NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Standard Authorization Request Form

Title of Proposed Standard: NERC Glossary of Terms: Revision of the Bulk Electric System definition.
Request Date: December 6, 2010
SC ~~Approval~~ Posting Authorization Date: December 8, 2010
Revised: March 18, 2011
Date SC Accepted SAR as Final:

SAR Requester Information	**SAR Type** (*Check a box for each one that applies.*)	
Name: Regional Bulk Electric System Definition Coordination Group	☐	New Standard
Primary Contact: Peter Heidrich (Manager of Reliability Standards, FRCC) Regional Participation: FRCC, NPCC, RFC, WECC	☒	Revision to existing Standard
Telephone: (813) 207-7994 Fax: (813) 289-5646	☐	Withdrawal of existing Standard
E-mail: pheidrich@frcc.com	☐	Urgent Action

Purpose (Describe what the standard action will achieve in support of bulk power system reliability.)

Revise the definition of Bulk Electric System (BES), including specific inclusions and exclusions, to address the Federal Energy Regulatory Commission's (FERC) concerns as identified in FERC Order 693 issued on March 16, 2007 and directives in FERC Order 743 issued on November 18, 2010. ~~(Order 743) so that~~ tThe definition encompasses all Elements ~~and Facilities~~ necessary for the reliable operation and planning of the interconnected ~~bulk power s~~ transmission~~ystem~~ network. Identify what evidence will be needed to support a request for an exception to the new definition of BES.

Industry Need (Provide a justification for the development or revision of the standard, including an assessment of the reliability and market interface impacts of implementing or not implementing the standard action.)

This project supports the ERO's obligation to respond to the Commission's directives and recommendations relative to the definition of Bulk Electric System identified in FERC Order ~~No.~~ 743.

Brief Description (Provide a paragraph that describes the scope of this standard action.)

Revise the definition of Bulk Electric System (BES) contained in the NERC Glossary of Terms to improve clarity, to reduce ambiguity, and to establish consistency across all Regions in distinguishing between BES and non-BES Elements ~~and Facilities~~. Develop specific inclusions and exclusions to the core definition. Identify what evidence will be needed to support a request for an exception to the new definition of BES.

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Detailed Description (Provide a description of the proposed project with sufficient details for the standard drafting team to execute the SAR.)

Revise the definition of Bulk Electric System (BES) ~~and~~ to ~~develop~~identify specific inclusions and exclusions to the core definition, to address the Federal Energy Regulatory Commission's (FERC) concerns as identified in FERC Order 693 issued on March 16, 2007 and directives in FERC Order 743 issued on November 18, 2010. ~~(Order 743)~~ ~~so that t~~The definition encompasses all Elements ~~and Facilities~~ necessary for the reliable operation and planning of the interconnected ~~Bulk Power System~~transmission network.

Existing NERC Glossary of Terms Definition of Bulk Electric System:

As defined by the Regional Reliability Organization, the electrical generation resources, transmission lines, interconnections with neighboring systems, and associated equipment, generally operated at voltages of 100 kV or higher. Radial transmission facilities serving only load with one transmission source are generally not included in this definition.

The authors are proposing a revised definition of the term BES to provide for improved clarity, to reduce ambiguity, and to establish a universal "bright-line" for distinguishing between BES and non-BES Elements ~~and Facilities~~.

This proposed definition provides consistency across the nation's reliability regions by establishing a definition that clearly describes what constitutes BES and non-BES Elements ~~and Facilities~~. The BES definition references an ~~exemption~~ exception process (which may include regional differences as defined by FERC Order 672 ~~or jurisdictional exemptions as appropriate for those entities not subject to Section 215 of the Federal Power Act~~) that can be used to:

- Identify ~~the R~~radial Transmission ~~systems~~ that ~~are~~is excluded from the BES,
- Identify Elements ~~and Facilities~~ operated at voltages of 100kV or higher that may be excluded from the BES; and
- ~~I~~dentify Elements ~~and Facilities~~ operated at voltages less than 100kV that may be included in the BES.

The proposed continent-wide definition of Bulk Electric System that the Project 2010-17 SDT will start with is:

Bulk Electric System: All Transmission and Generation Elements and Facilities operated at voltages of 100 kV or higher necessary to support bulk power system reliability. Elements and Facilities operated at voltages of 100kV or higher, including Radial Transmission systems, may be excluded and Elements and Facilities operated at voltages less than 100kV may be included if approved through the BES definition exemption process.

The development, approval, and application of the BES definition ~~exemption~~ exception process (including periodic review ~~of exempted facilities~~) will be governed by revisions to the NERC Rules of Procedure~~,~~ accomplished by another team in close coordination with the revision of the BES definition.

~~However, as envisioned, t~~The ~~s~~Standard ~~d~~Drafting ~~t~~Team will work closely with the Rules of Procedure team developing the BES definition ~~exemption~~ exception process to develop a single coordinated implementation plan. ~~It is also envisioned, that the Rules of Procedure~~The BES Definition team ~~working to develop the BES definition exemption~~ exception ~~process~~ will solicit stakeholder input ~~from drafting teams, stakeholders, and Regional Reliability Organizations~~ Entities in identifying the evidence an entity will need when submitting a request for an exception to the definition of BES. ~~physical and operational characteristics for consideration in developing the BES definition exemption~~ exception ~~process.~~ While the determination of what evidence will be needed to support a request for a BES Definition Exception will be developed using NERC's standard development process, no decision has been made on "where" the final product will reside – in the definition of BES or as an attachment (e.g., a procedure identifying what evidence to produce when applying for a BES exception) to the new BES Exception Process in the Rules of Procedure.

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Reliability Functions

The Standard will Apply to the Following Functions *(Check box for each one that applies.)*		
☒	Reliability Assurer	Monitors and evaluates the activities related to planning and operations, and coordinates activities of Responsible Entities to secure the reliability of the bulk power system within a Reliability Assurer Area and adjacent areas.
☒	Reliability Coordinator	Responsible for the real-time operating reliability of its Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator's wide area view.
☒	Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within a Balancing Authority Area and supports Interconnection frequency in real time.
☒	Interchange Authority	Ensures communication of interchange transactions for reliability evaluation purposes and coordinates implementation of valid and balanced interchange schedules between Balancing Authority Areas.
☒	Planning Coordinator	Assesses the longer-term reliability of its Planning Coordinator Area.
☒	Resource Planner	Develops a >one year plan for the resource adequacy of its specific loads within its portion of the Planning Coordinator's Area.
☒	Transmission Owner	Owns and maintains transmission facilities.
☒	Transmission Operator	Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.
☒	Transmission Planner	Develops a >one year plan for the reliability of the interconnected Bulk Electric System within the Transmission Planner Area.
☒	Transmission Service Provider	Administers the transmission tariff and provides transmission services under applicable transmission service agreements (e.g., the pro forma tariff).
☒	Distribution Provider	Delivers electrical energy to the End-use customer.
☒	Generator Owner	Owns and maintains generation facilities.
☒	Generator Operator	Operates generation unit(s) to provide real and reactive power.
☐	Purchasing-Selling Entity	Purchases or sells energy, capacity, and necessary reliability-related services as required.
☒	Load-Serving Entity	Secures energy and transmission service (and reliability-related services) to serve the End-use Customer.

Reliability and Market Interface Principles

Applicable Reliability Principles *(Check box for all that apply.)*	
☒	1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
☒	2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
☒	3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.
☒	4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained and implemented.
☒	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk power systems.
☒	6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
☒	7. The security of the interconnected bulk power systems shall be assessed, monitored and maintained on a wide area basis.
☒	8. Bulk power systems shall be protected from malicious physical or cyber attacks.
Does the proposed Standard comply with all of the following Market Interface Principles? *(Select 'yes' or 'no' from the drop-down box.)*	
1. A reliability standard shall not give any market participant an unfair competitive advantage. Yes	
2. A reliability standard shall neither mandate nor prohibit any specific market structure. Yes	
3. A reliability standard shall not preclude market solutions to achieving compliance with that standard. Yes	
4. A reliability standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with reliability standards. Yes	

Related Standards

Standard No.	Explanation

Related SARs

SAR ID	Explanation

Regional Variances

Region	Explanation
FRCC	
MRO	
NPCC	
SERC	
TRE	
RFC	
SPP	
WECC	