

Manual 18 Conforming Changes on Load Management Expanded Availability & DER Participation in 28/29 BRA

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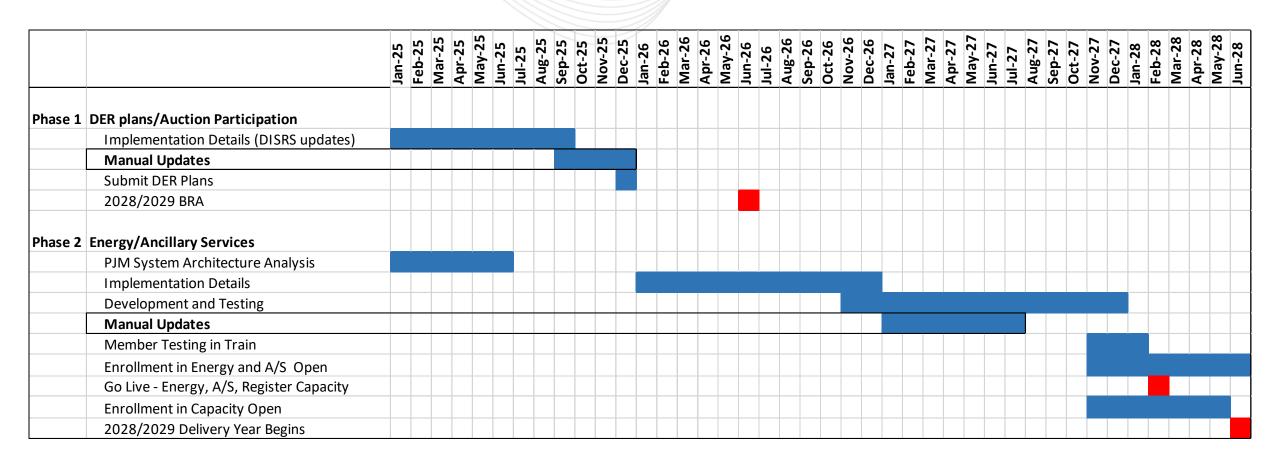


- 4.3.1 DR availability window changed from certain hours (summer 10am to 10pm and winter 6am to 9pm) to all hours.
- 4.3.7 Winter Peak Load ("WPL") calculation changed from noncoincident peak (0700 to 2100) to coincident peak (0900)

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DER (Order 2222) Overall Implementation Schedule



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DER High-level Participation Requirements

- PJM member with PJM DER participation agreement
- Size limit Location <= 5 MW of capability
- Registration and location data requirements subject to EDC review process
- RERRA approval
 - Small EDC is Opt in
 - Large EDC where location includes DR has opt out
- Settlement and Telemetry data
 - Settlement data by location required 1 business day after dispatch (hourly or more granular)
 - Telemetry by registration required at 1 minute scan or more granular based on market rules (i.e. regulation)
- Aggregations
 - Energy market (includes must offer requirement for Capacity Resources)
 - location <=0.1 MW @ transmission zone and EDC ("multi-nodal aggregation")
 - One location may be >0.1 MW
 - location >0.1 MW) @ pnode (typically a load bus on the transmission system)
 - Capacity market = lower of LDA or transmission zone (for example aggregate to DPL-S). Minimum DER Capacity Resource size is 0.1 MW.
- One Member ("PJM org") per location for participation across all models
- Location on NEM contract may only participate in ancillary service markets with injection.



- DG Distributed Generation that interconnects through the State interconnection process (does not go through the PJM queue)
- DRwl 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



Mitigation in the Capacity Market

	MOPR	MSOC
DG	MW by technology type	MW by technology type
DRwInjection	Injection MW by technology type	Injection MW by technology type
DR	Not applicable	Not applicable

- DG and injection from DRwl are required to provide the following based on the pre-auction activity deadlines if they would like to participate in the auction:
 - Planned and Existing
 - provide MOPR certification prior to deadline
 - Heterogeneous Capacity Resource must submit unit specific MSOC or offer at \$0

DER Resources do not have must offer obligation in the capacity market



DER Plans Consist of Planned and/or Existing DER

All DER will be considered Planned until registrations are approved

Existing	Planned
 I. Currently have capability to provide capacity and will provide the capability for DY of RPM Auction II. Existing MWs based on pre-registrations in Capacity Exchange. Pre-registrations are based on current DR Hub registrations III. No Credit Requirement 	I. Location not registered and approved II. Credit Requirement is Pre-Clearing BRA Credit Rate * Number of Planned MWs NOI not applicable to DER

DER Provider is required to provide Officer Certification that MWs will be delivered in the DY (similar to DR Plan)



- 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, bilaterals, ICAP



- Section 7: Load Obligations
 - General updates
- Section 8: Resource Performance Assessments
 - Daily deficiency, test and PAI penalties
 - Replacement resources
- 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



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Manual 18 Conforming Changes



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