Reliability Compliance Update

Preston Walker
System Operations Subcommittee
July 2, 2019
<table>
<thead>
<tr>
<th>Standards</th>
<th>Project</th>
<th>Action</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAC-001-3</td>
<td>Draft Reliability Guideline: Improvements to Interconnection Requirements for BPS-Connected Inverter-Based Resources</td>
<td>Comment</td>
<td>07/24/19</td>
</tr>
</tbody>
</table>

**Applicability:** BA, GO, PC, RC, TP, TOP

**Background:**
- This guideline serves as a resource for TOs to consider as they continually develop and enhance interconnection requirements per FAC-001-3 and interconnection study requirements per FAC-002-2.
PJM Ops and Planning Audit Timeline

February/March
- Mock Audit: March 11 – 13
- Controls Review: Feb 7 – June 1

April/May/June
- Address Mock Audit Recommendations: March 13 – July 22

July/August
- Data Requests: July 22 – Oct 21
- Audit Scope Notification: July 22

September/October
- Audit: Oct 21- 25

Ongoing: Communications & Training
<table>
<thead>
<tr>
<th>Applicable Standard</th>
<th>Applicable Requirement(s)</th>
<th>#</th>
<th>Internal Control</th>
<th>Control Type (Preventive or Monitoring/Detectorive)</th>
<th>Control Frequency (e.g. real-time, daily, monthly, quarterly, annual, etc.)</th>
<th>Control Owner</th>
<th>Evidence of Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRC-005-6</td>
<td>R3.</td>
<td>1</td>
<td>Maximo is used as a computerized maintenance management system to track protection system maintenance and testing. Alerting is enabled to notify personnel of approaching due dates for maintenance</td>
<td>Preventative</td>
<td>On-going</td>
<td>C. Transformer</td>
<td>See Maximo screenshots</td>
</tr>
<tr>
<td>FAC-003-4</td>
<td>R1.</td>
<td>2</td>
<td>Public outreach is performed so that the public understands the important of vegetation management through various advertisement methods. Call in number is provided in all ads and the public is advised to report tree issues</td>
<td>Detective</td>
<td>On-going</td>
<td>B. Walnut</td>
<td>See example advertisements</td>
</tr>
<tr>
<td>EOP-010-1</td>
<td>R1.</td>
<td>3</td>
<td>System operators and applicable personnel receive annual training and simulation of the GMD Operating Procedure. Afterwhich, their feedback is documented and assessed for inclusion in the GMD Operating Procedure.</td>
<td>Corrective</td>
<td>Annual</td>
<td>A. Solar</td>
<td>See 2017 feedback form and 2018 GMD procedure reflecting the feedback</td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>On an annual basis, an internal audit is completed to review compliance to all applicable standards.</td>
<td>Preventative</td>
<td>Annual</td>
<td>Internal Audit Department</td>
<td>See 2017 and 2018 internal audit reports</td>
</tr>
</tbody>
</table>
➢ Workshops
  • Standards and Compliance Workshop – July 23–24, 2019, Minneapolis, MN
  • Electromagnetic Pulse Task Force Workshop – July 25, 2019, Atlanta, GA
  • GridSecCon 2019 – October 22–25, 2019, Atlanta, GA
NERC Standards Subject to Future Enforcement

- **July 1, 2019**
  - PER-003-2 – Operating Personnel Credentials
  - TPL-007-3 – Transmission System Planned Performance for Geomagnetic Disturbance Events (R1, R2)

- **January 1, 2020**
  - PRC-026-1 – Relay Performance During Stable Power Swings (R2 - R4)

- **July 1, 2020**
  - PRC-002-2 – Disturbance Monitoring and Reporting Requirements (50% compliance for R2–4, 6–11)

- **January 1, 2021**
  - TPL-007-3 – Transmission System Planned Performance for Geomagnetic Disturbance Events (R6)
  - PRC-012-2 – Remedial Action Schemes

- **January 1, 2022**
  - TPL-007-3 – Transmission System Planned Performance for Geomagnetic Disturbance Events (R3, R4, R7)

- **July 1, 2022**
  - PRC-002-2 – Disturbance Monitoring and Reporting Requirements (50% compliance for R2–4, 6–11)
Questions?

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