

## Conforming changes Load Management expanded availability (M18) & DER Order 2222 participation in 28/29 BRA (M18, M20A and M20B

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Markets & Reliability Committee
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- 4.3.1 DR availability window changed from certain hours (summer 10am to 10pm and winter 6am to 9pm) to all hours.
- 4.3.7 Winter Peak Load ("WPL") calculation changed from noncoincident peak (0700 to 2100) to coincident peak (0900)

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- DG Distributed Generation that interconnects through the State interconnection process (does not go through the PJM queue)
- DRwI DR with injections (same as DR but will participate in the wholesale market with both load reductions and injections)
- DR Demand Response, only reduces load at POI (EDC account number). Does not participate in the market at times when there are injections onto the distribution system.

DG and Injection from DR ~follow Generation rules and load reductions follow ~DR rules



## DER high level participation requirements

- Size limit Location <= 5 MW of capability</li>
- Registration and location data requirements subject to EDC review process
- Aggregations
  - Capacity market = lower of LDA or transmission zone
  - Energy market (includes must offer requirement for Capacity Resources)
    - location >0.1 MW) @ pnode (typically a load bus on the transmission system)
    - location <=0.1 MW @ transmission zone and EDC ("multi-nodal aggregation")
      - One location may be >0.1 MW
- Settlement and Telemetry data requirements similar to Generator

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- Section 1: Overview of the PJM Capacity Market,
  - General changes to include DER
- Section 2: Resource Adequacy
  - General changes to include DER
- Section 4: Supply Resources in the Reliability Pricing Model
  - Most of the changes added new subsection (4.11) for DER capacity resource business rules.
- Section 5: RPM Auctions
  - General updates, MOPR/MSOC, bilateral transactions, ICAP



- Section 7: Load Obligations
  - General updates
- Section 8: Resource Performance Assessments
  - Daily deficiency, test and PAI penalties
  - Replacement resources
- 9.1.7 Added language on Test failure charge for situation where resource has a commitment but there is no price (bilateral or replacement)
- Section 11: Fixed Resource Requirement Alternative
  - General updates
- Attachment A: Glossary of Terms
  - Updated definitions based on approved tariff/RAA definitions
- Attachment E: DER Officer Certification form
  - Added new form



- DER participation is set to begin with the 2028/2029 Delivery Year
- Requires updates to M20A and M21B to include them in the ELCC Model which will be run end of this year for the 28/29 DY
  - Resource Portfolio and Performance for DER will be based on each technology component of a DER component that is included in a DER plan (submitted to the Capacity Market Dec. 2025)



- Section 2.2.2 Resource Performance Inputs
  - Added language regarding how DER Components would be represented in the ELCC/RRS Study
- Section 2.3 Simulated Output of Resources
  - Describes the hourly output for each technology component of a DER Component will follow the hourly output based on the resource type (e.g. Solar Tracking component will follow resources in Solar Tracking Class)
- Section 2.6 Calculation of ELCC Class Ratings
  - Added language to include individual technology components of a DER component
- Section 2.8 Calculation of DER Capacity Aggregation Resources Ratings
  - New section describing how the Accredited UCAP is derived



- Changed Generation Capacity Resource Provider to Capacity Resource Provider throughout the Manual
- Section 2.2 Limited Duration Resources Classes
  - Updated the "Capacity Storage Resource Class" definition
- Section 4.1 Calculation of ELCC Class Rating
  - Added language about how individual technology components of a DER component will be treated
- Section 4.2 Calculation of ELCC Resource Performance Adjustment
  - Describes hourly output cap for DER technology components
- Section 4.3 Calculation of Accredited UCAP
  - Added details about how Accredited UCAP for each DER technology component will be calculated



- Section 6.1 Determining Rated Capability
  - Added details on how each technology component of DER Component ICAP will be calculated
- Section 7 Determination of Effective Nameplate Capacity
  - Added details on how each technology component of DER Component ENC will be calculated
- Section 8 Data Submission
  - Updated to include DER data requirements are based on the technology component
- Section 9 Backcasts
  - Specifies that backcast will be developed based on the technology component



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**PJM Manual 18** 

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PJM Manual 20A & 21B

**Conforming Changes for DER (Order 2222)** 



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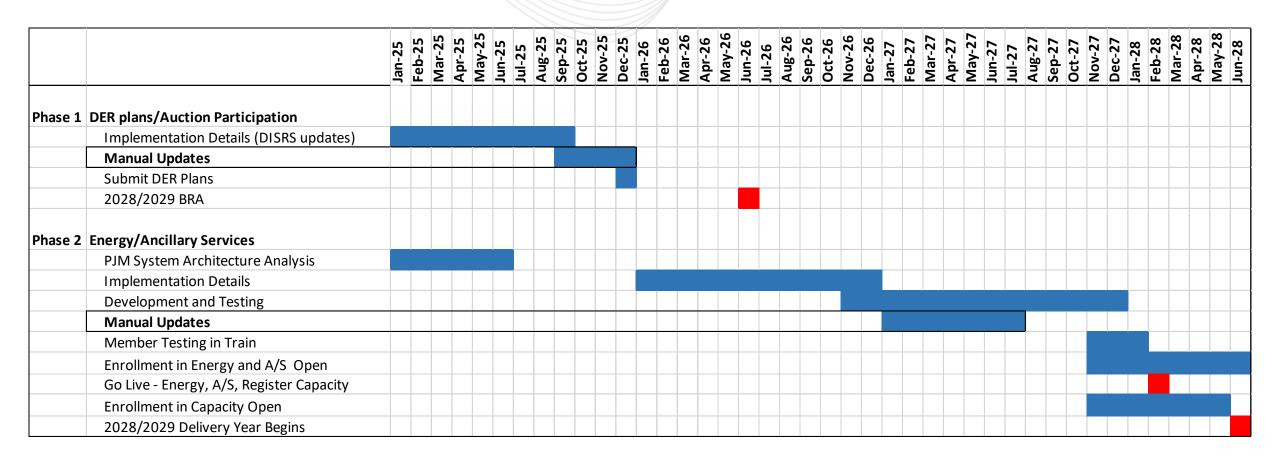
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DER implementation schedule



## DER (Order 2222) overall implementation schedule



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