Feedback Form

2024 Annual Planning Outlook – April 23, 2023

Feedback Provided by:

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To promote transparency, feedback submitted will be posted on the Long-Term RFP engagement page unless otherwise requested by the sender. If you wish to provide confidential feedback, please mark "Confidential".

Following the APO Information Webinar on April 23, 2024, the Independent Electricity System Operator (IESO) is seeking feedback and comments from stakeholders on the items discussed. The webinar presentation and recording can be accessed from the engagement web page.

Please submit feedback to engagement@ieso.ca **by May 7, 2024.**

Future Considerations

Topic	**Feedback**
Do you have any comments regarding information to include in future outlooks?	Enbridge Gas offers comments related to the following topics, which are further described below: Forecast Drivers for Residential and Commercial Sectors; Emission Outlook; Weight Average Marginal Cost Forecast; Distributed Energy Resources (DER) Assumptions, and Rapid Expansion of Data Centres.

General Comments/Feedback

As an energy system operator, energy transmitter and local distribution company (LDC), Enbridge Gas endeavors to provide energy that our customers want and need in a reliable, resilient and cost-effective manner. To do so, Enbridge Gas is eager and ready to engage with IESO and other energy sector players to plan energy systems under a common understanding of how energy transition will unfold in Ontario. Enbridge Gas looks to IESO's Annual Planning Outlook (APO) 2024 to glean electricity system direction and planning assumptions to better understand the nature and pace of energy transition in IESO's system planning.

Enbridge Gas notes that IESO has provided an expanded section on risk and uncertainties related to energy transition and its impact in the 2024 APO, and this is a welcomed change. As Ontario progresses with energy transition, there are inherent challenges and uncertainties in long-term demand forecasting that should be highlighted and considered more broadly such that decision making can be enhanced today with greater appreciation of all energy options available. It is also noteworthy that the appropriate contingencies be set in place to minimize unintended consequences, which may include high-impact, low-probability events (i.e., extreme weather events, ice storms, cyberattacks, widespread wildfires, etc.).

Another noteworthy addition to the 2024 APO is the discussion on resiliency. Enbridge Gas is acutely aware of the physical and transition considerations related to assuring resiliency of energy systems in Ontario. Enbridge Gas would welcome the opportunity to discuss reliability and resiliency of the electric grid in Ontario and how Enbridge Gas may be able to support IESO in its reliability and resiliency planning both on the site (i.e., hybrid heating) and system levels (i.e., low carbon generation).

Enbridge Gas offers the following suggestions for information to include in the future APOs:

- **Forecast Drivers for Residential and Commercial Sectors:** Enbridge Gas suggests that evaluation of and clarity on how uncertainty related to federal model building codes (i.e., National Building Code and the National Energy Code for Buildings) and municipal green development standards will be considered and incorporated into the demand forecasts for the residential and commercial sectors in future APOs. Enbridge Gas also suggests that clarity be provided on how demand scenarios developed in IESO's Integrated Regional Resource Plan (IRRP) process and results are factored into future APOs.

- **Emission Outlook:** Notably absent from the 2024 APO is an emissions outlook as was provided in the 2022 APO. The emissions outlook provided in the 2022 APO was helpful to understand the emissions performance of the electricity system today, and how it would change over the near term, for both the annual emissions from the grid and the marginal emissions associated meeting incremental demands. Both of these emission data sets are important references as they provide a lens for how sectoral emissions change resulting from the drivers of electricity demand (i.e., EV adoption and/or building electrification). Bringing this lens back for the next and all subsequent APOs would be helpful to see how these changes are manifesting from an emissions standpoint. Additionally, it would be helpful from a coordinated planning standpoint to understand what the IESO's assumptions are for determining marginal emissions factors, as well as what the IESO's forecast for the marginal emissions factors for Ontario grid.

- **Weight Average Marginal Cost Forecast:** Another item that was present in previous APOs but absent from the 2024 APO was the weight average marginal cost forecast and its comparison to the historical Hourly Ontario Electricity Price (HOEP). This cost outlook was helpful to understand the expected changes to electricity pricing in the near term resulting from the capacity and other resource acquisition needed to fulfill the forecast demand. Re-introducing this comparison and forecast for the next and all subsequent APOs would be helpful to see how the expected resource mix will impact electricity pricing in the short and medium terms, particularly as the IESO moves into its cadenced resource acquisition approach.

- **Distributed Energy Resources (DER) Assumptions:** Enbridge Gas suggests that further clarity on how IESO forecasts assumptions related to DER participation and DER proliferation that are used in the IRRPs would be beneficial. This would assist Enbridge Gas in understanding how municipal climate and/or energy plans, (i.e., City of Toronto's TransformTO, etc.) and others local initiatives are being considered by IESO's future APO.

- **Rapid Expansion of Data Centres:** Enbridge Gas suggests that further clarity and consideration be provided for how the expansion of data centres will impact demand forecasts in the near term. Enbridge Gas understands that other jurisdictions (i.e., British Columbia and the United States) expect surges in electric demand due to electricity-intense data processes; however, it is unclear if the same influx of data centres is expected for Ontario.

As IESO notes, and as Enbridge Gas can appreciate, system demand forecasting is uncertain, especially as forecasts extend further into the future and considering the impacts of energy transition. Enbridge Gas respectively requests the above-noted information be provided in future APOs to provide further clarity and certainty (where possible) for natural gas system planning consideration. Through coordinated system planning efforts, whereby key inputs and assumptions are known and shared between energy system planners like IESO and Enbridge Gas, more robust energy system planning and capital investment decisions can be made to support a reliable, resilient, and cost-effective energy system and energy transition in Ontario.