



Today's Agenda

The agenda for today's meeting is:

- Introduction materials ('housekeeping') [15 min]
- B1: Update on user journeys and gap analysis between existing capabilities of LDC and expected DSO capabilities [30 min]
- B3: Debrief of workshop on functional and business requirements of the shared platform
 [30 min]
- Break [15 min]
- DER provided grid services [1.5 hr]

As usual, TDWG will have an opportunity to provide feedback during and following the meeting.

Action Log

Date	Action	Resolution	
Dec 8, 2023	B2 – Hydro One to follow up on use of future method of communication	Presented Jul 26	
Jul 26, 2024	IESO to circulate meeting notes among TDWG members by Aug 2	Sent Aug 2	
Jul 26, 2024	TDWG members to provide comments via feedback form and send to engagement@ieso.ca by Aug 16	None received	
Jul 26, 2024	IESO to post all meeting materials to the TDWG webpage by Aug 23	Posted Aug 23	
Nov 25, 2024	IESO to circulate meeting notes among TDWG members by Dec 2		
Nov 25, 2024	TDWG members to provide comments via feedback form and send to engagement@ieso.ca by Dec 16		
Nov 25, 2024	IESO to post all meeting materials to the <u>TDWG webpage</u> by Dec 23		



TDWG Overview (Recap)

- T-D coordination is needed to better integrate distributed energy resources and aggregators (DER/A) in the IESO's wholesale market and system operations as well as in distribution networks
- Local distribution companies (LDCs), DER/A participants, and IESO will need to share information in a timely manner and ensure there is sufficient awareness (e.g., with respect to outages, limits on DER/A, and dispatch of DER/A, etc.) among the parties
- In this context, the IESO launched the Transmission-Distribution Coordination Working Group (TDWG) in 2022 to work closely with LDCs and other stakeholders
- TDWG's objective is to support the development of operational coordination protocols
- The coordination protocol(s) are expected to form the basis of new rules and/or manuals for the IESO's wholesale market that will support the DER/A participation



T-D Protocol Scenarios (Recap)

- The protocols will detail the actions to be taken and data to be shared by the parties, ensuring the effective and reliable operation as DER/A:
 - participate in IESO's wholesale market (i.e., day-ahead and real-time markets post-MRP*)
 - may provide services to the distribution system as non-wires alternatives (NWA)
- The TDWG aims to outline operational coordination for the following scenarios:
 - DER/A providing
 wholesale services
 as per the IESO
 Market Vision Project
- 2. DER/A providing services to the distribution system as **distribution NWAs**
- 3. DER/A that provide **both** wholesale and distribution **services**
- DERs that are not actively participating in any services



^{*} Market Renewal Program (MRP)

Past TDWG Meetings

Mtg #	Date	Major Topic(s)	
1	Jan 2022	Introductory and background materials	
2	May 2022	T-D definition and coordination models	
3	Jun 2022	Override, outage, and IESO market processes	
4	Sep 2022	New York's coordination manual	
5	Nov 2022	Draft protocol for a Dual Participation model	
6	Feb 2023	Draft protocol for a Total DSO model	
7	Jun 2023	DSO operational functions workshop	
8	Oct 2023	Draft Deliverables statements of work	
9	Dec 2023	B2. Current state of communication B4. Definitions Workshop	

Mtg #	Date	Major Topic(s)
10	Dec 2023	B1. Functional Assessment A. T-D Reliability for Bulk Power System
11	Feb 2024	B1. User/Process Journey Mapping
12	Mar 2024	A. Distribution Reliability Overview B2. Telemetry Requirements for DERs
13	Apr 2024	B2. IAM Communication Interfaces B3. Shared Platform Concept - Market Intel
14	May 2024	A. Draft Service Stacking ProtocolsB1. User/Process Journey MappingB4. Working Terms & Definitions
15	Jul 2024	A. Draft Service Stacking Protocols A. Swim Lane Diagrams Walkthrough B2. Future State of Communication



TDWG Expected Deliverables

By the end of Q1 2025, the TDWG will work to achieve the following:

Deliverable	Description	Leads	Sub-Group
A. Coordination Protocols	Develop implementation-ready protocols for three DSO coordination models (Total, Dual Participation and Market Facilitator DSO models)	IESO	Hydro One, Essex, Alectra
B1. Functional Assessment	Analyze distributors' operational functions, capabilities, and costs across multiple dimensions	Toronto Hydro + Alectra	Elexicon, Rodan, NSWG*, IESO, Powerconsumer
B2. Communication Assessment	Map coordination interfaces and data exchanges for each coordination model	Hydro One	Alectra, Essex, IESO, NSWG
B3. Shared Platform Concept	Develop concept for a "one-stop" shop data sharing platform for coordination	Alectra	Hydro One, IESO, Rodan, Powerconsumer
B4. Architectural Assessment	Assess coordination models from market design, architectural, and flexibility perspectives	IESO	Essex, Alectra, Rodan

^{*} Non-wires Solutions Working Group (NSWG), represented by Power Advisory



Mtg #16 Feedback Questions

For B3. Debrief of workshop on functional and business requirements of the shared platform

- 1. Do you have any additional feedback to the data inputs identified in the workshop?
- 2. Do you have any additional feedback on what components should be captured within in administrative and coordination and market components of the shared platform requirements documentation?

Please use the feedback form found under the Nov 25, 2024 entry on the <u>TDWG webpage</u> to provide feedback and send to <u>engagement@ieso.ca</u> by Dec 16, 2024.



Thank You

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