

# DER Aggregator Participation Model: Overview

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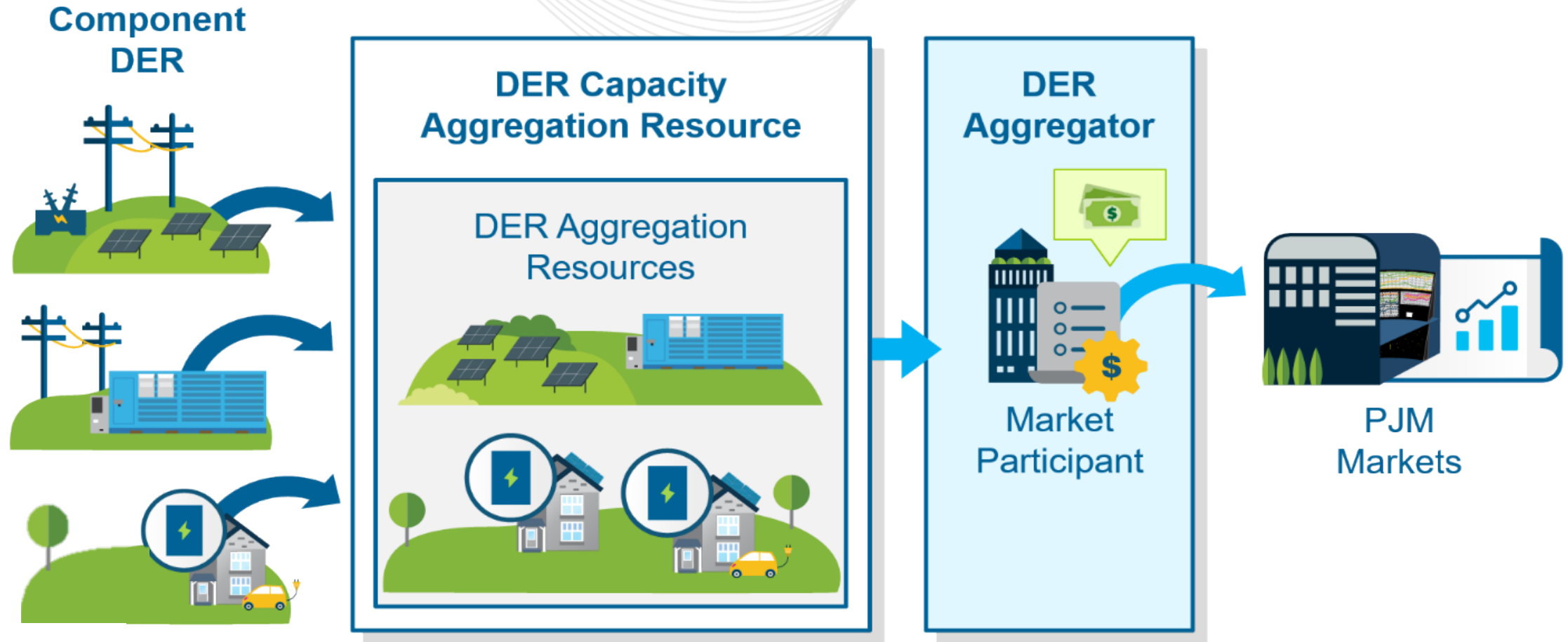
The **DER Aggregator Participation Model** allows DER aggregations to participate in PJM wholesale markets, where technically capable.

**“Component DER”** is a resource that is located on a distribution system that participates in the energy, capacity, and/or ancillary services markets of PJM through the DER Aggregator Participation Model. A Component DER may not exceed 5 MW. A Component DER is associated with one EDC account number and may include several “DERs.”

**“DER Aggregation Resource”** comprises one or more Component DER and is the “market unit” used by a DER Aggregator to participate in PJM’s wholesale market. A DER Aggregation Resource must be at least 100 kW.

**“DER Capacity Aggregation Resource”** comprises one or more DER Aggregation Resource that participates in the Reliability Pricing Model.

**“DER Aggregator”** is the entity that aggregates one or more DERs for purposes of participation in the capacity, energy and/or ancillary service markets of the RTOs/ISOs.



## Capacity Rules

Registration

DA/RT Market  
Operations

Metering &  
Telemetry

Settlement

- **Capacity Must Offer:** No
- **Locational Requirement:** PJM zone
- **Accreditation:** The capacity value of a DER Capacity Aggregation Resource will be determined by summing the capacity values of the underlying Component DER. These will be calculated based on the rules for the underlying technology type.
- **Mitigation:** DER Capacity Aggregation Resources will be subject to the MOPR and MSOC in accordance with the rules for the underlying technology type.
- **Energy Must Offer:** DER Aggregation Resources with a capacity commitment will have an energy must-offer requirement.
- **Testing:** DER Aggregation Resources with a capacity commitment are required to simultaneously test all Component DER within the aggregation at least 1x /year; the DER Aggregator may perform an unlimited number of tests.



- **Process:** A complete registration form must be submitted for each Component DER and DER Aggregation Resource.
- **Locational Requirements:** All Component DER within a DER Aggregation Resource must share a primary pricing node, except those participating in the limited multi-nodal option.
  - A DER Aggregation Resource may be multi-nodal if it consists of no more than one Component DER or group of Component DER at a single pricing node that is > 100 kW and is within one EDC territory and state. The RTO cap on multi-nodal resources is 167 MW.
- **EDC Review:** Two periods, a 15-day period to review a Component DER and a 45-day period to conduct any incremental reliability assessment of the DER Aggregation Resource.
- **Double Counting:** The EDC is to review Component DER for retail/wholesale double counting based on whether the same service is also being provided at the retail level.
  - Component DER located at a NEM premise are permitted to participate with injections in ancillary services markets only.

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- **Commitment & Dispatch:** DER Aggregation Resources must be self-scheduled into the DA/RT market with a fixed MW quantity or a dispatchable range. (I.e. PJM will not commit these resources, but will dispatch them economically based on the dispatchable range.)
  - A *multi-nodal* DER Aggregation Resource must self-schedule into the DA/RT Energy Market at a fixed MW quantity; it is not permitted to indicate a dispatchable range.
- **Price/Cost Offers:** DER Aggregators are to submit both price and cost-based offers.
  - DER Aggregation Resources that consist of Component DER that do not have the technology type documented in PJM Manual 15 will have a default cost-based offer of \$0/MWh.
- **Overrides:** EDC may override PJM dispatch to preserve distribution system reliability; DER Aggregator should update the applicable bidding parameters of the affected DER Aggregation Resource to reflect the override.
  - DERAs are not eligible for LOC or PAI excusals due to EDC override and will be subject to any applicable deviation changes/penalties.



- **Metering:** Component DER must have metering equipment that provides integrated hourly kWh values on an EDC account basis.
  - For non-interval metered residential DER Aggregation Resources, the Aggregator must ensure that a representative sample of Component DER have metering equipment that provides integrated hourly kWh values on an EDC account basis.
  - Metering equipment must have a maximum error of +/-2% over the full range of the metering equipment.
- **Telemetry:** The DER Aggregator must provide telemetry for each DER Aggregation Resource.
  - Telemetry is not required if the Aggregation is less than 10 MW and is exclusively participating in the energy market, with the exceptions described in the PJM Manuals.
  - DER telemetry will be required on a 1-minute scan rate, except where the service the DER Aggregation Resource is providing requires faster scan data (e.g., regulation).





- **Provision of Meter Data:** The DER Aggregator must provide all individual Component DER meter data necessary to facilitate the settlement of the resource.
- **Meter Data Submission Deadline:** Meter data for all Component DER within an aggregation must be submitted the next business day.\*
- **Settlement:**
  - PJM will settle a DER Aggregation Resource by summing all load reduction and injection MWh for the underlying Component DER within the Aggregation.
  - Component DER located at a NEM premise participating with injections in ancillary services markets will not be settled for energy.
  - Order 745 rules will apply for DR resources that are part of DER aggregations.

*\* Pending FERC approval*



## **Capacity Market:**

- 2028/2029 BRA, to be held in July 2026

## **Energy and Ancillary Services:**

- February 1, 2028 (pending FERC approval)

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## DER Aggregator Participation Model



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