

Feedback Form

Pathways to Decarbonization – February 24, 2022

Feedback Provided by:

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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?	<p>There are no assumptions regarding DER policy changes (e.g., Virtual Net Metering) that might encourage (or hinder) broader adoption of DERs. Will the study look at the role of DER policy, specifically in terms of what regulatory changes might facilitate broader update of these?</p> <p>The assumptions and application of Border Carbon Adjustments for the Pathways Modelling are unclear.</p>

Topic	Feedback
Are there other considerations for the IESO?	<p>Will the IESO be considering the impact on changes in electricity rate structures as policy tools that could be used to shift peaks, reduce peaking capacity, increase DERs, and/or provide incentives for broader electrification? For example, the Ontario Energy Board's and Government's current initiative to design an enhanced TOU pricing option.</p> <p>The IESO demand forecast section contains policy assumptions referencing "Expected regulations," regarding fuel-switching, new construction as well as "policy targets" for light vehicles. For example, "Expected regulation: 100% of sales of new space heating equipment for residential buildings to be zero emissions by 2035." No reference is made to the specific policy underlying the assumption (i.e., proposed building code or appliance standards), making assumption assessment difficult. Stating the specific policies underlying these assumptions with specific reference within the policy section would enable stakeholder to assess the reasonableness of the assumptions.</p>

Demand

Topic	Feedback
Are the assumptions indicated reasonable and comprehensive in terms of scale and timing?	The IESO should consider including both natural gas demand and non-gas fossil fuels demand as part of the industrial fossil fuel demand.

Topic	Feedback
Are there other considerations for the IESO?	<p>Some of the assumptions reference inputs and findings that may change pending the completion/updating of studies (the 2019 Ontario Electricity and Natural Gas Conservation Achievable Potential Study). Given that these are preliminary assumptions, will there be any further stakeholdering or opportunity for feedback once the assumptions are finalized?</p> <p>Will the study consider the resource/supply impact on winter peak electricity demand due to complete electrification of space and hot water heating? And will the study consider hybrid heating (space and hot water) as a cost-effective pathway to reduce GHG emissions?</p>

Resources

Topic	Feedback
Are the assumptions indicated reasonable and comprehensive in terms of scale and timing?	<p>The IESO's assumptions indicate three activations/year for hourly demand response (DR): Is that throughout the outlook period? With more electrification and technology adopted with DR potential, does the IESO not anticipate the installed capacity of DR increasing over time and, as a result, the acceptable number of activations?</p> <p>Regarding project life, recent studies indicate that the useful project life for a solar project is between 25 to 40 years (see: NREL and Berkeley Lab).</p>

Topic	Feedback
Are there additional data sources that we should consider	Will the IESO consider other decarbonization/net zero plans and data sources, such as Municipal Energy Plans (e.g., City of Ottawa , City of Toronto) to inform the pathway studies? These plans contain targets and strategies for decarbonization, electrification, DER uptake, renewable generation, and may lead to policy changes to facilitate this.
Are there other considerations for the IESO?	<p>The IESO may want to consider comparing its assumptions regarding technology and scenarios with pathway studies of other jurisdictions. For example, The Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050.</p> <p>It is unclear how the IESO intends to replace the ~83TWh peak demand on the gas grid in the cold months. The IESO should also consider the use of carbon-negative sources, such as certain types of hydrogen and RNG. Finally, the scenarios chosen in the decarbonization study should consider minimizing costs to the ratepayers.</p>

General Comments/Feedback

The OEA is very supportive of the IESO launching this engagement to evaluate a moratorium on the procurement of new natural gas generating stations in this decade (reliability, cost, environmental considerations) and develop an achievable pathway to phase out natural gas generation and achieve zero emissions in the electricity sector. The OEA notes that Minister included among the considerations “the positive or negative effect this would have on electrification of the broader Ontario economy (i.e., industry, transportation, etc) and reaching the province’s overall climate goals.”

It is important to note that there is currently no indication by policymakers that electricity will be the sole energy type allowed under future building codes. While future changes to building codes may require carbon-free/carbon-neutral space and water heat, these could be met by electric and gas heat pumps or hybrid heating systems that use RNG or hydrogen in playing a crucial role in further decarbonizing Ontario’s clean electricity systems.

The OEA recognizes that the IESO has indicated that this study is not intended to be an “actionable plan,” but rather an input to inform policy. However, the OEA believes that, to properly inform future policy, the study should examine the full implications of potential pathways to inform which policies would best optimize the province's path to broader decarbonization across the economy. It is our opinion that tying the analysis to the broader decarbonization of Ontario is needed to maximize the value of the study for informing future policy decisions, energy system planning, and reaching the province’s overall climate goals (as indicated by the Minister).