

Standard Development Roadmap

This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.

Modified to address Order No. 693 Directives contained in paragraphs 601 and 603.

Development Steps Completed:

1. SAR posted for comment (June 18, 2010 through July 13, 2010).
2. First draft of proposed standard posted (June 18, 2010 through July 13, 2010).
3. Posted for 15-day pre-ballot review (June 18 – July 2, 2010).

Proposed Action Plan and Description of Current Draft:

This is the first draft of the proposed standard. The modifications included in this standard are being proposed through an expedited process in order to be responsive to directives from FERC Order No. 693.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Conduct initial ballot on a line-item basis.	July 3 – 13, 2010
2. Post response to comments on initial ballot.	July 20, 2010
3. Conduct recirculation ballot.	July 20 – 30, 2010
4. Submit standard to BOT for adoption.	August 2010
5. File standard with regulatory authorities.	September 2010

Definitions of Terms Used in Standard

This section includes all newly defined or revised terms used in the proposed standard. Terms already defined in the Reliability Standards Glossary of Terms are not repeated here. New or revised definitions listed below become approved when the proposed standard is approved. When the standard becomes effective, these defined terms will be removed from the individual standard and added to the Glossary.

None.

Introduction

1. **Title:** Load Shedding Plans
2. **Number:** EOP-003-~~1~~2
3. **Purpose:** A Balancing Authority and Transmission Operator operating with insufficient generation or transmission capacity must have the capability and authority to shed load rather than risk an uncontrolled failure of the Interconnection.
4. **Applicability**
 - 4.1. Transmission Operators.
 - 4.2. Balancing Authorities.
5. **(Proposed) Effective Date:** The first day of the first calendar quarter, one year after applicable regulatory approval; or in those jurisdictions where no regulatory approval is required, the first day of the first calendar quarter one year after Board of Trustees' adoption. ~~January 1, 2007~~

A. Requirements

- R1. After taking all other remedial steps, a Transmission Operator or Balancing Authority operating with insufficient generation or transmission capacity shall shed customer load rather than risk an uncontrolled failure of components or cascading outages of the Interconnection.
- R2. Each Transmission Operator and Balancing Authority shall establish plans for automatic load shedding for underfrequency or undervoltage conditions.
- R3. Each Transmission Operator and Balancing Authority shall coordinate load shedding plans ~~among other interconnected~~ with each of the following:
 - R3.1. Interconnected Transmission Operators and Balancing Authorities.
 - R3.2. Regional Entities within whose regions they operate.
 - R3.3. Reliability Coordinator(s) associated with overseeing the operations of the Balancing Authority or Transmission Operator.
 - ~~R2.1-R3.4.~~ Generator Owners within the Balancing Authority Area or Transmission Operator Area, as appropriate.
- ~~R3-R4.~~ _____ A Transmission Operator or Balancing Authority shall consider one or more of these factors in designing an automatic load shedding scheme: frequency, rate of frequency decay, voltage level, rate of voltage decay, or power flow levels.
- ~~R4-R5.~~ _____ A Transmission Operator or Balancing Authority shall implement load shedding in steps established to minimize the risk of further uncontrolled separation, loss of generation, or system shutdown.
- ~~R5-R6.~~ _____ After a Transmission Operator or Balancing Authority Area separates from the Interconnection, if there is insufficient generating capacity to restore system frequency following automatic underfrequency load shedding, the Transmission Operator or Balancing Authority shall shed additional load.

~~R6~~.R7. _____ The Transmission Operator and Balancing Authority shall coordinate automatic load shedding throughout their areas with underfrequency isolation of generating units, tripping of shunt capacitors, and other automatic actions that will occur under abnormal frequency, voltage, or power flow conditions.

Each Transmission Operator or Balancing Authority shall have plans for operator-controlled manual load shedding to respond to real-time emergencies. The Transmission Operator or Balancing Authority shall be capable of implementing the load shedding in a timeframe adequate for responding to the emergency.

R8. At least annually, each Transmission Operator and Balancing Authority shall test their load shedding plans through simulation. [Violation Risk Factor: Low[Time Horizon: Long-term Planning, Operations Planning]

R9. At least every two years, each Transmission Operator, Balancing Authority, Load Serving Entity, and Distribution Provider shall participate in a test of the applicable load shedding plans. Such test shall include 1) coordination between Load Serving Entities, Distribution Providers, and the initiator of the test, and 2) personnel deployment drills. [Violation Risk Factor: Low [Time Horizon: Long-term Planning, Operations Planning]

B. Measures

- M1. Each Transmission Operator and Balancing Authority that has or directs the deployment of undervoltage and/or underfrequency load shedding facilities, shall have and provide upon request, its automatic load shedding plans.(Requirement 2)
- M2. Each Transmission Operator and Balancing Authority shall have and provide upon request its manual load shedding plans that will be used to confirm that it meets Requirement 8. (Part 1)

C. Compliance

1. Compliance Monitoring Process

1.1. Compliance ~~Monitoring Responsibility~~Enforcement Authority

~~Regional Reliability Organizations shall be responsible for compliance monitoring.~~Regional Entity.

1.2. Compliance Monitoring and Reset Time Frame

~~One or more of the following methods will be used to assess compliance~~Not Applicable.:

- ~~—Self certification (Conducted annually with submission according to schedule.)~~
- ~~—Spot Check Audits (Conducted anytime with up to 30 days notice given to prepare.)~~
- ~~—Periodic Audit (Conducted once every three years according to schedule.)~~
- ~~—Triggered Investigations (Notification of an investigation must be made within 60 days of an event or complaint of noncompliance. The entity will have up to 30 days to prepare for the investigation. An entity may request an extension of the preparation period and the extension will be considered by the Compliance Monitor on a case-by-case basis.)~~

~~The Performance Reset Period shall be 12 months from the last finding of non-compliance.~~

1.3. Compliance Monitoring and Enforcement Processes:

Self-certification (Conducted annually with submission according to schedule.)

Spot Check Audits (Conducted anytime with up to 30 days notice given to prepare.)

Periodic Audit (Conducted once every three years according to schedule.)

Triggered Investigations (Notification of an investigation must be made within 60 days of an event or complaint of noncompliance. The entity will have up to 30 days to prepare for the investigation. An entity may request an extension of the preparation period and the extension will be considered by the Compliance Monitor on a case-by-case basis.)

~~1.3. Additional Reporting Requirement~~

~~No additional reporting required.~~

1.4. Data Retention

Each Balancing Authority and Transmission Operator shall have its current, in-force load shedding plans.

If an entity is found non-compliant the entity shall keep information related to the noncompliance until found compliant or for two years plus the current year, whichever is longer.

Evidence used as part of a triggered investigation shall be retained by the entity being investigated for one year from the date that the investigation is closed, as determined by the Compliance Monitor,

The Compliance Monitor shall keep the last periodic audit report and all requested and submitted subsequent compliance records.

1.5. Additional Compliance Information

None.

2. Violation Severity Levels (changes only):

R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
<u>R9</u>				<u>The responsible entity did not test their load shedding plans through simulation at least annually.</u>
<u>R10</u>			<u>The responsible entity did not participate in a test of the load shedding plans that included personnel deployment drills at least every two years.</u>	<u>The responsible entity did not participate in a test of the load shedding plans that included coordination between Load Serving Entities, Distribution Providers, and the initiator of the test at least every two years.</u>

D. Regional Differences

None identified.

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed “Proposed” from Effective Date	Errata
1	November 1, 2006	Adopted by Board of Trustees	Revised
<u>2</u>	<u>TBD</u>	<u>Modified to address Order No. 693 Directives contained in paragraphs 601 and 603.</u>	<u>Revised.</u>