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NEW YORK STATE ELECTRIC & GAS CORPORATION
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GENERAL INFORMATION

9. Distributed Generation Interconnection Requirements (Cont'd.)

F. II. Interconnection Requirements for New Distributed Generators 300 kVA or Less, or Farm Waste Generators of 400 kW or Less, Connected to Radial Distribution Lines (Cont'd.)

1. Type Testing (Cont'd.)

The independent testing laboratory shall conduct the verification test prescribed by the manufacturer to determine if the verification test procedure adequately demonstrates compliance with these SIR requirements. All single-phase and three phase test voltages shall be applied phase to ground. (Test voltages are specified phase to ground for a 120 volt nominal system. Other system voltages require adjusting the test voltages by the appropriate percentages. Over- and undervoltage protection should be wired phase to ground. Phase-to-phase voltage sensing results in less sensitive undervoltage detection and more sensitive overvoltage detection.)

For the following tests for single-phase and three-phase inverters, the type-testing does not have to be repeated if settings other than those specified in Section II.A.1, Design Requirements B Common are required by NYSEG (i.e., when a transformer connection other than wye grounded-wye grounded is used).

a. Single-Phase Inverters and Relay Packages

All single-phase inverters shall be non-islanding inverters as defined by IEEE 929. Inverters 10 kW and below shall at the time of production meet or exceed the requirements of the most current versions of IEEE 929 and UL 1741. Specifically, the inverter shall automatically disconnect for an islanding condition with load quality factor of 2.5 within two (2) seconds. In addition, all single-phase inverters and single-phase voltage and frequency relay packages shall initiate a trip from a waveform generator for the waveforms listed below to verify they meet the requirements set forth in Section II.A.1, Design Requirements B Common.

Non-Volatile Memory Test: Prior to waveform testing, all batteries shall be disconnected or removed for a minimum of ten (10) minutes. If the system requires no battery, then the device shall be disconnected from its source of power for a minimum of ten (10) minutes. This test is to verify the system has a non-volatile memory and that the protection settings are not lost. A test shall also be performed to determine that failure of any battery used in the power conversion and control process and not used to supply trip power will result in an automatic shutdown.

Waveform Testing: Each waveform test described below shall be repeated ten (10) times. Unless otherwise noted, the device should cease exporting power to NYSEG within the relevant time limits specified in Section A.1.

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