PJM TO-TOP Matrix Version 8 Approval

Srinivas Kappagantula & Cathy Wesley
December, 2014
• Used as an audit tool by PJM for TO-TOP Matrix Audits
• Index between NERC Reliability Standards and PJM Manuals
• Does not create any new obligations for PJM or its members
• Current Version is 7 from November 27, 2013
• Extensively reviewed and revised by the TO/TOP Matrix Subcommittee
Changes From Version 7

- Administrative
  - General maintenance of the Matrix
  - Standard Version number and Enforcement and Inactive Dates updates
- New NERC Reliability Standard additions
- Edits to Shared and Assigned Shared tasks
Changes - Administrative

- Cover page updated with most recent revision numbers of referenced PJM Manuals
  - “Reference Documents” section will no longer include Manual revision numbers
  - easier maintenance of the Matrix
- Changed “Effective Date” and “End Date” to “Enforcement Date” and “Inactive Date” to reflect NERC terminology in the main body as well as “Governance” tab
- Updated existing Reliability Standards with correct “Enforcement Date” and “Inactive Date”, where applicable, to be consistent with NERC dates
- Deleted “Audited by RFC” column as ReliabilityFirst (RF) now relies on PJM’s TO-TOP Matrix Audit Program
Version Number and Enforcement and Inactive Dates Updates

For the following NERC Reliability Standards in the Matrix, where applicable, TTMS updated standard version, Enforcement Date, and/or Inactive Date

- BAL-005-0.1b
- CIP-001-2a
- EOP-001-0.1b
- EOP-003-2
- EOP-004-1
- EOP-005-1
- EOP-008-0
- FAC-010-1
- IRO-004-1
- IRO-005-2a
- IRO-005-3a
- PER-001-0.1
- PER-002-0
- PRC-001-1
- TOP-001-1a
- TOP-002-2b
- TOP-003-1
- TOP-004-2
- TOP-005-1.1a
- TOP-006-2
- TOP-007-0
- TOP-008-1
- VAR-001-3
New NERC Reliability Standard Additions

- **EOP-10-1 Geomagnetic Disturbance Operations**
  - Enforcement Date: 4/1/2015
  - Two requirements, R1.2 & R3.2, in the Matrix

- **VAR-001-4 Voltage and Reactive Control**
  - Enforcement Date: 10/1/2014
  - Fewer requirements in Matrix when compared to version 3 of the Standard
  - R3, R5, R5.1, R5.2, & R5.3 in the Matrix
<table>
<thead>
<tr>
<th>Existing Standard</th>
<th>What Changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM-001-1.1 R2</td>
<td>Added shared task #5</td>
</tr>
<tr>
<td>EOP-008-1 R5.1</td>
<td>Updated assigned task #2 to require only certification of changes to Operating Plan and not the actual plan</td>
</tr>
<tr>
<td>FAC-001-0</td>
<td>Added assigned task</td>
</tr>
<tr>
<td>IRO-005-3.1a</td>
<td>Added Purpose row</td>
</tr>
<tr>
<td>PRC-001-1 R1 &amp; R4</td>
<td>Changed “protection system” in shared tasks to Protection System as specified in new version of the standard PRC-001-1.1</td>
</tr>
<tr>
<td>TOP-001-1a R1</td>
<td>Modified shared tasks to clarify when Member TO system operators shall take actions</td>
</tr>
<tr>
<td>TOP-001-1a R7.3</td>
<td>Modified shared task to indicate when Member TO can remove transmission facilities from service without coordinating with PJM</td>
</tr>
<tr>
<td>TOP-005-2a R2</td>
<td>Added Purpose row and abbreviated shared tasks in R2, removing extraneous information</td>
</tr>
</tbody>
</table>
## NERC Reliability Standard Specific Changes

<table>
<thead>
<tr>
<th>Existing Standard</th>
<th>What Changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAR-001-3</td>
<td>Deleted extraneous information from Purpose row and added PJM Manual 14D as a reference document</td>
</tr>
</tbody>
</table>
• Compliance is effective upon Transmission Owners Agreement – Administrative Committee (TOA-AC) approval
• Approve Version 8 of the TO-TOP Matrix