

Feedback Form

Pathways to Decarbonization – February 24, 2022

Feedback Provided by:

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Date: [Click or tap here to enter text.](#)

Following the February 24 engagement webinar, the Independent Electricity System Operator (IESO) is seeking feedback from stakeholders on the items discussed during the webinar. The webinar presentation and recording can be accessed from the [engagement web page](#).

Please submit feedback to engagement@ieso.ca by March 16. Please attach research studies or other materials for consideration by the IESO to support your submission.

If you wish to provide confidential feedback, please submit as a separate document, marked "Confidential". Otherwise, to promote transparency, feedback that is not marked "Confidential" will be posted on the engagement webpage.

Policy

Topic	Feedback
Are the assumptions indicated reasonable and comprehensive in terms of scale and timing?	CanREA welcomes the IESO's decision to assume tapering to 0 tonne CO ₂ e/GWh by 2035 under the Emissions Performance Standards (EPS) Natural Gas fired Electricity Generation Allowance Benchmark. While we await the imminent publication by Environment and Climate Change Canada of a detailed discussion paper setting out the Government of Canada's preferred approach to implementation of a Net Zero electricity grid by 2035, it is definitely prudent to assume full carbon price exposure for both new and existing gas generation by 2035 under a Net Zero scenario.

Topic	Feedback
Are there other considerations for the IESO?	Click or tap here to enter text.

Demand

Topic	Feedback
<p>Are the assumptions indicated reasonable and comprehensive in terms of scale and timing?</p>	<p>CanREA appreciates the added challenge and complexity of integrating distribution-level generation, storage, and flexible loads/rate design impacts into this analysis, however the decision to examine the distribution system purely as an incremental energy resource risks giving an incomplete picture of the benefits and costs of the modelled decarbonization pathways. Distribution system level analysis other jurisdictions, such as the “Why Local Solar For All Costs Less: A New Roadmap for the Lowest Cost Grid” study (Vibrant Economics, 2020) has provided valuable and unexpected insights with significant implications in terms of future transmission system needs, costs to ratepayers, and decarbonization. Crucially, significant uptake of on-site solar PV by residential, commercial and industrial load customers will have a specific impact in terms of the demand profile of these sites, particularly as consumers increasingly opt to pair on-site solar with battery storage and electric vehicle charging. This would seem particularly salient in the context of Ontario, which remains a summer peaking jurisdiction where aggregate demand is heavily driven by air conditioning and refrigeration needs during hot summer days. The Atmospheric Fund report “A Clearer View of Ontario’s Emissions Updated electricity emissions factors and guidelines” (2021) is highly insightful on this point, noting that due to the timing of solar PV production and the marginal emissions factor of the grid during those hours, it is one of the most cost-effective decarbonization measures available to Ontario consumers.</p>

Topic	Feedback
<p>Are there other considerations for the IESO?</p>	

Resources

Topic	Feedback
Are the assumptions indicated reasonable and comprehensive in terms of scale and timing?	Overall, we would consider these assumptions to be reasonable and prudent. A 20-year lifespan for solar PV is unreasonably conservative, as 25-year warranties guaranteeing 80% of peak production are increasingly standard, and the NREL ATB reference cited indicates a default lifespan assumption of 30 years. Similarly, a 35-year lifespan would be more appropriate for offshore wind. As other stakeholders have noted, the IESO should avoid over-estimating the availability of imports to meet future energy or capacity needs, particularly over the timeline considered in this study. Ontario's neighbouring jurisdictions will also be pursuing electrification and grid decarbonization of their own, which could greatly impact the import volumes available to Ontario at any given time.

Topic	Feedback
Are there additional data sources that we should consider	Click or tap here to enter text.
Are there other considerations for the IESO?	Click or tap here to enter text.

General Comments/Feedback

CanREA applauds the IESO on this proposed approach to mapping out an achievable pathway to phase out natural gas generation and achieve zero emissions in the electricity sector. We look forward to further engagement with IESO staff and other stakeholders on this important project over the coming weeks and months. Thank you for your consideration of our comments.