

DER Aggregator Participation Model: Overview

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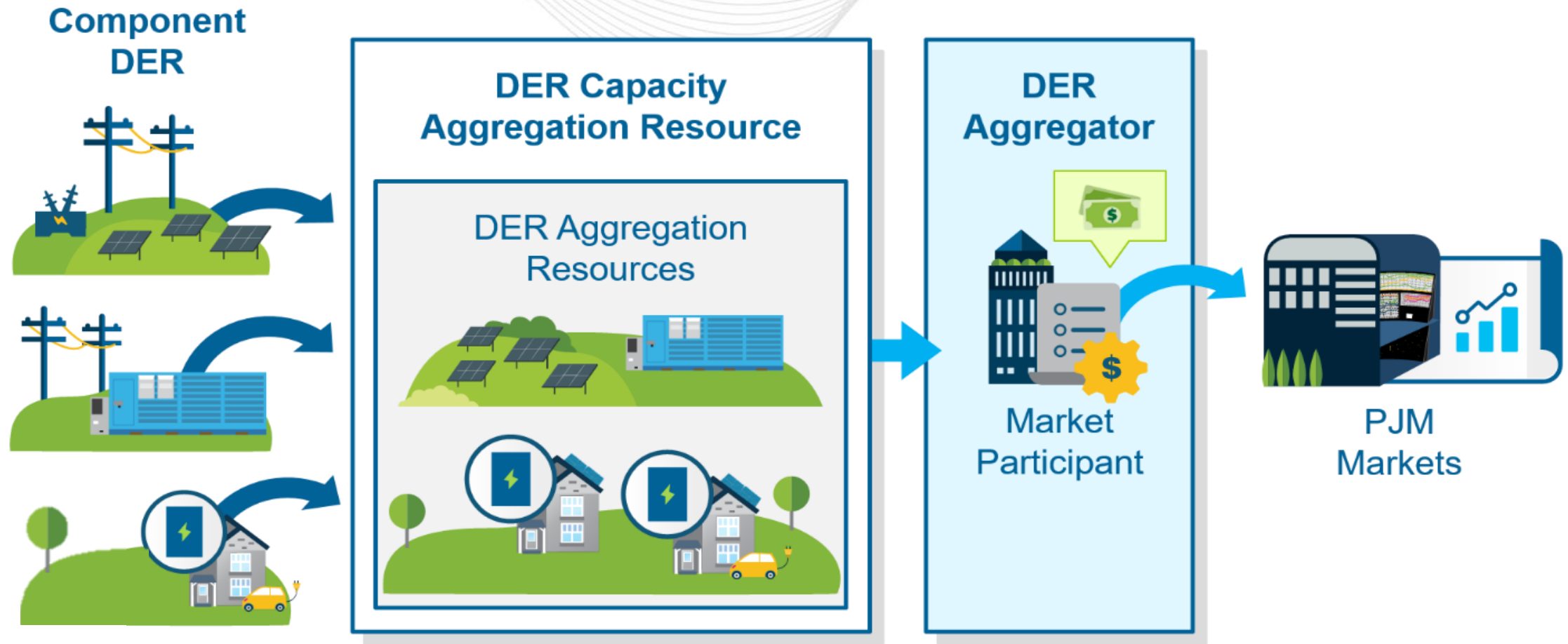
The **DER Aggregator Participation Model** allows DER aggregations to participate in PJM wholesale markets where technically capable.

“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 “DER.”

“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 DER 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, 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. The offer price should be no lower/higher than the megawatt-weighted average of the aggregated resources in the Sell Offer.

A DER Capacity Aggregation Resource may segment offers for the Component DER subject to mitigation, based on the underlying technology of the Component DER.

Energy Must-Offer Requirement:

Yes

Testing:

DER Aggregation Resources with a capacity commitment must simultaneously test all Component DER within the aggregation at least 1x/DY; 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.

Commitment & Dispatch:

DER Aggregation Resources must be self-scheduled into the DA/RT Market with a fixed megawatt 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 megawatt 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 kilowatt-hour 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 kilowatt-hour 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 one-minute scan rate, except where the service the DER Aggregation Resource is providing requires faster scan data (e.g., regulation).

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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 megawatt-hours 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*

**May
2026**

**Capacity
Market:
2028/2029 BRA**

**Feb. 1,
2028**

**Energy &
Ancillary
Services:**
*Pending FERC
Approval*

2025

2026

2027

2028

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DER Aggregator Participation Model



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