BRIEFING NOTE: Jurisdiction Scan – Alberta
May 30, 2018

Purpose

As part of the IESO's planning for a possible new government after the June 7, 2018 provincial election, we examined the outcomes of the 2015 Alberta election that saw the NDP form government with a majority after the PC party held power for 44 years.

The following summarizes the NDP election platform and the policy actions taken since forming government.

Summary

- Key electricity related commitments in the NDP platform included climate change leadership with an energy efficiency and renewable energy strategy, coal fired generation phase-out, and electricity rate stabilization. The government is following through on each of these commitments.
- Climate Change Leadership Plan includes implementing a carbon tax and establishing a new agency Energy Efficiency Alberta to carry out efficiency and conservation activities.
- Coal fired-generation will be phased out by 2030, replaced with renewables (5,000MW target) and gas-fired generation.
- Renewable Electricity Program (REP) to procure large-scale renewable generation. The AESO is responsible for implementing and administering the program.
- The government endorsed the AESO's recommendation to transition from an energy-only market to one that includes a capacity market. The AESO is responsible for designing and implementing the capacity market. The capacity market is expected to be in place by 2021.
- Under the Regulated Rate Option (RRO), residential electricity rates will vary monthly and will not exceed $0.068 kWh through use of carbon tax revenue.
- A competitive transmission procurement framework was established in 2013 by the AESO as directed by the PC government and no changes have been made since the transition to the NDP government.

2015 NDP Election Platform

For the 2015 election the Alberta NDP platform included these electricity and related commitments:

- Climate change leadership by making sure Alberta is part of crafting solutions with stakeholders, other provinces and the federal government. First steps will include an energy efficiency strategy and a renewable energy strategy.
- Coal phase out. Phase out coal-fired electricity generation to reduce smog and greenhouse gas emissions and expand cleaner sources, including wind and solar and more industrial cogeneration in the oil sands.
- "smart regulate" electricity retail system to give more stable electricity prices and to protect the public interest from financial manipulation.
- Establish a "green retrofitting" loan program.

Policy Implementation

The following are the key changes to energy policy that the NDP Government of Alberta has announced since their election in 2015:

Climate Leadership Plan (CLP)

Announced in November 2015, the CLP is designed as the made-in-Alberta approach to comply with the Federal mandate for national carbon pricing. The plan includes:

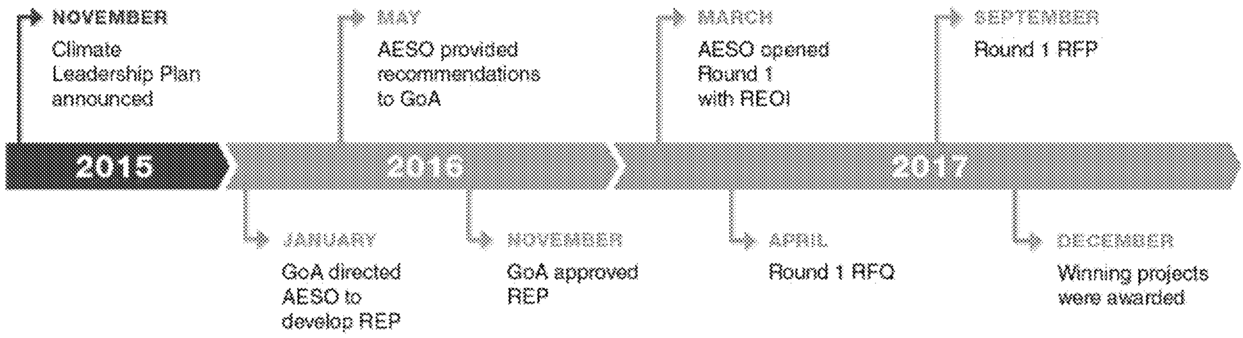
- Pricing on GHG
- Phase out of coal-fired generation by 2030
- Renewable energy development
- A cap on oil sands emissions
- Reducing methane emissions by 45% by 2025

A new government agency, Energy Efficiency Alberta, was established January 2017 after consulting with stakeholders and has since launched several energy efficiency programs. Funding for the agency comes from carbon tax revenues with a budget increasing to $165 million per year in 2019.

Phase out of coal-fired generation by 2030

Under the plan, one-third of Alberta's coal generating capacity will be replaced by renewable energy; two-thirds will be replaced by natural gas. The initial commitment is to convert approximately 2,400 MW of coal-fired generation to natural-gas-fired units in the early 2020s.

Renewable Electricity Program (REP)



Source: AESO

The REP is focused on developing large-scale renewable electricity generation to support the renewable electricity target of 30% by 2030 (5,000MW). The AESO is responsible for implementing and administering the program through a series of competitions that will incent the development of renewable electricity generation through the purchase of renewable attributes.

The first three rounds of procurements are underway, each involving a three-stage competitive procurement process. The procurements are open to all renewable fuels, with a focus on technical and financial selection criteria. Other features and eligibility are:

- Initial targets of about 400MW per round
- New build or expansion projects must be at least 5MW
- Eligible fuels must meet Alberta's definition of renewable energy resources as defined in the *Renewable Electricity Act*
- 20 year contract terms

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- The payment mechanism will be an Indexed Renewable Energy Credit (REC). This mechanism acts as a PPA structured as a contract-for-differences between the RFP bid price and the Alberta electricity market energy price (i.e. their pool price).
- Projects must connect to the existing distribution or transmission system.

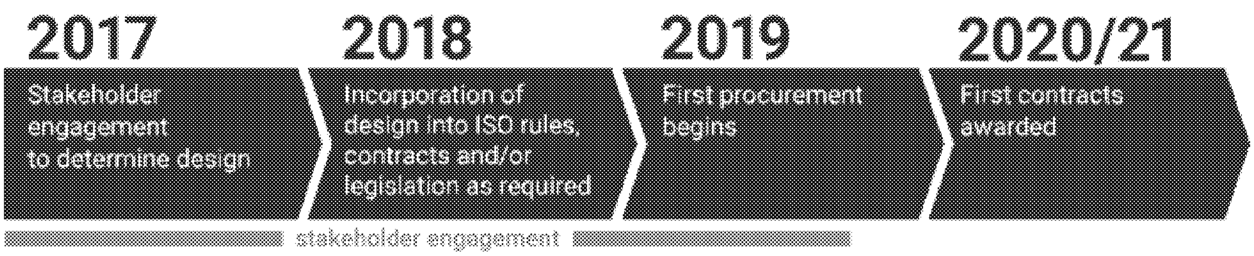
The first round completed in 2017 delivered nearly 600 MW of wind generation at a weighted average bid price of $37/MWh. Projects must reach commercial operation by the end of 2019.

The second and third rounds are underway with a target of 300 MW and 400 MW. The second round includes a minimum 25% indigenous equity ownership and the third round is open to any bidder. Projects must achieve commercial operation by June 30, 2021.

<u>Capacity Market</u>

In November 2016, the Alberta government endorsed the AESO's recommendation to transition from an energy market to a new framework that includes an energy market and a capacity market.

The AESO is responsible for designing and implementing the capacity market. This process is expected to take three years with the market in place by 2021.



Source: AESO

The rationale for introducing a capacity market is that the current energy-only market will not give sufficient incentive to investors to make the investments needed to transition to the electrical grid of 2030 (i.e., no coal, 70-per-cent gas and 30-per-cent renewables). It will protect consumers from price volatility and provide a reliable supply of electricity at stable, affordable prices.

Residential electricity rates

Following the NDP's election commitment to "smart regulate" electricity prices, the following changes were implemented:

- Regulated Rate Option (RRO) rates capped at $0.068/kWh.[1]
- Will use carbon tax revenues to subsidize the difference if market price exceeds $0.068/kWh.
- If the market price exceeds $0.068/kWh, electricity producers will be subsidized using public funds. A report from electricity consultants at EDC Associates estimates that by 2021, the extra costs moved off electric bills and onto tax bills will total $700 million.
- Effective from June 1, 2017 to May 31, 2021.

Before 2014, electricity rates regularly exceeded $0.10/kWh.

Transmission Procurement

In 2010, the PC government issued a mandate requiring AESO to develop and implement a competitive process for specified major transmission facilities. The Alberta Utilities Commission ultimately approved a competitive transmission procurement framework submitted by the AESO on February 14, 2013. The NDP government continued the process.

- The framework for the competitive process was developed through extensive consultation with stakeholders, and a review of competitive models in other jurisdictions.
- The Fort McMurray West 500 kV Transmission Project is the first and only transmission project assigned and awarded through the competitive process to Alberta PowerLine Limited Partnership in December 2014.
- The second project the competitive process will be applied to is the Fort McMurray East 500 kV Transmission Project which has been deferred.

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[1] RRO is the default regulated electricity plan available to most Alberta electricity consumers. Consumers can enter into a contract with a competitive retailer and pay a fixed or variable rate based on their contract, but these would not be eligible for the cap.

APPENDIX - Key Players in Alberta's Energy Sector

Source: NERC:

Organization	Role
Alberta Energy	-responsible for setting the policy and legislative framework for Alberta's electricity system and advises on all aspects of energy policy including electricity, natural gas and oil.
Alberta Utilities Commission (AUC)	-independent, quasi-judicial agency of the Province of Alberta responsible for regulating the utilities sector. -authority to approve reliability standards filed before it by the AESO, or to reject reliability standards based upon the recommendation of the AESO. -The AUC must follow the AESO's recommendation related to Alberta reliability standards unless an interested person satisfies the AUC that the recommendation is either "technically deficient" or "not in the public interest". -the adjudicative body for compliance enforcement in respect of both ISO rules and Alberta reliability standards.
Alberta Electric System Operator (AESO)	-mandate is to direct the reliable operation of the Alberta interconnected electric system (AIES), plan the transmission system, operate the wholesale electricity market and maintain adequacy and reliability of the system. -The AESO is mandated by the Electric Utilities Act and the Transmission Regulation to 'establish practices and procedures' and 'monitor' the compliance of market participants with ISO rules, with AUC rules, and with Alberta reliability standards.
Market Surveillance Administrator (MSA)	-statutory corporation established under the *Electric Utilities Act, 2003* of the Province of Alberta and continued under the *Alberta Utilities Commission Act, 2007*. -mandate is to carry out surveillance in respect of the Alberta electricity markets and the Alberta retail gas market to ensure they operate in a fair, efficient, and openly competitive manner -The scope of the MSA's legislative mandate includes the enforcement

	of ISO rules and reliability standards effective in Alberta -Under rules established by the AUC, the MSA may issue specified penalties for contravention of ISO rules or reliability standards or may request a hearing or other proceeding before the AUC to seek an administrative penalty or other relief. -The MSA's mandate of enforcement for both ISO rules and Alberta reliability standards extends to Alberta market participants and the AESO.