## PSC NO: 220 ELECTRICITY LEAF: 249 NIAGARA MOHAWK POWER CORPORATION REVISION: 4 INITIAL EFFECTIVE DATE: DECEMBER 1, 2011 SUPERSEDING REVISION: 3 STAMPS: Issued in Compliance with Order issued November 21, 2011 in Case No. 11-E-0321.

## GENERAL INFORMATION

# 53. STANDARDIZED INTERCONNECTION REQUIREMENTS AND APPLICATION PROCESS FOR NEW DISTRIBUTED GENERATORS 2 MW OR LESS CONNECTED IN PARALLEL TO UTILITY DISTRIBUTION SYSTEMS (Continued)

Access shall be available for the customer and their contractor, such that both can access the information. The web site must be, however, secure and private from unauthorized access.

The utility web site shall also provide the ability for applicants with systems 25 kW and less to submit their application for interconnection via the web. The web based application process must be consistent with Appendix B of the SIR and include the ability to attach associated documentation or drawings associated with each project.

#### Section II. Interconnection Requirements

## A. Design Requirements

#### 1. Common

The generator-owner shall provide appropriate protection and control equipment, including a protective device that utilizes an automatic disconnect device that will 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-owner'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. Voltage protection shall be wired phase to ground for single phase installations and for applications using wye grounded-wye grounded service transformers.

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.

The requirements set forth in this document are intended to be consistent with those contained in IEEE Std 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems. The requirements in IEEE Std 1547 above and beyond those contained in this document shall be followed<sup>1</sup>.

Issued by Kenneth D. Daly, President, Syracuse, NY

<sup>&</sup>lt;sup>1</sup> It is expected that IEEE Std 1547 will eventually supersede the need for explicit technical standards in New York State. However, until such time as all IEEE 1547 series of standards are complete and approved, this standard will take precedence.