

Engagement Session | Stakeholder Feedback and Insights

Introduction

On March 28, 2022, the AESO presented preliminary modelling results on the Net-Zero Emissions Pathways to stakeholders for input and discussion. The intent of the comment matrix following the virtual engagement session was to seek any additional stakeholder insights and comments that the AESO would consider prior to the completion of our analysis and final publication of a report by the end of June.

Participating stakeholders

The AESO would like to thank stakeholders for participating in the engagement session. We received written feedback from 24 stakeholders, representing electricity producers, electricity consumers, electricity distribution and transmission utilities, non-governmental organizations, users of Alberta's electric system, and interested parties. We reviewed the submissions and summarized the feedback and insights below. The responses have provided better clarification regarding stakeholder perspectives and allowed the AESO to further refine its net-zero analysis.

The following stakeholders provided submissions:

1. ADC and IPCAA – Alberta Direct Connect Consumer Association and Industrial Power Consumers Association of Alberta
2. AEEA – Alberta Energy Efficiency Alliance
3. AltaLink Management Ltd.
4. ATCO Electric Ltd.
5. BluEarth Renewables
6. Calgary Climate Hub
7. CANDU Owners Group (COG) Small & Medium Size Reactor Technology Forum
8. CanREA – Canadian Renewable Energy Association
9. Capital Power Corporation
10. Direct Energy
11. Enfinite
12. ENMAX Corporation
13. EPCOR Distribution & Transmission Inc.
14. ESC – Energy Storage Canada
15. Heartland Generation Ltd.
16. Maxim Power
17. Pembina Institute
18. PWX – Powerex Corporation
19. RMP Energy Storage
20. RNG Coalition – Renewable Natural Gas Coalition
21. TCE – TC Energy Ltd.
22. TransAlta Corporation
23. UCA – The Office of the Utilities Consumer Advocate
24. Voltus Energy Canada, Ltd.

View [stakeholder comments here](#) or visit the AESO website at www.aeso.ca and follow the path: Market > Net-Zero Emissions Pathways > Engagement Session | March 28, 2022.

Stakeholder feedback and insights

In general, stakeholders indicated the March 28 engagement session provided valuable insights into the AESO's preliminary Net-Zero Pathways scenario forecasting efforts. Stakeholders understand the scope of analysis is intended to examine, at a high level, the reliability, cost and market implications of a selected range of plausible net-zero pathways within the existing electricity market structure. Paramount for stakeholders is a continued focus on cost and reliability—key principles of the AESO's public interest mandate.

Following is a summary of key feedback received.

Enabling Technologies

Many stakeholders expressed knowledge and insights into individual technologies that may play a role in decarbonization of Alberta's electricity sector. The AESO appreciates the detailed information and insights that stakeholders shared regarding technological decarbonization options, potential electric load changes that may occur due to electrification of various sectors, and insights regarding resource adequacy concerns. The AESO maintains a technology agnostic approach to ensure a level playing field for supply and demand-side technological deployment on Alberta's electric system and is carefully considering stakeholder information and perspectives that may enhance net-zero forecasting efforts.

The AESO acknowledges that there are several potential paths to net-zero, and the Net-Zero Pathways analysis does not examine all alternatives. Technological solutions such as large hydro, additional inertie connections and nuclear facilities are all possible paths that could further enable a zero-emissions future. These scenarios have not been specifically studied within the AESO's Net-Zero Pathways analysis due to uncertainty around policy support, costs, development risk and construction timelines within the context of widespread and material deployment by 2035.

Cogeneration Emissions

Certain stakeholders expressed concerns about the representation and accounting of emissions associated with cogeneration sources. Accounting for cogeneration emissions is complex, since the infrastructure serves multiple sectors, with a single fuel and emissions source. There are numerous technological options that cogeneration owners may use to reduce their emission intensity (i.e., carbon capture retrofits, hydrogen firing or co-firing, electrification, and offsets), and the AESO expects that each facility will adopt practices best suited to their operations and economics. Given recent announcements by the Oilsands Pathways Alliance, the AESO understands that carbon capture and storage (CCS) technology will contribute significantly to emissions reductions initiatives and expects that electrical load requirements will increase if post-combustion CCS is adopted at cogeneration facilities. The implementation of CCS is expected to require incremental generation to supply system load.

Policy Developments

Stakeholders identified several key policy initiatives currently, or soon to be, underway at both the provincial and federal level. As well some encouraged the AESO to make policy or market design recommendations with respect to net-zero implementation. The AESO acknowledges there is significant uncertainty in the emissions regulatory framework as these policies evolve. Stakeholders expressed specific interest in the Federal Government's Emissions Reduction Plan, including the Clean Electricity Standard, as a key consideration in net-zero carbon electricity analysis. Like stakeholders, the AESO is interested to learn more about this standard and other impactful regulations as they are developed and finalized. The AESO would like to reiterate the net-zero emissions pathways analysis is not intended to represent a policy or market design recommendation or reflect an expectation of, or full detailed analysis of, a particular government policy implementation. The AESO will continue to monitor policy developments and utilize a scenario-based approach to make its analysis as applicable as possible to a wide range of potential outcomes.

Informational Insights

To address some stakeholder feedback, the Net-Zero Pathways analysis will include a comprehensive data file along with additional informational insights into key inputs, assumptions, calculations and outcomes to

further clarify the report scenarios. Sensitivities around potential demand management and demand-response effects will be considered and explored as part of the resource adequacy analysis and their ability to support the system under all three scenarios. The AESO will release estimated scenario costs associated with the development and operation of net-zero emissions electricity generation and transmission system infrastructure. Additionally, the insights provided in stakeholder responses allowed the AESO to provide more detailed information regarding modelling methods, additional data, and sensitivities that will benefit interested stakeholders.

Next Steps

The AESO thanks all stakeholders for their responses, insights, and comments regarding the Net-Zero Emissions Pathways forecasting exercise. We are finalizing our analysis and look forward to releasing our Net-Zero Emissions Pathways Report at the end of June 2022 and will host a stakeholder session summarizing the results of our analysis on June 29, 2022, click here to [register](#).