125 FERC ¶ 61,040 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

18 CFR Part 40

[Docket No. RM08-11-000]

Version Two Facilities Design, Connections and Maintenance Reliability Standards
(Issued October 16, 2008)

AGENCY: Federal Energy Regulatory Commission.

ACTION: Notice of Proposed Rulemaking.

SUMMARY: Pursuant to section 215 of the Federal Power Act, the Commission is proposing to approve three revised Reliability Standards developed by the North American Electric Reliability Corporation (NERC), which the Commission has certified as the Electric Reliability Organization responsible for developing and enforcing mandatory Reliability Standards. The three revised Reliability Standards, designated by NERC as FAC-010-2, FAC-011-2 and FAC-014-2, set requirements for the development and communication of system operating limits of the Bulk-Power System for use in the planning and operation horizons.

<u>DATES</u>: Comments are due [30 days after publication in the FEDERAL REGISTER]

<u>ADDRESSES</u>: Comments and reply comments may be filed electronically via the eFiling link on the Commission's web site at www.ferc.gov. Documents created electronically using word processing software should be filed in the native application or print-to-PDF format and not in a scanned format. This will enhance document retrieval

for both the Commission and the public. The Commission accepts most standard word processing formats and commenters may attach additional files with supporting information in certain other file formats. Attachments that exist only in paper form may be scanned. Commenters filing electronically should not make a paper filing. Service of rulemaking comments is not required. Commenters that are not able to file electronically must send an original and 14 copies of their comments to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street, N.E., Washington, D.C. 20426.

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION:

125 FERC ¶ 61,040 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Version Two Facilities Design, Connections and Maintenance Reliability Standards Docket No. RM08-11-000

NOTICE OF PROPOSED RULEMAKING

(Issued October 16, 2008)

1. Pursuant to section 215 of the Federal Power Act, ¹ the Commission is proposing to approve three revised Reliability Standards concerning Facilities Design, Connections and Maintenance (FAC) that were developed by the North American Electric Reliability Corporation (NERC), which the Commission has certified as the Electric Reliability Organization (ERO) responsible for developing and enforcing mandatory Reliability Standards. The three revised Reliability Standards, designated by NERC as FAC-010-2, FAC-011-2 and FAC-014-2, set requirements for the development and communication of system operating limits of the Bulk-Power System for use in the planning and operation horizons.²

¹ 16 U.S.C. 824o (2006).

² The Commission is not proposing any new or modified text to its regulations. Rather, as set forth in 18 CFR Part 40, a proposed Reliability Standard will not become effective until approved by the Commission, and the ERO must post on its website each effective Reliability Standard.

I. Background

A. Mandatory Reliability Standards

2. Section 215 of the FPA requires a Commission-certified ERO to develop mandatory and enforceable Reliability Standards, which are subject to Commission review and approval. Once approved, the Reliability Standards may be enforced by the ERO, subject to Commission oversight, or by the Commission independently.³

B. NERC's Proposed Version Two FAC Reliability Standards

3. On November 15, 2006, NERC filed 20 revised Reliability Standards and three version one FAC Reliability Standards for Commission approval. The Commission addressed the 20 revised Reliability Standards in Order No. 693⁴ and established a separate rulemaking proceeding to address the three version one FAC Reliability Standards, which require planning authorities and reliability coordinators to establish methodologies to determine system operating limits (SOLs) for the Bulk-Power System in the planning and operation horizons. The Commission approved the version one FAC Reliability Standards in Order No. 705 and directed the ERO to address certain issues.⁵

³ 16 U.S.C. 824o(e)(3).

⁴ Mandatory Reliability Standards for the Bulk-Power System, Order No. 693, 72 FR 16416, FERC Stats. & Regs. ¶ 31,242, reh'g denied, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

⁵ <u>Facilities Design, Connections and Maintenance Reliability Standards</u>, Order No. 705, 73 FR 1770 (Jan. 9, 2008), 121 FERC ¶ 61,296 (2007).

4. On June 30, 2008, in response to the Commission's directives in Order No. 705, NERC submitted for Commission approval three revised FAC Reliability Standards: ⁶ FAC-010-2 – System Operating Limits Methodology for the Planning Horizon, FAC-011-2 – System Operating Limits Methodology for the Operations Horizon, and FAC-014-2 – Establish and Communicate System Operating Limits. NERC requests that FAC-010-2 be made effective on July 1, 2008, FAC-011-2 on October 1, 2008, and FAC-014-2 on January 1, 2009, consistent with the implementation dates of version one of these Reliability Standards.

II. Discussion

5. As discussed below, NERC's proposed revisions to the FAC Reliability Standards preliminarily appear to be just and reasonable and consistent with our direction in Order No. 705. The Commission therefore proposes to accept FAC-010-2, FAC-011-2, and FAC-014-2 effective the latter of the effective date of the final rule in this docket or NERC's proposed effective dates.⁷

A. Load Greater Than Studied

6. Requirement R2.3.2 of FAC-011-1 provided that the system's response to a single contingency may include, inter alia, "[i]nterruption of other network customers, only if

⁶ NERC designates the version number of a Reliability Standard as the last digit of the Reliability Standard number. Therefore, version one Reliability Standards end with "-1" and version two Reliability Standards end with "-2."

⁷ Reliability Standards cannot become effective before the effective date of a Commission order approving them. <u>See</u>, <u>e.g.</u>, <u>Mandatory Reliability Standards for Critical Infrastructure Protection</u>, Order No. 706, 73 FR 7368 at n.190 (Feb. 7, 2008), 122 FERC ¶ 61,010 (2008).

the system has already been adjusted, or is being adjusted, following at least one prior outage, or, if the real-time operating conditions are more adverse than anticipated in the corresponding studies, e.g., load greater than studied." NERC asserted that a significant gap between actual and studied conditions (such as a large error in load forecast) could be treated as though it were a contingency under the version 1 of FAC-011-1 Reliability Standard.

7. In Order No. 705, the Commission disagreed with NERC's reading of FAC-011-1, sub-Requirement R2.3.2 and interpretation of the phrase "load greater than studied." However, the Commission found that the meaning of Requirement R2.3 and sub-Requirement R2.3.2 was not otherwise unclear. The Commission therefore approved FAC-011-1, but directed the ERO to revise the Reliability Standard through the Reliability Standards development process. The Commission suggested that NERC could address the Commission's concern by deleting the phrase, "e.g., load greater than studied."

NERC Proposal

8. NERC proposes to address the Commission's concern with the phrase "load greater than studied" by revising FAC-011-1 to remove the phrase from Requirement R2.3.2. NERC states that because the phrase served as an example, its removal does not materially change the requirement or the Reliability Standard. NERC's proposed FAC-011-2 therefore omits the relevant phrase.

⁸ Order No. 705, 121 FERC ¶ 61,296 at P 70.

Commission Proposal

- 9. The Commission proposes to approve NERC's proposed removal of the phrase "e.g. load greater than studied" from Requirement R2.3.2 of FAC-011-2. NERC's revision in FAC-011-2 appears reasonable and does not appear to change or conflict with the stated requirements set forth in the version one Reliability Standards approved in Order No. 705. NERC's revision therefore appears just, reasonable, not unduly discriminatory or preferential, and in the public interest.
- 10. While NERC describes the phrase "load greater than studied" as an example and states that its removal does not materially change the requirement, the Commission notes that Order No. 705 found that the operating conditions referred to in sub-Requirement R2.3.2 are exacerbating circumstances that are distinct from the actual contingency to be addressed that is referred to in Requirement R2.3. We stated that this did not support treating "load greater than studied" as a contingency. As we stated in Order No. 705, correcting for load forecast error is not accomplished by treating the error as a contingency, but is addressed under other Reliability Standards. ¹⁰

⁹ <u>Id.</u> P 69.

¹⁰ <u>Id.</u> P 68. For instance, we stated that "transmission operators are required to modify their plans whenever they receive information or forecasts that are different from what they used in their present plans. Furthermore, variations in weather forecasts that result in load forecast errors are more properly addressed through operating reserve requirements." Id.

B. <u>Cascading Outages</u>

11. With the version one FAC Reliability Standards, NERC proposed to add the term "Cascading Outages" to its glossary. In Order No. 705, the Commission noted that, although the glossary did not include a definition of Cascading Outages, it included an approved definition of Cascading, which seemed to describe the same concept. The Commission remanded NERC's proposed definition of Cascading Outages because NERC did not describe either the need for two definitions that seem to address the same matter or the variations between the two. The Commission also raised specific concerns with NERC's proposed definition of Cascading Outages. However, the Commission allowed NERC to file a revised definition that addresses the Commission's concerns.

NERC Proposal

12. NERC states that it is not proposing a revised definition of Cascading Outage. Instead, NERC proposes to address the Commission's concern by removing the term from the proposed FAC Reliability Standards. NERC states that its Board of Trustees withdrew its approval of the term at its February 12, 2008 meeting. NERC further states that the drafting team reviewed the term Cascading Outage relative to the term Cascading, a term in the approved NERC Glossary of Terms and indicated there were no intended material differences in the terms. NERC therefore removed the term Cascading Outage from the proposed FAC-010-2 and FAC-011-2 Reliability Standards and replaced with it with the term Cascading.

Commission Proposal

13. The Commission proposes to approve NERC's proposed removal of the term Cascading Outage from its FAC Reliability Standards. NERC's proposed revisions to FAC-010-2 and FAC-011-2 appear reasonable and do not appear to change or conflict with the stated requirements set forth in the version one Reliability Standards approved in Order No. 705. NERC's revisions therefore appear just, reasonable, not unduly discriminatory or preferential, and in the public interest.

C. <u>Loss of Consequential Load</u>

- 14. Requirement R2.3 of FAC-010-1 provided that the system's response to a single contingency may include, <u>inter alia</u>, "planned or controlled interruption of electric supply to radial customers or some local network customers connected to or supplied by the Faulted Facility or by the affected area." In response to a question raised by the Commission, NERC clarified that the provision in FAC-010-1, Requirement R2.3 is limited to loss of load that is directly connected to the facilities removed from service as a direct result of the contingency, i.e., consequential load loss.
- 15. In Order No. 705, the Commission reiterated its holding that addressed similar language on loss of load in Order No. 693, regarding Reliability Standard TPL-002-0. In Order No. 693, the Commission noted that "allowing for the 30 minute system adjustment period, the system must be capable of withstanding an N-1 contingency, with load shedding available to system operators as a measure of last resort to prevent

¹¹ Identical language appears in FAC-011-1, Requirement R2.3

cascading failures."¹² Order No. 693 directed the ERO to clarify the planning Reliability Standard TPL-002-0 accordingly. The Commission reached the same conclusion in Order No. 705. In Order No. 705, the Commission approved Reliability Standard FAC-010-1, Requirement R2.3 and directed the ERO to ensure that the clarification developed in response to Order No. 693 is made to the FAC Reliability Standards as well.¹³

NERC's Proposal

16. NERC suggests that the revisions to the term "loss of consequential load" are best addressed in the modifications being made to the transmission planning (TPL) family of Reliability Standards in its Project 2006-02 Assess Transmission Future Needs and Develop Transmission Plans. NERC reiterates its position that the TPL Reliability Standards define acceptable system performance response and serve as the foundation for the FAC family of Reliability Standards. NERC states that the term "loss of consequential load" is intrinsic to the scope of Project 2006-02. According to NERC, the drafting team has already proposed a definition for the term to be presented for approval for inclusion in NERC's Glossary of Terms. ¹⁴ NERC states that this approach will provide the clarity needed.

¹² Order No. 693, FERC Stats. & Regs. ¶ 31,242 at P 1788.

¹³ Order No. 705, 121 FERC ¶ 61,296 at P 53.

¹⁴ On August 14, 2007, the Reliability Standards drafting team posted for comment a draft of Reliability Standard TPL-001-1. NERC, <u>Draft 2 TPL-001-1</u>, <u>Transmission System Planning Performance Requirements Posted for 45-day Comment Period</u>, Project 2006-02, at 2 (2008), <u>available at</u>: http://www.nerc.com/filez/standards/Assess-Transmission-Future-Needs.html.

Commission Proposal

17. The Commission proposes to allow the ERO to address revisions to the term "loss of consequential load" in the modification being made to the TPL Reliability Standards. Such revisions should be consistent with the Commission's prior determinations in Order Nos. 693 and 705. The Commission finds that FAC-010-2 and FAC-011-2 are clearly understood as written and clarified in Order No. 705, including its holding with respect to "loss of consequential load," and that NERC's proposal to deal with "loss of consequential load" in a more-related project is appropriate.

D. <u>Violation Severity Levels</u>

- 18. In the event of a violation of a Reliability Standard, NERC will establish the initial value range for the corresponding base penalty amount. To do so, NERC will assign a violation risk factor for each requirement of a Reliability Standard that relates to the expected or potential impact of a violation of the requirement on the reliability of the Bulk-Power System. In addition, NERC will define up to four violation severity levels Lower, Moderate, High and Severe as measurements for the degree to which the requirement was violated in a specific circumstance.
- 19. In Order No. 705, the Commission approved 63 of NERC's 72 proposed violation risk factors and directed NERC to file violation severity level assignments before the

 $^{^{15}}$ See Order No. 705, 121 FERC ¶ 61,296 at P 53; Order No. 693, FERC Stats. & Regs. ¶ 31,242 at P 1788 & n.461.

¹⁶ See id. P 53.

version one FAC Reliability Standards become effective.¹⁷ Subsequently, NERC developed violation severity levels for each requirement of Reliability Standard, as measurements for the degree to which the requirement was violated in a specific circumstance.

20. On June 19, 2008, the Commission issued an order approving the violation severity level assignments filed by NERC for the 83 Reliability Standards approved in Order No. 693. In that order, the Commission offered four guidelines for evaluating the validity of the violation severity levels, and ordered a number of reports and further compliance filing to bring the remainder of NERC's violation severity levels into compliance with the Commission's guidelines. The four guidelines are: (1) violation severity level assignments should not have the unintended consequence of lowering the current level of compliance; (2) violation severity level assignments should ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties; (3) violation severity level assignments should be consistent with the corresponding requirement; and (4) violation severity level assignments should be based on a single violation, not a cumulative number of violations. The Commission found that these guidelines will provide a consistent and objective means for assessing,

¹⁷ Order No. 705, 121 FERC ¶ 61,296 at P 137.

¹⁸ North American Electric Reliability Corp., 123 FERC ¶ 61,284 (2008) (Violation Severity Level Order). NERC had not, at that time, submitted violation severity levels for the FAC Reliability Standards at issue in this proceeding.

¹⁹ Id. P 17.

inter alia, the consistency, fairness and potential consequences of violation severity level assignments. The Commission noted that these guidelines were not intended to replace NERC's own guidance classifications, but rather, provide an additional level of analysis to determine the validity of violation severity level assignments.

NERC Proposal

21. NERC states that it developed a full suite of violation severity levels for FAC-010-2, FAC-011-2 and FAC-014-2. NERC notes that it developed these violation severity levels prior to the issuance of the Violation Severity Level Order. NERC requests that the Commission accept its violation severity levels for the version two FAC Reliability Standards even though it has not yet assessed their validity using the four new guidelines established in the Violation Severity Level Order. NERC states that it is committed to assessing the violation severity levels for the revised FAC Reliability Standards in the six-month compliance filing required by the Violation Severity Level Order. NERC did not submit violation risk factors for these version two FAC Reliability Standards.

Commission Proposal

22. The Commission proposes to approve, with modification, NERC's proposed violation severity levels for FAC-010-2, FAC-011-2 and FAC-014-2. While we appreciate that NERC assigned its proposed violation severity levels before the

²⁰ NERC June 30, 2008 Filing, Docket No. RM07-3-000 at 5.

²¹ <u>Id.</u> (citing Violation Severity Level Order, 123 FERC ¶ 61,284 at P 42 (requiring NERC, within six months from the issuance of the Violation Severity Level Order, to conduct a review of the approved violation severity levels pursuant to the Commission guidelines, and submit a compliance filing)).

Commission established the four guidelines for evaluating the validity of the violation severity levels, we find that NERC's proposed violation severity levels would not meet our guidelines. We therefore propose the following modifications to the violation severity levels to form a complete set of violation severity levels in this NOPR. We note that NERC has committed to assessing the violation severity levels in the compliance filing required by the Violation Severity Level Order. Our proposals here do not preclude NERC from including an assessment of its FAC violation severity levels in its six-month evaluation, and we encourage NERC to do so. If, however, NERC does not include an assessment of its FAC violation severity levels in its six-month evaluation, the Commission proposes to direct the ERO to submit an assessment of the FAC violation severity levels within six months of the effective date of the Final Rule in this docket.

- 23. As drafted, some of NERC's proposed violation severity levels do not meet the Commission's guidelines established in the Violation Severity Level Order. Of the violation severity levels submitted by NERC, FAC-010-2 Requirements R1, R3, R4 and R5; FAC-011-2 Requirement R4; and FAC-014-2 Requirement R5 are consistent with the Commission violation severity level guidelines and only minor edits are proposed for clarity. The Commission therefore proposes to approve modified violation severity levels that are consistent with our guidelines.
- 24. The Commission is concerned with several of the proposed violation severity levels and proposes modifications. For example, as proposed by NERC, it is difficult to discern which conditions trigger which violation severity level assigned to FAC-010-2

Requirement R4. The Commission therefore proposes to direct the ERO to make modifications to clarify those conditions without changing the substance of the violation severity levels. The Commission also proposes to direct the ERO to modify the violation severity levels assigned to FAC-011-2 Requirement R1 to make them consistent with the violation severity levels proposed for FAC-010-2 Requirement R1. This uniformity will assist in the compliance and enforcement of these standards because it is logical that nearly identical requirements have nearly identical violation severity level structures.

- 25. NERC submitted violation severity levels for Requirement R2 of FAC-010-2 and Requirement R2 of FAC-011-2. In Order No. 705, the Commission found that Requirement R2 of FAC-010-1 and Requirement R2 of FAC-011-1, without their subrequirements, include no required performance or outcome. As such, no violation severity levels need to be assigned to these requirements. The Commission therefore proposes to delete the proposed violation severity levels for Requirement R2.
- 26. As proposed by NERC, Requirement R3 of FAC-011-2 is assigned a "Severe" violation severity level if the reliability coordinator's methodology for determining SOLs is missing a description of <u>three or more</u> of the sub-requirements ranging from R3.1 to R3.7. At the same time, NERC assigns a "High" violation severity level if the reliability coordinator's methodology for determining SOLs includes a description for all but <u>three</u> sub-requirements within the same range. Therefore, if a reliability coordinator's methodology for determining SOLs is missing a description of three sub-requirements, it

²² Order No. 705, 121 FERC ¶ 61,296 at P 159.

could be assigned both a "High" and a "Severe" violation severity level. To eliminate this overlap, the Commission proposes to direct the ERO to assign a "Severe" violation severity level to Requirement R3 of FAC-011-2 where the reliability coordinator is missing a description of <u>four</u> or more sub-requirements R3.1 to R3.7 from its methodology for determining SOLs.

27. Requirements R1 through R4 of FAC-014-2 address the development of SOLs and IROLs consistent with the methodologies outlined in FAC-010-2 and FAC-011-2. NERC proposes to assign violation severity levels to these requirements based on a quartile division of the total number of inconsistencies between the assigned SOLs and the SOLs that would be produced using the methodologies outlined in FAC-010-2 and FAC-011-2. For example, NERC proposes to assign a "Lower" violation severity level where 1 to 25 percent of SOLs are inconsistent with the applicable entity's SOL methodology. The Commission believes that each time a SOL is inconsistent with the applicable entity's SOL methodology, it is a violation of the Reliability Standards. By contrast, NERC's proposed violation severity levels are based on multiple inconsistent SOLs. The Commission's fourth guideline for evaluating violation severity levels makes clear that violation severity level assignments should be based on a single violation, not on a cumulative number of violations. To remedy this deficiency, the Commission proposes to direct the ERO to modify its violation severity levels for FAC-014-02 Requirements R1 through R4 based on the percentage of deviation from the SOL methodology for each violation.

28. Requirement R6 of FAC-014-2 requires the planning authority to identify the subset of multiple contingencies (if any), from Reliability Standard TPL-003 that result in stability limits. However, the proposed violation severity levels for Requirement R6 of FAC-014-2 do not identify a situation where the planning authority fails to provide a complete subset of contingencies to the reliability coordinator. This omission could result in the reliability coordinator not having the information it needs for its situational awareness of exceeding SOLs and IROLs that impact the reliable operation of the Bulk-Power System. The Commission therefore proposes to direct the ERO to add the following "Lower" violation severity level: "The Planning Authority failed to provide a complete subset of contingencies to the reliability coordinator in accordance with R6." The Commission also proposes to direct the ERO to reassign NERC's current "Lower" violation severity level as the new "Moderate" violation severity level to emphasize the need to notify the reliability coordinator.²³ The revisions proposed here would make the violation severity level assignments for Requirement R6 consistent with NERC's own guidelines for the development of violation severity levels related to communication or coordination requirements.²⁴

²³ NERC did not propose a "Moderate" violation severity level for requirement R6.

²⁴ NERC, <u>Violation Severity Level Guidelines Criteria</u>, Project 2007-23 at 19 (2008), <u>available at</u>: http://www.nerc.com/docs/standards/sar/VSLDT_Guidelines_Final_Draft_08Jan08.pdf. The NERC Guidelines indicate that a Moderate violation severity level should be selected when the responsible entity's coordination/communication is non-compliant with respect to at least one significant element within the requirement. In this case, the significant element is the failure to notify the Reliability Coordinator.

The Commission has directed NERC to develop violation severity levels for each 29. requirement and sub-requirement of each Reliability Standard.²⁵ NERC did not propose any violation severity level assignments for sub-requirements. The Commission therefore proposes to direct the ERO to assign binary violation severity levels for all of the proposed sub-requirements. ²⁶ In Order No. 705, the Commission found that the binary approach is appropriate for certain violation severity level assignments.²⁷ In this instance, the binary approach is appropriate because the violation severity level of the base requirement is established by whether a sub-requirement is violated or not, not to what extent a sub-requirement is violated. Thus, the proposed binary requirements satisfy guideline three, which calls for consistency between the violation severity level assignments and their corresponding requirements. For example, FAC-010-2 Requirement R1.1 states that the planning authority's SOL methodology shall "[b]e applicable for developing SOLs used in the planning horizon."²⁸ NERC did not propose any violation severity levels for this sub-requirement, therefore the Commission proposes a binary severe violation severity level that would be triggered when the planning authority SOL methodology is not applicable for developing SOLs in the planning

²⁵ North American Electric Reliability Corp., 119 FERC ¶ 61,248, order on clarification, 120 FERC ¶ 61,239 (2007).

²⁶ Binary requirements of Reliability Standards define compliance in terms of "pass" or "fail."

²⁷ Order No. 705, 121 FERC ¶ 61,296 at P 24.

²⁸ NERC June 30, 2008 Filing, Docket No. RM07-3-000 ex. A.

horizon. This binary approach for sub-requirements provides clear criteria to determine a violation of the sub-requirement. The Commission took a similar approach to the sub-requirements applicable to the WECC regional differences.

- 30. The complete set of the Commission's proposals are included in Attachment A to this order. The Commission proposes to direct the ERO to file the revised violation severity levels within 30 days of the Final Rule in this proceeding.
- 31. Finally, the Commission notes that NERC did not submit violation risk factors for the version two FAC Reliability Standards. In Order No. 705, the Commission approved the majority of NERC's proposed violation risk factors for the version one FAC Reliability Standards. ²⁹ On April 1, 2008, NERC filed revised violation risk factors for the version one FAC Reliability Standards. These were accepted by delegated authority on May 29, 2008. The Commission proposes to direct the ERO to apply those same violation risk factors to the version two FAC Reliability Standards approved in the Final Rule in this proceeding.

E. Western Interconnection Regional Differences

32. Although NERC submitted requirements for FAC-010-2 and FAC-011-2 that address the Western Interconnection regional difference, NERC did not submit violation severity levels or violation risk factors for these requirements. In Order No. 705, the Commission approved version one of the FAC Reliability Standards and directed WECC to develop and submit violation risk factors and violation severity levels that are

²⁹ Order No. 705, 121 FERC ¶ 61,296 at P 137.

applicable to the Western Interconnection regional difference. The Commission directed WECC to file its violation risk factors and violation severity levels no later than the effective date of the applicable Reliability Standard. FAC-010-1 became effective on July 1, 2008 and FAC-011-1 will become effective on October 1, 2008. To remedy this deficiency, the Commission offers proposed modifications to the violation severity level assignments assigned to FAC-010-2 and FAC-011-2 that address the Western Interconnection regional differences. The Commission's proposed modifications are included in Attachment A to this order. Consistent with our decision in Order No. 705, the Commission proposes to direct WECC to apply the NERC violation risk factors to the Western Interconnection regional difference until after WECC develops its own and they are approved by the ERO and the Commission. We note that WECC is still obligated to comply with the Commission's directives in Order No. 705 to file violation risk factors and violation severity levels addressing the Western Interconnection regional difference.

III. Information Collection Statement

33. The Office of Management and Budget (OMB) regulations require that OMB approve certain reporting and recordkeeping (collections of information) imposed by an agency.³² The information contained here is also subject to review under section 3507(d)

³⁰ Id. P 146.

³¹ <u>Id.</u>

³² 5 CFR 1320.11.

of the Paperwork Reduction Act of 1995.³³ As stated above, the Commission previously approved, in Order No. 705, each of the Reliability Standards that are the subject of the current rulemaking. The modifications to the Reliability Standards are minor; therefore, they do not add to or increase entities' reporting burden. Thus, the modified Reliability Standards do not materially affect the burden estimates relating to the earlier version of the Reliability Standards presented in Order No. 705.

<u>Title</u>: Version Two Facilities Design, Connections and Maintenance Reliability Standards.

Action: Proposed Collection.

OMB Control No.:

<u>Respondents</u>: Businesses or other for-profit institutions; not-for-profit institutions.

Frequency of Responses: On Occasion.

Necessity of the Information: This NOPR proposes to approve three modified Reliability Standards that pertain to facilities design, connections and maintenance. The Reliability Standards will require planning authorities and reliability coordinators to establish methodologies to determine system operating limits (SOLs) for the Bulk-Power System in the planning and operation horizons. This NOPR proposes to find the Reliability Standards and interpretations just, reasonable, not unduly discriminatory or preferential, and in the public interest.

³³ 44 U.S.C. 3507(d).

34. Interested persons may obtain information on the reporting requirements by contacting: Federal Energy Regulatory Commission, Attn: Michael Miller, Office of the Executive Director, 888 First Street, N.E. Washington, D.C. 20426, Tel: (202) 502-8415, Fax: (202) 273-0873, Email: michael.miller@ferc.gov, or by contacting: Office of Information and Regulatory Affairs, Attn: Desk Officer for the Federal Energy Regulatory Commission (Re: OMB Control No. 1902-0244), Washington, D.C. 20503, Tel: (202) 395-4650, Fax: (202) 395-7285, Email: oira_submission@omb.eop.gov.

IV. Environmental Analysis

35. The Commission is required to prepare an Environmental Assessment or an Environmental Impact Statement for any action that may have a significant adverse effect on the human environment. The Commission has categorically excluded certain actions from this requirement as not having a significant effect on the human environment. Included in the exclusion are rules that are clarifying, corrective, or procedural or that do not substantially change the effect of the regulations being amended. The actions proposed herein fall within this categorical exclusion in the Commission's regulations.

V. Regulatory Flexibility Act

36. The Regulatory Flexibility Act of 1980 (RFA)³⁶ generally requires a description

³⁴ <u>Regulations Implementing the National Environmental Policy Act of 1969</u>, Order No. 486, FERC Stats. & Regs. ¶ 30,783 (1987).

³⁵ 18 CFR 380.4(a)(2)(ii).

³⁶ 5 U.S.C. 601-12.

and analysis of final rules that will have a significant economic impact on a substantial number of small entities. The RFA mandates consideration of regulatory alternatives that accomplish the stated objectives of a proposed rule and that minimize any significant economic impact on a substantial number of small entities. The Small Business Administration's Office of Size Standards develops the numerical definition of a small business. (See 13 CFR 121.201). For electric utilities, a firm is small if, including affiliates, it is primarily engaged in the transmission, generation and/or distribution of electric energy for sale and its total electric output for the preceding twelve months did not exceed four million megawatt hours. The RFA is not implicated by this Final Rule because the minor modifications and interpretations discussed herein will not have a significant economic impact on a substantial number of small entities.

VI. Comment Processing

- 37. The Commission invites interested persons to submit comments on the matters and issues proposed in this notice to be adopted, including any related matters or alternative proposals that commenters may wish to discuss. Comments are due [insert date 30 days from publication in the **FEDERAL REGISTER**]. Comments must refer to Docket No. RM08-11-000, and must include the commenters' name, the organization they represent, if applicable, and their address in their comments.
- 38. The Commission encourages comments to be filed electronically via the eFiling link on the Commission's web site at http:/www.ferc.gov. The Commission accepts most standard word processing formats. Documents created electronically using word processing software should be filed in the native application or print-to-PDF format and

not in a scanned format. Commenters filing electronically should not make a paper filing. Service of rulemaking comments is not required.

- 39. Commenters that are not able to file comments electronically must send an original and 14 copies of their comments to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street N.E., Washington, DC, 20426.
- 40. All Comments will be placed in the Commission's public files and may be viewed, printed, or downloaded remotely as described in the Document Availability section below. Commenters on this proposal are not required to serve copies of their comments on other commenters.

VII. <u>Document Availability</u>

- 41. In addition to publishing the full text of this document in the <u>Federal Register</u>, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the Internet through FERC's Home Page (http://www.ferc.gov) and in FERC's Public Reference Room during normal business hours (8:30 a.m. to 5:00 p.m. Eastern time) at 888 First Street, N.E., Room 2A, Washington, D.C. 20426.
- 42. From FERC's Home Page on the Internet, this information is available on eLibrary. The Full text of this document is available on eLibrary in PDF and Microsoft Word format for viewing, printing, and/or downloading. To access this document in eLibrary, type the docket number excluding the last three digits of this document in the docket number field.

Docket No. RM08-11-000

- 23 -

43. User assistance is available for eLibrary and the Commission's website during normal business hours. For assistance, please contact the Commission's Online Support at 1-866-208-3676 (toll free) or (202) 502-6652 (e-mail at ferc.gov), or the Public Reference Room at (202) 502-8371, TTY (202) 502-8659 (e-mail at public.reference@ferc.gov).

By direction of the Commission.

Nathaniel J. Davis, Sr., Deputy Secretary.

Attachment A

Text of Requirement	Lower	Moderate	High	Severe	Guideline
FAC-010-2 R1. The Planning Authority shall have a documented SOL Methodology for use in developing SOLs within its Planning Authority Area. This SOL Methodology shall:	Not applicable.	Area, but it does	The Planning Authority has a documented SOL Methodology for use in developing SOLs within its Planning Authority Area, but it does not address R1.2 and R1.3.	One of the two following situations applies: 1) The Planning Authority has a documented SOL Methodology for use in developing SOLs within its Planning Authority Area, but it does not address R1.1. OR 2) The Planning Authority has no documented SOL Methodology for use in developing SOLs within its Planning Authority Area.	Revisions are intended to add clarity in determining the VSL. In addition, the VSLs seem to consider risk.
FAC-010-2 R1.1. Be applicable for developing SOLs used in the planning horizon.	Not applicable.	Not applicable.	Not applicable.	Planning Authority SOL methodology is not applicable for developing SOL in the planning horizon.	2, 3
FAC-010-2 R1.2. State that SOLs shall not exceed associated Facility Ratings.	Not applicable.	Not applicable.	Not applicable.	Planning Authority SOL Methodology did not state that SOLs shall not exceed associated Facility Ratings	2, 3
FAC-010-2 R1.3. Include a description of how to identify the subset of SOLs that qualify as IROLs.	Not applicable.	Not applicable.	Not applicable.	Planning Authority SOL Methodology did not include a description of how to identify the subset of SOLs that qualify as IROLs.	2, 3

Text of Requirement	Lower	Moderate	High	Severe	Guideline
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FAC-010-2 R2. The Planning Authority's SOL Methodology shall include a requirement that SOLs provide BES performance consistent with the following:	The Planning Authority's SOL Methodology requires that SOLs are set to meet BES performance following single and multiple contingencies, but does not address the pre- contingency state (R2.1)	The Planning Authority's SOL Methodology requires that SOLs are set to meet BES performance in the precentingency state and following single contingencies, but does not address multiple contingencies. (R2.5 R2.6)	are set to meet BES performance in the precontingency state and following multiple contingencies, but	The Planning Authority's SOL Methodology requires that SOLs are set to meet BES performance in the precontingency state but does not require that SOLs be set to meet the BES performance specified for response to single contingencies (R2.2-R2.4) and does not require that SOLs be set to meet the BES performance specified for response to multiple contingencies. (R2.5-R2.6)	NOTE: No VRF is assigned to R2, therefore no VSL assignment is required.
FAC-010-2 R2.2. Following the single Contingencies4 identified in Requirement 2.2.1 through Requirement 2.2.3, the system shall demonstrate transient, dynamic and voltage stability; all Facilities shall be operating within their Facility Ratings and within their thermal, voltage and stability limits; and Cascading or uncontrolled separation shall not occur.	Not applicable.	Not applicable.	Not applicable.	The methodology does not state that following the single Contingencies identified in Requirement 2.2.1 through Requirement 2.2.3, the system shall demonstrate transient, dynamic and voltage stability; all Facilities shall be operating within their Facility Ratings and within their thermal, voltage and stability limits; and Cascading or uncontrolled separation shall not occur.	2, 3

Text of Requirement	Lower	Moderate	High	Severe	Guideline
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FAC-010-2 R2.2.1. Single line to ground or three-phase Fault (whichever is more severe), with Normal Clearing, on any Faulted generator, line, transformer, or shunt device.	Not applicable.	Not applicable.	Not applicable.	The methodology does not address that single line to ground or 3-phase Fault (whichever is more severe), with Normal Clearing, on any Faulted generator, line, transformer, or shunt device.	2, 3
FAC-010-2 R2.2.2. Loss of any generator, line, transformer, or shunt device without a Fault.	Not applicable.	Not applicable.	Not applicable.	The methodology does not address the loss of any generator, line, transformer, or shunt device without a Fault.	2, 3
FAC-010-2 R2.2.3. Single pole block, with Normal Clearing, in a monopolar or bipolar high voltage direct current system.	Not applicable.	Not applicable.	Not applicable.	The methodology does not address single pole block, with Normal Clearing, in a monopolar or bipolar high voltage direct current system.	2, 3
FAC-010-2 R2.3. Starting with all Facilities in service, the system's response to a single Contingency, may include any of the following:	Not applicable.	Not applicable.	Not applicable.	The methodology does not include one or more of the following: 2.3.1. through 2.3.3.	2, 3
FAC-010-2 R2.3.1. Planned or controlled interruption of electric supply to radial customers or some local network customers connected to or supplied by the Faulted Facility or by the affected area.		Not applicable.	Not applicable.	The SOL Methodology does not provide that starting with all Facilities in service, the system's response to a single Contingency may include planned or controlled interruption of electric supply to radial customers or some local network customers connected to or supplied by the Faulted Facility or by the affected area.	2, 3

Text of Requirement	Lower	Moderate	High	Severe	Guideline
FAC-010-2 R2.3.2. System reconfiguration through manual or automatic control or protection actions.		Not applicable.	Not applicable.	The SOL Methodology does not provide that starting with all Facilities in service, the system's response to a single Contingency may include System reconfiguration through manual or automatic control or protection actions.	2, 3
FAC-010-2 R2.4. To prepare for the next Contingency, system adjustments may be made, including changes to generation, uses of the transmission system, and the transmission system topology.	Not applicable.	Not applicable.	Not applicable.	The SOL Methodology does not provide that in order to prepare for the next Contingency, system adjustments may be made, including changes to generation, uses of the transmission system, and the transmission system topology.	2, 3
FAC-010-2 R2.5. Starting with all Facilities in service and following any of the multiple Contingencies identified in Reliability Standard TPL-003 the system shall demonstrate transient, dynamic and voltage stability; all Facilities shall be operating within their Facility Ratings and within their thermal, voltage and stability limits; and Cascading or uncontrolled separation shall not occur.	Not applicable.	Not applicable.	Not applicable.	The SOL Methodology does not provide that when starting with all Facilities in service and following any of the multiple Contingencies identified in Reliability Standard TPL-003 the system shall demonstrate transient, dynamic and voltage stability; all Facilities shall be operating within their Facility Ratings and within their thermal, voltage and stability limits; and Cascading or uncontrolled separation shall not occur	2, 3

Text of Requirement	Lower	Moderate	High	Severe	Guideline
FAC-010-2 R2.6. In determining the system's response to any of the multiple Contingencies, identified in Reliability Standard TPL-003, in addition to the actions identified in R2.3.1 and R2.3.2, the following shall be acceptable: FAC-010-2 R2.6.1. Planned or controlled interruption of electric supply to customers		Not applicable.	Not applicable.	The SOL Methodology does not provide that in determining the system's response to any of the multiple Contingencies,	NOTE: No VRF is assigned to R2.6, therefore no VSL assignment is required.
(load shedding), the planned removal from service of certain generators, and/or the curtailment of contracted Firm (non-recallable reserved) electric power Transfers.				identified in Reliability Standard TPL-003, in addition to the actions identified in R2.3.1 and R2.3.2, Planned or controlled interruption of electric supply to customers (load shedding), the planned removal from service of certain generators, and/or the curtailment of contracted Firm (non-recallable reserved) electric power Transfers shall be acceptable.	
FAC-010-2 R3. The Planning Authority's methodology for determining SOLs, shall include, as a minimum, a description of the following, along with any reliability margins applied for each:	The Planning Authority has a methodology for determining SOLs that includes a description for all but one of the following: R3.1	The Planning Authority has a methodology for determining SOLs that includes a description for all but two of the following: R3.1 through R3.6.	The Planning Authority has a methodology for determining SOLs that includes a description for all but three of the following: R3.1 through R3.6.	The Planning Authority has a methodology for determining SOLs that is missing a description of four or more of the following: R3.1 through R3.6.	

Text of Requirement	Lower	Moderate	High	Severe	Guideline
	through R3.6.				
FAC-010-2 R3.1. Study model (must include at least the entire Planning Authority Area as well as the critical modeling details from other Planning Authority Areas that would impact the Facility or Facilities under study).	Not applicable.	Not applicable.	Not applicable.	Methodology does not include a study model that includes the entire Planning Authority area, and the critical details of other Planning Authority area that would impact the facility or facilities under study.	2, 3
FAC-010-2 R3.2. Selection of applicable Contingencies.	Not applicable.	Not applicable.	Not applicable.	Methodology does not include the selection of applicable Contingencies.	2, 3
FAC-010-2 R3.3. Level of detail of system models used to determine SOLs.	Not applicable.	Not applicable.	Not applicable.	Methodology does not describe the level of detail of system models used to determine SOLs.	2, 3
FAC-010-2 R3.4. Allowed uses of Special Protection Systems or Remedial Action Plans.	Not applicable.	Not applicable.	Not applicable.	The methodology does not describe the allowed uses of Special Protection Systems or Remedial Action Plans.	2, 3
FAC-010-2 R3.5. Anticipated transmission system configuration, generation dispatch and Load level.	Not applicable.	Not applicable.	Not applicable.	The methodology does not include the description of anticipated transmission system configuration, generation dispatch and Load level.	2, 3

Text of Requirement	Lower	Moderate	High	Severe	Guideline
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FAC-010-2 R3.6. Criteria for determining when violating a SOL qualifies as an Interconnection Reliability Operating Limit (IROL) and criteria for developing any associated IROL Tv.	Not applicable.	Not applicable.	Not applicable.	The methodology does not include a description of the criteria for determining when violating a SOL qualifies as an Interconnection Reliability Operating Limit (IROL) and criteria for developing any associated IROL.	2, 3
FAC-010-2 R4. The Planning Authority shall issue its SOL Methodology, and any change to that methodology, to all of the following prior to the effectiveness of the change:	1) The Planning Authority issued its SOL Methodology and changes to that methodology to all but one of the required entities. 2) For a change in methodology, the changed methodology was provided up to 30 calendar days after the	applies: 1) The Planning Authority issued its SOL Methodology and changes to that methodology to all but one of the required entities AND for a change in methodology, the changed methodology was provided 30 calendar days or more, but less than	SOL Methodology and changes to that methodology to all but one of the required entities AND for a change in methodology, the changed methodology was provided 60 calendar days or more, but less than 90 calendar days after the effectiveness of the	One of the <u>four following situations applies:</u> 1) The Planning Authority failed to issue its SOL Methodology and changes to that methodology to more than three of the required entities. 2) The Planning Authority issued its SOL Methodology and changes to that methodology and changes to that methodology to all but one of the required entities AND for a change in methodology, the changed methodology was provided 90 calendar days or more after the effectiveness of the change. OR 3) The Planning Authority issued its SOL Methodology and changes to that methodology to all but two of the required entities AND for a change in methodology, the changed methodology was provided 60 calendar days or more, but less than 90 calendar days after the effectiveness of the change. OR 4) The Planning Authority issued its SOL Methodology and changes to that methodology to all but three of the required	Revisions are intended to add clarity in determining the VSL.

Text of Requirement	Lower	Moderate	High	Severe	Guideline
		SOL Methodology and changes to that methodology to all but two of the required entities AND for a change in methodology, the changed methodology was provided up to 30 calendar days after	methodology to all but two of the required entities AND for a change in methodology, the changed methodology was provided 30 calendar days or more, but less than 60 calendar		

Text of Requirement	Lower	Moderate	High	Severe	Guideline
FAC-010-2 R4.1. Each adjacent Planning Authority and each Planning Authority that indicated it has a reliability-related need for the methodology.	Not applicable.	Not applicable.	Not applicable.	The Planning Authority did not issue its SOL Methodology and any change to that methodology, prior to the effectiveness of the change, to each adjacent Planning Authority and each Planning Authority that indicated it has a reliability-related need for the methodology.	2, 3
FAC-010-2 R4.2. Each Reliability Coordinator and Transmission Operator that operates any portion of the Planning Authority's Planning Authority Area.	Not applicable.	Not applicable.	Not applicable.	The Planning Authority did not issue its SOL Methodology and any change to that methodology, prior to the effectiveness of the change, to each Reliability Coordinator and Transmission Operator that operates any portion of the Planning Authority's Planning Authority Area.	2, 3
FAC-010-2 R4.3. Each Transmission Planner that works in the Planning Authority's Planning Authority Area.	Not applicable.	Not applicable.	Not applicable.	The Planning Authority did not issue its SOL Methodology and any change to that methodology, prior to the effectiveness of the change, to each Transmission Planner that works in the Planning Authority's Planning Authority Area prior to the effectiveness of the change.	2, 3

Text of Requirement	Lower	Moderate	High	Severe	Guideline
FAC-010-2 R5. If a recipient of the SOL Methodology provides documented technical comments on the methodology, the Planning Authority shall provide a documented response to that recipient within 45 calendar days of receipt of those comments. The response shall indicate whether a change will be made to the SOL Methodology and, if no change will be made to that SOL Methodology, the reason why.	provided a complete response in a time period that was longer than 45 calendar days but less than 60	The Planning Authority received documented technical comments on its SOL Methodology and provided a complete response in a time period that was 60 calendar days or longer but less than 75 calendar days.	One of the following situation applies: 1) The Planning Authority received documented technical comments on its SOL Methodology and provided a complete response in a time period that was 75 calendar days or longer but less than 90 calendar days. 2) The Planning Authority's response to documented technical comments on its SOL Methodology indicated that a change will not be made, but did not include an explanation of why the change will not be made.	One of the following situation applies: 1) The Planning Authority received documented technical comments on its SOL Methodology and provided a complete response in a time period that was 90 calendar days or longer. OR 2) The Planning Authority's response to documented technical comments on its SOL Methodology did not indicate whether a change will be made to the SOL Methodology.	Revisions are intended to add clarity in determining the VSL.

Text of Requirement	Lower	Moderate	High	Severe	Guideline
WECC FAC-010-2 R1. The following Interconnection-wide Regional Difference shall be applicable in the Western Interconnection:					
As governed by the requirements of R2.4 and R2.5, starting with all Facilities in-service, shall require the evaluation of the following multiple Facility Contingencies	Not applicable.	Not applicable.	Not applicable.	Methodology fails to address any of the evaluations listed in 1.1.1 through 1.1.7	2, 3
when establishing SOLs: WECC FAC-010-2 R1.1.1 Simultaneous permanent phase to ground Faults on different phases of each of two adjacent transmission circuits on a multiple circuit tower, with Normal Clearing. If multiple circuit towers are used only for station entrance and exit purposes, and if they do not exceed five towers at each station, then this condition is an acceptable risk and therefore can be excluded.					

Text of Requirement	Lower	Moderate	High	Severe	Guideline
WECC FAC-010-2 R1.1.2					
A permanent phase to					
ground Fault on any					
generator, transmission					
circuit, transformer, or bus					
section with Delayed Fault					
Clearing except for bus					
sectionalizing breakers or					
bus-tie breakers addressed					
in E1.1.7					
WECC FAC-010-2 R1.1.3					
Simultaneous permanent					
loss of both poles of a					
direct current bipolar Facility without an					
alternating current Fault.					
WECC FAC-010-2 R1.1.4					
The failure of a circuit					
breaker associated with a					
Special Protection System					
to operate when required					
following: the loss of any					
element without a Fault; or					
a permanent phase to					
ground Fault, with Normal					
Clearing, on any					
transmission circuit,					
transformer or bus section.					
WECC FAC-010-2 R1.1.5					
A non-three phase Fault					
with Normal Clearing on					
common mode					
Contingency of two					

Text of Requirement	Lower	Moderate	High	Severe	Guideline
adjacent circuits on					
separate towers unless the					
event frequency is					
determined to be less than					
one in thirty years.					
WECC FAC-010-2 R1.1.6					
A common mode outage of					
two generating units					
connected to the same					
switchyard, not otherwise					
addressed by FAC-010.					
WECC FAC-010-2 R1.1.7					
The loss of multiple bus					
sections as a result of					
failure or delayed clearing					
of a bus tie or bus					
sectionalizing breaker to					
clear a permanent Phase to					
Ground Fault.					
WECC FAC-010-2 R1.2.					
SOLs shall be established					
such that for multiple					
Facility Contingencies in					
E1.1.1 through E1.1.5					
operation					
within the SOL shall					
provide system					
performance consistent					
with the following:					
WECC FAC-010-2 R1.2.1					
All Facilities are operating					
within their applicable Post-					
Contingency thermal,					

Text of Requirement	Lower	Moderate	High	Severe	Guideline
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frequency and voltage limits.					
WECC FAC-010-2 R1.2.2					
Cascading does not occur.					
WECC FAC-010-2 R1.2.3					
Uncontrolled separation of					
the system does not occur.					
WECC FAC-010-2 R1.2.4					
The system demonstrates					
transient, dynamic and					
voltage stability.					
WECC FAC-010-2 R1.2.5					
Depending on system					
design and expected					
system impacts, the					
controlled interruption of					
electric supply to					
customers (load shedding),					
the planned removal from					
service of certain					
generators, and/or the					
curtailment of contracted					
firm (non-recallable					
reserved) electric power					
transfers may be necessary to maintain the overall					
security of the					
interconnected					
transmission systems.					
WECC FAC-010-2 R1.2.6					
Interruption of firm transfer,					
Load or system					
reconfiguration is permitted					
recomingulation is permitted	ĺ				

Text of Requirement	Lower	Moderate	High	Severe	Guideline
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through manual or					
automatic control or					
protection actions.					
WECC FAC-010-2 R1.2.7					
To prepare for the next					
Contingency, system					
adjustments are permitted,					
including changes to					
generation, Load and the					
transmission system					
topology when determining					
limits.					
WECC FAC-010-2 R1.3.					
SOLs shall be established					
such that for multiple					
Facility Contingencies in					
E1.1.6 through E1.1.7					
operation within the SOL					
shall provide system					
performance consistent					
with the following with					
respect to impacts on other					
systems:					
WECC FAC-010-2 R1.3.1					
Cascading does not occur.					
WECC FAC-010-2 R1.4.					
The Western					
Interconnection may make					
changes (performance					
category adjustments) to					
the Contingencies required					
to be studied and/or the					
required responses to					

Text of Requirement	Lower	Moderate	High	Severe	Guideline
Contingencies for specific facilities based on actual system performance and robust design. Such changes will apply in determining SOLs.					

Text of Requirement	Lower	Moderate	High	Severe	Guideline
FAC-011-2 R1. The Reliability Coordinator shall have a documented methodology for use in developing SOLs (SOL Methodology) within its Reliability Coordinator Area. This SOL Methodology shall:	Not applicable.	but it does not address R1.2 <u>or</u> R1.3	it does not address R1.2 and R1.3.	One of the two following situations applies: 1) The Reliability Coordinator has a documented SOL Methodology for use in developing SOLs within its Reliability Coordinator Area, but it does not address R1.1. OR 2) The Reliability Coordinator has no documented SOL Methodology for use in developing SOLs within its Reliability Coordinator Area.	2, 3/ Revision is based on obtaining consistency with the VSL for R1 in FAC-010-2 and to clarify the VSL.
FAC-011-2 R1.1. Be applicable for developing SOLs used in the operations horizon.	Not applicable.	Not applicable.	Not applicable.	Reliability Coordinator SOL methodology is not applicable for developing SOL in the operations horizon.	2, 3/ Revision is based on consistency with a guideline. Since NERC did not assign, we are assigning based on each requirement with a VRF must have at least one VSL.
FAC-011-2 R1.2. State that SOLs shall not exceed associated Facility Ratings.	Not applicable.	Not applicable.	Not applicable.	Reliability Coordinator SOL Methodology did not state that SOLs shall not exceed associated Facility Ratings	2, 3/ Revision is based on consistency with a guideline. Since NERC did not assign, we

Text of Requirement	Lower	Moderate	High	Severe	Guideline
FAC-011-2 R1.3. Include a description of how to identify the subset of SOLs that qualify as IROLs	Not applicable.	Not applicable.		Reliability Coordinator SOL Methodology did not include a description of how to identify the subset of SOLs that qualify as IROLs.	are assigning based on each requirement with a VRF must have at least one VSL. 2, 3/ Revision is based on consistency with a guideline. Since NERC did not assign, we are assigning based on each requirement with a VRF must have at least one VSL.

Text of Requirement	Lower	Moderate	High	Severe	Guideline
FAC-011-2 R2. The Reliability Coordinator's SOL Methodology shall include a requirement that SOLs provide BES performance consistent with the following:	The Reliability Coordinator's SOL Methodology requires that SOLs are set to meet BES performance following single contingencies, but does not require that SOLs are set to meet BES performance in the pre- contingency state. (R2.1)		The Reliability Coordinator's SOL Methodology requires that SOLs are set to meet BES performance in the precontingency state and following multiple contingencies, but does not meet the performance for response to single contingencies. (R2.2 –R2.4)	The Reliability Coordinator's SOL Methodology does not require that SOLs are set to meet BES performance in either the pre-contingency state and does not require that SOLs are set to meet BES performance following single contingencies. (R2.1 through R2.4)	NOTE: No VRF is assigned to R2, therefore no VSL assignment is required.
FAC-011-2 R2.1. In the pre-contingency state, the BES shall demonstrate transient, dynamic and voltage stability; all Facilities shall be within their Facility Ratings and within their thermal, voltage and stability limits. In the determination of SOLs, the BES condition used shall reflect current or expected system conditions and shall reflect changes to system topology such as Facility outages.	Not applicable.	Not applicable.	Not applicable.	The methodology does not include a requirement that states that SOL's in the pre-contingency state, the BES shall demonstrate transient, dynamic and voltage stability; all Facilities shall be within their Facility Ratings and within their thermal, voltage and stability limits; and that in the determination of SOLs, the BES condition used shall reflect current or expected system conditions and shall reflect changes to system topology such as Facility outages.	guideline. Since NERC did not assign, we are assigning

Text of Requirement	Lower	Moderate	High	Severe	Guideline
FAC-011-2 R2.2. Following the single Contingencies1 identified in Requirement 2.2.1 through Requirement 2.2.3, the system shall demonstrate transient, dynamic and voltage stability; all Facilities shall be operating within their Facility Ratings and within their thermal, voltage and stability limits; and Cascading or uncontrolled separation shall not occur.	Not applicable.	Not applicable.	Not applicable.	The methodology does not include a requirement that states for SOL's that following the single Contingencies1 identified in Requirement 2.2.1 through Requirement 2.2.3, the system shall demonstrate transient, dynamic and voltage stability; all Facilities shall be operating within their Facility Ratings and within their thermal, voltage and stability limits; and Cascading or uncontrolled separation shall not occur.	2, 3
FAC-011-2 R2.2.1. Single line to ground or 3-phase Fault (whichever is more severe), with Normal Clearing, on any Faulted generator, line, transformer, or shunt device.	Not applicable.	Not applicable.	Not applicable.	The methodology does not require that SOLs provide BES performance consistent with: single line to ground or 3-phase Fault (whichever is more severe), with Normal Clearing, on any Faulted generator, line, transformer, or shunt device.	2, 3
FAC-011-2 R2.2.2. Loss of any generator, line, transformer, or shunt device without a Fault.	Not applicable.	Not applicable.	Not applicable.	The methodology does not address the loss of any generator, line, transformer, or shunt device without a Fault.	2, 3
FAC-011-2 R2.2.3. Single pole block, with Normal Clearing, in a monopolar or bipolar high voltage direct current system.	Not applicable.	Not applicable.	Not applicable.	The methodology does not address single pole block, with Normal Clearing, in a monopolar or bipolar high voltage direct current system.	2, 3

Text of Requirement	Lower	Moderate	High	Severe	Guideline
FAC-011-2 R2.3. In determining the system's response to a single Contingency, the following shall be acceptable:	Not applicable.	Not applicable.	Not applicable.	The methodology does not include one or more of the following 2.3.1. through 2.3.3.	2, 3
FAC-011-2 R2.3.1. Planned or controlled interruption of electric supply to radial customers or some local network customers connected to or supplied by the Faulted Facility or by the affected area.	Not applicable.	Not applicable.	Not applicable.	The Methodology does not address that in determining the systems response to a single contingency, Planned or controlled interruption of electric supply to radial customers or some local network customers connected to or supplied by the Faulted Facility or by the affected area is acceptable.	2, 3
FAC-011-2 R2.3.2. Interruption of other network customers, (a) only if the system has already been adjusted, or is being adjusted, following at least one prior outage, or (b) if the real-time operating conditions are more adverse than anticipated in the corresponding studies, e.g., load greater than studied.	Not applicable.	Not applicable.	Not applicable.	The Methodology does not address that in determining the systems response to a single contingency, Interruption of other network customers is acceptable, (a) only if the system has already been adjusted, or is being adjusted, following at least one prior outage, or (b) if the real-time operating conditions are more adverse than anticipated in the corresponding studies.	2, 3
FAC-011-2 R2.3.3. System reconfiguration through manual or automatic control or protection actions.		Not applicable.	Not applicable.	The Methodology does not address that in determining the systems response to a single contingency, system reconfiguration through manual or automatic control or protection actions is acceptable.	2, 3

Text of Requirement	Lower	Moderate	High	Severe	Guideline
FAC-011-2 R2.4. To prepare for the next Contingency, system adjustments may be made, including changes to generation, uses of the transmission system, and the transmission system topology.	Not applicable.	Not applicable.	Not applicable.	The methodology does not provide that to prepare for the next Contingency, system adjustments may be made, including changes to generation, uses of the transmission system, and the transmission system topology.	2, 3
along with any reliability margins applied for each:	a methodology for determining SOLs that includes a description for all but one of the	The Reliability Coordinator has a methodology for determining SOLs that includes a description for all but two of the following: R3.1 through R3.7.	The Reliability Coordinator has a methodology for determining SOLs that includes a description for all but three of the following: R3.1 through R3.7.	The Reliability Coordinator has a methodology for determining SOLs that is missing a description of three four or more of the following: R3.1 through R3.7.	2
FAC-011-2 R3.1. Study model (must include at least the entire Reliability Coordinator Area as well as the critical modeling details from other Reliability Coordinator Areas that would impact the Facility or Facilities under study.)		Not applicable.	Not applicable.	Methodology does not include a description of the study model to be used which must include the entire Reliability Coordinator area, and the critical details of other Reliability Coordinator areas that would impact the facility or facilities under study	2, 3
FAC-011-2 R3.2. Selection of applicable Contingencies	Not applicable.	Not applicable.	Not applicable.	Methodology does not include the selection of applicable Contingencies.	2, 3

Text of Requirement	Lower	Moderate	High	Severe	Guideline
FAC-011-2 R3.3. A process for determining which of the stability limits associated with the list of multiple contingencies (provided by the Planning Authority in accordance with FAC-014 Requirement 6) are applicable for use in the operating horizon given the actual or expected system conditions.	Not applicable.	Not applicable.	Not applicable.	The methodology does not include a description of a process for determining which of the stability limits associated with the list of multiple contingencies (provided by the Planning Authority in accordance with FAC-014 Requirement 6) are applicable for use in the operating horizon given the actual or expected system conditions.	2, 3
FAC-011-2 R3.3.1. This process shall address the need to modify these limits, to modify the list of limits, and to modify the list of associated multiple contingencies.	Not applicable.	Not applicable.	Not applicable.	The methodology for determining SOL's does not address the need to modify the limits described in R3.3, the list of limits, or the list of associated multiple contingencies.	2, 3
	Not applicable.	Not applicable.	Not applicable.	Methodology does not describe the level of detail of system models used to determine SOLs.	2, 3
FAC-011-2 R3.5. Allowed uses of Special Protection Systems or Remedial Action Plans.	Not applicable.	Not applicable.	Not applicable.	The methodology does not describe the allowed uses of Special Protection Systems or Remedial Action Plans.	2, 3
FAC-011-2 R3.6. Anticipated transmission system configuration, generation dispatch and Load level	Not applicable.	Not applicable.	Not applicable.	The methodology does not describe the anticipated transmission system configuration, generation dispatch and Load level	2, 3

Text of Requirement	Lower	Moderate	High	Severe	Guideline
FAC-011-2 R3.7. Criteria for determining when violating a SOL qualifies as an Interconnection Reliability Operating Limit (IROL) and criteria for developing any associated IROL Tv.	Not applicable.	Not applicable.	Not applicable.	The methodology does not describe the Criteria for determining when violating a SOL qualifies as an Interconnection Reliability Operating Limit (IROL) and criteria for developing any associated IROL Tv.	2, 3
FAC-011-2 R4. The Reliability Coordinator shall issue its SOL Methodology and any changes to that methodology, prior to the effectiveness of the Methodology or of a change to the Methodology, to all of the following:	the following situations applies: 1) The Reliability Coordinator issued its SOL Methodology and changes to that methodology to all but one of the required entities. 2) For a change in methodology, the changed methodology was provided up to 30 calendar days after the effectiveness of the change.	changes to that methodology to all but one of the required entities AND for a change in methodology, the changed methodology was	its SOL Methodology and changes to that methodology to all but one of the required entities AND for a change in methodology, the changed methodology was provided 60 calendar days or more, but less than 90 calendar days after the effectiveness of the change. OR 2) The Reliability Coordinator issued	One of the following: One of the four following situations applies: 1) The Reliability Coordinator failed to issue its SOL Methodology and changes to that methodology to more than three of the required entities. 2) The Planning Authority issued its SOL Methodology and changes to that methodology and changes to that methodology to all but one of the required entities AND for a change in methodology, the changed methodology was provided 90 calendar days or more after the effectiveness of the change. OR 3) The Reliability Coordinator issued its SOL Methodology and changes to that methodology to all but two of the required entities AND for a change in methodology, the changed methodology was provided 60 calendar days or more, but less than 90 calendar days after the effectiveness of the change. OR 4) The Reliability Coordinator issued its SOL Methodology and changes to that methodology to all but three of the required	Revisions are intended to add clarity in determining the VSL.

Text of Requirement	Lower	Moderate	High	Severe	Guideline
					_
		its SOL Methodology and changes to that methodology to all but two of the required entities AND for a change in methodology, the changed methodology was provided up to 30	methodology to all but two of the required entities AND for a change in methodology, the changed methodology was provided 30 calendar days or more, but less than 60 calendar days after the effectiveness of the	J T T T T T T T T T T T T T T T T T T T	

Text of Requirement	Lower	Moderate	High	Severe	Guideline
FAC-011-2 R5. If a	The Reliability	The Reliability	One of the two	One of the two following situations applies:	Revisions are
recipient of the SOL Methodology provides documented technical comments on the methodology, the Reliability Coordinator shall provide a documented response to that recipient within 45 calendar days of receipt of those comments. The response shall indicate whether a change will be made to the SOL Methodology and, if no change will be made to that SOL Methodology, the reason why.	Coordinator received documented technical comments on its SOL Methodology and provided a complete response in a time period that was longer than 45 calendar days but less than 60	Coordinator received documented technical comments on its SOL Methodology and provided a complete response in a time period that was 60 calendar days or longer but less than 75 calendar days.	following situations applies: 1) The Reliability Coordinator received documented technical comments on its SOL Methodology and	1) The Reliability Coordinator received documented technical comments on its SOL Methodology and provided a complete response in a time period that was 90 calendar days or longer. OR 2) The Reliability Coordinator's response to documented technical comments on its SOL Methodology did not indicate whether a change will be made to the SOL Methodology.	intended to add clarity in

Text of Requirement	Lower	Moderate	High	Severe	Guideline
WECC FAC-011-2 R1. The					
following Interconnection-					
wide Regional Difference					
shall be applicable in the					
Western Interconnection:					
WECC FAC-011-2 R1.1. As	Not applicable.	Not applicable.	Not applicable.	Methodology fails to address any of the	2, 3
governed by the				evaluations listed in 1.1.1 through 1.1.7	
requirements of R3.3,					
starting with all Facilities in					
service, shall require the					
evaluation of the following					
multiple Facility					
Contingencies when					
establishing SOLs:					
WECC FAC-011-2 R1.1.1					
Simultaneous permanent					
phase to ground Faults on					
different phases of each of					
two adjacent transmission					
circuits on a multiple circuit					
tower, with Normal					
Clearing. If multiple circuit					
towers are used only for					
station entrance and exit					
purposes, and if they do not					
exceed five towers at each					
station, then this condition					
is an acceptable risk and					
therefore can be excluded.					
WECC FAC-011-2 R1.1.2					
A permanent phase to					
ground Fault on any					
generator, transmission					
circuit, transformer, or bus					
section with Delayed Fault					

Toyt of Paguiroment	Lower	Moderate	Lliab	Severe	Guideline
Text of Requirement	Lower	Woderate	High	Severe	Guidenne
	ı			I	
Clearing except for bus					
sectionalizing breakers or					
bus-tie breakers addressed					
in E1.1.7					
WECC FAC-011-2 R1.1.3					
Simultaneous permanent					
loss of both poles of a					
direct current bipolar					
Facility without an					
alternating current Fault.					
WECC FAC-011-2 R1.1.4					
The failure of a circuit					
breaker associated with a					
Special Protection System					
to operate when required					
following: the loss of any					
element without a Fault; or					
a permanent phase to ground Fault, with Normal					
Clearing, on any					
transmission circuit,					
transformer or bus section.					
WECC FAC-011-2 R1.1.5					
A non-three phase Fault					
with Normal Clearing on					
common mode					
Contingency of two					
adjacent circuits on					
separate towers unless the					
event frequency is					
determined to be less than					
one in thirty years.					

WECC FAC-011-2 R1.1.6 A common mode outage of two generating units connected to the same switchyard, not otherwise addressed by FAC-011. WECC FAC-011-2 R1.1.7 The loss of multiple bus sections as a result of failure or delayed clearing of a bus tile or bus sections as a result of failure or delayed clearing of a bus tile or bus sectionalizing breaker to clear a permanent Phase to Ground Fault. WECC FAC-011-2 R1.2. SOLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of						
A common mode outage of two generating units connected to the same switchyard, not otherwise addressed by FAC-011. WECC FAC-011-2 R1.1.7 The loss of multiple bus sections as a result of failure or delayed clearing of a bus tie or bus sectional sizing breaker to clear a permanent Phase to Ground Fault. WECC FAC-011-2 R1.2. SOLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	Text of Requirement	Lower	Moderate	High	Severe	Guideline
A common mode outage of two generating units connected to the same switchyard, not otherwise addressed by FAC-011. WECC FAC-011-2 R1.1.7 The loss of multiple bus sections as a result of failure or delayed clearing of a bus tie or bus sectional sizing breaker to clear a permanent Phase to Ground Fault. WECC FAC-011-2 R1.2. SOLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of						
A common mode outage of two generating units connected to the same switchyard, not otherwise addressed by FAC-011. WECC FAC-011-2 R1.1.7 The loss of multiple bus sections as a result of failure or delayed clearing of a bus tie or bus sectional sizing breaker to clear a permanent Phase to Ground Fault. WECC FAC-011-2 R1.2. SOLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	_					_
two generating units connected to the same switchyard, not otherwise addressed by FAC-011. WECC FAC-011-2 R1.1.7 The loss of multiple bus sections as a result of failure or delayed clearing of a bus tie or bus sections as a result of failure or delayed clearing of a bus tie or bus sectionalizing breaker to clear a permanent Phase to Ground Fault. WECC FAC-011-2 R1.2. SCLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	WECC FAC-011-2 R1.1.6					
connected to the same switchyard, not otherwise addressed by FAC-011. WECC FAC-011-2 R1.1.7 The loss of multiple bus sections as a result of failure or delayed clearing of a bus tie or bus sectionalizing breaker to clear a permanent Phase to Ground Fault. WECC FAC-011-2 R1.2. SOLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of						
switchyard, not otherwise addressed by FAC-011. WECC FAC-011-2 R1.1.7 The loss of multiple bus sections as a result of failure or delayed clearing of a bus tie or bus sectionalizing breaker to clear a permanent Phase to Ground Fault. WECC FAC-011-2 R1.2. SOLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of						
wecc Fac-011-2 R1.1.7 The loss of multiple bus sections as a result of failure or delayed clearing of a bus tie or bus sectionalizing breaker to clear a permanent Phase to Ground Fault. wecc Fac-011-2 R1.2. SOLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: wecc Fac-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. wecc Fac-011-2 R1.2.2 Cascading does not occur. wecc Fac-011-2 R1.2.3 Uncontrolled separation of						
WECC FAC-011-2 R1.1.7 The loss of multiple bus sections as a result of failure or delayed clearing of a bus tie or bus sectionalizing breaker to clear a permanent Phase to Ground Fault. WECC FAC-011-2 R1.2. SOLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of						
The loss of multiple bus sections as a result of failure or delayed clearing of a bus tie or bus sectionalizing breaker to clear a permanent Phase to Ground Fault. WECC FAC-011-2 R1.2. SOLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	addressed by FAC-011.					
sections as a result of failure or delayed clearing of a bus tie or bus sectionalizing breaker to clear a permanent Phase to Ground Fault. WECC FAC-011-2 R1.2. SOLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	WECC FAC-011-2 R1.1.7					
failure or delayed clearing of a bus tie or bus sectionalizing breaker to clear a permanent Phase to Ground Fault. WECC FAC-011-2 R1.2. SOLs shall be established such that for multiple Facilitry Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post- Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	The loss of multiple bus					
of a bus tie or bus sectionalizing breaker to clear a permanent Phase to Ground Fault. WECC FAC-011-2 R1.2. Solution that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post- Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	sections as a result of					
sectionalizing breaker to clear a permanent Phase to Ground Fault. WECC FAC-011-2 R1.2. SOLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	failure or delayed clearing					
clear a permanent Phase to Ground Fault. WECC FAC-011-2 R1.2. SOLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post- Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	of a bus tie or bus					
Ground Fault. WECC FAC-011-2 R1.2. SOLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	sectionalizing breaker to					
WECC FAC-011-2 R1.2. SOLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	clear a permanent Phase to					
SOLs shall be established such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post- Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	Ground Fault.					
such that for multiple Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post- Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	WECC FAC-011-2 R1.2.					
Facility Contingencies in E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post- Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	SOLs shall be established					
E1.1.1 through E1.1.5 operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post- Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	such that for multiple					
operation within the SOL shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	Facility Contingencies in					
shall provide system performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post- Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	E1.1.1 through E1.1.5					
performance consistent with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post- Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	operation within the SOL					
with the following: WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post-Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	shall provide system					
WECC FAC-011-2 R1.2.1 All Facilities are operating within their applicable Post- Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	performance consistent					
All Facilities are operating within their applicable Post- Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	with the following:					
within their applicable Post- Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	WECC FAC-011-2 R1.2.1					
Contingency thermal, frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	All Facilities are operating					
frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	within their applicable Post-					
frequency and voltage limits. WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	Contingency thermal,					
WECC FAC-011-2 R1.2.2 Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	frequency and voltage					
Cascading does not occur. WECC FAC-011-2 R1.2.3 Uncontrolled separation of	limits.					
WECC FAC-011-2 R1.2.3 Uncontrolled separation of	WECC FAC-011-2 R1.2.2					
WECC FAC-011-2 R1.2.3 Uncontrolled separation of	Cascading does not occur.					
	WECC FAC-011-2 R1.2.3					
	Uncontrolled separation of					
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	the system does not occur.					

Text of Requirement	Lower	Moderate	High	Severe	Guideline
WECC FAC-011-2 R1.2.4					
The system demonstrates					
transient, dynamic and					
voltage stability.					
WECC FAC-011-2 R1.2.5					
Depending on system					
design and expected					!
system impacts, the					
controlled interruption of					
electric supply to customers					
(load shedding), the					
planned removal from					
service of certain					
generators, and/or the					
curtailment of contracted					
firm (non-recallable					
reserved) electric power					
transfers may be necessary					
to maintain the overall					
security of the					
interconnected					
transmission systems.					
WECC FAC-011-2 R1.2.6					
Interruption of firm transfer,					
Load or system					
reconfiguration is permitted					
through manual or					
automatic control or					
protection actions.					
WECC FAC-011-2 R1.2.7					
To prepare for the next					
Contingency, system					
adjustments are permitted,					
including changes to					
generation, Load and the					

Text of Requirement	Lower	Moderate	High	Severe	Guideline
transmission system topology when determining limits.					
WECC FAC-011-2 R1.3. SOLs shall be established such that for multiple Facility Contingencies in E1.1.6 through E1.1.7 operation within the SOL shall provide system performance consistent with the following with respect to impacts on other systems:					
WECC FAC-011-2 R1.3.1 Cascading does not occur.					
WECC FAC-011-2 R1.4. The Western Interconnection may make changes (performance category adjustments) to the Contingencies required to be studied and/or the required responses to Contingencies for specific facilities based on actual system performance and robust design. Such changes will apply in determining SOLs.					

FAC-014-2 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.	Coordinator Area, but from 1% up to but less than 25% of these SOLs are	for the Reliability Coordinator Area, but 25% or more, but less than 50% of these SOLs are inconsistent with the Reliability Coordinator's SOL Methodology. (R1)	the Reliability Coordinator Area, but 50% or more, but	There are SOLs for the Reliability Coordinator Area, but 75% One or more of these the SOLs are inconsistent with the Reliability Coordinator's SOL Methodology. (R1)	2,3
FAC-014-2 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.	1% up to but less than 25% of these SOLs are	for its portion of the Reliability Coordinator Area, but 25% or more, but less than 50% of these SOLs are inconsistent with the Reliability Coordinator's SOL Methodology. (R2)	Reliability	The Transmission Operator has established SOLs for its portion of the Reliability Coordinator Area, but 75% or more of these SOLs are inconsistent with the Reliability Coordinator's SOL Methodology. (R2) The Transmission Operator has not established one or more SOLs for its portion of the Reliability Coordinator Area that are consistent with the Reliability Coordinator's SOL Methodology. (R2)	2,3

FAC-014-2 R3. The	There are SOLs.	There are SOLs.	There are Sols for	There are SOLs, for the Planning	2,3
Planning Authority shall		for the Planning	the Planning	Coordinator Area, but 75% or more of	7 -
		Coordinator Area.		these SOLs are inconsistent with the	
IROLs, for its Planning	Area, but from	but 25% or more,	10% or more, but	Planning Coordinator's SOL Methodology.	
Authority Area that are	,	but less than 50%	less than 75% of	(R3) In the Planning Coordinators area, one	
consistent with its SOL		of these SOLs are	these SOLs are	or more of the SOL(s) are inconsistent with	
Methodology		inconsistent with	inconsistent with the	the Planning Coordinator's SOL	
	inconsistent with	the Planning	Planning	Methodology. (R3)	
	the Planning	Coordinator's SOL	Coordinator's SOL		
	Coordinator's	Methodology. (R3)	Methodology. (R3)		
	SOL	Not applicable.	Not applicable.		
	Methodology.				
	(R3) <u>Not</u>				
	applicable.				
FAC-014-2 R4. The	The	The Transmission	The Transmission	The Transmission Planner has established	2,3
Transmission Planner shall	Transmission	Planner has	Planner has	SOLs for its portion of the Planning	
establish SOLs, including	Planner has	established SOLs	established SOLs for	Coordinator Area, but 75% or more of these	
IROLs, for its Transmission	established	for its portion of the		SOLs are inconsistent with the Planning	
Planning Area that are	SOLs for its	Planning	Reliability	Coordinator's SOL Methodology. (R4) For	
consistent with its Planning	portion of the	Coordinator Area,		its area, Transmission Planner has not	
Authority's SOL	Planning	but 25% or more,	50% or more, but	established SOLs that are consistent with	
Methodology.	Coordinator	but less than 50%		the Planning Coordinator's SOL	
	Area, but up to	of these SOLs are	these SOLs are	Methodology. (R4)	
		inconsistent with	inconsistent with the		
	SOLs are	the Planning	Planning		
	inconsistent with	Coordinator's SOL	Coordinator's SOL		
	•	Methodology. (R4)	Methodology. (R4)		
		Not applicable.	Not applicable.		
	SOL				
	Methodology.				
	(R4) <u>Not</u>				
	applicable.				

FAC-014-2 R5. The	The responsible	One of the	One of the following	One of the following situations applies:	Revisions
Reliability Coordinator,	entity provided its	following situations	situations applies:	1) The responsible entity failed to provide	are intended
Planning Authority and		applies:	1) The responsible	its SOLs to more than two of the requesting	to add clarity
Transmission Planner shall	requesting	1) The responsible	entity provided its	entities within 45 calendar days of the	in
each provide its SOLs and	entities but	entity provided its	SOLs to all but two of	associated schedules. (R5) OR	determining
IROLs to those entities that	missed meeting	SOLs to all but one	the requesting	2) The supporting information provided with	the VSL.
have a reliability-related	one or more of	of the requesting	entities within the	the IROLs does not address 5.1.1 and	
		entities within the	schedules provided.	5.1.2.	
provide a written request	less than 15	schedules	(R5) Or		
that includes a schedule for	calendar days.	provided. (R5) Or	2) The responsible		
delivery of those limits as	(R5)	2) The responsible	entity provided its		
follows:		, , ,	SOLs to all the		
			requesting entities		
			but missed meeting		
		but missed meeting			
		one or more of the			
		schedules for 15 or			
		more but less than	45 calendar days.		
		,	(R5) OR <u>3)</u> The		
		(R5) OR	supporting		
			information provided		
		information	with the IROLs does		
		provided with the	not address 5.1.3		
		IROLs does not			
		address 5.1.4			

FAC-014-2 R5.1. The	Not applicable.	Not applicable.	Not applicable.	The Reliability Coordinator did not provide	2, 3
Reliability Coordinator shall	пот аррисаріе.	пот аррисаріе.	пот аррисаріе.	its SOLs (including the subset of SOLs that	۷, ۵
provide its SOLs (including				are IROLs) to adjacent Reliability	
the subset of SOLs that are				Coordinators and Reliability Coordinators	
IROLs) to adjacent				who indicate a reliability-related need for	
Reliability Coordinators and				those limits, and to the Transmission	
Reliability Coordinators and				Operators, Transmission Planners,	
who indicate a reliability-				Transmission Service Providers and	
related need for those				Planning Authorities within its Reliability	
limits, and to the				Coordinator Area.	
Transmission Operators,				Cooldinator Area.	
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:					
FAC-014-2 R5.1.1.	Not applicable.	Not applicable.	Not applicable.	For any IROL, the Reliability Coordinator	2, 3
Identification and status of	Not applicable.	110t applicable.	тот аррисавто.	did not provide the Identification and status	2, 0
the associated Facility (or				of the associated Facility (or group of	
group of Facilities) that is				Facilities) that is (are) critical to the	
(are) critical to the				derivation of the IROL.	
derivation of the IROL.					
FAC-014-2 R5.1.2. The	Not applicable.	Not applicable.	Not applicable.	For any IROL, the Reliability Coordinator	2, 3
value of the IROL and its			. 101 4 5 1 1 1 1 1 1	did not provide the value of the IROL and	_, 0
associated Tv.				its associated Tv.	
FAC-014-2 R5.1.3. The	Not applicable.	Not applicable.	Not applicable.	For any IROL, the Reliability Coordinator	2, 3
associated Contingency				did not provide the associated Contingency	, -
(ies).				(ies).	
FAC-014-2 R5.1.4. The	Not applicable.	Not applicable.	Not applicable.	For any IROL, the Reliability Coordinator	2, 3
type of limitation				did not provide the type of limitation	, -
represented by the IROL				represented by the IROL (e.g., voltage	
(e.g., voltage collapse,				collapse, angular stability).	
angular stability).				and the second s	
g		L			1

FAC-014-2 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.	Not applicable.	Not applicable.	Not applicable.	The Transmission Operator did not provide the complete set of SOLs it developed to its Reliability Coordinator and to the Transmission Service Providers that share its portion of the Reliability Coordinator Area.	2, 3
FAC-014-2 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.		Not applicable.	Not applicable.	The Planning Authority did not provide its complete set of 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.	2, 3
FAC-014-2 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.		Not applicable.	Not applicable.	The Transmission Planner did not provide its complete set of 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.	2, 3

any), from Reliability Standard TPL-003 which	Authority failed to notify the Reliability Coordinator in accordance with	Authority failed to notify the Reliability Coordinator in accordance with R6.2		One of the following situations applies: 1) The Planning Authority did not identify the subset of multiple contingencies which result in stability limits. (R6) OR 2) The Planning Authority identified the subset of multiple contingencies which result in stability limits but did not provide the list of multiple contingencies and associated limits to more than one Reliability Coordinator that monitors the Facilities associated with these limits. (R6.1)	2
FAC-014-2 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.	Not applicable.	Not applicable.	Not applicable.	The Planning Authority did not identify the subset of multiple contingencies, from TPL-003 that resulted in stability limits and provide the complete list of multiple contingencies and the associated stability limits to the Reliability Coordinators that monitor the facilities associated with these contingencies and limits.	2, 3
FAC-014-2 R6.2. If the Planning Authority does not identify any stability-related multiple contingencies, the Planning Authority shall so notify the Reliability Coordinator.	Not applicable.	Not applicable.	Not applicable.	The Planning Authority did not notify the Reliability Coordinator that it did not identify any stability-related multiple contingencies,	2, 3