

Assess Transmission Future Needs Standard Drafting Team

April 4–5, 2007

Center Point Energy
 Houston, Texas

Meeting Notes

1. Administrative Items

a. Introductions and Quorum

The meeting was called to order by the Chair at 0800 on April 4, 2007. Meeting participants were:

Darrin Church	Tom Gentile	Bill Harm (observer)
Doug Hohlbaugh	Bob Jones	Tom Mielnik
Bob Millard (Vice Chair)	John Odom (Chair)	Bernie Pasternack
Bob Pierce	Doug Powell (observer)	Bob Snow
Chifong Thomas	Paul Rocha	Yuri Tsimberg
Jim Useldinger	Ed Dobrowolski, NERC	

Bob Snow reported that FERC staff can now participate in drafting team meetings. They will be allowed to assist in interpreting Order 693 directives.

b. NERC Antitrust Compliance Guidelines — Ed Dobrowolski

There were no questions raised on the NERC Antitrust Compliance Guidelines.

c. Review Meeting Agenda & Objectives — John Odom

The main objective of this meeting is to start work on drafting language for the standard. Team members should remember that they are part of the effort due to their industry experience and it is to be brought to bear on the standards; however, individual interests and/or company interests should not be part of the process. The language in the first draft does not need to be perfect but it must be understandable (the language does not need to be finely tuned) and credible in order to draw out appropriate industry comments so that we encourage the industry to pay attention to our efforts. We can no longer deal with the least common denominator approach; we need clear, enforceable standards. The goal is still mid-May for the first draft. We will not be including measures and compliance elements in the first draft as we wish to have the industry concentrate on the requirements. We will need to look at the PRC, FAC, and MOD standards for references to planning.

2. Status of Supplemental SAR — John Odom

Our work on the supplemental SAR is essentially complete. However, NERC counsel is working on standard wording for all drafting teams regarding the FERC orders. When that is complete, it will be added to the supplemental SAR and it will be forwarded to the Standard Committee (SC) for approval. We cannot post anything for TPL-005 & TPL-006 until the supplemental SAR is approved.

3. Report on Planning Coordinator/Transmission Planner Responsibilities – Bob Millard

Bob provided the group with a summary of the planning functions based on Functional Model v3. The report is included with these notes as **Attachment A**.

It was pointed out that Version 3 of the NERC Reliability Functional Model Technical Document provides additional details needed to understand the full explanations of the Functional Model (FM) terms and definitions.

The resource planner (RP) basically handles generation resources and is separate from the transmission planner (TP) function – these functions had been traditionally performed by system planners. The planning coordinator (PC) replaces the planning authority and is responsible for coordinating the efforts of the RP & TP. The PC is at a higher level with a wide area view. An RTO is an example of a PC. A PC can be a TP and/or a RP. A PC can have as few as one TP & one RP reporting up to it. The TP is at more of a local level.

The standards should be written to FM v3. In FM v3, long-term is defined as one year and beyond. The plans of the PC, RP, and TP must adhere to the appropriate reliability standards.

4. Report on FERC Order 890 Impacts — Bob Pierce

Bob's presentation is included with these notes as **Attachment B**. The color codes simply point to related items. Highlights of the presentation and discussion included:

- We will need to decide how and when to allow re-dispatch. Sensitivity studies may be useful as we address this issue.
- There may be difficulty in modeling conditional firm service (CFS) depending on the options selected by the customer.
- The original SAR clearly states that the standards should not require nor preclude the use of re-dispatch.

5. Sub-team Reports on Standards Drafting Language

Each of the sub-team chairs presented the output of their team's efforts.

a. Assessments — Bob Williams

The material for this presentation is included with these notes as **Attachment C**.

- We need to define assessment (could use regional definitions as a starting point).
- We might need to note how CFS will be handled in assessments.

- We will need to document mitigation plans and note whether construction plans can actually be completed in the needed timeframe to meet compliance.
- Current requirements are not tied to performance.
- Feedback could be through peer review of projects that may impact others.
- Coordination at all seams is a requirement.
- Communication elements need to be specified.
- We need to define ‘significant’.

An updated version of the material based on comments received during the meeting is included with these notes as **Attachment D**.

b. Steady State — Chifong Thomas

The material for this presentation is included with these notes as **Attachment E**.

- One study does not equate to one simulation; multiple simulations may be required to make up a study.
- We will need to define study.
- We need to concentrate on ‘what’ and not ‘how’.
- We will need to walk a fine line between being too prescriptive and providing sufficient flexibility.
- We will need to define ‘stressed system conditions’.
- We need to fully develop the working relationship between the PC and the TP/RP and their role in preparing/contributing to studies.

An updated version of the material based on comments received during the meeting is included with these notes as **Attachment F**.

c. Stability — Bob Jones

The material for this presentation is included with these notes as **Attachment G**.

- Should all generators be included or only those over a certain threshold size?
- Category A (Normal Conditions) in Table 1 are not needed for stability purposes and is deleted from the included table.
- Categories B & C were combined.
- Category D is now labeled as extreme events.
- R1.4.11: The noted white paper wasn’t included and may not be pertinent as it gets into ‘why’ you are doing something.
- We will need to define ‘losing synchronism’.
- R1.5 is seen as being essentially different from R2.1.
- Plant stability is a new concept but it is seen as needed and filling a void in the existing standards.
- We will need to define ‘partial’ and ‘incremental’ assessments (NPCC definitions may be used as a starting point).
- We need consistency between the plant stability and system stability requirements.
- Light load might not be one of the system stress points, therefore other conditions may be the worst case.
- Situations where there is large pumped storage load may need to be treated differently.

- We need to address natural disaster scenarios as per the FERC Order including cyber events.
- There was discussion about eliminating E6 through 10, but there were different opinions and no resolution was reached.
- We will need additional criteria for voltage stability.

An updated version of the material based on comments received during the meeting is included with these notes as **Attachment H**.

d. Models — Jim Useldinger

The material for this presentation is included with these notes as **Attachment I**.

- We need to determine what happens if supplied load forecasts overlap.
- If we are depending on the MOD standards to provide our models then we must make sure that our requirements are sent to the MOD Drafting Team.
 - There may be a short-term timing issue with this based on the updated schedule for MOD.
- LF R1.4: change ‘conservative’ to ‘base case’.
- ‘How’ to get it right could be a white paper.
- If research is required in order to complete the standard, it needs to be identified with NERC immediately.
- PO R1: should just read ‘outages that impact the BPS’ and they must be supplied by the TO to both the TP & PC.
- We need to address the FERC spare policy directive.
- We need to make sure that all information required for this standard is available.

An updated version of the material based on comments received during the meeting is included with these notes as **Attachment J**.

e. Corrective Action — Bob Pierce

The material for this presentation is included with these notes as **Attachment K**.

- We need to complete the events vs. elements discussion.
- We need a clear definition of BPS.
- We need to define ‘short duration’.
- Economic considerations should include the customer as well as the asset owner.
- We need to define ‘project initiation date’.
- We need to check with RATF recommendation #2.

An updated version of the material based on comments received during the meeting is included with these notes as **Attachment L**.

6. Develop Consensus Language for First Draft Based on Current Reports

We need to merge the sub-team reports into a cohesive standard. New tables are required for both steady state and stability. We are still assuming one standard can appropriately replace TPL-001 through -004.

Each sub-team chair will issue a revised requirements document based on comments received at this meeting.

AI - Each sub-team chair will issue a revised requirements document based on comments received at this meeting and distribute it to the mail server no later than close of business (COB), Monday, April 9th.

Three new sub-teams will be formed to consolidate and begin to refine the standards writing work effort presented at the meeting and further modified by the original five sub-team leaders as assigned. One will concentrate on developing requirements language while leaving placeholders for performance table references (the Language Sub-team). The other two sub-teams will work on performance tables: one for steady state and one for stability.

Each of the three new sub-teams will provide their report to the mail server by COB on April 20th so that the entire team will get a chance to review the material prior to the Chicago meeting.

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Subsequent to the meeting, John Odom and Bob Millard created the rosters for the new sub-teams based on individual desires, team work load, diversity, and balance:

Language	Steady State Table	Stability Table
Harm (lead)	Thomas (lead)	Jones (lead)
Gentile	Mielnik	Pasternack
Useldinger	Pierce	Keel
Hohlbaugh	Tsimberg	Powell
Church	Williams	Rocha

John Odom and Bob Millard will participate in various groups on an overseer basis. NERC will assist in setting up conference calls and WebEx to assist the sub-teams in their activities as requested.

The Language Sub-team will merge the original five sub-team draft and modified requirements, clean up the language, provide needed details, eliminate overlaps, remove ambiguities, etc. The two Tables Sub-teams will provide as complete content as possible for the tables with rows and columns expanded to cover the additional items discussed in Houston (shown below in Item 7) with an emphasis on eliminating footnotes wherever possible.

7. Review and Discuss Table 1 — All

Tom Mielnik started the discussion with a presentation from the Probabilistic Sub-team. This Power Point presentation is included with these notes as **Attachment M**. The data used by the sub-team is based on data accumulated over the last 10 to 20 years. Manitoba Hydro provided the bi-polar DC data.

Possible headings for the new table include:

- Initiating event (normal or delayed clearing)
- Condition
- Elements removed

- Voltage
- Thermal compared to Time
- Load Loss (consequential and non-consequential)
- Stability – Voltage & Angular

Tools that we might want to eliminate from the planning horizon and reserve for operations include:

- Dynamic line ratings due to temperature (exceptions to be documented)
- UVLS except for selected Category D contingencies
- Generation re-dispatch – up/down? Ownership? (no consensus)
- Energy storage devices

In addition, we may want to limit:

- Number of switching operations
- Number of interactive SPS

8. Review Action Items and Schedule — Ed Dobrowolski

The following action items were developed at this meeting:

- Each sub-team chair will issue a revised requirements document based on comments received at this meeting and distribute it to the mail server no later than close of business (COB), Monday, April 9th.
- Each of the new sub-teams will provide their report to the mail server by COB on April 20th so that the entire team will get a chance to review the material prior to the Chicago meeting.

We remain on schedule for the estimated first posting in early May but it is obvious that the schedule is tightening quickly.

9. Schedule Next Meetings

- a.** Monday, April 16, 2007 — Conference call and WebEx from 1300 to 1600 EDT: call-in information will be provided. (tentative – if required)
- b.** 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.
- c.** Wednesday, May 2, 2007 — Conference call from 1100 to 1400 EDT: call-in information will be provided. (tentative - if required)
- d.** Wednesday, July 18, 2007 starting at 0800 PDT through Thursday, July 19, 2007 at 1700 PDT in San Francisco, CA, hosted by PG&E. Please be prepared to attend the entire meeting. Hotel information has been distributed. There is no block of rooms set aside at any of the hotels so you are encouraged to make your reservation early. Remember to ask for the PG&E rate.

10. Adjourn

John Odom, ATFNSDT Chair, adjourned the meeting at 1600 on April 5, 2007. He thanked Center Point Energy for their hosting the meeting.