

Feedback Form

Distributed Energy Resources (DER) Market Vision and Design Project – January 25, 2023

Feedback Provided by:

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Following the January 25th public webinar on the DER Market Vision and Design Project, the Independent Electricity System Operator (IESO) is seeking feedback from participants on the DER MVP Enhanced Models.

The referenced presentation can be found on the [DER Market Vision and Design Project webpage](#).

Please provide feedback by February 15, 2023 to engagement@ieso.ca. Please use subject header: *DER Market Vision and Design Project*. To promote transparency, this feedback will be posted on the [DER Market Vision and Design Project webpage](#) unless otherwise requested by the sender.

The IESO will work to consider and incorporate comments as appropriate and post responses on the webpage.

Thank you for your contribution.

Recommendations for Enhanced Models

Topic	Feedback
<p>Are the IESO's recommendations appropriate for enhanced models? Do any recommendations risk inhibiting DER(A) participation in wholesale markets?</p>	<p>LDCs: The IESO's omission of the role of LDCs from the enhanced model is unexpected and not reasonably practicable for LDCs, especially considering the enhanced model would be implemented post-2026.</p> <p>Per the draft Conceptual T-D Coordination Protocol for Dual Participation Model presented on November 9, 2022, one of the IESO's next steps was to "discuss draft conceptual T-D protocol for the Total DSO model with the TDWG in the new year." The Total DSO model would position LDCs operating as the Market Facilitator in its service territory, serving as the main point of contact between DER(A)s and the IESO. This configuration would best ensure reliability and effective maintenance of the local distribution grid, while maintaining visibility at the transmission node. The Total DSO model reduces the complexity of managing DERs by contracting between a DSO and DERs/DER(A)s, while enabling DER stacking value in local distribution and wholesale markets. The hypothetical potential for a conflict of interest, or any other challenges, could be overcome through governance and oversight. <i>The EDA recommends that a draft conceptual T-D protocol for the Total DSO model be further explored with the TDWG (as the IESO indicated in November 2022) and/or in the DER MVP.</i></p> <p>In the draft Dual Participant framework proposed by the IESO, LDCs would be required to take on additional roles and responsibilities, and consequently incurring extra costs. There are many items before metering (see "Metering Hardware" below), namely additional people, processes, and systems, that are needed to track and compute information regarding the grid which will then be communicated to dispatch DERs and DER(A)s. Moreover, there is a need to ensure close alignment with evolving regulatory policy that would permit remuneration for the provision of such grid services. Per the <i>OEB's Framework for Energy Innovation: Setting a Path Forward for DER Integration</i>, "the OEB expects distributors to modify their planning and operations to prepare for DER impacts on their system," and "[distributors] are also expected to consider DER solutions as NWAs when assessing options for meeting system needs." Therefore, given that LDCs are expected to deploy and coordinate DERs as NWAs, a market design that omits the role of LDCs is perplexing.</p> <p>LDCs are also uniquely positioned with their residential customers through longstanding relationships, built through being the touchpoint for everything electricity. Consequently, given the nature of DER(A)s and their associated complexity, <i>the EDA recommends that LDCs should be the aggregators for the residential customer class where possible.</i> Doing so would 1) remove confusion of customer issues being raised to the incorrect party (if third</p>

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	<p>party aggregated) and 2) allow customers to be supported by their respective LDC, with whom they already have a relationship. This could also be extended to small commercial/business customers, too, as LDCs are best positioned to coordinate DER(A)s consisting of smaller contributors while maintaining distribution grid safety and reliability. Because of those longstanding customer relationships, LDCs could develop innovative mechanisms to allow customer choice on their behaviours and revenue models.</p> <p>Maximum size threshold: the IESO has recommended that the foundational model should require a maximum size threshold for both individual DERs and DER(A)s, with the specific sizes to be determined in the market design stage. The IESO should more rigorously model such aggregations to determine these specific sizes, particularly due to cost effectiveness implications for smaller customers (i.e., potential to enable more DERs cost effectively). A smaller maximum threshold helps to mitigate reliability risk, while a higher threshold better aligns with jurisdictions such as New York and California. <i>The EDA recommends that the IESO allow for the highest DER(A) maximum size that supports grid and resource reliability.</i></p> <p>On a related point, it is important for heterogenous aggregations composed of load, energy storage, and generation to be included. For example, a realistic DER(A) in Ontario could include multiple behind-the-meter solar facilities (i.e., converted microFITs) and a battery storage device. These behind-the-meter DERs could be net-injecting during certain hours.</p> <p>Level of Telemetry: The EDA agrees with the IESO’s detailed recommendation of allowing aggregate telemetry points and status where possible. Recognizing the IESO’s potential need for individual contributor telemetry (e.g., if aggregate telemetry is insufficiently reliable), <i>the EDA notes that individual telemetry for residential and small C&I customers (what the IESO has termed “very small consumers”) could stifle participation from those resources.</i></p> <p>Metering Hardware: The EDA supports maximizing the beneficial use of existing infrastructure investments. However, LDCs need specifics, particularly on how the IESO contemplates “relax[ing] metering requirements” and “innovative device-metering methods.” Requiring market participants of <1 MW to have on-premises, revenue-grade meters could stifle participation, particularly from very small consumers such as residential and small C&I. Therefore, <i>the EDA supports the IESO’s decision to remove such barriers for participation.</i></p>

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	Overall, the framework and expectations of the DER market need to appreciate any distribution level operational constraints, to balance maintaining distribution grid safety and reliability while holding participants accountable to program goals.
Based on the recommendations, are there key options that should be prioritized for the enhanced models?	The enhanced model should contemplate the role of LDCs and the Total DSO model, to streamline the coordination between the IESO, the LDC, and the DER/DER(A).

General Comments/Feedback

Question about Telemetry Latency: Does the maximum size threshold for DER(A) change telemetry latency?

- Currently, the recommendation for telemetry latency in the enhanced model is specified for DER(A)s of less than 1MVA.
- The foundational model uses existing Market Rules and specifies 1 minute latency for DERs of 1-20 MVA.
- Would this be the same for DER(A) in the enhanced model, i.e., 1 minute?

Total DSO Model

The omission of the Total DSO model from the enhanced model of the DER MVP is disconcerting, given the centrality of Ontario’s LDCs in the province’s energy transition. **The EDA would like to seek feedback from the IESO to understand its rationale for doing so and urges the IESO to revisit this item.** We note that the Total DSO model was identified among the TDWG’s “next steps” for 2023. The exclusion of both the total DSO model and of LDCs from the DER MVP’s enhanced model is not constructive to the deployment of DERs at best and will likely have unintended and harmful outcomes to electricity customers. Given the exigence of electrification, resulting from federal mandates for 1) a clean electricity grid and 2) all new light-duty vehicle sales to be composed of ZEVs by 2035, **the EDA believes it is not prudent to continue deferring the study and implementation of the Total DSO model.**