Order No. 2222

Participation of Distributed Energy Resource Aggregations in Markets Operated by RTOs and ISOs

DOE Electricity Advisory Committee

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Federal Energy Regulatory Commission

Order No. 2222 Timeline

Date	Milestone
November 2016	FERC issued a Notice of Proposed Rulemaking (NOPR) that included Electric Storage Resources and Distributed Energy Resource (DER) Aggregations
February 2018	Order No. 841 issued on Electric Storage Resources DER Aggregations moved into a new proceeding
April 2018	Technical Conference on DER Aggregations
June 2018	Post-Technical Conference comments filed
September 2019	Data Requests sent to RTOs/ISOs on interconnection of DERs
September 17, 2020	FERC Order No. 2222 issued on DER Aggregations
July 19, 2021	RTO/ISO compliance filings due

Procedural Background

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.

In February 2018, the Commission issued Order No. 841 on electric storage resources, and created a new RM18-9 docket to address DER aggregation.

Order No. 2222 Summary

- Builds on Order No. 841 reforms
- Finds that
  - Existing RTO/ISO market rules are unjust and unreasonable in light of barriers that they present to the participation of DER aggregations in the RTO/ISO markets.
    - Such barriers can emerge when the rules governing participation in those markets are designed for traditional resources and in effect limit the services that emerging technologies can provide.
    - For example, DERs tend to be too small to meet the minimum size requirements to participate in the RTO/ISO markets on a stand-alone basis, and may be unable to meet certain qualification and performance requirements.
    - Existing participation models for aggregated resources, including DERs, often require those resources to participate in the RTO/ISO markets as demand response, which limits their operations and the services that they are eligible to provide.
  - By removing barriers to the participation of DER aggregations in the RTO/ISO markets, Order No. 2222 enhances competition and, in turn, helps to ensure that the RTO/ISO markets produce just and reasonable rates.
  - RTOs/ISOs must amend their tariffs to allow DER aggregators to participate in their markets.

Definition of DERs

- Defines a DER as “any resource located on the distribution system, any subsystem thereof or behind a customer meter.”
  - These resources may include, but are not limited to, resources that are in front of and behind the customer meter, electric storage resources, intermittent generation, distributed generation, demand response, energy efficiency, thermal storage, and electric vehicles and their supply equipment.
  - Definition is technology-neutral, thereby ensuring that any resource that is technically capable of providing wholesale services through aggregation is eligible to do so
- Defines a DER aggregator as “the entity that aggregates one or more DERs for purposes of participation in the capacity, energy and/or ancillary service markets of the RTOs and/or ISOs.”
  - The DER aggregator is the RTO/ISO market participant, not the DER

Commission Jurisdiction

- Commission exercises jurisdiction over the sales by DER aggregators into the RTO/ISO markets.
- The Final Rule declines to include a mechanism for all state and local regulators to prohibit all DERs from participating in the RTO/ISO markets through DER aggregations, otherwise known as an opt-out.
- Nothing in this final rule preempts the right of states and local authorities to regulate the safety and reliability of the distribution system.
- The Final Rule establishes an opt-in mechanism for small utilities (4 million MWh or less).

DER Interconnection Jurisdiction

- Commission declines to exercise jurisdiction over the interconnection of a DER to a distribution facility when that resource interconnects for the purpose of participating in RTO/ISO markets exclusively through a DER aggregation.
- Therefore, state or local law will govern distribution-level interconnections for DERs participating in RTO/ISO markets exclusively through an aggregation.

Details of Key Order No. 2222 Provisions

- DER aggregator is single point of RTO/ISO contact: responsible for managing, dispatching, metering and settling the individual resources.
  - If a DER aggregator makes sales of energy to RTO/ISO, it is a public utility (subject to MBR, EQR, and other requirements).
  - While the DER aggregator will be the entity primarily responsible for providing required metering and telemetry information to an RTO/ISO, RTOs/ISOs are given flexibility on whether to require metering and telemetry of individual DERs.
- Heterogenous aggregations (different resource types) must be allowed.
  - However, participation of demand response in DER aggregations will be subject to the opt-out and opt-in requirements of Order Nos. 719 and 719-A.
- Minimum size requirement for DER aggregations can be no more than 100 kW. Rule does not adopt a maximum size for a DER aggregation.

Details of Key Order No. 2222 Provisions

- Rule does not adopt a minimum or maximum size of resources that can participate in an aggregation, but each RTO/ISO must propose a maximum size for individual DERs.
- Each RTO/ISO must propose locational requirements that are "as geographically broad as technically feasible," which may include multi-node aggregations.
- RTOs/ISOs must allow dual participation in retail programs and allow DERs to provide multiple wholesale services; they may create accounting/operational rules to avoid double payment.
  – RERRAs are able to condition a DER’s participation in a retail DER program on that resource not also participating in the RTO/ISO markets

Details of Key Order No. 2222 Provisions

- Coordination Requirements for RTOs/ISOs:
  - Must revise its tariff to establish market rules that address coordination between the RTO/ISO, the DER aggregator, the distribution utility, and RERRAs.
  - Must incorporate a comprehensive and non-discriminatory process for timely review by a distribution utility of the individual DERs that comprise a DER aggregation
  - Must establish a process for ongoing coordination, including operational coordination, that addresses data flows and communication among itself, the DER aggregator, and the distribution utility.
  - Must identify how it will accommodate and incorporate voluntary RERRA involvement in coordinating the participation of aggregated DERs in RTO/ISO markets.

Compliance Requirements

Order No. 2222 requires each RTO/ISO to file the tariff changes needed to implement the requirements of the Final Rule within 270 days of the publication date of this Final Rule in the Federal Register (i.e., by July 19, 2021).

QUESTIONS?

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