

# Manual 27 (OATT Accounting), Manual 28 (OA Accounting) and Manual 29 (Billing): Reserve Price Formation Changes

Rebecca Stadelmeyer  
Manager, Market Settlement Development  
Market Settlement Subcommittee  
August 16, 2022

- Effective October 1, 2022 several aspects of the PJM Reserve markets will change from FERC Order ER19-1486
  - Consolidation of Tier 1 and Tier 2 Synchronized Reserve products
  - Alignment of reserve products in Day-Ahead and Real-Time
  - FERC's response to the PJM February 22, 2022 Compliance Filing is pending
  - PJM will not implement changes until a ruling from FERC

- Updates associated with the upcoming changes for Reserve Price Formation for the following Manuals:
  - 27: Open Access Transmission Tariff Accounting
  - 28: Operating Agreement Accounting
  - 29: Billing

- **Section 8.1**

Non-Dispatched Charging Energy must pay applicable transmission charges as a Network Service User. By contrast, Dispatched Charging Energy does not pay such charges. Charging energy qualifies as Dispatched Charging Energy when the Energy Storage Resource follows PJM dispatch within 10% of the desired output and meets one of the following conditions:

- Provides Energy Imbalance Service under Schedule 4 of the PJM Tariff. Energy Storage Resource Model Participants shall be considered to be providing Energy Imbalance Service when they are dispatchable by PJM in real time. An Energy Storage Resource shall be considered dispatchable when the fixed generation flag is set to “no” and the dispatchable range exceeds 10% of the absolute value of the relevant economic limit.
- Assigned to Regulation, ~~Tier II~~ Synchronous Reserves, or Reactive Service;
- Being manually dispatched for reliability

- Note: No redline or clean copy of Manual 27 was posted for today’s meeting

- Section 1
- Section 5
- Section 6
- Section 7
- Section 15
- Section 19
- Section 20

- Section 1
  - Updated service accounting definitions
- Section 20
  - Updated Billing Line Item names

- Section 5 name remains Operating Reserves
- Section 5.1
  - Added inclusion of Secondary Reserve and Market Revenue Neutrality Offset into different Operating Reserve calculations
  - Added language regarding Nuclear Units eligibility for Operating Reserve credits from Manual 11
- Section 5.2
  - Added inclusion of Secondary Reserve and Market Revenue Neutrality Offset into different Operating Reserve calculations
- Section 5.3
  - Clarify generator deviation calculation with the inclusion of Secondary Reserves

- Section 6 name remains Synchronized Reserves
- All references to Tier I and Tier II have been removed
- Section 6.1 (Overview)
  - Overall clean-up for Tier I and Tier II language
  - Clarification of how the Obligation is calculated between RTO zone and Sub-Zone
- Section 6.2 (Credits)
  - 6.2.1: Renamed and reworded for Day-ahead Synchronized Reserve Market Clearing Price Credit description and calculation
  - 6.2.2: Renamed and reworded for Balancing Synchronized Reserve Market Clearing Price Credit description and calculation
  - 6.2.3: Added for Synchronized Reserve Lost Opportunity Cost Credit to describe and show different calculation components



- Section 6.3 (Charges)
  - New charge calculations for both the Clearing Price and LOC
  - Added more details for the Clearing Price and LOC charge calculations
  - Re-word Retroactive Penalty Charge section for organization
- Section 6.4 (Recon)
  - Clarification regarding the billing determinants per Reserve and Sub-zone

- Section 7 remains for Non-Synchronized Reserves
- Section 7.1 (Overview)
  - Clarification of how the Obligation is calculated between RTO zone and Sub-Zone
- Section 7.2 (Credits)
  - 7.2.1: Renamed and reworded for Day-ahead Non-Synchronized Reserve Market Clearing Price Credit description and calculation
  - 7.2.2: Renamed and reworded for Balancing Non-Synchronized Reserve Market Clearing Price Credit description and calculation
  - 7.2.3: Added for Non-Synchronized Reserve Lost Opportunity Cost Credit to describe and show different calculation components

- Section 7.3 (Charges)
  - New charge calculations for both the Clearing Price and LOC
  - Added more details for the Clearing Price and LOC charge calculations
- Section 7.4 (Recon)
  - Clarification regarding the billing determinants per Reserve and Sub-zone

# Section 15: Ramapo (old), Market Revenue Neutrality Offset (new)

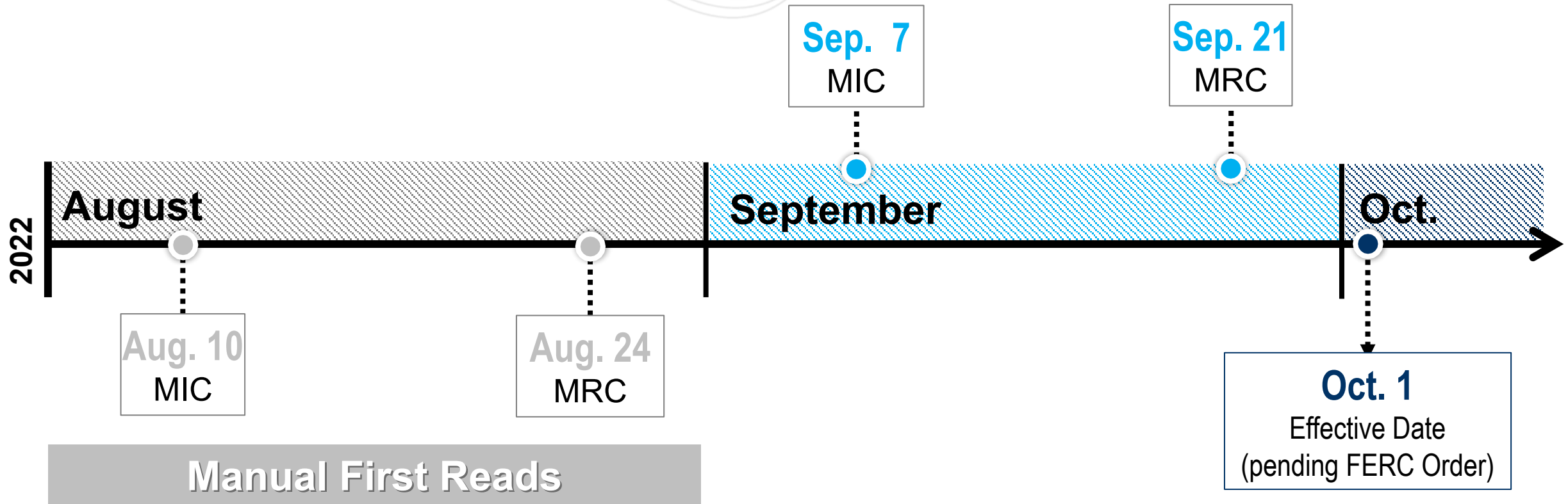
- Section 15 was for Ramapo PAR Facilities, however, calculation for these PARs are within the Market-Market calculation
- Re-use section 15 for new Market Revenue Neutrality Offset Accounting
- Section 15.1 (Overview)
  - Provides an overview of the interaction between Lost Opportunity Cost Credit, Market Revenue Neutrality Offset and Opportunity Cost Credit Owed
- Section 15.2 (Market Revenue Neutrality Offset)
  - New section
  - Provides eligibility criteria
  - Description of the calculation and how it applies to the Lost Opportunity Cost Credit calculation
- Section 15.3 (Opportunity Cost Credit Owed)
  - New section
  - Describes when the calculation applies
  - Description of the calculation and how it applies to the Lost Opportunity Cost Credit calculation

## Section 19: DASR (old), Secondary Reserve (new)

- Section 19 was for Day-ahead Scheduling Reserves (DASR), however, this product has been removed with Reserve Price Formation
- Re-use section 19 for new Secondary Reserve Accounting
- Consider all sections new, even if same numbers as DASR
- Follows the pattern and style of Synchronized Reserve and Non-Synchronized Reserve
- Section 19.1 (Overview)
- Section 19.2 (Credits)
  - 19.2.1: Day-ahead Secondary Reserve Market Clearing Price Credit
  - 19.2.2: Balancing Secondary Reserve Market Clearing Price Credit
  - 19.2.3: Secondary Reserve Lost Opportunity Cost Credit
- Section 19.3 (Charges)
  - 19.3.1: Secondary Reserve Market Clearing Price Charge
  - 19.3.2: Secondary Reserve Lost Opportunity Cost Charge
- Section 19.4 (Recon)

- Section 2.2.1 (Monthly Charges)
  - Removed Day-ahead Scheduling Reserve charges
  - Added Secondary Reserve charges
  - Updated Load Reconciliation charges
- Section 2.3.1 (Monthly Credits)
  - Removed Day-ahead Scheduling Reserve credits
  - Added Secondary Reserve credits
  - Updated Synchronized Reserve credits and Non-Synchronized Reserve credits

**Second Reads/ Endorsements**



Facilitator:  
Rebecca Stadelmeyer,  
[Rebecca.Stadelmeyer@pjm.com](mailto:Rebecca.Stadelmeyer@pjm.com)

Secretary:  
Sean Flamm,  
[sean.flamm@pjm.com](mailto:sean.flamm@pjm.com)

## Reserve Price Formation – Manual Changes



### Member Hotline

(610) 666 – 8980

(866) 400 – 8980

[custsvc@pjm.com](mailto:custsvc@pjm.com)