

DER and Inverter-based Resources Subcommittee

WebEx Only

December 7, 2020

1:00 p.m. – 4:00 p.m. ET

Administration (1:00 - 1:15)

1. Scott Baker opened the meeting and reviewed the agenda.
2. Hamad Ahmed reviewed the meeting participation guidelines. The minutes from the last meeting and EDC workshop in November were approved with 0 objections and 0 abstentions.
3. Scott Baker reviewed the DIRS work plan.
4. Natalie Tacka provided a brief update on the Public Distribution Microgrid proposal.
 - PJM presented the proposal to OC and MIC in November. PJM will present the proposal to the MRC for first read in December and for final endorsement in January.

Order 2222 – DER Aggregation (1:15 – 2:30)

5. Scott Baker recapped the electric distribution company (EDC) coordination workshop and discussed plans to schedule additional workshops. Scott emphasized that the primary purpose of these workshops will be to engage distribution utility staff on the administrative and technical details associated with DER aggregation and the directives in Order 2222.
 - Scott indicated that PJM received positive feedback from utility staff on establishing these workshops and that additional meetings would be scheduled in the future. The feedback focused on distribution related topics and creating an open space for dialogue. The DIRS facilitation team will schedule monthly utility coordination workshops separate from the regular monthly DIRS meetings.
6. Danielle Croop discussed a few modifications made to the DER status quo matrix. The changes were primarily related to the color coding of some high level status quo requirements.
7. Nikita Singhal from EPRI provided education on existing DER aggregation models in NYISO and CAISO
 - Nikita provided a high level overview of FERC order no. 2222. Nikita also discussed technical challenges areas and put forward a potential map for collaborative forum, gap assessment and implementation roadmap for FERC order no. 2222.
 - Nikita reviewed DER aggregation participation model within CAISO and NYISO and provided an update on Stakeholder discussions around different ISO's within North America.
8. Brian Kauffman and Greg Geller from Enel X North America provided additional feedback and recommendations on Order 2222.

- Brian discussed barriers to DERs in the Wholesale Markets and ideas to overcome existing barriers.
- Greg discussed key provisions within FERC order no. 2222 such as locational requirements, dual participation and double counting, interconnection, metering and telemetry, role of distribution utilities and operational coordination.

Hybrid Resources (2:30 – 3:55)

9. Andrew Levitt discussed a solution option for modeling open-loop hybrids using the existing Energy Storage Resources model in the energy and ancillary services markets.
 - Andrew discussed potential policy approach to open-loop hybrids. Andrew also reviewed open-loop and closed-loop hybrid resources, co-located resources and circumstances when open-loop hybrid resources can opt in to order 841 energy storage resource participation model.
10. Andrew Levitt reviewed modifications made to the solutions matrix since the last meeting.
 - Andrew discussed several changes to the solutions option of the matrix such as the definitions, modeling energy/ancillary services and reactive capability testing.
11. Darrell Frogg reviewed initial proposed requirements for reactive capability of hybrid resources of different configurations.
 - Darrell discussed four types of solar-storage hybrids and a traditional generator MW/MVAR paring. Darrell also reviewed a traditional D-curve, an inverter-based reactive curve, an example of solar-storage shared DC-coupled inverter hybrid (open or closed loop) and a solar-storage separate AC-coupled inverter hybrid.

Action items and next meeting agenda (3:55 – 4:00)

12. Scott Baker and Hamad Ahmed reviewed action items from the meeting.

Future Meeting Dates

January 7, 2021	9:00 – 4:00	WebEx
February 3, 2021	9:00 – 4:00	WebEx
March 3, 2021	9:00 – 4:00	WebEx
March 31, 2021	9:00 – 4:00	WebEx
April 28, 2021	9:00 – 4:00	WebEx
May 25, 2021	9:00 – 12:00	WebEx
June 22, 2021	9:00 – 12:00	WebEx
July 23, 2021	9:00 – 12:00	TBD
August 16, 2021	9:00 – 12:00	TBD
September 14, 2021	9:00 – 12:00	TBD
October 13, 2021	9:00 – 12:00	TBD
November 16, 2021	9:00 – 12:00	TBD
December 14, 2021	9:00 – 12:00	TBD

Author: Hamad Ahmed

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