

Market Pathways Industry Update

October 12, 2023



Notice



In accordance with its mandate to operate in the public interest, the AESO will be audio recording this session and making the session recording available to the general public at www.aeso.ca. 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 collection of personal information by the AESO for this session will be used for the purpose of capturing stakeholder input for Market Pathways stakeholder sessions. 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 Privacy Officer, Legal and Regulatory Affairs at 2500, 330 – 5th Avenue S.W., Calgary, Alberta, T2P 0L4, by telephone at 403-539-2890 or by email at privacy@aeso.ca.

Using Zoom Webinar: Asking Questions



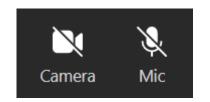
- All attendees join the webinar in listen-only mode (cameras are disabled and microphones muted)
- Before asking your question, please introduce yourself including your organization
- Two options to ask questions via computer or smartphone:

1. During the session

- Click the icon to raise your hand (click again to lower) and the host will see that you have raised your hand
- The host will unmute your microphone and you, in turn, will need to unmute your microphone before you can ask your question
- Your name will appear on the screen, but your camera will remain turned off

2. Click the "Q&A button" at any time

- Type your questions into the Q&A window at any time
- You're able to like questions that have already been asked
- To ask questions via conference call
 - To raise your hand, press *5 on your phone's dial pad; the host will be notified
 - To toggle between mute and unmute, press *6 on your phone's dial pad
 - Your number or username will appear on the screen











Land Acknowledgement



LAND ACKNOWLEDGEMENT



AESO is committed to actively taking part in reconciliation and believes in the National Truth and Reconciliation Centre recommendation of honouring the First Peoples of these lands.

Indigenous Peoples have inherent kinship ties with the land, which we should all respect and help restore. We encourage everyone to think of their relationship with the land, when their ancestors first stepped onto Turtle Island, and recognize that First Peoples have been here since time immemorial.

We would like to acknowledge that we are on the Traditional Territory of Treaty 7, which settlers have renamed to Calgary, Alberta. These lands hold the hearts and footsteps of many First Nations, Métis and Inuit, and we would like to especially recognize the Tsuut'ina First Nation, the Blackfoot Confederacy, which is made up of the Kainai, Piikani, and Siksika Nations, the Stoney Nakoda tribes, and is also the homeland of the Métis Nation of Alberta, Region 3.

We are grateful to have the opportunity to work and be present in this territory together with many Indigenous Peoples from across Turtle Island. We offer this acknowledgement as a stepping stone towards reconciliation by honouring the First Peoples of the land that today we call home, and as an expression of our commitment to Indigenous communities.

Welcome and Introduction



Ruppa Louissaint	Director, Markets
Kaitlyn Ahearn	Manager, Market Implementation
Stephen Dickinson	Manager, Procurement
Kevin Dawson	Vice President, Strategic Integration and Chief Economist
Nicole LeBlanc	Vice President, Markets
Steven Kim	Director, Commercial

Agenda



- Purpose
 - Provide an update to stakeholders on the Market Pathways initiative and shift in stakeholder engagement
- Welcome and Introductions
- Overview of the Market Pathways engagement
 - Engagement to date
 - Market Pathways Primer comment themes
 - Urgent issues update
- Stakeholder engagement update
 - AESO deliverable to government and adapted approach
- Key Dates and Next steps



AESO Stakeholder Engagement Framework





Stakeholder Participation



- The participation of everyone here is critical to the engagement process. To ensure everyone has the opportunity to participate, we ask you to:
 - Listen to understand others' perspectives
 - Disagree respectfully
 - Balance airtime fairly
 - Keep an open mind

Registrants (as of October 11, 2023)



- Alberta Direct Connect Consumers Association (ADC)
- Alberta Energy Efficiency Alliance (AEEA)
- Alberta Newsprint Company
- Alberta Utilities Commission (AUC)
- AltaLink
- Arcadis
- ASCENT Energy Partners
- ATCO, ATCO Electric and ATCO Renewables
- Atlas Power Technologies Inc.
- Aurora Energy Research
- Best Consulting Solutions Inc.
- BHE Canada
- BluEarth Renewables
- Canadian Renewable Energy Association (CanREA)
- Capital Power
- Carlotta Energy
- Cenovus Energy
- City of Medicine Hat
- CNOOC Petroleum NA
- CNRL
- · Conscious Energy Services
- Consumers' Coalition of Alberta (CCA)
- Customized Energy Services

- Dallas Holdings
- DePal Consulting Limited
- Direct Energy
- DJA Engineering Services
- Dynasty Power
- E3
- Eaton
- EDP Renewables
- Enbridge
- Enel
- Enerfin
- Energy Futures Lab
- Energy Storage Canada
- Enfinite
- ENMAX Corporation, ENMAX Energy and ENMAX Power
 - EPCOR Distribution & Transmission Inc.
- EPCOR Utilities Inc.
- Evolugen
 - EZ Energy Inc.
- Federation Engineering
- FortisAlberta Inc.
- Government Of Alberta
- Greengate
- Health
- Heartland Generation Ltd.

- Hill + Knowlton Strategies
- Honeywell
- Imperial Oil
- Industrial Power Consumers
 Association of Alberta (IPCAA)
- Invest Alberta Corporation
- Leeward Renewable Energy
- LEI
- Lionstooth Energy Inc.
- London Economics International LLC
 - Market Surveillance Administrator (MSA)
 - MATL
- Maxim Power
 - Members of the Public
 - Morgan Stanley Capital Group Inc.
 - Neoen
- North American Environmental Markets Inc
- Northland Power Inc.
- NorthPoint Energy Inc.
- Northstone Power
- NRG/Direct Energy
 - NRGCS
- OC Consulting
 - PA Consulting

- Pembina Institute
- Pembina Pipeline Corporation
- PGSC
- Potentia Renewables Inc.
- Power Advisory
- Powerex Corp
- Prairie Sky Strategy
- Renewable Energy Systems Canada Inc.
- Signalta Resources Limited
- Similan Consulting
 - Strategic Results Consulting Inc.
- Suncor Energy Marketing Inc.
- TC Energy
- TransAlta Corporation
- University of Calgary
- Utilities Consumer Advocate (UCA)
- VFI
- Versorium Energy Ltd.
- Voltus Energy Canada Ltd.
- West Fraser
- Westbridge Renewable Energy Corp
- Wolf Midstream
- Wood Mackenzie



Market Pathways Primer



- The Market Pathways Primer was published on August 1st
- Goal is to collaborate with stakeholders on the Market Pathways Initiative
- The Primer provided stakeholders with background on:
 - Current market design and drivers for change
 - Objective and guiding principles for the Market Pathways Initiative
 - Issues identified by the AESO
 - Further process for Market Pathways and a proposed stakeholder engagement approach
- Stakeholder comments on the Market Pathways Primer were due September 5th

Market Pathways Primer Comment Themes



- 33 respondents
- Many comments on ensuring alignment with government policy change and suggesting that the AESO should collaborate with other agencies: MAU, MSA, AUC.
 Suggestions to coordinate with GOA before launching effort
- Many comments requesting a better understanding of how the AUC inquiry and policy shifts will impact Market Pathways
- Some suggestions to narrow scope, for now, to critical issues
- Largely supportive of developing guiding principles. Wide array of suggestions on how to modify/clarify the principles
- Stakeholders generally agreed with issues and priorities
- Some suggestions to add Transmission Policy, cost allocation principles, transmission planning, non-wires alternatives as issues
- Suggestions to include Intertie limitations as an issue



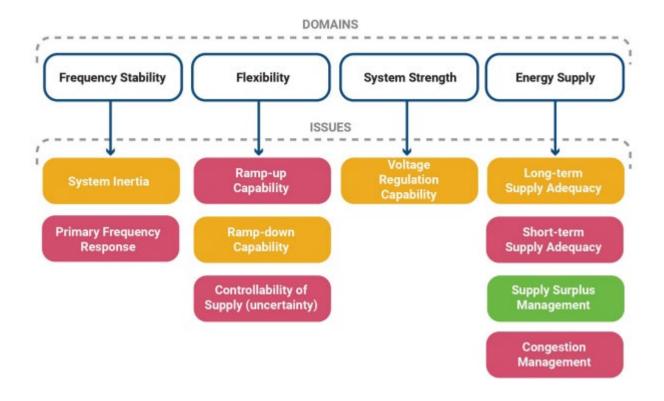
Market Pathways Primer Comment Themes



- Some comments that issues can be dealt with now under existing policy
- Suggestions to include economic withholding, affordability, pool price volatility, market power as issues
- Transparency is key highlighted by some stakeholders
- Comments on stakeholder engagement process which has now been shifted due to AESO deliverable to Government

Issues Identified in Reliability Roadmap, Net-Zero Report, and Market Pathways





Urgent Issues – Update



- Given the urgency of certain issues, the AESO may need to take immediate actions to bridge the gap through separate processes and initiatives
- Providing an update on actions taken since the AESO's Stakeholder Symposium in June
- The AESO will perform ongoing assessments if any additional actions should be undertaken
- Near-term actions will be taken within current market design and within feasible implementation timelines

Urgent Issues – Energy Supply: Short-term Supply Adequacy Update



- Changes in generation fleet characteristics and operation are raising reliability concerns, and, as a result, long lead-time energy treatment and visibility are being reviewed
- AESO is exploring changes to address gaps and improve operation of long leadtime energy for reliability
 - Changes to reporting for increased transparency (Q4 2023)
 - New Market Supply Cushion Report To better inform market participants on supply available in the merit order and make decisions to bring/keep long lead-time assets online
 - Changes to outage reports to include reporting on long lead-time energy
 - Potential changes to Long Lead-Time rule requirements and/or Information Documents
 - Explore providing additional flexibility for the System Controller to direct long lead-time assets
- Comprehensive review of unit commitment will be part of the broader Market Pathways engagement



Urgent Issues – Flexibility: Controllability of Supply Update



- Due to increasing variability, the AESO is procuring additional regulating reserves to manage:
 - Performance standards
 - Controllability during high variability periods
- The AESO will continue to update procurement volumes to manage performance standards and controllability (may increase or decrease)

Urgent Issues – Frequency Stability Update



- Procurement of a Transferred Frequency Response Agreement (TFRA)
 - Transferred frequency response helps a Balancing Authority meet its primary frequency response (PFR) obligations by using surplus PFR from another Balancing Authority
- FFR Procurement
 - Exploring product design options to increase intertie capability

Urgent issue: FFR & Next Steps



Event	Target Dates
Initial stakeholder session	October 5, 2023
Additional 1:1 market sounding	Ongoing
ISO rule review	Ongoing
Proportional FFR feedback and information due	October 30, 2023
FFR industry update	November 2023
Procurements and contract awards	2024
(Proportional FFR and Discrete FFR)	
Service term commences:	2024 to 2027/8
Proportional FFR	Early 2025
Discrete FFR	Larry 2020

FFRservices@aeso.ca

Fast Frequency Response Services Procurement - AESO Engage











Market Pathways – Stakeholder Engagement Update



AESO Deliverable to Government

- AESO directed by Minister of Affordability and Utilities to provide a recommendation report to Minister by February 1, 2024.
- Intended to help government understand potential market mechanisms that can support a reliable supply mix in an affordable and durable way.
 - AESO to provide our recommendations on market incentives, design and role of new dispatchable technologies.
- We will not be able to share our final recommendation report with you in advance
 of providing it to government, and ultimately government will decide how that
 report will be considered. To the greatest extent possible, we will advocate for
 transparency in accordance with our engagement principles.

Adapted Market Pathways Engagement - EWG



- To inform the recommendation, the AESO is engaging senior industry leaders from a diverse range of stakeholder groups.
- Executive Working Group Objectives
 - Gather Insights: To assist the AESO in providing its recommendations to government
 - Understand Perspectives: Consider views on future market framework, incentives, reliability and affordability
- Executive Working Group Sessions
 - Focused, dedicated "sprint" sessions over the next two months
 - Gain alignment on objectives for the electricity system to help guide the future electricity market in Alberta
 - Provide input on the spectrum of market framework options available
 - Evaluate options against the objectives to inform AESO recommendations
- Balanced representation from generation, wires, loads, consumer groups, associations and academia.



EWG Invited Members



- Alberta Chambers of Commerce
- Alberta Direct Connect Consumer Association (ADC)
- Alberta Federation of Rural Electrification Associations (AFREA)
- Alberta Municipalities
- AltaLink
- ATCO
- BHE Canada (Berkshire Hathaway Energy Canada)
- BluEarth Renewables Inc.
- Canadian Renewable Energy Association (CanREA)
- Capital Power

Enfinite

- Cenovus Energy Inc.
- City of Medicine Hat
- Canadian Natural Resources Limited
- Consumers Coalition of Alberta (CCA)
- FDF Renewables North America

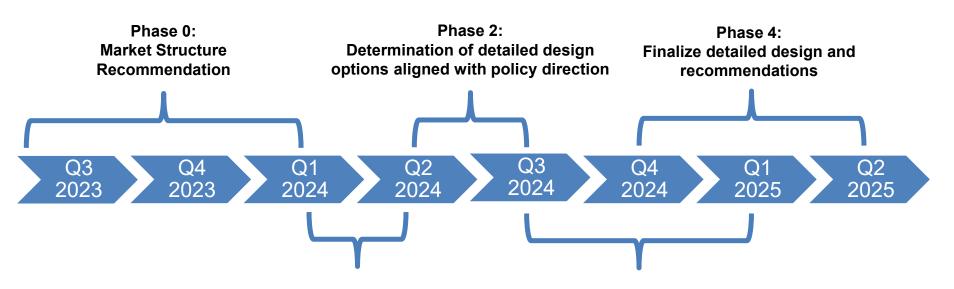
- ENMAX
- EPCOR
- FortisAlberta Inc.
- Heartland Generation
- Industrial Power Consumers Association of Alberta (IPCAA)
- Kineticor Energy
- Kitwetinohk Energy
- Maxim Power Corp.
- Northland Power
- Potentia Renewables Inc.
- Powerex Corp.
- Rural Municipalities of Alberta (RMA)
- Suncor
- TC Energy
- TransAlta Corporation
- University of Calgary
- Utilities Consumer Advocate (UCA)





New High-Level Plan for Market Pathways





Phase 1:
Await policy decision. Scoping of Initiatives, determination of design workgroups based on recommendation*

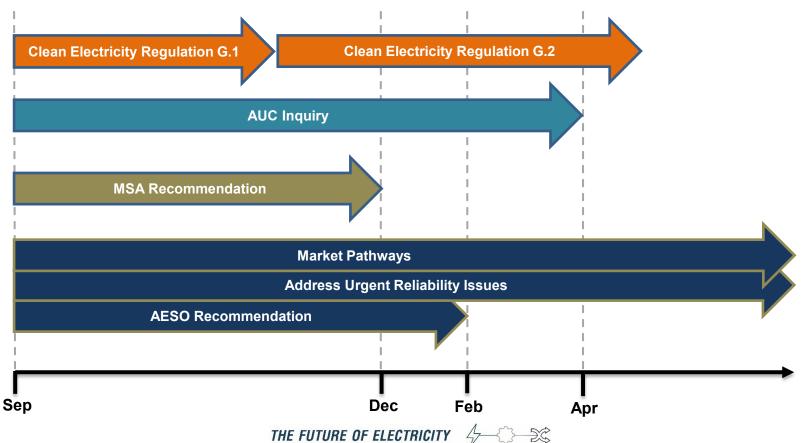
(*maybe longer or shorter than 3 months)

Phase 3:
Evaluation of detailed design options aligned with policy direction

(phases 2 through 4 become - working out the details with stakeholders within the chosen structure)

Market Policy Initiatives Running in Parallel





Cross-Agency Coordination is Key





Next Steps



- Executive Working Group sprints occurring mid-October through November
 - These are complex issues it will take an investment of time from senior industry leaders to identify areas of common ground and we may not fundamentally agree or align on all issues.
- AESO Symposium November 30, 2023
 - We will share a high-level summary from the EWG with all stakeholders.
 - Stakeholders will then have an opportunity to provide written feedback to share their insights and perspectives.
- Updates related to action items on urgent issues will be published on the AESO's website as applicable

Session Close-Out



- We want to thank you for attending the Market Pathways Industry Update
- Launch poll
 - The purpose of the session was clear
 - The information was presented in a clear manner
 - The presentation content was clear and informative
 - I found this session valuable







