

Assess Transmission Future Needs Standard Drafting Team

March 1–2, 2007

Conference Call Notes

1. Administrative Items

a. Introductions and Quorum

The meeting was called to order by the chair at 0800 on March 1, 2007. Since the last meeting, Jason Atwood and Lloyd Linke have had to leave the team due to the press of their other duties. Attendees at the meeting were as follows:

Robert Jones	Brian Keel	David Kiguel (guest representing Yuri Tsimberg)
Bob Millard, Vice Chair	John Odom, Chair	Bernie Pasternack
Mahendra Patel	Robert Pierce	Raymond Powell (guest)
Paul Rocha	Travis Sykes (guest representing Darrin Church)	Chifong Thomas
Jim Useldinger	Robert Williams	Guy Zito (guest)

Darrin Church was unable to attend this meeting because he and his wife just had a baby boy. The team sent its congratulations to the Church family. Mahendra Patel informed the team that this is probably his last meeting as there has been a reorganization at PJM. He expects that PJM will continue to support this effort but with another individual. John Odom thanked Mahendra for his efforts.

b. NERC Antitrust Compliance Guidelines — Ed Dobrowolski

The new NERC Antitrust Compliance Guidelines had been previously distributed to the team and were briefly reviewed. There were no questions.

c. Review Meeting Agenda & Objectives — John Odom

While one objective of this meeting is to receive the progress reports from the sub-teams, the main goal of this meeting is to achieve consensus on the key issues so that we can move forward. We need to get something out in front of the industry so that they can begin the comment process.

2. Reports from Working Sub-Teams

a. Assessment Team — Bob Williams

The material is attached to these notes as attachment A. Highlights of the discussion included:

- We still need to finalize the decision on how to define “stressed system conditions”.
- Year 1 is the first twelve months from the date of the study (current year).
- We need to be clear on how to include planned outages since you normally aren’t going to build additional facilities for most planned outage conditions. The key for these events is to ensure that reliability can be maintained with the facilities out of service for extended durations.
- We need to clarify minimum expectations for load forecasts used in planning models.
- UFLS & UVLS should not be a part of your typical planning solutions.
- Need to define conditions for including capital reinforcements in your base case?

b. Steady State Team — Chifong Thomas

The material is attached to these notes as attachment B. Highlights of the discussion included:

- Many entities are going to need to do more than the minimum.
- Is a 50/50 load forecast the true minimum (see bullet 4 above)?
- We need to document the rationale for using past studies.
- Applicable ratings as used in existing standards need to be more explicit. Most people now use time-based ratings.

c. Stability Team — Bernie Pasternack

The material is attached to these notes as attachment C. Highlights of the discussion included:

- Changes to plants such as excitation systems should cause a new assessment.
- There needs to be a clear distinction between plant and system stability.
- The size of plants that need to be studied is a question.
- White paper(s) may be required to fully explain the standard in this area.
 - Any white papers need to be officially attached to the standard.

d. Models Team — Jim Useldinger

The material is attached to these notes as attachment D. Highlights of the discussion included:

- For our purposes, network load is anything that is not in OASIS.
- Documentation of what is included will be required.
- We need to decide how to handle path ratings.
- We need to define what length of outage needs to be included in the model.
 - You may need to account for long-term seasonal outages.
 - This may be part of the study as opposed to part of the model.

- We need to demonstrate that the plan meets all reliability criteria with transparency to neighbors so that they can tell what you included or omitted and why.
- We need to fully define demand levels that need to be studied.

We need to be clear about the responsibilities of the Planning Coordinator and the Transmission Planner. Bob Millard will provide an explanation at the next meeting.

Action Item – Bob Millard will provide an explanation of the responsibilities of the Planning Coordinator and the Transmission Planner at the next meeting.

e. Corrective Action Plans Team — Bob Pierce

The material is attached to these notes as attachment E. Highlights of the discussion included:

- Lead times are mentioned in the current standard but not in the sub-team’s efforts.
- We need to define the initiation date.
- We should have templates for project schedules and then define deviations from the schedule.
- Does funding need to be in place before a project can be put in the plan?
- We need to define ‘planned or controlled’ load loss and how it is documented.
- The base case dispatch must be feasible and secure for any N-1 contingency.
- Must run generation must be in the base case.
- We need to consider FERC Order 890.
- We need to constrain the standard to bulk power reliability issues as opposed to trying to delve into local problems that have no effect on bulk power reliability.

Action Item – We need to consider Order 890 as to their wording on conditional firm and how it might impact our standards. Bob Pierce will provide a report at the next meeting.

3. Develop Consensus on Key Points from each Sub-Team

The team addressed several key points of debate in an attempt to reach consensus.

1. Define year 1.

Year	Proposal A	Proposal B
2007	0	1
2008	1	2
2009	2	3
2010	3	4
2011	4	5
2012	5	6
2013	6	7
2014	7	8
2015	8	9
2016	9	10
2017	10	11

The team selected proposal A.

2. How are we going to define the start of the year? The year is considered to start on April 1st so that we can accommodate both winter and summer peaking utilities and to make certain that the previous year's peak load data is available. This would also tie in to the submittal of NERC and DOE reports at the end of March.
3. Load forecast/sensitivity – TBD
4. Prolonged outages: known generator and transmission outages during the critical study period must be analyzed where prolonged equals one month or more
 - a. Critical study periods for steady state conditions are defined by periods of heavy line loadings caused by:
 - i. seasonal peaks
 - ii. periods of high generation maintenance
 - iii. periods of high transfers
 - b. Stability – TBD
5. N-1 contingencies following a G-1 with manual adjustments for the G-1 should be handled with no additional adjustments or loss of load (except for local load?).
6. There should be a requirement that your corrective action plans should be identified, shared with your neighbors and demonstrate that they meet the criteria for years one through five.
7. Project initiation dates and durations may not be necessary.
8. We need to be careful not to be too prescriptive for the long-term. Flexibility is required in order to accommodate the many changes that take place before you even get to the long-term. The standard needs to be written to ensure that planners complete the necessary long range studies, but do not spend too much time trying to develop and track corrective action plans for facilities that may not be built or who's required installation may shift over a number years as a result of subsequent studies.
9. We may need to include short-circuit analysis with steady state and dynamic.

4. Review Action Items and Schedule — Ed Dobrowolski

A quick review of our projected schedule shows that we are on schedule for now but it also clearly indicates a potential problem looming on the immediate horizon in attempting to meet the estimated schedule for the first posting of the standards. As a result, the team agreed to add several conference calls and meetings to the short-term schedule so that we can stay on course. These are shown under item 5. The adjusted schedule is attached to these notes as attachment F with changes shown in red.

A decision was reached to make every effort to combine TPL-001 through TPL-004 into one new, comprehensive standard if at all possible. Separate sections will handle steady state and dynamics as required. It was also decided that the first issue of the standard will not include compliance elements. It is anticipated that this standard will be extremely contentious and that several iterations will result.

Action items developed at this meeting were:

- Bob Millard will provide an explanation of the responsibilities of the Planning Coordinator and the Transmission Planner at the next meeting.
- We need to consider Order 890 as to their wording on conditional firm and how it might impact our standards. Bob Pierce will provide a report at the next meeting.
- Paul Rocha will send out detailed maps and logistics for the Houston meeting.

- Chifong will check on logistics for a meeting in San Francisco in July.

5. Schedule Next Meetings

- a. Friday, March 16, 2007 – Conference call and web ex from 1100 to 1300 EDT: call-in information will be provided.
- b. Tuesday, March 27, 2007 – Conference call and web ex from 1300 to 1600 EDT: call-in information will be provided.
- c. Wednesday, April 4, 2007 starting at 0800 CDT through Thursday, April 5, 2007 at 1700 CDT at CenterPoint Energy in Houston, TX: Hotel information has been sent out with the official meeting announcement. There is a short deadline for making hotel reservations – March 14th. CenterPoint will provide a continental breakfast both days and NERC will provide lunch for attendees. Paul Rocha will send out detailed maps and logistics.
- d. Monday, April 16, 2007 – Conference call and web ex from 1300 to 1600 EDT: call-in information will be provided.
- e. Wednesday, April 25, 2007 starting at 1300 CDT and running through Friday, April 27, 2007 ending at noon CDT: Chicago O’Hare Hilton following the TADS Meeting (tentative location)
- f. Wednesday, May 2, 2007 – Conference call from 1100 to 1400 EDT: call-in information will be provided (tentative — if required)
- g. July, 2007: week of 7/9, 7/16 or 7/23 in San Francisco, CA, hosted by PG&E. Chifong will check on logistics and get back to the team with a suggested date.

Action Item – Paul Rocha will send out detailed maps and logistics for the Houston meeting.

Action Item – Chifong will check on logistics for a meeting in San Francisco in July.

6. Adjourn

The Chair adjourned the meeting at 1115 on March 2, 2007.