

Meeting Notes

Project 2010-13.2 Phase 2 of Relay Loadability: Generation

December 27, 2012

Conference Call

Administrative

1. Introductions

The meeting was brought to order by Charles Rogers, chair, at 3:02 p.m. ET, Thursday, December 27, 2012. The chair noted that the goal of the meeting was to finalize documents from the Atlanta meeting earlier in the month. Those in attendance were:

Name	Company	Member/ Observer	In Attendance
Charles Rogers (Chair)	Consumers Electric	Member	X
S. Bryan Burch	Southern Company	Member	X
Mike Jensen	Pacific Gas and Electric Company	Member	X
Xiaodong Sun	Ontario Power Generation Inc.	Member	X
Benson Vuong	Salt River Project	Member	X
David Youngblood	Luminant	Member	X
Scott Barfield-McGinnis (Standard Developer)	North American Electric Reliability Corporation	Observer	X
Phil Tatro (Technical Advisor)	North American Electric Reliability Corporation	Observer	X

2. Determination of Quorum

The rule for NERC Standard Drafting Team (SDT or team) states that a quorum requires two-thirds of the voting members of the SDT. **Quorum was not achieved** as only six of the eleven members were present.

3. NERC Antitrust Compliance Guidelines and Public Announcement

NERC Antitrust Compliance Guidelines and public disclaimer were reviewed by Mr. Barfield. There were no questions.

4. Review Roster

Mr. Barfield noted there have been no changes to the roster.

Agenda

1. Open business from last meeting (Reviewed)

a. Mr. Barfield and Phil Tatro:

- i. To confer with NERC staff about cases where the Transmission Owners may still own Facilities, such as, the generator step-up transformer which would make the Transmission Owner applicable to PRC-025-1. (In progress)
- ii. Consider the need for a definition of “radial?” (No, this was an issue the Bulk Electric System definition team considered and tabled due to the complexity)
- iii. Complete the Standard Authorization Request (SAR) for PRC-023-1 and redline to the standard. (In progress)

b. Mr. Barfield:

- i. Issue availability Doodle for quality review (QR) conference call for Wednesday, Thursday, or Friday following Christmas Day. (Complete)
- ii. Set the next SDT meeting for week of March 11, 2013 to respond to comments from the second formal and 45-day comment period and initial ballot. (Open)

c. Entire SDT:

- i. Perform a review of the Guidelines and Technical Basis by Wednesday, December 19, 2012. (Complete)

2. Discussion

The team began with reviewing the comments from team members regarding draft 2 of the standard being prepared for posting. Mr. Jensen raised a concern about the usage of “Transmission system” in the Applicability section 3.2.4 about radial lines. This concern pertained to entities that may be using a sub 100 kV line to connect a generator to the transmission system. Mr. Tatro offered to check the document, Technical Justification Resource Document: Project 2010-07 Generator Requirements at the Transmission Interface (Updated July 16, 2012) to see if the document could add clarity to the concern.

A question was raised why there is not a 0.95 per unit voltage calculation for Options 7, 8, and 9 by Mr. Jensen and Xiaodong Sun. After discussion, the team concurred that Option 7 which as an “a”

and “b” option should include the 0.95 voltage option. Mr. Barfield noted that he would make the necessary changes to Table 1 and the Guidelines and Technical Basis. The existing Option 7a would become the 0.95 and the current Options 7a and 7b would become the new 7b and 7c, respectively.

Mr. Youngblood was concerned that the 115% margin applied on the GSU for overcurrent relays (Options 8a, 8b, 9a, and 9b) would go over the IEEE recommendation of 150% transformer overload when using the $1+j1.5$ loadability of the generating unit. The concern also extended to Options 13a and 13b for the unit auxiliary transformers such that if 115% applied to a GSU, it should also apply to the unit auxiliary transformer (UAT). Mr. Sun disagreed that it should not be removed because the draft PRC-025-1 standard is referring to short durations (i.e., transient period). The team agreed that 115% should remain on Options 8a, 8b, 9a, and 9b. With regard to Options 13a and 13b, the team concurred that the 150% threshold above the calculated current was sufficient and the 115% margin did not need to be applied. The basis for this conclusion was that the 150% threshold included variables such as the 115% margin and depressed voltage conditions.

For Option 13b, Mr. Youngblood suggested allowing 1.0 per unit voltage “or less” to account for different voltages when an entity measures its auxiliary loads. Mr. Sun also questioned what must be done if the voltage is higher. The team agreed that 1.0 per unit of the winding nominal voltage was best considering the 150% setting for the overcurrent value which considers depressed voltages and the 115% margin. This discussion revealed that the Pickup Setting Criteria did not mention the entity measuring the current as a basis for calculating a corresponding setting. The team considered the issue and made modifications to reflect measuring the current.

3. Finalize documents

The team was unable to complete its review of the draft 2 PRC-025-1 standard. Mr. Barfield noted to the team that the current document now includes calculations for the various Options and that the team needs to review the calculations in addition to the remainder of the document. Other documents required for posting and initial ballot were not reviewed and Mr. Rogers suggested those be covered in a January conference call. Additionally, Mr. Rogers recommended the call duration to be three hours rather than two as to allow sufficient time to complete the team's work.

4. Review of the schedule

Mr. Barfield updated the team regarding the 18 week slide in the schedule. The goal is to post Friday, January 11, 2013 following the Standards Committee meeting with the approval of the supplemental SAR to revise PRC-023-2 for consistency with draft 2 of PRC-025-1. Monday, January 14, 2013 is the deadline for posting to meet the team's next meeting schedule.

5. Action items

- a. Mr. Barfield –
 - i. Issue a Doodle to check availability for a conference call the week of January 7, 2013 for the dates January 8th, 9th and 10th only.
 - ii. Finalize the supplemental SAR for inclusion in the next Standards Committee meeting to be held January 10, 2013 via conference call.
- b. Mr. Tatro to check the document, Technical Justification Resource Document: Project 2010-07 Generator Requirements at the Transmission Interface (Updated July 16, 2012).
- c. Entire Team – Finish reviewing all documents and issue discussion items to Mr. Barfield prior to the January 7, 2013 conference call.

6. Next steps

- a. Request Standards Committee approval of the supplemental SAR for PRC-023-2 revisions.
- b. Post draft 2 of PRC-025-1 for its second formal comment period for 45-days.
- c. Conduct an initial ballot of draft 2 of PRC-025-1 in the last 10 days of the comment period.
- d. SDT meeting in March 2013 to respond to comments from the 45-day comment period and initial ballot.

7. Future meeting(s)

Meeting locations under consideration:

- a. PG &E – Fresno, CA
- b. Luminant – Dallas, TX

- c. Southern Company – Birmingham, GA
- d. FPL – Juno Beach, FL

Tentative dates and times:

- a. Tuesday, March 12, 2013 | 8:00 a.m.-5:00 p.m. ET
- b. Wednesday, March 13, 2013 | 8:00 a.m.-5:00 p.m. ET
- c. Thursday, March 14, 2013 | 8:00 a.m.-5:00 p.m. ET
- d. Friday, March 15, 2013 | 8:00 a.m.-noon ET

8. Adjourn

The meeting adjourned at 5:10 p.m. ET on December 27, 2012.