

PSC No: 19 - Electricity  
Rochester Gas and Electric Corporation  
Initial Effective Date: August 25, 2003  
Issued under the authority of the PSC in Case 03-E-0001 and Case 02-E-1282, order effective August 5, 2003

Leaf No. 128  
Revision: 2  
Superseding Revision: 1

### GENERAL INFORMATION

## 10. DISTRIBUTED GENERATION INTERCONNECTION REQUIREMENTS (Cont'd)

number of starts per specific time period and maximum starting kVA draw data to the utility to verify that the voltage dip due to starting is within the visible flicker limits as defined by IEEE 519, Recommended Practices and Requirements for Harmonic Control in Electric Power Systems.

Starting or rapid load fluctuations on induction generators can adversely impact the utility's system voltage. Corrective step-switched capacitors or other techniques may be necessary. These measures can, in turn, cause ferroresonance. If these measures (additional capacitors) are installed on the customer's side of the PCC, the utility will review these measures and may require the customer to install additional equipment.

### 5. Inverters

Direct current generation can only be installed in parallel with the utility's system using a synchronous inverter. The design shall be such as to disconnect this synchronous inverter upon a utility system interruption.

It is recommended that equipment be selected from the "Type-Tested and Approved Equipment" list maintained by the PSC. Non-type-tested equipment must have dynamic anti-islanding protection as defined by IEEE 929, conform to the maximum harmonic limits delineated in IEEE 519, and be protected by type-tested or utility grade relays (as defined in these requirements) using settings approved by the interconnecting utility and verified in the field. The field verification test must demonstrate that the equipment meets the frequency requirements detailed in this section.

Line-commutated inverters do not require synchronizing equipment if the voltage drop is determined to be acceptable, as defined in Section II.E, Power Quality, of this document. Self-commutated inverters of the utility interactive-type shall synchronize to the utility. Only inverters with utility interactive, line-commutated capabilities shall be used for parallel operation with the utility.

A line inverter can be used to isolate the customer from the utility system provided it can be demonstrated that the inverter isolates the customer from the utility system safely and reliably.

### 6. Metering

The need for additional revenue metering or modifications to existing metering will be reviewed on a case-by-case basis and shall be consistent with metering requirements adopted by the Public Service Commission.

Net metering customer-generators shall be afforded the option of selecting a single meter with bi-directional capability or two meters measuring consumption and generator output separately. For photovoltaic, net metering residential applicants, at least one meter in a two meter arrangement shall be non-demand, non-time of use. Applicants are advised that the use of a standard meter, running in reverse, does not meet accuracy standards as documented under Public Service Law and accordingly, in any billing dispute dependent upon those meter accuracy standards, the applicant will be unable to rely upon net meter readings as a basis for claim against the utility. Applicants selecting the standard meter option, agree to waive in writing, any billing complaint that is unresolvable because of the inaccuracy inherent in running a meter in reverse. Applicant choosing the alternate option will have their billing disputes resolved on the usual standards for evaluating customer complaints. The applicant is responsible for the cost of installing any necessary meter box and socket.

The two-meter (or bi-directional meter) option is required for Time of Use (TOU) metering, unless a suitable single meter option is proven acceptable to the PSC. The customer is responsible for the cost of the second TOU meter installed at the generator.

ISSUED BY: James A. Lahtinen, Vice President Rates and Regulatory Economics, Rochester, New York