

Transmission Distribution Working Group

Meeting #13 - Meeting Notes

Date: April 22, 2024, 9:00am - 12:00pm

Location: Alectra Cityview Office (Vaughan, ON); Teams Virtual Meeting

Subject: Review communication interfaces of the IESO-Administered Markets (IAM) as part of Deliverable B2 and share 'market intelligence' for the shared platform concept for Deliverable B3

Notes

Agenda Item 1: Introduction materials (IESO)

- Ali Golriz opened TDWG Meeting #13 with recap slides on TDWG objectives, T-D protocols, and past meetings. As a follow-up action item from TDWG meeting #8 for deliverable B4, a third DSO model, namely Market Facilitator DSO (MF-DSO) was formally introduced, and its features compared against the existing T-DSO and DP-DSO models.

Agenda Item 2: Deliverable B2: IAM Communication Interfaces (IESO)

- Lindsay Thompson presented on the current state of the IAM communication interfaces.
- It was noted that the term 'DSO engine' in slide 6 that was listed as a part of the IESO internal application box stands for 'Dispatch and Scheduling Optimization engine'.
- Dispatch data: A working group member asked if the 'dispatch data' in the slides represents the 'resource plan' that DER/As submit. The resource plan concept was briefly explained as a suggested process in Deliverable A where DER/As submit certain information so that the distributors can have visibility on how the resources contribute to the bids/offers submitted.
- Smart meter data: A working group member stated that the MDM/R has potential as a central repository for both DSOs and the IESO to use smart metering data and has some similar features as the shared platform concept involving T-D coordination.
- Telemetry: An enquiry was made on if there is a missing component between telemetry and SCADA that contains firewall messages and data validation/scrubbing. It was highlighted that the IESO Market Manual 6 (Participant Technical Reference Manual) contains detailed information on the firewall and data protection requirements for equipment being connected to the IESO, along with software and application requirements. SCADA/EMS represented in the slides is a high-level box and there are a lot of functions occurring within it, e.g., state estimation
- A working group member asked if schedules and dispatching of resources is done in two different tools, namely reports and dispatch services respectively. The IESO team confirms that this is the case.

Agenda Item 3: Deliverable B3: Shared Platform Concept - Market Intel (Alectra)

- A working group member highlighted that the Ontario context is important, given that everyone is trying to understand the European markets at this time. Specifically, the zonal (EU) vs nodal (NA) price context is important to consider.
 - With the zone level pricing approach in the EU, congestion management is handled within the zonal jurisdiction/country. This is different than the nodal pricing approach in North America, where prices reflect the impact of congestions in the transmission system.
- A working group member mentioned that, in the UK, the energy retailers own the metering data.
- The concept of the Balance Responsible Party (BRP) in the UK and EU was mentioned and it was noted that every jurisdiction has its own approach to who is responsible for balancing supply and demand. In the UK and EU, there is some overlap in services from various market operators. There is a need to develop a harmonized energy framework.
- During the CoordiNet solution overview, a working group member noted the difference between import congestion and export congestion, and how the example highlighted showcases an export congestion scenario (common in the EU).
- It was also shared by a few working group members that CAISO (the independent system operator for California) is dealing with similar issues without the use of a shared platform. They have multi-nodal aggregations and use 'distribution factors' to indicate how the aggregation is spread across nodes.
- Based on a discussion around how frequently DER locations change from a node perspective; it was mentioned that it is important to focus on temporal changes to DER location.
- There was a discussion regarding congestion problems on feeders with DERs. The following items were highlighted:
 - A working group pointed out that most DERs prefer to stay committed to one transformer and not pay for multiple connections. It was also noted that hosting capacity for DERs may be limited.
 - It was noted that, similar to EU, Ontario experiences export congestion due to excess wind generation, among other DERs. Hence, there is a need to conduct detailed studies related to thermal impact, voltage levels and short circuits prior to connecting DERs.
 - A working group members enquired on how frequently DERs cause outages, how many times is reconfiguration required, and whether it is a rare occurrence or happens often.
- The different components of the CoordiNet project work together as part of a larger whole, offering benefits in terms of flexibility and resilience. The B3 presenters received feedback that this CoordiNet approach of an organized yet decentralized architecture/control structure makes sense to several people in the meeting.

A working group member highlighted that it would be helpful to also approach the shared platform concept development from the perspective of DER/A owners/operators to try and remove as many barriers as possible.