#### A. Introduction

- 1. Title: Technical Assessment of the Design and Effectiveness of Undervoltage Load Shedding Program.
- **2. Number:** PRC-010-0
- **3. Purpose:** Provide System preservation measures in an attempt to prevent system voltage collapse or voltage instability by implementing an Undervoltage Load Shedding (UVLS) program.
- 4. Applicability:
  - **4.1.** Load-Serving Entity that operates a UVLS program
  - **4.2.** Transmission Owner that owns a UVLS program
  - **4.3.** Transmission Operator that operates a UVLS program
  - **4.4.** Distribution Provider that owns or operates a UVLS program
- **5. Effective Date:** April 1, 2005

## **B.** Requirements

- **R1.** The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall periodically (at least every five years or as required by changes in system conditions) conduct and document an assessment of the effectiveness of the UVLS program. This assessment shall be conducted with the associated Transmission Planner(s) and Planning Authority(ies).
  - **R1.1.** This assessment shall include, but is not limited to:
    - **R1.1.1.** Coordination of the UVLS programs with other protection and control systems in the Region and with other Regional Reliability Organizations, as appropriate.
    - **R1.1.2.** Simulations that demonstrate that the UVLS programs performance is consistent with Reliability Standards TPL-001-0, TPL-002-0, TPL-003-0 and TPL-004-0.
    - **R1.1.3.** A review of the voltage set points and timing.
- **R2.** The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall provide documentation of its current UVLS program assessment to its Regional Reliability Organization and NERC on request (30 calendar days). (Retirement approved by FERC effective January 21, 2014.)

#### C. Measures

- **M1.** Each Transmission Owner's and Distribution Provider's UVLS program shall include the elements identified in Reliability Standard PRC-010-0\_R1.
- M2. Each Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall have evidence it provided documentation of its current UVLS program assessment to its Regional Reliability Organization and NERC as specified in Reliability Standard PRC-010-0\_R2. (Retirement approved by FERC effective January 21, 2014.)

# D. Compliance

## 1. Compliance Monitoring Process

### 1.1. Compliance Monitoring Responsibility

Compliance Monitor: Regional Reliability Organizations. Each Regional Reliability Organization shall report compliance and violations to NERC via the NERC Compliance Reporting process.

## 1.2. Compliance Monitoring Period and Reset Timeframe

Assessments every five years or as required by System changes.

Current assessment on request (30 calendar days.)

#### 1.3. Data Retention

None specified.

### 1.4. Additional Compliance Information

None.

### 2. Levels of Non-Compliance

- **2.1.** Level 1: Not applicable.
- **2.2.** Level 2: Not applicable.
- **2.3.** Level 3: Not applicable.
- **2.4.** Level 4: An assessment of the UVLS program did not address one of the three requirements listed in Reliability Standard PRC-010-0\_R1.1 or an assessment of the UVLS program was not provided.

## E. Regional Differences

1. None identified.

### **Version History**

| Version | Date                 | Action                                                                                                                                                                     | Change Tracking |
|---------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 0       | April 1, 2005        | Effective Date                                                                                                                                                             | New             |
| 0       | February 8, 2005     | Adopted by NERC Board of Trustees                                                                                                                                          |                 |
| 0       | March 16, 2007       | Approved by FERC                                                                                                                                                           |                 |
| 0       | February 7, 2013     | R2 and associated elements approved by NERC Board of Trustees for retirement as part of the Paragraph 81 project (Project 2013-02) pending applicable regulatory approval. |                 |
| 0       | November 21,<br>2013 | R2 and associated elements approved by FERC for retirement as part of the Paragraph 81 project (Project 2013-02)                                                           |                 |