

Alberta's Renewable Electricity Program – Competition exceeds expectations

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In 2017, the Alberta Electric System Operator (AESO) commenced the first Renewable Electricity Program (REP) competition in Alberta. The REP is a result of Alberta's 2015 Climate Leadership Plan (Plan), which seeks to implement an economy-wide carbon levy, phase out coal, develop renewable energy, cap oil sands emissions and reduce methane gas. The [economic impact](#) of the REP is likely to be significant as it is estimated to result in \$10.5 billion in new investment and the creation of at least 7,200 new jobs.

Project developers and investors should keep a close watch on the evolving electricity landscape in Alberta to maximize opportunities while at the same time minimizing risk.

Climate Leadership Plan

The Plan was Alberta's response to the federal government's announcements that it would impose a carbon tax in 2018 if provinces did not enact an emissions reduction plan. Alberta's Plan seeks to respond to this requirement through a strategy designed for its unique economy.

The Plan requires that all pollution from coal-fired electricity be phased out and that 30% of Alberta's electricity come from renewable sources such as solar, wind and hydro by 2030. The Plan anticipates that this will be achieved by replacing coal-fired generation with renewable energy and natural gas. Currently, [wind turbines](#) provide 1,479 megawatts and [solar](#) provides 12 megawatts of the electricity capacity in Alberta. [Reaching the target](#) set out in the Plan will require an additional 5,000 megawatts of renewable electricity capacity.

Renewable Electricity Program

The REP encourages the development of renewable electricity generation through a series of competitions. Successful bidders will be provided with support payments by the AESO for their projects. These competitions are administered by the AESO but overseen by an objective third-party observer. Each [competition](#) may include up to three stages and will generally last for seven to 11 months. The first competition, which commenced on March 31, 2017, is expected to procure approximately 400 megawatts of renewable electricity capacity. This competition required that projects be operational in 2019 and generate five or more megawatts of renewable electricity.

The first competition consisted of three stages, a Request for Expressions of Interest (REOI), a Request for Qualifications (RFQ), and a Request for Proposals (RFP).

Request for Expressions of Interest

The REOI stage ran until April 21, 2017. This stage was meant to identify proponents who were interested in participating in the RFP stage and to provide them with information to assess whether to participate. Participation in the REOI stage did not obligate a proponent to continue to the RFQ stage.

Request for Qualifications

The RFQ stage lasted from April 28, 2017 to September 2017. This stage was intended to inform bidders of eligibility requirements and to qualify bidders to participate in the RFP. The bidders were required to pay a non-refundable qualification fee and to demonstrate project eligibility; financial strength and capacity; and development, construction and operations capability.

Request for Proposals

Qualified bidders then proceeded to the RFP stage, which runs from September 15, 2017 to December 2017. This stage determines which bidders will be selected.

Successful bidders will then enter into a Renewable Electricity Support Agreement (RESA) with the AESO. The RESA will govern the project and provide pricing support. These pricing support payments will be provided through an Indexed Renewable Energy Credit (or a contract for difference) payment mechanism. When the Alberta power pool price is less than a bidder's strike price, this mechanism will provide a winning bidder with a \$/MWh payment for renewable attributes that reflects the difference between its bid price and the pool price. However, if the pool price exceeds a winning bidder's strike price, then that bidder will be required to pay the difference to the AESO. As a result, the level of support received from, or payments made to, the AESO will vary with pool prices.

This competition attracted 81 parties who participated in the REOI stage. After the completion of the RFQ stage, 29 projects qualified to advance to the RFP stage. The Alberta government has stated that these projects represent 10 times the 400 megawatts targeted for this round.

Information regarding future REP competitions is not currently available, but is expected to be released in early 2018.

Renewable electricity generation is also advancing without the incentives provided by the REP. Outside of the REP, several renewable projects are moving through the AESO's connection queue. As of October 2017, over 50 renewable projects were in this queue.

Moving to a capacity market

Alberta is also restructuring its electricity market to facilitate the transition to renewables. On November 23, 2016, the Government of Alberta announced its endorsement of the AESO's recommendation to transition from an energy-only market to a capacity market. A capacity market pays electricity generators for having the ability (or capacity) to reliably make power available, regardless of how often they sell energy onto the grid. In this sense, it is two different markets; one involving payments for generating capacity and another for energy that is actually produced and delivered into the market.

The AESO recommended a capacity market in part to increase the stability of prices, provide greater revenue certainty for generators, and to support policy direction, including the transition to renewables and the phase-out of emissions from coal-fired generation by 2030.

A capacity market is anticipated to be in place by 2021.

Conclusion

Alberta's electricity market is in a period of transition. The development of an additional 5,000 megawatts of renewable electricity presents significant development and investment opportunities. In addition, the design and implementation of a new capacity-based market will result in numerous changes to the provincial electricity framework that should be monitored as they are implemented.