NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Meeting Notes
Assess Transmission Future Needs SDT

CenterPoint Energy
February 11–13, 2008

Administrative

a. Introductions and Quorum — All

The Chair called the meeting to order at 1:30 p.m. CST on Monday, February 11, 2008 in the offices of CenterPoint Energy in Houston, Texas. Meeting attendees were:

Bill Harm	Doug Hohlbaugh	Brian Keel
Bob Millard, Vice Chair	John Odom, Chair	Bob Pierce
Paul Rocha	Chifong Thomas	Yury Tsimberg
Jim Useldinger	Dana Walters	Tom Gentile, Observer
Daniela Hammonds, Observer	Ray Kershaw, Observer	Charles Long, Entergy, Guest
Steve Rueckert, WEECC, Guest	Kevin Thundiyl, FERC, Guest	Guy Zito, NPCC, Guest
Ed Dobrowolski, NERC		

b. Review NERC Antitrust Compliance Guidelines — E. Dobrowolski

There were no questions on the NERC Antitrust Compliance Guidelines.

c. Review Meeting Agenda & Objectives — John Odom

The main objectives for this meeting were to agree on any needed text changes to the standard and to develop an action plan as to how to complete the SDT work required for the second posting. Items 1E and 1F were added to the agenda.

Project Work Items

1. TPL-001-1 Text Revisions

A. Develop and finalize the SPS/RAS approach

The sub-team created new wording for R3.5 and R3.6 that supports the bifurcated approach to this problem that was agreed to in the last set of conference calls. The SDT suggested a change in the ordering of the terms to "Automatic generator tripping by SPS and manual generator tripping…" so as to make it clear that SPS is only automatic. This approach is only being suggested for generator tripping.

In R3.5, the reference to run-back period is redundant and should probably be removed. The use of Facility Ratings brings in the time element due to the Glossary definition.

The SDT did not agree with the proposed wording change to R3.3.2.2. The system must be designed to meet N-1 but the suggested wording seems to go beyond that concept.

The sub-team will continue to work on final wording.

Concerns were raised as to the 'legality' of this approach. Once the SDT has finalized the wording for the standard, this approach should undergo a full review by NERC staff (including Compliance and Legal) and then should probably be introduced to FERC staff.

B. Develop and finalize approach for short circuits

The SDT considers the inclusion of short-circuits as good utility practice but doesn't possess the technical expertise to properly define it. Commenters questioned its inclusion with so little detail and suggested that it needed to be a separate standalone standard. However, the original SAR for this project stated that short-circuit would be included. There is a draft response to the comments that leans on the good utility practice concept and there were only a small number of comments in this area. It was pointed out that the NERC Glossary includes short-circuit ratings in equipment ratings. This, coupled with some minor wording changes to R2.31, was considered an acceptable response. Short-circuit will remain in the standard. Paul's sub-team will work on refining the wording changes to R2.3.1.

C. Develop and finalize approach for protection systems

This standard does not need to address redundancy in protection systems. That is a PRC issue. The TPL standard should only be concerned with the failure of

the protection system in general. Mis-operations should be included as an event but this can be covered by changing 'stuck breaker' to "…failure to operate with Normal Clearing…". Normal Clearing is a defined term that includes the needed wording. Sub-team #4 was directed to incorporate this change in both the text and table as needed. When this is done, footnote #2 in the table will not be needed and can be deleted.

Sub-team #4 had also suggested new wording for the limits in R4.8. The SDT wants to go further than that idea and change the words to generic statements for any plant considered as a BES facility. That way there is no decision on size or exceptions for smaller plants than the limit states if they have impact on reliability. Any plant designated as having an effect would be included and any subsequent changes to plant sizing limits in other standards or registration would not affect this standard.

NERC needs to determine whether this standard should use BES or BPS.

D. Develop and finalize the approach for sensitivity cases

Bob Millard's sub-team had proposed wording changes to R2.1.3. This wording was crafted at the November meeting in Houston. They also added R2.1.4 as shown in their e-mail of February 5, 2008 (team3_sensitivity-cap_wording_20080123 (2)). In addition, Bob worked on new wording for R2.7.2 that he presented for group review. The SDT wants to add to R2.7.2 so that it is clear that sensitivities are to be included in CAP based on good professional judgment. The SDT wants it to be clear that the standard does not force entities to build in order to correct problems. Bob's sub-team will work on the words for R2.7.2 with the caution that those words can't contradict what was stated in R2.7.1.

E. Discuss modeling data in TPL-001, R1 vs. MOD

Originally, the SDT did not feel that the MOD standards contained all of the modeling information that was needed by TPL. Therefore, R1 was written to incorporate those items that were deemed to be missing from MOD. The idea was that R1 could be retired after the next update of MOD that would include updates required by TPL. The SDT did not state this plan in the comment background material and the inclusion of modeling data not being needed in this standard was brought up repeatedly in the comments to Q43. The SDT reviewed the MOD standards and decided that with the exception of outage data in R1.4, all of the modeling information needed by TPL is included in MOD. Therefore, the SDT will revise R1 to state that you must start your assessment/studies consistent with the data collected by MOD and the existing published procedures of the Eastern and Western Interconnections and ERCOT. All assumptions must be documented. Sub-team #1 was directed to make the necessary changes.

F. Parking Lot Issues

This discussion was based on the e-mail from Chifong.

- #1 — Differentiation between bus tie and non-bus tie breakers: This was done in order to avoid discouraging the implementation of bus tie breakers that are seen as a positive for reliability even though there is no statistical difference in probability of outage for the two types. The SDT will keep the distinction for the second posting. However, in order to properly respond to the comments, the SDT will define what it means by a bus tie breaker. There will be a specific question in the second posting to determine if industry agrees with this approach.
- #2 — Loss of load is a customer service issue and does not affect network reliability: This is not an SDT issue. The SDT has been directed to address this issue in the FERC orders.
- #3 — Consequential Load Loss: The definition was adjusted by the sub-team and previously accepted at the November meeting in Houston. However, the SDT took a second look at the new wording and decided to limit the official definition to just the first two sentences provided by the sub-team. The remaining wording will be a separate paragraph and used as explanatory text. Given the discussion on Consequential Load Loss, the SDT reviewed the changes for Non-Consequential Load Loss. The new definition was approved as written by the sub-team. In general, all SDT members should review the new definitions recommended by Paul's sub-team and make any objections known immediately.
- #4 — Non-US entities: This is not an SDT issue. NERC reliability standards are written for North America.
- #5 — Load Pockets: Although there was considerable discussion about possible changes in this area, the SDT decided not to make any changes to the current wording. If individual entities have specific problems they will need to submit variances.
- #6 — Generator Forced Outage Rates: The SDT believes that this issue has been sufficiently covered with the existing text.
- #7 — Wind Farms: The SDT believes that this issue has been sufficiently covered with the existing text. There was some discussion on the need to define generator outage but R3.2 covers this concept.
- #8 — DC lines: Should the SDT continue to treat DC differently than AC? No, final decision was reached, but Chifong's sub-team was asked to take another look at this issue. Coordination with the ATC work may be required here.
- #9 — Single Pole Tripping: The SDT believes that this is should be covered in the PRC standards.

- #10 — Performance Table Format: See item 2 below.
- #11 — Clarifications:
  - The 300KV break point is for the low side voltage.
  - The timeframe for manual system adjustments is handled through the use of time limited ratings so there is no need for any additional explanations or wording.
- #12 — One Mile Exemption: After much discussion, the SDT decided to leave the limit at 1 mile (individual entities with issues should seek variances).
- #13 — Extreme Events:
  - 3A should be changed to "Loss of 2 or more generating facilities through events such as fuel interruptions including the loss of a gas pipeline, regulations for hydro and/or nuclear facilities, and common site problems."
  - 3B should be changed to "Loss of 2 or more substations due to events such as a cyber attack, wildfires, storms, and older lines with common design features from legacy standards."
  - 3C will be for other events.
  - 3D, 3E, and 3F — delete.
  - The SDT needs to better define extreme events for stability.
- #14 — Cost Benefit of Raising the Bar: The Implementation Plan may resolve some of these concerns but the SDT can't do a formal Cost-Benefit Analysis.
- #15 — Implementation Plan: A sub-team was identified to produce a first draft of a plan for SDT review.
- #16 — Coordination with Other Standards: John and Ed will need to monitor this as the standard moves forward.
- Other issues:
  - P5: As presently stated, this requirement raises major issues for several entities such as SRP and ERCOT. The sub-team reviewed this wording and recommended no changes. The SDT will ask a very specific question for the second posting in order to get information on eliminating local load loss as a part of a corrective action plan.
  - P6.3: The SDT decided to change 'internal fault' to 'failure to operate' and use the same concept as was agreed upon for stuck breaker. Charles Long and Bob Jones will work on the wording changes for stuck breaker, mis-operations, and internal faults. They will also look at whether the SDT needs to differentiate any of these for steady state vs. stability.

2. Finalize the performance tables

Some commenters expressed a desire to have just one performance table that included both steady state and stability but the majority wanted to stay with two tables. There was enough comments on the one table approach however to cause the SDT to take a serious look at combining the tables.

Doug presented an idea for how to combine the two tables. The SDT decided to stay with the two table approach for the second posting. A specific question will be drafted asking for opinions on combining the tables and the SDT will make a final decision after reviewing the responses. However, the review of the proposed combined table pointed out several changes that could be made to the two table approach to bring the tables closer together in look and feel:

- Add a column for Initial System Conditions
- Define normal system
- Use columns to explain the 300 KV split
- Put P0 back in the tables
- Enumerate the extreme events
- Take another look at the groupings

3. Comment Responses

A. Progress reports from each sub-team.

Ed has received preliminary responses on all questions except 24 and 25. Question 43 is still in individual pieces.

B. Assess remaining work effort.

All of the sub-teams need to address their responses in light of the discussions at this meeting to see if any changes are required. Question 43 needs to be stitched back together.

C. Develop action plan for completion including summary responses.

See item #4B below.

4. Next Steps — John Odom

A. Decide on what is to be included in the next draft, i.e., VRF, Time Horizon, Measures, Compliance, and VSL.

The second posting will include VRF, Time Horizons, Measures, and an Implementation Plan. Compliance (and VSL) will be left to the third posting.

B. Develop action plan for completing the work needed for the second posting.

Develop and finalize issue matrix. Due to time limitations this was not discussed in depth. However, the SDT will need to complete this matrix prior to the second posting.

An action plan was established for completing the work required for the second posting as follows:

Action Item	Assigned To	Date
Short circuit wording (R2.3.1)	Paul Rocha	2/22/2008
Sensitivity wording (R2.7.2)	Bob Millard	2/22/2008
Bifurcated approach wording (R3.5 & R3.6)	Bernie Pasternack	2/22/2008
Runback wording (R3.3.2.2 & R3.5)	Bernie Pasternack	2/22/2008
Stability size limits (R4.8)	Doug	2/22/2008
BES vs. BPS	Edd	2/22/2008
Modeling requirements (R1)	Paul Rocha	2/22/2008
Format of Performance table	Chifong Thomas	2/22/2008
Extreme events wording (Performance table)	Chifong Thomas	2/22/2008
Definition of bus tie breaker	Doug & Bill	2/22/2008
Internal fault wording & stuck breaker wording	Charles & Bob J.	2/22/2008
1st pass on questions based on Houston meeting (include summary)	Sub-teams	post Tampa
Sanity check for responsiveness	Sub-teams +1 (rotate)	post Tampa
Q43 round-up	Daniela	post Tampa
Compile all responses in form	Edd	post Tampa
Compile new text for TPL-001	Edd	2/26/2008
VRF	Chifong Thomas	2/28/2008
Time Horizons	Chifong Thomas	2/28/2008
Measures	Bob Millard	2/28/2008
Implementation Plan	Bernie Pasternack	2/28/2008
Questions for the 2nd posting	Paul Rocha	2/28/2008
NERC staff review	Edd	post SLC
FERC staff review	Edd & John	post SLC

C. Begin process of drafting questions for second posting.

See the table above.

5. Review Action Items and Schedule – E. Dobrowolski

According to the original schedule, the second posting should take place in March.. This project is moving forward, but will fall even further behind the original schedule.

Conditional firm transfers need to be discussed in Tampa.

Action items are summarized in the table above in item #4B.

6. Future meetings and conference calls

A. Meeting — Monday, March 3, 2008 from 8 a.m. to 5 p.m. EST and Tuesday, March 4, 2008 from 8 a.m. to 5 p.m. EST in Tampa, FL. Details have been distributed.
B. Conference call and WebEx — Wednesday, March 19, 2008 from noon to 3 p.m. EDT. Details to be supplied.
C. Meeting (tentative) — tied to the next TIS meeting: Wednesday, April 9, 2008 from 1 to 5 p.m. MDT and Thursday, April 10, 2008 from 8 a.m. to 5 p.m. MDT in Salt Lake City, UT. Details to be supplied.
D. Conference call and WebEx — Monday, April 28, 2008 from noon to 4 p.m. EDT. Details to be supplied.
E. In addition, the SDT will need to schedule a meeting with FERC staff prior to the next posting.

The Chair adjourned the meeting at 11:45 a.m. CST on Wednesday, February 13, 2008 after thanking CenterPoint Energy for their hospitality.