

AVR/PSS/SPS STATUS

February 2011 SOS meeting

- **Concern:** What are the communication requirements for AVR and PSS status during unit start-up.
- **VAR-002 Requirements**
 - **R1.** The Generator Operator shall operate each generator connected to the interconnected transmission system in the automatic voltage control mode (automatic voltage regulator in service and controlling voltage) unless the Generator Operator has notified the Transmission Operator.
 - **R3.** Each Generator Operator shall notify its associated Transmission Operator as soon as practical, but within 30 minutes of any of the following:
 - **R3.1.** A status or capability change on any generator Reactive Power resource, including the status of each automatic voltage regulator and power system stabilizer and the expected duration of the change in status or capability.
 - **R3.2.** A status or capability change on any other Reactive Power resources under the Generator Operator's control and the expected duration of the change in status or capability.
- Follow-up conversation with RFC resulted in clarification that generation owners should communicate any change in status to PJM.

- Since VAR-002 (http://www.nerc.com/files/VAR-002-1_1b.pdf) applies to GO/GOP and since the definition of GOP within the Compliance Registry (attached/below) contains specifics regarding which generators need to register as GOP:
 - III(c) Generator Owner/Operator:
 - III.c.1 Individual generating unit > 20 MVA (gross nameplate rating) and is directly connected to the bulk power system, or;
 - III.c.2 Generating plant/facility > 75 MVA (gross aggregate nameplate rating) or when the entity has responsibility for any facility consisting of one or more units that are connected to the bulk power system at a common bus with total generation above 75 MVA gross nameplate rating, or;
 - III.c.3 Any generator, regardless of size, that is a blackstart unit material to and designated as part of a transmission operator entity's restoration plan, or;

- **M14D Proposal:**
 - Generators may elect to operate their AVR in manual mode during startup and synchronization until minimum load is achieved in order to ensure overall unit stability (or based upon other physical equipment limitations), however, Generation Owners must notify PJM dispatch if the AVR is out-of-service during start-up and upon any change in AVR status. Additionally, Generation Owners must notify PJM dispatch of any change in PSS status. PJM dispatch must be notified verbally (or electronically if available) and via eDart. PJM requires the telemetered AVR and PSS status by June 1, 2012 for those units that register as a GOP in accordance with the NERC Compliance Registry.

- **M03 Proposal:**
 - PJM requires the telemetered SPS status by June 1, 2012 for all Special Protection Schemes.