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Rochester Gas and Electric Corporation
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GENERAL INFORMATION

14. DISTRIBUTED GENERATION INTERCONNECTION REQUIREMENTS (cont'd)

A. STANDARDIZED INTERCONNECTION REQUIREMENTS (Cont'd)

II. Interconnection Requirements for New Distributed Generation Units of 300 kVA or Less Connected in Parallel with Radial Distribution Lines

A. Design Requirements

1. Common

The generator-owner shall provide appropriate protection and control equipment, including an automatic disconnect device, that will automatically disconnect the generation in the event that the portion of the utility system that serves the generator is de-energized for any reason or for a fault in the generator-owner's system. The generator-owner's protection and control equipment shall be capable of automatically disconnecting the generation upon detection of an islanding condition and upon detection of a utility system fault.

The generator's protection and control scheme shall be designed to ensure that the generation remains in operation when the frequency and voltage of the utility system is within the limits specified by the required operating ranges. Upon request from the utility, the generator-owner shall provide documentation detailing compliance with the requirements set forth in this document.

The specific design of the protection, control and grounding schemes will depend on the size and characteristics of the generator-owner's generation, as well the generator-owner's load level, in addition to the characteristics of the particular portion of the utility's system where the generator-owner is interconnecting.

The generator-owner shall have, as a minimum, an automatic disconnect device(s) sized to meet all applicable local, state, and federal codes and operated by over and under voltage and over and under frequency protection. For three-phase installations, the over and under voltage function should be included for each phase and the over and under frequency protection on at least one phase. All phases of a generator or inverter interface shall disconnect for voltage or frequency trip conditions sensed by the protective devices. It is recommended that voltage protection be wired phase to ground.

The settings below are listed for single-phase and three-phase applications using wye grounded-wye grounded service transformers or wye grounded-wye grounded isolation transformers. For applications using other transformer connections, a site-specific review will be conducted by the utility and the revised settings identified in Step 6 of the Application Process.

Voltage Magnitude

The required operating range for the generators shall be from 106 volts rms to 132 volts rms phase-to-ground (on a 120 volt rms base) at the PCC. That is, 88% to 110% of nominal voltage magnitude.

The protective device shall automatically initiate a disconnect sequence from the utility system if the rms voltage at the PCC rises above 132 volts or falls below 106 volts on any phase to which the generator-owner's equipment is connected and remains outside the required operating range for two seconds. The two-second time limit is measured from the time the range is initially exceeded until the generator-owner's equipment ceases to energize the PCC and includes detection and intentional time delay.

The protective device shall automatically initiate a disconnect sequence from the utility system if the rms voltage at the PCC falls below 60 volts (50% of nominal voltage magnitude) on any phase to which the

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