

# OEB/IESO Joint Engagement on DER Integration

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May 26 2023 Update

# Agenda

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1. Recap of Joint Engagement Sessions and Joint Targeted Call
2. Discuss responses to stakeholder feedback on joint OEB-IESO study of DER Incentives
3. Update on the OEB's recent DER activities
4. Update on IESO's recent DER Roadmap activities
5. Next steps and questions for feedback

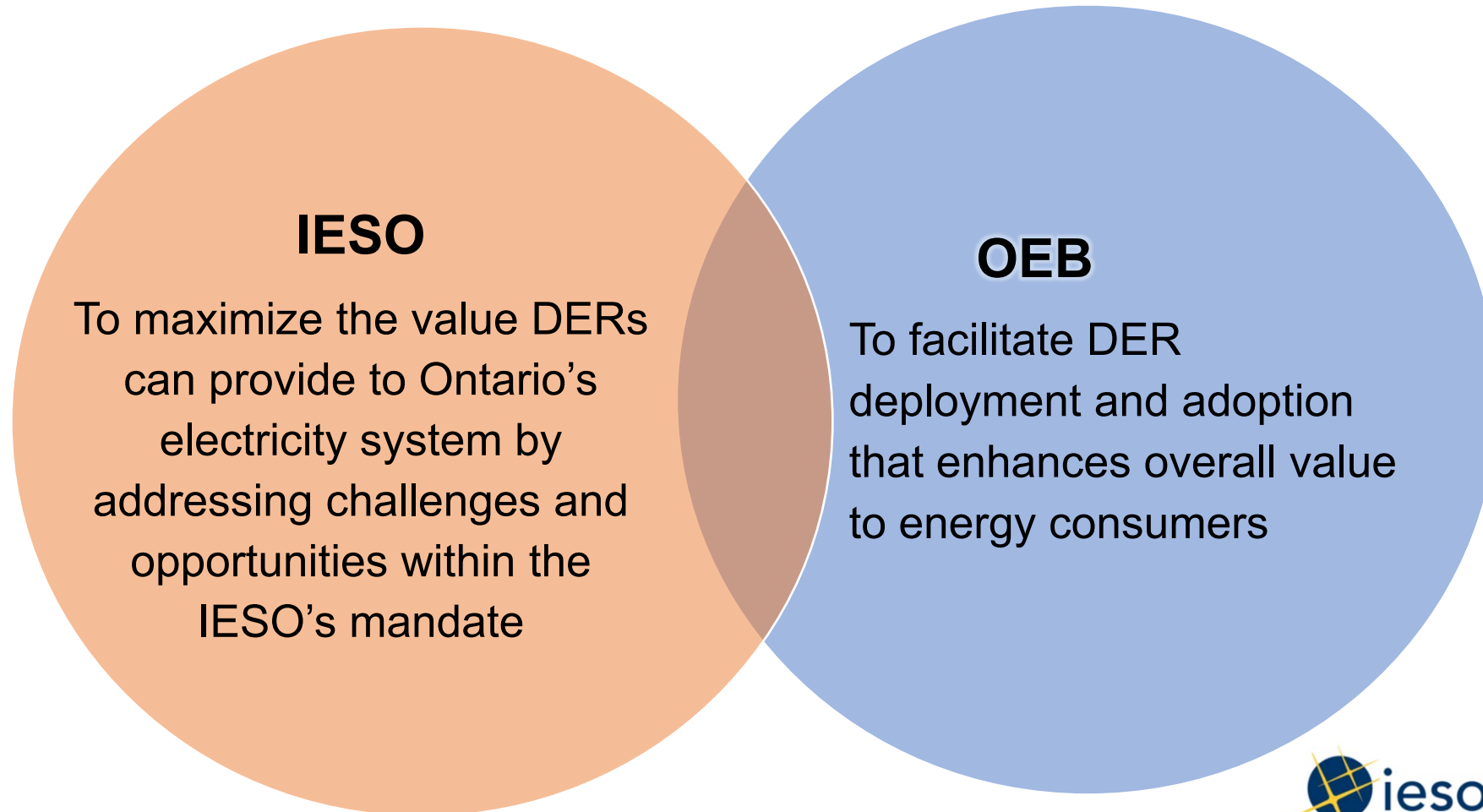
# Recap of the OEB/IESO Joint Engagement

- Response to stakeholder feedback on the need for more visible co-ordination on Distributed Energy Resources (DER) integration between the OEB and IESO
- The purpose is to:
  - Identify cross-cutting issues that would benefit from enhanced co-ordination
  - Discuss approaches to co-ordinate IESO and OEB efforts to make timely progress on DER integration efforts
  - Provide clarity on the initiatives undertaken by each organization and in what forums
- Joint Engagement (JE) sessions occur bi-annually, alternately hosted by the IESO/OEB



# Recap of OEB/IESO Goals for DER Integration

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# IESO-OEB 2021 Joint Targeted Call on DER Integration

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Topics to be tested by Joint Targeted Call projects:

- Capabilities of DERs and aggregations to provide grid services
- LDC's role/capability as a Distribution System Operator (DSO) using both the total DSO model and hybrid model
- Transmission-distribution co-ordination and communication protocols
- Telemetry, metering and settlement of DERs/DERAs and alternative measurement and verification approaches
- Potential for DERs as a non-wires alternative (NWA) to be used to defer or avoid system upgrades

Status Update:

- Several projects have submitted their first milestone including activities such as market rule design, program design, development of measurement and verification techniques, participant recruitment, software development and asset installation
- Testing scheduled between Q2 2023 and Q2 2025
- OEB and IESO are planning to publish an Interim Report

- **7** successful pilot projects announced
- **5** projects receiving regulatory guidance
- **\$17.2M** IESO contribution
- **\$56.4M** total project value

# Cross-Cutting Issues Recap

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- Originally presented at the October 2021 OEB-IESO Joint Engagement session, and updated at the April 2022 session, the identified cross-cutting issues are:
  1. Pricing, programs & procurements interactions
  2. Evolution of distribution-level activities and services
  3. DER as (NWAs)
  4. Data and information sharing
  5. Transmission-Distribution operations coordination
- At today's session, we will be focusing on item #1 to provide an update on forthcoming joint IESO-OEB Study of DER Incentives

# Pricing, Programs & Procurements (3 Ps) Interactions

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- Cross-cutting issue: advance the range of financial incentives for DERs towards functioning better collectively
  - producing more economically efficient outcomes
  - enabling greater/easier access to incentives
  - enabling a more complete set of incentives
  - ensuring incentives do not at work cross purposes
- Investment in, and operation of, DERs can be incentivized by pricing (e.g., TOU pricing, critical peak pricing), procurements (e.g., RFPs, capacity auctions) and programs (e.g., Save on Energy)

# 3 Ps Interactions – Update on Related Initiatives (1/3)

There are several OEB and IESO initiatives that relate to this cross-cutting issue

## IESO's DER Potential Study (September 2022)

“Some misalignment between the mix of DERs identified in the economic potential and the DERs forecasted to be achievable... findings shed light on circumstances where wholesale price signals and retail price signals neither align with each other nor with economic value of DERs.”

## IESO's DER Market Vision and Design Project

Developing enhanced participation models for DERs in the IESO-Administered Markets



# 3 Ps Interactions – Update on Related Initiatives (2/3)

## Conservation and Demand Management (CDM) Framework

Recent amendments to 2021-2024 CDM Framework directive to increase the budget to enable the IESO to deliver additional programs

## Interruptible Rate Pilot

August 2022 letter from the Minister of Energy asked the IESO to work with the Ministry to design a three-year pilot targeted towards certain large load customers in order to help reduce demand during peak periods

## IESO Province-wide Residential Smart Thermostat Program

The IESO will be launching a program this year to leverage smart thermostats to reduce peak demand on the provincial electricity grid.

# 3 Ps Interactions – Update on Related Initiatives (3/3)

## Ultra-Low Overnight (ULO) Price Plan

OEB enabled electricity distributors to begin offering the ULO price plan to residential and small business customers by May 1, 2023, with all distributors expected to offer the price plan by November 1, 2023

## Framework for Energy Innovation

OEB is facilitating the integration and use of third-party DERs (as NWAs) by distributors. This work includes providing incentives for distributors to use third-party DER solutions and development of a benefit cost analysis for DERs.

# Joint Study of DER Incentives - Recap

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At the November 2022 Joint Engagement session, we proposed a joint study of financial incentives for DERs in Ontario, and invited feedback to support scoping

## Joint Study Objectives

Better understand how financial incentives function collectively to ensure they are not working at cross-purposes and are achieving the most efficient outcomes

Develop recommendations for improving the efficiency of DER incentives

Apply learnings to related IESO and OEB programs and policies that are under development

# Joint Study of DER Incentives – Stakeholder Feedback

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We received six submissions and at a high level, we heard the following:



Consider a broad range of factors that could be considered incentives or disincentives to DERs



Address DER value streams and approaches for compensation



Acknowledge the importance of simplicity, stability and predictability in the design of incentives



The study should be solutions-oriented (as opposed to theoretical) and have a focus on implementation

Complete feedback and responses are posted on the IESO's DER Roadmap engagement page

# Joint Study of DER Incentives – Update and Scope 1/3

- We have enlisted the Brattle Group to work with IESO and OEB staff to conduct the study and have developed the scope in consideration of stakeholder feedback
- The study has been structured into five tasks:

## 1. Categorization and overview of DER incentive mechanisms in Ontario

- **Prices** – participant revenues and/or bill savings based on rate-design (e.g., TOU rates, ICI, HOEP, MCP)
- **Procurements** – for supply and resource adequacy and reliability (e.g., capacity auction, RFPs, feed-in-tariffs, etc.)
- **Programs** – CDM programs, Transmission/Distribution NWAs, etc.

## 2. Overview of DER Incentives

- Identification and assessment of mechanisms in other jurisdictions

# Joint Study of DER Incentives – Update and Scope 2/3

## 3. Development of a Conceptual Framework for DER Incentives

- Developing principles and methodologies to consider in the development of a framework to assess both existing and new DER incentives
- Identifying value streams for DERs
- Developing a method for comparing consumer and system value across different types of incentive mechanisms

## 4. Gap Analysis for Ontario DER Incentives

- Ontario's incentives will be compared against the consumer/system value provided by DERs
- The effectiveness of major incentive mechanisms will be explored
- Gaps/overlaps in incentive mechanisms will be identified that should be addressed

# Joint Study of DER Incentives – Update and Scope 3/3

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## 5. Recommendations for Ontario's DER Incentives Framework

- The results of the gap analysis will be used to provide an assessment of the actions that could be taken in Ontario to improve the effectiveness of DER incentives in Ontario
- A range of recommendations will be provided, from those that provide the highest value to the system (and are thus a higher priority), to other changes that improve alignment of incentives

# Joint Study of DER Incentives – Next Steps

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- We intend to make public a final report describing the results of this joint study by the end of 2023
  - This report will provide recommendations for existing DER incentives as well as those in development and/or newly considered
  - The IESO and OEB plan to provide updates on this project in the Summer of 2023 and again in winter 2023/24
  - Feedback will be solicited in the Summer session for consideration in the development of the final DER Incentives Report



# Stakeholder Feedback

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- Are there any new potential cross-cutting issues related to DER integration that should be considered for collaboration between the OEB/IESO? If so, how would you like to see these issues addressed at future sessions?
- How well are the objectives of this Joint Engagement being achieved (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 co-ordinated)?
- Given the scope of work, are there any specific initiatives or concerns that should receive focused attention?
- Was today's session useful? How can we improve the next session?

Please use the feedback form found on the IESO [DER Roadmap webpage](#) to provide feedback and send to [engagement@ieso.ca](mailto:engagement@ieso.ca) by **June 26, 2023**

# Thank You

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