

# NERC

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

## TPL-001-1

Assess Transmission Future Needs

August 26, 2008

Assess Transmission Future

Needs SDT (ATFNSDT)

John Odom — Chairman

to ensure  
the reliability of the  
bulk power system

# Agenda —TPL Standard Conference Call

## August 26, 2008

1. NERC Antitrust Compliance Guidelines
2. Opening Remarks and Introductions
3. Workshop Objectives
4. Background
  - Drafting Team Objectives
  - Update on Standard Drafting Team Activities
  - Brief Overview of Proposed Standard

# Agenda —TPL Standard Conference Call

## August 26, 2008

5. High Level Overview of Comments Received
6. Highlight of Areas where Drafting Team made changes
7. Major areas where the industry has continued concerns
8. Q & A
9. Wrap-up

## NERC Antitrust Compliance Guidelines

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.

# Opening Remarks and Introductions

- John Odom, FRCC (Chair)
- Bob Millard, RFC  
(Vice chair)
- Darrin Church, TVA
- Bill Harm, PJM
- Doug Hohlbaugh,  
FirstEnergy
- Julius Horvath, LCRA
- Bob Jones, Southern
- Brian Keel, SRP
- Ron Mazur, Manitoba Hydro
- Tom Mielnik, MidAmerican
- Bernie Pasternack, AEP
- Bob Pierce, Duke
- Chifong Thomas, PG&E
- Jim Useldinger, KCPL
- Dana Walters, National Grid
- Bob Williams, FMPA

- Tom Gentile, Quanta Technology
- Ray Kershaw, ITC Transmission
- Chuck Lawrence, ATC
- Doug Powell, Entergy
- Paul Rocha, CenterPoint
- Steve Rueckert, WECC
- Hari Singh, Georgia Transmission Corporation
- Yury Tsimberg, Kinectrics Inc.
- Bob Snow, FERC staff
- NERC Staff Coordinator – Ed Dobrowolski

1. Update industry on Standard Drafting Team (SDT) efforts.
2. Highlight areas where SDT made changes from 1<sup>st</sup> posting.
3. Highlight areas where industry has continued concerns.
4. Q & A to clarify the intent of SDT

# Background — Drafting Team Objectives

Create a new standard that:

1. Has clear, enforceable requirements
2. Is not a Least Common Denominator standard
3. Addresses the issues raised in the SAR and issues raised by FERC and others

# Background — Update on Standard Drafting Team Activities

- The first draft was posted for comment from September 12, 2007 through October 26, 2007.
- Response was very good
  - More than 80 sets of comments
  - 233 different people
  - 80 companies
  - 9 of the 10 Industry Segments
- 6 face-to-face meetings & 6 full team conference calls & many more sub-team conference calls
- 2<sup>nd</sup> draft posted on August 14 – Comments due September 29

# Background — Brief Overview of Proposed Standards

- Format of 2<sup>nd</sup> draft remains very similar to 1<sup>st</sup> draft
  - **R1** – Maintaining models (moved data requirements to end)
  - **R2** – Assessment and Corrective Action Plan requirements
  - **R3** – Steady State Analysis
  - **R4** – Short Circuit Analysis (was part of **R2**)

# Background — Brief Overview of Proposed Standards

- Format of 2<sup>nd</sup> draft remains very similar to 1<sup>st</sup> draft
  - **R5 (old R4) – Stability Analysis**
  - **R6 – Define & document how cascading and voltage instability are addressed**
  - **R7 (old R5) – Identify work coordination amongst planners**

# Background — Brief Overview of Proposed Standards

- Format of 2<sup>nd</sup> draft remains very similar to 1<sup>st</sup> draft
- **R8 (old R6)** – Make assessment available to other planners
  - Coordinate open and transparent peer review process
- **R9 – R14 (old R1)** – Modeling data, e.g., planned outages, etc.

(To be removed when MOD standards are updated)

- **Performance Tables**
  - Table 1 – Steady State
  - Table 2 – Stability

# High Level Overview of Comments Received

- First draft standard not clear to commenters
- Many commenters agreed with general approach
- Most significant disagreements were based on:
  1. Lack of clarity in the draft standard
  2. Disagreed with a specific requirement, often based on cost to implement
  3. Thought that standard caused too much study work

# High Level Overview of Comments Received

1. Definitions
2. Sensitivity Studies
3. Corrective Action Plans
4. Performance Requirements
5. Stability

## 6. Generation runback and Tripping

## 7. General Questions

- Short circuit requirements

- Proxies for instability, cascading outages and uncontrolled islanding

- Actions allowed to prepare for next Contingencies

- Applicable ratings

- Define Bus-tie Breaker

# Areas Where Drafting Team Made Changes

- Most definitions modified for clarity
  - Consequential Load Loss — concern about what, if any, local Load should be treated the same as Consequential Load
  - Year One more detailed — acknowledge moving window

# Areas Where Drafting Team Made Changes

- Relationship of data requirements in TPL standard to other modeling standards (MOD series)
  - Identify gaps – modeling needed for TPL not in MOD standards
  - Identify how results of modeling standards are to be used in TPL

# Areas Where Drafting Team Made Changes

- Sensitivity studies modified and clarified
  - Include additional studies as appropriate
  - Must evaluate at least one sensitivity scenario and explain why others not needed
- Added qualifications for use of “past” studies

# Areas Where Drafting Team Made Changes

- **Corrective Action Plan**
  - Examples of type of “actions” expanded, includes SPS/RAS, etc.
  - Sensitivity studies considered but not sole basis for “actions”

# Areas Where Drafting Team Made Changes

- Eliminate references to “committed” and “planned” projects
- Use of Generator redispatch and tripping in planning studies clarified
  - Automatic schemes, e.g., RAS/SPS, allowed for single and multiple Contingencies under prescribed conditions

# Areas Where Drafting Team Made Changes

- Clarify the acceptable results immediately after event and also what actions are allowed to prepare for the next event
- Firm Non-Consequential Load should not be lost for single Contingency

# Areas Where Drafting Team Made Changes

- Treatment of “firm” transfers clarified
- Revisited requirements in FERC Orders 693 & 890
- Standard must have a detailed implementation plan
- Clarified treatment of Protection System failures

- Performance Requirements (Tables)
  - Changed “Equipment Ratings shall not be exceeded” to “Facility Ratings shall not be exceeded. Planned System adjustments are allowed, unless precluded in the Requirements, to keep Facilities within the Facility Ratings, if such adjustments are executable within the time duration applicable to the Facility Ratings.”
- Re-formatted tables for clarity.

# Areas Where Drafting Team Made Changes

- Added P0 – Normal System Conditions
- P6 – Loss of one Transmission element, followed by System adjustments, followed by loss of a second Transmission element
  - Above 300 kV – changed to allow Non-Consequential Load Loss
- Clarified wide area event conditions under the Extreme Event category

# Major Areas Where The Industry Has Continued Concerns

- Different performance requirements for Facilities above 300kV

# Major Areas Where The Industry Has Continued Concerns

- Requirement to model dynamic Loads

# Major Areas Where The Industry Has Continued Concerns

- Treatment of “local Load” loss for certain events

# Major Areas Where The Industry Has Continued Concerns

- Performance requirement changes from existing Version 0 Standards

# Major Areas Where The Industry Has Continued Concerns

- New study requirements and new documentation requirements

# Major Areas Where The Industry Has Continued Concerns

- Starting point for required studies for a Planning Assessment

# Industry Involvement

- Decided to try to get more consensus on components of standard before items like VSLs, Measures, and Implementation Plan details are proposed
- Everyone is encouraged to provide specific comments through the official NERC process

# Questions & Answers



Team plans to continue monthly meetings with conference calls every two weeks

Please provide your written comments by September 29, 2008

Plan to post 3<sup>rd</sup> draft in early 2009

**Thank you  
for your participation**