June 29, 2018

IESO Engagement

Energy Workstream Comments Re: Intertie Trading

OPG appreciates the continued dialogue and opportunity to provide comments regarding intertie trading in the context of Market Renewal. The comments below are in response to the slide deck titled "Market Renewal – Intertie Trading Examples" which was presented at the May 24, 2018 Market Renewal Energy Workstream stakeholder engagement meeting and further discussed at the IESO webinar held on June 7, 2018. The materials and discussion focused on the IESO's proposed Option 2 treatment of intertie congestion pricing where the intertie settlement price would be:

a) Equal to the real-time intertie price if there is no congestion
b) The higher of the intertie price in real-time (RT) or pre-dispatch (PD), if export congested
c) The lower of the intertie price in RT or PD if import congested.

In addition to supporting many of the views already expressed by other market participants OPG does not agree with option 2 because it believes the intertie settlement price does not properly reflect the marginal cost of energy at the interface.

Intertie Settlement Pricing

OPG supports the IESO's Market Renewal principle to establish efficient price signals. In moving to locational marginal pricing, OPG believes intertie pricing concepts should be similar to those of internal resources at specific locations, with the added import/export congestion component settling every 5-minutes, when respecting external interface limits. Intertie pricing could be expressed as follows:

> LBMP = Marginal Cost of Energy (i.e. Reference Bus Price) + Marginal Cost of Congestion + Marginal Cost of Losses
>
> The Marginal Cost of Congestion can be further broken down into congestion from internal constraints (i.e. from the Reference Bus to the Interface) and congestion from external interface constraints (i.e. ramp, ATC), thus:
>
> Marginal Cost of Congestion = Marginal Cost of Internal Congestion + Marginal Cost of External Interface Congestion

OPG suggests the IESO consider a model similar to what NYISO has implemented for the real-time market.

OPG further suggests that intertie transactions be settled reflecting real-time congestion on a 5-minute basis at the interface.

In principle, OPG believes:

- A trader who is exposed to upside price risk in an export should also be afforded the benefit of downside price risk; (similar logic would apply to imports in the opposite direction)
- While the IESO suggests scheduling an export in DAM and maintaining that schedule in RT removes exposure to RT price and RT intertie congestion, the DAM and RTM are two distinct markets; the pricing in both should reflect the cost to supply the marginal MW at a specific location. A participant should not be pushed to one market because the other is not priced correctly.

OPG also reiterates its comments provided January 19, 2018 that option 2 should not be used on the basis for consistency of price treatment for interties and internal resources because:

- The risks and decision-making considerations that factor into offers of marketers differ from those of internal resources; and
- Generators are 5-minute dispatchable while interties are committed and dispatched hourly.

OPG supports further discussion and collaboration with the IESO and other market participants to assess alternative options to those that have been presented. On this note, OPG may submit alternate proposals for IESO consideration. The confirmation of TR availability would be helpful in this endeavor.

Mandatory Window

As changes to the market are being made in Market Renewal, OPG recommends that the IESO consider shortening the current mandatory window to a duration that more closely aligns with neighboring markets. Benefits of this change include providing greater flexibility to resources (both internal and interties) in responding to market signals. A shorter mandatory window that aligns with NYISO and MISO would also mitigate trading risks associated to committing to Ontario while the neighboring market is still open.

Furthermore, the ratepayer would benefit from this change as the ability to more quickly respond to market signals would reduce the overall cost to the market.

As other markets with DAM and RT markets are able to accommodate a shorter mandatory window, OPG would appreciate if the IESO could identify any barriers that would prevent this change in Ontario.

Regards,
Herman Mo
Senior Market Specialist, Market Affairs
Ontario Power Generation