

## Review of TPL-002-0b—System Performance Following Loss of a Single BES Element (Filing 2)

<http://www.nerc.com/files/TPL-002-0b.pdf>

### VSLs for Requirement R1:

Standard, Requirement	Requirement Language	Lower	Moderate	High	Severe	Comments
TPL-002-0b	The Planning Authority and Transmission Planner shall each demonstrate through a valid assessment that its portion of the interconnected transmission system is planned such that the Network can be operated to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services, at all demand levels over the range of forecast system demands, under the contingency conditions as defined in Category B of	<p>The responsible entity has failed to demonstrate a valid assessment for the long-term period, but a valid assessment for the near-term period exists. (R 1.2)</p> <p>OR</p> <p>The responsible entity is non-compliant with one of the sub-components of requirement R1.3. (R1.3.1 through <a href="#">R1.3.6</a> or <a href="#">R1.3.8</a> through</p>	<p>The responsible entity has failed to demonstrate a valid assessment for the near-term period, but a valid assessment for the long-term period exists. (R1.2)</p> <p>OR</p> <p>The responsible entity is non-compliant with two of the sub-components of requirement R1.3. (R1.3.1</p>	<p>The responsible entity is non-compliant with three of the sub-components of requirement R1.3. (R1.3.1 through <a href="#">R1.3.6</a> or <a href="#">R1.3.8</a> through <a href="#">R1.3.12</a>)</p> <p><a href="#">OR</a></p> <p><a href="#">The responsible entity is non-compliant with subcomponent R1.3.7 of R1.3.</a></p> <p>OR</p> <p>The responsible entity has considered the NERC Category B contingencies</p>	<p>The responsible entity did not perform the transmission assessments annually. (R1.1)</p> <p><a href="#">OR</a></p> <p>The responsible entity has failed to demonstrate a valid assessment for the near-term period and long-term planning period. (R1.2)</p> <p><a href="#">OR</a></p> <p>The responsible entity is non-compliant with four or more of the sub-components of requirement R1.3.</p>	<p>FERC staff was concerned that failing to address R1.3.7 represents a more significant violation than failing to address R1.3's other subrequirements because R1.3.7 is a required level of system performance, not a parameter like the other R1.3 subrequirements.</p> <p>NERC staff agrees that R1.3.7 is distinct from the other R1.3 subrequirements and separated non-compliance with R1.3.7 out as its own violation, assigned a High VSL.</p>

	<p>Table I. To be valid, the Planning Authority and Transmission Planner assessments shall:</p> <p><b>R1.1.</b> Be made annually.</p> <p><b>R1.2.</b> Be conducted for near-term (years one through five) and longer-term (years six through ten) planning horizons.</p> <p><b>R1.3.</b> Be supported by a current or past study and/or system simulation testing that addresses each of the following categories,, showing system performance following Category B of Table 1 (single contingencies). The specific elements selected (from each of the following categories) for inclusion in these studies and simulations shall be</p>	<p>R1.3.12)</p> <p>OR</p> <p>The responsible entity has considered the NERC Category B contingencies applicable to their system, but was deficient with respect to 5% or less of all applicable contingencies. (R1.5)</p>	<p>through <a href="#">R1.3.6</a> or <a href="#">R1.3.8</a> through <a href="#">R1.3.12)</a></p> <p>OR</p> <p>The responsible entity has considered the NERC Category B contingencies applicable to their system, but was deficient with respect to more than 5% up to (and including) 10% of all applicable contingencies. (R1.5)</p>	<p>applicable to their system, but was deficient with respect to more than 10% up to (and including) 15% of all applicable contingencies. (R1.5)</p>	<p>(R1.3.1 through 1.3.12).</p> <p>OR</p> <p>The responsible entity has failed to demonstrate that a corrective action plan exists in order to satisfy Category B planning requirements. (R1.4)</p> <p>OR</p> <p>The responsible entity has considered the NERC Category B contingencies applicable to their system, but was deficient with respect to more than 15% of all applicable contingencies. (R1.5)</p>	
--	---	---	--	--	--	--

	<p>acceptable to the associated Regional Reliability Organization(s).</p> <p><b>R1.3.1.</b> Be performed and evaluated only for those Category B contingencies that would produce the more severe System results or impacts. The rationale for the contingencies selected for evaluation shall be available as supporting information. An explanation of why the remaining simulations would produce less severe system results shall be available as supporting information.</p> <p><b>R1.3.2.</b> Cover critical system conditions and study years as deemed appropriate by the responsible entity.</p>					
--	---	--	--	--	--	--

	<p><b>R1.3.3.</b> Be conducted annually unless changes to system conditions do not warrant such analyses.</p> <p><b>R1.3.4.</b> Be conducted beyond the five-year horizon only as needed to address identified marginal conditions that may have longer lead-time solutions.</p> <p><b>R1.3.5.</b> Have all projected firm transfers modeled.</p> <p><b>R1.3.6.</b> Be performed and evaluated for selected demand levels over the range of forecast system Demands.</p> <p><b>R1.3.7.</b> Demonstrate that system performance meets Category B contingencies.</p>					
--	--	--	--	--	--	--

<p><b>R1.3.8.</b> Include existing and planned facilities.</p> <p><b>R1.3.9.</b> Include Reactive Power resources to ensure that adequate reactive resources are available to meet system performance.</p> <p><b>R1.3.10.</b> Include the effects of existing and planned protection systems, including any backup or redundant systems.</p> <p><b>R1.3.11.</b> Include the effects of existing and planned control devices.</p> <p><b>R1.3.12.</b> Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems or their components) at those demand levels for which</p>					
---	--	--	--	--	--

	<p>planned (including maintenance) outages are performed.</p> <p><b>R1.4.</b> Address any planned upgrades needed to meet the performance requirements of Category B of Table I.</p> <p><b>R1.5.</b> Consider all contingencies applicable to Category B.</p>					
--	---	--	--	--	--	--

**Original R1 Guideline Explanation in the [December 1, 2010 VSL Filing](#):**

The VSLs were modified to be consistent with Guideline 3. Consistent with Guidelines filed with FERC on August 10, 2009, the VSLDT incorporated the subrequirements into the main requirement VSL so that compliance is based on meeting criteria specified in components.

- *Guideline 1:* See P. 1036-1038 of the [Guideline 1 Analysis Filing](#).
- *Guideline 2:* The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required for consistency with FERC Guideline 2. Additionally, the VSL DT has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language, satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties by the Compliance Enforcement Authority.
- *Guideline 3:* In accordance with Guideline 3, the VSL DT has revised the VSL assignments as noted in the redline text because the VSL assignments either redefined or undermined the requirement. It was identified that the previous VSLs for R1.3.2 and R1.3.8 evaluated

aspects of the near-term and long-term planning horizons that were not consistent with the requirement. As revised, and incorporated into the roll-up VSLs, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.

- *Guideline 4:* The VSL Assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.