



Manual 01 Revision 40 First Read

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- Cover to cover periodic review
 - Minor changes in 5 sections
- 1 Revised Section with more detailed requirements
- 2 New Requirements
- 1 New Attachment

- **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 and Notification of 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.



Section 3.3.2: Synchrophasor Data Exchange

- Reviewed and updated for clarity.
- Added references to the technical guidelines on 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.



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



Attachment B: Schedule of Data Submittals

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

Standard Reference	To be Submitted	Frequency and Date
<u>TOP-001-4 R21</u>	<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>	<u>Within 90 days of previous test</u>



Attachment E: Reliability Guidelines for RTA Capabilities

- New attachment on reliability guidelines to mitigate the **unplanned loss of EMS Real Time Assessment Capabilities**.
 - Support staff call-out procedures
 - Notification of RTU and ICCP outages
 - Enhanced Alarming capabilities
 - Communication of Real Time Assessment capabilities.
- Developed by PJM and several members of SOS-T.
- Emphasized that these serve as **guidelines**, not requirements.



Attachment E: Reliability Guidelines for RTA Capabilities

- 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

Note:

In addition to the requirements above, it is recommended that PJM and PJM Member Transmission Owners follow the reliability guidelines listed in Attachment E of this manual to minimize the impacts and duration of the loss of Real Time Assessment capabilities.

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