Stakeholder Feedback and IESO Response

OEB-IESO Joint Engagement on DER Integration – April 13, 2022

Following the April 13, 2022 OEB-IESO Joint Engagement session, the Ontario Energy Board (OEB) and the Independent Electricity System Operator (IESO) received feedback from participants on the joint engagement in general as well as the updates to the list of cross-cutting issues presented.

The IESO received feedback from:

- Electricity Distributors Association (EDA)
- Markham District Energy (MDE)

The presentation materials and stakeholder feedback submissions have been posted on the DER Roadmap webpage. Please reference the material for specific feedback as the below information provides excerpts and/or a summary only.

Notes on Feedback Summary

The IESO appreciates the feedback received from stakeholders. The IESO has provided a summary below, which outlines specific feedback or questions for which an IESO response was required at this time.

OEB-IESO Joint Engagement

Are there any new potential cross-cutting issues related to DER integration that should be considered for collaboration between the OEB-IESO?

The feedback submission from the EDA included comments on cross-cutting issues related to DER integration. These points are included in the table below.

Feedback	**OEB-IESO Response**
The cross section of the IESO and OEB goals for DER integration is to maximize value of DERs for provincial resource acquisition while facilitating DER deployment/adoption, which enhances overall value to energy consumers. In addition to the cross-cutting issues identified on April 13, DER integration should also consider the collaboration of the two entities to review ways in which DERs can fulfill multiple market demand by (but not limited to) the two following ways: 1. Addressing, through policies and procedures, the physical limitations of the electricity system created by fault current levels. Battery energy storage systems (BESS) will be added to the grid and will reduce the amount of system capacity that is available for other generators. Therefore, when completing a connection impact assessment, a distributor has to assume that BESS are providing power into the grid. As a result, it will become more common in the future for new generation connections to be denied due to physical system constraints, constraints that would not be as significant if BESS were not connected to the grid. We are supportive of the role of BESS within the market. However, more planning and analysis may be needed on a combined IESO and OEB review to achieve optimal power supply mix that enhances value to the customers and maximizes value of DERs. 2. Coordination between the OEB and IESO for potential procurements achieved through the 2021-2024 CDM Framework should be considered for its [OEB/IESO] cross-cutting issues list. The CDM element does not just directly impact the distributors' system planning, but also has the potential through coordination to play a role in resource needs, and if coordinated correctly, through DERs.	Thank you for the comments. 1. The IESO and OEB understand the importance of considering physical limitations of the electricity system, including capacity constraints. In terms of achieving an "optimal power supply mix", the IESO recently conducted a DER Potential Study, which seeks to identify DERs (including DER aggregations) that are cost-effective and/or are likely to emerge in Ontario over the next 10-year period (2023-2032). The findings will support DER Roadmap initiatives, Pathways to Decarbonization and Annual Planning Outlook work. As well, the feedback provided relates to the OEB's ongoing DER Connections Review which aims to address barriers to the connection of DERs and OEB's recently initiated EV Integration initiative that will examine the increasing penetration of EVs. We encourage stakeholders to, as appropriate, participate in these initiatives. 2. The IESO is currently in the midst of the CDM Mid-Term Review which includes assessing the alignment of the 2021-2024 CDM Framework's targets and budgets and against provincial, regional, and local electricity system needs and a review of the Framework's program offerings. This includes reviewing the Local Initiatives Program (LIP), which targets additional CDM to areas of the province where CDM can have the most impact addressing both distribution and/or transmission needs and provincial resource adequacy needs. On October 4, the IESO received a directive from the Minister of Energy increasing the budget for the 2021 – 2024 CDM

Feedback	OEB-IESO Response
	Framework, including enhancing the Local Initiatives Program with additional budget and greater flexibility to address system constraints including consideration for DER measures. The IESO continues to engage with impacted LDCs when implementing each of the local initiatives under the LIP.

How well are the objectives of this joint engagement (i.e. to provide clarity on the topics being addressed by each organization, identify cross-cutting issues, and ensure IESO and OEB efforts are appropriately coordinated) being achieved?

The feedback submission from the EDA included comments on the objectives of the joint engagement and how well they are being achieved. These points are included in the table below.

Feedback	OEB-IESO Response
We support and encourage the collaboration of the IESO and OEB joint engagement and suggest that to appropriately coordinate the objectives of this joint engagement being achieved, the IESO and OEB report back to and consult LDCs more frequently than 6-month increments. Although this timeline is set to extend far into the 2024 – 2026 period, these dates are fast approaching and LDCs will require lead time to both plan and integrate their operations to facilitate DER objectives. LDCs are central to the success of benefits being achieved, therefore it is important to consider the role of distributors and coordinate more opportunities for LDCs to engage on the development of policies. This will also allow LDCs to bring their expert perspectives to the table.	We recognize that LDCs are central to DER integration efforts. While OEB/IESO Joint Engagement on DER Integration sessions only occur every 6 months, there is a range of ongoing DER-related OEB consultations and IESO engagements where LDCs are already being engaged. To the extent that there are LDCs that are not following these initiatives, we encourage them to do so. The OEB and IESO individual update presentations on their respective DER initiatives provided at the April 2022 OEB/IESO Joint Engagement on DER Integration session is a good starting point for LDCs to identify where to get more involved.
Constructively, we acknowledge each entity has identified the varying issues addressed by each organization. We would like to see combined milestones established by the joint collaboration and a clear plan of how the two entities will work together to address the cross-cutting issues.	Thank you for this piece of feedback. The IESO and OEB will discuss a collaborative approach for one of the cross cutting issues during the November, 2022 joint engagement session.

General Comments/Feedback

The feedback submissions from the EDA and MDE included general comments and feedback. These points are included in the table below.

Feedback	OEB-IESO Response
• LDCs see the opportunity for the joint OEB and IESO to review the following items: • Capacity allocations to generate are specific to a feeder and transformer stations, which restricts an LDC's ability to reconfigure its system either long-term or on a short-term temporary basis. Therefore, the OEB and IESO may want to consider how these restrictions can be mitigated and who should be responsible for the associated costs. • Current template contracts provided by the OEB for generator connections and capacity allocations for generation are required contracts with the LDC. These required provisions restrict the LDC's ability to manage DER generation. The OEB and IESO may want to consider how to give LDCs sufficient flexibility to manage DER generation. • Coordination of the IESO's DER market participation activity, including the Transmission Distribution Coordination Working Group and Market Renewal Preparedness group. We've noticed that LDC involvement with DERs as services for the local distribution system, transmission system and wholesale market was not originally considered. If there is no coordination, then it is our concern that there will not be optimal benefit gained. Specifically, LDCs should be managers of embedded DERs for the optimal benefit of all stakeholders. • Currently there are four announced DER pilot programs in development. It would be beneficial to have regular briefings from the combined IESO and OEB on project progress and developing best practices. This can provide information for meaningful discussions.	The IESO and OEB understand the importance of considering physical limitations of the electricity system, including capacity constraints. The OEB also understands the interest from the sector in relation to the future role of LDCs. While not a cross cutting issue, the OEB's DER Connections Review, which is within the OEB's mandate, will continue to review issues identified by Working Group members as being important for the facilitation of the connection of DERs. The IESO's TDWG is intended as a forum to work with LDCs and other relevant stakeholders to develop conceptual transmission-distribution coordination protocols in order to ensure that all parties have sufficient awareness for operational reliability. Additionally, as part of the DER Market Vision Project, one of the foundational questions being addressed is which entity/entities represents the IESO market participant in the IESO-administered markets, and which is being worked through the stakeholder engagement process. The OEB's Framework for Energy Innovation consultation is aiming to, amongst other things, facilitate distributor use of third-party owned DERs as NWAs. The OEB will be issuing a report in early 2023 that may provide context for T&D coordination to enable DER services. The IESO and OEB will share lessons learned with stakeholders on the projects selected under the IESO/OEB Joint Targeted Call when available.
Given electricity load is on the rebound with things like decarbonization efforts using electric heat	There are larger and focused DER participants for which more complex service provision

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pumps and EV adoption, it appears clear Ontario is going to need new electricity supply, CDM and other load management tools. With that being said, the IESO and the OEB should be encouraging the adoption of DER resources where they make good economic and environmental sense. This is clearly part of why this process is underway. However, it appears that the potential DER customer/owner is being left out of the equation, or at the back-seat. So much of the current discussion appears to be about grid value and making sure LDC revenues and operations are not impacted, ratepayers are being held whole and such. Not saying that is unimportant … but the Province and the ratepayers needs new electricity capacity, and this electricity is hopefully going to come in part through DERs. The owner of the DER has to be able to obtain rate of return on their investment … and that seems to be overlooked. So much of the discussion is about negative implications and why DERs are a problem, vs. "…lets figure out how to make it work…". I don't really see the avoided cost of transmission and distribution being factored in a real way along with other benefits. As a customer, it is hard not to get discouraged. I would encourage you to recognize that many/most customers that might consider DERs won't be in the electricity business and electricity is not going to be their core business. DER adoption has to be really simple or it won't happen at any scale. Pricing for DER resources and understanding the investment return has to also be simple and low risk. The currently favored auction process can in theory achieve transparent lowest cost but are limited by arbitrary and defined time-lines that won't necessarily line up with customer interest and capital approval cycles. Different acquisition mechanisms are going to be needed for DER resources to ensure more significant penetration.	opportunities, such as the wholesale market, is appropriate. There are also certain services, such as operating reserve or frequency regulation, which DER participants may want to provide and which, given the nature of the services, will require the participant to manage complexity. Aggregators, energy services companies or other third parties could play an important role in simplifying and facilitating DERs providing more involved grid services. That said, the IESO and OEB recognize that simple opportunities for DER participants to provide services to the grid will help DER adoption. It should be noted that some existing opportunities, such as net metering, fall into this category. As well, in the recent DER Potential Study, the IESO identified a number of non-market pathways for capturing value from DERs, where they are more effective. The OEB and IESO acknowledge the important point that this feedback makes and will continue to look for opportunities to simplify ways that DERs can provide grid services. At the November 2022 session, the IESO and OEB will introduce a new joint study focused on DER incentives, and we look forward to stakeholder feedback on this work.