






Energy Storage Participation Model FERC Order 841 Manual Revision Plan

Laura Walter, Sr. Lead Economist
Advanced Analytics Department
Market Implementation Committee
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Action Required	Deadline	Who May Be Affected
Feedback on Storage Cost offers requested at February MIC	Feb 2019	Energy Storage Participants
Upcoming Manual Revisions	2Q 2019	All Stakeholders







- **PJM FERC filing was submitted on December 3, 2018**
- **Two-Part Filing:**
 1. **Markets and Operations Proposal - Docket No. ER19-469-000**
 - Requested Commission Order by May 3, 2019
 - Comments due February 7, 2019
 2. **ESR Accounting Proposal - Docket No. ER19-462-000**
 - Requested an early effective date of February 3, 2019
 - Comments due January 4, 2019
- **Implementation deadline is December 3, 2019**

- Issue Tracking will continue to be updated with all of the manual revisions
 - [Electric Storage Participation - FERC Order 841](#)
- First draft manual revisions will be presented prior to July
 - PJM has identified 15 Manuals that potentially require revision
 - These revisions will be discussed at the appropriate standing committees/subcommittees
 - MIC
 - MSS
 - SOS/OC
 - PC



Planned Starting Meetings for Each Revision

MIC	PC	OC/ SOS	MSS
Manual 11: Energy & Ancillary Services Market Operations	Manual 14B: Regional Transmission Planning Process	Manual 1: Control Center and Data Exchange Requirements	Manual 27: Open Access Transmission Accounting
Manual 15: Cost Development Guidelines	Manual 21: Rules & Procedures for Determination of Generating Capability	Manual 10: Pre-Scheduling Operations	Manual 28: Operating Agreement Accounting
Manual 18: PJM Capacity Market		Manual 12: Balancing Operations	Manual 29: Billing
		Manual 13: Emergency Operations	
		Manual 14D: Generator Operational Requirements	
		Manual 36: System Restoration	
		Manual 40: Training and Certification Requirements	

- PJM is requesting feedback on cost offers for Energy Storage at the February 6, 2019 MIC
- Some possible discussion items include:

Inventory Cost	Opportunity Cost	Replacement Cost
Historical weighted-average cost of stored energy (\$/MWh) available for discharge, adjusted for round-trip efficiency	Expected lost net revenue from operating in a given hour.	Estimated future weighted average cost of charging energy over the next available operating period.

- Questions or concerns?

esr@pjm.com