

EDC Coordination Workshop Order 2222

January 19, 2021 DIRS

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EDC Coordination Workshop - Ground Rules

Workshop(s) are intended to be focused discussions around the technical details needed for the utility review process and operational coordination to support the integration of Distributed Energy Resource Aggregations.

During the meeting, please do your best to observe the following ground rules:

- 1. Open discussion should be mainly driven by PJM and EDC technical staff. While all are welcome to contribute, non-PJM and non-utility staff are asked to be mindful of their commentary time during the meeting.
- 2. Discussion and comments should focus on the technical challenges and barriers to DER aggregation implementation. Conversation focused on policy positioning or matters less relevant to the safe and reliable operation of the distribution system will be tabled for the broader Order 2222 discussion later in the meeting.
- 3. To the extent possible, please use the WebEx chat feature to put yourself in the speaking queue.

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EDC Coordination Workshops

Ensuring the safety and reliability of the transmission and distribution systems.

- Utility Review
 - Define a distribution utility review process
 - Study/interconnection process
 - Review for DERA participation
 - Will not pose any risk to reliability or operation of the distribution system
 - Has properly interconnected with the utility
 - Will not be providing "double counted" services
 - Is not in a "small utility", and if so has opt-in.
 - Timeline for review process
 - Dispute Resolution

- Operational Coordination
 - Ongoing coordination for data flows
 - Dispatch override for reliability



Operational Coordination: PJM Near Term Reliability Studies

- 3-Day and 2-Day Out (Approval) Study
 - Coordination between PJM Operations and Markets
 - Approval/denial of each outage ticket is made by 14:00 (2) business days prior
 - NOTE: This is when generator notification typically occurs for "bottled" conditions, however, can occur up until day ahead bidding closes.
- RC and 2-Pass (by RE)
 - Engineer performs study similar to 2-day study
 - Results for PJM Markets group by 11:00
 - 2-Pass study incorporates DA Market clearing

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PJM Markets Timeline

0800-1100

1100-1330

1200-1415

1415-2400

Data Hand-off Ops. → Mkts

Data Hand-off Ops. -> Mkts

Data Hand-off Ops. -> Mkts

Real - Time Operations and Monitoring

Ops. Technical Analysis 0800 - 1100

Day - Ahead Results Posted & Balancing 1100 - 1330

Re-bid Period

After day-ahead results are available -1415

 Process all the Make adjustments based on the clearing results.

Balancing Market Bid Period Closes 1415 - Midnight

Market Participant | Bid/Offer Period

Before 1100

Market participants enter bids and offers. markets requests from day-ahead bids

 Post Day-Ahead Market results by 1330

Commitments

Second

Reliability analysis includes:

- Updated offers
- Unit availabilities
- PJM load forecast info

Supplemental

- Reliability performed as needed
- · Minimize start-up and cost to run



Operational Coordination – Communication framework: initial thoughts

	11:00 Prior to Day Ahead Run	13:30 Day Ahead Run	14:15 Re-Bid and Intraday	Real-Time Coordination
PJM		Provide Aggregator and Utility (TBD) with DA schedule		PJM Dispatches Aggregation
Aggregator	Enter Market Bids to PJM		Provides schedule and capability updates to PJM	Aggregator responds to dispatch and sends telemetry
Utility	Notify Aggregator of any Ops Limitations			Utility notifies Aggregator and PJM of any overrides (TBD)

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Operational Coordination – Questions

Question: Does the communication framework capture all necessary information the utilities and aggregators would need? If not, what additional information is needed?

- Example: Do EDC need to know what market(s) a DERA will be participating in (energy, ancillary services)

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Operational Coordination – Questions

Question: Does an EDC need additional override capability with the prior coordination process in Day Ahead? What type of scenarios would necessitate utility override in Real-Time?

- Can specific scenarios be documented ahead of time to allow transparency into these activities?
- Transparency is important due to potential performance penalties for aggregators due to utility override action.
- How does each EDC define system reliability? It is documented?
 Posted?

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Follow-up Questions (if time permits)

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Utility Review Process

Question: At the last EDC Coordination meeting, it was discussed that EDCs would desire a periodic review of DER aggregations under the Utility Review Process. If the composition of the DER aggregation does not change, is there still a need for periodic review? If so, what would be looked at in that review process?

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Question: At the last EDC Coordination meeting, it was discussed that it would be beneficial to EDCs to know what markets the DER aggregation would be participating in (Capacity, Energy, Ancillary Services). Is the straw proposal below enough information for EDCs, or is more dynamic, real-time information necessary?

- Straw Proposal: identity what markets the resource are participating in during the registration process and *not* in the real-time coordination efforts

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Upcoming Meetings

Question: Any specific topics you would like to see covered in the upcoming EDC coordination meeting on February 3rd?

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Contact

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EDC Coordination on DER Aggregation



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