



# NERC and Regional Coordination Update

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System Operations Subcommittee  
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## NERC Standards Under Development

Standards	Project	Activity	Due Date
<b>Guideline</b>	<b>Modeling Distributed Energy Resources in Dynamic Load Models Draft Reliability Guideline:</b>	<b>Comments</b>	<b>11/11/2016</b>
	<p>The NERC Planning Committee's Load Modeling Task Force developed the Draft Reliability Guideline - Modeling Distributed Energy Resources in Dynamic Load Models. With the proliferation of distributed energy resources (DER), Transmission Planners must adapt models and modeling practices to account for and differentiate end use loads and the offset in net demand by these resources. In the past, and at lower penetrations of DER integrating into the distribution system, net load reduction has been used. This assumes the same load composition for these different demand levels; however, it is well understood and expected that net load reduction is actually a result of the same or greater demand with an offset due to some level of distributed energy resources. However, these practices are not sustainable moving forward as the distribution system continues to integrate more DER.</p>		



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Standards	Project	Activity	Due Date
Guideline	<p data-bbox="243 431 1619 480"><b>Integrating Reporting ACE with the NERC Reliability Standards:</b></p> <p data-bbox="243 529 1619 854">The NERC Operating Committee's Resources Subcommittee and the Phase 2 of the Balancing Authority Reliability-based Controls standard drafting team developed the draft Reliability Guideline: <b>Integrating Reporting Area Control Error (ACE) with the NERC Reliability Standards</b>. This Reliability Guideline is intended to provide recommended practices for calculating and using Reporting ACE in the Tie Line Bias Control program integrated with the NERC Reliability Standards.</p> <p data-bbox="243 902 1619 992">A draft version of the Reliability Guideline has been posted on the NERC website for industry comment.</p>	Comments	11/14/2016



## NERC Standards Under Development

Standards	Project	Activity	Due Date
<b>Guideline</b>	<b>Inadvertent Interchange:</b>	<b>Comments</b>	<b>11/14/2016</b>
	<p>The NERC Operating Committee's Resources Subcommittee and the Phase 2 of the Balancing Authority Reliability-based Controls standard drafting team developed the draft Reliability Guideline: <b>Inadvertent Interchange</b>. This Reliability Guideline is intended to provide recommended practices for the management of Inadvertent Interchange accounting. With the goal of ensuring that, over the long term, Balancing Authority (BA) Areas do not excessively depend on the BA Areas in the Interconnection for meeting their demand or Interchange obligations.</p>		
	<p>A draft version of the Reliability Guideline has been posted on the NERC website for industry comment.</p>		



## NERC Standards Under Development

Standards	Project	Activity	Due Date
<b>Guideline</b>	<b>Situational Awareness for the System Operator</b>	<b>Comments</b>	<b>11/14/2016</b>
<p>The NERC Operating Committee's Resources Subcommittee, Operating Reliability Subcommittee and Personnel Subcommittee developed the draft Reliability Guideline: <b>Situational Awareness for the System Operator</b>. This Reliability Guideline provides a global recognition of the importance for the system operator to maintain situational awareness while operating the BES. It is meant to assist Transmission Operators (TOP), Balancing Authorities (BA), Reliability Coordinators (RC), Generator Operators (GOP) and other operating entities to use as they deem appropriate with the primary goal of supporting BES reliability.</p> <p>A draft version of the Reliability Guideline has been posted on the NERC website for industry comment.</p>			



## NERC Standards Under Development

Standards	Project	Activity	Due Date
SAR	<b>Project 2016-03 Cyber Security Supply Chain Management</b>  The project will address directives from FERC Order No. 829 to develop a new or modified standard to address “supply chain risk management for industrial control system hardware, software, and computing and networking services associated with bulk electric system operations. Existing CIP standards will be modified to address FERC directives.  “NERC to develop a develop a forward-looking, objective-based Reliability Standard to require each affected entity to develop and implement a plan that includes security controls for supply chain management for industrial control system hardware, software, and services associated with bulk electric system operations. The new or modified Reliability Standard should address the following security objectives, discussed in detail below: (1) software integrity and authenticity; (2) vendor remote access; (3) information system planning; and (4) vendor risk management and procurement controls”.  SAR is posted for a 30-day informal comment.	<b>Informal Comments</b>	<b>11/18/2016</b>



## NERC Standards Subject to Future Enforcement

- 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)



## NERC Standards Subject to Future Enforcement

- April 1, 2017
  - EOP-004-3 – Event Reporting
  - EOP-010-1 – Geomagnetic Disturbance Operations (Requirement 2)
  - EOP-011-1 – Emergency Operations
  - FAC-010-3 - System Operating Limits Methodology for the Planning Horizon
  - FAC-011-3 - System Operating Limits Methodology for the Operations Horizon
  - 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
  - MOD-029-2a – Rated System Path Methodology
  - MOD-030-3 – Flowgate Methodology





## NERC Standards Subject to Future Enforcement

- April 1, 2017 (continued)
  - PRC-010-1 – Undervoltage Load Shedding
  - PRC-015-1 - Remedial Action Scheme Data and Documentation
  - PRC-016-1 - Remedial Action Scheme Misoperations
  - PRC-017-1 - Remedial Action Scheme Maintenance and Testing
  - PRC-023-4 - Transmission Relay Loadability
  - 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



## NERC Standards Subject to Future Enforcement

- 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)
- July 1, 2018
  - MOD-026-1 – Verification of Models and Data for Generator Excitation Control System or Plant Volt/Var Control Functions (Requirements R2, 2.1–2.1.6)
  - MOD-027-1 – Verification of Models and Data for Turbine/Governor and Load Control or Active Power/Frequency Control Functions (Requirements R2, 2.1–2.1.5)
- January 1, 2020
  - PRC-026-1 – Relay Performance During Stable Power Swings (R2-R4)