

Implementation Plan

Undervoltage Load Shedding

PRC-010-1

Please see the Project 2008-02 Undervoltage Load Shedding Project Coordination Plan. Upon the formal comment period and ballot for PRC-010-1, this Implementation Plan will be updated as necessary with respect to the status of the coordination efforts (e.g., PRC-004).

Standards Involved

Approval:

- PRC-010-1 – Undervoltage Load Shedding

Retirements:

- PRC-010-0 – Assessment of the Design and Effectiveness of UVLS Program
- PRC-020-1 – Under-Voltage Load Shedding Program Database
- PRC-021-1 – Under-Voltage Load Shedding Program Data
- PRC-022-1 – Under-Voltage Load Shedding Program Performance

Prerequisite Approvals

- Revised definition of “Special Protection System” in Project 2010-05.2 – Protection Systems: Phase 2 (Special Protection Systems)
- EOP-011-1 in Project 2009-03 Emergency Operations

Revisions to the NERC Glossary of Terms

The following term is proposed for addition:

Undervoltage Load Shedding Program (UVLS Program): An automatic load shedding program consisting of distributed relays and controls used to mitigate the risk of Cascading, voltage instability, voltage collapse, or uncontrolled separation resulting from undervoltage conditions. Centrally-controlled undervoltage-based load shedding is not included.

Applicable Entities

Planning Coordinator

Transmission Planner

UVLS entities – Distribution Providers and Transmission Owners responsible for the ownership, operation, or control of UVLS equipment as required by the UVLS Program established by the Transmission Planner or Planning Coordinator.

Conforming Changes to Other Standards

Project 2009-03 Emergency Operations (EOP-011-1) retires EOP-003-2. Requirements R2, R4, and R7 are not absorbed by EOP-011-1, since these requirements map to PRC-010-1, Requirement R1.

PRC-010-1's requirements are applicable to the standard's proposed new NERC Glossary term Undervoltage Load Shedding Program (UVLS Program), which excludes centrally-controlled undervoltage-based load shedding because it is consistent in nature with Special Protection Systems (SPSs). The current NERC Glossary definition of "Special Protection System" excludes UVLS. Therefore, Project 2010-05.2 Protection Systems: Phase 2 (Special Protection Systems) revises the NERC Glossary definition of "Special Protection System" to exclude only UVLS Programs. As a result, the existing SPS-related standards (PRC-012 through PRC-017) will be applicable to centrally-controlled undervoltage-based load shedding upon the effective date of the revised definition of "Special Protection System".

Effective Date

PRC-010-1 and the definition of "Undervoltage Load Shedding Program" shall become effective on the first day of the first calendar quarter that is twelve (12) months after the date that the standard and definition are approved by an applicable governmental authority or as otherwise provided for in a jurisdiction where approval by an applicable governmental authority is required for a standard to go into effect. Where approval by an applicable governmental authority is not required, the standard and the definition shall become effective on the first day of the first calendar quarter that is twelve (12) months after the date the standard and definition are adopted by the NERC Board of Trustees or as otherwise provided for in that jurisdiction.

Retirement of Existing Standards:

PRC-010-1 is a consolidation of PRC-010-0 – Assessment of the Design and Effectiveness of UVLS Program, PRC-020-1 – Under-Voltage Load Shedding Program Database, PRC-021-1 – Under-Voltage Load Shedding Program Data, and PRC-022-1 – Under-Voltage Load Shedding Program Performance. PRC-010-0, PRC-020-1, PRC-021-1, and PRC-022-1 shall be retired at midnight of the day immediately prior to the effective date of PRC-010-1 in the particular jurisdiction in which the new standard is becoming effective.