

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 Date:	December 8, 2010

SAR Requester Information	SAR Type (Check a box for each one that applies.)
Name: Regional Bulk Electric System Definition Coordination Group	<input type="checkbox"/> New Standard
Primary Contact: Peter Heidrich (Manager of Reliability Standards, FRCC) Regional Participation: Michelle Mizumori, WECC; Phil Fedora, NPCC; Jeff Mitchell, RFC	<input checked="" type="checkbox"/> Revision to existing Definition
Telephone: (813) 207-7994 Fax: (813) 289-5646	<input type="checkbox"/> Withdrawal of existing Standard
E-mail: pheidrich@frcc.com	<input type="checkbox"/> Urgent Action

<p>Purpose (Describe what the standard action will achieve in support of bulk power system reliability.)</p> <p>Revise the definition of Bulk Electric System (BES) to address the Federal Energy Regulatory Commission's (FERC) concerns as identified in FERC Order 693 issued on March 16, 2007 and directives in Order 743 issued on November 18, 2010 (Order 743) so that the definition encompasses all Elements and Facilities necessary for the reliable operation and planning of the interconnected bulk power system.</p>
<p>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.)</p> <p>This project supports the EROs obligation to respond to the Commission's directives and recommendations relative to the definition of Bulk Electric System identified in Order No. 743.</p>
<p>Brief Description (Provide a paragraph that describes the scope of this standard action.)</p> <p>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.</p>

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) to address the Federal Energy Regulatory Commission's (FERC) concerns as identified in FERC Order 693 issued on March 16, 2007 and directives in Order 743 issued on November 18, 2010 (Order 743) so that the definition encompasses all Elements and Facilities necessary for the reliable operation and planning of the interconnected bulk power system.

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 continent'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 process (which may include regional differences as defined by 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 Radial Transmission systems that are excluded from the BES;
- Identify Elements and Facilities operated at voltages of 100kV or higher that may be excluded from the BES; and
- Identify Elements and Facilities operated at voltages less than 100kV that may be included in the BES.

Proposed continent-wide definition of Bulk Electric System:

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 process (including periodic review of exempted facilities) will be governed by revisions to the NERC Rules of Procedure, in close coordination with the revision of the BES definition.

However, as envisioned, the standard drafting team will work closely with the team developing the BES definition exemption process to develop a single coordinated implementation plan. It is also envisioned, that the team working to develop the BES definition exemption process will solicit input from drafting

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teams, stakeholders, and Regional Reliability Organizations in identifying physical and operational characteristics for consideration in developing the BES definition exemption process.

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Reliability Functions

The Standard will Apply to the Following Functions <i>(Check box for each one that applies.)</i>		
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	Interchange Authority	Ensures communication of interchange transactions for reliability evaluation purposes and coordinates implementation of valid and balanced interchange schedules between Balancing Authority Areas.
<input checked="" type="checkbox"/>	Planning Coordinator	Assesses the longer-term reliability of its Planning Coordinator Area.
<input checked="" type="checkbox"/>	Resource Planner	Develops a >one year plan for the resource adequacy of its specific loads within its portion of the Planning Coordinator's Area.
<input checked="" type="checkbox"/>	Transmission Owner	Owns and maintains transmission facilities.
<input checked="" type="checkbox"/>	Transmission Operator	Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.
<input checked="" type="checkbox"/>	Transmission Planner	Develops a >one year plan for the reliability of the interconnected Bulk Electric System within the Transmission Planner Area.
<input checked="" type="checkbox"/>	Transmission Service Provider	Administers the transmission tariff and provides transmission services under applicable transmission service agreements (e.g., the pro forma tariff).
<input type="checkbox"/>	Distribution Provider	Delivers electrical energy to the End-use customer.
<input checked="" type="checkbox"/>	Generator Owner	Owns and maintains generation facilities.
<input checked="" type="checkbox"/>	Generator Operator	Operates generation unit(s) to provide real and reactive power.
<input type="checkbox"/>	Purchasing-Selling Entity	Purchases or sells energy, capacity, and necessary reliability-related services as required.
<input checked="" type="checkbox"/>	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 <i>(Check box for all that apply.)</i>	
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained and implemented.
<input checked="" type="checkbox"/>	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk power systems.
<input checked="" type="checkbox"/>	6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
<input checked="" type="checkbox"/>	7. The security of the interconnected bulk power systems shall be assessed, monitored and maintained on a wide area basis.
<input checked="" type="checkbox"/>	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? <i>(Select 'yes' or 'no' from the drop-down box.)</i>	
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	

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Related Standards

Standard No.	Explanation

Related SARs

SAR ID	Explanation

Regional Variances

Region	Explanation
FRCC	
MRO	
NPCC	
SERC	
TRE	
RFC	
SPP	
WECC	