Market and Planning Data Questionnaire

Feedback Provided by:

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Building on the ISO jurisdictional scan, the Independent Electricity System Operator (IESO) will initiate this engagement by presenting specific questions to participants.

Please submit feedback to engagement@ieso.ca by January 15, 2024. 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.



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| What organization/stakeholder group do you represent and what is your key interest in this engagement? | Enbridge owns and operates electricity generation, storage, a transmission line and represents a significant load. Our interests in this consultation include: Having access to transmission, load, congestion, and planning data necessary to invest development capital in new builds and repowering projects Having access to the hourly data needed to qualify for key tax credits and to satisfy potential offtakers' ESG goals and commitments Having access to the hourly data needed to satisfy our own ESG commitments Having access to the planning, load, congestion, and transmission data necessary to site new load and manage existing load, e.g., compressor stations, Hydrogen plants, etc. |

Can you comment on the type or types of Planning and/or Market data that you access from the IESO? Do you have any feedback for the IESO about the Planning and/or Market data that is currently made available to stakeholders?

We currently access the Energy prices (HOEP, 5-minute MCP), Capacity Auction prices and quantities, zonal load forecasts, Annual Planning Outlooks, Annual Acquisition Reports, Ancillary Service modules, Tx modules, Regional Planning needs assessments.

The information is difficult to piece together in a way that we can rely on for a number of reasons. For example, transmission, congestion, constraints, planned expansions, timing of expansions/upgrades, and other details are separated over several different resources and/or not provided at all, even where the info had previously been made available. There is no clear resource or set of resource with guidance on how to overlay the information that we can use to get a clear picture of what transmission is currently in place, what constraints exist, what type of congestion may be present and when, and/or what changes we can expect that could alleviate or otherwise improve that situation.

Similarly, the load forecasts that are released in the APO are not consistently updated, e.g., different types of forecasts are provided each year so it's difficult to compare to previous assumptions, and they do not yet take into consideration LMPs in all cases. Furthermore, the AAR, which was helpful, has not been released for a couple years.

We appreciate the cadenced approach that IESO proposed to help provide some visibility into supply forecasting but much more info on geography, technology and the role of bilateral contracts is needed to help realize the benefits of that procurement roadmap.

Topic Feedback

What additional Planning and/or Market data is your organization seeking to access? If possible, provide the data sets of interest including specifics details in terms of granularity, format, etc.

Enbridge would like to also be able to access:

- Data to inform Market Participants (MPs) of curtailment risk, including the frequency (hours and instances of unavailable transmission capacity (MWs), including time of day, on an annual basis,
 5-year average etc., for relevant transmission lines and stations
- Comprehensive up to date transmission mapping indicating/identifying transmission elements per IESO zone, also indicating planned transmission lines and stations projects, with an indicator of level of certainty/approvals e.g., under construction with anticipated completion dates, identified in Regional Planning Assessment, etc.).
- Zonal load forecasts (5, 10 and 15 year), noting specific zonal (Tx) constraints that risk capacity and energy shortfalls (timing of; frequency of; duration of; IESO risk assessment (low, medium, high)).
- Summarized historic information on losses, congestion, and shadow prices in anticipation of future LMP pricing.
- Anticipated procurements and any areas of priority, by size, technology type, LMP
- Anticipated bilateral contracts by technology type,
 size, transmission line, start of operation
- Hourly supply profile by technology type, emissions, etc., e.g., in a particular hour, how much of the supply was solar, wind, nuclear, hydro, etc., and what was the related emissions value based on the weighted share of the total supply

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| Please elaborate on the need for and/or your intended use of the data. (e.g., use cases, etc.) | The above data would assist project proponents in identifying strategic siting locations and identifying financial viability and operability risks (transmission system constraints, curtailment risk). This will help attract the development capital required to build a competitive procurement process for IESO's upcoming energy requirements. |
| | It will also help new load select its preferred locations and/or will help load meet ESG commitments efficiently. Along these lines, it will help Ontario participate in the Hydrogen economy by locating strategically and by providing the data necessary to prove eligibility for certain tax credits. |
| | This data is also important to identify and streamline effective and strategic engagement with local communities and potential Indigenous Partners, by helping developers to focus on areas most likely to support projects. |
| If applicable, is there specific Planning and/or Market data that is currently not made available by the IESO that should continue to remain private or confidential? Please tell us the impact on your organization if such data is made available. | Site specific production data should not be made available as it could provide an unfair advantage to direct competitors in the market. Other commercially sensitive information should not be made available, which would generally be at the site-specific or Market Participant level. |

General Comments/Feedback

Consistent timing on an annual basis of strategic planning and needs identification documents like the Annual Planning Outlook (APO) and Annual Acquisition Report (AAR) and associated, Ancillary Service and Transmission Modules (needs identification) is critical to supporting the development investment Ontario needs to support competitive procurement processes, affordable rates, and an efficient system. This allows project proponents to plan around consistent internal timing and approvals of business plans and investments and would enhance transparency and predictability, aligning the interests of project proponents and the IESO particularly in the transition to regular cadenced procurements.

The IESO should regularly and consistently publish an Ancillary Services module (as in previous APOs) and should provide more frequent and detailed information on the assessment, need for, and the costs and quantities of contracted Ancillary Services.

Transmission (lines and stations) availability, constraints, known congestion issues, and planned upgrades represents invaluable information for developers, operators, and load alike, and most of which is available in other states and provinces, making those places attractive for investment. A more transparent and consistent process for deliverability of both capacity and energy across Ontario should be a priority for the IESO to maximize competition, limit project attrition risk, and maintain affordability for ratepayers.