Feedback Form

Hybrid Integration Project – September 21, 2021

Feedback Provided by:

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Following the September 21, 2021 webinar on the Hybrid Integration Project, the IESO is seeking feedback from participants on the potential impact of each of the proposed models on market participation and development investments, as well as operational or implementation considerations the IESO should factor into its decision-making about which foundational model to implement. The IESO will work to consider feedback and incorporate comments as appropriate and post responses on the engagement webpage.

The referenced presentation can be found under the September 21, 2021 entry on the Hybrid Integration Project webpage.

Please provide feedback by October 12, 2021 to engagement@ieso.ca. Please use subject: *Feedback: Hybrid Integration Project.* To promote transparency, this feedback, if provided in an AODA-compliant format (e.g. using this form) will be posted on the Hybrid Integration Project webpage unless otherwise requested by the sender.

Thank you for your time.

Market participation and development investments

Topic	Feedback
How would your willingness to participate in IESO markets and invest in the development of hybrid facilities vary under each proposed model?	I believe there are resources throughout Ontario that can be adapted more easily to one model or the other, and so both models are required. In my experience, existing behind the meter generation facilities have limited space available in switchgear equipment and electrical rooms. When these facilities decide to offer their capacity into the market, it is often an engineering challenge and expensive to retrofit switchgear equipment to install one IESO compliant metering installation. In the case of Model 1, I think the daunting task of installing and managing two IESO metering installations coupled with a much longer return on investment will deter many potential market participants. Model 2 is likely a better fit for resources that are co-located. On the other hand, Model 1 is more appropriate for storage and generation resources that are located on the same distribution feeder (with the POI being at the transmission station) as an example. Separate metering and Market Interface tasks make operational sense for these resources that share a POI but may not be co-located at one address. It would be impossible to integrate them behind one physical meter under Model 2. If I could only choose one to start with, I would select Model 2 as the foundational model. From my perspective it would allow the market to access a greater amount of capacity. Then have Model 1 be included as one of the enhanced configurations. Even better though, since Model 1 seems easier to implement based on the issues and risks

Topic	Feedback
	comparison, just allow both configurations from the get-go.

Operational or implementation considerations

Topic	Feedback
What other operational or implementation considerations should the IESO factor into its decision-making about which foundational model to implement?	Regarding Model 2, my feedback would be to reconsider this configuration to remove the requirement that the hybrid resource must be co-located with a non-dispatchable load. The discussion during the engagement meeting indicated that the load was required in order to allow for the storage to charge from the grid overnight (in the case it is coupled with solar generation). As batteries are both load and generation, I submit that the storage resource is capable of charging from the grid whether a non-dispatchable load is co-located or not, just as is done in Model 1. If for some reason market rules or settlement processes prevent the storage from charging directly from the grid, then a more flexible solution would be to address those barriers instead. In short, I think Model 2 should be designed independent of a non-dispatchable load being incorporated.

General Comments/Feedback

I think this is a great topic to be engaging on, and very timely with the available technology coupled with the approaching capacity needs. Thank you for providing the feedback opportunity.