

Manual 01, Revision 32 – First Read

Updating outdated M01 networking language, and adding a section for outages.

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- Updated references to GMS (Generation Management System) to VBUCC (Virtual Backup Control Center)
- Updated references to Test System or Test Environment to Stage System or Stage Environment
- Standardized all references to PJMNET or PJMNet to PJMnet
- Removed references to the PJM ICCP Network Interface Control Document (NICD), and PJM ICCP Communications Workbook
- Removed dated ICCP references
- Corrected spelling errors
- Added Section 3.8 for Planning, Coordination, and Notification of System Changes and Events.

- Updated references to GMS to VBUCC
- Updated references to the Test System to Stage System
- Section 1.2
 - Updated the section header to Virtual Backup Control Center (VBUCC). Added that VBUCC serves as a stand alone ACE calculator in the event of a dual AC1 and AC2 failure. VBUCC has a dedicated independent infrastructure and networking with its own ICCP and DNP data links with member companies.

- Section 2.3.6 Data Integrity
 - Removed references to outdated ICCP documentation
 - Updated references to PJMNET to PJMnet
 - Updated references to TEST system to Test or Stage system
 - Updated references to GMS to VBUCC
- Section 2.5.6 Recovery Procedures
 - Updated references to GMS to VBUCC

- Section 3.2 EMS Data Exchange
 - Removed reference to ICCP block 4 messages, PJM only uses blocks 1 and 2
 - Removed references to outdated ICCP documentation
 - Removed reference to accumulated energy values being sent hourly over ICCP
 - Updated references to PJMnet
 - Updated frame relay to MPLS connections and removed reference to PVC connections

- Section 3.2.4 PJMnet Communications System
 - Added language that the member company will be responsible to attend a scheduled kickoff conference call to discuss PJMnet IP addressing, protocols, and project timelines.
 - Removed reference to a “Welcome Letter”

- Added Section 3.8 called Planning, Coordination, and Notification of System Changes and Events which will cover both routine and significant changes that cause ICCP link outages.
- 3.8.1 Regular Planned System Outages
 - This section was previously in Attachment C

- Section 3.8.2 Emergency or Unscheduled System Outages
 - This was previously included in Attachment C. A new section was created for clarity.
 - Updated to include the contact information for the PJM EMS Networking Rapid Response team. This number is to be used for any emergency and/or unscheduled system outage that impacts ICCP data.

- Section 3.8.3 Major System Changes or Upgrade Process
 - New section added to address the process required when a communication path has changed between the member and PJM
 - Examples of a path change include:
 - New EMS
 - New PJMnet circuits
 - Replacement or operating system upgrade of ICCP servers
 - New or replaced Network equipment such as Firewalls, Routers, and Switches (only Failover Testing is required)
 - Upgrade to new ICCP Software, MMS Stack, EMS version change
 - Change of IP address of ICCP server by member

- All initial communication should go through the PJM client manager who will coordinate conference calls to discuss the project timeline, objectives, and cutover plan.
 - The date and time for cutover should be agreed upon by all parties one week prior to the cutover.
 - An outage notification should be sent 24 business hours in advance of system changes that could impact ICCP data.

- Point to Point ICCP testing should be completed on the Stage system two weeks prior to expected production date.
- Link and Failover testing should be completed on the Stage system prior to expected production date.
- Production Day:
 - All regulating units should be communicated to PJM and removed from the Market one hour prior to the production cutover and retest scheduled with the Regulation Testing group.
 - EMS Networking will coordinate any special link configurations and communicate with PJM dispatch.

- Section 3.8.4 Outage Tracking
 - This section was previously in Attachment C. A new section was created for clarity.

For any questions on these Manual 01 changes, please contact the PJM staff listed below:

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SIS:

1/13/2016 : First information read [finished]
2/17/2016 : Second informational update

SOS:

1/27/2016 : First informational read
2/24/2016 : Second informational update

OC:

2/9/2016 : First read
3/8/2016 : Second read, endorse

MRC:

2/25/2016 : First read
3/31/2016 : Second read, endorse