Unofficial Comment Form
Project 2015-10 Single Points of Failure TPL-001

Do not use this form for submitting comments. Use the Standards Balloting and Commenting System (SBS) to submit comments on Project 2015-10 TPL-001-5 – Transmission System Planning Performance Requirements by 8 p.m. Eastern, Tuesday, September 11, 2018.

Additional information is available on the project page. If you have questions, contact Standards Developer, Latrice Harkness (via email), or at (404) 446-9728.

Background Information
The SPCS and the SAMS conducted an assessment of protection system single points of failure in response to FERC Order No. 754, including analysis of data from the NERC Section 1600 Request for Data or Information. The assessment confirms the existence of a reliability risk associated with single points of failure in protection systems that warrants further action.

Additionally, the two directives from FERC Order No. 786 (p. 40 and p. 89) and updates to the MOD reference in Requirement R1, Measure M1 and the Violation Severity Levels sections have been added to the scope of the project.
Questions

1. With many clarifications added to the Technical Rationale concerning details of what is meant by Footnote 13, do you agree with the contents of Footnote 13?

☐ Yes
☒ No

Comments:
We suggest that the term “shall not be considered non-redundant” be removed in subsections b), c), and d). Also, we suggest changing the term “except” to “unless” for the three sections.

In d), regarding control circuitry, we suggest the following language change:
(unless a single trip coil that is both monitored and reported at a Control Center if it is the only single point of failure in the control circuitry).

2. Do you agree with the removal of Requirement 1, Part 1.1.2 and changes to TPL-001-4 Requirement 2, Parts 2.1.4 and 2.4.4, in order to meet the FERC directive in Order No. 786?

☐ Yes
☒ No

Comments:
We find the new language difficult to interpret. We provide the following comments for consideration to make the requirements more succinct:

The language seems to indicate a new procedure, or an edit to an existing procedure is required. We do not think the requirement should stipulate a new or modification to a procedure. We suggest revising the requirement as follows (applicable to both 2.1.4 and 2.4.4):

When known outage(s) of generation or Transmission Facility(ies) are planned in the Near-Term Planning Horizon, the impact of selected known outages expected to produce more severe System impacts on System performance shall be assessed. These known outage(s) shall be selected for assessment consistent with outage coordination procedure(s) or technical rationale by the Planning Coordinator or Transmission Planner. Known outage(s) shall not be excluded solely based upon outage duration. The assessment shall be performed for the P0 and P1 categories identified in Table 1 with the System peak or Off-Peak conditions that the System is expected to experience when the known outage(s) are planned. Past or current studies may be used to support the selection of known outage(s), if the study(s) has comparable post-Contingency System conditions and configuration such as those following P3 or P6 category events in Table 1.

Additionally, the following sentence could be removed from the requirement and added to the technical rationale:
Past or current studies may be used to support the selection of known outage(s), if the study(s) has comparable post-Contingency System conditions and configuration such as those following P3 or P6 category events in Table 1.”

The new Requirement – R2 parts 2.1.4 / 2.4.4 – is open ended and may result in Transmission Planners (TP) performing almost a “real-time” operations analysis (i.e., what is the impact of this outage / what about that outage) in-lieu of designing the Bulk Electric System (BES), which is the purpose of TPL-001. NERC IRO-017 Outage Coordination, which purpose states “To ensure that outages are properly coordinated in the Operations Planning time horizon and Near-Term Transmission Planning Horizon”, was established for this purpose, and the proposed TPL-001 change would represent a spillover from IRO-017.

3. Do you agree with the proposed revisions to TPL-001-4?

☐ Yes
☒ No

Comments:
Please see comments in question 2 above regarding known outages.

The current title of the technical rationale document is misleading as it could be interpreted as the technical rationale for single points of failure only, instead of TPL-001-5 as a whole. We request that the title of the technical rationale be changed to “TPL-001-5 Technical Rationale.”

The language in 2.1.5 should be modified to align with 2.4.5 as shown below:
When an entity’s spare equipment strategy could result in the unavailability of major Transmission equipment that has a lead time of one year or more (such as a transformer), the impact of this possible unavailability on System performance shall be assessed. Based upon this assessment, an analysis shall be performed for the P0, P1, and P2 categories identified in Table 1 with the conditions that the System is expected to experience during the possible unavailability of the long lead time equipment.

Additionally, per the SDT’s response to the last round of comments submitted, please add language in the technical rationale to clarify on what is meant by the spare equipment strategy. For reference, below were the comments submitted –

Does “spare equipment strategy” mean the existence of at least a single spare for major transmission equipment that has a lead time of more than one year; and does Requirement 2.4.5 imply that the existence of such a spare would eliminate the need to assess the impact of the possible unavailability of such equipment on System performance? If so, then Requirement 2.4.5 should be written this way.

As currently written, Requirement 2.4.5 lacks clarity. Every reasonable “spare equipment strategy” for equipment with a lead time of one year or more could result in the unavailability of such
equipment; it is a matter of probability. For example, an Entity with 100 large power transformers could have a spare transformer strategy of maintaining one system spare. However, it is possible that two transformers could fail during time span of one year. With only one spare, the Entity would be exposed to operating the system for up to one year with one less transformer than designed. Even if the Entity has four (4) spares, it is still possible that five (5) transformers could fail during one year (albeit with much lower probability), which would leave the Entity similarly exposed. Greater clarity is required for Requirement 2.4.5, as is more criterion development.

4. Do you agree with the proposed implementation plan?

☐ Yes
☐ No

Comments:

5. Are the proposed revisions to TPL-001-4 along with the Implementation Plan a cost effective way of meeting the FERC directives in Order No. 754 and Order No. 786?

☐ Yes
☐ No

Comments: