

Energy Storage Design Project – Feedback Form

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Feedback Provided By:

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Following the May 20, 2020 Energy Storage Advisory Group (ESAG) meeting to discuss the Energy Storage Design Project, the IESO is seeking feedback from participants on whether the design proposals captured within the presentation offer pragmatic solutions for the participation of energy storage in the IESO Administered Markets in the long-term. The IESO will work to consider feedback and incorporate comments as appropriate and post responses on the engagement webpage.

The referenced presentation and design document can be found under the May 20, 2020 entry on the [ESAG webpage](#).

Please provide feedback by June 10, 2020 to engagement@ieso.ca. Please use subject: *Feedback: Energy Storage Design Project*. To promote transparency, this feedback will be posted on the [ESAG webpage](#) unless otherwise requested by the sender.

Thank you for your time.

Topic	Feedback
<p>State-of-Charge (SOC) Management:</p> <p>The IESO has proposed an SoC Management Lite approach that will provide the the same market access as a generator and account for the practical operating realities of a storage facility</p>	<p>The IESO’s recommended approach to SOC management includes IESO oversight of energy storage participation in the IESO-Administered Markets (IAM) specifically by accounting for SOC constraints of individual energy storage facilities in the IESO’s Dispatch Scheduling and Optimization (DSO) engine. The IESO asserts that this ‘SOC-Lite’ approach will provide “the same market access as a generator, accounting for the practical operating realities of a storage facility”.</p> <p>Adopting the SOC-Lite approach grants the IESO a level of control over the storage device; for example, the IESO will be able to adjust the dispatch of an energy storage facility. This raises a question of why the IESO treats generators and storage devices differently; whereas the IESO is unwilling to cede control of storage devices to the market participant responsible for operating the energy storage, including managing within SOC limits, the IESO doesn’t treat generators similarly.</p> <p>The EDA encourages the IESO to identify and provide an assessment of alternative processes that the IESO could rely on to manage risks, such as those associated with infeasible schedules. These alternatives should be made available before the IESO finalizes the Storage Design Project long-term design proposal.</p>
<p>Market and Facility Registration:</p> <p>Storage facilities may either register as a dispatchable facility or, if less than 10 MW, a self-scheduling facility</p> <p>Storage facilities will be modelled as a single resource with the capability to inject, store and withdraw energy</p>	<p>While the EDA generally supports this framework we request that the IESO provide more details with respect to implications for the newly defined “self-scheduling energy storage facility” (for example, as it relates to the load-side of the energy storage facility).</p> <p>There are conflicts in the IESO’s proposed treatment of energy storage devices that are not discussed in the long-term design proposal. One example is that the load-side of a self-scheduling energy storage facility is to be treated as a non-dispatchable load settled based on the proposed new Ontario zone price, versus the generator-side which is to be treated as a non-dispatchable generator settled based on locational marginal prices (LMPs) in the day-ahead and real-time markets. The EDA proposes that such conflicts be acknowledged and addressed.</p>

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<p>Offer Curve: Energy storage offer curves will be continuous over the charging and discharging range</p>	<p>The EDA supports this approach.</p>
<p>Price Setting: Dispatchable electricity storage resources should be able to set the market clearing prices for energy and operating reserve</p>	<p>The EDA agrees with this design decision.</p>
<p>Regulation Service: Similar to generators, storage resources will be enabled to provide multiple services including regulation, energy and operating reserve</p>	<p>The EDA supports this approach.</p>

General Comments/Feedback:

The EDA appreciates this opportunity to provide feedback on behalf of its members. Ontario’s LDCs are interested in opportunities to deploy energy storage in Ontario, whether as non-wires alternatives or its other applications. LDCs acknowledge that wholesale market revenues could be applied as revenue offsets to the benefit of consumers. LDCs will need to fully and clearly understand the opportunities available and recommend that the IESO provide examples of the participation model applicable to energy storage facilities, whether primarily used as a non-wires solution or primarily participating in the wholesale market and other scenarios. The EDA looks forward to the IESO continuing to evolve its treatment of energy storage devices and for whether the IESO will increasingly adopt economic mechanisms that will inform storage proponents decisions to achieve the economic objectives of MRP.

