Feedback Form

Transmission-Distribution Coordination Working Group (TDWG) – June 29, 2022

Feedback Provided by:

Name:

Title:

Organization: Toronto Hydro-Electric System Limited

Email:

Date: July 20, 2022

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 July 20th, 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
Any suggestions for additional topics needed in order to develop the TDWG deliverable (which was described in greater detail today)?	Toronto Hydro observes the scope of the TDWG is primarily focused on operational coordination. Toronto Hydro suggests the IESO also consider coordination protocols for procurements (i.e. LDC RFPs, IESO RFPs). Additionally, given most LDCs have limited experience dispatching DERs and/or participating in the IESO market, Toronto Hydro encourages the IESO to provide clarity on how it will determine if the conceptual protocols are feasible? (i.e. does the IESO intend to test conceptual protocols through pilot projects?).
What existing/new processes could distributors use to communicate distribution "override" conditions to customers with DER facilities and DER aggregators that are participating in the wholesale market?	Today, Toronto Hydro's existing process involves its Controlling Authority calling the Customer's Controlling Authority in real-time (secured via operating agreement) communicating the restriction and anticipated timeline of the override (if known). For longer duration issues (e.g. >~1 day), Toronto Hydro will often facilitate follow-up discussion with the customer on timeline, cause, etc., of the override. For planned outages, Toronto Hydro will communicate operating restrictions via email or phone call where advance notice is feasible. Toronto Hydro is pleased to discuss this process in further detail with the TDWG.

Topic	Feedback
The ESIG example of DER De-Rate Notification is expected to inform the IESO's drafting of conceptual T-D coordination protocols for discussion at a future TDWG session. Any considerations you advise we bear in mind?	Operational conditions the IESO should consider that require communication include: • Planned or unplanned loss of transfer trip protection (typically caused by unavailability of LDC or telecom owned infrastructure such as an RTU, copper line, fibre line, etc.) • Planned or unplanned availability of the normal supply feeder for a DER (typically caused by isolation for planned work, damaged equipment, etc.) Toronto Hydro notes, the ESIG example is somewhat atypical. It is unlikely that a distribution outage would last longer than 24-hours, and its unlikely that distributors would know with certainty how long an outage will last until a crew is onsite (typically 1-4 hours). The protocols will need to account for this uncertainty and address the possibility that the full DERA capacity may be available again within a short period of time.

Topic	Feedback
Can the approach described in the ESIG example of DER De-Rate Notification be extended (with tweaks/additions) to address coordination of DERs "stacking" distribution and wholesale services?	Toronto Hydro notes the ESIG example of DER De-Rate Notification could be extended to address DER service stacking with respect to the IESO's definition of "Dual Participation" (i.e. one participant transaction in two markets). Additionally, there could be cases where a DER owner is given instructions from the DSO that conflict with its TSO market offers, initiating a response similar to what is laid out in the ESIG example. However, in the case where the LDC acts as the aggregator, (i.e. Toronto Hydro's GIF Dual Participation Pilot) there could be a more efficient solution. Toronto Hydro observes, given that the LDC/DSO will have day-ahead knowledge of needs, rather than sending out conflicting instructions, there could be merit to explore a protocol between the DSO and TSO prior to running the TSO's pre-dispatch algorithm. This could enable information sharing that leads to a "sequencing" of TSO dispatch instructions that account for DSO dispatch instructions. Toronto Hydro looks forward to working with the IESO on the matter of prioritization through its GIF pilot.

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The conceptual T-D coordination protocols for enabling DERs to "stack" services may involve the distribution-level decision to use DERs for NWAs taking place in advance of the IESO's day-ahead market and real-time market processes. How would this align with distribution-level processes/needs?	See comments above. If the LDC/DSO has knowledge of day-ahead needs, it could provide a schedule to the IESO / DER participant prior to the IESO issuing its schedule. However, to be possible, the DSO / TSO will need to establish which system's needs take priority. Toronto Hydro notes, a benefit for the DSO's system taking priority is that the TSO typically has more MW to choose from in each "zone". To this end, as long as the TSO knows what is available, it can price the value of the MWs accordingly to meet its needs. Whereas the alternative, the DSO's local target areas may have fewer resources to choose from, rendering it difficult to be sequenced after the TSO.

General Comments/Feedback