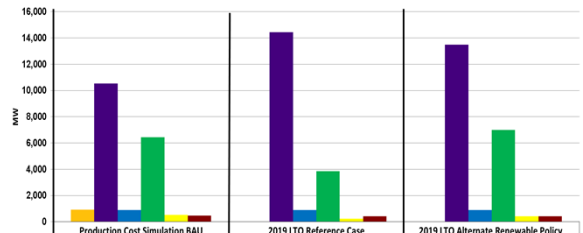
- Intertie restoration activities ongoing since the legislated requirement was enacted
- Incremental increases have been realized
- Western Regional Electricity Cooperation and Strategic Infrastructure (RECSI) revealed benefits associated with restoring the AB-BC intertie
  - AIR ranked top among all studied projects from a cost-benefit perspective
- AESO leveraged a wide range of sensitives including carbon pricing, Western Electricity Coordinating Council (WECC) generation economics and renewable penetration levels
  - These assessments conducted by General Electric (GE)
- The Chapel Rock-to-Pincher Creek (CRPC) development aids in Intertie Restoration

Forecast scenarios and sensitivities

A wide range of scenarios and sensitivities are used to ensure resilience of the project results

- The AESO studies on Production Cost Simulation carried out by GE modeled the whole WECC power systems with sensitivities in carbon price, solar deployment, and storage system
  - Carbon price (BAU $30/tonne, Low $20/tonne, High $57/tonne)
  - Solar deployment (500 MW PV deployment in 2030)
  - Storage options (150 MW, 350 MW)
- Additional production cost simulation modeling performed with 2019 LTO reference case
- Recent planning studies also utilized the LTO Alternate Renewable Policy case with wind output sensitivities – to test impact of higher renewables on intertie flows

Generation scenarios at study year 2030



	Production Cost Simulation BAU	2019 LTO Reference Case	2019 LTO Alternate Renewable Policy
Coal-fired	929	0	0
Gas-fired	10,527	14,435	13,502
Hydro	894	894	894
Wind	6,445	3,854	7,004
Solar	515	231	425
Other	464	423	423

AIR Project Need

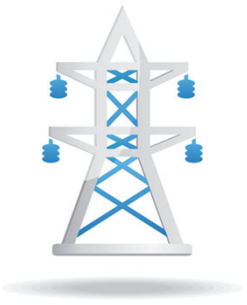
AIR Project need

- Legislation
  - Mandate to restore Intertie capability
- Reliability
  - Offers enhanced system reliability during extreme events and enhanced system flexibility
- Competitive market
  - Enhances competition and enables increased access to the Alberta market
- Cost/Benefit
  - Wide-range of production cost simulation and economic efficiency assessments indicate net-positive benefits relative to restoration costs

AIR Blocks

AIR Plan

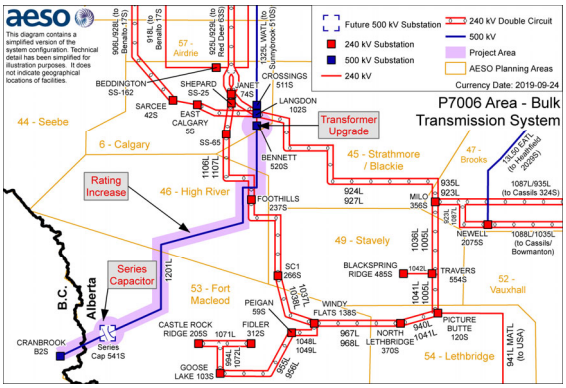
- The ultimate target for Intertie restoration is simultaneous import capability on BC and MATL (Montana–Alberta Tie Line) to path ratings
  - MATL 310 MW + BC 1,200 MW = 1,510 MW
  - Requires mitigation for both loadability and Alberta under-frequency
    - Loadability increase is needed for loss of generation internal to Alberta
    - Alberta under-frequency recovery for loss of Intertie at high import



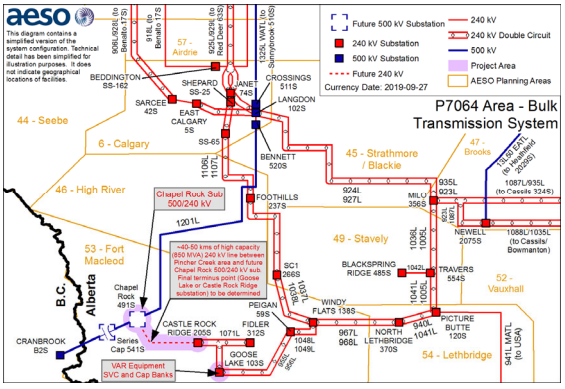
AIR Plan

- Plan for using incremental increases in three blocks
  - **Loadability Block 1**
    - AIR - BC 800 MW to 950 MW, no change to MATL, no change to simultaneous capability of 1,110 MW using Load Shed Services for imports (LSSi)
  - **Loadability Block 2**
    - CRPC – BC 950 MW to 1,150 MW, no change to MATL, no change to simultaneous capability
  - **Under-frequency Mitigation Block**
    - Mitigate Alberta under-frequency through mitigation services alone, or in combination with a new MATL back-to-back convertor station to achieve simultaneous import capability to combined path ratings of 1,510 MW

Loadability Block 1 (AIR)



Loadability Block 2 (CRPC)

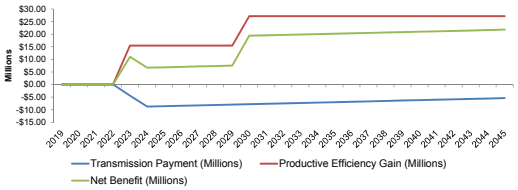


Under-frequency Mitigation Block

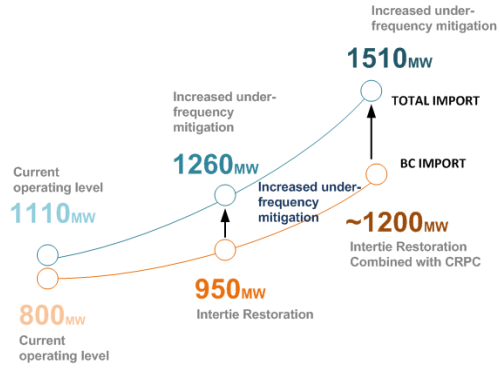
- Not a location specific need
- Loss of BC Intertie when imports near or at path rating requires additional under-frequency mitigation
  - Currently under-frequency mitigation services for Intertie are provided by LSSi and operating reserves
  - Other technologies, such as battery storage may provide this service at a competitive price
- Moving MATL from an AC Intertie to a DC Intertie (via a back-to-back convertor) would reduce the amount of under-frequency mitigation services

Cost-benefit analysis - sample

- To determine the efficiency of AIR we used a net-present-value analysis of the costs and benefits of Intertie restoration
  - Quantified benefits
    - AESO estimated the cost of meeting Alberta electricity demand with and without the intertie restored
  - Quantified costs
    - We utilized expected future tariff payments for the project cost and considered multiple frequency product options



AIR Summary

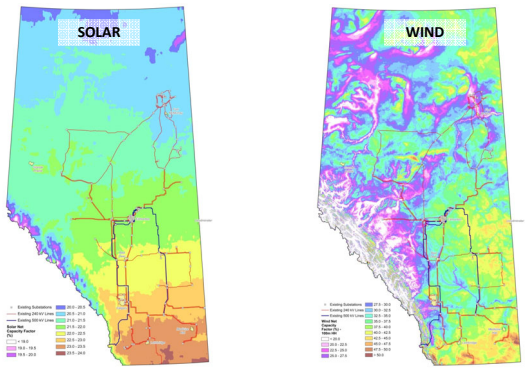


Question & Answer Period

Break

South and Central East Regions Generation Potential, Interest and Forecast

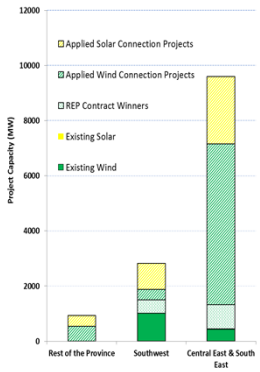
Solar and wind resource potential



Data source: AWS Truepower

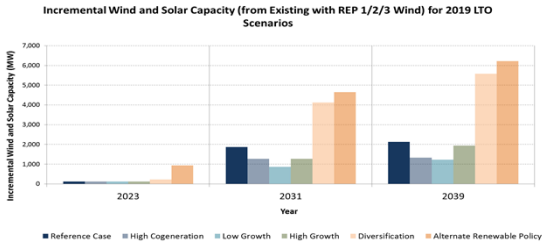
Renewable generation interest

- 1,647 MW of existing wind generation in the South and Central East
- Renewable Electricity Program (REP) Contracted Renewables: ~1,360 MW of new wind generation in the South and Central East
- High interest: over 90% of wind and solar applications are in the South and Central East (September AESO project list)
- Developers are focused in the renewables rich areas – Southern Central East regions



Renewable generation forecast

- The 2019 LTO scenarios forecast ~900 to ~4,500 MW of additional wind and solar development by 2031 in addition to existing and REP winners
- Pace of renewable development is dependent on a variety of drivers including: technology innovation, natural gas prices, carbon prices, economics, corporate power purchase arrangements (PPAs) and policy



Study Condition Development

Project specific approach: South and Central East

A project specific approach to develop study conditions for CETO and CRPC

- Up-to-date information within the study area
  - Latest forecast intelligence
  - Recent project information and announcements
- Local generation dispatch scenarios impact is examined to ensure a robust and flexible transmission development plan
  - Assess thermal plant dispatch scenarios around replacement of thermal generation in Central East and Southeast and their production profiles
    - Peaking units
    - Baseload units

Study condition development

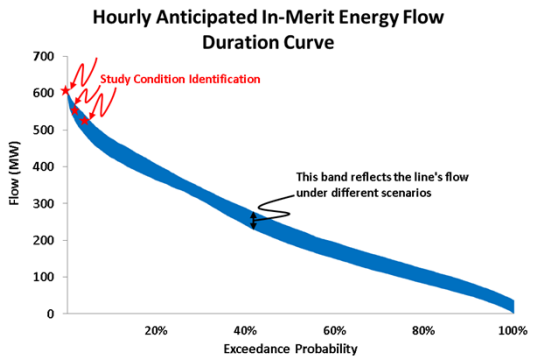
Generation dispatches were developed using a statistical method and a market simulation method

- Traditionally, a statistical method was used to create generation dispatches
  - Based on pre-defined planning conditions
    - Load at summer light, summer peak and winter peak
    - Intertie flows
    - Wind and solar at their highest expected coincident output
  - Conventional generation outputs are guided by historical outputs
  - Overall system dispatches are balanced based on an anticipated (forecast) merit order(s)

Market simulation method

- A market simulation method is also adopted to study the dynamic relationship between market supply, demand and transmission system in an integrated manner
  - Utilizes latest market fundamental assumptions used in the 2019 LTO generation outlook development
  - Models the full transmission network with aligned transmission assumptions used in planning studies
  - Applies offer behavior and merit order modeling
- This method created hourly economic dispatches which are then evaluated to select study conditions based on stressed power flow conditions

Study condition development example



Need for Transmission Development

Existing transmission capabilities for South and Central East regions

- ~450 MW following REP 1, 2 & 3 projects in-service
  - Assumes no other generation projects in these areas by 2023
  - Developer interest is currently at ~10,000 MW (wind and solar)
- The approved Provost to Edgerton and Nilrem to Vermilion (PENV) development adds an additional ~350 MW capability to the system
- Maximum N-0 Capability
  - Congestion is managed via Remedial Action Schemes (RAS) which is necessary to reach these capabilities
- Battle River and Sheerness generation assumed to be base loaded
- Actual transmission system capability will be lower
  - Location and size of new capacity integration may vary compared to optimized locations
  - Use of RAS may be limited due to operation complexities or MSSC

Need for transmission development

- Existing transmission system in the area is not capable of transferring the potential, interest and forecast generation to the load areas
- Transmission plans must efficiently utilize the existing collector transmission systems in renewable rich areas
- On-line thermal generation is required for system reliability in the Central East region (supports operation of Eastern Alberta Transmission Line (EATL))
- Enable broad geographic renewable integration
  - Diversity benefit
  - System access benefit – enhance competition
- CRPC also contributes to restoring the import capability of the AB-BC intertie

Planning for the near and long-term while managing timing of build

- The AESO is advancing the needed development plans while prudently managing in-service dates
  - Manage timing
    - Development and use of construction milestones
  - Manage cost
    - Considering single circuit line construction to stage developments
- Provide certainty to landowners and support investor decisions
  - Transmission plans will be advanced to construction once existing transmission capability is used and in stages
  - Allows for flexibility and adaption to pace of development in both thermal and renewable generation over the next 20 years

Chapel Rock-to-Pincher Creek (CRPC) and Central East Transfer-out (CETO) Approach

CETO and CRPC planning approach

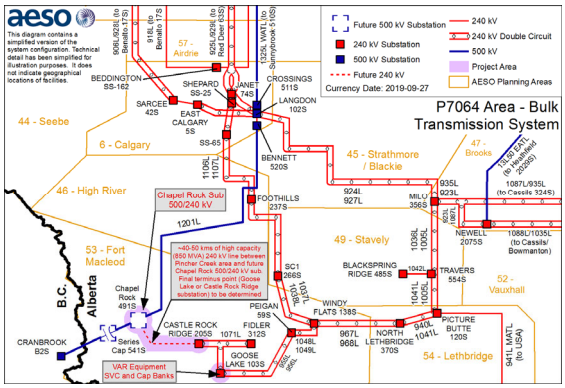
- Both plans considered concurrently to:
  - Offer a holistic and system-wide optimized renewable integration plan
  - Provide a clear picture on where and how the South and Central East generation integration plan will transpire and how much will it cost
  - Enable the design of staged transmission capability enhancements in geographically wide and diverse areas

CETO and CRPC planning approach

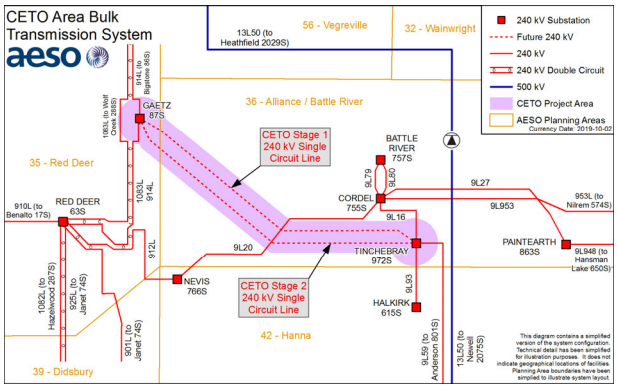
- Establishing need
  - Capability assessment to optimize existing transmission assets
  - The AESO is simultaneously enabling Southwest, Southeast and Central East for renewable integration to enable competition and diversity
  - One project only will not be sufficient to enable long-term forecasted renewables, need for both CETO and CRPC (CETO second stage could be delayed)
- A single-study approach for both projects reflecting an optimized system capability

Transmission Development Facilities CRPC and CETO

Planned Southwest Transmission Development (CRPC)



Planned Central East CETO Transmission Developments



Transmission development plans

- CRPC
  - New Chapel Rock substation connecting directly to existing 500kV intertie between Alberta and BC
  - One 240 kV transmission circuit from new Chapel Rock substation to Pincher Creek Area
  - New voltage support equipment at the existing Goose Lake substation
  - CRPC will enable approximately 600 MW of additional transmission capability
- CETO
  - Add two, staged, 240 kV circuits between Gaetz 87S and Tinchebray 972S substations
  - CETO will enable approximately 700 MW of additional capability in a staged manner

Other assessed transmission alternatives for renewable integration

- A number of transmission options were considered, including:

Southwest	Central East and Southeast
– System reconfiguration in Southwest and Calgary	– Eastern Alberta Transmission Line (EATL) bi-pole
– Developments similar to Foothills Area Transmission Development (FATD) West	– 500 kV outlets in Central East
– Different components of previous Southern Alberta Transmission Reinforcement (SATR) plan	– Developments connecting Central East to the Edmonton and Calgary regions
– Others	– Others

- CRPC and CETO shown to be the most efficient transmission projects compared to the above

Pace of Transmission Development

Pace of transmission development

- Transmission developments will be tied to construction milestones
  - CETO is dependent upon the conventional generation replacement in Battle River and Sheerness
  - Staging; add incremental capability as existing capability is utilized
- The earliest in-service date for CRPC and first stage of CETO is 2023 based on two years of construction and assuming construction milestone trigger immediately after Permit and License (P&L)
- Second stage of CETO could be triggered before 2030 depending on pace of renewables and base load behaviour of thermal generation replacements

CRPC and CETO milestones

- The milestones are designed to trigger after the N-1 capability is reached but before the N-0 capability limit
- The milestones are designed to allow for one typical windfarm to connect while construction is underway
- CRPC milestone
  - 150 MW in Pincher Creek area or
  - 300 MW in Southwest sub-region (west of Lethbridge)
- CETO milestone
  - **CETO Stage 1**: 150 MW in Southeast or Central East sub-regions
  - **CETO Stage 2**: 550 MW in Southeast or Central East sub-regions

Question & Answer Period

Next Steps

Next steps

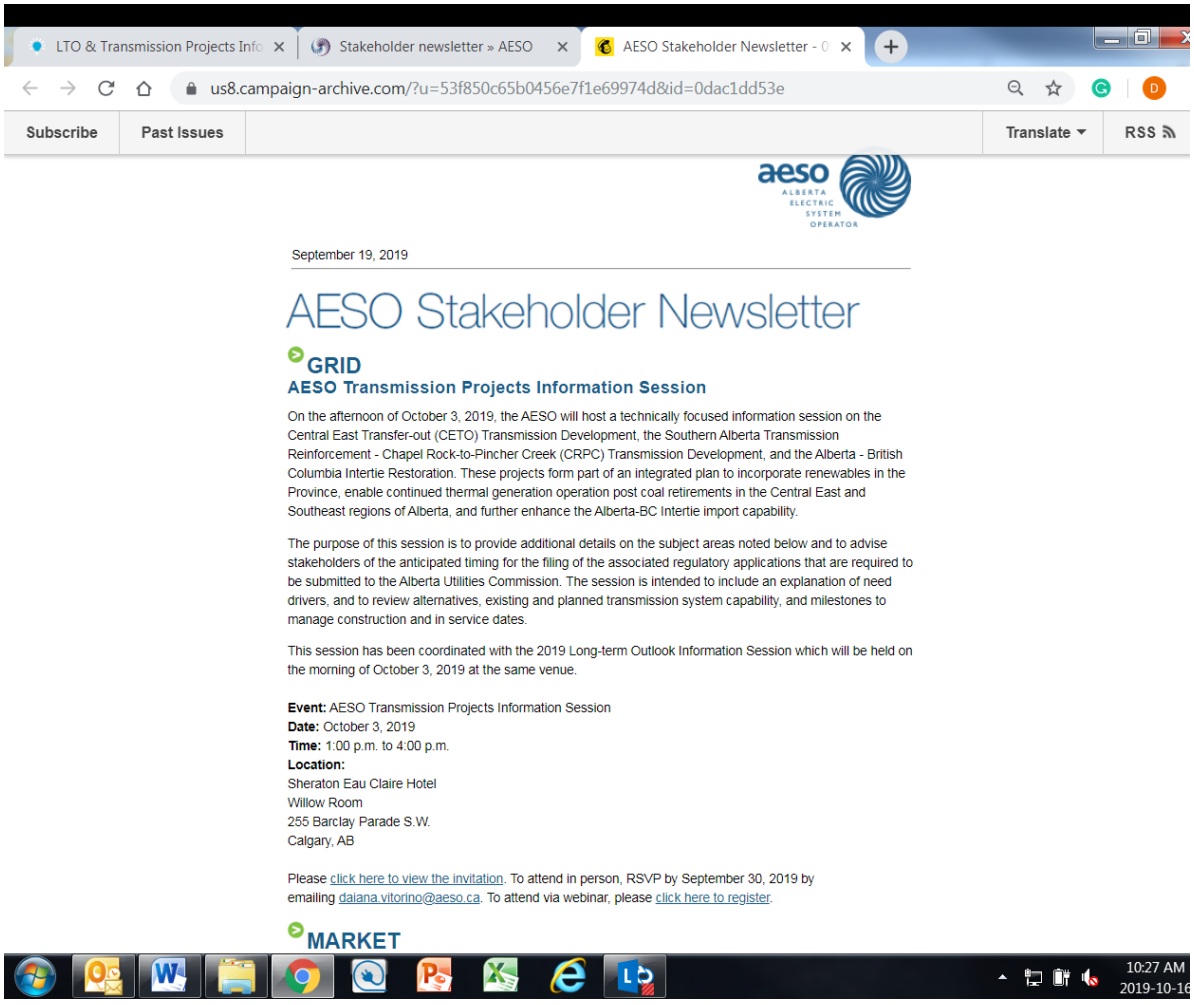
- AESO will seek approval from the AUC for the CRPC and CETO transmission developments and AIR in conjunction with AltaLink's and ATCO's Facility Applications

Contact the AESO

- ***Twitter:*** *@theAESO*
- ***Email:*** *stakeholder.relations@aeso.ca*
- ***Website:*** *www.aeso.ca*
- Subscribe to our stakeholder newsletter


Thank you
10/03/2019 Public

Attachment 9.1 – AESO Stakeholder e-Newsletter Notice (September 19 – October 1, 2019)


LTO & Transmission Projects Info
Stakeholder newsletter » AESO
AESO Stakeholder Newsletter - 0
us8.campaign-archive.com/?u=53f850c65b0456e7f1e69974d&id=0dac1dd53e
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ALBERTA ELECTRIC SYSTEM OPERATOR
September 19, 2019
AESO Stakeholder Newsletter
GRID
AESO Transmission Projects Information Session
On the afternoon of October 3, 2019, the AESO will host a technically focused information session on the Central East Transfer-out (CETO) Transmission Development, the Southern Alberta Transmission Reinforcement - Chapel Rock-to-Pincher Creek (CRPC) Transmission Development, and the Alberta - British Columbia Intertie Restoration. These projects form part of an integrated plan to incorporate renewables in the Province, enable continued thermal generation operation post coal retirements in the Central East and Southeast regions of Alberta, and further enhance the Alberta-BC Intertie import capability.
The purpose of this session is to provide additional details on the subject areas noted below and to advise stakeholders of the anticipated timing for the filing of the associated regulatory applications that are required to be submitted to the Alberta Utilities Commission. The session is intended to include an explanation of need drivers, and to review alternatives, existing and planned transmission system capability, and milestones to manage construction and in service dates.
This session has been coordinated with the 2019 Long-term Outlook Information Session which will be held on the morning of October 3, 2019 at the same venue.
Event: AESO Transmission Projects Information Session
Date: October 3, 2019
Time: 1:00 p.m. to 4:00 p.m.
Location:
Sheraton Eau Claire Hotel
Willow Room
255 Barclay Parade S.W.
Calgary, AB
Please click here to view the invitation. To attend in person, RSVP by September 30, 2019 by emailing daiana.vitorino@aeso.ca. To attend via webinar, please click here to register.
MARKET
10:27 AM
2019-10-16

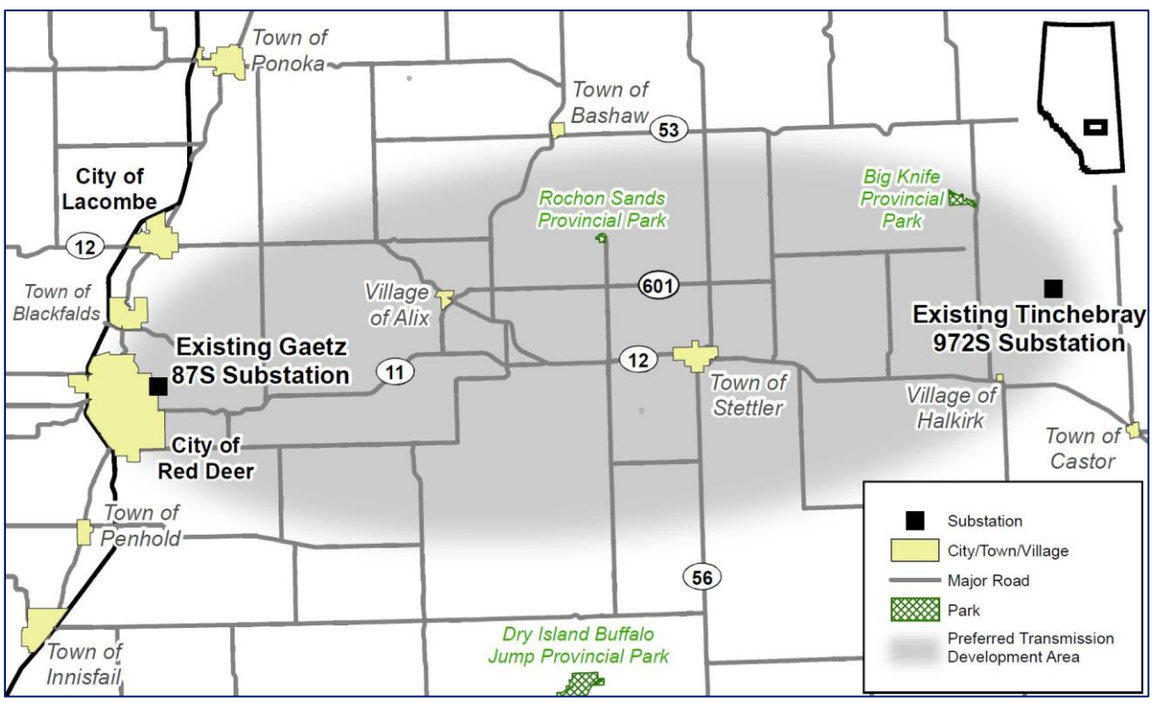
Attachment 10 – Notice of Filing

Notification of AESO regulatory filing addressing the need for transmission development in central east Alberta

The Alberta Electric System Operator (AESO) advises you that it intends to file a Needs Identification Document (NID) Application with the Alberta Utilities Commission (AUC) on or after March 18, 2020 for the approval of the Central East Transfer-out (CETO) Transmission Development.

The proposed transmission development includes adding two new 240 kilovolt (kV) transmission lines between the existing Gaetz 87S substation east of the City of Red Deer, and the existing Tinchebray 972S substation near the Village of Halkirk, and adding or modifying associated equipment as required.

The CETO transmission development is needed in the near term to reinforce and upgrade the capability of the transmission system in central east Alberta to transfer out electricity from where it is generated, to where it is needed via the Alberta Interconnected Electric System. Alberta is rich in renewable resources, and the proposed transmission development will enhance reliability and expand options to connect renewables generation as it continues to develop in the central east and south east areas.



The shaded area in the map indicates the approximate area of the proposed transmission development, and shows the existing substations that will serve as end points for new 240 kV transmission lines. AltaLink Management Ltd. (AltaLink) owns the Gaetz 87S substation and ATCO Electric Ltd. (ATCO) owns the Tinchebray 972S substation; both substations will require some modifications. In separate applications, called Facility Applications, AltaLink and ATCO will describe the specific routes they propose to implement the transmission development, and will request AUC approval to modify, construct and operate the transmission facilities within their respective service territories. The specific transmission facilities may extend beyond the shaded area.

The AESO will be proposing to bring the CETO transmission development into service in stages that align with milestones based on the development of generation projects in the central east and south east areas. It is anticipated that the first 240 kV transmission line will be constructed and energized by 2023 (stage one) and the second 240 kV line will be energized by 2027–2029 (stage two). These dates are subject to change based on the pace of new generation development and coal-fired generation replacement in the area.

In January 2019 the AESO began notifying stakeholders, including residents, occupants and landowners, of the need for the proposed transmission development and its intention to apply to the AUC for approval of the NID Application. Once filed, the NID Application will be posted on the AESO website at www.aeso.ca/stakeholder-engagement/transmission-projects/central-east-transfer-out-transmission-development/

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. This information is collected in accordance with Section 33(c) of the Freedom of Information and Protection of Privacy Act. If you have any questions about the collection or use of this information, please contact the Manager, FOIP and Records Management, 2500, 330 – 5th Ave SW, Calgary, Alberta, T2P 0L4 or by telephone at 403-539-2890. If you choose to communicate by email, please note that email is not a secure form of communication. Security of your communication while in transit cannot be guaranteed.

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

Attachment 10.1 – Newspaper e-tear sheets

March 4, 2020

- **Bashaw Star**

February 27, 2020

- **Castor Advance**
- **Central Alberta Life (Red Deer)**
- **Coronation-Stettler East Central Alberta Review**
- **Lacombe Express**
- **Red Deer Advocate**
- **Stettler Independent**

Working Well Workshop coming

BLACK PRESS STAFF

A workshop on maintaing a good water supply on rural properties is coming to the region.

The Working Well Workshop, hosted by the County of Stettler, will be held on March 12 at the White Sands Community Hall — about a 40 km drive southeast of Bashaw.

A supper at 5:30 p.m. will be included followed by a discussion running from 6 to 8 p.m.

The workshop is meant to help the nearly 450,000 Albertans that use well water for their households.

"It is a common belief that groundwater comes from fast flowing underground rivers and lakes. This is not true," the release from Alberta Environment and Parks stated.

"Groundwater is the water that fills the cracks and spaces between soil particles, sand grains and rock. An aquifer is simply a water-bearing zone in the ground where there are interconnected cracks and spaces — sand, gravel or fractured shale — that allows groundwater to move freely."

Speakers at the workshop will include Alberta Agriculture and Forestry, Alberta Environment and Parks, Alberta Health Services and licensed water well drillers.

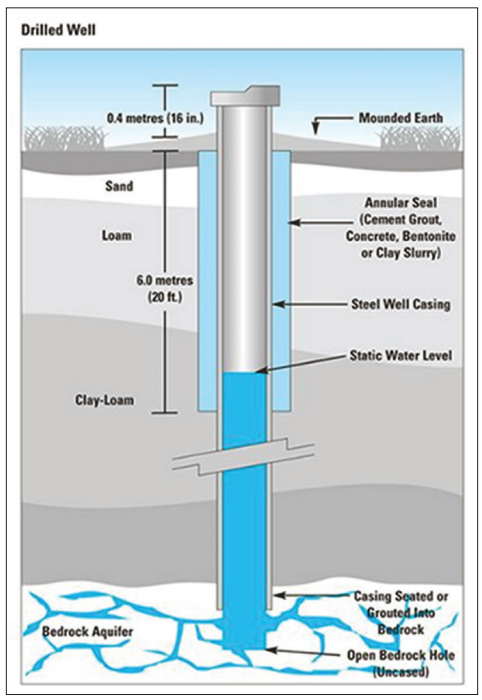
The workshop will help participants better understand how groundwater works, that there is a connection between surface and groundwater, how to properly maintain a well and how to ensure their water is safe.

Talks will also focus on proper water well siting, construction, maintenance and plugging to protect a well from biofouling and contamination.

"That can save costly repairs and ensure well water yields are sustained over many years," the release added.

The workshop is free, but people are asked to pre-register by calling the County of Stettler (403-742-4441), sending an email to asb@stettlercounty.ca or going online to https://stettler-wellworkshop.eventbrite.ca.

Since its the workshop's launch in 2008, it has become a very successful and in-demand program for rural Albertans, providing them with the information and resources they need to manage their water wells and protect Alberta's groundwater resources.



A diagram of a drilled water well and how it is designed to draw water while keeping out contaminants. *Image: Camrose County*

Suspect still sought in Rochon Sands break-in

BASHAW STAR STAFF

RCMP are still looking for one suspect following the arrest of two others during an early morning break-in Feb. 18 at Rochon Sands.

Officers from Bashaw and Stettler responded to a call around 7:30 a.m. about a residential break and enter in progress. Police arrived about 30 minutes later with witnesses stating a truck with three female inside had crashed nearby and then the suspects fled on foot.

An RCMP canine was successful in tracking down two of the suspects to a garage, where they were arrested without incident. Meanwhile, the RCMP helicopter assisted in the search, but an as yet to be identified third suspect was not located.

File photo

The crashed truck turned out to have been stolen from Red Deer the previous day and contained numerous stolen items.

Tamara Lynn Ann Phyllis Blair, 30 from Red Deer, is facing charges of break and enter, possession of stolen property, obstruction and failure to comply with conditions. She also had some outstanding arrest warrants.

Also charged is Amanda Ray Metro, 33 from Bentley, with break and enter, possession of stolen property and three counts of failure to comply with probation or court orders.

The pair were remanded following their first appearances in count, with their next appearance in Stettler Provincial Court slated for Feb. 27.

Police are still investigating, as it is believed several other thefts in the Rochon Sands area are related.

As a result, they are still searching for a man they feel is involved. The public is asked to check any security cameras for someone matching the following description — wearing blue jeans, a grey hoodie and a jacket on with white lettering on the back.

Anyone with information on this or other crimes, contact the nearest RCMP or police detachment or CrimeStoppers at 1-800-222-TIPS (8477) if you wish to remain anonymous.

Town bracing for summer service cuts if Canada Summer Jobs Program doesn't come through

By Kevin J. Sabo For the Advance

Town of Castor administration presented several options to council for potential service cuts if the Town doesn't receive at least $30,000 from the federal Canada Student Summer Jobs Program.

Town administration had concerns in recent months when the window to apply for the program did not open when it typically did.

The window for program applications finally did open and is remaining open until Feb. 28th.

With the program applications now open, albeit late, the concern from Town administration is if they do not receive the funding they typically do.

The Town has received funding from the program yearly and it allows the municipality to hire several high school and university students during the summer months. Due to cutbacks that have been seen recently in both the provincial and federal governments, the concern is that the community won't receive the funding needed to hire the students.

"If we receive at least $30,000 there will be no change to service levels," said CAO Christopher Robblee during his presentation. Robblee presented several scenarios to council during the Feb. 24th meeting.

The first scenario he gave to council is that the Town receives at least $30,000 to hire the summer students. If that threshold is reached, the Town will have the funds in place to keep services at 2019 levels.

If the Town only receives partial funding for summer students, fewer students will be hired and residents could see service level decreases.

"A loss of up to $11,500 (from the $30,000) means that two students are lost," said Robblee.

"Our budgets are so tight that we can't make up the difference."

If the Town receives no funding from the program, there would be definite and significant service cuts. Four students would not be hired, and the Camp Beaver Tail summer camp would be cut as well as several other cost-saving options including closing the pool earlier and decreasing pool staff training time among other things.

The summer students hired by the Town every year do a variety of work, such as cutting and weed-eating the Town's grass, helping the full time public works staff patch potholes and fill cracks, help run the pool, run the garbage truck, and perform a variety of other summer programs.

A loss of students will be felt by both recreation and public works.

The only other option for the Town to prevent service cuts in lieu of the Canada Summer Jobs Program funding would be an additional tax increase to residents of at least one per cent; however, a tax increase is not something that council wants to entertain.

Town council and administration should know within a few weeks whether or not funding, if any, has been approved and will be looking to finalize summer service levels at that point.

Despite no funding in place, administration is going to begin to hire summer students, because if they wait much longer, they run the risk of not finding any students to hire if the funding does come through, council was told.

Bashaw filmmakers capture grasslands' beauty

BY JORDIE DWYER
BLACK PRESS NEWS SERVICES

A brother and sister team from Bashaw have created a short documentary about a delicate part of the Canadian Prairie.

Ben Wilson and Sarah Wray produced the 13-minute film *Guardians of the Grasslands*, which premiered to a small audience in Calgary last October and was shown in January at the Bashaw United Church as part of an evening dedicated to short films.

Wilson explained the project came about quite quickly this past summer, with the partnership of three organizations — Canada Beef, Ducks Unlimited Canada and the Nature Conservancy of Canada.

"While we were doing some filming for another project at an incredibly beautiful and pristine ranch in southern Alberta, Sarah came up with the idea that the story of the grasslands ecosystem — one of the most endangered ecosystems on the entire planet — would make a great documentary film subject," he said.

"We were blown away by what we learned while filming at the Waldron Ranch Grazing Cooperative for two days, and felt inspired to share the important story of the grasslands and the role that cattle play in the delicate balance of the endangered ecosystem."

Contributed photo

A behind-the-scenes shot of the filming of "Guardians of the Grasslands" on location at the Waldron Ranch Grazing Cooperative in the foothills, about 80 kilometres southwest of Calgary.

Wray added: "When we found out that the grasslands in Canada are one of the most endangered ecosystems in the entire world, it really shocked us. Coming from a ranching background myself, I was surprised that this information was not better known throughout our community."

The film focuses on the landscape and what some perceive to be a problem, but is really a solution, with cattle ensuring the Prairies last well into the future.

"The amazing, picturesque location that is 65,000 acres in size, of which most is still native prairie. It was the perfect setting to highlight these iconic landscapes and the sheer number of plants and animals that call them home and rely on cattle ranchers to keep them intact," Wilson said.

Other facts in the film include that 74 per cent of Canada's grasslands have already been lost, mostly to urban and agricultural land conversion, and that the native grasslands that remain are home to many of Canada's most endangered wildlife species, co-operatively sharing the landscape with grazing cattle or bison, as in the distant past.

While the film isn't due for official release until later this year, screenings can be requested through www.guardiansofthegrasslands.ca. Wilson says more than 150 screening requests have been received to date.

The brother-sister team operate Story Brokers Media House.

OBITUARY

Auction sales, arrowhead hunting favourite things to do

Edward Ernest Schowalter was born Jan. 29, 1946 at Provost Alta. and passed away Jan. 28, 2020 at Stettler Alta.

Ed was raised on a farm just west of Rumsey, Alta. where he went to grade school.

He continued on to Morrin School, Olds College and Saskatoon University for where he trained as an A.I. Technician.

He worked as a driller for various companies, taking him to Indonesia for three years and many places in Alberta and British Columbia.

Schowalter

He then switched careers to stay close to family and bought the Botha Store, which he owned for seven years.

Ed tried his hand at real estate in Stettler and Drumheller, ranched for a couple of years east of Halkirk, and worked for several fertilizer companies around Stettler delivering anhydrous ammonia.

Some of his favourite things to do were going to auction sales, arrowhead hunting, and shopping at the "Mall" (dump), adding pieces to his many collections.

He did his share of building and renovating over the years, not always willingly, but always did a great job!

In his retirement years, he spent time with his grandchildren teaching and helping them with their vehicles and homes, just to stay busy.

Ed will be forever remembered and missed by his wife Inge, daughter Angela and family and son Quinten and family, many relatives and dear friends.

A memorial service was held at the Stettler Funeral Home on Feb. 8, 2020.

Memorial donations can be made in Ed's name to Stettler Hospice Society or to Botha Cemetery (cheques payable to County of Stettler).

Condolences may be sent to the family at www.stettlerfuneralhome.com.

Stettler Funeral Home & Crematorium entrusted with the care and funeral arrangements. 403-742-3422.

Small town helping themselves

Cont'd from Pg 1

The councillors felt that since Bay 1 of the Railway House was sitting empty and still consuming some utility charges, this would help those costs and get people through the door.

This program has also been beneficial when attracting grants as high levels of government are keen on collaboration when possible.

In 2017, Sgt. Holliday of the Bashaw detachment approached Adult Learning and FCSS and asked what could be done to work together.

"We were recognizing that every time there was an issue everybody was kind of siloed and not knowing," said Northey. "Our intention was to serve the area that is the RCMP detachment and Alix falls in that."

> "Their goal is to work together to address the issues each individual has in different areas like Donalda, Alix, Ferintosh and Meeting Creek.

Their goal is to work together to address the issues each individual has in different areas like Donalda, Alix, Ferintosh and Meeting Creek.

This can be anything from mental health and addiction issues to a lack of essential resources like food and everything in between.

This Hub will have a common referral sheet that people fill out.

Once completed, the navigator who welcomes people at the door will get them into the proper channels and services they need.

"So what is happening in Bashaw is quite remarkable because we are a small town and from a rural perspective we are helping ourselves," said Northey. "We are not waiting for somebody to deliver services in our community when we can develop it right in our community itself."

A mask of confidentiality is also established since there are so many services offered.

The presenters even encouraged a relaxed environment for people of all ages and backgrounds to co-exist.

This hub is not dependent upon funding but they did ask the council about continuing to keep their base utilities paid.

They agreed that anything over the base charges would be reimbursed.

Potential resources and programs once up and running include home support, a community kitchen, mental health supports, meals on wheels, a food bank, parenting assistance, Family Wellness Program, Tools for School and much more.

Alix could also see a paid psychologist and addictions and mental health worker paid under Alberta Health Services.

Street light safety

Jody Drocher came to council with concerns about some dark spots along 48th and 49th Street and at the nearby playground.

Drocher moved to Alix six months ago and has noticed how these dark spots could encourage rural crime as he and neighbours have already experienced 'people checking door handles.'

The new Alix resident sent in a letter to council formally asking to have two new street lights installed at the north end of both streets.

"There is nothing in that back corner," began Drocher. "I've put my own light up in my backyard to light it just because we have had people checking door handles and stuff like that happening so it just gives us a little better view."

Chief Administrative Officer (CAO) Michelle White mentioned that another person that had come into the office has also shared the same views as Drocher although they did not submit a letter or ask for council attention.

Mayor Rob Fehr agreed saying, "It is dark, I do concur."

CAO White did chat with Fortis, the electric company that services the area and they determined that in order to do what is asked, it would be an estimated $14,500 for the entire project without conducting an in-depth engineering study.

"The reason for that is that one existing pole up there they said has everything on it. It has a transformer, guide wires, everything so they can't put a light on it so it would require three additional poles to be put up for two streetlights," said CAO White.

A true request for decision will be brought up at a future meeting.

Council directed administration to have Fortis create a detailed street light design report and subsequent pricing for the project.

ANSWER TO PUZZLE NO. 970 on Page 9

S	P	L	I	T	■	L	E	D	■	G	A	P
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Lacombe Curling Club hosts Alberta Senior Provincials

BY TODD COLIN VAUGHAN
Lacombe Express

The results are in for the 2020 Alberta Senior Men's and Women's Provincial Championships, which were hosted by the Lacombe Curling Club.

After a week full of sweeping, the Team skipped by Wade White come out on top on the men's side — winning 8-5 after earning 3 points in the first end.

On the women's side, Olympic curler Cheryl Bernard's team is heading to nationals after picking up three in the fourth end and two in the seventh end.

All of the week's results can be found at https://curlingalberta.ca. The winners from Lacombe will not head off to nationals.

"We have had a really good week here. The curlers have been really good and the officials from Curling Alberta have been fantastic," Myra Winslow, general manager of the Lacombe Curling Club, said.

Winslow said the curling level was pretty darn good, with some of the best senior curlers from all over Alberta coming to Lacombe.

"They think we have a fantastic club here and our ice-maker has made some fantastic ice. We are very happy with how the week has gone," she said.

Winslow said guests were excited to see Bernard compete in Lacombe, and the curlers were pleased to compete on ice created by Darren Moulding — who is one of the best curlers in Alberta himself.

"Curling Alberta asked us to host this bonspiel, we didn't ask for it and they have been very happy with everything. Darren has done another good job and we are pretty happy," Winslow said.

She added many of their regular curlers and community members attended the bonspiel throughout the week.

"Our senior curlers have been marvelous with their volunteering. We are very appreciative of all their help," she said, adding they have helped set up for both the opening ceremony and the end banquet.

"The curling takes over and that takes quite a bit to get all the volunteers lined up. We had around 100 volunteers altogether," she said.

She added, "It turned out very well and we are very pleased our champions from here will go on to the Canadian nationals. That is very exciting."

todd.vaughan@lacombeexpress.com

Teams skipped by Scott Egger and Wade White were in the Alberta Senior Provincial finals hosted by the Lacombe Curling Club.

(Todd Colin Vaughan/LACOMBE EXPRESS)

Contributed photo

A Red Deer couple was on a flight Tuesday that made an emergency landing in Memphis after false reports of smoke in the cabin.

'SO GRATEFUL EVERYTHING IS OK. I SAID TO MY HUSBAND, 'WE'RE NOT PLANNING (ANOTHER TRIP) FOR A WHILE NOW.' I DIDN'T WANT TO GET ON ANOTHER PLANE.'

– SHAWNA PHILLIPS

PLANE EMERGENCY

Red Deer couple recalls mayday in the sky

JET 'NOSE DIVED' INTO MEMPHIS

BY MAMTA LULLA
ADVOCATE STAFF

A Red Deer couple was on a flight bound for Calgary, when it was diverted to Memphis on Tuesday evening after the pilot declared mayday.

Shawna Phillips said she and her husband boarded Sunwing Flight WG596 on Tuesday afternoon in Cancun, Mexico. After about an hour and a half in the air, a flight attendant got on the intercom and said "fire extinguisher, fire extinguisher to the front."

Luckily, it turned out to be a false alarm, but the Red Deer couple, sitting in row 28, did not know it at the time. Neither did the crew.

The pilot then came on the intercom and said "rapid descent" and "mayday," and asked passengers to put their seat belts on.

Then he "nose dived" for about eight minutes, dropping the plane from about 26,000 feet in about eight minutes.

Phillips was scared for her life and her heart was racing. She said panic and confusion led to babies crying and adult passengers screaming and sobbing.

"We were crying, and I hugged my husband and said, 'if this is it, I love you.'

"We didn't really know. It was really traumatizing," she said.

About eight to 10 minutes into the rapid descent, the pilot made another announcement, informing those on board it was a false alarm.

"(Until then), we didn't know what was happening," she said, given the fact they were in the back rows, and the commotion was toward the front of the plane.

By this time, the pilot had dropped fuel, and the flight had to land in Memphis.

Sunwing confirmed in a statement the flight had to make an emergency landing due to reports of smoke in the cabin.

"It is believed that a passenger's vape pen may have been discharged accidentally on board the aircraft. All passengers and crew members are safe, and there appears to be no damage to the aircraft," said the airline.

"As the investigation into the emergency landing is ongoing, we do not have any additional details that we can share at this present time."

According to Sunwing's website, e-cigarettes must be packed in carry-on baggage and cannot be used on board.

Phillips does not believe vapes should be allowed on flights, just like lighters, which are not permitted.

In Memphis, the couple, along with other passengers, was welcomed with pizza, air mattresses and blankets. The couple landed in Calgary early Wednesday.

"So grateful everything is OK," Phillips said, adding she has been on planes several times, and has experienced the occasional turbulence, but nothing compared to this.

"I said to my husband, 'we're not planning (another trip) for a while now.' I didn't want to get on another plane."

The annual CARA curling bonspiel was held in Stettler Feb. 20th

On Feb. 20th, the annual CARA curling bonspiel was held in Stettler for Grades six to nine students.

In total, 16 teams attended the event.

Teams were also from every school in Clearview school division including Erskine, Donalda, Byemoor, Big Valley, Castor, Coronation, Stettler and Brownfield plus Theresetta and Christ King Catholic schools, organizers say.

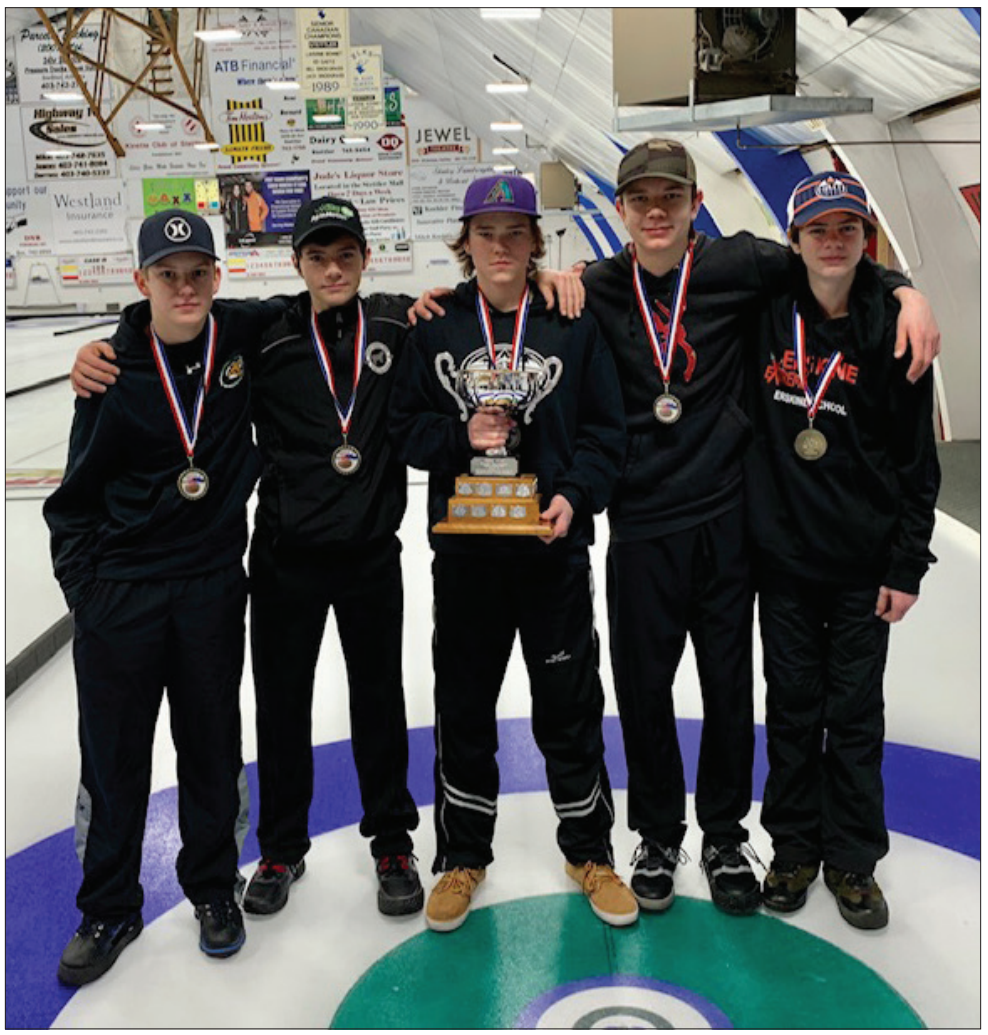
Each team was guaranteed three games. Then the top two from each of the four pools entered the quarter finals.

This then narrowed down to four teams for the semi's and then gold and bronze medal games.

Team Morbeck from Erskine went undefeated in their six games to have a repeat performance as CARA curling champions. Morbeck played Team Butterfield (skipped by C. Norman) from Donalda in the gold medal game.

Bronze was won by Team Johnson of Gus Wetter (Castor) over the P. Slemp team from Theresetta.

-Submitted



A photo of the winning five from left, Zach McCord, Jaydon Haustein, Doug MacPherson, Chance Morbeck and Caleb Couch.

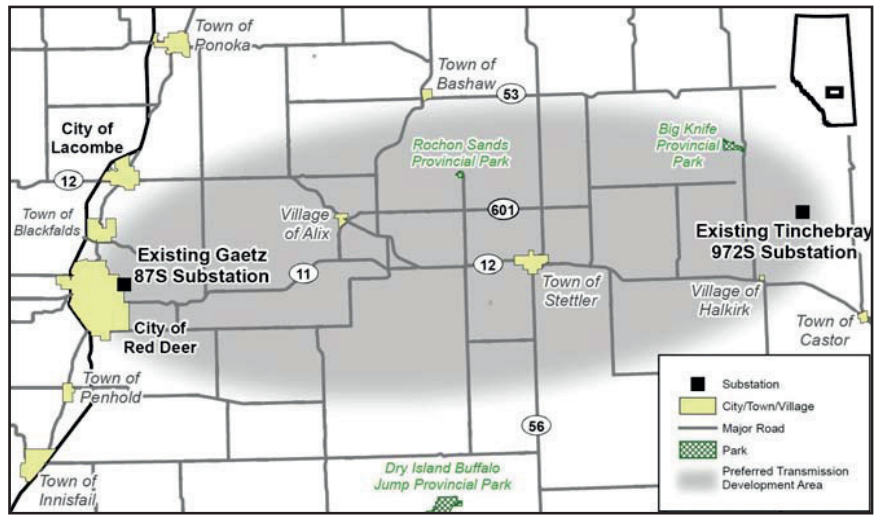
Photo submitted

Notification of AESO regulatory filing addressing the need for transmission development in central east Alberta

The Alberta Electric System Operator (AESO) advises you that it intends to file a Needs Identification Document (NID) Application with the Alberta Utilities Commission (AUC) on or after March 18, 2020 for the approval of the Central East Transfer-out (CETO) Transmission Development.

The proposed transmission development includes adding two new 240 kilovolt (kV) transmission lines between the existing Gaetz 87S substation east of the City of Red Deer, and the existing Tinchebray 972S substation near the Village of Halkirk, and adding or modifying associated equipment as required.

The CETO transmission development is needed in the near term to reinforce and upgrade the capability of the transmission system in central east Alberta to transfer-out electricity from where it is generated, to where it is needed via the Alberta Interconnected Electric System. Alberta is rich in renewable resources, and the proposed transmission development will enhance reliability and expand options to connect renewables generation as it continues to develop in the central east and south east areas.



Th e shaded area in the map indicates the approximate area of the proposed transmission development, and shows the existing substations that will serve as end points for new 240 kV transmission lines. AltaLink Management Ltd. (AltaLink) owns the Gaetz 87S substation and ATCO Electric Ltd. (ATCO) owns the Tinchebray 972S substation; both substations will require some modifi cations. In separate applications, called Facility Applications, AltaLink and ATCO will describe the specifi c routes they propose to implement the transmission development, and will request AUC approval to modify, construct and operate the transmission facilities within their respective service territories. The specific transmission facilities may extend beyond the shaded area.

The AESO will be proposing to bring the CETO transmission development into service in stages that align with milestones based on the development of generation projects in the central east and south east areas. It is anticipated that the first240 kV transmission line will be constructed and energized by 2023 (stage one) and the second 240 kV line will be energized by 2027–2029 (stage two). These dates are subject to change based on the pace of new generation development and coal-fired generation replacement in the area.

In January 2019 the AESO began notifying stakeholders, including residents, occupants and landowners, of the need for the proposed transmission development and its intention to apply to the AUC for approval of the NID Application. Once fi led, the NID Application will be posted on the AESO website at www.aeso.ca/stakeholder-engagement/transmission-projects/central-east-transfer-out-transmission-development/

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. This information is collected in accordance with Section 33(c) of the Freedom of Information and Protection of Privacy Act. If you have any questions about the collection or use of this information, please contact the Manager, FOIP and Records Management, 2500, 330 – 5th Ave SW, Calgary, Alberta, T2P 0L4 or by telephone at 403-539-2890. If you choose to communicate by email, please note that email is not a secure form of communication. Security of your communication while in transit cannot be guaranteed.

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

aeso

Attachment 10.2 – Stakeholder e-Newsletter notice (March 3, 2020)

Subject: AESO Stakeholder Newsletter - March 3, 2020

*** EXTERNAL email. Please be cautious and evaluate before you click on links, open attachments, or provide credentials.***

March 3, 2020

AESO Stakeholder Newsletter

STAKEHOLDER ENGAGEMENT

CETO Transmission Development – Notification of Regulatory Filing

The AESO has published a Notification of Regulatory Filing newspaper advertisement for the Central East Transfer-out (CETO) Transmission Development. The notification states that the AESO intends to file a Needs Identification Document Application with the Alberta Utilities Commission on or after March 18, 2020. Please click here to view the notification or visit the AESO website at www.aeso.ca and follow the path Stakeholder Engagement > Transmission Projects > Central East Transfer-out Transmission Development.

Market Efficiency – Invitation to comment on sub-hourly settlement

Attachment 10.3 – Stakeholder email (March 3, 2020)

E-mail to Stakeholders - Notice of Filing

Date: March 3, 2020

To: Stakeholder Relations

Subject: CETO – AESO Notification of Regulatory Filing

The Alberta Electric System Operator (AESO) recently published a notification in central east area newspapers that we intend to file a Needs Identification Document (NID) Application with the Alberta Utilities Commission on or after March 18, 2020 for the approval of the Central East Transfer-out (CETO) Transmission Development.

To view the full notice of filing, which is posted on the AESO's website please click here, or visit the AESO's website at www.aeso.ca and follow the path Stakeholder Engagement > Transmission Projects > Central East Transfer-out Transmission Development.

Once filed, the NID Application will be posted on the AESO website at the path noted above.

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

Stakeholder Relations
Toll Free: 1-888-866-2959
stakeholder.relations@aeso.ca

Alberta Electric System Operator (AESO)

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

Attachment 11 – Confirmation of Filing Advertisement

AESO submits Needs Identification Document (Application) to Alberta Utilities Commission (AUC) for Central East Transfer-out (CETO) Transmission Development

In early March 2020, notices were published in newspapers in the central east area of Alberta, advising that the Alberta Electric System Operator (AESO) would submit an Application to the AUC for the CETO transmission development on or after March 18, 2020.

Due to the evolving COVID-19 situation, the AESO subsequently decided to reassess the timing for filing the Application for CETO. The proposed transmission development includes adding two new 240 kilovolt transmission lines between the existing Gaetz substation east of the City of Red Deer, and the existing Tinchebray substation near the Village of Halkirk, and adding or modifying associated equipment as required.

Upon completion of updates to several studies, which are included in the Application, the AESO determined that the need for the CETO transmission development remains unchanged and moved forward with the filing. The Application has been posted on the AESO website at **www.aeso.ca** and can be viewed by following the path: Stakeholder Engagement> Transmission Projects> Central East Transfer-out Transmission Development. For more information, please visit

www.aeso.ca
or contact the AESO at
1-888-866-2959
stakeholder.relations@aeso.ca