

## Implementation Plan

### Project 2007-06 System Protection Coordination

### PRC-027-1

#### Approvals Requested

- PRC-027-1 Protection System Coordination for Performance During Faults
- PRC-001-3 System Protection Coordination

#### Applicable Entities

Standard	Applicable Entities					
	TO	GO	DP	TOP	GOP	BA
PRC-027-1: Protection System Coordination for Performance During Faults	X	X	X			
PRC-001-3: System Protection Coordination				X	X	X

#### Defined Terms in the NERC Glossary

The standard drafting team proposes the following new definitions for use only within PRC-027-1, and should remain with the standard upon approval rather than being moved to the NERC Glossary of Terms:

**Interconnected Element:** A BES Element that electrically joins facilities owned by:

- separate Registered Entities, or
- the same Registered Entity that represents multiple functional entity responsibilities (Distribution Provider, Generator Owner, or Transmission Owner).

**Protection System Coordination Study:** A study that demonstrates existing or proposed Protection Systems operate in the desired sequence for clearing Faults.

#### Background

On December 7, 2006, the NERC Planning Committee approved the assessment of Standard PRC-001-1 (System Protection Coordination) prepared by the NERC System Protection and Control Task Force (SPCTF). The SPCTF asserted:

*"The applicable entities in the existing Standard are incorrect for many of the requirements, and the requirements themselves are vague and not measurable. In*

*addressing the 'operating horizon, operations planning horizon, and planning horizon' protection coordination issues, the deficiencies in the current standard are magnified."*

And further:

*"The SPCTF... recommends that the requirements for the operating horizon and planning horizon be clearly delineated and warrants consideration of dividing this standard into two standards."*

The Standard Committee approved the Standard Authorization Request with modifications by the SPCTF for posting on June 5, 2007. The SAR was posted for comment from June 11, 2007 – July 10, 2007, and was subsequently approved.

With the development of the proposed Reliability Standard PRC-027-1, the Standard Drafting Team (SDT) for Project 2007-06 – System Protection Coordination, has followed the observations and recommendation of the NERC SPCTF assessment of PRC-001-1 which had six requirements. The SDT accomplishes this by:

1. Incorporating and building upon the elements of the two planning horizon Requirements R3 and R4 of PRC-001-1 (now R2 and R3 of PRC-001-2) and moving those requirements into a new standard (as recommended by the SPCTF assessment), focusing on the performance of Protection Systems during Faults.
2. Assigning responsibility for coordination of Protection Systems during Faults to the appropriate functional entities – the Protection System equipment owners, specifically: Transmission Owners, Generator Owners, and Distribution Providers.
3. Transferring the responsibility of addressing the three operating horizon Requirements R2, R5, and R6 of PRC-001-1 to Project 2007-03 Real-time Operations for inclusion in the revisions of the appropriate operating standard(s) within that project. (The NERC Board of Trustees approved these changes proposed by the Project 2007-03 team when it approved PRC-001-2 on May 9, 2012.)
4. Leaving the legacy Requirement R1 of PRC-001-2 in PRC-001-3 (thereby not creating a reliability gap) until it is incorporated into a new or revised reliability standard.

Note: The drafting team added Measure (M1) to PRC-001-3 related to Requirement R1.

## **Effective Date of New or Revised Standards and Definitions**

### **PRC-027-1 - Protection System Coordination for Performance During Faults**

PRC-027-1 shall become effective on the first day of the first calendar quarter that is 12 months beyond the date that this standard is approved by applicable regulatory authorities. In those jurisdictions where regulatory approval is not required, the standard shall become effective on the first day of the first calendar quarter that is 12 months beyond the date this standard is approved by the NERC Board of Trustees, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities. For Interconnected Elements between Canadian Facilities (that recognize the NERC Board of Trustees or other ERO governmental

authority approval) and U.S. Facilities (that recognize FERC approval), the effective date shall be the FERC-approved effective date.

**PRC-001-3 – System Protection Coordination**

Same effective date as PRC-027-1.

**Effective Date for Definitions**

The two proposed definitions (Interconnected Facilities and Protection System Coordination Study) shall become effective at the same time as PRC-027-1.

**Retirement:**

PRC-001-2 – Protection System Coordination shall be retired at midnight the day before PRC-001-3 becomes effective.