ONTARIO ENERGY BOARD
C/O Regulatory Electronic Submission System (RESS)

Dear Registrar,

RE:

DISTRIBUTION SYSTEM OPERATOR (DSO) CAPABILTIES

Energy Storage Canada (ESC) is the national trade association dedicated to accelerating the deployment of energy storage projects and technologies, with a membership that includes electricity distributors and third-party distributed energy resources (DERs) and Non-Wires Solutions (NWS) project proponents and technology providers[1]. We appreciate this opportunity to provide the following comments on the Distribution System Operator (DSO) Capabilities Discussion Paper.

1. **Defining Opportunities and Objectives**

1.1. What are your views on the opportunity and policy objectives for DSO capabilities

The continued development of DSO capabilities by electricity distributors is a natural progression leveraging the momentum built through multiple and extensive Distributed Energy Resources (DERs) integration initiatives over the past decade.

DERs (such as demand-side and distributed energy storage) have potential to meet local, regional and provincial electricity system needs more cost-effectively than other resource and infrastructure options. Advanced DER integration, management, and optimization capabilities are necessary for the contributions of DERs to be directed and incentivized toward the greatest value distribution and transmission system needs at any given time. Without DSO capabilities, the full value of DERs may not be realized, resulting in investments in higher cost alternatives and/or the under-utilization of DERs deployed.

DSO capabilities will increase economic efficiency (i.e., competition) and innovation (i.e., technology, and business practices) toward the realization of an adequate, reliable, quality and cost-effective electricity service. And, it is in the utmost interest of consumers that electricity distributors are capable of integrating,

[1] For further information, please visit: www.energystoragecanada.org

managing and optimizing DERs (such as demand-side and distributed energy storage) for distribution and wholesale electricity market services, where that results in more cost-effective, efficient, resilient, and reliable service, and the ability to balance supply with growing demand.

1.2. What are your views on the use cases and value of DSO capabilities for Ontario, including the importance of DSO capabilities in capturing more of the benefits DERs can provide?

As has been the experience in other jurisdictions, cost-effective DER proliferation will accelerate where DSO capabilities enable the appropriate participatory and compensation frameworks.

The value of DSO capabilities include the increased availability (and confidence in the availability) of DERs to improve electricity service, and/or reduce system costs, at the bulk- and non-bulk levels, by enabling the monetization of multiple elements of their value stack at any given time (i.e., peak-shaving, capacity, non-wires solutions, reserves, regulation, etc).

DSO capabilities also maximize the hosting capacity for additional DERs, further increasing the potential for economic efficiency, service improvements, and reduced costs. In the absence of DSO capabilities, and without the appropriate price signals, the contribution of DERs to improved electricity service, and to reduced system costs, cannot be maximized.

1.3. How should the OEB's objectives (as set out in section 1 of the OEB Act) be balanced and reflected in the development of a DSO policy framework for Ontario?

The integration and management of increasing penetrations of DERs by electricity distributors, and heightened participation of DERs in IESO-administered markets, is already underway. As a result, the development of a DSO policy framework is a necessary action to balance the OEB's objectives.

In the near-term, the OEB should focus on promoting economic efficiency (i.e., competition), and facilitating innovation and demand-management, by scaling up the technical and coordination capabilities of existing and new pilots and initiatives to develop the fundamental operational experience and industry capacity with DSO capabilities and DER deployment. In the longer-term, the objective of cost-effectiveness should become more central to the implementation of the DSO policy framework as a whole. There are foreseeable near-term benefits to scaling-up the deployment of DERs and their services, and foreseeable longer-term needs

for electricity distributors to have advanced capabilities to integrate, manage, and optimize DERs for distribution and wholesale electricity market services.

2. Evaluating Proposals and Approaches

2.1. Is an evolutionary approach to developing DSO capabilities appropriate for Ontario to pursue in order to achieve the policy objectives set out in the Staff Discussion Paper?

The process to develop and implement the roadmap for Distribution System Operator (DSO) capabilities (per OIC 802/2025, para. 17) should not result in a period of policy uncertainty or a policy vacuum that directly or indirectly pauses the momentum in DERs deployment. As such, the evolutionary process should take a "walk-jog-run" approach while providing as much policy certainty as possible, as soon as possible.

For example, the OEB should prioritize collaboration with IESO on program design and compensation mechanisms for energy storage through the eDSM framework (in support of OIC 802/2025, para. 11; OIC 802/2025 and para. 10) so that the deployment of both residential and non-residential behind-the-meter energy storage projects can be accelerated as soon as possible. (These assets deployed for eDSM should not be inhibited from providing services additional to eDSM when more DSO capabilities are in place).

In order to define the evolutionary approach: a sector-led working group should be established to define the end-state vision, shared roadmap, and key milestones; minimum baseline technical capabilities should be prioritized that ensure long-term scalability; experienced electricity distributors should be empowered to lead the development of common platforms and customer-facing solutions; and legislative and/or structural reforms should be paused until operational capabilities are mature (i.e., focus first on building real-world DSO functionality).

2.2. What are your views on each of the three proposals presented in the Staff Discussion Paper?

ESC supports Proposal 1 that electricity distributors are required to assess the need for DSO capabilities to be implemented to address system needs. A significant amount of work to this end has been completed by the IESO Transmission-Distribution Coordination Working Group, and is ongoing by electricity distributors and their DER provider partners whose many pilots and initiatives are developing capabilities and deploying functionalities. ESC recommends that the assessment be: considered to be both reactive (i.e., "needs"), and pro-active (i.e., "opportunities"); and that the boundary not be limited to the distribution system alone. For

example, the assessment should consider broad opportunities and constraints to DERs in an electricity distributor's service territory enabled by DSO capabilities supporting the bulk system.

ESC is concerned that Proposal 2 to develop a simplified DSO Model may not build from the IESO's transmission-distribution working group, and may create an unnecessary and avoidable step toward a better end-point. ESC recommends that the aforementioned Sector-Led Working Group works to define the first evolutionary steps for the DSO Model. Furthermore, Proposal 3 to further develop advanced models should be a part of that process. ESC believes additional clarity and definition of the "simplified" and "advanced" models are required before developing a final position on one, the other, or how the two interact.

3. **Balancing Standardization and Flexibility**
   - **3.1. How should the OEB best balance the benefits of a standard approach relative to the innovation and insights that could be gleaned from enabling greater flexibility and diversity through experimentation?**

No comment.

Very best regards,

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