

2021 Long-term Outlook Scenarios – December, 2020

2021 Long-term Outlook Stakeholder Feedback



<p>Period of Comment: December 15, 2020 through January 15, 2021</p> <p>Comments From: Lionstooth Energy</p> <p>Date: 2021/01/15</p>	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>
---	---

Keeping with the mandate of providing safe, reliable and economic operation of the Alberta electricity system while facilitating a fair, efficient and competitive market for electricity, the AESO is developing the 2021 Long-term Outlook (LTO).

Given the challenges faced as a result of the COVID-19 pandemic and the low oil price, feedback provided to the AESO will be an important input into how we forecast Alberta's the near to long-term electricity. The AESO will use scenarios as a means of stress testing various market, technological, consumer behaviour, policy and economic outcomes, to assist stakeholders in understanding potential long-term future outcomes in the Alberta electricity market.

Please fill email your completed questionnaire to forecast@aeso.ca by January 15, 2021.

We value stakeholder input and thank you for sharing your perspective. In alignment with our Stakeholder Engagement Framework (link) all stakeholder submissions, in their original state with personal information redacted, will be published online at www.aeso.ca

Further stakeholder engagement on LTO scenarios and preliminary results can be expected as the AESO makes progress toward the anticipated publication date in Q2 of 2021.

Preliminary results will be based in part from stakeholder feedback received in June 2020.

The AESO thanks you for your time and appreciates your input.

The AESO is seeking comments from Stakeholders with regard to the following matters:

	Questions	Stakeholder Comments
1.	Do the proposed LTO scenarios cover a reasonable range of plausible future outcomes? Which scenario do you think is more likely? Which one is less likely?	<p>With a couple tweaks, outlined below, the proposed LTO scenarios would cover a reasonable range of plausible future outcomes.</p> <ul style="list-style-type: none"> Reference Case: The scenario assumptions outline that DER / DCG assumptions are "based on economics and historical trends." Over the past couple of years, the AESO has repeatedly pointed to the large number of DCG

in the Connection Queue as something that is concerning to the AESO and has required AESO intervention into market design specific to DCG. Our expectation would be that the reference case assumptions are based on a forward-looking view of DER / DCG potential, not just historical trends. We note the detailed assumptions for the Reference Case shown on slide 8 do not list any generation contributions from DER / DCG despite the numerous projects advancing through the queue.

- **Energy Transformation:** Our concern with this scenario is that as our market transitions to one where there is increased two-way energy flows, that the narrative and assumptions of the Energy Transformation scenario may be a more accurate representation of the Reference Case, especially as it relates to DER / DCG. Given that the AESO has noted that the Energy Transformation scenario will support tariff and market design studies, perhaps the concepts of Energy Transformation and Clean Tech / Green Future should be separated. While DER / DCG would certainly be a significant component of a Clean Tech / Green Future, there would also need to be other, relatively significant, and quick changes in our market to accommodate some of the announced carbon scenarios, including: Clean Fuel Standard, a \$170t/MWh carbon price by 2030, or Net Zero by 2050.
 - **Most Likely Scenario:** This scenario is most likely in our opinion, based on increased penetration of renewables, storage, DER / DCG which is more consistent with the current Connection Queue and announced projects.
- **High Growth:** This scenario appears to focus on change in only a couple assumptions, leaving the rest the same as the Reference Case. This would certainly not be the case. In a High Growth scenario, our market would see increased investment in renewables, storage, DER / DCG, in addition to more cogeneration.
 - **Least Likely Scenario:** Given current micro and macro-economic conditions, including global oil prices and pandemic recovery, a High Growth scenario is least likely in our opinion. Further, policy and market uncertainty impacting the Alberta economy, and specific to the electricity market, has created investor uncertainty that complicates investment in a High Growth scenario, even if the economic signals are there.
- **Economic Headwinds:** In a low growth scenario, again the change in assumption is limited only the economic drivers. Consideration should be how customers would respond in a weaker economy. We would expect there would

		be increased investment in technologies and solutions that reduce the delivered cost of electricity.
2.	Does the “Clean-Tech” scenario focus on the appropriate technologies and policies?	Somewhat. As outlined above, the Clean Tech / Energy Transformation scenario should be separated, so that an Energy Transformation scenario can be explored, independent of a Clean Tech / Green Future scenario. This will allow for a greater understanding of the impacts of an Energy Transformation future to be explored, all other things being equal.
3.	Are there different scenarios that warrant inclusion?	<p>If the Clean Tech / Energy Transformation scenario are separated into two, together these five scenarios (Reference, Energy Transformation, Clean Tech / Green Future, High Growth, Economic Headwinds) cover a reasonable range of plausible future outcomes.</p> <p>Given the seemingly inevitable changes coming to Bulk & Regional Tariff design, the AESO may want to consider a scenario incorporating loads response to changes in the B&R tariff design.</p>
4.	What long-term hydrocarbon demand projections do you think are reasonable for the Robust and Stagnant Global Oil & Gas Demand scenarios?	No comment.
5.	Are there additional generation technologies that warrant inclusion in the 2021 Long Term Outlook Scenarios?	<p>Lionstooth reiterates the importance of including a realistic current and future view of DER / DCG in all of the LTO scenarios, especially the Reference Case which forms the basis for system planning, and the Energy Transformation Case which would be used for tariff and market design studies.</p> <p>The AESO should avoid, wherever possible, excluding DER / DCG from scenarios. For example, on slide 10, the comment that total DCG capacity excludes biomass, gas cogen, hydro and other DCG types is confusing and we are uncertain why these generation types would be excluded.</p>
6.	Do you disagree with any of the assumptions in Slide 4 for any of the scenarios? If so, what would you propose?	See comments above.

7.	The AESO has not yet determined the quantum of change in the scenario variables. Do you agree directionally with the scenario assumptions? Do you have insights regarding the magnitude of scenario changes?	See comments above.
----	--	---------------------