

NERC ATC/TTC/CBM/TRM Standards Drafting Team

September 25-27, 2007 — 8 a.m.-5 p.m. CDT

Southern Company Offices Atlanta, Georgia

Meeting Agenda

1. Welcome

- NERC Antitrust Compliance Guidelines
- Introduction of Attendees
- Adoption of Agenda
- Approval of Meeting Notes

2. NERC Staff Update

- Project Schedule and Strategy
- Future Meetings
 - October 9–11 8 a.m.–5 p.m. all three days Washington, DC (NERC Offices) VERIFIED
 - November 7th 9 a.m.–noon Houston, Texas (NAESB Offices) Joint with NAESB
 - January 8–10 8 a.m.–5 p.m. all three days Orlando or Tampa, Florida (OUC OR FRCC)
 - January 22–24 8 a.m.–5 p.m. all three days Houston, Texas (NAESB Offices)
 - April 22–24 8 a.m.–5 p.m. all three days Atlanta, Georgia (Southern Company Offices)
 - May 6–8 8 a.m.–5 p.m. all three days Charlotte, North Carolina (Duke Energy Offices)

3. Review of Work to Date

- Tuesday Morning
 - o Review and identify any edits, consistency in MOD-001, MOD-008
- Tuesday Afternoon
 - o Review and identify any edits, consistency in MOD-004
- Wednesday Morning
 - Write Violation Risk Factors for each R in MOD-001, MOD-004, and MOD -008
 - o Write Time Horizons for each R in MOD-001, MOD-004, and MOD-008
- Wednesday Afternoon
 - o Review draft implementation plan; make final

- o Review draft comment form;
- Thursday Morning
 - o Make final review 28, 29, 30 consistency edits
- Thursday Morning
 - o Continue to review 28,29,30 consistency edits
 - o Review any MOD-001, MOD-004, and MOD-008 edits
- 4. Assignments and Action Items
- 5. Adjournment

• September 25, 2007

o Conference Call

Dial in: 732-694-2061Password: 1205092507

WebEx

http://nerc.webex.com

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• September 26, 2007

o Conference Call

Dial in: 732-694-2061Password: 1205092607

WebEx

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• September 27, 2007

o Conference Call

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NERC ANTITRUST COMPLIANCE GUIDELINES

I. GENERAL

It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition.

It is the responsibility of every NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.

Antitrust laws are complex and subject to court interpretation that can vary over time and from one court to another. The purpose of these guidelines is to alert NERC participants and employees to potential antitrust problems and to set forth policies to be followed with respect to activities that may involve antitrust considerations. In some instances, the NERC policy contained in these guidelines is stricter than the applicable antitrust laws. Any NERC participant or employee who is uncertain about the legal ramifications of a particular course of conduct or who has doubts or concerns about whether NERC's antitrust compliance policy is implicated in any situation should consult NERC's General Counsel immediately.

II. PROHIBITED ACTIVITIES

Participants in NERC activities (including those of its committees and subgroups) should refrain from the following when acting in their capacity as participants in NERC activities (e.g., at NERC meetings, conference calls and in informal discussions):

- Discussions involving pricing information, especially margin (profit) and internal cost information and participants' expectations as to their future prices or internal costs.
- Discussions of a participant's marketing strategies.
- Discussions regarding how customers and geographical areas are to be divided among competitors.
- Discussions concerning the exclusion of competitors from markets.
- Discussions concerning boycotting or group refusals to deal with competitors, vendors or suppliers.

III. ACTIVITIES THAT ARE PERMITTED

From time to time decisions or actions of NERC (including those of its committees and subgroups) may have a negative impact on particular entities and thus in that sense adversely impact competition. Decisions and actions by NERC (including its committees and subgroups) should only be undertaken for the purpose of promoting and maintaining the reliability and adequacy of the bulk power system. If you do not have a legitimate purpose consistent with this objective for discussing a matter, please refrain from discussing the matter during NERC meetings and in other NERC-related communications.

You should also ensure that NERC procedures, including those set forth in NERC's Certificate of Incorporation and Bylaws are followed in conducting NERC business. Other NERC procedures that may be applicable to a particular NERC activity include the following:

- Reliability Standards Process Manual
- Organization and Procedures Manual for the NERC Standing Committees

• System Operator Certification Program

In addition, all discussions in NERC meetings and other NERC-related communications should be within the scope of the mandate for or assignment to the particular NERC committee or subgroup, as well as within the scope of the published agenda for the meeting.

No decisions should be made nor any actions taken in NERC activities for the purpose of giving an industry participant or group of participants a competitive advantage over other participants. In particular, decisions with respect to setting, revising, or assessing compliance with NERC reliability standards should not be influenced by anti-competitive motivations.

Subject to the foregoing restrictions, participants in NERC activities may discuss:

- Reliability matters relating to the bulk power system, including operation and planning matters such
 as establishing or revising reliability standards, special operating procedures, operating transfer
 capabilities, and plans for new facilities.
- Matters relating to the impact of reliability standards for the bulk power system on electricity markets, and the impact of electricity market operations on the reliability of the bulk power system.
- Proposed filings or other communications with state or federal regulatory authorities or other governmental entities.
- Matters relating to the internal governance, management and operation of NERC, such as nominations for vacant committee positions, budgeting and assessments, and employment matters; and procedural matters such as planning and scheduling meetings.

Any other matters that do not clearly fall within these guidelines should be reviewed with NERC's General Counsel before being discussed.

Approved by NERC Board of Trustees, June 14, 2002 Technical revisions, May 13, 2005 2



ATC/TTC/AFC and CBM/TRM Revisions Standard Drafting Team

August 27-29, 2007

Washington, D.C. American Public Power Association Offices

Meeting Notes

1. Administration

a. Introduction of Attendees

The following members and guest were in attendance:

- Larry Middleton, Chair
- Rebecca Berdahl
- Daryn Barker
- Bob Birch
- Shannon Black
- John Burnett
- Ron Carlsen
- DuShaune Carter
- Sedina Eric
- Chuck Falls
- Bill Harm
- Nick Henery
- Ray Kershaw
- Dennis Kimm
- Ross Kovacs
- Laura Lee
- Partha Malvadkar
- Cheryl Mendrala
- Abbey Nulph
- Biagio Pinto
- Narinder Saini
- Nate Schweighart
- Jerry Smith
- Aaron Staley
- Stephen Tran
- Greg van Pelt
- Andy Rodriquez

b. NERC Antitrust Compliance Guidelines

Andy Rodriquez reviewed the NERC Antitrust Compliance Guidelines.

c. Adoption of Agenda

The agenda was approved unanimously.

d. Approval of meeting notes

Nick Henery moved that the meeting notes from the August Portland meeting be approved. The motion was seconded, and passed unanimously.

2. NERC Staff Update

a. SAR Update

Andy Rodriquez reviewed the status of the Supplemental SAR, which has been submitted back to the Standards Committee for authorization.

b. Project Schedule

Andy Rodriquez reviewed the current project schedule and timeline. Based on current status, labor burn rate, and forecast work load, the target posting date of September 1 is infeasible. Andy Rodriquez presented an alternate schedule, which included more time to work on the standard and an additional posting period. This schedule would result in an August delivery. Chuck Falls moved that the schedule be accepted as the new working timeline. The motion passed, 9/2.

c. Future Meetings

Andy Rodriquez reviewed the meeting schedule. Following the discussion regarding the new schedule, the following meetings were scheduled, pending verification:

- September 12–14 1–5 p.m., 8 a.m.–5 p.m., 8 a.m.–3 p.m. Houston, TX (NAESB Offices) VERIFIED
- September 25–27 8 a.m.–5 p.m. all three days Atlanta, GA (Southern Company Offices) VERIFIED
- October 9–11 8 a.m.–5 p.m. all three days Washington, DC (NERC Offices)
- November 7–9 8 a.m.–5 p.m., 8 a.m.–5 p.m., 8 a.m.–noon Washington, DC (NERC Offices)
- December 4–6 8 a.m.–5 p.m. all three days Phoenix ,AZ (Salt River Project Offices)
- January 8–10 8 a.m.–5 p.m. all three days Orlando or Tampa, FL (OUC OR FRCC)
- January 22–24 8 a.m.–5 p.m. all three days Houston, TX (NAESB Offices)
- February 5–7 8 a.m.–5 p.m. all three days New Orleans, LA (Entergy Offices)

- April 22–24 8 a.m.–5 p.m. all three days Atlanta, GA (Southern Company Offices)
- May 6–8 8 a.m.–5 p.m. all three days Charlotte, NC (Duke Energy Offices)
- July 8–10 8 a.m.–5 p.m. all three days Saint Paul, MN (Midwest ISO Offices)
- July 15–17 8 a.m.–5 p.m. all three days Seattle, WA (NERC to host at local hotel)

3. Meeting Preparation and Discussion

- a. The team reviewed the discussion points provided by FERC, and prepared consensus answers in advance of the afternoon meeting. Presenters were reviewed:
 - Larry Middleton would provide a high-level introduction, and explain we were looking for guidance
 - Laura Lee would provide an overview of the structure and the potential retirement of FAC-012.
 - Nick Henery would provide an overview of MOD-001 and discuss data exchange
 - Ray Kershaw would provide an overview of the CBM work and highlight some of our trouble areas
 - Narinder Saini would discuss TRM, and highlight the transparency aspects
 - Aaron Staley would review the Area Interchange methodology
 - Chuck Falls would review the Rated System path methodology
 - Nate Schweighart would review the Flowgate methodology

When FERC asked questions, it was agreed that Larry would field the question and answer as best he could, with the option to forward the question to someone else on the group. The group also reviewed the questions that would be asked of FERC.

As a side note, it was questioned if the date exchange needed to include honoring your neighbors CBM and TRM.

4. Meeting with FERC Staff

a. See notes compiled by Ron Carlsen posted separately.

5. Review of Meeting with FERC Staff

The team reviewed the results of the FERC meeting. A straw poll was taken to see whether or not the group needed to move from three standards to one. Fifteen people said no; two said yes; and two said that either course was acceptable.

The team discussed the "time frame" examples that FERC gave (e.g., hourly assumptions, daily assumptions, weekly assumptions, monthly assumptions). It was agreed that more work would need to be undertaken in this area.

6. Team Break-out sessions

- a. The team broke into four sub-teams, and worked independently. The teams were
 - MOD-028
 - MOD-029
 - MOD-030
 - Template Design

The template design team worked on a new structure for MOD-028, MOD-029, and MOD-030 that would be consistent across all three standards. The full team reviewed the template. Narinder Saini moved that the team accept the template as the correct structure to move forward. The motion was seconded and approved unanimously. Andy Rodriquez was tasked with, at some point in the future, assembling the work of the various sub-teams and reformatting it into the template form.

7. NERC/NAESB Joint Call

a. Introduction of Attendees

The following people joined the meeting

- Stephen Bennett
- Laura Kennedy
- Alan Pritchard
- Martin Summe
- J.T. Wood
- b. NAESB Antitrust Guidelines

Laura Kennedy read the NAESB Antitrust Guidelines.

c. Review of NERC and NAESB work

The NAESB team presented their draft "postback" catalog, which identifies the various types of post-backs. The NERC team was asked to review the document. A brief discussion of Reserved versus Scheduled CBM occurred; reserved refers to CBM that is being withheld for potential use, whereas scheduled means CBM that was reserved in the past and is now being used by an actual use. A similar discussion occurred with regard to firm TRM (TRM withheld from Firm ATC) and non-firm TRM (TRM withheld from non-firm ATC, which may be less than firm TRM).

The need for the CBM Usage Report was questioned. NAESB already requires tag data for audit purposes, which (assuming CBM schedules are tagged, a point on which the two groups seemed to agree) will cover the usage part. An EEA2 (which is the trigger for using CBM) also requires a report. Perhaps the CBMUR is superfluous.

Some discussion occurred whether CBM is a "firm product" or a margin. Perhaps it is both, and the customer chooses which they want (e.g., they can buy "Guaranteed CBM," meaning it is there no matter what, or they can by "Conditional CBM," meaning they have the right to use it if it isn't already scheduled.

8. Adjourn



ATC/TTC/AFC and CBM/TRM Revisions Standard Drafting Team August 27, 2007 — Washington, DC Meeting Notes

9. Administration

a. Introduction of Attendees

The following members and guest were in attendance:

- Rober Snow (FERC)
- David Andrejcak (FERC)
- Parthru Mulvadkar (FERC)
- Don Lekang (FERC)
- Michael Gundolfo (FERC)
- Paul Robb (FERC)
- Jomo Richardson (FERC)
- Syed Ahmad (FERC)
- Mark Hergle (FERC)
- RP O'Neill (FERC)
- Sedina Eric
- Larry Middleton, Chair
- Ron Carlsen
- Chuck Falls
- Nick Henery
- Laura Lee
- Narinder Saini
- Nate Schweighart
- Aaron Staley
- Andy Rodriquez

- David Taylor
- Ray Kershaw

b. Summary of Drafting Team Efforts

Larry Middleton gave a brief overview of the ATC/TTC/TRM/CBM NERC Drafting Team process. The NERC Drafting Team is working in coordination with a NAESB Drafting Team to achieve a common goal: Reliability Standards with coordinated Business Practices.

c. Overview of MOD-001, MOD-028, MOD-029, MOD-030

Laura Lee summarized MOD-001 and explained how MOD-001 is linked to MOD-028, MOD-029, and MOD-030. Existing Transmission Commitments (ETC) definition is included in MOD-028 thru MOD-030.

FERC: Why was the TTC/ATC standard divided into three separate standards?

DT: It is less confusing and easier to ensure compliance.

FERC: Why did the drafting team change the name of Network Response TTC to Area Interchange Methodology?

NERC: The DT felt the new name better characterized the standard.

d. MOD-001

Nick Henry described the MOD-001 standard.

e. MOD-004

Ray Kershaw described the MOD-004 standard. Resource adequacy requirements vary across the country.

f. MOD-008

Narinder Saini described the MOD-008 standard.

g. MOD-028

Aaron Staley described the MOD-028 standard.

h. MOD-029

Chuck Falls described the MOD-029 standard.

i. MOD-030

Nate Schweighart described the MOD-030 standard.

10. FERC Staff Comments

FERC: Order 890 and 693 are laws. If variances are needed, FERC has a formal process for making changes to existing laws.

FERC: Can you use different methods (RSP vs. AFC) for different horizons for the same path?

DT: Yes, data needed for different methods dictates method used.

FERC: How will the customer know which method is being used?

DT: Method is referenced in ATCID. The ATCID is updated when any methodology changes are made.

FERC: Commission desires concise standards that limit the use of discretion.

FERC: Will the three methodologies produce equivalent results?

DT: The DT will explain the differences between the three standards and will justify the reasons for non-equivalence.

FERC: TSPs using multiple methods?

DT: Multiple methods used due to seams issues with neighbors that use different methods.

FERC: AFC needs to be defined

DT: DT will define how flowgates are determined and explain reasoning behind method.

FERC: Explain how counterflows are taken into account in Non-Firm ATC calculations.

DT: DT will add additional detail concerning counterflows.

FERC: DT needs to disclose algorithms in ATC calculation formula.

DT: DT will provide formulas in standards and provide detail concerning ETC by horizon.

FERC: Why was ERCOT not mentioned in the standards?

DT: ERCOT is not synchronously connected to the Eastern Interconnect.

However, the DT will add ERCOT to applicability section of the standard.

FERC: Requirement for consistent assumptions. Operate and Offer service using the same assumptions.

FERC: Will ETC be consistent between the three standards? PJM Manual 2 reference

DT: DT will work to align the ETC in each of three standards.

FERC: FERC will give more thought on how to account for service bought in excess of the machine ("nameplate") capability.

FERC: Operational Planning 0 to 13 months.

FERC: FERC will give more thought to how incremental CBM is requested by LSEs.

DT: DT identified several issues with making CBM a comparable service with PTP and NITS. Should new CBM requests be submitted via OASIS and receive a queue date? Will a new CBM request jump to the top of the pending request queue? If insufficient capacity exists to grant new incremental request for CBM, will existing confirmed PTP requests be pro-rata reduced to allow for CBM request to be granted.

11. Drafting Team General Comments

a. Drafting team Schedule

Drafting team is behind schedule to satisfy filing dates specified in Order 890. NERC will file an update with FERC.

Andy Rodriquez reviewed the current project schedule and timeline. Andy was asked to alert the SC of our intent to post on September 1, pending the outcome of the meeting.

12. Adjourn



ATC/TTC/AFC and CBM/TRM Revisions Standard Drafting Team

September 12-14, 2007

NAESB Offices Houston, Texas

Meeting Notes

13. NERC/NAESB Joint Meeting

a. Please see NAESB Meeting Minutes

14. Administration

a. Introduction of Attendees

The following members and guests were in attendance:

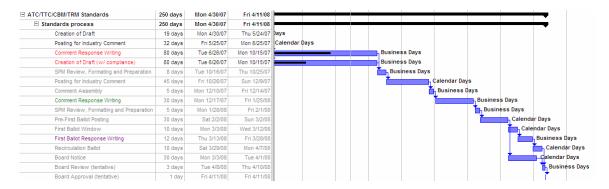
- Larry Middleton, Chair
- Rebecca Berdahl
- Daryn Barker
- Bob Birch
- Shannon Black
- John Burnett
- Ron Carlsen
- DuShaune Carter
- Chuck Falls
- Marilyn Franz
- Bill Harm
- Nick Henery
- Ross Kovacs
- Laura Lee
- Dave Lunceford
- Cheryl Mendrala
- Abbey Nulph
- Biagio Pinto
- Barbara Rehman
- Narinder Saini
- Nate Schweighart
- Jerry Smith
- Aaron Staley

- Stephen Tran
- Andy Rodriquez

15. NERC Staff Update

a. Project Schedule

Based on informal discussions, Andy Rodriquez believes the including an additional posting in the schedule is infeasible. As such, he developed a new schedule, with a deliver date in April, 2008. The group discussed the various impacts of this change, but ultimately agreed it was necessary. The new schedule is as follows:



With the following short-term planning milestones:

Sept 12–13 Meeting:

Items Due by the meeting:

Draft MOD-028, MOD-029, MOD -030

Action Items to be done in the meeting:

- Review and identify any edits, consistency in MOD-028, MOD-029, and MOD-030
- Write Violation Risk Factors for each R in MOD-028, MOD-029, and MOD-030
- Write Time Horizons for each R in MOD-028, MOD-029, and MOD-030

Preliminary Schedule:

THURSDAY:

- 8 a.m.–noon Meet as subgroups to review and identify any edits, consistency candidates
- 1–5 p.m. Meet as team to review and identify any edits, consistency candidates across all
- Thirty minutes to one hour to review each
- Remaining time to discuss synthesis

FRIDAY

- 8–10 a.m. Meet as subgroups to determine VRFs, Time Horizons
- 10–noon Meet as team to review sub-group work, ensure consistency

• 1–3 p.m. — Discuss any methodology specific issues that need review of the whole group

Assignments to be done after the meeting:

- Final MOD-028, MOD-029, and MOD-030 Andy to implement directives of team
- Write Compliance for MOD-028, MOD-029, and MOD-030 Ed Ruck to draft
- Draft MOD-001, MOD-004, and MOD-008 Teams
- Draft Implementation Plan Andy to draft
- Draft Comment Form Andy
- Drafts of Responses to Comments Teams

tie with NAESB/JOINT process

Action Item for Andy — Reanalyze 890, 693Compliance Matrix

Sept 25–27 Meeting:

Items Due by the meeting:

- Final MOD-028, MOD-029, and MOD-030 incl. Compliance
- Draft MOD-001, MOD-004, and MOD-008
- Draft Implementation Plan
- Draft Comment Form
- Drafts of Responses to Comments

Action Items to be done in the meeting:

- Review and identify any edits, consistency in MOD-001, MOD-004, and MOD-008
- Write Violation Risk Factors for each R in MOD-001, MOD-004, and MOD-008
- Write Time Horizons for each R in MOD-001, MOD-004, and MOD-008
- Review draft implementation plan; make final
- Review draft comment form; make final
- Review 28, 29, and 30 consistency edits

Assignments to be done after the meeting:

- E-Mail review of MOD-028, MOD-029, and MOD-030 finals
- E-Mail review of draft comment responses
- E-Mail review of final implementation plan
- Write initial compliance for MOD-001, MOD-004, and MOD-008

October 9–11 Meeting:

Items Due by the meeting:

- Final MOD-001, MOD-004, and MOD-008 incl. Compliance
- Final implementation plan
- Final comment form
- Final response to comments

ATFNSDT

Action Items to be done in the meeting:

• Final Review and Edits of all deliverables

Assignments to be done after the meeting:

• Final clean-up, formatting, etc...

b. Future Meetings

Andy Rodriquez reviewed the meeting schedule. Following the discussion regarding the new schedule, the some meetings will need to change. Additionally, due to the costs of hotels, the October 9–11 meeting has been tentatively moved to Sacramento at the SMUD offices.

- September 25–27 8 a.m.–5 p.m. all three days Atlanta, GA (Southern Company Offices) VERIFIED
- October 9–11 8 a.m.–5 p.m. all three days Sacramento, CA (SMUD Offices)
- November 7th 9 a.m.–noon Houston, TX (NAESB Offices) Joint w/ NAESB
- January 8–10 8 a.m.–5 p.m. Orlando or Tampa, FL (OUC OR FRCC)
- January 22–24 8 a.m.–5 p.m. all three days Houston, TX (NAESB Offices)
- April 22–24 8 a.m.–5 p.m. all three days Atlanta, GA (Southern Company Offices)
- May 6–8 8 a.m.–5 p.m. all three days Charlotte, NC (Duke Energy Offices)

16. Sub-team Work

The team split into sub teams to work on MOD-028, MOD-029, and MOD-030 they worked on:

- 1.) Refining the standards,
- 2.) Writing VRFs and time horizons.

17. Group work

The team worked together to review the standards, the VRFs, and the Time Horizons. Efforts to make the standards consistent were undertaken. Andy Rodriquez is to clean up the in-meeting edits and send out ALL standards to the team in their current form. Andy Rodriquez is also to go through all standards and delete items to be delegated to NAESB, at the same creating a list of items for the NAESB folks.

The team discussed the question of "Same POR, Multiple PODs, Generator Nameplate." The team talked about several different options, but none of them seemed to address the issue without causing a contract violation or denial of service in some way. Based on the discussion with FERC, we believe staff will be giving us clarifications. However, we need them ASAP or they won't make them into the

standards posting. Agreed upon course of action will be to not address this, explain our concerns in the filing, and let FERC explicitly tell us what they want.

18. Adjourn