

Feedback Form

Long-Term RFP – November 7, 2022

Feedback Provided by:

Name: Katie Guerry

Title: SVP Regulatory Affairs

Organization: Convergent Energy and Power

Email: [REDACTED]

Date: November 14, 2022

Following the November 7th public meeting on the Long-Term RFP, the Independent Electricity System Operator (IESO) is seeking feedback from participants on the proposed deemed generation model.

The referenced presentation can be found on the [Long-Term RFP webpage](#).

Please provide feedback by November 14, 2022 to engagement@ieso.ca.

Please use subject header: **Long-Term RFP**. To promote transparency, this feedback will be posted on the [Long-Term RFP webpage](#) unless otherwise requested by the sender.

The IESO will work to consider and incorporate comments as appropriate.

Thank you for your contribution.

Deemed generation model

Topic	Feedback
Do you support the proposed approach with fixed VOM and CRE value? Please explain why or why not.	See below
Do you have any feedback on the use of non-continuous 4 hours in the model?	See below
Is there anything further you recommend be considered with respect to the implementation of this alternative model?	See below
Do you have any general feedback on the two models presented, including any feedback on financeability?	See below
Do you have any feedback on potential market and operational impacts between the two models?	See below

Materials Cost Index Adjustment (MCIA): Lithium

Topic	Feedback
Do you have any feedback on the appropriate weighting for lithium in the MCIA?	

General Comments/Feedback

Convergent Energy and Power (Convergent) sincerely appreciates the IESO's efforts to make the Expedited and Long-Term RFPs successful, and we applaud the many improvements proposed by IESO. However, Convergent does not support the significant shift in the IESO's proposed form of contract for energy storage resources. As discussed in more detail below, **Convergent strongly recommends the IESO abandon the new proposed form of contract for storage resources.**

The IESO's proposed storage-specific revenue model would create unnecessary risk and materially increase the cost of storage development in Ontario. In the face of ongoing investment risk and uncertainty over RFP and Contract terms, both the timing of this proposed contract change and the significant deviation from the pre-existing capacity contract structure would result in additional risk for developers and investors.

This increased risk stems largely from the fact that IESO's proposed storage-specific revenue model relies heavily on energy price forecasting and merchant arbitrage operation. In effect, the storage-specific contract ceases to be a low-risk capacity contract and takes the form of a riskier, hybrid capacity/merchant arbitrage contract. This change would necessitate a higher risk premium in all storage proposals, resulting in higher costs for Ontario's rate payers.

In moving away from a capacity construct, the IESO's proposed storage-specific revenue model exposes proponents to additional risk because it requires proponents to rely on MRP-related revenue. With MRP on the horizon, developers lack visibility on the impact and availability of revenue streams, which will depend heavily on yet to be defined rules of locational marginal pricing, spreads between real-time and day-ahead pricing, ancillary services values, allocation of increased transmission costs, etc. In the previous capacity contract model, storage proponents had the option to partially mitigate the impact of MRP uncertainty on merchant revenue exposure by opting out of the "top up / claw back" energy price spread mechanism; the proposed "alternative contract structure" eliminates this optionality and increases proponents exposure to MRP-related risk by forcing a greater portion of storage contract revenues to be dependent on ability to earn merchant revenues over the life of the contract.

Furthermore, Convergent feels that it would be discriminatory to impose a contract on storage that necessitates greater dependence on energy market revenues, while non-storage assets are paid strictly for capacity.

It is also important to highlight that the IESO's proposed storage-specific revenue model reflects improper assumptions about the operational reality of storage assets. The most fundamental example of this is the 4-hour LBAP window for determining the spread price; battery-based storage systems are typically charged at less than full nameplate capacity, meaning a 4-hour system would almost always charge over full 8-hour off-peak window. There are three key reasons for this charge profile. First batteries are not 100% efficient, and even slight inefficiency (due to transformer, inverter and other losses) will result in a 4-hour system requiring more than 4 hours to charge. Second, a longer charge period minimizes the storage facility's exposure to non-coincident peak demand charges. Given that most developers have minimal visibility into how facilities will be billed for demand charges by interconnecting LDCs, the IESO's 4-hour window will result in the risk of high demand charges for storage projects. Third, charging at full capacity (i.e. 100% charge rate for 4 hours) is detrimental to the longevity of battery. This is why nearly all battery-powered devices – from cell phones to EVs – come equipped with an optimal charge algorithm that charges more slowly over a longer period of time.

Separate from this, the IESO asked for feedback regarding whether or not proponents feel we have sufficient information to assume the ITC in their bid package; our answer is currently that we do not have sufficient detail to make this assumption. While the Minister's letter announcing the ITC in the 2023 Budget is a great sign, the letter is vague re: labour requirements, timelines, eligibility deadlines, adders such as domestic content / low-income and First Nations communities / etc., the inclusion of interconnection costs, and other critical details. Our suggestion here would be for the IESO to require proponents to submit two bid prices: one accounting for the ITC, and one without the ITC.