Feedback Form

Transmission-Distribution Coordination Working Group (TDWG) – May 16, 2022

Feedback Provided by:

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Following the May 16th Transmission-Distribution Coordination Working Group meeting, the IESO is seeking feedback on a number of questions related to transmission-distribution coordination.

Please provide feedback by June 6th, 2022 to engagement@ieso.ca. Please use subject header: *TDWG*. To promote transparency, this feedback will be posted on the TDWG webpage unless otherwise requested by the sender.

The IESO will work to consider and incorporate comments as appropriate and provide responses at the next TDWG meeting. Thank you for your contribution.

Specific Questions for Comment/Feedback

Topic	Feedback
Are there any suggestions to improve the working definition of T-D interface?	There should be greater clarity for the working definition of the T-D interface. Given the expected rapid growth of DERs in the Ontario power system and associated increase in market participation, a fixed definition with diagrams should be established. IESO market rules and potential other regulatory framework documents (e.g., distribution system codes) should be updated to reflect the changes. NSWG suggests the following working definition: T-D Interface is defined as the first operable open point (e.g., circuit breaker, mid-span opener, automated recloser or switch, manual disconnect) on the low voltage side of transmission stations. Primarily this would be before the low-voltage bus of the transmission station. If no operable open exists before the low-voltage bus, then the T-D Interface would be each low voltage feeder breaker on the lower voltage bus. Transmission stations are defined as stations that transform voltage from transmission levels (i.e., >50 kV) to distribution voltages (i.e., <50 kV) as per OEB TSC definition 2.0.22
What communications take place between LDCs and third party aggregators in real-time/near real-time today, if any?	The types of communication between LDCs and third party aggregators depends on the commercial and reliability arrangements between the parties.

Topic	Feedback
Any comments on the coordination models proposed to be explored in the TDWG?	The two primary coordination models (i.e., Dual Participation Model and Total DSO Model) are reasonable coordination models to explore at this time and reflect different depth of incursions by the ISO into distribution system operation. Under the Dual Participation Model, it would be helpful to understand how the IESO views competing priority of services between the ISO and DSO and whether that priority would be integrated into market rules or Ontario's regulatory framework. For the Total DSO Model, the IESO indicates the DSO would receive a dispatch from the ISO for wholesale services relay that dispatch to DER participants. NSWG believes that is a restrictive approach and does not reflect an appropriate total DSO model. Under the Total DSO Model, the ISO dispatch instruction to the DSO should executed by the DSO and *may* be completed by relay instructions, but could also be completed by the DSO determining a dispatch logic for the DERs in its service territory to meet the wholesale dispatch instruction depending on DSO system constraints, economic cost-effectiveness, contractual arrangements and system conditions. In other words, the ISO and DSO would agree to an exchange of services, and the DSO would determine the optimal solution to deliver the solutions. The ISO relationship with the DERs would be limited.
What are existing procedures for de-rating DERs or instructing DERs to go/remain offline? I.e. What conditions would warrant distributor "override" of DERs' schedules/dispatch from the IESO?	No comment

Topic	Feedback
Any feedback on the Hydro One Sub-Transmission System presentation?	NSWG thanks Hydro One for the informative presentation on the sub-transmission system for the TDWG. NSWG supports Hydro One's conclusion that there are many benefits of NWA on the Sub-Transmission and recommends that investments in visibility, distribution automation and market designs focus first on the sub-transmission system as a priority given the many benefits of the existing design and operation.
Any feedback on the Entegrus T-D Coordination Considerations presentation?	NSWG thanks Entegrus for their T-D Coodination Considerations and the complexity of coordination between the many entities within the Ontario electricity system (e.g., T-D, D-D, etc.)
Do EPRI's scenarios and methodology for the DER Scenarios & Modelling Study make sense? Any suggestions?	NSWG is interested in understanding the time periods that the DER scenarios and modelling study will consider. For example, will the study consider all dispatch time frames from Day-Ahead, to pre-dispatch, to real-time operation? Under Scenario 3, how does EPRI intend to assess whether DERs can avoid conventional upgrades while maintaining normal system conditions? Will EPRI provide an example based on LDC system operations and future constraints? Can EPRI provide further details on the difference between Distribution contingency applications and Distribution operating reserve? Under market offer and coordination analysis, does EPRI only envision market participation functions, or will EPRI consider contractual arrangements for DSO services?

General Comments/Feedback

In comments submitted following TDWG Meeting #1, NSWG raised the concern of lack of clarity on the final deliverable of the TDWG. In particular, NSWG asked if the TDWG was expected to endorse

a final report or coordination protocols as part of the Terms of Reference deliverables. The updates to the Terms of Reference does not appear to have solidified the deliverable from the TDWG and NSWG reiterates the need to have a clear outcome so that the work and discussion of the TDWG is not lost.

NSWG is pleased to see that the TDWG will be meeting more often; however, NSWG believes that more meetings must align with a clear deliverable and agenda so as to be productive and focused. We recommend that the IESO establish a draft topics per meeting so that TDWG members can understand the intent of a meeting as well as ensure they are prepared for future meetings.

Finally, NSWG believes that the TDWG should explore reliability agreements between a DSO and DER as part of the T-D Coordination protocols and not rely purely on market signals or dispatch logic. Depending on the provisions in the reliability agreement, priority of services could be clearly laid out as well as opportunities to optimize services for both distribution and wholesale markets.