



NPCC “CBRE” Members Meeting Reliability Standards Program Area Activities

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Presented by

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NPCC CBRE, Reliability Standards

- Overview of NPCC CBRE Standards Program area activities for 2007-2008;
 - FERC Order 693
 - NERC ERO Reliability Standards
 - NPCC CBRE Regional Reliability Standards
 - Who will develop the NPCC CBRE Regional Standards?
 - How will the NPCC CBRE Regional Standards be developed?
 - Standards questions and interpretations



NPCC CBRE, Reliability Standards

- Standards which are enforceable are:
 - Clear and measurable
 - Technically valid and justified
 - No unnecessary adverse impact to markets
 - Vetted and approved through an open stakeholder process-transparent
 - Applicable to owners, users and operators of the bulk power system
- Key Components of a Standard:
 - Purpose
 - Requirements
 - Measures
 - Compliance



NPCC CBRE, Reliability Standards

FERC Order 693, issued March 2007 (published in the Federal Register April 4, 2007)

- ¶21 – Approves the first set (83) of mandatory and enforceable reliability standards. (54 of these need more “work”)
- ¶297 – Compliance with “fill-in-the-blank” standards (24) should continue on a voluntary basis as good utility practice.
- ¶191 – Effective Date: June 4, 2007
- ¶207 – Revised work plan by September



NPCC CBRE, Reliability Standards

- **2007 Standards Under Development (3 yr. workplan)(56 total)**
 - 2007-01 Under-frequency Load Shedding (PRC-006 to PRC-009)
 - 2007-02 Operating Personnel Communications Protocols (COM-002)
 - 2007-03 Real-time Transmission Operations and Balancing of Load and Generation (TOP-001 to TOP-008, ORG-001 to ORG-018, and COM-001 and COM-002)
 - 2007-04 Certifying System Operators (PER-003)
 - 2007-05 Balancing Authority Controls (BAL-002 and BAL-004 to BAL-006)
 - 2007-06 System Protection (PRC-001)
 - 2007-07 Vegetation Management (FAC-003)
 - 2007-08 Emergency Operations (EOP-001 to EOP-003)
 - 2007-09 Generator Verification (MOD-024 and MOD-025)
 - 2007-10 Modeling Data (MOD-010 to MOD-015, PRC-013, PRC-015, PRC-020 and PRC-021)
 - 2007-11 Disturbance Monitoring (PRC-002, PRC-018)



NPCC CBRE, Reliability Standards

- **2008 Standards Scheduled for Development (3 yr. workplan) (28 total)**
 - 2008-01 Voltage and Reactive Control (VAR-001 and VAR-002)
 - 2008-02 Under Voltage Load Shedding (PRC-010, PRC-011 and PRC-022)
 - 2008-03 Demand Data (MOD-016 to MOD-021)
 - 2008-04 Protection Systems (PRC-003 to PRC-005, PRC-012, PRC-014, PRC-016 and PRC-017)
 - 2008-05 Cyber Security (CIP-002 to CIP-009)
 - 2008-06 Phasor Measurement Units (new)
 - 2008-07 Resource Adequacy Assessments (new)
- **Anticipated ERO standard workload scheduled is 84 standards in 18 "Projects"**
- **"In Process" standards that are not part of the Projects in the workplan include, but are not limited to;**
 - CIP 002-009 Cyber Security Standards
 - BAL 007-011 Balancing Standards
 - PRC 023 Relay Loadability
- **NPCC CBRE Regional Reliability Directories**



NPCC CBRE, Reliability Standards

NERC RRSWG and “fill in the blank” standards

- 24 “fill in the blank” standards
 - Rewrite most to remove reference to RRO
 - Develop 4 NPCC CBRE Regional Standards
 - Underfrequency Load Shedding
 - Balancing and Reserve Sharing
 - Disturbance Monitoring Equipment
 - Special Protection System



NPCC CBRE, Reliability Standards

Who will develop Regional Standards? (Cont.)

NPCC's CBRE Regional Standards Committee (RSC)
(formerly CP9):

- Manage Standards Process
- Provide notifications
- Manage the development of individual Regional Reliability Standards
- Representation from all Segments (CBRE Bylaws)
- Review RSARs and Regional Reliability Standards
- Review Responses to Comments
- Approve all Postings
- Approve Standards for ballot
- Encourage participation in Drafting Teams



NPCC CBRE, Reliability Standards

What steps will it take to create a standard?

1. Submit an RSAR
2. RSC reviews, posts notifications
3. RCC assigns Task Force
4. Task Force drafts RRS and implementation plan in open session-soliciting help with compliance issues.
5. Task Force posts for comment
6. Comments reviewed and responded to.
7. Task Force sends to RSC
8. RSC solicits technical recommendation from RCC



NPCC CBRE, Reliability Standards

What steps will it take to create a standard?

9. RSC will request field test if necessary
10. RSC will post for pre-ballot review
11. CBRE Membership will vote
12. NPCC CBRE Board will submit to NERC/ERO for approvals
13. CBRE Regional Reliability Standard will be filed with the FERC and Canadian Provincial Regulatory Authorities
14. Regulatory Authorities adopt
15. NPCC CBRE implements according to Plan



NPCC CBRE, Reliability Standards

Standards Questions and Interpretations?



- Regional Standards Manager
- Regional Standards Committee
- NERC Reliability Standards Manager
- NERC Reliability Standards Procedure



COMMENTS P
QUESTIONS P P
SUGGESTIONS P P