

Effective Date	12/03/2019
Impacted Manual #(s)/Manual Title(s):	
Manual 14-D: Generator Operational Requirements	
Conforming Order(s):	
Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators (Issued February 15, 2018) Docket Nos. RM16-23-000; AD16-20-000; Order No. 841	
Associated Issue Tracking Title:	Electric Storage Participation - FERC Order 841
Committee Approval Path - What committee(s) have already seen these changes?	
First Read 6/6/19 System Operations Subcommittee First Read 6/11/19 Operating Committee Endorsement 9/5/19 System Operations Subcommittee Endorsement 9/10/19 Operating Committee First Read 9/26/19 Markets and Reliability Committee Endorsement 10/31/19 Markets and Reliability Committee	
MRC 1st read date:	9/26/2019
MRC voting date:	10/31/2019
Impacted Manual sections:	
Multiple – see below	
Reason for change:	
Compliance with FERC Order 841: Electric Storage Resource Participation model to allow ESRs to participate in all markets where technically feasible. (Bolded below) Cover to cover review	
Summary of the changes:	
<ul style="list-style-type: none"> • Cover to cover review • Throughout <ul style="list-style-type: none"> • Replaced references to Client Manager with Member Relations where applicable • Corrected typos and capitalized terms where appropriate • About this Manual <ul style="list-style-type: none"> • Added subsection covering “Definitions and Applicability” • Section 1.2 - Generator Commercial Naming Convention 	

- Replaced Performance Compliance with Operations Analysis and Compliance
- Section 3.2.4 - Control Center Staffing Requirements
 - Remove reference to Section 6 as it relates to training and certification requirements
- **Section 4.1.7 – SCADA—Supervisory Control and Data Acquisition**
 - Corrected typo in heading in Exhibit 6
 - **Updated Exhibit 6 to include State of Charge for Energy Storage Resources**
- **Section 4.2.3 – Metering for Individual Generators**
 - **Added metering requirement specific to Energy Storage Resources**
- Section 6.2.2 – PJM Transmission Owner (TO) Operator and Generation Dispatcher Certification
 - Corrected typo
- Section 7.1.5 – Generator Operations Under Emergency Conditions
 - Corrected typo in Exhibit 9
- **Section 7.3 – Critical Information and Reporting Requirements**
 - **Added Energy Storage Resource outage reporting requirements**
- Section 7.3.5 – Fuel and Emissions Reporting
 - Replaced references to Supplementary Status Report (SSR) with references to Resource Limitations page in Markets Gateway.
- Section 10.2.3 – Implications for Terminating Black Start Units
 - Updated to cross reference correct section – Section 9
- **Attachment D: PJM Generating Unit Reactive Capability Curve Specification and Reporting Procedures**
 - **Updated to include Energy Storage Resources**
 - Corrected references to Exhibit 15
 - **Updated stand-alone document containing D-curve examples**
- **Attachment E: PJM Generator, Energy Storage and Synchronous Condenser Reactive Capability Testing**
 - **Updated to include Energy Storage Resources**
- Attachment N: Attachment N: Cold Weather Preparation Guideline and Checklist
 - Deleted outdated link to PJM Polar Vortex Presentation at FERC Technical Conference, 4/1/14