Generator Power Factor Requirements

Except as PJM may determine otherwise for small generation resources of less than 20 MW, all generators interconnected with the PJM System shall be designed to maintain a composite power delivery at continuous rated power output at the generator's terminals at a power factor of at least 0.95 leading to 0.90 lagging**. (OATT at Part VI, in Section 4.7.1 in Att. O, App. 2 – formerly 54.7.1 in Part IV)**

Application of Power Factor Requirements to Increases of Existing Generation

Existing PJM Tariff provisions require generators to be designed to operate at a power factor range of 0.95 leading to 0.90 lagging as measured at the generator terminals.

- The above requirement also applies to increases to existing generation.
- PJM will provide for certain exceptions to existing generators that apply for increases of less than 20 MW.
- Increases of more than 20 MW to existing generators must be designed to maintain the original power factor capability for grandfathered MWs and a power factor range of at least 1.0 (unity) to 0.90 lagging for all incremental MW increases.

Wind-Powered Generation Projects

Because of the intermittent nature of wind-power generation, a specific procedure is required to determine an appropriate capacity value for wind generator output. Further, the use of induction-type generators for wind-powered projects requires the application of specific reactive power requirements.

Wind Generation Capacity Credit Rules

PJM business rules allow for wind-powered generation projects to qualify for Capacity Resource status. Refer to PJM Manual M-21 "Rules and Procedures for Determination of Generating Capability" for details of PJM procedures for calculating Capacity Credits for Wind Farms.

Wind Generation—Specific Technical Requirements

Without exception, all Customer Facilities will be subject to the provisions of the PJM **OATT at Part VI, in Section 4.7.2 and Section 4.7.3 in Att. O, App. 2 – formerly 54.7.2** and **54.7.3 in Part IV,** which describes real-time obligations to supply reactive power and the consequences of deviations from voltage schedules and/or reactive power schedules.

Wind projects connected to lower voltage systems must be designed to operate to a voltage schedule, reactive schedule or power factor schedule designed to meet local transmission owner criteria. When applicable, non-standard terms and conditions will be included in a

project's Interconnection Service Agreement to address individual power factor requirements.