Summary of M-13 Rev. 67 Changes

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Director, Dispatch
Systems Operation Sub-committee - Joint
October 3rd, 2018
Administrative Changes:
Effective Date: November 1st, 2018
Now Revision 67
Overview of Changes:

- Cover to Cover Periodic Review
- Section 3.1 added language to increase burn hour requirements when long duration extreme events are forecasted
- Section 3.2 added “Production System Freeze Change” to Conservative Ops
- Section 3.3
  - Corrected formatting for Day-Ahead commitment instructions
  - Added reference to M-11 regarding PLS schedules
- Section 3.4 Added reference to M-11 regarding PLS schedules
- New Section 3.5 added for “Long Duration Extreme Events”
  - Old Sections 3.5, 3.6, 3.7, and 3.8 renumbered accordingly
- Section 3.6 added language for disabling auto-reclose
- Section 4.1 deleted Exhibit 4 table
  - Former Exhibit 4 content reformatted and inserted into existing section 4.1 and new sections 4.3 and 4.4
M-13, Rev. 67 Summary of Changes

- Section 4.2: Added language to outline communication between PJM, its members and the E-ISAC with regards to potential cyber or physical attacks
- New section 4.3 for PJM operational procedure for physical threats
- New section 4.4 for PJM operational procedure for cyber threats against PJM
  - New section 4.4.1 for loss of ICCP or EMS capabilities operational procedure
  - New section 4.4.2 for loss of internet operational procedure
  - New section 4.4.3 for loss of all telecommunications operational procedure
- New section 4.5 for PJM operational procedure for cyber threats against member company
- New section 4.6 for PJM operational procedure for High-Altitude Electromagnetic Pulse
- Section 5.4 General language clarifications and modifications for consistent use and spelling of terms
  - Section 5.4.1 language clarifications based on AEP Load Shed Root Cause Analysis recommendations
- Section 6.4 added language to adjust “Resource Limited Unit” reporting time-frame and minimum run time requirements to place additional Fuel Limited Resources into the Maximum Emergency Category during long duration extreme weather events.
- Annual updates to Attachments E, F, and N
Section 1: Overview

1.1 Policy Statements

1.2 Governmental Notifications & Public Appeals Procedures

1.3 Communications

Section 2: Capacity Emergencies

2.1 Overview

2.2 Reserve Requirements

2.3 Capacity Shortages

2.4 Light Load Procedures

2.5 General Assistance to Adjacent Control Areas

Section 3: Weather/Environmental Emergencies

3.1 Overview

3.2 Conservative Operations

3.3 Cold Weather Alert

3.4 Hot Weather Alert

3.5 Long Duration Extreme Events

3.6 Inter RTO Natural Gas Coordination Procedure

3.7 Thunderstorms and Tornadoes

3.8 Geo-Magnetic Disturbance (GMD) Operating Plan (EOP-010-1)

3.9 Assessing Gas Infrastructure Contingency Impacts on the Electric System

Section 4: Sabotage/Terrorism Emergencies

4.1 General Conditions

4.2 Communications Plan

4.3 Physical Threats

4.4 Cyber Threats against PJM

4.5 Cyber Threats against Member

4.6 High-Altitude Electromagnetic Pulse

Section 5: Transmission Security Emergencies

5.1 Heavy Load, Low Voltage Conditions

5.2 Transmission Security Emergency Procedures

5.3 Shortage Pricing Conditions and Procedures

5.4 Post Contingency Local Load Relief Warning

5.5 Interconnection Reliability Operating Limits (IROL) Manual Load Dump Warning/Action

5.6 Transmission Loading Relief (TLR)

5.7 Load Shed Directive Procedure

Section 6: Reporting Emergencies

6.1 Reporting System Disturbances to the Department of Energy

6.2 Reporting System Disturbances to NERC, SERC or RFC

6.3 Reporting Capacity or Energy Shortages to FERC

6.4 Fuel Limitation Reporting

6.5 Analysis of System Events and Disturbances

Section 7: TOP Operating Plan Submission and Review (EOP-011)

7.1 TOP EOP-011 Operating Plan Submission Process

7.2 TOP EOP-011 Operating Plan Review Process
Requested Changes from Member’s review

• Section 3.2: Added language clarifying TO/GO responsibilities during a Production System Change Freeze.
• Section 4.1: During Elevated Threat Alerts, “Members should consider limited, or full, activation of their organization’s emergency preparedness action plans”
• Section 4.3: Transmission/Generation dispatchers consider activating their emergency preparedness plans per their internal procedures.
• Section 4.3: Clarified that Transmission dispatchers should enhance security via their internal process and procedures.
Requested Changes from Member’s review

- Section 4.4.1: Removed language suggesting enhanced physical security
- Section 4.4.1: Transmission/Generation dispatchers consider activating their emergency preparedness plans per their internal procedures.
- Section 4.4.1 and 4.4.2: PJM will update members on situation severity and expected restoration time
- Section 4.4.2: Removed names of PJM databases, instead referred to type of critical near-term system updates dispatchers should provide to PJM.
Requested Changes from Member’s review

- Section 4.5: removed terms “remote” and “remotely” when referring to unauthorized operation of assets.
- Section 4.5.1 and 4.5.2: Member will update PJM on situation severity and expected restoration time.
- Section 4.5.1: Consider staffing substations for communications.
- Section 4.3, Section 4.4.1, Section 4.5.2, Section 4.6: Under PJM Member Actions, revised language to specify ‘Generator Operators’ when referring to staffing of Critical CTs or Black Start units.
Requested Changes from Member’s review

Relay verification after a cyber event – Language revised

• **Section 4.5.2**
  
  – After the cyber threat has been resolved, and consistent with the member company’s cyber response procedures, the affected member company will identify its affected/potentially affected BES facilities, and verify protective relay settings of those affected/potentially affected BES facilities
• Contact Dean Manno (dean.manno@pjm.com) with questions
• Request for endorsement schedule:
  – October 9th: OC Meeting
  – October 25th: MRC Meeting
• Reviewing operator training impacts of Manual changes