

## A. Introduction

1. **Title:** Establish and Communicate System Operating Limits
2. **Number:** FAC-014-1
3. **Purpose:** To ensure that System Operating Limits (SOLs) used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on an established methodology or methodologies.
4. **Applicability**
  - 4.1. Reliability Coordinator
  - 4.2. Planning Authority
  - 4.3. Transmission Planner
  - 4.4. Transmission Operator
5. **Effective Date:** January 1, 2008

## B. Requirements

- R1. The Reliability Coordinator shall ensure that SOLs, including Interconnection Reliability Operating Limits (IROLs), for its Reliability Coordinator Area are established and that the SOLs (including Interconnection Reliability Operating Limits) are consistent with its SOL Methodology.
- R2. The Transmission Operator shall establish SOLs (as directed by its Reliability Coordinator) for its portion of the Reliability Coordinator Area that are consistent with its Reliability Coordinator's SOL Methodology.
- R3. The Planning Authority shall establish SOLs, including IROLs, for its Planning Authority Area that are consistent with its SOL Methodology.
- R4. The Transmission Planner shall establish SOLs, including IROLs, for its Transmission Planning Area that are consistent with its Planning Authority's SOL Methodology.
- R5. The Reliability Coordinator, Planning Authority and Transmission Planner shall each provide its SOLs and IROLs to those entities that have a reliability-related need for those limits and provide a written request that includes a schedule for delivery of those limits as follows:
  - R5.1. The Reliability Coordinator shall provide its SOLs (including the subset of SOLs that are IROLs) to adjacent Reliability Coordinators and Reliability Coordinators who indicate a reliability-related need for those limits, and to the Transmission Operators, Transmission Planners, Transmission Service Providers and Planning Authorities within its Reliability Coordinator Area. For each IROL, the Reliability Coordinator shall provide the following supporting information:
    - R5.1.1. Identification and status of the associated Facility (or group of Facilities) that is (are) critical to the derivation of the IROL.
    - R5.1.2. The value of the IROL and its associated  $T_v$ .

- R5.1.3.** The associated Contingency(ies).
  - R5.1.4.** The type of limitation represented by the IROL (e.g., voltage collapse, angular stability).
- R5.2.** The Transmission Operator shall provide any SOLs it developed to its Reliability Coordinator and to the Transmission Service Providers that share its portion of the Reliability Coordinator Area.
- R5.3.** The Planning Authority shall provide its SOLs (including the subset of SOLs that are IROLs) to adjacent Planning Authorities, and to Transmission Planners, Transmission Service Providers, Transmission Operators and Reliability Coordinators that work within its Planning Authority Area.
- R5.4.** The Transmission Planner shall provide its SOLs (including the subset of SOLs that are IROLs) to its Planning Authority, Reliability Coordinators, Transmission Operators, and Transmission Service Providers that work within its Transmission Planning Area and to adjacent Transmission Planners.
- R6.** The Planning Authority shall identify the subset of multiple contingencies (if any), from Reliability Standard TPL-003 which result in stability limits.
  - R6.1.** The Planning Authority shall provide this list of multiple contingencies and the associated stability limits to the Reliability Coordinators that monitor the facilities associated with these contingencies and limits.
  - R6.2.** If the Planning Authority does not identify any stability-related multiple contingencies, the Planning Authority shall so notify the Reliability Coordinator.

### **C. Measures**

- M1.** The Reliability Coordinator, Planning Authority, Transmission Operator, and Transmission Planner shall each be able to demonstrate that it developed its SOLs (including the subset of SOLs that are IROLs) consistent with the applicable SOL Methodology in accordance with Requirements 1 through 4.
- M2.** The Reliability Coordinator, Planning Authority, Transmission Operator, and Transmission Planner shall each have evidence that its SOLs (including the subset of SOLs that are IROLs) were supplied in accordance with schedules supplied by the requestors of such SOLs as specified in Requirement 5.
- M3.** The Planning Authority shall have evidence it identified a list of multiple contingencies (if any) and their associated stability limits and provided the list and the limits to its Reliability Coordinators in accordance with Requirement 6.

### **D. Compliance**

- 1.** Compliance Monitoring Process
  - 1.1. Compliance Monitoring Responsibility**
    - Regional Reliability Organization
  - 1.2. Compliance Monitoring Period and Reset Time Frame**

The Reliability Coordinator, Planning Authority, Transmission Operator, and Transmission Planner shall each verify compliance through self-certification submitted to its Compliance Monitor annually. The Compliance Monitor may conduct a targeted audit once in each calendar year (January – December) and an investigation upon a complaint to assess performance.

The Performance-Reset Period shall be twelve months from the last finding of non-compliance.

**1.3. Data Retention**

The Reliability Coordinator, Planning Authority, Transmission Operator, and Transmission Planner shall each keep documentation for 12 months. In addition, entities found non-compliant shall keep information related to non-compliance until found compliant.

The Compliance Monitor shall keep the last audit and all subsequent compliance records.

**1.4. Additional Compliance Information**

The Reliability Coordinator, Planning Authority, Transmission Operator, and Transmission Planner shall each make the following available for inspection during a targeted audit by the Compliance Monitor or within 15 business days of a request as part of an investigation upon complaint:

**1.4.1** SOL Methodology(ies)

**1.4.2** SOLs, including the subset of SOLs that are IROLs and the IROLs supporting information

**1.4.3** Evidence that SOLs were distributed

**1.4.4** Evidence that a list of stability-related multiple contingencies and their associated limits were distributed

**1.4.5** Distribution schedules provided by entities that requested SOLs

**2. Levels of Non-Compliance**

**2.1. Level 1:** Not applicable.

**2.2. Level 2:** Not all SOLs were provided in accordance with their respective schedules.

**2.3. Level 3:** SOLs provided were not developed consistent with the SOL Methodology.

**2.4. Level 4:** There shall be a level four non-compliance if either of the following conditions exist:

**2.4.1** No SOLs were provided in accordance with their respective schedules.

**2.4.2** No evidence the Planning Authority delivered a set of stability-related multiple contingencies and their associated limits to Reliability Coordinators in accordance with R6.

### E. Regional Differences

None identified.

### Version History

Version	Date	Action	Change Tracking
1	November 1, 2006	Adopted by Board of Trustees	New