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Overview of DER work at IESO

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Introduction

- The purpose of this presentation is to provide the Regional Planning Process Advisory Group with an update on current and planned IESO efforts on Distributed Energy Resource (DER) integration as it relates to the IESO-controlled grid and the wholesale market

IESO Focus Areas

As part of its mandate, the IESO has an important role to play in integrating DERs in Ontario. The IESO's focus is on the following areas:

1. Non-Wires Alternatives (NWAs) – The IESO will implement the recommendations identified in the Regional Planning Process Review to support consideration and identification of feasible NWA solutions to meet needs
 - Per the IESO's accountability for regional planning
2. Wholesale Market Integration – The IESO will seek to expand competition by enabling DERs to compete to provide wholesale services
 - Per the IESO's accountability for administering the wholesale electricity market
3. Transmission-Distribution (T-D) Interoperability – The IESO will work with others in the sector to ensure there is appropriate T-D coordination to deliver a reliable and efficient supply of energy to Ontarians
 - Per the IESO's accountability to maintain reliability of the IESO-controlled grid

DER Roadmap

- In June 2021, the IESO will begin to engage with stakeholders on the development of a DER Roadmap (Roadmap) that will identify IESO objectives, initiatives and timing for DER integration
- The Roadmap will provide clarity to stakeholders on the IESO's path forward and can be used as a tool to help ensure coordination across the sector
- The Roadmap will be developed with stakeholder input and with regards for other key IESO initiatives (e.g. Resource Adequacy and Enabling Resources)
- The Roadmap will capture work associated with each of the identified focus areas, elements of which are captured in the following slides

Non-Wires Alternatives

Key Past Initiatives

Regional Planning Process Review (RPPR) – review of the regional planning process, including identifying barriers to NWAs and development of recommendations to alleviate barriers

Key Planned Activities

Undertake RPPR actions identified for the IESO including: developing tools and methods to support need characterization and options development; formalizing processes for screening and evaluating NWAs; exploring procurement and operationalization of NWAs; investigating mechanisms for locally targeted energy efficiency; etc.

Wholesale Market Integration

Key Past Initiatives

Aggregated hourly demand response (DR) has been enabled in IESO's Capacity Auction; recent [IESO whitepapers](#) have explored opportunities and options for expanded DER participation in wholesale markets

Key Planned Activities

Pilot projects aimed at demonstrating DER capabilities and testing concepts identified in DER whitepapers; DER Potential Study to better understand what DERs are likely to emerge and implications for the bulk system; DER design scoping engagement to develop a vision for future market integration efforts

Transmission-Distribution (T-D) Interoperability

Key Past Initiatives

[IESO York Region NWA demonstration](#) is exploring a framework for T-D interoperability through a local capacity auction to acquire resources to provide non-wires value while coordinating with the wholesale market; recent [IESO whitepaper explored T-D frameworks](#)

Key Planned Activities

Year 2 of York Region NWA demonstration; DER design scoping engagement to explore foundational questions for T-D interoperability based on market participation options; continued engagement and coordination with broader sector

Next steps

- DER Roadmap engagement to begin at June IESO engagement days, interested participants are invited to register by visiting the [engagement days webpage](#) in early June or by emailing engagement@ieso.ca indicating your interest in the DER Roadmap
- Building on stakeholder feedback, IESO has [expressed its desire](#) for increased IESO/OEB coordination on DER integration efforts and is working with OEB staff to identify opportunities
- IESO will participate in the OEB's Framework for Energy Innovation working group as a step towards increased coordination

Thank You

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