

# Feedback Form

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

Feedback Provided by:

Name:

Title:

Organization: Electricity Distributors Association

Email:

Date: July 20 2022

Following the May 16<sup>th</sup> 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](mailto: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
<p>Any suggestions for additional topics needed in order to develop the TDWG deliverable (which was described in greater detail today)?</p>	<p>The following are noted suggestions for additional topics needed to develop the TDWG deliverable:</p> <p>Coordination Protocol Testing: Protocols which are being developed for the TDWG deliverable should be tested in a simulated environment. This includes an end-to-end simulation of bids, offers, measurements, verifications, and settlements. It would be beneficial to document these tests and detail the impacts.</p> <p>Distributor to Distributor Power Flow Coordination: Coordination of DERs providing services to both the distribution system and the wholesale market requires distributor-to-distributor coordination to understand power flow throughout system planning. During this phase of development, it would be beneficial if we do not limit the focus "to protocols for providing services to the IESO and one distribution-level entity (i.e., host or embedded distributor)" and continue to quantify and explore other opportunities. Coordination needs to include all parties to be able to understand the system power flow and losses and how to operate in the new market framework. As a working group we will need to recognize and test scenarios where distributors, transmitters and the IESO use DERs as NWAs, and what type of coordination needs, and impacts define market framework bids, offers, dispatches, overrides, and any other settlement implications.</p> <p>Additional Considerations:</p> <p>It is unclear if DERs who offer services to the Transmission and Distribution systems will be required to be licensed as per the current market rules. It should also be noted that it is cost prohibitive and onerous for DER owners to be market participants based on current market rules and this may be a barrier to market participation if they are required to meet these requirements. We believe the existing market licensing protocols should be evaluated and leveraged when developing the TDWG deliverables, this will eliminate redundancy and promote system efficiency.</p> <p>It should also be considered that in some jurisdictions there are distributors who do not make capacity payments but rather pay for their utilization/energy of DERs used for distribution needs. In this new market framework, we would like to explore in detail where DERs will be providing services to both local and wholesale market, and where responsibility for the capacity payments might be assigned. It is necessary that the TDWG review the market rules and various scenarios in the market as above when developing the TDWG deliverables.</p>

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<p><i>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?</i></p>	<p>While several viable conceptual solutions exist, it is currently not common practice across the industry to communicate distribution override to customers. Distributors who do have existing protocols do not currently deal with third-party aggregators but work closely with the DER operators. Overrides are communicated directly to the DER owners as per the connection and operating agreements put into place.</p>
<p>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?</p>	<p>Conceptually, the notion of a DER De-Rating style notification could be an effective means of enabling DER Stacking. This would provide an intrinsic priority to distribution dispatch.</p> <p>It was noted that in the presentation the DER may have to "buy back" or purchase the 2MW of unavailable power. We are unclear about the context of this statement and request more clarity or information before offering considerations for the protocols.</p> <p>The IESO TDWG should also consider that not all distributors operate 24/7 system control rooms in the same way. In some cases, they may need to invest or outsource the appropriate resources.</p>
<p>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?</p>	<p>No further comments, subject to clarification of question above.</p>

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<p><i>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?</i></p>	<p>A member of the EDA currently uses the following distribution protocols:</p> <p><i>For resources greater than 1MW, based on the connection agreement, the distributor has built in transfer trips and established a standard set of protocols that must be followed for dispatch events.</i></p> <p>For example, when a generation asset is going to be dispatched in the distributor's service territory, the customer contacts the distributor's control room to coordinate the onboarding of the generator to minimize negative impacts to the local system grid and customers. Similarly, if there is an issue on the line, the control room can contact the DER owner and there is a customer representative to talk to "live". In the case of an emergency, the distributor has transfer trips and a standard set of protocols in communicating with the DER owner. In the new market framework, it is important to define roles and responsibilities to the parties involved when contemplating the Dual Participation Model.</p> <p>Communication considerations: It may be difficult to manage communications with DERs as there are multiple parties involved, e.g., facility owners, developers, and homeowners. Therefore, relying on communication from the DERs is a risk for utilities managing the grid reliably. Distributors are the customer facing entity in today's market. To best mitigate any communication risk, a Distribution System Operator or Fully Integrated Network Orchestrator model would be the natural fit as the system operator will bear the responsibility of managing communications, bids and offers of DERs to the wholesale market and the communication from the IESO to the DERs.</p> <p>The IESO TDWG will need to consider that if the distributors, the IESO, and transmitters, are to use DERs as NWAs, then coordination needs to include DER-to-Distributor-to-other market participants-to-IESO interconnection to define the market framework. As such, in areas where there are transmission and distribution level constraints, the stacking values of DERs can be fully realized by providing services to both the transmission and distribution system in tandem.</p>

## General Comments/Feedback