

Standard Authorization Request Form

Title of Proposed Standard	PRC-001-1 — System Protection Coordination (Project 2007-06)
Request Date	May 7, 2007

SAR Requestor Information	SAR Type (<i>Check a box for each one that applies.</i>)
Name NERC System Protection and Control Task Force (Attachment A)	<input type="checkbox"/> New Standard
Primary Contact Charles Rogers (SPCTF Chairman)	<input checked="" type="checkbox"/> Revision to existing Standard
Telephone 517-788-0027 Fax 517-788-0917	<input type="checkbox"/> Withdrawal of existing Standard
E-mail cwrogers@cmsenergy.com	<input type="checkbox"/> Urgent Action

<p>Purpose (Describe the purpose of the standard — what the standard will achieve in support of reliability.)</p> <p>The purpose of standard PRC-001-1 — System Protection Coordination should remain “To ensure system protection is coordinated among operating entities.” The standard should be revised to:</p> <ol style="list-style-type: none"> 1. Assure that Protection System application and performance issues are coordinated among all related entities. 2. Correct the applicable entities within the standard to reflect the actual functional responsibilities, as described in the NERC Functional Model. 3. Incorporate other general improvements described in the standards development work plan and from other sources. 4. Address directives received from ERO regulatory authorities. 5. Consider the observations and recommendations developed by the NERC SPCTF, which are detailed in the attached report (Attachment B), approved by the Planning Committee in December 2006.

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Industry Need (Provide a detailed statement justifying the need for the proposed standard, along with any supporting documentation.)

Protection system coordination is an absolute necessity for the North American electric system to operate properly. PRC-001 is a Version 0 standard, and was translated from an operating policy that was appropriate in an era of voluntary compliance.

The Version 0 standards and recent updates were put in place as a temporary starting point to start up the electric reliability organization and begin enforcement of mandatory standards. However, it is important to update those standards, incorporating improvements to make the standards more suitable for enforcement.

Both FERC (within Order 693) and the SPCTF (in their report on PRC-001) identified significant shortcomings in the existing standard.

Brief Description (Describe the proposed standard in sufficient detail to clearly define the scope in a manner that can be easily understood by others.)

The existing PRC-001 Standard has been identified in the Reliability Standards Development Plan as requiring revision, within the FERC Order 693 as requiring revisions, and by a SPCTF report (attached) which identified a number of issues with the existing standard (the SPCTF report, which precedes FERC Order 693, also includes observations from the preceding FERC NOPR on RM-06-16-000). This revision of PRC-001 should address concerns from these sources and should include the upgrades to the standard identified in Attachment C to bring the revised standard into conformance with the latest version of the ERO Rules of Procedure.

Detailed Description

This project will address the issues identified by the System Protection and Control Task Force for the planning-related requirements in PRC-001 as well as any planning-related concerns identified in FERC Order 693. (The operations-related requirements in PRC-001 are being addressed under Project 2006-06.) A detailed listing of the areas of the existing standard that need improvement is provided in Attachment B titled "NERC SPCTF Assessment of Standard PRC-001-0 – System Protection Coordination"

The drafting team will also make the improvements to the standard identified in Attachment C – "Reliability Standards Review Guidelines" to bring the revised standard into conformance with the latest version of the ERO Rules of Procedure.

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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 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 its metered boundary and supports system frequency in real time.
<input type="checkbox"/>	Interchange Authority	Authorizes valid and balanced Interchange Schedules.
<input checked="" 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 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	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"/>	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 type="checkbox"/>	Market Operator	Interface point for reliability functions with commercial functions.
<input type="checkbox"/>	Load-Serving Entity	Secures energy and transmission (and reliability-related services) to serve the End-use Customer.

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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 electric 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 type="checkbox"/>	2. The frequency and voltage of interconnected bulk electric 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 electric 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 electric systems shall be developed, coordinated, maintained and implemented.
<input type="checkbox"/>	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk electric systems.
<input checked="" type="checkbox"/>	6. Personnel responsible for planning and operating interconnected bulk electric 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 electric systems shall be assessed, monitored and maintained on a wide area basis.
<input type="checkbox"/>	8. Bulk power systems shall be protected from malicious physical or cyber attacks.
Does the proposed Standard comply with all the following Market Interface Principles? <i>(Select "yes" or "no" from the drop-down box.)</i>	
1. The planning and operation of bulk electric systems shall recognize that reliability is an essential requirement of a robust North American economy. Yes	
2. An Organization Standard shall not give any market participant an unfair competitive advantage. Yes	
3. An Organization Standard shall neither mandate nor prohibit any specific market structure. Yes	
4. An Organization Standard shall not preclude market solutions to achieving compliance with that Standard. Yes	

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5. An Organization 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
MOD-011-0	Modify to include the essential data for wide-area fault studies, as noted in the attached SPCTF report on PRC-001.

Related SARs

SAR ID	Explanation
RC SAR	Project 2006-06 – Reliability Coordination includes modification of the real-time requirements but does not address the planning-related requirements.

Regional Variances

Region	Explanation
ERCOT	None
FRCC	None
MRO	None
NPCC	None
SERC	None
RFC	None
SPP	None
WECC	None