AUGUST 4, 2022

EB-2021-0243 **Generic Proceeding on Export Transmission Service (ETS) Rate – Presentation Day**

Independent Electricity System Operator (IESO)



Presentation Overview

- This presentation will summarize the IESO's perspectives on the implications of Export Transmission Service (ETS) Rate Tariff on the wholesale electricity market
- Information shared in this presentation is based on:
- IESO ETS Rate Submission evidence in response to the OEB Decision and Order in EB-2019-0082, and
- 2. The IESO's responses to interrogatories in EB-2021-0243



IESO Role in Sector

1. Operate the power system

The IESO ensures the reliability of Ontario's power system, balancing supply and demand for electricity 24 hours a day, 7 days a week

2. Oversee Ontario's electricity market

The IESO operates and settles the wholesale electricity market, using competition to provide transparency and reliability at lowest cost

3. Plan for Ontario's future energy needs

The IESO forecasts and assesses the province's short and long-term electricity needs



Importance of Efficient Intertie Trade

Economic imports and exports play a critical role in helping the IESO manage supply and demand in real-time

- Interties transactions are highly price sensitive and actively respond to short term changes in supply and demand conditions*
- This makes Ontario's interties one of the most dynamic tools available to the IESO to reliably manage the day-to-day operations of the Ontario grid
- The importance of efficient intertie trade has increased significantly as Ontario's refurbishes its baseload supply and transitions to a greater share of intermittent generation that is typically less predictable than conventional sources of supply



^{*}See IESO Evidence Section 3 for a detailed explanation of intertie trading

IESO's Operational Perspective on the ETS

When setting the ETS, strong consideration should be given to the operational impacts resulting from the ETS rate

- An increase in the ETS rate will reduce exports and increase the risk that during periods of excess generation, over and above domestic needs, the IESO will need to take expensive and undesirable control actions to maintain reliability
- These actions include curtailing significant volumes of baseload generation,
 predominantly from nuclear, hydroelectric and wind resources*
- Many baseload assets are not designed to be curtailed regularly resulting in higher outages and greater wear and tear



^{*}Estimated by the IESO to be as high as 12-14TWh annually

IESO's Economic Perspective on the ETS

When setting the ETS, strong consideration should be given to the economic impacts resulting from the ETS rate

- In addition to the operational challenges from reduced exports because of a higher ETS, there is a financial cost that will be borne by Ontario ratepayers
- The IESO has assessed that exports contribute \$300M -\$500M annually to offset ratepayer costs
- A significant portion of these revenues and avoided costs could be at risk from reduced export transactions because of a higher ETS
 - The CRA analysis demonstrates that in one case increasing the ETS rate from \$0 to \$5.80/MWh would cause a 50% reduction in export volumes

Relationship Between ETS and ICP

- The IESO collects congestion rents (also called ICP*) from traders importing and exporting electricity on an hourly basis
 - The way congestion rents are collected is on a dynamic basis (varies hour to hour)
 which ensures it does not interfere with efficient trade
- There is an inverse relationship between the ETS and these congestion rents
 - That is, if the ETS increases, congestion rents collected decrease and vice versa
 - The relationship is not 1-1 but, in the IESO's opinion, very close
- While congestion rents are hard to predict with certainty, they will persist for the foreseeable future as Ontario's supply mix has a far higher share of low marginal cost power than our key export markets

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Congestion Rent Depends on Market Conditions

- ICP is collected from export transactions based on the maximum traders are willing to pay and market conditions at the time
- When price differences between Ontario and the export market are large, any increase to the ETS will result in an offsetting decrease in ICP, but there will be no impact to physical export flows
- When price difference between Ontario and the export market are smaller, an increase to the ETS will result in some exports becoming uneconomic, and Ontario would not receive the operational and economic benefits from this loss of trade



How Congestion Rent Offsets Ratepayer Costs

The IESO has collected approximately \$100-\$200M per annum in congestion rents and returned close to 95% of this value to Ontario ratepayers

Transmission Rights Clearing Account *

Hydro One and Local Transmission Intertie TRCA Surplus Rights Distribution Congestion Funds Auction Rent Companies are IESO Revenue Market Participants Some traders buy TRCA balance Premium or discount The payouts owed transmission rights traders pay relative to to traders who have above \$20 million and these revenues the Ontario price (the (TRs) to protect purchased TRs to is disbursed to are used to offset their themselves against ICP). This "rent" is hedge against market collected and added to intertie congestion intertie congestion participants on Revenue Requirement price risk. the TRCA account. price risk semi-annual basis.

^{*} The Transmission Rights Clearing Account (TRCA) also includes Transmission Right Auction revenues and payouts. Transmission Rights are a key enabler of efficient trade and ensures interties are fully utilized and congestion rents are maximized



Summary

As Ontario's system operator and planner, the IESO understands there are many factors to consider when setting the ETS and has the following perspectives to share:

- Exports are an essential tool for the province to meet short-term operational and reliability needs
- When setting the ETS, consideration should be given to maximizing the operational and economic benefits provided by exports that minimize transaction costs
- 3. Any increase in the ETS rate would be a concern to the IESO, as it will reduce the value of Ontario's interties, leading to less system flexibility and higher costs for Ontario ratepayers

Thank You

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