



# 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 1<sup>st</sup> 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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