



Commission Actions on the Participation of Storage and Distributed Energy Resources in Organized Wholesale Electricity Markets

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Views expressed do not necessarily represent the views of the Commission or any Commissioner.

Topics for Discussion



- NOPR on Electric Storage Participation in the Organized Wholesale Electric Markets(Docket Nos. AD16-20-000, RM16-23-000)
 - Participation Model for Electric Storage Resources
 - Market Rules for Distributed Energy Resource Aggregations
- Order No. 841: Electric Storage Participation in the Organized Wholesale Electric Markets
- Distributed Energy Resources Technical Conference

NOPR on Electric Storage Participation in the Organized Wholesale Electric Markets: Primary Reforms (RM16-23-000)

In response to the information received in AD16-20-000, the Commission issued a NOPR in November 2016 proposing to require each RTO and ISO to revise its tariff to:

(1) establish a participation model consisting of market rules that, recognizing the physical and operational characteristics of electric storage resources, accommodates their participation in the organized wholesale electric markets and

(2) allow distributed energy resource aggregators, including electric storage resources, to participate directly in the organized wholesale electric markets.

Order No. 841 – Electric Storage Participation in the Organized Wholesale Electric Markets

The Commission required that RTOs/ISOs establish a participation model consisting of market rules that ensure:

- Electric storage resources are eligible to provide all capacity, energy, and ancillary services they are technically capable of providing.
- RTO/ISO tariffs account for physical and operational characteristics of electric storage resources.
- Electric storage resources are able to be dispatched and set the wholesale market clearing price as both a wholesale seller and wholesale buyer.
- RTO/ISO tariffs establish a minimum size requirement for electric storage resources not to exceed 100 kW.

The Commission also required that the sale of energy from the organized wholesale electric markets to an electric storage resource that the resource then resells back to those markets be at the wholesale LMP.

NOPR on Electric Storage Participation in the Organized Wholesale Electric Markets: DER Aggregations (RM16-23-000 and RM18-9-000)

The Commission made several proposals, including:

- Eligibility to participate in the organized wholesale electric markets through a distributed energy resource aggregator
- Locational requirements for distributed energy resource aggregations
- Distribution factors and bidding parameters for distributed energy resource aggregations
- Metering and telemetry requirements for distributed energy resource aggregations
- Coordination between the RTO/ISO, the distributed energy resource aggregator, and the distribution utility

On February 15, 2018, new rulemaking proceeding created to collect additional information on the DER aggregation proposals

Distributed Energy Resources Technical Conference

- To collect additional information on DER aggregation, FERC conducted a technical conference on April 10 and 11, 2018 (RM18-9-000)
- Technical conference also reviewed DER impacts on the bulk power system as part of a new proceeding (AD18-10-000)
- Seven panels and over 50 panelists covered:
 - DER aggregation locational requirements
 - State and local regulator concerns
 - Double compensation for same services
 - DER data
 - DER modeling
 - Coordination

What We Heard at the Technical Conference

- Variance in regional DER deployment drives activity
- Recognition that addressing DER deployment will be important
- General lack of visibility into DER operation
- DER aggregation coordination important as penetration increases
- Crucial role for distribution utilities in DER aggregation
- Means exist to address compensation for multiple services from DERs
- RTOs/ISOs vary in preferred geographic scope of DER aggregation
- Need for flexibility in implementation
- Importance of the use of grid architecture concepts

Post-Technical Conference Comments are due June 26 under separate dockets (AD18-10-000 and RM18-9-000)



Questions?

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