Feedback Form

Enabling Resources Program (ERP) - Storage and Co-located Hybrid Integration Project

Meeting Date: July 24, 2025

Feedback Provided by:

Name: Rudra Mukherji

Title: Senior Regulatory Advisor

Organization: Electricity Distributors Association

Email: [redacted]

Date: August 21, 2025

Following the **July 24, 2025**, engagement webinar, the Independent Electricity System Operator (IESO) is seeking feedback on the items discussed during the webinar. The presentation and recording can be accessed from the engagement web page.

Please submit feedback to engagement@ieso.ca by **August 21, 2025**. If you wish to provide confidential feedback, please submit it as a separate document, marked "**Confidential**." Otherwise, to promote transparency, feedback that is not marked "Confidential" will be posted on the engagement webpage.

General ERP Feedback:

Topic	**Feedback**
Feedback on the engagement approach, meetings, or the S/H Project in general?	Please see our comments in the General Comments/Feedback section below.

Storage/Hybrid Project Feedback:

Topic	Feedback
Telemetered SoC: Required for calculations in PD and RT timeframes. This value is expected to inform the IESO of the injection capability of the resource in MWh and, therefore, should account for any losses. Current performance requirements will continue, with data sent every 4 seconds to the IESO. Do MP's have concerns or foresee challenges with this requirement?	Click or tap here to enter text.
OR Offers: Are there concerns about OR provided by storage being branched from withdrawal to injection?	Click or tap here to enter text.
Ramp Rates: Do you have feedback on the 100 MW/min static ramp rate and utilizing a standardized approach to dispatch?	Click or tap here to enter text.
CycleDEL: Is CycleDEL sufficient to limit the cycling for storage in Phase 1? What is the expected default setting?	Click or tap here to enter text.
Exceeding Min/Max SoC limits: Do you anticipate needing to exceed min/max SoC limits for specific market opportunities, or just maintenance and what are the typical min/max limits – is this a fixed/static value that can be derived for registration? Frequency and magnitude of exceeding these limits? Are there equipment concerns from this, what are the specific concerns (faster equipment aging/degradation, other)?	Click or tap here to enter text.

Topic	Feedback
Derates: Do you have feedback on the derates that the IESO is considering; specifically, what requirements need to be set ensure that these are used sporadically? Will there be separate derate values for injection and withdrawal? Will MPs need to derate their SoC limits? Does this only require update to max SoC limit which will result in overall SoC reduction? How frequently does the MP need to update the round-trip efficiency?	Click or tap here to enter text.
Uprates: Any feedback on this concept of utilizing "uprates" to support maintenance? Any conditions or requirements that the IESO may need to consider when developing its process to allow uprates? Are there any other operational or market participation considerations that need to be considered?	Click or tap here to enter text.

General Comments/Feedback

The Electricity Distributors Association recognizes that the IESO's Enabling Resources Program ("ERP") is an important initiative for modernizing Ontario's electricity market. The program, particularly its Storage and Co-located Hybrid Integration Project ("Project"), influences how Local Distribution Companies ("LDC") manage their distribution systems and the resources connected to them. The Project, which includes transmission and distribution connected single-site dispatchable storage greater than 1 MW assets, will require LDCs to adapt their operational practices, invest in new technologies and capabilities, and engage proactively with the IESO to ensure that the evolving market design supports both bulk system reliability and the safe, efficient, and reliable operation of the distribution network.

The EDA offers the following feedback to ensure the design/participation models fully account for the unique operational realities and needs of the distribution system.

- Enhanced design/participation models should enable resources to provide both local and bulk grid services and enable informed DER integration.

- The need for increased coordination with LDCs on any changes to ensure the safe, reliable operation of the distribution system, especially as these resources expand on the distribution network.
- Alignment with other Distribution System Operator-related workstreams, ensuring that the ERP design does not preclude future developments in LDC coordination or local generation planning

Enabling Resources to Provide Both Local and Bulk Grid Services

The ERP is designed to modernize Ontario's electricity market by enabling a broader range of resources to participate in IESO-administered markets. This includes advancements such as the single bi-directional resource model for storage, expanded opportunities for Operating Reserve participation through "branching" capabilities, and future integration into regulation services. These design elements are aimed at maximizing the value of these resources for bulk grid services.

However, from the perspective of LDCs, the deployment of energy storage and other DERs, particularly those embedded within a distribution network, necessitates a more comprehensive approach, as these resources also have a critical role in providing local grid services. In the EDA's view, the design and participation models must account for the unique operational characteristics and constraints of the distribution system. Without such considerations, there is a risk that market signals optimized solely for the bulk system could inadvertently create challenges or inefficiencies on the local grid, potentially compromising reliability or leading to suboptimal investments in distribution infrastructure.

The EDA emphasizes the need for design and participation models that not only unlock the full potential of these resources for the bulk system but also empower them to contribute effectively to local grid stability and resilience.

Ensuring Local Grid Stability through Enhanced LDC Coordination

The ERP is a key initiative, particularly with its focus on integrating energy storage and co-located hybrid resources, including those embedded within the distribution network. Ontario LDCs are at the forefront of connecting and managing these evolving assets on their local grids. Therefore, ensuring the safe and reliable operation of the distribution system necessitates a collaborative approach. While the EDA commends the IESO for engaging with LDCs, the EDA believes there is a need for increased coordination with LDCs. This deeper engagement is crucial to integrate LDCs' unique operational insights, address potential impacts on local grid stability, infrastructure planning, and protection schemes, and ensure that market signals do not inadvertently compromise local reliability.

The expansion of energy storage on the distribution network presents both opportunities and complex operational considerations for LDCs. LDCs are responsible for the day-to-day operation and maintenance of the local grid, where these resources are directly connected. Changes to market rules, dispatch instructions, and operational parameters – such as those being explored through this Project for State of Charge management, standardized ramp rates, and derates – have direct implications for distribution systems.

In the EDA's view, informed integration requires active participation in the design process to ensure that the evolving market framework aligns with the practical realities and capabilities of distribution infrastructure.

Alignment with Distribution System Operator ("DSO") Workstreams

There are many initiatives and projects ongoing at the IESO and the OEB that impact the evolving role of LDCs and the integration of DERs in the distribution grid. Concurrently with the ERP, the OEB is actively consulting on steps to facilitate the efficient adoption of DSO capabilities within Ontario's electricity sector.

Given that the energy storage and hybrid resources targeted by the Project will be embedded within a distribution network, it is key that the design of the participation models is aligned with the evolving DSO framework. A lack of such alignment could inadvertently create conflicting signals or operational challenges for LDCs, potentially leading to suboptimal resource utilization or even compromised local reliability.

The EDA submits that the IESO must ensure that the Project is developed in coordination with the OEB's DSO workstreams and LDCs. Clarity will be needed to avoid duplication and maintain process efficiency, especially concerning the respective roles of the distributor. Such alignment will ensure that the Project supports an efficient evolution of the entire electricity system, enabling these resources to provide both bulk grid services and essential local grid services without creating unintended burdens or conflicts for distribution system operators.

End of document