

**A. Introduction**

1. **Title:**           **Development and Documentation of Regional Reliability Organizations' Underfrequency Load Shedding Programs**
2. **Number:**     PRC-006-0
3. **Purpose:**     Provide last resort system preservation measures by implementing an Under Frequency Load Shedding (UFLS) program.
4. **Applicability:**
  - 4.1. Regional Reliability Organization
5. **Effective Date:**                 April 1, 2005

**B. Requirements**

- R1.** Each Regional Reliability Organization shall develop, coordinate, and document an UFLS program, which shall include the following:
  - R1.1.** Requirements for coordination of UFLS programs within the subregions, Regional Reliability Organization and, where appropriate, among Regional Reliability Organizations.
  - R1.2.** Design details shall include, but are not limited to:
    - R1.2.1.** Frequency set points.
    - R1.2.2.** Size of corresponding load shedding blocks (% of connected loads.)
    - R1.2.3.** Intentional and total tripping time delays.
    - R1.2.4.** Generation protection.
    - R1.2.5.** Tie tripping schemes.
    - R1.2.6.** Islanding schemes.
    - R1.2.7.** Automatic load restoration schemes.
    - R1.2.8.** Any other schemes that are part of or impact the UFLS programs.
  - R1.3.** A Regional Reliability Organization UFLS program database. This database shall be updated as specified in the Regional Reliability Organization program (but at least every five years) and shall include sufficient information to model the UFLS program in dynamic simulations of the interconnected transmission systems.
  - R1.4.** Assessment and documentation of the effectiveness of the design and implementation of the Regional UFLS program. This assessment shall be conducted periodically and shall (at least every five years or as required by changes in system conditions) include, but not be limited to:
    - R1.4.1.** A review of the frequency set points and timing, and
    - R1.4.2.** Dynamic simulation of possible Disturbance that cause the Region or portions of the Region to experience the largest imbalance between Demand (Load) and generation.
- R2.** The Regional Reliability Organization shall provide documentation of its UFLS program and its database information to NERC on request (within 30 calendar days).

- R3.** The Regional Reliability Organization shall provide documentation of the assessment of its UFLS program to NERC on request (within 30 calendar days).

**C. Measures**

- M1.** The Regional Reliability Organization shall have documentation of the UFLS program and current UFLS database.
- M2.** The Regional Reliability Organization shall have evidence it provided documentation of its UFLS program and its database information to NERC as specified in Reliability Standard PRC-006-0\_R2.
- M3.** The Regional Reliability Organization shall have evidence it provided documentation of its assessment of its UFLS program to NERC as specified in Reliability Standard PRC-006-0\_R3.

**D. Compliance**

**1. Compliance Monitoring Process**

**1.1. Compliance Monitoring Responsibility**

Compliance Monitor: NERC.

**1.2. Compliance Monitoring Period and Reset Timeframe**

On request (within 30 calendar days) for the program, database, and results of assessments.

**1.3. Data Retention**

None specified.

**1.4. Additional Compliance Information**

None.

**2. Levels of Non-Compliance**

- 2.1. Level 1:** Documentation demonstrating the coordination of the Regional Reliability Organization's UFLS program was incomplete in one of the elements in Reliability Standard PRC-006-0\_R1.
- 2.2. Level 2:** Not applicable.
- 2.3. Level 3:** Not applicable.
- 2.4. Level 4:** Documentation demonstrating the coordination of the Regional Reliability Organization's UFLS program was incomplete in two or more requirements or documentation demonstrating the coordination of the Regional Reliability Organization's UFLS program was not provided, or an assessment was not completed in the last five years.

**E. Regional Differences**

1. None identified.

**Version History**

<b>Version</b>	<b>Date</b>	<b>Action</b>	<b>Change Tracking</b>
0	April 1, 2005	Effective Date	New