

NERC SPCTF Supplemental Assessment Addressing FERC Order 693 Relative to PRC-001-0 — System Protection Coordination

May 17, 2007

A Technical Review of Standards

Prepared by the

System Protection and Controls Task Force

of the

NERC Planning Committee

Table of Contents

Introduction and Summary	2
FERC Order 693 Determination on PRC-001-0 — System Protection Coordination	2
Commission Determination	2
SPCTF Conclusion and Recommendation	3
Appendix A — System Protection and Control Task Force	4

This report was approved by the Planning Committee on June 7, 2007, for forwarding to the Standards Committee.

Introduction and Summary

On December 7, 2006, the SPCTF issued a report on the assessment of NERC Reliability Standard PRC-001-0 – System Protection Coordination, which was approved by the Planning Committee at their December 2006 meeting. Within that report, the SPCTF included a summary of the Federal Energy Regulatory Commission's (FERC) October 20, 2006 Notice of Proposed Rulemaking for adoption of NERC Standards (Docket Number RM06-16-000). The Federal Energy Regulatory Commission has since promulgated Order 693, in which they approved PRC-001-0 as mandatory and enforceable, and provided specific direction regarding needed changes.

At their March 2007 meeting, the Planning Committee endorsed a Standards Authorization Request which had been developed by the SPCTF to modify PRC-001-0 to address the issues discussed in the December assessment report on PRC-001-0. That SAR has been presented to the NERC Standards Committee for consideration, but no action has yet occurred.

This report supplements the observations from the December 7, 2006 SPCTF report on PRC-001-0 with FERC's Order 693 determination regarding that standard.

FERC Order 693 Determination on PRC-001-0 — System Protection Coordination

In Order 693, FERC presented considerable discussion regarding PRC-001-0. Their discussion completely revolved around the operating-time-horizon issues that were previously discussed within the December 7, 2006 SPCTF assessment of PRC-001-0. These issues were also introduced within the FERC October 20, 2006 Notice of Proposed Rulemaking for adoption of NERC Standards (Docket Number RM06-16-000).

Commission Determination

The following is the determination portion of FERC Order 693 regarding PRC-001-0.

¶1450 The Commission approves Reliability Standard PRC–001–1 as mandatory and enforceable. In addition, the Commission directs the ERO to develop modifications to PRC–001–1 through the Reliability Standards development process that: (1) Correct the references for Requirements and (2) include a requirement that upon the detection of failures in relays or protection system elements on the Bulk-Power System that threaten reliable operation, relevant transmission operators must be informed promptly, but within a specified period of time that is developed in the Reliability Standards development process, whereas generator operators must also promptly inform their transmission operators and (3) clarifies that, after being informed of failures in relays or protection system elements that threaten reliability of the Bulk-Power System, transmission operators must carry out corrective control actions, i.e., return a system to a stable state that respects system requirements as soon as possible and no longer than 30 minutes after they receive notice of the failure.

SPCTF Conclusion and Recommendation

The SPCTF agrees with FERC's determination on PRC-001, but also believes, as stated in the December 7, 2006 technical review, that a modified PRC-001 should also explicitly address the planning and operations planning time horizons.

SPCTF recommends that the existing draft Standards Authorization Request that was endorsed by the Planning Committee at their March 2007 meeting be modified as deemed necessary by the NERC Standards Committee to address the specific issues identified by the Federal Energy Regulatory Commission within Order 693.

Appendix A — System Protection and Control Task Force

Charles W. Rogers

Chairman / RFC-ECAR Representative Principal Engineer Consumers Energy Co.

W. Mark Carpenter

Vice Chairman / ERCOT Representative Senior Director of Engineering TXU Electric Delivery

John Mulhausen

FRCC Representative Manager, Design and Standards Florida Power & Light Co.

Joseph M. Burdis

ISO/RTO Representative
Senior Consultant / Engineer, Transmission
and Interconnection Planning
PJM Interconnection, L.L.C.

William J. Miller

RFC-MAIN Representative Consulting Engineer Exelon Corporation

Deven Bhan

MRO Representative Electrical Engineer, System Protection Western Area Power Administration

Philip Tatro

NPCC Representative Consulting Engineer National Grid USA

Philip B. Winston

SERC Representative Manager, Protection and Control Georgia Power Company

Dean Sikes

SPP Representative
Manager - Transmission Protection, Apparatus, &
Metering

Cleco Power

David Angell

T&D Planning Engineering Leader Idaho Power Company

W. O. (Bill) Kennedy

Canada Member-at-Large
Principal

b7kennedy & Associates Inc.

Eric Udren

Senior Principal Consultant KEMA Consulting John L. Ciufo

Canada Member-at-Large Manager, P&C Strategies and Standards Hydro One, Inc.

Jim Ingleson

ISO/RTO Representative Senior Electric System Planning Engineer New York Independent System Operator

Evan T. Sage

Investor Owned Utility
Senior Engineer
Potomac Electric Power Company

James D. Roberts

Federal

Transmission Planning Tennessee Valley Authority

Tom Wiedman *NERC Consultant*

Wiedman Power System Consulting Ltd.

Henry (Hank) Miller

RFC-ECAR Alternate
Principal Electrical Engineer
American Electric Power

Baj Agrawal

WECC Alternate
Principal Engineer
Arizona Public Service Company

Michael J. McDonald

Senior Principal Engineer, System Protection Ameren Services Company

Jonathan Sykes

WECC Representative
Senior Principal Engineer, System Protection
Salt River Project

Fred Ipock

Senior Engineer - Substations & Protection City Utilities of Springfield, Missouri

Joe T. Uchiyama

Federal
Electrical Engineer
U.S. Bureau of Reclamation

Bob Stuart

Director of Business Development, Principal T&D Consultant Elequant, Inc.

Robert W. Cummings

NERC Staff Coordinator
Director of Event Analysis & Information Exchange
NERC