



Reserve Price Formation Manual Revisions - M10, M12, M13

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- Effective October 1, 2022 several aspects of the PJM Reserve markets will change
 - As a result of Reserve Price Formation efforts, 2018 to-date
 - Consolidation of Tier 1 and Tier 2 Synchronized Reserve products
 - Alignment of reserve products in Day-Ahead and Real-Time
 - Flexible modeling of Reserve subzones
- All revisions to current manuals are meant to be conforming to FERC Orders: EL19-58-000 and ER19-1486-000
 - FERC's response to the PJM February 22, 2022 Compliance Filing is pending

- Several manuals require updates to account for the Reserve Price Formation implementation:
 - Operations Related Manuals:
 - Manual 10: Pre-Scheduling Operations
 - Manual 12: Balancing Operations
 - Manual 13: Emergency Operations
 - Markets and Settlements Related Manuals:
 - Manual 11: Energy & Ancillary Services Market Operations
 - Manual 15: Cost Development Guidelines
 - Manual 28: Operating Agreement Accounting
 - Manual 29: Billing



Reserve Price Formation Manual Revision Schedule

	Committee	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
Manuals 10, 12, 13	SOS				8/3 ●	★ 9/1			
	OC				8/11 ●	★ 9/8			
	MRC				8/24 ●	★ 9/21			
Manuals 11, 28, 29	MIC				8/10 ●	★ 9/7			
	MRC				8/24 ●	★ 9/21			
Manual 15	CDS			7/6 ○					
	MIC			7/13 ●	★ 8/10				
	MRC				8/24 ●	★ 9/21			
	MC				8/24 ●	★ 9/21			

- *First Read*
- ★ *Endorsement*
- *Info Only*

Go-live for Reserve Price Formation changes is **October 1st 2022**

Revisions to M-10: Pre-Scheduling Operations

- Section 3 Reserve Requirements:
 - The existing language was updated to account for the Reserve Market implementation:
 - Adds language for ten minute reserve products to be procured Day-Ahead
 - Removed existing Day-Ahead Scheduling Reserve (DASR) market. Replaced with 30-Minute Reserve
 - Removes duplicative language regarding market participation rules that are covered in Manual 11
 - Adds reference to M-11

Existing Exhibit 4:
Graphic
Representation of
Reserves

Day-ahead Scheduling (Operating) Reserve ($T \leq 30$ Minutes)		Reserve Beyond 30 Minutes	
Contingency (Primary) Reserve ($T \leq 10$ Minutes)			Secondary Reserve (10 Min. \leq 30 Minutes)
Synchronized Reserve (Synchronized)	Non-Synchronized Reserve (Off-Line)		
T = Time Interval Following PJM Request			

New Exhibit 4:
Graphic
Representation of
Reserves





Revisions to M-12: Balancing Operations

- Section 4.3 VACAR Reserve Sharing:
 - Coinciding with Reserve Price Formation effective 10/01/22, Dominion-Virginia Power will exit the VACAR Reserve Sharing Group
 - Reference to VACAR removed from M-12
 - Manual section numbering and section references updated

- Section 3.1 Adjusting PJM Balancing Area-Scheduled Resources:
 - Removed reference to Tier 2 reserves

- Attachment F Exhibit 16:
 - Removed DASR from Market Service
 - Replaced Reserve Credits with Secondary Reserve
 - Replaced Eligible with Eligible if meets PJM criteria



Revisions to M-13: Emergency Operations

- Section 2.2 Reserve Requirements:
 - Reserve Requirements updated to reflect alignment between Day-Ahead market and Real-Time market reserve products
 - 30-Minute (Operating) Reserve product
 - Greater of 3000 MW or Primary Reserve Requirement or largest active gas pipeline contingency
 - Remove language associated with DASR
 - Remove reference to Load Forecast Error and Generator Forced Outage Rate
 - Update to Reserve Requirement Table

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