

Transmission-Distribution Coordination Working Group

Meeting Notes

Meeting date: May 16, 2022
Meeting time: 1:00 – 3:00 p.m.
Meeting location: Microsoft Teams

Agenda Item 1: IESO Presentation

Inna Vilgan (IESO) and Ali Golriz (IESO) provided a summary of the transmission-distribution working group (TDWG) members' feedback from the previous meeting and expanded on a number of related topics, including a working definition of T-D interface, T-D coordination models, and distribution override. Notable/actionable discussion (with responses in italics):

- In discussing a working definition for T-D interface, the IESO's definition for IESO-controlled grid was noted, which in turn refers to transmission system operating agreements. More information about the operating agreements was asked for. *To help any further discussion, here is the definition of operating agreements from the IESO Market Rules: "operating agreement means an agreement between the IESO and a transmitter which gives the IESO the authority to direct operations of the transmitter's transmission system, as contemplated in subsection 6(1)(b) of the Electricity Act, 1998 and in subsection 70(2)(k) of the Ontario Energy Board Act, 1998"*
- A working group member mentioned that transmission delivery point is defined in the OEB's Uniform Transmission Rates decision and rate order, and could help inform the definition of T-D interface. *The IESO will follow up with respect to this at one of the next TDWG meetings.*
- With respect to T-D coordination models to investigate, the IESO stated that it will work with TDWG members to develop conceptual coordination protocols for the Total DSO and Dual Participation models, and that it is anticipated that these protocols could be adapted for other coordination models. The IESO also mentioned that it expects the Dual Participation model will be put forward for the foundational design in the DER Market Vision Project (MVP). A number of clarifying questions were asked with respect to the models in relation to the DER MVP along with broader scoping questions around timelines and decision making criteria. *Please participate in the DER Market Vision Project's [stakeholder engagement](#) for more discussion and opportunities for feedback on the approach the IESO will adopt as part of that initiative.*

Agenda Item 2: EPRI Presentation re: Study

Stephen Kerr (EPRI) presented on the five main scenarios that will be investigated in the DER Scenarios & Modelling Study, which is being conducted as part of the York Region Non-Wires Alternative (NWA) Demonstration project. The scenarios are: transmission energy dispatch,

distribution override, distribution import-congestion, distribution operating reserves, and capacity service, and will be used to analyze the impact at the T-D interface. Notable/actionable discussion (with responses in italics):

- A couple of questions were raised that related to whether the study will address distribution-level pricing of DER. *Consistent with the scoping of the TDWG, distribution pricing, i.e. how a distributor or a distribution system operator (DSO) would pay DERs for services to the distribution system, is out of scope of the study. That said, the study does include consideration for how DERs would provide offers to the wholesale market while also providing services as non-wires alternatives to distribution system network investments.*
- It was asked if end-customer use of behind-the-meter DERs (i.e. in addition to providing services to the distribution system and the wholesale market) will be considered in the study. *This particular issue is not expected to be addressed in the study. However, the IESO will follow up on this issue in a forthcoming TDWG meeting.*

Agenda Item 3: Hydro One Presentation re: Sub-transmission

James McGowan (Hydro One) provided a presentation on the need to consider the sub-transmission system in developing the T-D coordination protocols, including a description of the sub-transmission system, the impacts of DER operation on the sub-transmission system, some relevant terms of transmission connection agreements, as well as the potential of using DERs as NWAs to sub-transmission investments. Notable/actionable discussion (with responses in italics):

- It was noted that the challenges discussed are present when the sub-transmission owner/operator is a host distributor that has another embedded distributor, as that is when four party coordination (among DER participant, embedded distributor, host distributor, and IESO) would be required. *The IESO agrees that four party coordination should be investigated for DER override procedures. However, for coordination of DERs providing services to both the distribution system and the wholesale market, the focus will be on protocols for providing services to the IESO and one distribution-level entity (i.e. host or embedded distributor).*
- James agreed to follow up about whether a template for of the transmission connection agreements can be shared with the TDWG or if there are any additional details on the relevant terms and requirements in the transmission connection agreements that he can provide.

Agenda Item 4: Entegrus Presentation re: Considerations

Matthew Meloche (Entegrus Powerlines) provided a presentation on a number of considerations based on the discussion at the last TDWG meeting, including the need to recognize the interface between host and embedded distributors (i.e. a D-D interface vs a T-D interface), the shared use of stations and feeders, and that the distribution system is dynamic and often reconfigured (including by distribution automation). Notable/actionable discussion (with responses in italics):

- The presentation indicated that DERs are considered only for a static system (i.e. in normal configuration only and not dynamic, reconfigured states). *As noted during the meeting, the IESO continues to be interested in conditions that would limit DERs' availability and/or give rise to*

override conditions (including how often they take place, how long their duration is). Any further information from TDWG members on this topic would be very welcome.

- It was noted that distribution systems are becoming increasingly dynamic and that operating in reconfigured states will become more common in the future, especially with distribution automation. As part of TDWG members' discussion, it was suggested that over time distributors should enable DERs to continue to operate under more dynamic conditions and in reconfigured distribution system states.

Action Item Summary

	Date	Action	Status	Assignee
1	16/05/2022	Feedback on May 16 TDWG materials (please use feedback form)	In-progress	TDWG members
2	16/05/2022	Provide more details on coordination in Transmission Connection Agreements	In-progress	Hydro One
3	16/05/2022	Re-visit T-D interface definition based on TDWG members' feedback	In-progress	IESO
4	16/05/2022	Follow up on end-customer use of behind-the-meter DERs	In-progress	IESO