“Beyond” NERC Version 0
Reliability Standards

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Cranwell Resort, Lenox MA
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NPCC’s Role

- NPCC’s CP9 Reliability Standards Working Group:
  - Technical Representation from all TF and CMAS
  - Provide notifications and educate membership
  - Track the development of NERC Reliability Standards
  - Develop Regional Consensus Opinions and comments
  - Review existing NPCC documents against developing Reliability Standards
  - Develop Regional Recommendations for RS Ballots
  - Encourage participation in Drafting Teams
  - Provide Drafting Team members a Forum for discussion of issues
  - Promulgate the review of adjacent Region’s Criteria
  - Review of NAESB Standards posted for comment
NPCC’s Role (cont.)

- Participation in the Functional Model Review Working Group
- Development of a Regional Reliability Plan
- Held a Workshop and Conducted Initial Registrations for the Functional Model (RC, BA, TOP)
- Reviewed Registrations, Gap Analysis
- Developing Certification Procedures and ultimately conducting Certifications
All they're doing is re-formatting the old documents so they look new!

I don’t have to get involved in this - I’ll just sit back and wait for the finished product!
Version 0 Standards Transition Objectives

- Translate all operating policies, planning standards, compliance templates
  - Minimize technical content changes
  - Identify Functional Model entities
  - Identify business practices
  - Make “Requirements” clear and measurable

- Use ANSI-approved process
NERC Reliability Standards

- **BAL** - Resource and Demand Balancing
- **CIP** - Critical Infrastructure Protection
- **COM** - Communications
- **EOP** - Emergency Preparedness and Operations
- **FAC** - Facilities Design, Connections and Maintenance
- **INT** - Interchange Scheduling and Coordination
- **IRO** - Interconnection Reliability Operations and Coordination
- **MOD** - Modeling, Data, and Analysis
- **ORG** - Organization Certification
- **PER** - Personnel Performance, Training, and Qualifications
- **PRC** - Protection and Control
- **TOP** - Transmission Operations
- **TPL** - Transmission Planning
- **VAR** - Voltage and Reactive
NERC Version 0 Reliability Standards

- 90 reliability standards (+ 1 urgent action cyber standard for total of 91)
- Glossary of terms used in standards
- Regional differences (carried over waivers with no changes)
- Implementation plan

95% approval by stakeholder ballot
Adopted by NERC board: 2/8/2005
Effective date: 4/1/2005
Functional Model and Standards

NERC Functional Model
Version 2

Primary Entities

Other Entities

Standards Functions

- Standards Development (Standards Developer)
- Compliance Monitoring (Compliance Monitor)

Reliability Coordinator

Operating Reliability (Reliability Authority)

Interchange (Interchange Authority)

Balancing (Balancing Authority)

Transmission Service (Transmission Service Provider)

Planning Reliability (Planning Authority)

Reliability Service Functions

Planning and Operating Functions

- Transmission Ownership (Transmission Owner)
- Generator Operations (Generator Operator)
- Transmission Operations (Transmission Operator)
- Transmission Planning (Transmission Planner)
- Resource Planning (Resource Planner)

- Generator Ownership (Generator Owner)
- Load-Serving (Load-Serving Entity)
- Purchasing-Selling (Purchasing-Selling Entity)
- Distribution (Distribution Provider)
- Market Operations (Market Operator or Resource Dispatcher)
Functional Model Issues

- Reliability Coordinator – Reliability Authority
- Reliability Authority – Transmission Operator
  - ‘Highest authority’
- Complexities of real-world
- Diffusion of planning responsibilities
- Inclusive/narrow applicability of standards
- Reliability relevance threshold
- Interchange Authority
Functional Model (Action Plan)

- FMWG to revise the Functional Model, and develop a “Version 3”
- FMWG develop guideline document for Regional Reliability Process Plans
- Regions develop Plans
- NERC Standing Committees review
- Board approval – February 2006
Initial Functional Registration Data

- 252 ‘Entity’ registrations to NERC
- Operating entities
  - Reliability coordinators (24)
  - Balancing authorities (139)
  - Transmission operators (158)
- Planning entities
  - Planning authorities (114)
  - Transmission planners (199)
  - Regional reliability organizations (10)
- CO-7 Gap Analysis
NPCC Regional Reliability Plan

- Identifies Registered Entities (RC, BA and TO)
- Establishes Essential Industry Practices
- Documents Requirements for “Wide Area View”
- Documents Procedures and Tools for RC
- Documents Monitoring Procedure and Tools for Real Time
- Documents Inter-Area Voltage Coordination
- Ensures Compliance With Applicable NERC RS and all NPCC Criteria
- NERC Approved
- Currently Under Revision-
Fitting the Pieces Together

**Functional Model**
- Defines functions as tasks
- Defines responsible entity relationships

**Reliability Standards**
- Defines satisfactory task performance
- Defines ability to perform tasks

**Organization Registration & Certification**
- Certifies organizations as responsible entities

**Regional Reliability Plans**
- Designates which organizations are Reliability Authorities and Balancing Authorities
NERC Version 1 Reliability Standards

- Coordination with Version 0
- Ensuring nothing is omitted
- Reduce Duplication
- Implementation Plans
- Field Testing
- ANSI Approved process
  - Development
  - Commenting
  - Balloting
- Retirement of Associated Version 0 Standard
Reliability Standards Process Manual

- Version 4 streamlines and clarifies standards process
  - Clarifies objectives for DT
  - Parallel steps
  - Removal of limit on Urgent Action
- Completes Phase 2 of Manual revision, submitted to BOT for approval
- Fulfills U.S./Canada Outage Task Force Recommendation 25:
  - NERC should reevaluate its existing reliability standards development process and accelerate the adoption of enforceable standards.
Where Are We Today?

- To Date Approvals (in effect):
  - Version 0 Reliability Standards
  - Revised NERC RS Process Manual
  - Approved Extension to the Urgent Action Cyber Security Standard
  - TLR Urgent Action

- Balance Resource and Demand “Field Test”

- Posted for Pre-ballot Review
  - Determine Facility Ratings
  - Coordinate Operations
  - Vegetation Management
Where Are We Today? (cont.)

- Current Standards Posted For Comment;
  - Phase III and IV
  - Coordinate Interchange Standard
  - Organization Certification Standards
    - Reliability Coordinator
    - Transmission Operator
    - Balancing Authority
  - Cyber Security, Permanent
Where Are We Today? (cont.)

- Reliability Legislation Issues;
  - Regional Standards
    - Regional Processes for Development
    - Regional Differences
  - Disclosure Guidelines
  - “Approaching Violation” Penalties
  - Sanctions and Penalties
  - Funding
  - Filings
  - Delegation and Agreements
  - Regional Rules of Procedures
COMMENTS?
QUESTIONS?
SUGGESTIONS?