

OEB Updates on DER Integration Work

OEB/IESO Joint Engagement on DER Integration

May 26, 2023

OEB Policy Initiatives

1. Framework for Energy Innovation (FEI) Next Steps
2. Conservation Demand Management (CDM) Guidelines
3. Electric Vehicle (EV) Integration
4. Distributed Energy Resources (DER) Connections Review
5. Energy Transition Roadmap
6. Regional Planning Process Review (RPPR)

Framework for Energy Innovation Overview

Consultation objectives

Facilitate DER adoption in ways that enhance value for customers

Clarify regulatory treatment of innovative solutions

Workstreams

DER Usage
(distributor use of third-party DERs as Non-Wires Alternatives)

DER Integration
(DER adoption factored into distribution planning)

Overview of OEB Report on FEI

Establishes OEB policy and next steps for:



Expectations of distributors with respect to DERs



Benefit Cost Analysis (BCA) Framework for DER solutions



Incentives for distributors to use 3rd party DER solutions

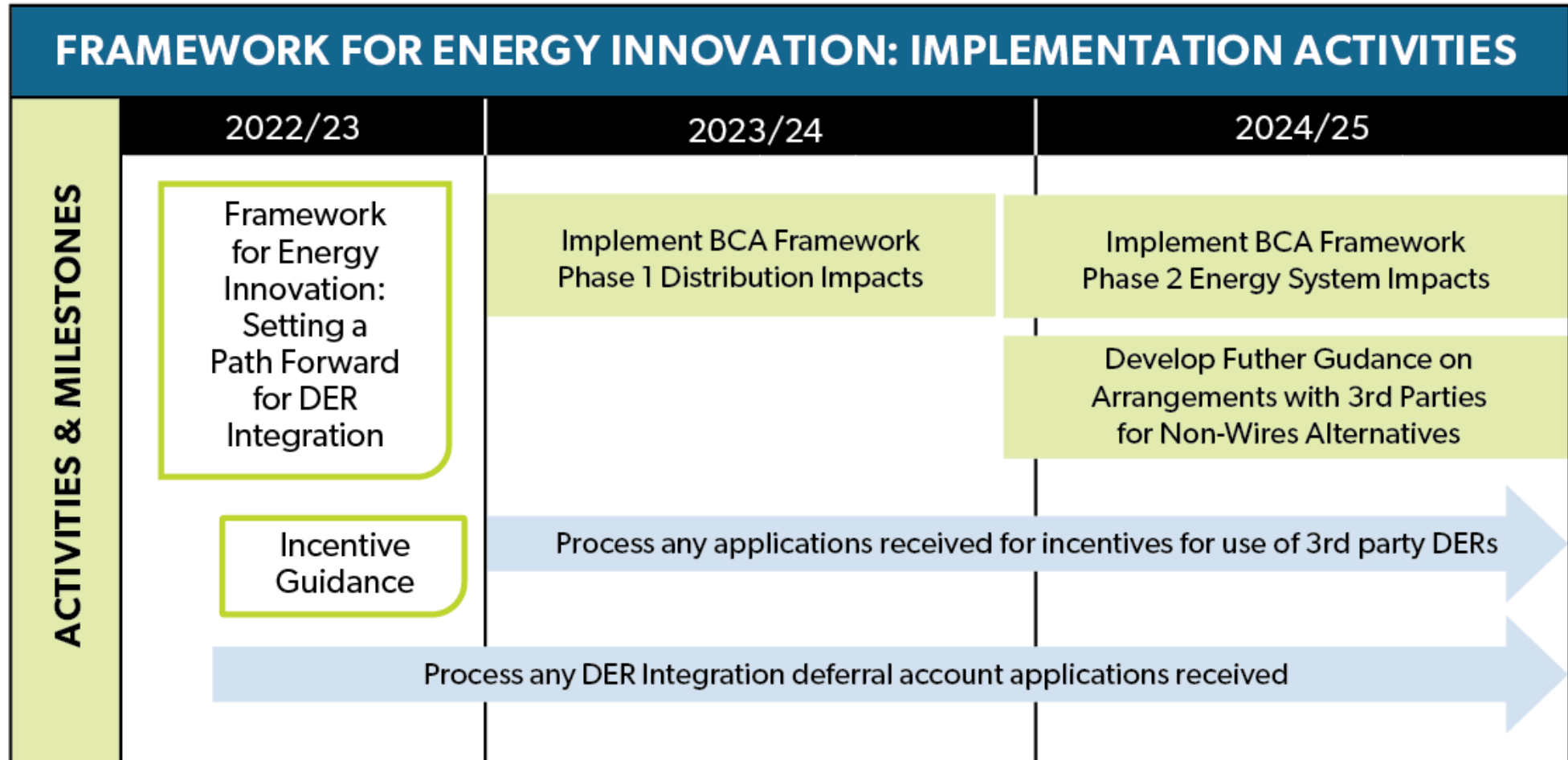


Further guidance on non-wires alternatives (NWAs)

Concludes FEI consultation:

Implementation work and consideration of subsequent, related issues will be carried out through separate initiatives, reflected in the OEB's Energy Transition Roadmap.

FEI: Next Steps & Implementation



CDM Guidelines – Linkage to FEI

- **CDM Guidelines** set expectations that distributors will consider whether CDM activities (broadly defined to cover most DERs) may be a preferred approach to meeting a system need, thus avoiding or deferring spending on traditional infrastructure, and enable distributors to seek distribution rate funding for CDM activities
- CDM Guidelines were updated in December 2021, when FEI was at an early stage
- The OEB plans to convert the CDM Guidelines into “Consolidated guidance for non-wires alternatives,” incorporating FEI work to provide comprehensive guidance on the use of DERs and CDM, as NWAs by distributors
 - Prior to this update, both the existing CDM Guidelines and any additional guidance arising from FEI will be taken into consideration by the OEB in reviewing rate applications from distributors

CDM Guidelines – Co-ordination with IESO CDM

- Minister’s Letter of Direction to OEB (October 2022) requests *“that the OEB work with the IESO to reduce barriers, to the extent practicable, for LDCs that wish to deliver CDM activities through distribution rates to address local distribution level electricity needs. This will help guide the co-ordination of LDCs’ CDM activities with IESO-led CDM programs in the cases where the distribution level benefits coincide with provincewide system benefits.”*
- IESO-distributor working group **is** currently discussing CDM opportunities for distributor involvement/co-ordination with IESO-led CDM programs
- OEB will consider any proposals arising from this working group as to whether any changes to the CDM Guidelines or other OEB actions would assist in reducing barriers to distributor CDM activities

EV Integration: Need for Action

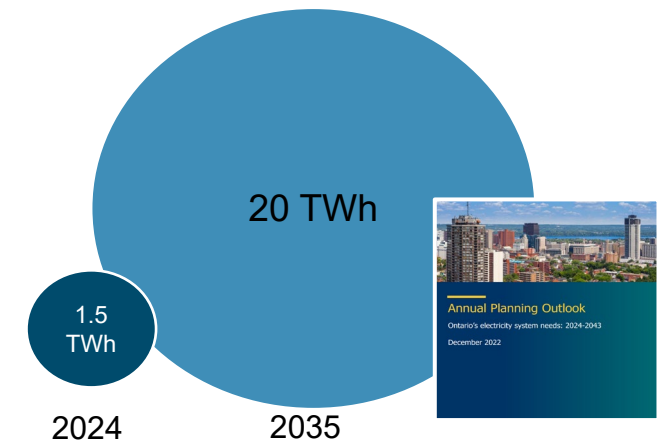
Background

The Minister of Energy's 2021 and 2022 Letters of Direction requested the OEB to **facilitate the efficient integration of EVs** into the electricity system

Updates

- Released EV Survey Report to engage with LDCs and EV charging service providers
- Released a report examining electricity delivery rates for public EV fast-charging stations and commercial EV fleets
- Tranche 5 of the DER Connections Review is considering approaches to addressing EV charging connection issues in response the Minister's Letter of Direction

Transportation Sector Annual Electricity Demand



EV Integration: EV Survey Report

Distributor Feedback (35 responses)

Interest in improving visibility of EV connections

Interest in understanding treatment of NWA solutions for meeting new demand from EVs

Interest in improving ability to forecast demand from increased EV adoption

Interest in customer education

EV Service Provider Feedback (7 responses)

Obstacles to bidirectional chargers include:

- Challenges identified in demand charges for low utilization sites;
- Reported opacity in timelines;
- Reported variation in connection processes; and,
- Concerns related to connection costs.

EV Integration: EV Delivery Rates

Delivery Rates for EV Charging Report

Released on April 13, 2023, this report examines the impact of **electricity delivery rates** on **commercial EV charging**, reviewed EV delivery rates in other jurisdictions, and analyzed and evaluated alternative delivery rate designs for commercial EV fleets and public direct current fast charging stations

Time-of-use (TOU) demand charge option explored may provide savings to customers with a low peak demand during daytime on-peak hours

Low load factor delivery rate option explored could provide savings to customers with low total consumption relative to their peak demand

Next Steps

Stakeholder meeting on May 24 and written stakeholder feedback due June 7

DER Connections Review

Background

Initiated in 2019 to **identify regulatory barriers** for DER adoption and **opportunities to streamline the DER connection process**

Broadened in 2023 to consider EV charger connections to align with the Minister's Letter of Direction

Working Group continues to provide recommendations that may result in Distribution System Code (DSC) amendments or other changes to requirements

Objectives

Identify and **remove regulatory barriers** to help mitigate challenges to DER and EV adoption

Improve clarity of application of rules to all DERs and EVs

Ensure **process efficiency** through streamlining of activities, where possible

Address questions related to **costs responsibility** for DER/EV charging station connections

DER Connections Review: Updates Since Fall 2022

DSC and RRR Amendments (March 2023)

- DSC Amendments to implement Tranche 4 recommendations related to capacity deposits, capacity allocation exemptions and connection deposit refund requirements
- RRR Amendments to further breakdown DER data to gain insight into the progress of Ontario's energy transition

DER Subgroup Activities

- Risk Framework Small Group developing plan to revise preliminary assessment forms for connecting DERs
- Capacity Sharing Small Group discussing approaches to allow higher DER penetration
- Interconnection Considerations Small Group reviewing challenges associated with multiple small DER connections

EV subgroup Activities

- Members identified three key issues and potential approaches for these issues:
 - Residential EV charging connection
 - Non-residential EV charging connection
 - 480V for EV fast charging stations

DER Connections Review: Next Steps

2023

2024



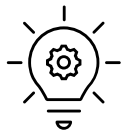
Complete assessment of EV charging connection issues and make recommendations related to any improvements in requirements



Continue work under the DER Capacity Sharing and Interconnection Considerations Small Groups



Implement accepted recommendations through further modifications to DSC, DERCP, and RRR, as appropriate



Rollout of new forms developed under the Risk Framework



Potential use of OEB Staff Guidance documents to clarify cost responsibility issues

OEB Energy Transition initiative

The goal is to clarify the OEB's role in supporting the energy transition and to ensure that our work is aligned with the priorities of our stakeholders

The energy transition is underway and the OEB has undertaken important work in response

The OEB invited stakeholders to complete a poll to share their perspectives on which issues related to the energy transition and innovation that it should focus on next



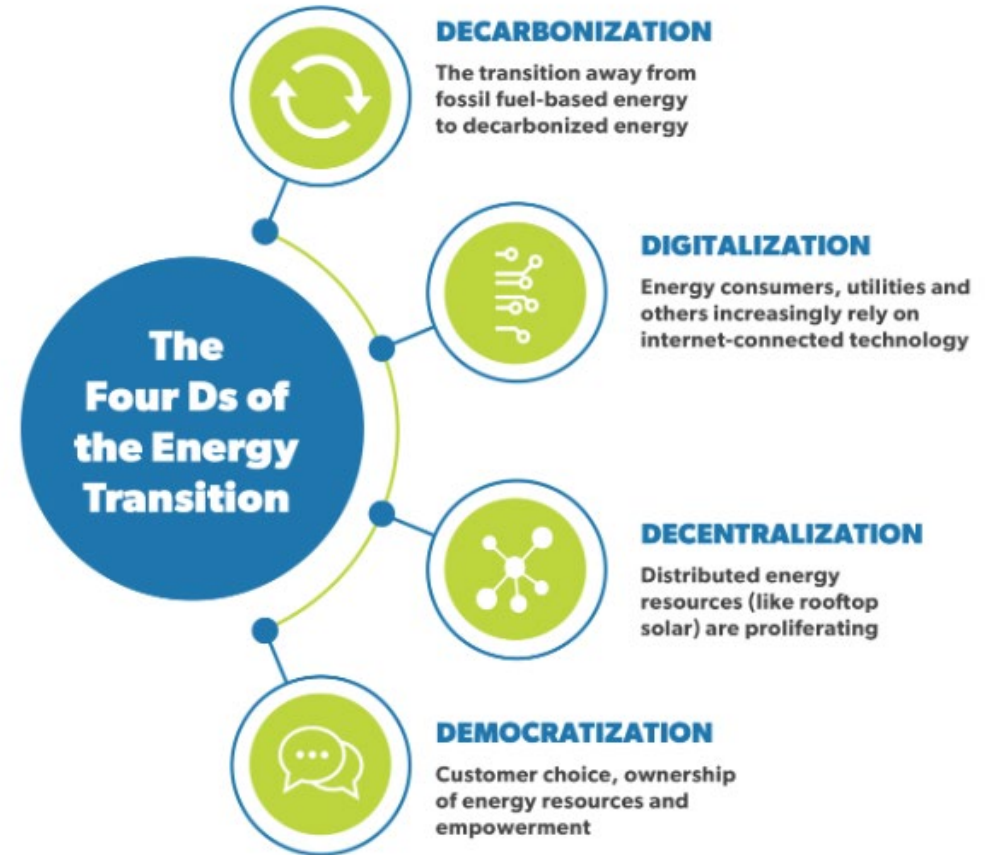
Feedback is reflected in the priorities set out in our ***Energy Transition Roadmap***, which is included in our approved [2023-26 Business Plan](#)

OEB Energy Transition Page

Sharing information

'One-stop shop' for stakeholders to learn about the energy transition and the OEB's work to support the transition

Visit the Energy Transition Page for a closer look at the [Energy Transition Roadmap](#)



Regional Planning Process Review (RPPR): Overview

- **December 2020** – The [OEB initiated a consultation process](#) to undertake a review of the regional planning process. Primary purpose of review is to improve the efficiency and effectiveness of current process, which was originally instituted by the OEB in 2013 to ensure optimal investments
- **January 2021** – The OEB [re-established](#) its Regional Planning Process Advisory Group (RPPAG) to assist in this review - comprised of LDCs, Hydro One, IESO and other stakeholders representing DER / Non-Wire developers, municipalities, consumers & natural gas utilities.
- **December 2021** – The RPPAG provided its [Report to the OEB](#), which included recommendations for the OEB's consideration that are intended to improve current regional planning process
- **April 2022** – The OEB issued a [letter](#) with its response to the RPPAG's recommendations and an **implementation plan** in relation to those that require OEB to take action. The OEB also endorsed the recommendations that require RPPAG action

RPPR: Update & Next Steps (1/2)

- The November 2022 Session identified two RPPAG recommendations that were implemented and are expected to facilitate NWA solutions
 - ✓ Update to CDM Guidelines – expanded scope to include *transmission* infrastructure deferral
 - ✓ [New Bulletin](#) – clarifies a local community may choose an alternative solution to the solution identified through a distribution/regional planning process to meet a need, based on *local preference* (e.g., DER, rather than wires)
- The OEB recently took another step towards completing its implementation plan
 - ✓ [Proposed Code Amendments \(March 24th\)](#) – Intended to better ensure all **end-of-life (EOL)** major transmission voltage assets are identified in regional planning process to facilitate consideration of non-wire alternative (NWA) solutions as replacement
 - ✓ Would require 10-year outlook from transmitters and applicable LDCs to provide appropriate lead time to assess NWAs

RPPR: Update & Next Steps (2/2)

- The RPPAG produced a [Municipal Information Document](#) to help build municipal awareness of the regional planning process and identify information that distributors need from municipalities (e.g., EV penetration, etc.) to improve **accuracy** of load forecasts
 - ✓ Builds on [Load Forecast Guideline](#) that RPPAG produced to increase **consistency** among distributors, Hydro One and IESO in preparing load forecasts across Ontario – DERs are a sensitivity driver
- Next steps to complete Implementation Plan:
 - **Finalize Code Amendments** related to **EOL** major transmission voltage assets (after considering stakeholder comments)
 - **Consider RPPAG recommendation to amend IESO's licence**
 - Add obligation to make *planning information* available to stakeholders, and;
 - Address scenario involving a *material change* during last stage in planning process (focused on wires) that triggers reassessment of NWAs as potential solutions

Thank You

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