



# Summary of M-03A Rev. 15 Changes

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## Overview of Changes:

- Administrative Updates - Cover to Cover Review, Exhibit number references updated, formatting, etc.
- Section 1.6: Sentence added to note applicability of technical requirements to PJM TOP facilities and facilities outside the PJM TOP area.
- Section 1.6: Reference to Manual 1, Section 3.8.1 added for specifics on coordination efforts and allowable timeframes for ICCP planned outages.
- Section 2.2: New section added for Flow Circuit Breakers outlining description and change instructions.
- Section 2.2: Note modified to reference Manual 1, Control Center and Data Exchange Requirements.
- Section 2.4: Updated steps added to access Transmission Facilities page on [pjm.com](http://pjm.com).
- Section 2.4, Exhibit 2: Updated screenshot from new location of Transmission Facilities pages on [pjm.com](http://pjm.com).
- Section 2.4.3: Section updated to reflect current process steps.

## Overview of Changes: (continued)

- Section 3.2: New section for Phased Projects added, with accompanying Note providing an example.
- Section 5: Reference to Contingency Analysis (CA) changed to Real-Time Contingency Analysis (RTCA) to identify function by NERC naming convention and Security Analysis (SA) to represent PJM tool used to run contingency analysis
- Appendix C: Outlined outage reporting requirements on a per priority basis and referenced Manual 03 for latest details

# Appendix

## Overall:

- Cover-to-cover review of content
- References to Exhibit numbers updated in text
- Non-substantive format changes

## Section 1.6 – Real-Time Telemetry Data Requirements for System Reliability:

- Sentence added to stress that technical requirements apply to both PJM TOP facilities and facilities outside PJM's TOP area.

PJM Manual M-01 – PJM Manual for Control Center Requirements – shall be used as the source for Control Center requirements. This includes, but is not necessarily limited to, metering placement requirements, data acquisition frequency, and accuracy requirements. **Technical requirements apply to both PJM TOP facilities and facilities outside the PJM TOP area.**

- Reference to M01, Section 3.8.1 added for specific information about ICCP planned outages:

See Manual 1, Section 3.8.1 for specifics on coordination efforts of ICCP planned outages and time periods that are not allowed.

## Section 2.2 – Model Information and Data Requirements:

- New section added for Flow Circuit Breakers that outlines description and change instructions in response to request for Flow CB definition.

### Flow Circuit Breakers (Flow CB)

A flow breaker in the PJM EMS model is a circuit breaker that has been set up to calculate a State Estimator flow across it and a thermal ratings is also applied to that breaker, similar to a line or transformer. The Flow CB must be able to calculate net if gross output is available, or calculate gross output if net is available.

To change an existing ~~Changing a circuit breaker to a Flow CB, submit~~ shall be accomplished by submitting a Network Model ticket via <https://esuite.pjm.com/mui/> as part of the Model Build process. The ticket ~~shall identify the~~ must clearly state if a CB is being changed to a ~~and~~ include comments indicating that it is a Flow CB, or if it is a brand new CB. The Flow CB ratings shall be provided in TERM through a similar process to line and transformer ratings updates.

- Note edited to reference M01 for Control Center and Data Exchange Requirements.

## Section 2.4 – Congestion Management Facilities:

- Steps to access new location of Transmission Facilities page on pjm.com outlined. This page now requires CELL approval to access.

After all of the updates are made in eDART, the spreadsheets on PJM.com will reflect updated changes. To access the Transmission Facilities page, login to PJM.com and click Markets & Operations > Systems Operations. Under the Transmission section, click link for 'Transmission Facilities'. CELL approval is required to access the listing of Transmission Facilities. See Exhibit 2 for sample Transmission Facilities page on PJM.com reflecting latest updates to TO facilities.

- Exhibit 2 updated to show current screenshot of Transmissions Facilities page.



## Section 2.4.3:

- Process to change Post Contingency Congestion Management Facilities updated:
  - **PJM** will operate facilities beyond calculated post-contingency limits for select facilities. *(formerly stated, 'TOs can obtain permission to operate facilities...')*
  - TO must submit a formal request to **PJM** to request an exception for PJM Operations to accept an automatic switching scheme at a specific location. *(formerly, TOs submitted formal request to SOS)*
  - Changes to the Post Contingency Congestion Management Facilities (additional, changes, or removals), are initiated by the TO via request to the manager of PJM's **Transmission Operations** Department. *(was previously Real Time Data Management Department)*
  - For information about PJM's Post contingency management program, see M-03 Transmission Operations. M-03 also includes Attachment **D: Post Contingency Congestion Management Program, which...** *(was Attachment G)*

## Section 3.2:

- New section for Phased Projects added, with accompanying Note that illustrates an example for submission.

### Phased Projects:

Phased projects is work that will be built and energized in stages throughout the life cycle of a project. A Network Model ticket must be submitted in the appropriate build for each phase of the project in order for equipment to be energized on time. Equipment must be in the PJM model six-to-12 months prior to energization. This timeline supports PJM's Outage Analysis process, which requires all equipment to be in the PJM model so that six-month-out studies can be performed.

### **Note:**

Example: An outage is planned to start in September. TO submits the model change in the eDART Network Model Application for the preceding Spring Model Build. Change goes into production in March (six months prior to planned outage in September).

## Section 5:

- Reference to Contingency Analysis (CA) changed to Real-Time Contingency Analysis (RTCA) to identify function by NERC naming convention and Security Analysis (SA) to represent name of PJM tool used to run contingency analysis
- Section 5.3: mW and mVAR corrected to MW and MVAR
- Sections 5.2 and 5.4: References to 'back-office staff' changed to 'back-office support staff'

## Appendix C:

- Exhibit 15: List of Monitored Priorities modified to identify outage reporting requirements aligned to each priority instead of summarized for all under priority 3

Priority	Name	Description
1	Reliability & Markets	Applies to internal PJM facilities under Congestion Management. <b>TOs are required to report all outages under this classification.</b> If actual or post-contingency violations occur on these facilities, operators follow appropriate procedures, including market re-dispatch, to remediate problems. PJM's EMS maintains ratings/limits for the facilities.
2	Reliability BES	Applies to facilities defined as part of the Bulk Electric System (BES) or facilities PJM is responsible for as NERC Security/Reliability Coordinator. These facilities are not included in Reliability & Markets. May also apply to internal PJM facilities impacted by switching/phase shifter operations on parallel PJM facilities which are under Congestion Management. <b>TOs are required to report all outages under this classification.</b> If actual or calculated overloads occur, operators follow appropriate procedures to remediate the problem. Facility owners are responsible for any off-cost operation incurred. PJM's EMS maintains ratings/limits for these facilities.



## Appendix C:

- Exhibit 15: List of Monitored Priorities modified to identify outage reporting requirements aligned to each priority instead of summarized for all under priority 3
  - Also corrected Reportable category name

Priority	Name	Description
3	Status Only	<p>TOs are required to report outages on all facilities classified as priority 1, 2, 5, 6 &amp; 7. In addition, TOs are required to report outages on facilities that are not in Congestion Management but may impact the reliability and/or economics of the system. TOs are required to follow applicable outage reporting procedures for facilities classified as Reportable <u>High/Yes</u> and Reportable <u>Low</u> in the Reportable Transmission Facility column of the PJM Monitored Facilities list. The primary difference in these classifications is that for Reportable <u>High/Yes</u> facilities, TOs are required to call before and after taking outages, whereas TOs are not required to call PJM before taking an outage on Reportable <u>Low</u> facilities. TOs are not required to report outages on facilities classified as Reportable <u>No</u> to PJM. PJM can require that any, or all, OATT facilities be Outage Reportable. PJM's EMS does not maintain ratings/limits for these facilities.</p>

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Exhibit 15: List of Monitored Priorities modified to identify outage reporting requirements aligned to each priority instead of summarized for all under priority 3

Priority	Name	Description
6	Reliability Non-BES	Similar to priority 2 but applies to facilities that may be monitored for loading by PJM but are not included as Markets & Reliability or BES facilities. Facilities are generally included in this category at the request of the transmission owner. <u>TOs are required to follow applicable outage reporting procedures for facilities classified as Reportable Yes and Reportable Low in the Reportable Transmission Facility column of the PJM Monitored Facilities list.</u> If actual or calculated overloads occur, operators develop remedial strategies in cooperation with the facility owner. Corrective strategies are implemented as approved by the owner. Owners assume responsibility for off-cost operation. PJM's EMS maintains ratings/limits for these facilities.

## Appendix C:

Exhibit 15: List of Monitored Priorities modified to identify outage reporting requirements aligned to each priority instead of summarized for all under priority 3

Priority	Name	Description
7	GSU	Similar to priority 2, but applies to generator step-ups. Facility owners are responsible for costs incurred to remediate problems. <u>TOs are required to follow applicable outage reporting procedures for facilities classified as Reportable Yes and Reportable Low in the Reportable Transmission Facility column of the PJM Monitored Facilities list.</u> PJM's EMS maintains ratings/limits for these facilities.

- New Note added under Exhibit 15 to reference M03, Section 1.5.4 for requirements associated to Reported Yes, Low, and No.