



OCTOBER 27, 2023

# TDWG Meeting #8 Introduction

Ali Golriz  
Lead, System & Sector Development

# Agenda & Goal for Today's Meeting

- Introduction materials ('housekeeping') [30 min]
- 5 Deliverable Statements of Work (SOWs) [2 hours]

The goal of today's meeting is to walk through draft SOWs and seek the TDWG's feedback. Each of the Deliverables leads will briefly present their SOW (15 min walkthrough + 5 minutes of questions/discussion per SOW).

# 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

- 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:

1. 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**

4. DERs that are **not** actively **participating** in any services

\* Market Renewal Program (MRP)

# Past TDWG Meetings

Meeting #	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

# TDWG Expected Deliverables

By the end of 2024, the TDWG will work to achieve the following:

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

# DER Scenarios & Modelling Study - Update

- Draft 'DER Scenarios & Modelling Study - Procuring Grid Services from DER' [report](#) was posted to the York Region Non-Wires Alternative Demonstration stakeholder [engagement page](#)
- A webinar was held in July and the recording is available
- EPRI finalizing the report, capturing stakeholder and final IESO/Alectra feedback
- EPRI is also producing three 'technical briefs' that will be shorter and more digestible based on the full study report
- Expecting to post final study report and the technical briefs in November 2023

# Mtg #7 Feedback – TOR, Deliverables, Work Plan [1/2]

Feedback	IESO Response
'Implementation-ready' protocols must be defined.	Thank you. There is some language that expands on what the term is intended to mean in the Terms of Reference (TOR). Regardless, we will include it in the list of terms to define as part of the first package of Deliverable B4 Architectural Assessment.
There should be shorter and more frequent TDWG meetings.	Monthly meetings will be scheduled for the first half of 2024. Following that, we can re-assess the appropriate meeting frequency as a working group, considering the need for additional TDWG review/discussion on work packages to draft the Deliverable reports.



# Mtg #7 Feedback – TOR, Deliverables, Work Plan [2/2]

Feedback	IESO Response
Why does the IESO need one week to publish meeting notes?	IESO staff will aim to circulate meeting notes sooner but will retain the 1-week commitment in the TOR to allow a short internal review cycle and accommodate other non-TDWG required work.
IESO should consider co-leads with LDC representatives for each of the Deliverables it is leading.	LDC representatives have been included as part of sub-groups for the two Deliverables the IESO is leading, and can provide guidance and input into the work.

# Mtg #7 Feedback – Recording/Transcribing Meetings

Feedback	IESO Response
Feedback included mixed responses for and against recordings and/or transcriptions.	The IESO team is open to either approach. However, we will only consider recording meetings if there is consensus and comfort among TDWG members. Given the mixed responses, we will not start recording meetings at this time.
IESO should provide its resources to each Deliverable workstream team lead for recording and transcribing.	As noted previously, Deliverable leads are responsible for dedicating sufficient staff, subject matter experts, and other necessary financial/non-financial resources to ensure timely submission of high-quality Deliverables.

# Mtg #7 Feedback - Proposed Deliverables

Feedback	IESO Response
<p>Deliverables are ambitious but manageable. Dependencies can be mitigated with collaboration across Deliverables leads.</p>	<p>Thank you for the feedback.</p>
<p>TDWG members must have opportunity to review each SOW and its timeline. Deliverables should have stage gates for TDWG feedback.</p>	<p>Agreed. The focus of TDWG meeting #8 is reviewing SOWs. The SOWs are broken down by work packages that will be shared piecemeal with the TDWG for review throughout 2024.</p>
<p>There are opportunities to make use of GIF pilot projects to inform the Deliverables. IESO should facilitate opportunities to share GIF learnings.</p>	<p>Agreed. The IESO team will work with GIF project proponents to arrange presentations to the TDWG as learnings become available.</p>

# Mtg #7 Feedback - Other Deliverables

Feedback	IESO Response
<p>The Deliverables seem adequate, covering the different aspects of transmission-distribution coordination with the exclusion of regulatory framework.</p>	<p>Thank you for the feedback.</p>
<p>Prioritize distribution visibility needs/investments in Deliverables, i.e., what are requirements for LDCs to monitor their system near real-time. Visibility is needed regardless of model.</p>	<p>Visibility needs/investment are captured in-depth in both Deliverable B1. Functional Assessment and B2. Communication Assessment. TDWG members are invited to provide feedback on the SOWs.</p>
<p>Each workstream needs to consider the future state of the regulatory framework and not the current state of today's market. The definition of DSO requires consensus.</p>	<p>As per TDWG's TOR, different coordination models will be explored even if not enabled in today's environment. The first work package of Deliverable B4. Architectural Assessment is a workshop, which includes definitions.</p>

# Mtg #7 Feedback - In-Person Workshop

Feedback	IESO Response
<p>The in-person format was very helpful for fostering discussion, building relationships and allowing ideas to be developed.</p>	<p>Thank you for the feedback. We will seek to have as many hybrid in-person and virtual meetings as possible.</p>
<p>For hybrid in-person and virtual meetings, smaller virtual breakout rooms (vs one big room) would better facilitate discussion.</p>	<p>Noted – thank you for the feedback.</p>
<p>Hybrid in-person and virtual meetings should be the format for regularly scheduled TDWG meetings.</p>	<p>As indicated above, we will seek to have as many hybrid in-person and virtual meetings as possible.</p>

## Mtg #7 Feedback - General Comments [1/2]

Feedback	IESO Response
<p>IESO's covering letter for the final Deliverables reports should be circulated as draft to all Deliverables leads and must be agreed upon.</p>	<p>IESO team will circulate the cover letters with the Deliverable leads in advance, welcoming feedback and incorporating as appropriate. While striving for agreement, IESO will not be bound by it when publishing its perspectives.</p>
<p>IESO should dedicate funding for consultants for the Deliverable leads. Alternatively, provide Grid Innovation Fund (GIF) to support the project.</p>	<p>As noted previously, the IESO has a limited consulting budget that can be made available for the Deliverables. The GIF is not an appropriate avenue of funding for this work. Deliverable leads are responsible for dedicating sufficient resources to ensure timely submission of high-quality Deliverables.</p>

# Mtg #7 Feedback - General Comments [2/2]

Feedback	IESO Response
<p>At the workshop, dialogue often drifted to topics outside of TDWG’s objectives. TDWG members should be reminded to focus on our objectives.</p>	<p>Thank you for this feedback. The IESO will remind discussion leads, including IESO staff, to help keep the group on topic. Refining the approach to positioning discussions and posing discussions questions may support this goal.</p>
<p>A broader policy discussion is needed about how DER offer services in the future, e.g., accessing funding for the provincial capacity value of DER.</p>	<p>Thank you for this feedback.</p> <p>Please be reminded that the scope of the TDWG is limited to operational coordination.</p>

# Forthcoming TDWG Meetings

- Planning two additional TDWG meetings before end of 2023
- Planning recurring monthly meetings throughout the first half of 2024
- In addition, the Deliverables leads and sub-groups will be meeting and working on their respective Deliverable work packages
- Plan to re-assess approach to scheduling meetings mid-way through 2024
- Aiming for one workshop per quarter (e.g., interactive sessions with discussions, breakout groups, brainstorming, etc.)
- Desire is for as many TDWG meetings as possible to have hybrid in-person/online format



# Action Log Overview

- The IESO will maintain an ongoing action log to track actions raised in the TDWG meetings and their resolution
- The log will be reviewed at the start of each TDWG meeting
- Going forward, we will note the items being added to the action log during TDWG meetings
- Working group members are welcome to suggest items to be added to the action log
- The action log is intended for overarching issues and actions relevant to the full TDWG

# Mtg #8 Feedback Questions

1. Taken together, do the SOWs comprehensively address the objective of the TDWG?
2. Are the SOWs clear? Are there areas of the SOWs that need more explanation?
3. Is the scope of each SOW appropriate and comprehensive enough? Are there any areas that should be added to or removed from the SOWs?
4. Are the work packages defined for each of the SOWs logically structured?
5. Are the timelines for each Deliverable realistic and achievable?
6. Any other feedback?

# Action Log

Date	Action	Resolution
Oct 27, 2023	TDWG members to use the feedback form found under the Oct 27, 2023 entry on the TDWG <a href="#">webpage</a> to provide comments and send to <a href="mailto:engagement@ieso.ca">engagement@ieso.ca</a> by Nov 17, 2023	
Oct 27, 2023	IESO to circulate meeting notes among TDWG members by Nov 3, 2023	
Oct 27, 2023	IESO to post all meeting materials, incl. feedback received and meeting notes, to the TDWG webpage by Nov 24, 2023	

# TDWG Meeting #9 and #10

- Agenda for TDWG meeting #9 and #10 in Nov/Dec 2023 anticipated to include:
  - Walk through of a full combined work plan for the Deliverables
  - Deliverable A: Presentations on IESO and LDC T-D related reliability
  - Deliverable B1: Architecture – DSO processes / systems
  - Deliverable B2: Current state of communication / data exchange
  - Deliverable B4: Workshop on relevant definitions

---

# Thank You

[ieso.ca](http://ieso.ca)

1.888.448.7777

[customer.relations@ieso.ca](mailto:customer.relations@ieso.ca)

[engagement@ieso.ca](mailto:engagement@ieso.ca)



[@IESO Tweets](https://twitter.com/IESO)



[linkedin.com/company/IESO](https://www.linkedin.com/company/IESO)