NERC Planning Committee

December 12-13, 2012

SPP RET January 2013 Update Report

- The PC approved request for section 1600 data request that expands TADS reporting to the NERC BOT and the NERC BOT has since approved the request. The changes include:
  1. Expansion of reporting requirements from 230 kV and above to all BES elements including those below 100 kV. This applies only to BES elements and will include automatic outages. The earliest reporting would begin is 2014. Non-automatic operational outages will also be included at a later date.
  2. Changing the data collection from annual to quarterly with the first two quarters due on September 30, 2013.
  3. Submission of additional transmission inventory data. Element identifier and circuit mileage by circuits will be due June 30, 2013. The remainder of the inventory data is due February 15, 2014.

- NERC staff presented a plan to begin standard development on Geomagnetic Disturbances (GMD). The plan consists of two phases and follows the FERC NOPR.
  - In Phase I, a standard to require an operating procedure will be developed;
  - In Phase II, a standard will be developed that will require vulnerability assessments of key transformers and associated mitigation plans. The vulnerability assessment may be limited to those transformers with at least one winding above 200 kV and one grounded winding.

  They are starting the work before the final rule from FERC is issued because the NOPR proposed the first phase be completed within 90 days of the final rule and NERC feels the need for more time beyond the 90 days.

- The PC approved recommendations to 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 thresholds include:
  - 100 kV for transmission
  - 20/75 MVA threshold for generators
  - Reactive power threshold for reactive devices
  - Amount of power flow out of a local network.

  The subcommittees and working groups were unable to provide a true technical justification which is the reason to continue utilizing the existing thresholds in the BES definition. For reactive devices, the assigned subcommittee could find no justification to exclude any reactive device. The recommended threshold will be 0 MVAr. Finally, the recommended threshold for the local network is that load shall not exceed 300 MW.

- The PC approved the whitepaper and associated SAR to improve the MOD standards. The System Analysis and Modeling Subcommittee (SAMS) will submit the SAR which proposes to combine MOD-010 through MOD-015.

- SAMS and System Protection and Control Subcommittee (SPCS) presented an update on a whitepaper on Special Protection Systems (SPS) and Remedial Actions Schemes

(RAS). The whitepaper defines what they are and also lists some specific examples that are not SPS/RAS. It also proposed to consolidate some of the standards dealing with SPS and RAS, to modify other requirements and to propose new requirements where gaps have been identified. The new requirements would compel the Reliability Coordinator and Planning Coordinator to study the effects of SPS and RAS. The report also includes a section on modeling and performing simulations. The Planning Committee will be asked to approve the whitepaper at the March meeting.

- The Protection System Misoperations Task Force chair presented interesting trend data regarding misoperations covering the period from January 1, 2012 to April 1, 2012. There were approximately 2203 reported misoperations.
    - 94% of the misoperations are unnecessary trips which reflect a bias toward dependability.
    - Incorrect settings/logic/design errors, relay failures/malfunctions and communication failures accounted for 65% of the misoperations.
    - 66% of misoperations occur on the 100-200 kV transmission system while this voltage class only makes up 47% of the total BES circuit miles.
    - Failure rates of electro-mechanical relays and solid state relays are similar while the failure rate of micro-processor relays is significantly lower.

- The Standards Committee asked the PC to research the need for a protection system commissioning standard in response to an event caused by an incorrect CT ratio. The protection system was not adequately tested prior to placing it into service. The SPCS determined that a standard could have unintended consequences as most Registered Entities currently have rigorous commissioning standards and standard may conflict or even relax the standards The SPCS proposed to address the problem by identifying weak commissioning practices through analysis of protection system misoperations and through the development of an industry reference document and sharing of lessons learned.

- The PC agreed to address some key recommendations from Arizona-Southern California Outage. The PC will develop a whitepaper to address technically-based criteria for which sub-100 kV elements should be included in models, the base power flow models and parameters TOPs should use to conduct simulations and if PRC-023-2 needs to be expanded to cover more sub-200 kV relays.

- The PC approved the release of a model validation field trial letter. The letter is directed to industry and asks for volunteers to perform a field trial of the procedures in the whitepaper “Procedures for Validating Power flow and Dynamics Cases” which was approved by the PC in December 2011.

- The Energy Information Administration is updating their EIA Form 411. Updates are expected to be final by the end of 2013.