

# GENERATOR: REACTIVE POWER DEFICIENCIES

February 3, 2011

## Determination of Grandfathered MVAR Capability

Planning Committee endorsed Manual 14A language, not yet presented to the MRC

“Increases to existing generators must be designed to maintain the **grandfathered** MVAR capability for the existing and pre-upgraded gross generator output capability and the Section 4.7.1.2 power factor requirement for all incremental MW increases.”

- At the January PC meeting, the group asked PJM to provide clarification on a method to determine “grandfathered” MVAR capability.
- A proposal was sent to the reactive power focus group and feedback was received.

## **Proposed Step 1:**

If an agreement exists and contains a reference to required MVAR capability, the methodology in the agreement will determine the grandfathered MVAR capability.

## **Feedback:**

- Three party ISA's are the most straightforward, the PJM Tariff requirements will be used
- Existing agreements may be a better starting point for discussion with the GO rather than an absolute.
- Some existing agreements (non three party between PJM/TO/GO) have non standard language and may, for example, specify a voltage schedule requirement instead of a MVAR requirement.
- Consider consulting the reactive charge filings of the units to see if the MVAR capability is stated in the filing. The rationale to use these numbers could be that this is what the load is paying for and the unit has to provide.

## **Proposed Step 2:**

If no agreement exists or there is no reference to required MVAR capability in an existing agreement, PJM will use alternate methods to determine the grandfathered MVAR capability of the machine.

## **Feedback:**

- Use the D-Curve that is on file with PJM Operations.
- Review the data with the GO and provide an opportunity for the GO provide additional analytical evidence as to the actual MVAR capability, if different from the PJM Operational data.
- Discuss test data with the GO to hear their perspective.
  - Consider that tests not always performed under ideal conditions and the system may limit the capability during testing.
  - Consider trending test data.
- Also consider historical operational data.

- Agreements
- Historical EMS data
- Test data

# Next Steps

- Contact Mark Sims
  - [simsm@pjm.com](mailto:simsm@pjm.com)
  - 610.666.4678