NERC Planning Committee
March 5-6, 2013
SPP RET April 2013 Update Report

Definition of Bulk Electric System Technical Justification Report

The report was discussed with the final recommendations based on the final conclusions approved at the December meeting. The approved recommendations continue to use the various thresholds included in the new BES definition. The BES drafting team had requested that the PC develop technical justifications for various thresholds. These approved thresholds are:

- Inclusion of all transmission facilities at or above 100 kV
- 20 MVA unit /75 MVA plant threshold for generators
- 0 MVAr reactive power threshold for reactive devices
- Local network load shall not exceed 300 MW.

Upon completion of discussion the report was approved unanimously.

Standards Committee Request for Research: Project 2010-05.2 Special Protection System (SPS)/Remedial Action Scheme (RAS) Reference Document/Report

Specific recommendations from the report:

- Revise the SPS definition to provide specificity and clarity
- Assign responsibility to appropriate Functional Model entities
- Establish uniform continent-wide requirements for:
  - Review and approval of new or modified SPS
  - Annual assessment of SPS in transmission planning assessments
  - Expanded periodic assessments of SPS and other protection systems
  - Documentation, data submittals, and databases
  - Analysis and reporting of SPS misoperations
  - Monitoring and providing real-time status to operators
  - Disturbance monitoring equipment to support analysis of SPS operation
- Establish new maintenance and testing requirements to address
  - Complexity of SPS
  - Non-protection system components used in SPS
- A revised definition will provide greater clarity to ensure that all SPS are properly identified in a uniform manner
- A continent-wide review process will improve coordination of all identified SPS with other SPS, UFLS, UVLS, and protection systems

The report was approved unanimously by the PC.

Standards Committee Request for Research: Project 2012-04 Protection System Commissioning and Testing White Paper

- The report concludes that establishing a goal to **Require the creation and implementation of commissioning testing practices** will increase burden on entities without a commensurate reliability benefit. The report recommends a more beneficial goal would be to Improve existing commissioning practices through:

  - analysis of protection system misoperations,
  - sharing of lessons learned
  - development of an industry reference document on protection system commissioning practices

- The recommends a combination of reactive and proactive actions that will assist entities in improving their existing commissioning practices and will alert entities regarding emerging issues related to new protection system equipment.
  - The SPCS should draft a Lessons Learned document related to the proper verification of AC quantities as part of protection system commissioning.
  - NERC should continue to use the Lessons Learned process to provide feedback so that industry is alerted of issues identified by entities through analysis of protection system misoperations and the event analysis process.
  - Development of an Industry Reference Document on Protection System Commissioning Practices

The report was approved unanimously by the PC.

GMDTF: System Operating Procedures

- GMD Operating Procedures templates for Reliability coordinators and Transmission operators developed by the GMDTF were approved
- Templates will be posted to the GMD Task Force webpage

Protection System Misoperations Task Force Update on the final report

Key Observations from the report

- The Regions have identified incorrect settings/logic/design errors, relay failures/malfunctions, and communication failures as being the most prevalent causes of misoperations
- Approximately 94% of misoperations in the study period resulted in unnecessary trips.
  - Only 6% resulted in a failure to trip or slow trip.
- Applications requiring coordination of functionally different relay elements should be avoided. This has been the cause of numerous misoperations
- Misoperations due to general setting errors can potentially be reduced by
  - By increasing peer reviews
  - increased training
  - more extensive fault studies
  - standard templates for setting standard schemes using complex relays
  - periodic review of existing settings when there is a change in system topography.
- Protection Function misoperations are engineering errors in general protection applications, and are common to all three relay technologies (microprocessor, electromechanical, and solid state analog).

- The misoperations associated with Relay Settings - Logic are strongly correlated with microprocessor based relays.

Based on discussion it was recommended that a stronger set of conclusions was need before the report could be approved. The linkage between this report and the Annual State of Reliability Report was noted and the conclusion was that the Annual Report is relying on the misoperation data for its completion. The report was approved by email ballot in April.

Demand Response Availability Report

Observations from the report:

- Demand response is an important component in the overall portfolio of resources required to reliably meet the increasing demands for electricity in North America
    - Evaluate its benefits and impact on reliability
    - Quantify the performance
- Need better measurement and verification techniques
    - Measure and track actual availability under various system conditions

Recommendations

- Approve the "2011 Demand Response Availability" report
    - Further segment data by key attributes
    - Measure ramp and ramp down characteristics
    - Develop glossary document
    - Trend seasonal performance

After discussion the report was approved.

Modeling Validation Working Group (MVWG) Scope revision to Modeling Working Group

Reasons for the scope modification

- Expand the scope of the working group – validation was too restrictive
- Address ongoing efforts to improve modeling
- Work toward a library of standardized, validated models for new equipment
- Foster industry move toward breaker-node based modeling
- Improve load modeling to reflect rapidly changing characteristics of load, e.g., FIDVR lessons learned

Upon discussion the modified the scope was approved.

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The ERO Enterprise Strategic Plan,

The plan was presented to the PC and spans four goal areas

1. Standards
    - Goal
        - Develop clear, reasonable and technically sound standards
    - Objectives
        - Standards timely, clear and responsive
        - Standards practical and cost effective
2. Compliance, Registration and Certification
    - Goals
        - Strong enforcement authority - objective and fair
        - Culture of compliance addresses reliability risks
    - Objectives
        - Entities registered commensurate with risk
        - Industry accountable for violations
        - Industry has procedures/programs
        - Compliance objectives met by industry
3. Risks to Reliability
    - Goals
        - Identify most significant risks
        - Accountable for mitigating risks
        - Culture of reliability excellence
    - Objectives
        - Risks identified and prioritized
        - Events analyzed and industry informed
        - ERO tracking industry accountability
        - Industry addressing security vulnerabilities and threats
        - Information shared
4. Coordination and Collaboration
    - Goals
        - Acquire and retain quality staff
        - Qualifications for key ERO positions
        - Secure, reliable infrastructure
        - Effective internal risk management and controls
    - Measures
        - Favorable trending
        - Key position qualifications achieved
        - Infrastructure project milestones met
        - No material findings
        - Consistency across enterprise

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The NERC BES Exception Process utilizing the Project Management Office structure was reviewed with the PC. The purposes of the program were highlighted as:

- Provide clarity and certainty of the BES determination mechanism
- Address regulatory obligations and requirements
- Methodical and orderly exception processes on a consistent basis across the regions and within NERC
- Provides for effective and simple process linkages
- Project management focus for implementation
- Schedule for implementation, culminating with a July 2013 “go live “ date and testing in advance