NERC and Regional Coordination Update

Srinivas Kappagantula, Sr. Analyst
NERC and Regional Coordination
Planning Committee
May 12, 2016
### Standards: TPL-001-4

**Cost Effectiveness Pilot (CEP)**
Voluntary questionnaire to the industry participants to obtain sufficient information to develop a high level analysis of the risk reduction to BES under consideration, as well as the potential costs of not addressing the reliability risks.

**Question 1:** Deals with risk(s) to BPS as a result of not including maintenance outages < 6 months duration in studies.
- Specifically asks about risks to the reliable operation of the BPS if planned maintenance outages of < 6 months in duration are not considered in studies during one or both seasonal off peak periods.
- What are the chances of occurrence of risks(s), if any.
- Costs to be considered when evaluating the risks.
- How to identify cost-effective solutions to reduce high or medium risk(s) that were identified above.

**Question 2:** Deals with risks to BPS as a result of an entity not performing stability analyses for the P0, P1, and P2 categories in TPL-001-4 that consider the possible unavailability of long lead-time equipment.
- Same considerations as listed in Question 1 above.

<table>
<thead>
<tr>
<th>Standards</th>
<th>Project</th>
<th>Activity</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPL-001-4</td>
<td>Cost Effectiveness Pilot (CEP)</td>
<td>Informal Comment</td>
<td>5/26/16</td>
</tr>
</tbody>
</table>
NERC Standards Subject to Future Enforcement

July 1, 2016

- CIP-002-5.1 - Cyber Security – BES Cyber System Categorization;
- CIP-005-5 - Cyber Security – Electronic Security Perimeter(s);
- CIP-003-6 - Cyber Security – Security Management Controls;
- CIP-004-6 - Cyber Security – Personnel & Training;
- CIP-006-6 - Cyber Security – Physical Security of BES Cyber Systems;
- CIP-007-6 - Cyber Security – System Security Management;
- CIP-008-5 - Cyber Security – Incident Reporting and Response Planning;
- CIP-009-6 - Cyber Security – Recovery Plans for BES Cyber Systems;
- CIP-010-2 - Cyber Security – Configuration Change Management and Vulnerability Assessments;
- CIP-011-2 - Cyber Security – Information Protection
- BAL-001-2 - Real Power Balancing Control Performance
- COM-002-4 - Operating Personnel Communications Protocols
- MOD-025-2 - Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability
NERC Standards Subject to Future Enforcement

- July 1, 2016
  - MOD-031-1 - Demand and Energy Data
  - PER-005-2 - Operations Personnel Training
  - PRC-002-2 - Disturbance Monitoring and Reporting Requirements
  - PRC-004-4(i) - Protection System Misoperation Identification and Correction;
  - PRC-019-1 - Coord of Gen Unit or Plant Capabilities, Voltage Regulating Controls, and Protection
  - PRC-019-2 - Coord of Gen Unit or Plant Capabilities, Voltage Regulating Controls, and Protection
  - PRC-024-1 - Generator Frequency and Voltage Protective Relay Settings
  - PRC-024-2 - Generator Frequency and Voltage Protective Relay Settings
NERC Standards Subject to Future Enforcement

- **January 1, 2017**
  - IRO-010-2 – Reliability Coordinator Data Specification and Collection (R1 and R2)
  - TOP-003-3 – Operational Reliability Data (All Requirements but R5)
- **April 1, 2017**
  - EOP-010-1 – Geomagnetic Disturbance Operations (Requirement 2)
  - EOP-011-1 – Emergency Operations
  - IRO-001-4 – Reliability Coordination – Responsibilities
  - IRO-002-4 - Reliability Coordination — Monitoring and Analysis
  - IRO-008-2 – Reliability Coordinator Operational Analyses and Real-time Assessments
  - IRO-010-2 – Reliability Coordinator Data Specification and Collection (R3)
  - IRO-014-3 — Coordination Among Reliability Coordinators
  - IRO-017-1 — Outage Coordination
  - PRC-010-1 – Undervoltage Load Shedding
  - TOP-001-3 – Transmission Operations
  - TOP-002-4 – Operations Planning
  - TOP-003-3 – Operational Reliability Data (R5)
NERC Standards Subject to Future Enforcement

- April 2, 2017
  - PRC-004-5(i) - Protection System Misoperation Identification and Correction
  - PRC-010-2 – Undervoltage Load Shedding
- July 1, 2017
  - MOD-033-1 - Steady-State and Dynamic System Model Validation
- January 1, 2018
  - PRC-026-1 – Relay Performance During Stable Power Swings (R1)
- January 1, 2020
  - PRC-026-1 – Relay Performance During Stable Power Swings (R2-R4)