

# Feedback Form

## Transmission-Distribution Coordination Working Group (TDWG) – February 27, 2023

### Feedback Provided by:

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Following the February 27<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 March 20, 2023 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><b>TDWG Scope</b></p> <p>Any feedback on the IESO’s proposed continued scope for the TDWG?</p> <p>Any suggestions for additional topics for the continued scope?</p>	<p><b>Scope Feedback:</b> LDCs are not satisfied with the continued scope and decision communicated by IESO staff during the meeting whereby the IESO stated it plans to adopt the Dual Participation Model in the “near term”. In the TDWG terms of reference (TOR) the coordination protocols were <b>to be developed for both</b> the Dual participation and Total DSO coordination models and shared to a broader stakeholder community through the DER MVP engagement process throughout 2022, prior to finalizing foundation DER participation models by Q1 2023. There has not been a reference to developing near-term vs long term within the TOR. The working group was established to focus on challenges and costs for not just the IESO’s consideration, but also for DER participants and LDCs’ distribution networks and integration activities. We are concerned that the TDWG TOR has not fully encompassed these elements yet.</p> <p><b>Decision Making:</b> It is unclear to us how the IESO has unilaterally decided that dual participation is to be the most applicable “near-term” model for integration in market operations for Ontario. This is unclear given that LDCs have strongly supported the development of Total DSO model protocols as the most practical solution with capability to evolve as it is the straightforward “linear” approach for DER engagement within Ontario.</p> <p><b>Continued Scope</b></p> <p>We believe that the continued scope for the TDWG should provide:</p> <ul style="list-style-type: none"> <li>• LDC investment in distribution system operation, and DER service participation</li> <li>• Details for conceptual coordination protocols for BOTH dual participation and total DSO models</li> <li>• Detailed full cost comparison between dual participation and total DSO models</li> <li>• Evaluation of options that provide the best path of least regrets for all parties.</li> </ul> <p>Evolutionary development must consider the inherent value that the distributors contribute to the coordination of both protocols.</p>

Topic	Feedback
	<p>Suggestions for additional topics in the continued scope are:</p> <ul style="list-style-type: none"> <li>- Scalable information sharing and communication mechanisms</li> <li>- Identification of most efficient computational requirements for LDCs</li> <li>- Reliability Metric Monitoring, Dual and Total DSO</li> <li>- Performance Obligations</li> <li>- Non-performance protocols that currently exist, and analysis of how this can be applied to the Total DSO model.</li> </ul>
<p><b>EPRI's Presentation</b></p> <p>Any feedback on EPRI's presentation on T-D coordination protocol for a Total DSO Model?</p>	<p>EPRI's presentation on T-D coordination protocol was valuable and we intend to provide more detailed comments once EPRI's full written report is released. In this instance, adequate time was given for its presentation and the presenter offered brief insights into the discussion. It should be noted that no decisions should be made without publication of the full report and sharing of pilot programs.</p> <p>During the session it was questioned if EPRI's presentation reflects the level of detail envisioned for the TDWG TOR deliverables and it was answered that these are differing models between the November and February TDWG meetings. The IESO stated in its February 27<sup>th</sup> meeting notes: "<i>The IESO feels the difference in format is appropriate given our current focus on the Dual Participation model for near-term implementation.</i>" LDCs do not agree that the difference in format is appropriate or that dual participation model is the most appropriate solution for the near-term implementation. This is misleading to stakeholders and interrupts the original scope of the TDWG considerations.</p> <p>EPRI conveyed during the presentation that distributors will play a significant role in the success of the future DER market protocols. Coordination steps are in line with our understanding of the coordination framework. EPRI confirmed that communication paths between LDCs, the IESO, and aggregators need to exist and that a linear path (Model 1 – "Total DSO", slide 3) is the most straightforward way to execute this. It would be beneficial for the TDWG to evolve EPRI's detailed protocol considerations into a comparative investment presentation.</p>

Topic	Feedback
<p><b>DER as NWAs</b></p> <p>In your assessment, how significant is the opportunity to use DER as NWA?</p> <p>What do you expect the scale and pace to be? What <b>distribution-level services</b> do you envision emerging?</p> <p>Do you have existing plans to use DER as NWAs?</p>	<p><b>The opportunity for NWAs is significant</b>, particularly given the weighting of DERs forecasted in IESO load to help meet Ontario’s energy needs, LDC opportunities to enable OEB’s CDM Guidelines, as well as the OEB’s Framework for Energy Innovation Report released in January 2023. Other jurisdictional scans report that the United Kingdom reduced capital expenditure on electricity network reinforcement from DERs supporting Grid Infrastructure of - £4-15bn cumulatively (2022 – 2025) (<a href="#">Reference</a>). For the EU - €11.1–29.1 billion would be saved in investment needs annually between 2023 and 2030. This represents between 27% to 80% of today’s forecasted investment needs in low- and medium voltage distribution grids. 294 GW flexibility (DER) power resulting in €4.6 billion are saved due to lower costs to generate electricity and 37.5 million tonnes (Mt) would be saved in annual GHG emissions (<a href="#">Reference</a>). By our assessment these reported results certainly indicate a significant opportunity for the province of Ontario.</p> <p>LDCs are well positioned to enable DERs as NWAs. The pace will depend on IESO procurement and the regulatory changes the OEB will enact to enable LDCs to realize the full value of DERs as NWAs.</p> <p>The types of distribution-level services that are envisioned to emerge include (but are not limited to):</p> <ul style="list-style-type: none"> <li>- Avoided Capital Investment Deferral</li> <li>- Avoided Distribution Losses</li> <li>- Avoided O&amp;M</li> <li>- Avoided Restoration Costs</li> <li>- Avoided Outage Costs</li> <li>- Avoided Transmission Losses</li> <li>- Voltage Management</li> <li>- Inter-trip Scenarios</li> <li>- Constraint Management</li> </ul>
<p><b>Alectra’s Presentation</b></p> <p>Any feedback on Alectra’s presentation re: a distributor perspective on protocol for Dual Participation model?</p>	<p>We believe it would be beneficial for TDWG to continue this conversation in the next session given that there was not enough time for Alectra to present its information in a meaningful way. As we understand it, the IESO will plan an opportunity to consider this at the next TDWG meeting.</p> <p>Further discussion should be open to observations on the proposed approach in Alectra’s slide #3:</p> <ul style="list-style-type: none"> <li>- Communication</li> <li>- Analysis</li> </ul>

Topic	Feedback
	<ul style="list-style-type: none"> <li>- LDC Jurisdiction</li> <li>- Remuneration</li> <li>- System Readiness</li> </ul>

## General Comments/Feedback

In the February 27, 2023, TDWG Meeting Notes IESO responds to member comments as: *The IESO shared that its goal with the DER Market Vision and Design Project is to adopt participation models that can be implemented in the near-term in order to begin to unlock the substantial value that DERs can provide even while the sector continues to evolve. Dual Participation model, the IESO has sought to bring forward a coordination protocol that can support reliable operation of the transmission and distribution systems within Ontario’s established regulatory environment. The IESO remains very open to adapting the dual participation model and other elements of its market design, as needed, as the landscape evolves and/or as clarity on what is enabled in today’s regulatory landscape is provided.*

Based on this statement, it became clear to us the IESO’s primary interest is to move forward with a model for the near-term. This contradicts previous communication that the Dual Participation model is not suitable for future consideration of distribution network integration and is significantly more complicated for all parties than the Total DSO model integration. LDCs need to maintain their ability and independence to operate their distribution networks (ex. dispatching) as they are the only entities with the obligation to maintain the reliability and safety of distribution networks and the required visibility into the dynamic operations of their network.

It is our assessment that, by moving forward with this scope, the IESO is overlooking the NWA pilot which has successfully demonstrated the Total DSO model. TDWG efforts should be devoted to scale-up and operationalize this option through planned legislative and regulatory framework changes. Proposing the dual model is moving away from the findings of the pilot and the path that has been developed over the last several years. LDCs are best positioned to unlock the value of DERs at a lowest cost, and in the most direct methodology. Under the Total DSO model LDCs can provide system and local solutions with flexibility, directly engage with the customers to optimize network planning and operations regionally.

We recognize that the IESO has a mandate to integrate DERs into wholesale market, but EDA asks that the TDWG continue to work collaboratively considering distribution coordination and develop a path forward that will enable its LDCs to participate in transitioning the distribution grid towards benefiting Ontario rate payers, society, and the environment. As there has not yet been a consensus within TDWG, we need to bring into scope accounting for full system costs, this includes the cost of providing these services to transmission and distribution networks and at the very least not deviate from the original TOR of providing model considerations for both the Total DSO and Dual Participation models.

We have not received formal decision making or valid road maps which support its hypothesis that:

- 1) Dual Participation model in near term can be evolved to Total DSO model in the future.
- 2) Total DSO model in near term can be evolved to Dual Participation model in the future.

Moreover, we ask for clarification on the statement made on page 9 of the TDWG Member Feedback section, where it states that “an assessment of the functional requirements to enable both the Dual Participation and the Total DSO models will be provided at the next TDWG session”.

- Can the IESO please elaborate what the assessment entails/encompasses?
- Which parties performed the assessment of the functional requirements?
- What are the overlapping features?
- What are the additional features?

LDCs have legitimate concerns that the Dual Participation model goes too far into integration, and it eliminates the system’s ability to pivot towards a Total DSO model in the future. The IESOs direction for dual participation model adds burden to all stakeholders, restricts the adoption of other coordination models as significant investments and removes future flexibility and opportunities to change the participation models. Flexibility of investments and the path of “least regrets” should not be overlooked for all participants to only satisfy current-term considerations.

The conceptual T-D coordination protocol presented at the Nov 9, 2022, TDWG session only contemplates the use of DERs as non-wires alternative (NWA) to distribution network infrastructure to address planned/forecasted distribution system constraints. This is a limited view of the flexibility benefits DERs can benefit the distribution system.

Further, we support the IESO’s proposition for a continued TDWG mandate which includes.

- Exploring options for the method for communication to enable the conceptual T-D protocol(s)
- Exploring the use of a “sharing platform” as a “one-stop shop” to enable the conceptual T-D protocol(s)
- Collaborating with the OEB, NRCAN and MOE on a broader comparison of the economic, environmental, and societal impacts of both the Dual Participation and Total DSO coordination protocols.