

Energy Storage Design Project – Feedback Form

March 26, 2020

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Feedback Provided By:

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Following the March 26, 2020 Energy Storage Advisory Group (ESAG) webinar to discuss the Energy Storage Design Project, the IESO is seeking feedback from participants on the state-of-charge (SoC) management options. 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 March 26, 2020 entry on the [ESAG webpage](#).

Please provide feedback by April 16, 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>What design principles and considerations (as listed in March 26 webinar deck) are most important to you in developing a state-of-charge management framework and why?</p> <p>E.g., efficient market outcomes, the ability for storage to compete on a level playing field, a practical approach that could be implemented on a timely basis, etc.</p>	<p>As stated in previous submissions to the IESO, CanSIA supports the design principles and considerations of the MRP for use in the ESAG SDP. Principles and considerations are meant to guide decision-making and optimize benefits of market design changes. Therefore, CanSIA believes that all principles are important and must be balanced when attempting to evolve the IESO-Administered Markets (IAMs) to appropriately integrate Energy Storage Resources (ESRs) and hybrid projects (i.e., renewable energy + storage).</p>
<p>Based on the Storage Design Project principles and considerations, what state-of-charge management option(s) do you support and why?</p> <p>E.g., Self-Schedule, Self-SoC-Management, SoC-Management-Lite, ISO-SoC-Management</p>	<p>As stated in CanSIA’s submission on March 3rd, 2020, CanSIA believes that no self-scheduling should be allowed for ESRs with an installed capacity greater than 1 MW.</p> <p>CanSIA supports Self-SoC-Management. ESRs can offer multiple services to several entities (e.g., wholesale markets, grid operators, customers), which maximizes the value that ESRs can offer the electricity sector. Since not all services are provided directly to the IAMs, there are many instances where an ESR will need to manage its SoC to meet objectives that may not align with the optimization of an ISO-SoC-Management system. To be clear, CanSIA believes ESRs must respond to their scheduling and dispatch instructions from the IESO in the wholesale market; however, optimizing their SoC to meet multiple service levels should be left to the ESR owner/operator since they will have the best visibility into daily and lifetime objectives of the ESR asset.</p> <p>Further, CanSIA recommends that the IESO take a forward-looking view with respect to selecting appropriate SOC management options by considering applicability for hybrid projects. For example, under a Self-SOC-Management</p>

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	<p>approach, a hybrid project would be able to manage their own offer curves, as well as decisions related to storing self-supplied energy.</p>

General Comments/Feedback:

CanSIA has developed this submission in consultation with the members of Nexus - a strategic project founded by CanSIA and operating in collaboration with the Canadian Wind Energy Association (CanWEA) that focuses on customer adoption of energy management technologies and enabling broader uptake of renewable energy.

CanSIA continues to recommend greater integration between the SDP and the MRP. The IESO during the ESAG meeting discussed “potential” for investments in IESO tools to meet the long-term SDP objectives (e.g., DSO, AGC tool), however, no investment decisions have been made. The IESO should explain what the decision process will be, along with the criteria that will be used to determine if investments in the IESO tools for storage integration will be made. CanSIA believes that there will be significant cost if storage integration design changes are not included in the MRP process due to inefficiencies in re-opening market design decisions and revisiting foundational design concepts. As seen in market design activities throughout North America, ESRs are a game-changing technology that will impact how customers, generators and market operators interact in the electricity system. The IESO can begin preparing the Ontario electricity market for this future now with changes that will be implemented over the next 3-5 years. CanSIA urges the IESO to take actions to integrate long-term storage integration decisions into the MRP detailed design process to ensure that ESR considerations are properly reflected while foundation elements of the renewed IAMs are under discussion.