

Implementation Plan

PRC-010-1 – Undervoltage Load Shedding

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 “Remedial Action Scheme” in Project 2010-05.2 – Special Protection Systems (Phase 2 of Protection Systems)

Approval of the proposed definition of “Remedial Action Scheme” in Project 2010-05.2 – Special Protection Systems (Phase 2 of Protection Systems) is required to align the classification of centrally controlled undervoltage-based load shedding with the proposed definition of “Undervoltage Load Shedding Program (UVLS Program)” below. The term “UVLS Program” excludes centrally controlled undervoltage-based load shedding because the design and characteristics of centrally controlled undervoltage-based load shedding are commensurate with Special Protection Systems or Remedial Action Schemes. The proposed definition of “Remedial Action Scheme” excludes “UVLS Programs.” As a result, the proposed definition of “Remedial Action Scheme” clarifies that centrally controlled undervoltage-based load shedding is included in its scope.

- EOP-011-1 in Project 2009-03 – Emergency Operations

Project 2009-03 – Emergency Operations (EOP-011-1) proposes to retire EOP-003-2. Requirements R2, R4, and R7 of EOP-003-2 are not included in EOP-011-1, since these requirements map to PRC-010-1, Requirement R1. As a result, approval of EOP-011-1 is necessary to prevent overlap with Requirement R1 of PRC-010-1.

Revisions to the NERC Glossary of Terms

The following new 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 undervoltage conditions impacting the Bulk Electric System (BES), leading to voltage instability, voltage collapse, or Cascading. 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.

General Considerations

The effective dates of PRC-010-1 and its proposed new NERC Glossary term, EOP-011-1, the revised NERC Glossary definition of “Remedial Action Scheme,” and each of the associated retirements are intended to align to accommodate the needed transitions of standard coverage noted above.

The implementation plan for the revised definition of “Remedial Action Scheme” addresses entities that will have newly identified Remedial Action Schemes resulting from the application of the defined term with respect to the inclusion of centrally controlled undervoltage-based load shedding. Please refer to the implementation plan posted with the definition of “Remedial Action Scheme” in Project 2010-05.2 – Special Protection Systems (Phase 2 of Protection Systems) for more information.

Effective Date

PRC-010-1 and the definition of “Undervoltage Load Shedding Program (UVLS 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-010-0, 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.

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.