

Transmission Security and Adequacy and Transfer Capability

**TPAS/ESPWG
June Meetings
Draft For Discussion Purposes**

Adequacy vs Security (NYSRC)

- **Adequacy** – The ability of the electric systems to supply the aggregate electrical *demand* and energy requirements of their customers at alltimes, taking into account scheduled and reasonably expected unscheduled outages of system *elements*.
- **Security** – The ability of the electric systems to withstand sudden *disturbances* such as electric short circuits or unanticipated loss of system *elements*.

Adequacy vs Security Assessments

- **Adequacy** – Measured by the Development of Transfer Limits and a Multi-Area Reliability Assessment (MARS LOLE Analysis)
- **Security** – Assessed through Contingency Analysis.

Adequacy and Security Assessments

- **Criteria – NYSRC, NPCC, NERC, Local TO**
- **Procedures –**
 - Existing NYISO Procedures and Guidelines Followed.
 - New Procedure Documents Presently being Developed for Normal NYISO Updates and Attachment Y Requirements for CRPP
- **Committees and Work Groups Involved**
 - TPAS, SOAS, RPWG, OC

Adequacy and Security Assessments

- **Application of Existing Criteria**
 - **Development of Transfer Capability**
 - **What Contingencies Apply**
 - **What to use for MARS Analysis**
 - **Bulk vs Non Bulk (or Local)**

From NYSRC Rules:

- ◆ Loss of small portions of the *NYS Power System* (such as radial portions) may be tolerated provided they do not jeopardize the *reliability* of the overall *NYS Bulk Power System*.

Adequacy and Security Assessments

- **Reporting of Criteria Violations (Needs)**
 - **CRPP Identifies Needs on the NYS BPTFs**
 - **Discussions at Previous ESPWG on Reporting of Bulk and Non Bulk Facilities**
- ◆ Reporting on NYS BPTFS Needs
 - Established Practices
- ◆ Reporting on Non BPTFS Needs

Reporting on Non Bulk Facilities

- **Historical Perspective**
 - **Potential Violations Removed in Base Case Development**
 - **Insertion and Reporting of Devices to Correct the Local Problem**
 - **Report the Potential Violations**
- **CRPP Perspective**
 - **Separate Base Case Screening Process**
 - **Exploration of Alternatives for Reporting of Potential Violations/Corrections**

Reporting Alternative for Non Bulk Facilities

- **Use of Compensating Devices**
 - **Has been Done in NPCC Area Reviews**
 - **Report on MW and MVAR Compensation**
- **Report on Potential Violations**
 - **Similar to What is Done for Extreme Contingency Assessment**
- **Correct in Base Case With TO Input**
- **Other Modifications Made to Base Case**
 - **Use of Alternative Load Models**
 - **Scaling of Load Model**