

Memorandum

To: Technical Panel

From: Adam Cumming

Date: February 14, 2023

Re: MR-00474-R00 – Enabling the Co-located Hybrid Model

The IESO is proposing market rule amendments that will allow generation and electricity storage facilities that are co-located behind a single connection point on the grid to more efficiently manage their energy offers and bids. This is intended to benefit market participants by allowing increased flexibility to manage their resources that are co-located, which will also benefit the electricity system by enabling more resources and increasing the amount of available capacity.

Where there is more than one generation facility and electricity storage facility behind a connection point to the grid, it is possible that an individual facility or the combination of facilities could have more injection or withdrawal capability than the maximum allowed quantity. To enable this flexibility while limiting costly IESO tool changes, market participants will be required to manage their bids and offers so that the total or net schedule for all facilities is within the maximum allowed quantity.

The IESO is proposing to add two new subsections to the market rules. The first subsection will allow generation facilities and electricity storage facilities that are registered to the same market participant and connected to the same connection point, to submit offers and bids based on the net injections and withdrawals. This applies where none of the facilities are providing contract ancillary services (regulation, black start capability, voltage control, reactive power and any other such services established by the market rules) or participating in the operating reserve market.

The second subsection addresses the case where one or more of the facilities is providing contract ancillary services or participating in the operating reserve market. In this instance, the proposed changes will limit the sum of all injections or the sum of all withdrawals for all generation facilities and electricity storage facilities to that of the connection point limit. This is to ensure that facilities that are providing ancillary service or participating on the operating reserve market are always able to provide the services they are required to provide.

The intent of these rules is to enable additional resources while also allowing market participants to more efficiently manage their resources that are co-located while also ensuring system reliability.

Stakeholder Feedback

During the January 24th technical panel meeting, the Technical Panel voted to post the proposed market rule amendment for stakeholder comment. The amendment was posted for a period of two weeks. No stakeholder feedback was received during this period.

Based on the feedback received from Technical Panel members the following changes were made to the proposed amendment:

- The numbering was corrected in sub-section 3.5.6A.3.
- The wording in sub-section 3.5.6B.6.2 was adjusted to read as:
the maximum injection or withdrawal ~~will be what is~~ as specified in the *connection agreement* applicable to the *registered facility* or the maximum injection or withdrawal otherwise permitted by the relevant *transmitter*, and the sum of all *energy offers* or the sum of all *energy bids* from all *facilities* shall not exceed these limits.

It was also noted during the technical panel meeting that the proposed additional sections could potentially be combined into a single section. This was contemplated by the IESO during drafting and it was determined that by separating the rules into three separate sections based on the combination of resource types and services being provided, it limits the risk of confusion as to what limitations would be applicable to each facility or combination of facilities. This will also allow for expansion or modification to these rules as additional resource types are enabled in the future.

Previous to bringing the proposed amendment to the technical panel, the IESO held a series of stakeholder sessions to discuss the proposed changes noted in the section above. Materials from these sessions including presentations and stakeholder feedback is available on the [Hybrid Integration Project webpage](#).

Panel Action and Next Steps

The IESO recommends that the Technical Panel vote to recommend the proposed market rule amendment MR-00474-R00 to the IESO Board for approval.

Accompanying Materials

- Market Rule Amendment Proposal Form - MR-00474-R00

Adam Cumming