Stakeholder Feedback and OEB/IESO Response

OEB-IESO Joint Engagement on DER Integration – November 27, 2023

Following the November 27, 2023, OEB-IESO Joint Engagement session, the Ontario Energy Board (OEB) and the Independent Electricity System Operator (IESO) received feedback from the following participants:

- Electricity Distributors Association
- EnergyHub
- Hydro One
- Ontario Society of Professional Engineers

The presentation materials and stakeholder feedback submissions have been posted on the IESO's 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 and OEB thank stakeholders for their input and appreciate the thoughtfulness of the feedback. The IESO and OEB have provided a summary below, which outlines specific feedback or questions for which a response was required at this time.

Topic	Feedback	Staff Response
Are there any specific DER initiatives or concerns that should receive focused attention in the OEB-IESO Joint Engagement forum?	Stakeholders identified the following areas that warrant detailed discussion: • Application of the Benefit Cost Analysis Framework (BCA Framework). • Considerations for Distribution System Operators (DSOs). • Conservation and Demand Management (CDM) frameworks. • Non-wires Solution (NWS) program best practices and/or lessons learned. • Second round of long-term request for proposals (LT2 RFP) and future procurement designs where distributed energy resources (DERs) are contemplated. • IESO's Demand Side Vision. • Additional updates on Grid Innovation Fund projects and lessons learned. • Opportunities for thermal networks.	We are committed to ensuring that topics of interest to the sector receive focused attention at the Joint Engagement sessions. At the next session planned for August 22, 2025, we intend to provide brief updates on key initiatives that our organizations are undertaking that relate to the recommendations from the Assessment of Ontario's DER Compensation Mechanisms and Recommendations (Joint Study), as well as initiatives that support DER integration more broadly, including direction that the OEB and IESO received from the Integrated Energy Plan (IEP). In light of the IEP directives received by both organizations, the OEB and IESO are considering how to best co-ordinate on public-facing DER engagements going forward.
What is your perspective on the current state of DER incentives in Ontario?	Stakeholders suggested that while there are various incentive structures in Ontario, the absence of a cohesive incentive framework leads to challenges in establishing standardized incentives across the province, as well as making it difficult to understand and access various mechanisms.	The Joint Study found that jurisdictions that employ a patchwork of mechanisms that individually promote specific technologies and/or policy goals can result in barriers to accessing the full DER value stack. The OEB and IESO recognize the importance of ensuring mechanisms function better collectively to support DER deployment and operation in ways that deliver value to both the system and participants. In that context, we will

		continue to consider opportunities to improve DER compensation mechanisms. In particular, the IEP directives ask the IESO to support an OEB review of DER valuation to provide recommendations for modifying the overall regulatory and compensation frameworks to appropriately reflect the system value of DERs.
What are the biggest challenges Ontario faces when aligning DER incentives?	Stakeholders identified the following challenges: 1. A lack of a cohesive framework and a multitude of incentive structures lead to challenges in establishing standardized incentives across the province, as well as making it difficult to understand and access various mechanisms. 2. Determining the appropriate level of incentives requires a balance between encouraging adoption, ensuring appropriate compensation for grid services and managing associated costs. 3. Some DERs are exclusively compensated for their value to the bulk system while much of the value they create exists at the distribution level. Capturing bulk and distribution system value is critical to aligning DER incentives.	As noted in the previous response, the OEB and IESO will continue to consider opportunities to improve compensation mechanism offerings. Regarding the appropriate level of compensation, the Joint Study developed a principles-based assessment framework for Ontario's DER compensation mechanisms, which considers how they can be designed to ensure an appropriate level of compensation to encourage DER adoption and deployment in ways that result in lower total costs to provide energy services. With respect to capturing bulk and distribution system value, the Joint Study recognizes the importance of providing compensation that accurately captures both value streams. Our organizations have planned work underway that will better support the sector in achieving this outcome, including the OEB's consultation on Distribution System Operator (DSO) capabilities, which is considering a policy framework for advanced capabilities to integrate, manage and optimize DERs for distribution and wholesale market services. As well, the IESO's Transmission-Distribution Working Group has been a forum where the IESO, distributors, DER providers and solution providers have been working to develop Transmission-Distribution co-ordination protocols to enable DERs to deliver both bulk and distribution system services in the operational timeframe.

		The IESO's Local Generation Program (LGP), currently being designed and planned for launch in 2026, aims to cost-effectively procure distributed generation for bulk system adequacy and in locations where they can help address regional and system needs. The LGP may allow DER providers and electricity distributors to use LGP facilities for other services. Furthermore, many elements of the IEP involving the IESO and OEB will support these efforts, particularly an OEB-led and IESO-supported review of regulatory and compensation frameworks to appropriately reflect the value DERs provide to the system, as well as explore opportunities for distributor-led DER procurements.
Which mechanisms hold the most promise for the practical and economically efficient deployment and operation of DERs?	Stakeholders suggested that the most relevant mechanisms to consider include: • Regulated Price Plans • Distribution charges • CDM programs • Pilots/demonstration programs • Distribution NWSs It was also suggested that a Total Distribution System Operator (T-DSO) model will enable full value stack compensation through the consolidation of the total grid-services suite into a single, flexible resource.	The Joint Study undertook a holistic review of mechanisms in Ontario and concluded that the province has or is in the process of developing mechanisms for supporting the practical and economically efficient deployment and operation of DERs, including mechanisms that stakeholders' comments identified as offering the greatest potential to achieve this outcome. For example, the Joint Study concluded that, relative to other jurisdictions, Ontario already has many elements of cost-reflective electricity pricing. The Joint Study also identified opportunities for improvement, and we will continue to explore opportunities to further enhance these mechanisms to support cost-effective DER adoption. Transmission-Distribution interoperability models, like the T-DSO and others, were not in scope of the mechanisms considered in the Joint Study. However, the OEB is

		taking steps to consider how it can support the efficient deployment and operation of DERs through the consultation on DSO capabilities.
Do you see any unnecessary/inefficient overlap in existing DER incentives in Ontario?	Some stakeholders suggested there may always be a need for some overlap. For example, IESO procurement of DERs (e.g., LT2 RFP) will provide a revenue stream for energy and capacity from the contracted DERs; however, these DERs will be subject to price-based mechanisms such as delivery charges, which will inform the participants' bid.	The Joint Study similarly found that there are instances where the availability of multiple mechanisms can support efficient DER deployment and operation. For example, where electricity rates alone are unable to provide efficient price signals, programmatic, procurement or wholesale energy market mechanisms may supplement the price signals. However, the Joint Study also notes the importance of evaluating how these mechanisms interact with one another to identify areas of overlap, as well as considering how they can be aligned to provide complementary, rather than duplicative, price signals. As we continue our work to support cost-effective DER integration, we will continue to consider how pricing, procurement and programmatic mechanisms can be better aligned to support this outcome.
Which principles are most critical for the success of the DER incentives?	Stakeholders suggested that supporting compensation for the full DER value stack that captures distribution and bulk system values can support the development of economically efficient incentives. A stakeholder also suggested that consideration should be given to balancing simplicity and compensation for services that are reasonably commensurate with system benefits.	As noted in a previous response, we recognize that providing compensation that accurately captures the full DER value stack, including distribution and bulk system values, can support DER deployment and operation in ways that can lower the total costs of providing energy services. Our organizations have planned work underway that will better support the sector in achieving this outcome, including the OEB's consultation on DSO capabilities. Furthermore, and as previously mentioned, the IEP has directed the OEB and IESO to study the value of DERs to consider opportunities for designing more effective compensation frameworks. We also recognize the importance of offering compensation that accurately reflects the value a DER can provide while

		ensuring mechanisms are sufficiently simple and accessible to induce participation. For example, the IESO has begun offering simplified pathways for DER participation, including allowing small customers to access demand response incentives through the Peak Perks program, and programmatic incentives for customer sited solar and storage. The IESO is also developing the LGP for distribution-connected generation facilities that is simpler to participate in than the Mid- and Long-Term Procurement pathways – yet retains competitive elements. As we continue our work to support cost-effective DER integration, we will continue to carefully consider how mechanisms can be designed so that their complexity is commensurate with the administrative capacity of their intended participants, while ensuring they continue to provide compensation that is reasonably reflective of the value their participation delivers to the energy system.
Where are the most significant gaps in "value stacking" with DERs in Ontario?	Stakeholders identified an absence of robust data and standardized methodologies for assessing value across diverse value streams, including supporting electricity distributors' economic assessment of when NWS can provide distribution system value. One stakeholder also suggested that since participation for many existing mechanisms is geared towards commercial and industrial customers, residential participation could be expanded through demand response and energy efficiency programs.	Our recently completed or planned work underway is supporting the sector's ability to assess the different value streams that DERs can deliver to the electricity system. For example, Phase One of the OEB's BCA Framework, issued in May 2024, established a standardized methodology that electricity distributors are to employ for assessing the economic feasibility of using NWS, such as DERs, to address defined electricity distribution system needs. Work is underway on Phase Two, which will provide further guidance on BCA input values and consider incorporating societal impacts. As mentioned previously, the IEP-driven and Ministry-directed DER valuation work will also contribute to assessing DER value.

		With respect to residential opportunities for DER participation, the IESO currently administers the Peak Perks program for demand response from smart thermostats. Over time, the IESO will consider opportunities to expand Peak Perks to include additional measures. The IESO's new Home Renovation Savings Program offers incentives for the purchase of smart thermostats, rooftop solar panels and battery storage systems.
Are there any specific DER technologies or applications that present unique challenges that may require more tailored incentives?	A stakeholder suggested that since EVs are primarily used for transportation, their availability to provide grid services is uncertain. However, best practices from successful EV smart charging programs in other jurisdictions can be leveraged to develop tailored incentives in Ontario.	The IESO and OEB are supporting pilot projects that can enhance the sector's understanding of how often EVs are available to provide grid services, as well as how EV owners can be incented to provide such services. Through the Innovation Sandbox Challenge, the OEB is providing funding and regulatory guidance for a pilot project testing the ability of residential customers with Level 2 EV chargers to participate in demand response events. Additionally, the IESO-OEB Joint Targeted Call for innovative proposals on DER integration is supporting a pilot project that is testing opportunities to reduce distribution system peak demand via managing residential EV charging. We will continue to consider how programs we are supporting can yield insights into developing EV incentives in Ontario, as well as explore opportunities to complement these insights with best practices gleaned from additional programs in Ontario or other jurisdictions.

Other comments on the Joint Study of DER Incentives	The OEB's Framework for Energy Innovation and BCA Framework have set clear direction for how electricity distributors should consider DERs in system planning. This direction coincides with a growth in demand for clean electricity and customers continuing to seek opportunities to be energy participants. Properly aligned incentives can drive optimal DER adoption to meet system needs on an economically efficient basis that will serve customers well and encourage their direct participation in the energy transition.	The Joint Study has contributed to a more holistic and shared understanding of DER compensation mechanisms in Ontario. This understanding can help inform future DER-related IESO and OEB initiatives, as well as help ensure that they function better collectively to support DER deployment and operation in ways that deliver value to customers. Both organizations will continue to evaluate and implement actions that supports customers' direct participation in the energy transition and facilitates efficient DER adoption in Ontario.
	In addition to the incentives under consideration, it was suggested that the Joint Study should also consider the following additional incentives: • Clean Energy Credits (CECs) • Renewable Energy Standard Offer Program (RESOP) • Clean Energy Standard Offer Program (CESOP) • Combined Heat & Power Standard Offer Program (CHPSOP)	The Joint Study was scoped to consider existing and planned mechanisms in Ontario to assess how completed and planned work can support the practical and economically efficient deployment and operation of DERs. RESOP, CESOP and CHPSOP are not active procurements administered by the IESO and are not within scope. In the context of this Joint Study, environmental benefits, including carbon reductions, were not considered to be a system benefit. As such, CECs were not considered to be a compensation mechanism to be investigated as part of the Joint Study.