

**JULY 27, 2023**

# IESO's York Region Non-Wires Alternatives (NWAs) Demonstration Project

Distributed Energy Resources (DER) Scenarios and Modelling Study

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# Purpose of Today's Engagement

Electricity Research Power Institute (EPRI) will present the findings of the draft DER Scenarios and Modelling Study, which is focused on transmission-distribution (T-D) coordination in the context of the York Region Non-Wires Alternatives (NWAs) Demonstration

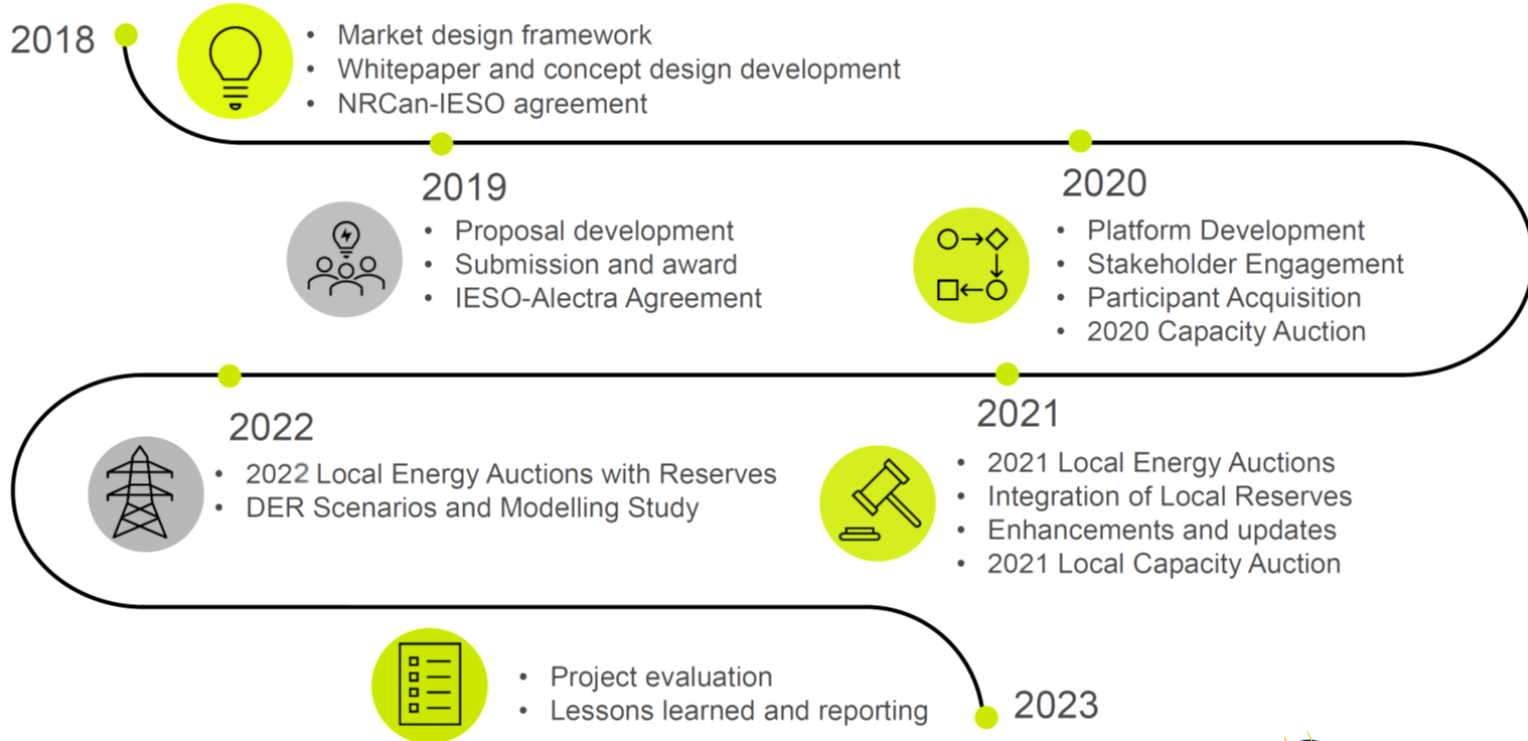
# Agenda

1. Overview of IESO's York Region NWAs Demonstration Project
2. EPRI presentation on DER Scenarios and Modelling Study
3. Feedback questions and next steps

# Demonstration Overview

- Funded by Natural Resources Canada and the IESO with Alectra Utilities as delivery partner
- Contributes to sector evolution and T-D coordination topics
- Capacity, energy, and reserves services were secured using auctions
- Distribution system operator (DSO), Alectra Utilities, uses DERs as NWA
- Employs a Total DSO model, where the DSO manages local services and acts as a “DSO aggregator” in the wholesale market
- Simulated reliability needs; real services, auctions and DER operations
- 10-15 MW of flexible DER were activated throughout May-Oct 2021 and 2022

# Demonstration Activities Timelines



# DER Scenarios and Modelling Study

- A goal of the York Region NWA Demonstration is to evaluate coordination among IESO, a DSO, and DER participants or aggregators
- The process steps, activation logic, and prices in the demonstration contemplated a Total DSO coordination protocol
- The DER Scenarios & Modelling Study details the coordination of select grid services under the Total DSO as well as Dual Participation models
- The study will also help inform the IESO's [Transmission-Distribution Coordination Working Group](#) (TDWG)

# Feedback Questions (1/2)

Stakeholder feedback sought includes:

1. What do you see as the benefits and challenges associated with DERs "stacking" distribution and wholesale services?
2. In your assessment, how significant is the opportunity to use DER as NWA (i.e., providing distribution services to defer traditional distribution investments)? What do you expect the scale and pace to be?

## Feedback Questions (2/2)

Stakeholder feedback sought includes:

3. Do the protocols outlined in the study provide sufficient detail and clarity in order to further evaluate the coordination models? What additional details and/or protocols (if any) would be beneficial?
4. Does the study's modelling component provide sufficient assurance of the feasibility of using DER for distribution and wholesale services? What additional modelling (if any) would be beneficial?



## Next Steps

- Please use the feedback form found under the July 27, 2023 entry on the IESO's York Region NWAs Demonstration [engagement webpage](#) to provide feedback and send to [engagement@ieso.ca](mailto:engagement@ieso.ca) by August 17, 2023
- IESO will work to consider and incorporate comments as appropriate in the final DER Scenarios and Modelling Study report
- Demonstration Project's lessons learned reporting and stakeholder engagement webinar forthcoming in Q3, 2023

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# Thank You

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