

# Manual 01 Revision 40 Endorsement

Bilge Derin  
Engineer – Real-Time Data Management  
SOS  
May 2, 2019

- Attachment A: Data Specification and Collection
  - Related to the FERC Order 841 on Energy Storage Resources, added a new **input to PJM**.

## B: EMS Services

|     | Information Services            | PJM Member Regional Transmission Owner | PJM Member Generating Entity | PJM Member Load Serving Entity | PJM Member Marketer | Neighboring Control Areas |
|-----|---------------------------------|--|------------------------------|--------------------------------|---------------------|---------------------------|
| B.7 | State of Charge via SCADA, ICCP |  | 8                            |                                |                     |                           |

8 – Mandatory for Energy Storage Resources

- Cover to cover periodic review
- 1 Revised Section with more detailed requirements
  - 3.3.2: Synchrophasor Data Exchange
- 2 New Requirements
  - Attachment B: Schedule of Data Submittals
- 1 New Attachment
  - Attachment E: RTA Guidelines

- **Section 1: PJM Systems**
  - Renamed eRPM to **Capacity Exchange**.
- **Section 3.2.4: Data Exchange during EMS Datalink Outages**
  - Updated references to the **subsection numbers** in the text.
- **Section 3.8: Planning, Coordinating System Changes**
  - Renamed PJM Client Managers to **PJM Member Relations**.
- **Attachment A: Data Specification and Collection**
  - **Removed references** to non-existing documents.
- **Attachment B: Schedule of Data Submittals**
  - Updated references to **EOP-005 and EOP-008 with the new version** of these standards.

- Reviewed and updated for clarity.
- Added references to the technical guidelines on [pjm.com](http://pjm.com).
- New table added to provide more details on data quality metrics.

| Metric Type       | Minimum Accuracy | Definition   |
|-------------------|------------------|--|
| Link Availability | 99.80%           | Link availability is defined as the uptime of the TCP/IP connection of the C37.118 stream from the site PDC to PJM SPDC. |
| Good Quality Data | 97.00%           | Good quality data is defined by the IEEE C37.118 protocol as a “0x0000” status word per PMU within the stream.           |

- New data submission requirement in accordance with TOP-001 R21.

| Standard Reference                     | To be Submitted   | Frequency and Date                            |
|--|---|---|
| <p><u>TOP-001-4</u><br/><u>R21</u></p> | <p><u>An attestation that the PJM Member TO tested its primary Control Center data exchange capabilities as specified in TOP-001-4 R20 for the redundant functionality, or experienced an event that demonstrated the redundant functionality. If the test was unsuccessful, the TO must further attest that it initiated action within two hours to restore redundant functionality as specified in TOP-001-4 R21.</u></p> | <p><u>Within 90 days of previous test</u></p> |

- New attachment on reliability guidelines to mitigate the **unplanned loss of EMS Real Time Assessment Capabilities**.
  - These include:
    - Support staff call-out procedures
    - Notification of RTU and ICCP outages
    - Enhanced Alarming capabilities
- Emphasized that these serve as **guidelines**, not requirements.



- New attachment referenced in 2 sections:
  - Section 2.3.1: Transmission Monitoring Capability
  - Section 2.7: PJM Member Back Up Capability Required to Support PJM in its TOP Role



- **First Read**
  - April 4 – SOS
  - April 9 – OC
  - April 12 – RSCS, TTMS (informational)
  - April 25 – MRC
- **Endorsement**
  - May 2 – SOS
  - May 7 – DMS (informational)
  - May 14 – OC
  - May 30 – MRC
- **Planned Effective Date: May 30, 2019**