Feedback Form

Distributed Energy Resources (DER) Roadmap – June 22, 2021

Feedback Provided by:

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Following the June 22, 2021 DER Roadmap engagement meeting, the IESO is seeking feedback from participants on the DER Roadmap, stakeholder views on the DERs that are most likely to emerge in Ontario, the OEB/IESO joint engagement objectives and proposed process, and finally, on the upcoming OEB/IESO joint targeted call on Enabling Resource. The IESO will work to consider feedback and incorporate comments as appropriate and post responses on the engagement webpage.

The referenced presentation can be found under the June 22, 2021 entry on the DER Roadmap webpage.

Please provide feedback by July 14 2021 to engagement@ieso.ca. Please use subject: *Feedback: DER Roadmap.* To promote transparency, this feedback, if provided in an AODA-compliant format (e.g. using this form) will be posted on the DER Roadmap webpage unless otherwise requested by the sender.

Thank you for your time.

DER Roadmap

Topic	Feedback
Has the IESO identified the right focus areas to deliver on its goal for DER integration?	Ontario is rapidly approaching system capacity and resource adequacy needs, and facing significant transfer capability constraints. DERs can and should be enabled to make a significant contribution to alleviating these system needs. Transmission-Distribution (T-D) Coordination, Wholesale Market Integration, and Non-Wires Alternatives are all worthy and important areas of focus for the IESO DER Roadmap. However, notably absent from these focus areas are any specific consideration of enabling net-metered and load-displacing solar PV generation and behind-the-meter battery storage, probably the fastest-growing DER technologies and poised for a significant acceleration in deployment. The IESO is right to be focusing on identifying opportunities for DERs to participate in the wholesale energy market, and to serve as NWAs, and planning for improved T-D coordination. However, for DERs such as net-metered and load-displacing rooftop solar PV and residential or commercial battery storage systems, wholesale market participation is unlikely to be a compelling motivator for consumers considering investing in these technologies. Similarly, while we support expanding and building upon the structured NWA procurements as set out in the proposed Local Initiatives Program, monitoring and communications requirements and bureaucratic barriers to participation in such a program could preclude participation by most BTM solar and storage. Instead, measures such as allowing for exposure to a time-varying/critical peak rate option for non-RPP Class B consumers could potentially provide equal or greater benefit in terms of incenting consumers to reduce peak demand and thus obviate the need for new peaking capacity and/or T-D infrastructure expansion and reinforcement. CanREA recently commissioned analysis of the whole-system impact of additional Behind-the-Meter solar in Ontario. This research found that BTM solar can provide savings by lowering HOEP during peak demand hours in the summer, reducing the need to procure additional capacity through IESO's Capacity Auction (or other future procurements) and mitigating costs related to carbon prices and gas-fired generation. BTM solar can also mitigate the need for transmission infrastructure in response to load growth and the forthcoming retirement of the Pickering NGS. A copy of this analysis is appended to this consultation submission.

Topic	Feedback
	It will also be important to ensure coordination with the Hybrid Integration work stream, as Ontario's 2,756 MW of distribution-connected wind and solar would be well-situated for some form of repowering and pairing with storage if there were sufficient economic incentive to do so post-contract.
Will the near-term initiatives enable the IESO to make timely progress on its goal and focus areas?	CanREA strongly supports the IESO's stated goal to maximize the value DERs can provide to Ontario's electricity system by addressing challenges and opportunities related to DER integration within the IESO's mandate. The initiatives set out in the Roadmap consist of highly circumscribed pilot/demonstration projects, studies, and further stakeholder consultations. While these may yield valuable insights, it seems doubtful that these proposed activities will substantively address systemic barriers to DER integration at a province-wide level within a meaningful timeframe.
Are stakeholders supportive of the approach detailed in the draft DER Roadmap Engagement Plan?	

DER Roadmap – Stakeholder Views

The IESO is seeking stakeholders who wish to present their views on the DERs that are most likely to emerge in Ontario and how they should be incorporated into wholesale markets. IESO will seek to identify a number of stakeholders to present their views at the September engagement days and will work with stakeholders to coordinate content. Presentations and subsequent stakeholder discussions will provide insight for the DER Market Vision Project.

Interested stakeholders are asked to briefly identify their views below. If stakeholders prefer not to have these initial views on DERs published as part of this broader feedback submission, please email your comments separately to engagement@ieso.ca.

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Views on the DERs that are most likely to emerge in Ontario and how they should be incorporated into wholesale markets	Deployment of BTM solar PV, both net-metered and load-displacing, is poised for unprecedented growth over the coming years, thanks in part to federal incentives such as the Greener Homes Grant program. BTM battery storage, at residential, commercial and industrial scales, is also rapidly emerging as a viable option for homeowners and businesses to meet reliability and power quality needs, and to maximize their use of on-site renewable electricity generation. In the majority of cases, it would

Topic	Feedback
	seem unlikely that wholesale market integration would be a relevant concern for these consumers.

OEB/IESO Joint Engagement on DER Integration

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Do the proposed OEB/IESO Joint Engagement objectives meet stakeholder needs?	
Will the proposed process for OEB/IESO Joint Engagement enable us to deliver on the proposed objectives?	CanREA applauds the IESO for this stated commitment to ensuring that IESO and OEB efforts are appropriately coordinated in order to make timely progress on each organization's efforts and DER integration as a whole. However, while joint OEB-IESO stakeholder meetings and coordination of engagement activities are a commendable step forward, the DER Roadmap does not include any specific commitments in in terms of expected outcomes from this improved coordination. At present, there is considerable overlap and ambiguity in the IESO and OEB organizational mandates – For example, both agencies are ostensibly responsible for promoting electricity conservation. While improved collaboration in DER activities would be an improvement over the status quo, a clear and specific definition of separate areas of focus and responsibility may be equally important.
What are the cross-cutting issues relevant to the OEB/IESO Joint Engagement that there should be focus on/awareness of and why do they matter?	

OEB Innovation Sandbox and IESO Grid Innovation Fund Joint Targeted Call on Enabling Resources

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Given the problem statement, recommendations, and opportunity presented today, what barriers to DER	CanREA supports the integration of the OEB Innovation Sandbox and IESO Grid Innovation Fund. Demonstration project proponents will require both regulatory flexibility and the

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integration are best suited to be addressed through the joint call?	resources to implement their innovations, and this Joint Targeted Call on Enabling Resources is a positive step forward.
Which kinds of projects designed to address these barriers would be expected to benefit from regulatory support available through the OEB Innovation Sandbox?	

General Comments/Feedback

The renewal of the IESO's approach to enabling DERs provides a unique opportunity to fundamentally re-evaluate system planning assumptions in light of the extraordinary cost decreases and improved performance achieved by DERs over the past decade, the province's rapidly emerging energy and system capacity needs, and the Government of Canada's legislated commitment to achieving Net Zero GHG emissions by 2050.

While structured NWA procurements such as the Local Initiatives Program and the York Region NWA Demonstration Project are welcome, these limited initiatives may not send a sufficient signal to market participants, and may fall short of expectations.

The IESO should consider whether rate structures are efficiently and effectively incenting DER siting decisions and operational characteristics to maximize transmission and distribution system cost deferrals and reductions, and whether more could be done to enable load-displacing and net-metered renewable generation to help avoid the need to procure additional capacity through IESO's Capacity Auction (or other future procurements) and to mitigate costs related to carbon prices and gas-fired generation.

The extraordinary complex, costly and unpredictable DER interconnection process in Ontario remains a major obstacle to DER integration. There may be potential for the IESO to make progress in addressing this through the improved T-D coordination work stream. It will also be important for the IESO to be aware of the extent to which unreasonably onerous and time-consuming DER connection application processes, lack of visibility for proponents on available network capacity, and other bureaucratic obstacles may delay implementation of (e.g.) the proposed NWA initiatives set out in the IESO DER Roadmap presentation.