



# NERC and Regional Coordination Update

Srinivas Kappagantula, Sr. Analyst  
System Operations Subcommittee  
May 25, 2016



Standards	Project	Activity	Due Date
<b>TPL-007-1</b>	<p><b>Project 2013-03 Geomagnetic Disturbance Mitigation</b></p> <p>To develop reliability standards to mitigate the risk of instability, uncontrolled separation, and Cascading as a result of GMDs. This is a two-stage project.</p> <p><b>Stage 1:</b> standards required applicable registered entities to develop and implement Operating Procedures that can mitigate effects of GMD events (EOP-010-1)</p> <p><b>Stage 2:</b> standards will require applicable entities to conduct initial and on-going assessments of potential impact of benchmark GMD events on their respective systems as directed in Order 779 (planning standards).</p> <p>SDT noticed an error in Figure 1 of the Screening Criterion for Transformer Thermal Impact Assessment White Paper. This error resulted in incorrect plotting of simulated power transformer peak hot-spot heating from the Benchmark GMD Event. SDT corrected this error and made related revisions to other white papers.</p> <p><b>Following revised white papers are posted for comment:</b></p> <ol style="list-style-type: none"><li>1. Benchmark GMD Event White Paper</li><li>2. Transformer Thermal Impact Assessment White Paper</li><li>3. Thermal Screening Criterion White Paper</li></ol>	<b>Comment</b>	<b>6/13/16</b>

Standards	Project	Activity	Due Date
<b>TPL-001-4</b>	<p><b>Cost Effectiveness Pilot (CEP)</b>            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.</p> <p><b>Question 1:</b> Deals with risk(s) to BPS as a result of not including maintenance outages &lt; 6 months duration in studies.</p> <ul style="list-style-type: none"> <li>Specifically asks about risks to the reliable operation of the BPS if planned maintenance outages of &lt; 6 months in duration are not considered in studies during one or both seasonal off peak periods</li> <li>What are the chances of occurrence of risks(s), if any</li> <li>Costs to be considered when evaluating the risks</li> <li>How to identify cost-effective solutions to reduce high or medium risk(s) that were identified above</li> </ul> <p><b>Question 2:</b> 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.</p> <ul style="list-style-type: none"> <li>Same considerations as listed in Question 1 above</li> </ul>	<b>Informal Comment</b>	<b>5/26/16</b>

➤ July 1, 2016

- BAL-001-2 - Real Power Balancing Control Performance
- 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
- 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

- 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-019-2 - Coord of Gen Unit or Plant Capabilities, Voltage Regulating Controls, and Protection
  - PRC-024-2 - Generator Frequency and Voltage Protective Relay Settings
- October 1, 2016
  - [FAC-003-4 - Transmission Vegetation Management](#)
  - MOD-031-2 - Demand and Energy Data

- 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)

- 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)