Bulletin 84-1-5
Interconnection of Electric Power Production Sources
Section 84 and Rule 2-010

Issued April 2010
Supersedes Bulletin 84-1-4

Scope

(1) *Requirements for non-utility generating systems*
(2) *Inverters approval*

Non-utility generating systems are subject to inspection in accordance with the Ontario Electrical Safety Code. This Bulletin provides additional information to Section 84.

Additional information can also be found in:
(1) ESA-SPEC-004 Electrical guidelines for inverter-based micro-generating facility 10 kW and smaller; and
(2) ESA-SPEC-005 Process Guideline for the Installation of Parallel Generating Systems, 10 kW or Greater
(3) CSA C22.2 No. 257 Interconnecting inverter-based micro-distributed resource to distribution systems
(4) CSA C22.3 No. 9 Interconnection of distributed resources and electricity supply systems

General
The Supply Authority requires consultation before planning an interconnection.

Protection and Control
Protection and control of non-utility generating systems is required in accordance with Section 84.

For generating systems based on the inverter technology, an inverter that is approved and marked "UTILITY-INTERCONNECTED" is acceptable as meeting the protection and control requirements of Section 84.

For generating systems based on non-inverter technology, or utilizing an approved stand-alone inverter, the protection and control required by Section 84 shall be coordinated with and acceptable to the supply authority, prior to connection authorization from ESA. The owner or owner's agent shall provide verification to ESA that the installed protection and control is acceptable to the supply authority.

For this reason, the Local Distribution Companies (LDC) must be involved with non-utility, electric power production installations.

Temporary connections may be authorized to permit calibration and coordination prior to generation.

Plan Review
Electrical work on any electrical installation shall not commence until plans have been submitted and examined by the inspection department where the electrical installation involves any installations involving consumer-owned, electric-power-generating equipment, with a rating in excess of 10 kW (Micro size) as defined by the OEB, and operating in parallel with a supply authority system.

(2) Inverters approval

In the previous edition of the guideline for inverter-based micro-generating facility 10 kW and smaller (ESA SPEC-004), inverters certified to Underwriters Laboratories (UL) standard, UL1741, were accepted because of the limited availability of inverters certified to the CSA standard. As inverters certified to CSA standard are now widely available, inverters certified only to UL standard, UL1741 will not be accepted as of ***January 1st 2011****. This direction is also posted on the ESA website.*

After, January 1st, 2011 inverters are required to be certified to CSA standard C22.2 #107.1 and bear a certification mark recognized in Ontario.

Field Evaluation shall not be accepted for utility-interconnected inverters. Inverters marked as "UTILITY-INTERCONNECTED" or equivalent shall only bear a certification mark, not a field evaluation mark.

For more information about product approval, certification and field evaluation marks, refer to Bulletin 2-7-.*