

AGENDA
SPECIAL COUNCIL COMMITTEE MEETING
MUNICIPAL DISTRICT OF PINCHER CREEK
October 2, 2018
2:00 pm

1. Approval of Agenda
2. Delegation
 - AltaLink / AESO
 - Representatives from AltaLink and AESO will be attending the meeting
3. Correspondence - Information
 - Update – Information about the need for transmission development in southwestern Alberta, dated September 14, 2018
4. Adjournment

Chapel Rock-to-Pincher Creek Transmission Development & Alberta-British Columbia Intertie Restoration

Community Meetings

October 2018

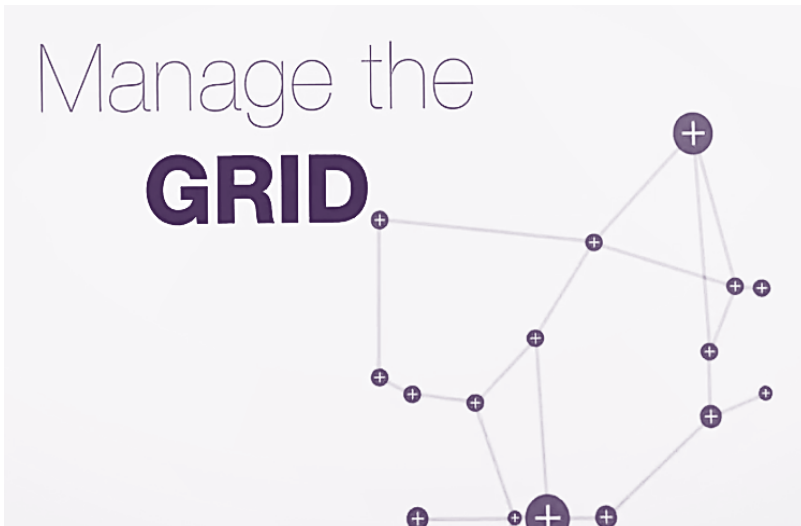
- About the AESO
- Project history
- Need
- Solution
- Alberta – British Columbia Intertie Restoration
- Next steps



About the AESO




 **PLAN**
transmission



 Facilitate the
MARKET

AESO's enabling legislation



Province of Alberta

ELECTRIC UTILITIES ACT


Statutes of Alberta, 2003
Chapter E-5.1

Current as of March 31, 2017

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Province of Alberta

HYDRO AND ELECTRIC ENERGY ACT


Revised Statutes of Alberta 2000
Chapter H-16

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Province of Alberta

ELECTRIC UTILITIES ACT

TRANSMISSION REGULATION


Alberta Regulation 86/2007

With amendments up to and including Alberta Regulation 175/2014

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Province of Alberta

RENEWABLE ELECTRICITY ACT

Statutes of Alberta, 2016
Chapter R-16.5

Current as of March 31, 2017

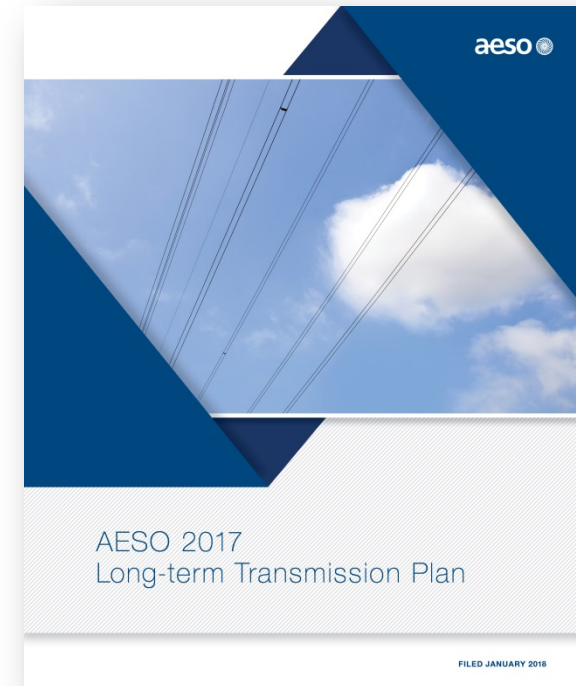
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Transmission planning – overview

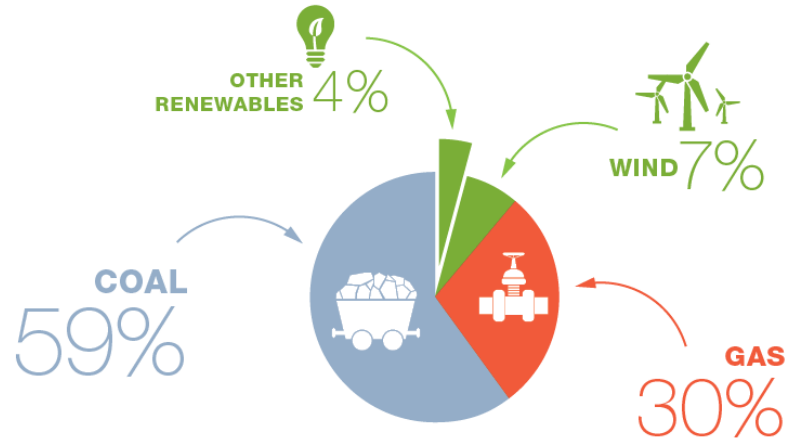
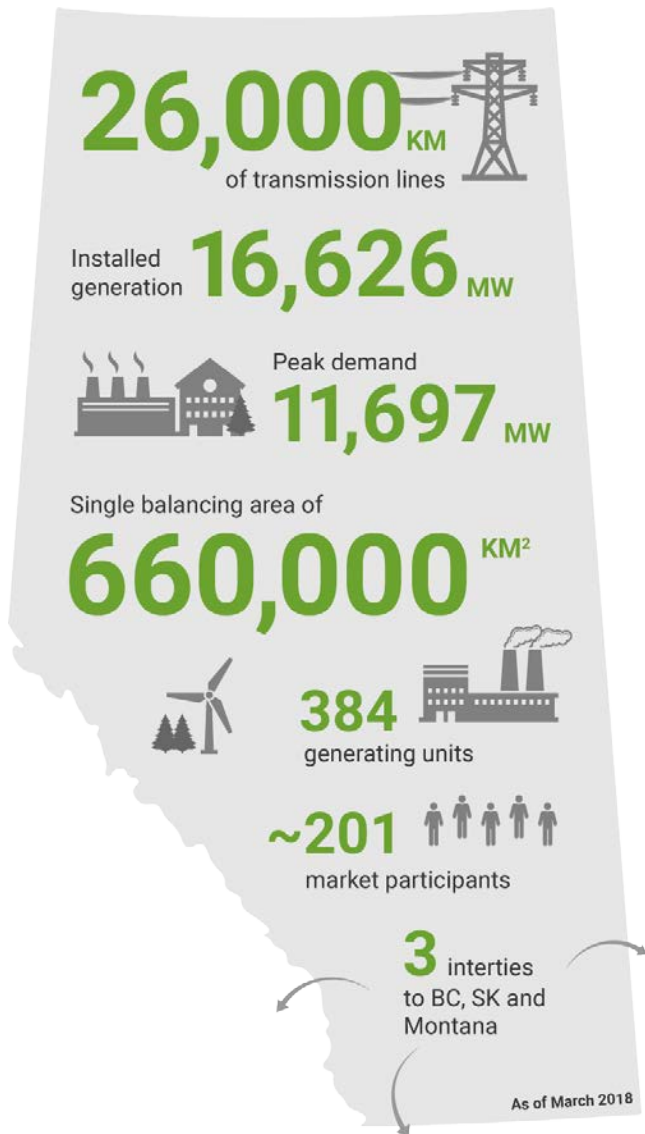
- Long-term planning essential to providing a safe and reliable grid
 - Enables growth
 - Supports generation additions
 - Provides access for investors
- Long-term Transmission Plan (LTP)
 - 20-year vision for Alberta's transmission system
 - Not a decision document; regulatory approval of projects required
 - Updated every two years
- Transmission development plans are submitted by AESO to the AUC as a Need application



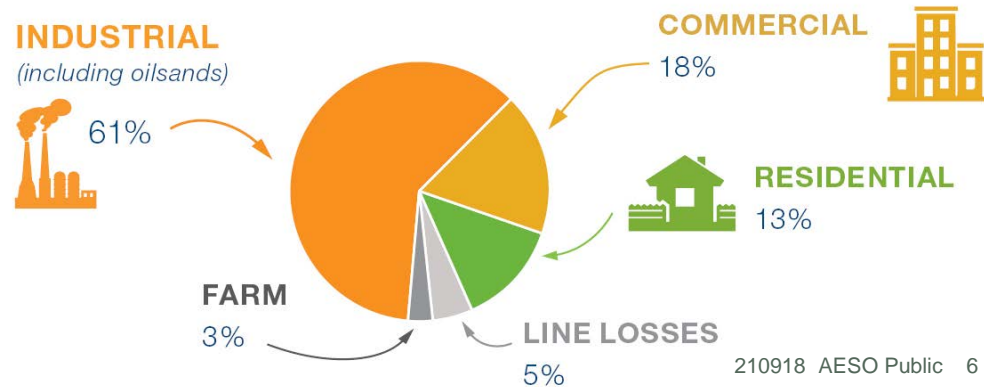
- Transmission planning is an ongoing process, with continuous monitoring of needed transmission plans in response to changes such as
 - economics
 - government policies
 - electricity market participant's connection requests
- Accountable to all Albertans to ensure the right amount of transmission is built at the right time and in the right area

ALBERTA SYSTEM OVERVIEW

NET TO GRID GENERATION



DEMAND



Alberta's electricity landscape is evolving

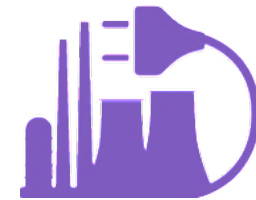
Generation forecast in Alberta for 2037



GAS-FIRED
38%



RENEWABLES
37%



COGEN
22%

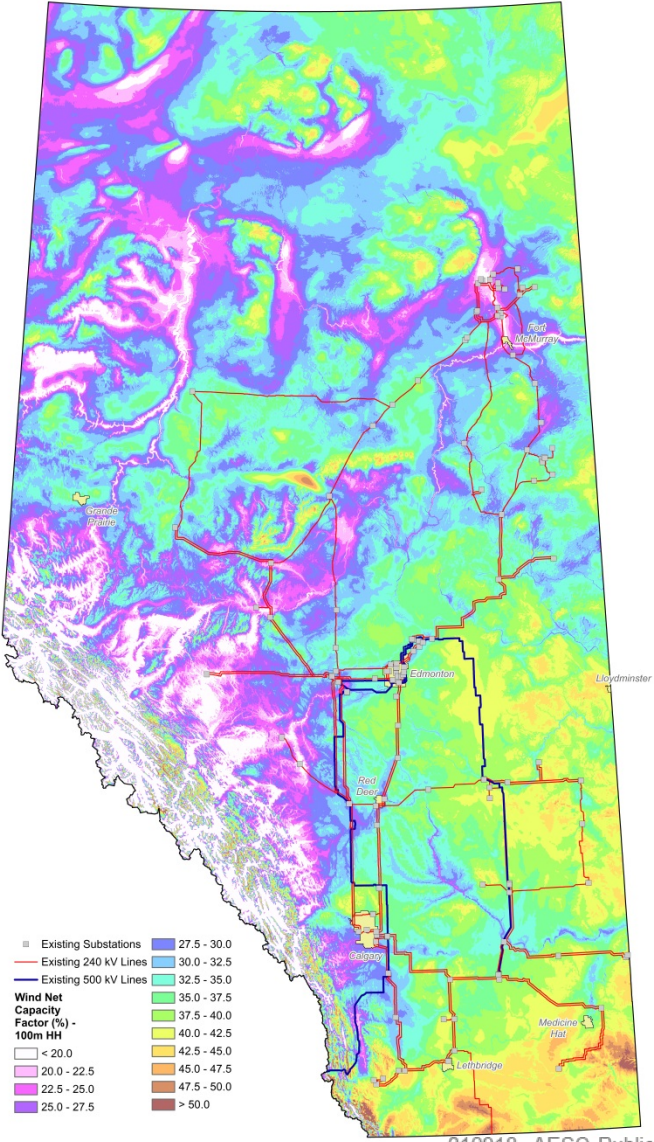
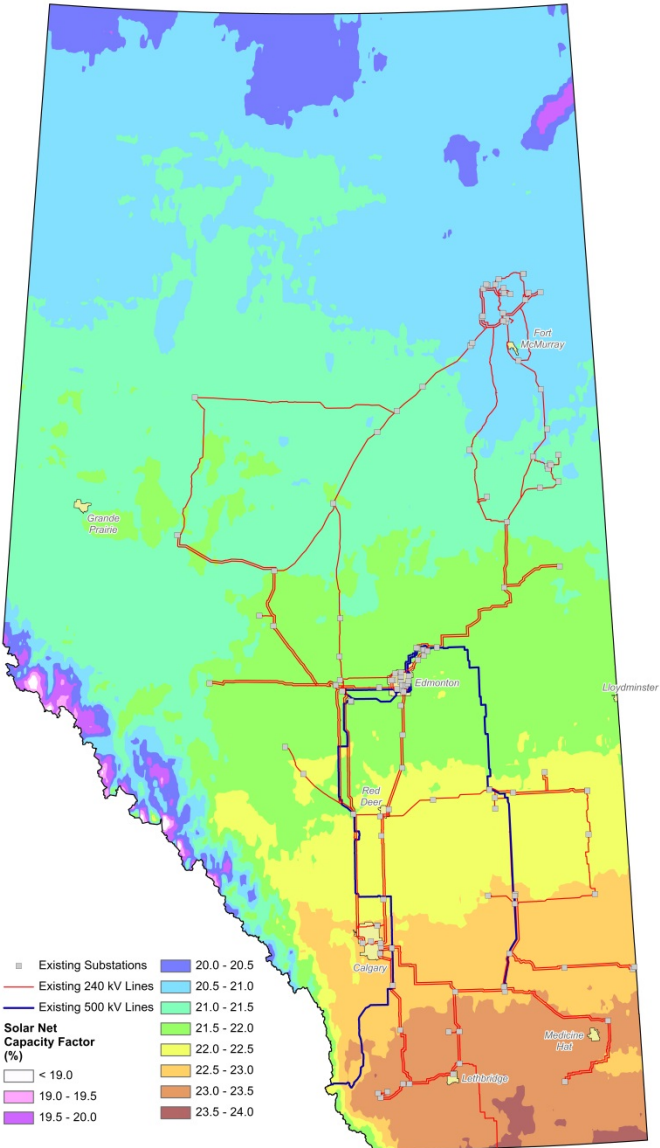


COAL-TO-GAS
3%



COAL
0%

Solar & wind resource potential



Data source: AWS Truepower

Need for transmission development

Need for transmission development

- Renewable generation development in the Pincher Creek area continues to grow
- Existing transmission system in the area is not capable of transferring the anticipated electricity to where it can be used
- New transmission development is needed to integrate new renewables onto Alberta's grid
- Contributes to the restoration of the Alberta British Columbia intertie to full path rating



Solution

Transmission development plans

- New/approved Chapel Rock substation connecting directly to existing 500 kV intertie between Alberta & BC and associated equipment within it
- One 240 kV transmission circuit from new Chapel Rock substation to **one of two** existing, equally viable technical solutions for termination points (Castle Rock Ridge substation **OR** Goose Lake substation)
 - Second transmission circuit future/long-term requirement
- New voltage support equipment at the existing Goose Lake substation

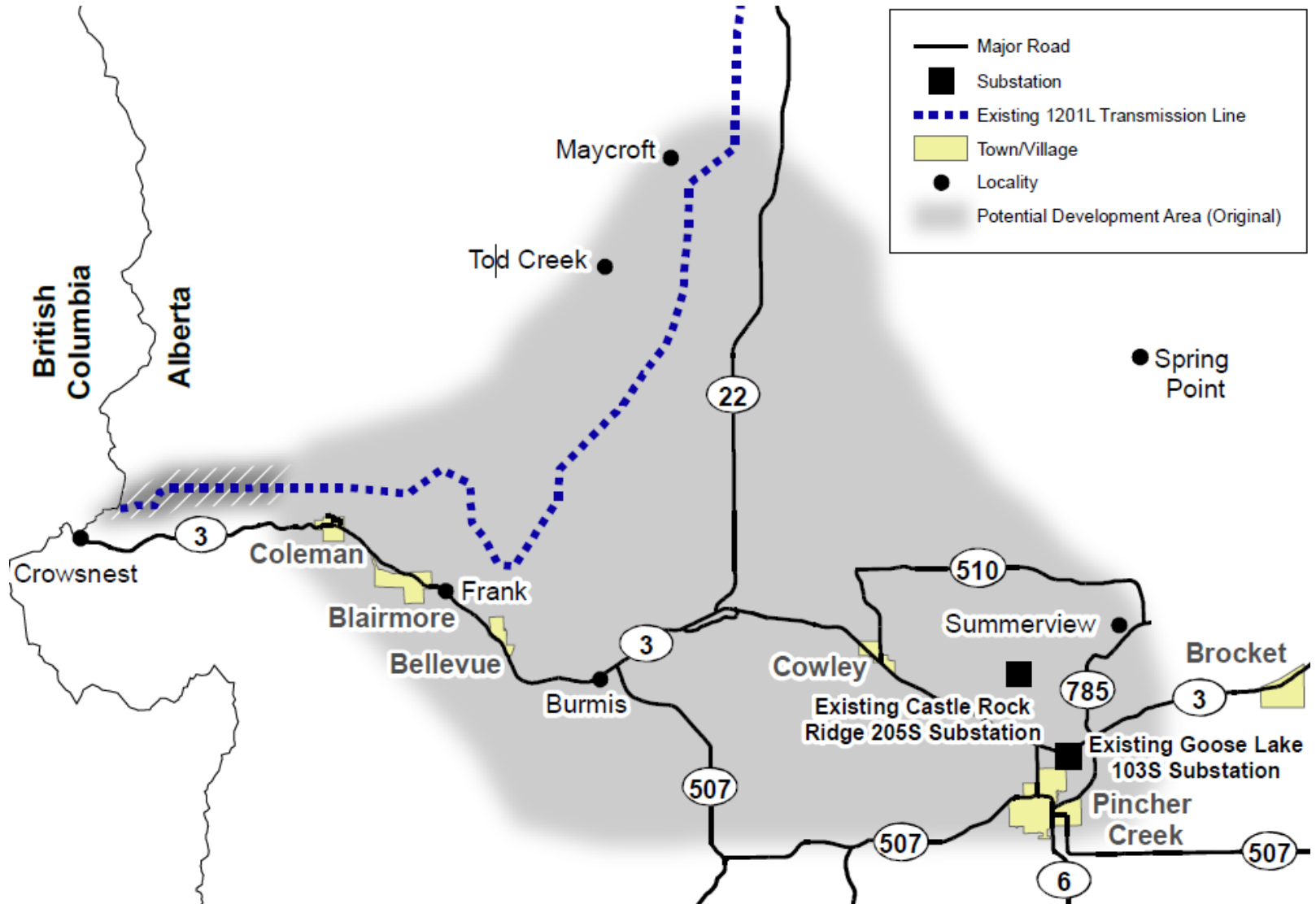


The collage consists of several overlapping document pages from AESO. The top page is titled 'JANUARY 2018 CHAPEL ROCK-TO-PINCHER CREEK TRANSMISSION DEVELOPMENT' and features a photograph of high-voltage power lines. The main heading is 'Moving forward with transmission development in your area'. It includes a section 'TRANSMISSION FACILITIES MOVING FORWARD' and a paragraph starting with 'With the evolving electricity landscape, the Alberta Electric System Operator (AESO) has worked diligently to ensure the previously approved transmission development in southwest Alberta continues to be the right plan for the transmission system for all Albertans.' Below this is a map titled 'WHERE WILL FACILITIES BE WILL YOU BE' with a legend for 'Transmission' and 'Other'. The middle page is titled 'SEPTEMBER 2018 CHAPEL ROCK-TO-PINCHER CREEK TRANSMISSION DEVELOPMENT UPDATE AND ALBERTA-BRITISH COLUMBIA INTERTIE RESTORATION'. It has a heading 'Chapel Rock-to-Pincher Creek Transmission Development Update' and a section 'TRANSMISSION FACILITIES REQUIRED IN YOUR AREA'. The bottom page is titled 'POTENTIAL LOCATIONS OF TRANSMISSION FACILITIES' and includes a map of the region with various locations marked and a legend for 'Transmission', 'Other', 'AESO Office', 'AESO Regional Office', and 'AESO Field Office'.

Aligning transmission facilities construction with renewable generation

- Construction of transmission development will closely align with the construction of renewable generation facilities
- Pincher Creek area has ~150 MW available transmission capability after REP Round 1 is energized
- Greater southwest area has ~650 MW available transmission capability after REP Round 1 is energized
- There is a possibility, following the REP 2 and 3 competitions, the milestone for construction will be met

Potential area where facilities could be located



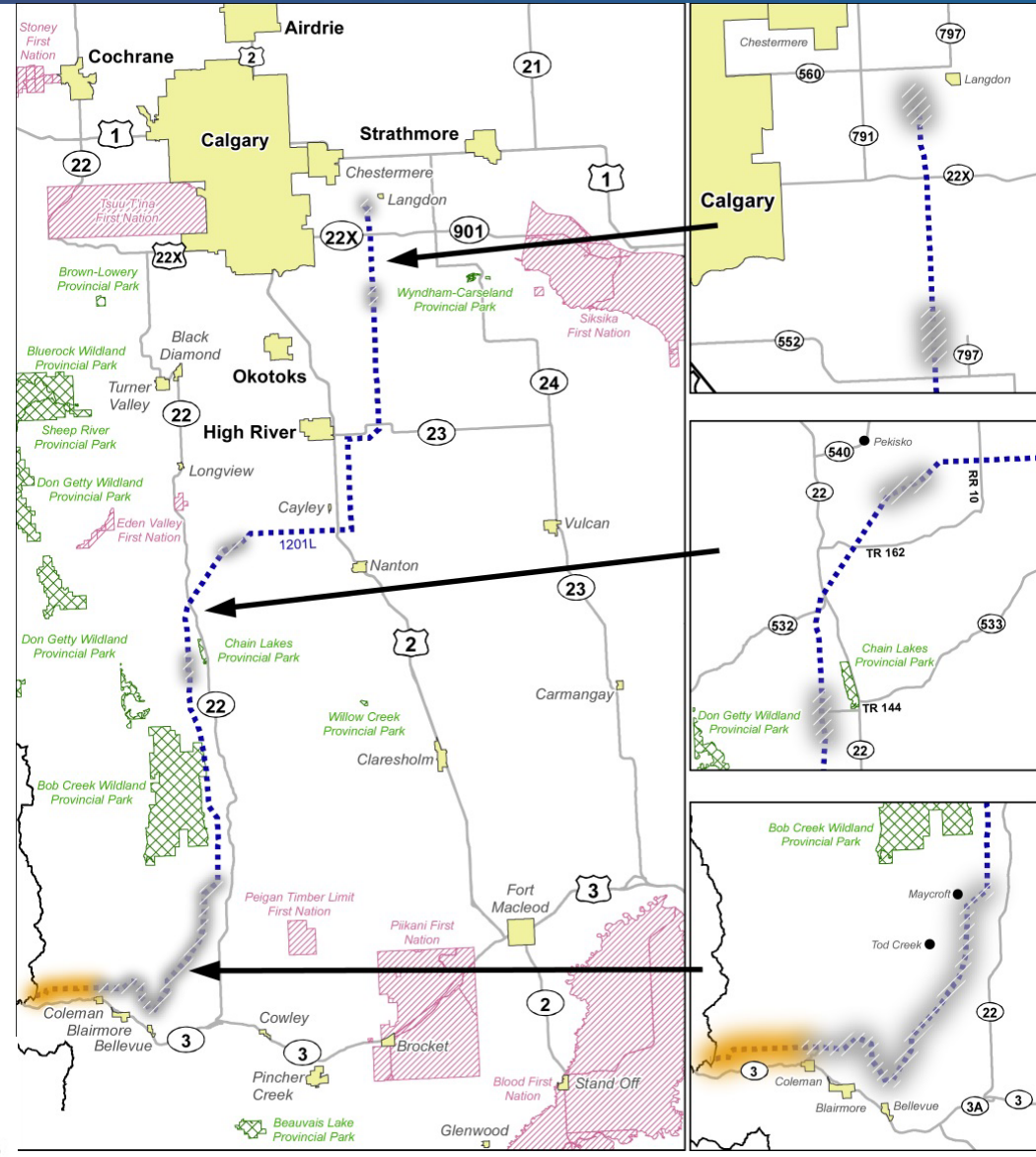
Alberta – British Columbia Intertie Restoration

Alberta – British Columbia Intertie Restoration

- Alberta's interconnection to B.C. is not currently operating to its full import capability
- Restoring the intertie will assist with reliability of electricity supply for Albertans as grid evolves
- Involves
 - additional equipment underneath the existing 1201L
 - clearance mitigation work on 1201L
 - increase transformer capacity at the Bennett substation, near Langdon

Potential areas where facilities could be located

- Insets show a zoomed-in view of potential development areas
- Area where facilities could potentially be located extended to BC border



Next steps

Next steps

- Ongoing
 - AltaLink will work with stakeholders to develop potential routes and sites for CR-PC and the AB-BC intertie restoration
- Fall 2019
 - seek approval from the Alberta Utilities Commission for the CR-PC transmission development and the AB-BC intertie restoration in conjunction with AltaLink's Facilities Applications



Connect with us

- Visit our website
 - www.aeso.ca/grid/projects/SATR-CRPC
 - www.aeso.ca/grid/projects/Intertie-Restoration
- Email us
 - stakeholder.relations@aeso.ca
- Call us
 - 1-888-866-2959



Thank you

Chapel Rock to Pincher Creek Area Transmission Development & Alberta-British Columbia Intertie Restoration

MUNICIPAL PRESENTATION

OCTOBER 2018

JOHN GROVE

COLIN HARVEY



AltaLink at a Glance

- **100% focused on energy solutions**
- **more than 13,000 km of lines**
- **more than 300 substations**
- **Backbone of Alberta's electricity grid**
- **Serving 85 per cent of Albertans**
- **Owned by Berkshire Hathaway Energy**



Key Industry Players

Alberta Electric System Operator (AESO)

Independent, not-for-profit system planner

Alberta Utilities Commission (AUC)

Independent regulatory body

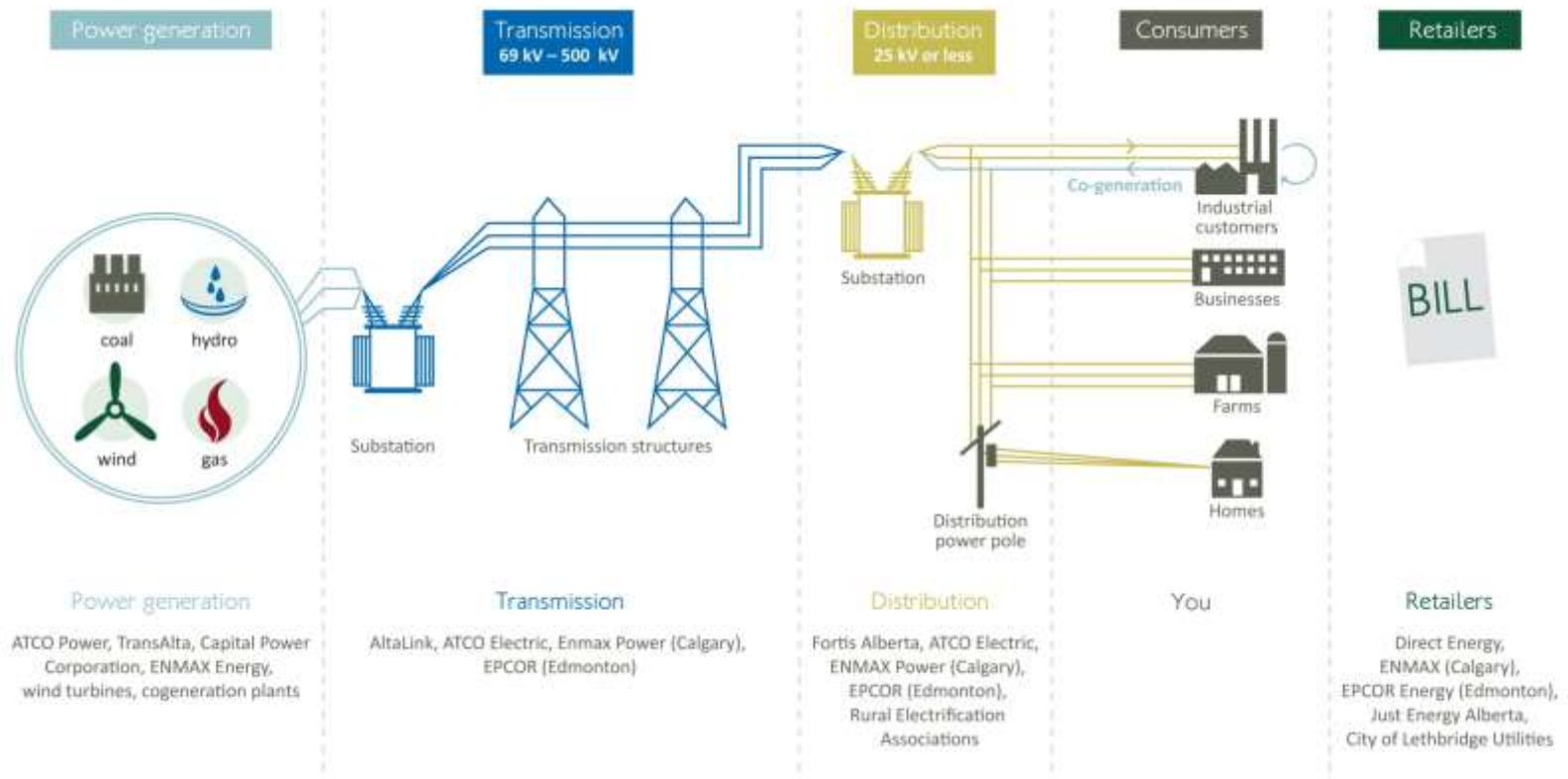
Transmission Facilities Owner (TFO)

Own and operate transmission facilities

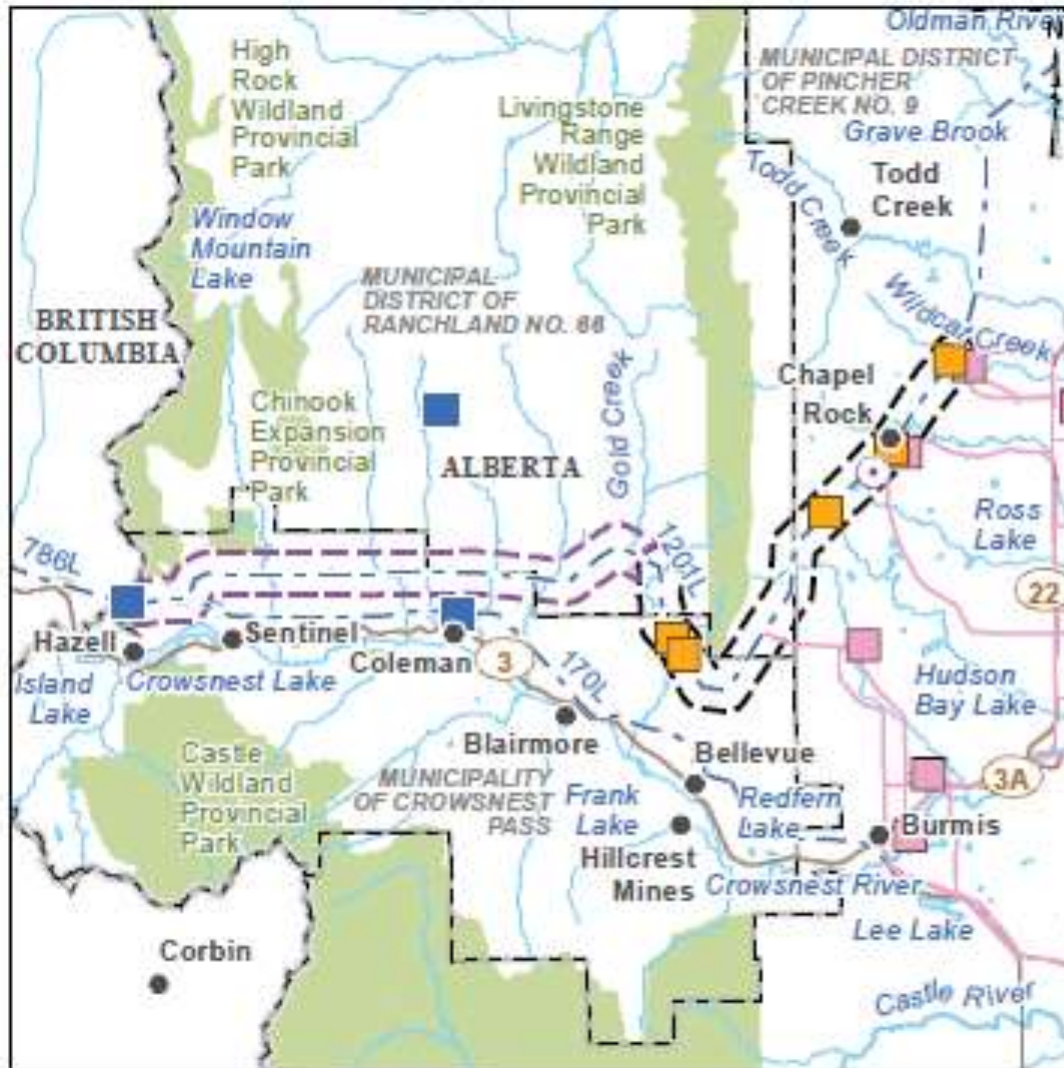
Distribution Facilities Owner (DFO)

Own and operate distribution facilities
Fortis/REA

Alberta's Electric Infrastructure



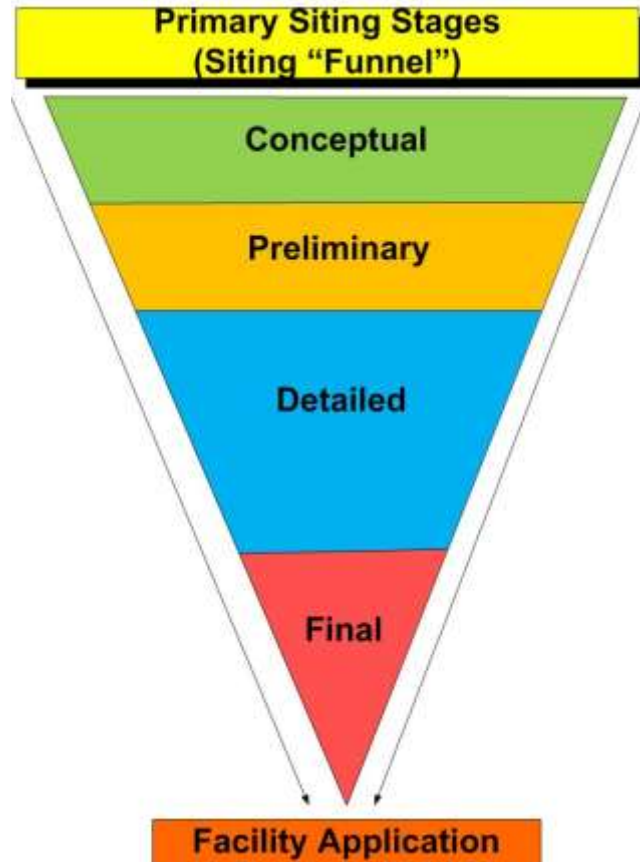
Intertie Restoration Project



LEGEND

- Potential Series Capacitor Location
- Existing Substation
- Potential Telecommunication Tower Site
- Expanded Study Area
- - - Study Area
- Existing Transmission Line
- Hamlet or Locality
- Major Road
- River or Stream
- Park / Other Protected Area
- - - Municipal or County Boundary
- - - Provincial Boundary
- Water Body
- Other AltaLink Project**
- Potential Chapel Rock to Pincher Creek Substation Target Area
- Potential Chapel Rock to Pincher Creek Transmission Line Route

Siting and Consultation Process



Routes developed
for consultation

Routes refined during
consultation

Who we talk to

- **Affected landowners**
- **First Nations**
- **Stakeholder groups**
- **Environmental groups**
- **Local and provincial government (elected officials and planning departments)**
- **Economic development agencies**

How we identify routes

Factors used to generate preliminary route options include:

- Agricultural areas
- High residential density
- Environmental areas
- Existing infrastructure - irrigation systems, gas wells
- Future interconnections to other transmission developments.

Public Events

Please join AltaLink and the AESO at:

Tuesday October 23, 2018	Pincher Creek, Ab	5 to 8 p.m.	Heritage Inn & Convention Centre 919 Waterton Ave Pincher Creek
Wednesday October 24, 2018	Cowley, Ab	5 to 8 p.m.	Cowley Hall 518 Railway Ave Cowley
Thursday October 25, 2018	Lundbreck, Ab	5 to 8 p.m.	Lundbreck Community Hall 304 1 Street Lundbreck

Project Schedule

- **Notify and consult with stakeholders:** **Fall 2018
to Summer 2019**
- **File application with the AUC:** **Fall 2019**
- **Start construction if project is approved:** **Fall 2020**
- **Anticipated construction completion:** **2022-2023**

Thank You

Contact information

website: www.altalink.ca/projects

toll-free: 1-877-269-1453

email: john.grove@altalink.ca

Friday, September 14, 2018

RECEIVED
SEP 20 2018
M.D. OF PINCHER CREEK

Sheldon Steinke
Interim Chief Administrative Officer
PO Box 279
Pincher Creek AB T0K 1W0

Dear Sheldon Steinke,

Re: **Update - Information about the need for transmission development in southwestern Alberta**

In January 2018, we sent you information about the need for transmission development in the Pincher Creek area to efficiently integrate generation from renewable resources onto Alberta's grid and restore Alberta's interconnection with British Columbia.

Based on further consideration and feedback received from stakeholders over the past several months, we have adjusted our plans for the Chapel Rock-to- Pincher Creek Transmission Development. At this time, we now plan to seek approval for **only one** of the two 240 kV transmission circuits. We do not anticipate the second 240 kV circuit being required within the next five to 10 years and will engage with stakeholders about the need for the second 240 kV circuit closer to the time we anticipate it will be required.

We have also extended the area where facilities may be located for the Alberta-British Columbia Intertie Restoration.

More information can be found in the enclosed newsletter.

If you have any questions or comments on these plans, or would like to meet with the AESO to discuss, please contact me directly at 403-233-6406 or brandy.eagleson@aeso.ca

Yours truly,



Brandy Eagleson
AESO Stakeholder Relations



Chapel Rock–to–Pincher Creek Transmission Development Update

➤ *Thank you to everyone who has participated in a dialogue with the Alberta Electric System Operator (AESO) throughout 2018; we value your input. We would like to share that we have adjusted our plans for transmission development in your area.*

As part of our ongoing planning process and taking stakeholder feedback into consideration, we have directed AltaLink Management Ltd. (AltaLink) to explore potential routes for **only one** of the two 240 kV transmission lines we shared information about earlier this year.

While the second 240 kV transmission line remains part of the AESO's long-term plans in the area, we do not anticipate the second 240 kV line being required within the next five to 10 years. We will engage with stakeholders about the need for this development closer to the time we anticipate it will be required. This will better enable us, as the organization accountable to all Albertans to ensure the right amount of transmission is built at the right time and in the right place, to pursue appropriate approvals with more certainty about the renewable generation development in the Pincher Creek area.

We will be in attendance at AltaLink's future public events to share information, answer your questions and listen to your concerns.

TRANSMISSION FACILITIES REQUIRED IN YOUR AREA

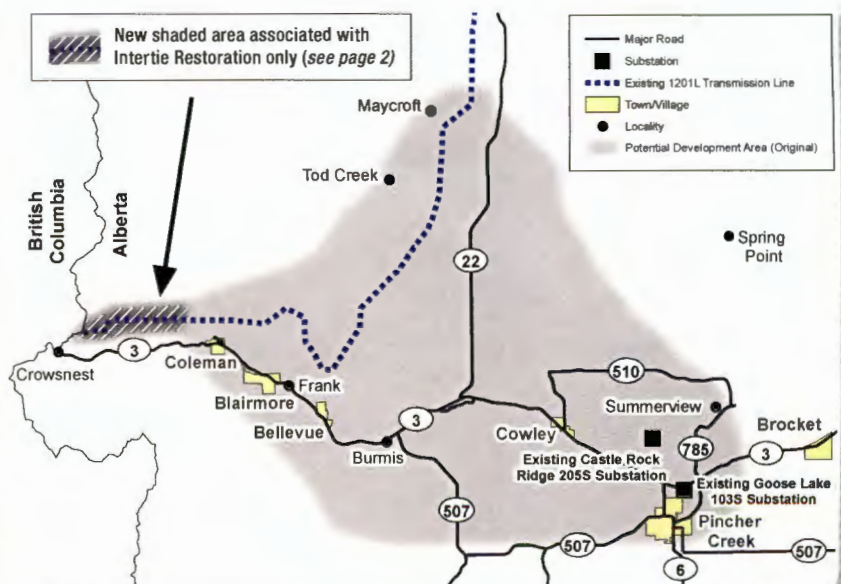
Renewable generation development in the Pincher Creek area continues to grow and the existing transmission system in the area is not capable of transferring the anticipated electricity to where it can be used. New transmission development is required to efficiently integrate it onto Alberta's grid. This includes:

- A planned Chapel Rock substation connecting directly to the existing 500 kV intertie between Alberta and B.C. and associated equipment within it;
- One 240 kV transmission circuit from the planned Chapel Rock substation to one of two equally viable technical solutions for where the line could end. These potential end points include the existing Castle Rock Ridge substation OR the existing Goose Lake substation. AltaLink will be preparing detailed studies and consulting with stakeholders to determine the most appropriate end point for these required facilities; and
- New voltage support equipment at the existing Goose Lake substation.

POTENTIAL LOCATIONS OF TRANSMISSION FACILITIES

If you are receiving this information, you live in an area where new transmission facilities could potentially be located, or have previously received information about this project from the AESO.

AltaLink Management Ltd., the transmission facility owner in the area, will be consulting with stakeholders in the coming months to develop and determine potential solutions, routes and sites for the required facilities described above.





Restoring Alberta's Interconnection with British Columbia

➤ *The information below was previously shared with stakeholders in early 2018. The AESO has extended the area where facilities may be located up to the B.C. border (see map on page 1).*

The Chapel Rock—to—Pincher Creek Transmission Development also contributes to the restoration of the Alberta—British Columbia intertie to its full path rating. In addition to the planned 240 kV transmission line, additional equipment in close proximity to the existing 500 kV transmission line, called transmission line 1201L, is required, along with clearance mitigation work on specific portions of the existing 1201L line and upgrades to the 500/240 kV transformation capacity at the existing Bennett substation, near Langdon. Restoring the intertie in conjunction with the Chapel Rock—to—Pincher Creek Transmission Development will minimize costs and disruptions to landowners.

The AESO plans to file a separate application with the Alberta Utilities Commission (AUC), in conjunction with AltaLink's facilities application for this project, in fall 2019. Once filed, the Needs Identification Document (NID) and related documents will be shared on our website at www.aeso.ca/grid/projects/Intertie-Restoration

NEXT STEPS

Following completion of AltaLink's evaluation and consultation with stakeholders, in fall 2019 the AESO intends to file an application with the AUC regarding the ongoing need for transmission development. This application will be filed in conjunction with AltaLink's facilities application for approval of the locations of the transmission facilities.

Once filed, the AESO's application and related documents will be shared on our website at www.aeso.ca/grid/projects/SATR-CRPC

QUESTIONS?

The AESO will join AltaLink at their public events, such as open houses, to be available to discuss the need for transmission development in southwest Alberta. We are also available to discuss these plans with you directly.

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

If you have any questions about the routing or siting of potential transmission facilities, please contact AltaLink at stakeholderrelations@altalink.ca or 1-877-269-5903



BACKGROUND

In early 2018, we sent you information about the need for transmission development in the Pincher Creek area to efficiently integrate generation from renewable resources onto Alberta's grid.

AltaLink hosted information sessions in April 2018, which we also attended to hear from stakeholders and to discuss the proposed transmission development within your area.

We shared information and responded to questions about the need for transmission and the best potential technical solution to serve Alberta's electricity demands. Based on further consideration and feedback received at these events and over the past several months, we have adjusted our plans for the Chapel Rock—to—Pincher Creek Transmission Development.

The AESO is committed to protecting your privacy.

The feedback, comments and contact information you choose to submit is being collected by the AESO to respond to your inquiries and/or to provide you with further information. 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 403-539-2528. 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.