

Transmission-Distribution Coordination Working Group (TDWG)

Meeting Notes

Meeting date: June 16, 2023
Meeting time: 10:00 – 2:00 p.m.
Meeting location: IESO Adelaide Office

Agenda Item 1: IESO Opening Remarks and Refreshed Terms of Reference, Deliverables, and Work Plan (IESO)

1. IESO staff opened the meeting with introductory remarks
2. IESO presented the refreshed Terms of Reference, Deliverables and Work Plan for the TDWG
 - a. IESO emphasized that the TDWG effort would be informed by and support the ongoing Market Vision and Design Project
 - b. The TDWG is now expected to remain active until the 4th quarter of 2024
 - c. IESO also emphasized that the focus of the TDWG would remain solely on defining coordination protocols and operational practices for interactions between IESO, LDCs, DER owners, and DER aggregators
 - d. The IESO identified 5 deliverables to be developed through the course of the TDWG's activities. Development of 2 of these deliverables will be led by IESO, while IESO is seeking volunteers from the working group members to lead the development of the other 3 deliverables
 - e. The IESO asked participants to provide feedback on the refreshed Terms of Reference and the list of Deliverables (and participants' willingness to lead development of these) by July 7, 2023
 - f. In response to a TDWG member's question, the IESO clarified that the goal of the TDWG is not to make decisions on coordination models or protocols. Rather, the focus is to develop protocols that can be applicable in different regulatory and legislative environments, while fostering a robust, shared understanding of the protocols.
 - g. In response to a question about managing disagreements, the IESO noted that deliverable leads will have autonomy in their work, but also expected to incorporate input and guidance from the TDWG. Additionally, the IESO will be issuing cover letters for each of the finalized deliverables, and will have an opportunity to provide a review including noting areas of consensus as well as unresolved issues.

Agenda Item 2: A Distributor Perspective on Protocols (Alectra)

3. Next, Alectra shared its perspective on IESO's draft, conceptual coordination protocols for the DP-DSO model. Alectra's comments broadly focused on the following areas:

- a. Communication
 - i. Clear pathways for communication between DERs, LDCs, and IESO are required
 - ii. The DER aggregator registration process needs to be well defined so that the LDC can understand where the DERs are located
 - b. Analysis
 - i. The LDCs need to have enhanced situational awareness and a very clear understanding of distribution system parameters
 - ii. LDCs need investments to enable real - time analytical (power flow) capabilities
 - c. LDC Override
 - i. The definition of “unplanned” operations and “override” rights need to be well understood by all parties. Distribution systems frequently undergo several dynamic changes that may result in DERs being placed out of service
 - d. Remuneration
 - i. Clarity is required on the investment recovery mechanisms available to the LDCs to be able to recover the costs associated with building new functions and capabilities to enable the operational/ coordination protocols and DSO models being proposed by the IESO
4. Alectra also expressed that the requirements of the T-DSO model should be standardized across LDCs in Ontario

Agenda Item 3: Presentation on LDC Operational Coordination Functions (ICF)

5. Next, ICF delivered a presentation on the anticipated operational coordination functions required from LDCs under each DSO model (T-DSO and DP-DSO)
- a. ICF clarified that the term “DSO aggregator” is being used to denote the potential future role of a LDC as an aggregator of DERs. Hence, a “DSO aggregator” would be different from a commercial/ 3rd party DER aggregator
 - i. IESO noted that the rules and regulations associated with the creation of DSO aggregators are out of scope for the TDWG’s discussions
 - b. ICF clarified that the need for enhanced capabilities and tools (such as real-time power flow analytics) should be assessed by LDCs as the penetration of injecting DERs rises
 - i. ICF also mentioned that one of the deliverables of the TDWG could be to determine the inputs required for advanced capabilities such as real-time power flow analytics
 - ii. ICF also noted that DER(A) penetration, e.g. high numbers of solar PVs on the system does have an impact on forecasting, however it is the DER(A) participation that is the key factor to consider when looking at the necessary investments, i.e. the numbers of actual DERs that are participating in wholesale markets and distribution level services. Therefore, the key question to ask with regards to LDC investments is: at what point do you reach the penetration and importantly, participation levels that justify and necessitate sophisticated investments (e.g. real-time visibility and operations) at the distribution level?

- IESO noted that the level of penetration and participation to drive such investment requirements may evolve over time.
- c. Working group members commented that LDCs should receive the IESO dispatch schedules for IESO market participating DERs and aggregators
 - ICF questioned the current need for LDCs to see real time IESO dispatch schedules and instructions under the DP-DSO model, and noted that in low levels of DER injecting and participating in wholesale and distribution level markets that it may not be needed, as compared to the case with high DER penetration and participation.
- d. Working group members also mentioned that using the DER interconnection process for DER aggregation studies would lead to delays in the process

Agenda Item 4: Workshop: LDC capabilities and enabling solutions (All)

6. Following a lunch break, working group participants reconvened for a workshop to discuss the key facets of each model. 3 groups were assigned the T-DSO model for discussion, while 3 other groups were assigned the DP-DSO model. Several common themes emerged in the workshop through discussion of each of the models.

Please refer to the accompanying excel spreadsheet 'Workshop Notes' which captures working group members' notes from the workshop.

The IESO anticipates working with the lead for the Functional Assessment deliverable and ICF to synthesize the workshop discussion and report back to the TDWG.

Action Items Summary

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.

	Due Date	Action	Status	Assignee
1	07/07/2023	Feedback on the June 16 TDWG materials (please use feedback form)	In-progress	TDWG Members
2	07/07/2023	Express interest in leading development of one or more TDWG deliverables	In-progress	TDWG Members