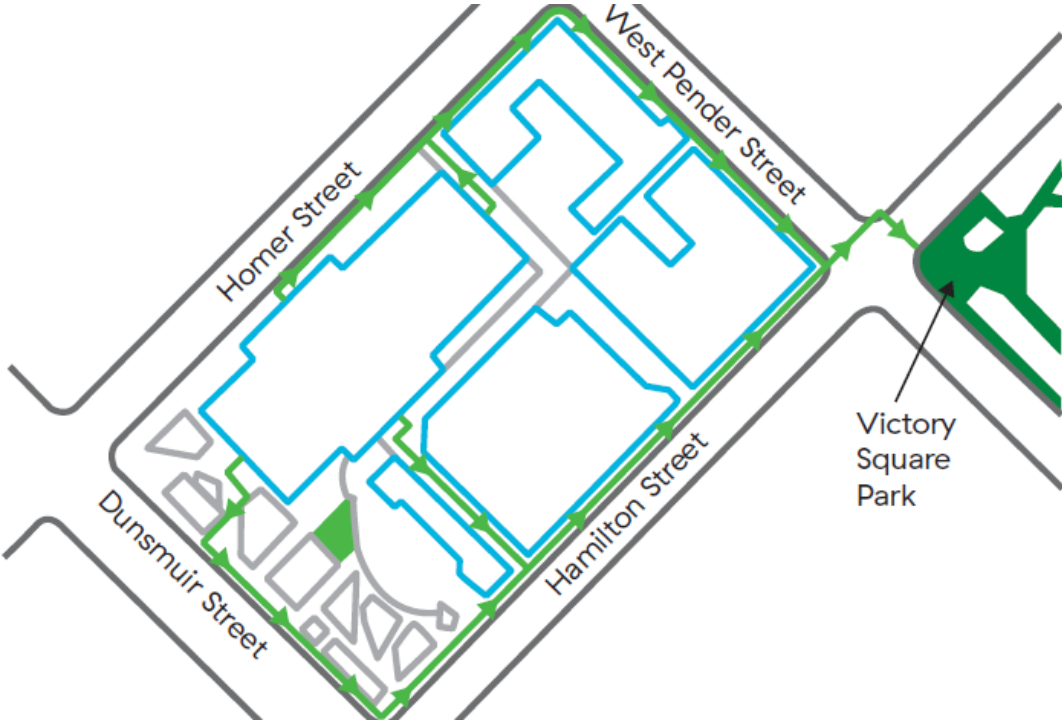


# **B.C.-Alberta Intertie Workshop**

**January 27, 2025**



# Safety – Muster Location: Victory Square



***We are grateful to be meeting today  
on the unceded traditional territory of the  
Musqueam, Squamish and Tsleil-Waututh First Nations***



# Workshop Agenda

Time	Agenda item	Presenter
9:00 – 9:15	Arrival / Registration	
9:15 – 9:20	<ul style="list-style-type: none"><li>• Welcome</li></ul>	<ul style="list-style-type: none"><li>• Jen Thompson, Moderator</li></ul>
9:20 – 9:30	<ul style="list-style-type: none"><li>• Opening remarks and introductions</li><li>• Meeting purpose</li></ul>	<ul style="list-style-type: none"><li>• Chris Sandve, Chief Regulatory Officer</li></ul>
9:30 – 10:00	<ul style="list-style-type: none"><li>• Current context</li><li>• Background on B.C.-Alberta Intertie</li></ul>	<ul style="list-style-type: none"><li>• Mike Guité, Director, Transmission Asset Planning</li></ul>
10:00 – 10:30	<ul style="list-style-type: none"><li>• Discussion and Q&amp;A</li></ul>	<ul style="list-style-type: none"><li>• Jen Thompson, Moderator</li></ul>
10:30 – 10:45	Break	
10:45 – 11:15	<ul style="list-style-type: none"><li>• Potential impacts to BC Hydro transmission customers</li><li>• Potential approaches to achieve mutual benefits</li></ul>	<ul style="list-style-type: none"><li>• Chris Sandve, Chief Regulatory Officer</li></ul>
11:15 – 11:45	<ul style="list-style-type: none"><li>• Discussion and Q&amp;A</li></ul>	<ul style="list-style-type: none"><li>• Jen Thompson, Moderator</li></ul>
11:45 – 12:00	<ul style="list-style-type: none"><li>• Wrap up and next steps</li></ul>	<ul style="list-style-type: none"><li>• Jen Thompson, Moderator</li></ul>



# Opening Remarks

**Chris Sandve**

**Chief Regulatory Officer**



# Meeting Purpose

- Provide an update on the commercial use of the B.C.-Alberta Intertie
- Identify potential impacts of proposed market and policy changes in Alberta on BC Hydro's transmission customers
- Identify approaches to improve mutually beneficial trade and mitigate potential impacts
- Seek feedback from interested parties



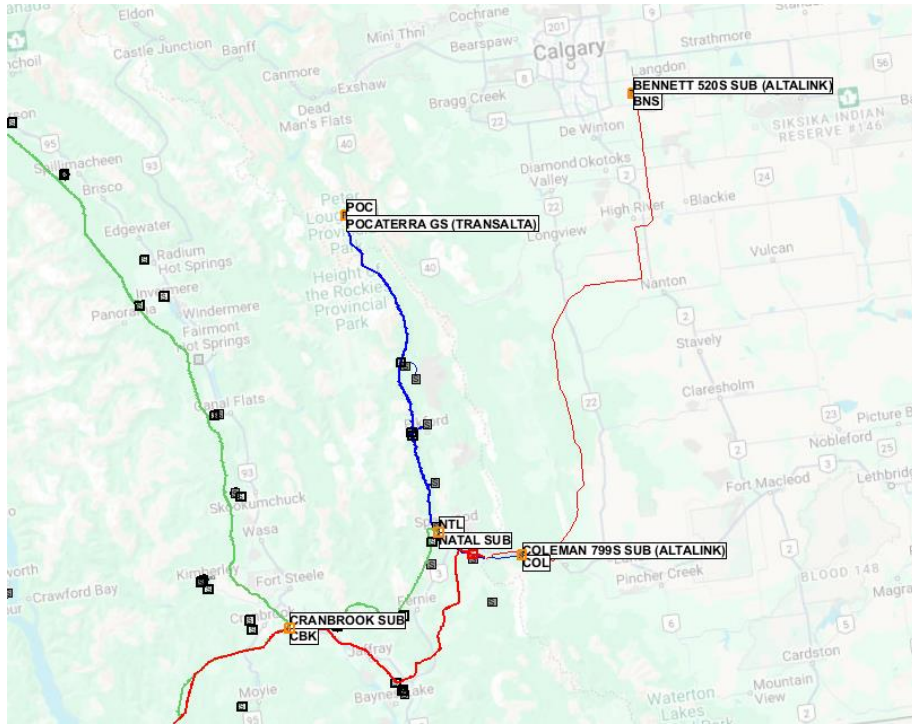
# Background on B.C.-Alberta Intertie

**Mike Guité**

**Director, Transmission Asset Planning**



# B.C.-Alberta Intertie Background



- B.C. and Alberta electric grids are connected by three transmission lines, referred to collectively as the “B.C.-Alberta Intertie”, or Western Electricity Coordinating Council (WECC) Path 1
- WECC Path Rating, that represents the maximum that can flow under realistic conditions while still meeting the appropriate reliability criteria, is 1,200 MW from B.C. to Alberta and 1,000 MW from Alberta to B.C.





# Intertie Operations

<b>BC Hydro</b>	<b>Alberta Electric System Operator (AESO)</b>	<b>Altalink</b>
<ul style="list-style-type: none"><li>• Owns and operates the B.C. portion</li><li>• Provides transmission capacity on the B.C. portion of the intertie under Open Access Transmission Tariff (OATT)</li></ul>	<ul style="list-style-type: none"><li>• Operates the Alberta portion</li><li>• Currently allocated capacity on the Alberta portion of the intertie based on the outcome of its Hourly Energy Market</li></ul>	<ul style="list-style-type: none"><li>• Owns the Alberta portion</li></ul>

Intertie capacity is managed by the respective operators



# Interties Provide Mutual Benefits

- Interties provide mutual benefits in the form of:
  - Production cost savings and/or reduced or deferred investments
  - Increased operational reliability
  - Increased operational flexibility
  - Commercial opportunities (import and export)
- Interties are typically managed for reciprocal, mutual benefits; however, there is no mechanism currently in place to ensure the B.C.-Alberta intertie is being utilized most effectively for the benefit of both parties



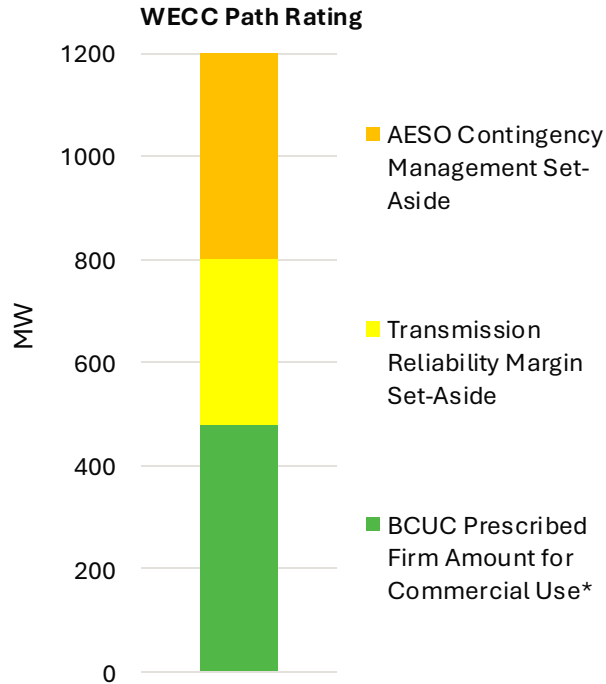
# AESO Limits Commercial Import Capability

- AESO limits the amount of import capacity on the interties to protect the reliability of the Alberta grid
- This includes management of the impact of the following contingencies:
  1. A sudden loss of generation in Alberta – which could result in an instantaneous “inrush” of power into Alberta over the intertie
  2. The sudden loss of the intertie – which could result in system reliability impacts
- AESO manages these contingencies by **setting aside import transmission capacity on the intertie**



# Current Use of the Intertie

## B.C.-Alberta Intertie – W to E



\* Refer to BCUC Order G-103-09

- For the past 20 years, import transmission capacity available for commercial use has typically been 40-60% of rated capacity
- Transmission capacity is set-aside by AESO for contingency management and transmission reliability margin
- In contrast, import transmission capacity into B.C. on the BC Hydro transmission system is now typically over 90% of rated capacity



# AESO Obligation to Restore Intertie

2007

Alberta legislative obligation for AESO to significantly restore the capacity of the B.C.-Alberta Intertie

2014

Intertie Restoration Definitive Agreement established between BC Hydro and AESO

2024

Alberta Government directed the AESO to make a submission by December 2026 for intertie restoration to or near to 950 MW (80% of rated capacity) and to procure high levels of ancillary services



# Status on Intertie Restoration

- BC Hydro, Powerex and the B.C. Government have been engaging AESO and the Alberta Government on the issue
- Despite a legislative requirement and prior plans, and assurances from the AESO and the Alberta Government regarding intertie restoration, there has been no restoration in import capability to date



# Discussion and Q&A



# Potential Impacts to BC Hydro Transmission Customers

**Chris Sandve**

**Chief Regulatory Officer**





# AESO Restructured Energy Market (REM)

- In September 2024, AESO initiated the “Restructured Energy Market” (REM) design process, a holistic review of its electricity market, pursuant to Alberta Government’s direction in March 2024, which would replace their current Energy Only Market
- Market rules under consideration could impact BC Hydro’s OATT customers
- Engagement on REM design is expected to continue in 2025
- In December 2024, Alberta Government signaled that the necessary policy tools to allow implementation of REM will be enacted via legislation



# Proposed Market Design

- Under the proposed market design, two options are under consideration for intertie transactions when congestion is binding, which would impact BC Hydro OATT customers:
  1. **Separate Pricing Node:** the highest priced marginal intertie offer that can clear subject to the available transfer capability (ATC) constraint would set the energy price for the intertie pricing node
  2. **ATC Auction:** this would apply a congestion mechanism to allocate capacity to import offers with the highest willingness to pay for access – i.e., intertie transactions would receive the uniform energy price but would pay the clearing price for ATC



# Impacts to BC Hydro OATT Customers

- If intertie import capacity limitations continue and/or some of the rules proposed in the AESO's REM initiative are adopted, this would reduce incentives for BC Hydro's transmission customers to purchase yearly or monthly firm transmission under BC Hydro's OATT
  - Market rules under consideration would allow AESO to determine which customers get to use the intertie, meaning a customer with long-term firm service under BC Hydro's OATT may not be able to use its capacity – which would free up capacity to be posted back and purchased as short term service by other entities
  - Firm transmission under BC Hydro's OATT would be less valuable/less attractive for new and existing customers



# Impacts to BC Hydro Ratepayers

- If firm transmission service becomes less attractive for new or existing OATT customers, this would mean BC Hydro's transmission revenue requirement would be recovered from fewer customers, resulting in increased rates for all remaining customers
- Actions that constrain and/or limit the commercial availability of the B.C.-Alberta intertie impact the trade opportunities available and BC Hydro transmission revenue, resulting in upward pressure on BC Hydro's rates



# Impacts to Trade Revenue from Powerex

- All of Powerex's trade revenue goes to BC Hydro to help keep rates low
- Powerex uses and pays for British Columbia Power Supply (BCPS) 380 MW of firm transmission rights on the intertie to Alberta
- Powerex's trade activity using this transmission would be reduced as Alberta restricts the import capacity or adopts market changes, which in turn reduce the trade revenue provided for the benefit of BC Hydro's ratepayers



# Discussion and Q&A



# Potential Approaches to Achieve Mutual Benefits from the Intertie

**Chris Sandve**

**Chief Regulatory Officer, BC Hydro**



# Preferred Approach: Intertie Agreement

- Negotiate a mutually beneficial framework agreement for commercial transactions using the intertie with the AESO, often referred to as a Seams Agreement

***“Seams can inhibit the economic transfer of capacity and energy between neighboring wholesale electricity markets, or control areas, as a result of differences in market rules and designs, operating and scheduling protocols and other control area practices. Where solutions can be implemented, savings could accrue to customers on both sides of the seam.”*** – National Regulatory Research Institute (February 2015 Transmission Seams Primer)

***“...in general, addressing intertie seams enables coordination of economic dispatch of power between Alberta and its neighbours and should provide access to U.S. markets across the western interconnection.”*** – AESO (July 2024 Intertie Participation Options Paper)





# Alberta-B.C. Intertie Agreement

- The agreement would provide for the efficient and best use of the intertie each hour, and an equitable sharing of the benefits of the intertie
- Could include reliability uses/benefits as well as commercial uses
- BC Hydro believes the agreement must be developed concurrent to the REM process, not after the REM concludes
- BC Hydro would develop an appropriate allocation of the costs and benefits of the agreement with its OATT customers and seek appropriate approvals



# Alternative Approaches

- Absent an agreement, BC Hydro is considering other potential solutions to protect the transmission rights of BC Hydro's OATT customers, which would be covered in subsequent workshops
- BC Hydro may seek conditional approval for a solution ahead of final decisions on REM



# Discussion and Q&A



# Wrap Up and Next Steps

**Jen Thompson**

**Engagement Specialist**



## Wrap Up and Next Steps

- We encourage you to share your comments and concerns by sending an email to [bhydroregulatoryfeedback@bhydro.com](mailto:bhydroregulatoryfeedback@bhydro.com)





# Optional Reference Slides



