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regstd@serc1.org

SERC Standard Authorization Request Form

Title of Proposed Standard	SERC Underfrequency Load Shedding (UFLS) Regional Reliability Standard		
Request Date	February 27, 2008	Revision 1:	June 16, 2008
		Revision 2:	April 22, 2009 (added requester organization and job title)

SAR Requester Information	SAR Type <i>(Check a box for each one that applies.)</i>
Name: Pat Huntley	<input checked="" type="checkbox"/> New Standard
Organization: SERC Reliability Corporation Job Title: Manager of Reliability Standards	<input type="checkbox"/> Revision to existing Standard
Telephone: 704-940-8228 Fax: 704-357-7914	<input type="checkbox"/> Withdrawal of existing Standard
E-mail: phuntley@serc1.org	<input type="checkbox"/> Urgent Action

<p>Purpose (Describe what the standard action will achieve in support of Bulk Power System reliability.) Establish SERC regional requirements related to UFLS programs and their assessment.</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.) This standard is required to:</p> <ol style="list-style-type: none"> 1. Provide for the last resort system preservation measures by implementing protection system requirements specified in a SERC regional Under Frequency Load Shedding (UFLS) standard. 2. Provide an adequate level of reliability for the SERC Bulk Power Systems by ensuring the standard is complete and the requirements are set at an appropriate level. 3. Ensure it is enforceable as a mandatory reliability standard with financial penalties - the applicability to Bulk Power System owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results-focused and unambiguous; the consequences of violating the requirements are clear.
<p>Brief Description (Provide a paragraph that describes the scope of this standard action.) The standard drafting team, or Responsible SERC Subgroup (RSS), will draft a SERC regional reliability standard and any required accompanying documents necessary in accordance with the regional template developed as part of NERC Standards Project 2007-01.</p>
<p>Detailed Description (Provide a description of the proposed project with sufficient details for the standard drafting team to execute the SAR.) The RSS will review revisions to the UFLS NERC Reliability Standard (PRC-006-0) developed as part of Project 2007-01, the accompanying requirements outlined in the NERC Directive on UFLS Regional Reliability Standard Characteristics and the current UFLS SERC Supplement.</p>

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PRC-007 and PRC-009 have some 'fill-in-the-blank' characteristics as identified in the NERC Regional Reliability Standards Working Group work plan. These standards shall be included with PRC-006 for consideration as standards as necessary for consistency and clarity of the overall SERC UFLS program requirements and any other associated programs and/or requirements that affect or impact the UFLS program.

The RSS may include other improvements to the standards deemed appropriate by the drafting team consistent with establishing high quality, enforceable, and technically sufficient Bulk Power System reliability standards.

The RSS determine which portions of the UFLS SERC Supplement should be retained as a SERC Standing Committee document, and will draft such document(s) in accordance with the SERC Standing Committee Documents Process.

Justification for Regional Variation (Provide a detailed statement justifying the need for the proposed Standard specifically identifying the need for a regional variation.)

PRC-006 is one of the few reliability standards identified by the NERC Regional Reliability Standards Working Group as a standard that has some requirements that need to be defined by each regional entity in a regional standard.

The regional variation is required to accommodate regional and sub-regional differences in system transmission and distribution topology due to historical design criteria, makeup of load demands and generation resources, and implementation of UFLS program (whether shed load transmission line level, distribution level, or transmission delivery station level).

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Reliability Functions

The Standard will Apply to the Following Functions <i>(Check box for each one that applies.)</i>		
<input 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 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 type="checkbox"/>	Planning Coordinator	Assesses the longer-term reliability of its Planning Coordinator Area.
<input type="checkbox"/>	Resource Planner	Develops a >one-year plan for the resource adequacy of its specific loads within a Planning Coordinator area.
<input checked="" type="checkbox"/>	Transmission Planner	Develops a >one-year plan for the reliability of the interconnected Bulk Electric System within its portion of the Planning Coordinator area.
<input 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 checked="" type="checkbox"/>	Transmission Owner	Owens and maintains transmission facilities.
<input type="checkbox"/>	Transmission Operator	Ensures the real-time operating reliability of the transmission assets within a Transmission Operator area.
<input checked="" type="checkbox"/>	Distribution Provider	Delivers electrical energy to the end-use customer.
<input type="checkbox"/>	Generator Owner	Owens and maintains generation facilities.
<input 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 type="checkbox"/>	Market Operator	Interface point for reliability functions with commercial functions.
<input checked="" type="checkbox"/>	Load-Serving Entity	Secures energy and transmission service (and reliability-related services) to serve the end-use customer.

NOTE: The RSS may find it necessary to modify the initial reliability function responsibility assignment as a result of the standards development and comments received.

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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 (NERC and SERC Regional)

Standard No.	Explanation
PRC-007-0	Assuring Consistency of Entity Underfrequency Load Shedding Programs with Regional Reliability Organization's Underfrequency Load Shedding Program Requirements
PRC-008-0	Implementation and Documentation of Underfrequency Load Shedding Equipment Maintenance Program
PRC-009-0	Analysis and Documentation of Underfrequency Load Shedding Performance Following an Underfrequency Event

Related SARs

SAR ID	Explanation

Implementation Plan

Description <i>(Provide plans for the implementation of the proposed standard, including any known systems or training requirements. Include the reliability risk(s) associated with the violation that the standard will mitigate, and the costs associated with implementation.)</i>	
To be determined.	
Proposed Implementation	days after FERC approval; or on (date):