



**RESTORATION PLAN COORDINATION/APPROVAL CHECKLIST**

**PURPOSE:** As per Requirement 2 of EOP-005-2 and Requirement 2 of EOP-006-2, this checklist is intended to ensure coordination with our neighboring RC / TOP and the appropriate internal PJM registered entities by providing detailed references to any changes and enhancements to our restoration plans. It also provides a mechanism for PJM in its role as RC to approve TO System Restoration Plans.

**PROCESS:** PJM and the PJM TO will distribute this checklist at least annually or when there are changes to the restoration plan based on unplanned permanent System modifications (within 90 calendar days) or prior to implementing a planned BES modification, that would change the implementation of its restoration plan. PJM will distribute via e-mail exploder to neighboring entity contacts; RFC Reliability Committee; PJM Operating Committee; and PJM System Operations Sub-Committee.

Registered Entity	PJM
	(Name of Company and Functional Model Responsibility)
Point of Contact:	Glen Boyle, Manager – System Operator Training
	(Name, Position/Title and Department)
Phone Number:	610-666-4759
e-Mail:	glen.boyle@pjm.com
	(TO Plan Contact)
Effective Date of Restoration Plan	6/10/16
Date submitted to PJM for approval (must be 30 days prior to Effective Date)	N/A
Date approved by PJM (must be prior to Effective Date):	5/26/16
	(Completed by PJM)
PJM Approval	MRC Committee
	(Name, Position/Title and Department) (Completed by PJM)
Phone Number:	N/A
e-Mail:	N/A
	PJM approval indicates that the plan has been reviewed and accepted and is compatible with the RC restoration plan and other TO Restoration Plans as per EOP-006, R5.1. Any required changes are communicated to plan owner



	Coordination Item	Reference Page #
1.	When was the Restoration Plan last updated: (Date)	June 15, 2015
2.	<p><b>Reason for this update:</b></p> <p><input checked="" type="checkbox"/> Annual Review</p> <p><input type="checkbox"/> Planned BES modification</p> <p><input type="checkbox"/> Unplanned permanent BES modification  Date of unplanned permanent BES modification _____  (Restoration Plan must be updated within 90 days of this date)</p> <p><input type="checkbox"/> Other</p> <hr/> <p>Comments: Annual Review per EOP-005-2, R3 and EOP-006-2, R3</p> <ul style="list-style-type: none"> <li>• Minor formatting changes throughout</li> <li>• Consistency in title “Transmission Owner operator” and “Generation Owner/MOC dispatcher” throughout manual</li> <li>• Section 3.1.2 Clarification of responsibilities for report submittals and communications</li> <li>• Section 3.1.7 Clarification on load shedding during system restoration</li> <li>• Section 4.1.1 Additional detail on communication protocols during system restoration</li> <li>• Section 6.2.1 Clarification on responsibility for tabulation of unit status</li> <li>• Section 7.2.1 Update Exhibit 10. Added clarifying requirement on establishment of tie schedule between interconnected areas</li> <li>• Section 8 Minor clarifications and updated references</li> <li>• Attachment A Noted that critical nuclear safe shutdown power is defined in NPIRs. Updated dates for Black Start RTO wide RFP. Removed transitional process verbiage. Added EOP-005-2, R-15 requirement on notification of change to Black Start unit ability to meet TO restoration plan within 24 hours.</li> <li>• Attachment B Added SMECO to Exhibits 11 and 13.</li> <li>• Attachment D Change from System Restoration Coordinators Task Force to Subcommittee.</li> <li>• Attachment F Updated Figure 1 – TO restoration document references</li> <li>• Attachment G Clarification of eDART Restoration Plan coordination process. Clarification on completion of Attachment G-2. Added SMECO to annual update timeline. Changed EKPC annual update timeline. <ul style="list-style-type: none"> <li>○ Added new subsection G-4 Dynamic Study and Restoration Plan Updates</li> </ul> </li> <li>• Attachment H – Updated Under Frequency Load Shed Table</li> </ul>	
3.	<p><b>Relationships and Responsibilities:</b> Were there any significant changes to the plan’s identified responsibilities and relationships, since the last update?</p> <p><input checked="" type="checkbox"/> No</p> <p><input type="checkbox"/> Yes</p>	

Comments:	
4. <b>Restoration Plan Components:</b> Verify that the Restoration Plan includes the following components (per R1 of EOP-005-2) and list the page number where it can be found or an explanation as to why the component was not included.	
R1.1 Strategies for system restoration that are coordinated with the Reliability Coordinator's high level strategy for restoring the Interconnection	<b>Reference Section 8</b>
<input checked="" type="checkbox"/> Included <input type="checkbox"/> Not Included	
Reason for not including:	
R1.2 A description of how all Agreements or mutually agreed upon procedures or protocols for off-site power requirements of nuclear power plants, including priority of restoration, will be fulfilled during System restoration.	<b>Reference Section 1.2, Attachment A</b>
<input checked="" type="checkbox"/> Included <input type="checkbox"/> Not Included	
Reason for not including:	
R1.3 Procedures for restoring interconnections with other Transmission (Owners)/Operators under the direction of the Reliability Coordinator. <i>Documented in M-36, Section 3.1.6 and 7.2 (Optional for TO plan)</i>	<b>Reference Sections 3.1.6 and 7.2</b>
<input checked="" type="checkbox"/> Included <input type="checkbox"/> Not Included	
Reason for not including:	
R1.4 Identification of each Blackstart Resource and its characteristics including but not limited to the following: the name of the Blackstart Resource, location, megawatt and megavar capacity and type of unit.	<b>Reference Page #</b>
<input type="checkbox"/> Included <input checked="" type="checkbox"/> Not Included	
Reason for not including: Due to the sensitive nature of this information, PJM does not publish it in this Manual but it can be found in the PJM Blackstart database	
R1.5 Identification of Cranking Paths and initial switching requirements between each Blackstart Resource and the unit(s) to be started.	<b>Reference Page #</b>



<input type="checkbox"/> Included <input checked="" type="checkbox"/> Not Included	
Reason for not including: Cranking paths can be found in the individual TO Restoration Plans and the PJM Blackstart database	
R1.6 Identification of acceptable operating voltage and frequency limits during restoration.	<b>Reference Section 3.1.7, 2.3 and 7.1</b>
<input checked="" type="checkbox"/> Included <input type="checkbox"/> Not Included	
Reason for not including:	
R1.7 Operating Processes to reestablish connections within the Transmission (Owner) Operator's System for areas that have been restored and are prepared for reconnection.	
<i>Documented in M-36, Section 7.2 (Optional for TO plans)</i>	<b>Reference Section 7.2</b>
<input checked="" type="checkbox"/> Included <input type="checkbox"/> Not Included	
Reason for not including:	
R1.8 Operating Processes to restore Loads required to restore the System, such as station service for substations, units to be restarted or stabilized, the Load needed to stabilize generation and frequency, and provide voltage control.	
<i>Documented in M-36, Section 3.1.5 and 7.1 (Optional for TO plans)</i>	<b>Reference Section 3.1.5, 7.1 and Attachment A</b>
<input checked="" type="checkbox"/> Included <input type="checkbox"/> Not Included	
Reason for not including:	
R1.9 Operating Processes for transferring authority back to the Balancing Authority in accordance with the Reliability Coordinator's criteria.	
<i>Documented in M-36, Section 3.1.7 (Optional for TO plans)</i>	<b>Reference Section 3.1.7</b>
<input checked="" type="checkbox"/> Included <input type="checkbox"/> Not Included	
Reason for not including:	

5	<b>R2 - Restoration Plan coordination:</b> Have all entities identified in the restoration plan been provided with a description of any changes to their roles and specific tasks prior to the implementation date of the plan?	<b>Reference Page #</b>
	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	Comments:	
6	<b>R5 – Restoration Plan availability:</b> Are copies of this plan available within your primary and backup control rooms prior to the effective date of this plan?	
	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	Comments:	

PJM will electronically provide updates of PJM Manuals 13 and 36 related to system restoration plans with requested acknowledgment of receipts by neighboring TOPs, and RCs within 30 calendar days of revision per EOP-006-2 R2. The receipts will be tracked and used to:

1. Follow-up with neighboring systems to coordinate receipt and understanding of document changes;
2. Serve as evidence of compliance that EOP plans and updates were appropriately provided to neighboring systems; and
3. Establish contacts for inclusion in training and drills.

**Procedure:**

1. Changes to PJM's emergency operations plans (including but not limited to Manuals 13 and 36) shall be sent electronically to all neighboring RCs and TOPs (and BAs as appropriate) with an electronic receipt request within 30 calendar days of revision per EOP-006-2 R2.
2. The transmittal will include PJM contact information for any questions by our neighbors and for any corresponding changes that may result to our neighbors' emergency operations or restoration plans.

The receipts will also be used to track acknowledgement for follow-up of contact information for neighboring systems.

**External RC Restoration Plan Review**

In support of EOP-006-2 R4, PJM will review their neighboring Reliability Coordinator's restoration plans and identify any conflicts with the PJM restoration plan. PJM will work with the neighboring RC to resolve any conflicts within 30 calendar days.