

Commissioning Verification Form ($\leq 10\text{kW}$)

This Commissioning Verification Form (CVF) is required for Micro Embedded Generators applying for connection with GrandBridge Energy Inc. This document must be signed by the contractor or project electrician and the owner of the project.

Site Information

Project Address	
Reference Number (IESO or Other if applicable)	
AC Rating [kW] (ex. Inverter Rating)	
DC Rating [kW] (ex. Solar Array Rating)	

Commissioning Test Contact Information

Name	
Title	
Mailing address	
Telephone	
Email	

Commissioning Anti-Islanding Test:

a) Turn Off Utility-Side DG Disconnect:

Verification	Yes/No	Initials	Date	Comments
Did the inverter indicate a loss of the utility grid?				
After a loss of the utility grid, is there voltage on the output of the inverter?				
Did the inverter shut down as required?				

b) Turn On Utility-Side DG Disconnect:

Verification	Yes/No	Initials	Date	Comments
Did the inverter re-connect with the utility grid after 5 minutes?				
Did the inverter return to its normal operating state?				

c) Equipment labelling (All labelling lamacoid or equivalent (ie. Permanent, UV rated):

Verification	Yes/No	Initials	Date	Comments
Single Line Diagram present on site				
Inverter(s) and DG disconnect switch nomenclature present and match site single line diagram				
Two Sources Warning sign present on site				

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Generator Protective Relay Settings:

Inverter type generators shall be compliant with CSA Standards, CSA 22.2 No. 107.1 “General use Power Supply” and CSA 22.3 No. 9-2020 “Interconnection of distributed energy resources and electricity supply systems” and bear a certification mark recognized by the Ontario Electrical Safety Code.

- In lieu of compliance with CSA 22.3 No. 9-2020 the inverter will be deemed acceptable if it achieves UL 1741 SA (2016 or later) certification

Table 1 - Inverter Based Generation Clearing Times

System Voltage $V_n = V_{\text{nominal}}$ V (Volts)	Frequency F (Hertz)	Maximum number of cycles to disconnect	
		Seconds	Cycles
$V < 0.5 V_n$	60	0.1	6
$0.5 V_n \leq V < 0.88 V_n$	60	2	120
$1.10 V_n \leq V < 1.37 V_n$	60	2	120
$V > 1.37 V_n$	60	0.033	2
V_n	$F < 59.5^*$	0.1	6
V_n	$F > 60.5$	0.1	6

* The UL1741 & IEEE P1547 Standards use $F < \text{rated} - 0.7$ i.e. 59.3 Hz. To update if CSA C22.2 No.107.1-01 is changed.

By signing this form, the commissioning test representative and the owner of the project acknowledge that all required verifications specified under this commissioning verification form have been completed and inverter equipment meets the applicable protection requirements outlined in the Generator Protective Relay Settings section of this document.

Signature of Commissioning Test Representative
(Must be the project contractor or project electrician)

Signature of the owner of the project

Name (Print)

Name (Print)

Title

Date

Date

Return the completed document by email to
generation@grandbridgeenergy.com