

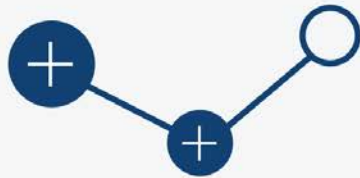
Key AESO Initiatives

Kevin Dawson

Director, Forecasting & Analytics

Ivey EPMC's 3rd Annual Workshop

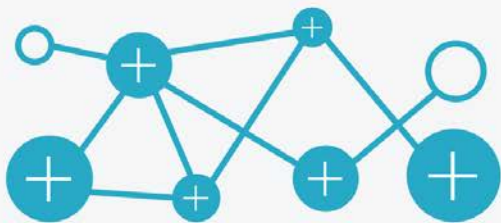
October 22, 2019



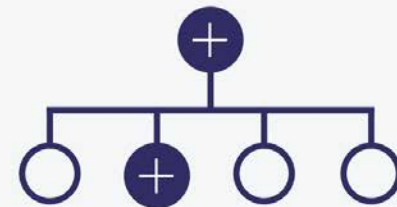
Connect
CUSTOMERS



PLAN
transmission



Operate the
GRID



Plan and Operate the
MARKET

Transition

- Energy-only market review
- Transmission planning
- Coal phase-out
- Tariffs & cost allocation

Transformation

- How electricity is produced, consumed and exchanged
- Consumer expectations
- Industry disruptors & beyond
- Technology advancement



High level focus – Ensuring price signals are aligned and efficient

- Many different price signals
 - Energy and reserve prices
 - Tariff charges/credits
 - Loss charges/credits
 - Congestion
 - Fuel and environmental attribute costs
- Important for signals to align
 - Using competitive forces to ensure reliability and optionality at a reasonable cost
 - Promoting the efficient use of infrastructure
- Stakeholder confidence is key
 - Participants need clear price signals and a stable market and regulatory framework to make investment decisions

- Advice to Energy Minister
 - Providing advice to the Government of Alberta on market power mitigation by Nov. 29, 2019
 - Seeking stakeholder input by Oct. 29, 2019
 - Providing advice to government on whether changes are needed to the energy-only market by July 31, 2020
 - Seeking stakeholder input in the coming months on potential changes to the price floor and ceiling and shortage pricing
- A Flexibility Roadmap has been developed:
 - Our plan to enhance and ensure sufficient system flexibility, and will consider dispatch tolerance, shorter settlement, and pricing
 - Ongoing monitoring of grid flexibility needs and capabilities

- AESO published the *Dispatchable Renewables and Energy Storage report** in Sept. 2018
 - Recommended flexibility and energy storage roadmaps
- The Energy Storage Roadmap is our plan to facilitate the integration of energy storage
 - AESO is impartial to technology type and considers energy storage a unique asset; neither a load nor a generator
 - Published in Aug. 2019**

* www.aeso.ca/assets/Uploads/AESO-Dispatchable-Renewables-Storage-Report-May2018.pdf

** <https://www.aeso.ca/assets/Uploads/Energy-Storage-Roadmap-Report.pdf>

- The DER Roadmap is under development to:
 - Ensure a safe, reliable, coordinated grid
 - Enable FEOC markets and competition across the value chain
 - Keep pace with distribution system technology advancements
 - Understand evolving consumer preferences
 - Deliver on our public interest mandate
- AESO is working with industry and stakeholders on scope of work, including:
 - Issues identification, market participation, connection process, cost allocation
- Implementation of the DER Roadmap is expected in 2021

- On Sept. 22, 2019 the Alberta Utilities Commission (AUC) approved several elements of AESO's 2018 ISO tariff application, and directed us to file a compliance filing by Jan. 31, 2020
- For the next tariff application, AESO is engaging stakeholders on:
 - Bulk and regional cost tariff design, including review of the existing 12 coincident peak rate design for bulk transmission cost recovery
 - Avoidance of transmission cost a stronger price signal than energy price
 - Demand transmission service (DTS) rate design
 - Cost allocation
 - Energy storage tariff treatment
 - Investment level determination including a review of standard facilities approach



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- **Email:** info@aeso.ca
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