

## **Micro-Embedded Generation Facility Connection Agreement**

In consideration of Alectra Utilities Corporation (“Alectra Utilities”) agreeing to allow you to connect your \_\_\_\_\_ kW nameplate rated capacity or smaller generation facility to Alectra Utilities’ distribution system, you hereby agree to the following terms and conditions.

### **1.0 Eligibility**

- 1.1 You agree that your generation connection shall be subject to all applicable laws as amended from time to time and shall be bound by the terms and conditions of Alectra Utilities’ Conditions of Service as amended from time-to-time, which have been filed with the Ontario Energy Board (“OEB”) and are available on Alectra Utilities’ website or upon request.

### **2.0 Technical Requirements**

- 2.1 You represent and warrant that you have installed or will install prior to the connection of your generation facility to Alectra Utilities’ distribution system, an isolation device satisfying Section 84 of the Ontario Electrical Safety Code, located outside typically near the meter, and agree to allow Alectra Utilities’ staff access to and operation of this device at all times as required for the maintenance and repair of the distribution system.
- 2.2 You agree to perform regular scheduled maintenance to your generation facility as outlined by the manufacturer in order to assure that connection devices, protection systems, and control systems are maintained in good working order and in compliance with all applicable laws as amended from time to time.
- 2.3 You agree that during a power outage on Alectra Utilities’ system your generation facility will shut down, unless you have installed special transfer and isolating capabilities on your generation facility. You agree to the automatic disconnection of your generation facility from Alectra Utilities’ distribution system, as per the generator protective relay settings set out in this Agreement, in the event of a power outage on Alectra Utilities’ distribution system or any abnormal operation of Alectra Utilities’ distribution system.
- 2.4 You covenant and agree that the design, installation, maintenance, and operation of your generation facility are and will be conducted at all times in a manner that ensures the safety and security of both the generation facility and Alectra Utilities’ distribution system.
- 2.5 Due to Alectra Utilities’ obligation to maintain the safety and reliability of its distribution system, you acknowledge and agree that in the event Alectra Utilities determines that your generation facility (i) is causing or is likely to cause damage to; and/or (ii) is producing or is likely to produce adverse effects affecting other distribution system customers or Alectra Utilities’ assets, you will disconnect your generation facility immediately from the distribution system upon direction from Alectra Utilities and correct the problem at your own expense prior to reconnection.

### **3.0 Liabilities**

- 3.1 You and Alectra Utilities will indemnify and save each other harmless for all damages and/or adverse effects resulting from either party’s negligence or willful misconduct in the connection and operation of your generation facility or Alectra Utilities’ distribution system.
- 3.2 Alectra Utilities and you shall not be liable to each other under any circumstances whatsoever for any loss of profits or revenues, business interruptions losses, loss of contract or loss of goodwill, or for any indirect, consequential, incidental or special damages, including but not limited to punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, tort or otherwise.

#### **4.0 Compensation and Billing**

- 4.1 If you are not an embedded retail generator, you agree that, subject to any applicable law:
- a) Alectra Utilities will not pay you for any excess generation that results in a net delivery to Alectra Utilities between meter reads; and
  - b) There will be no carryover of excess generation from one billing period to the next unless you are, at the relevant time, a net metered generator (as defined in section 6.7.1 of the Distribution System Code).
- 4.2 If you are an embedded retail generator selling output from the embedded generation facility to the Independent Electricity System Operator (“IESO”) under contract, you agree that Alectra Utilities will pay you for generation in accordance with the Retail Settlement Code.
- 4.3 If you are an embedded retail generator delivering and selling output to Alectra Utilities, you agree that Alectra Utilities will pay you for generation in accordance with the Retail Settlement Code.
- 4.4 If you are connected in series with an Alectra Utilities load customer, you allow your meter data to be shared with the load account holder for settlement purposes.
- 4.5 As a microFIT customer, you are obligated to pay Alectra Utilities applicable customer charges as amended from time to time. As a net metering customer, you are obligated to pay Alectra Utilities the standard customer charges for your applicable rate class, as reflected in Alectra Utilities’ current tariff as amended from time to time.

#### **5.0 Termination**

- 5.1 You understand that you have the right to terminate this agreement at any time, and that by doing so you are required to disconnect your generation facility and notify Alectra Utilities of such action 90 days in advance.
- 5.2 You agree that Alectra Utilities may require changes to this Agreement from time to time in order to comply with changes to applicable laws.
- 5.3 You agree to notify Alectra Utilities 30 days in advance of any alteration to your generation facility.

#### **6.0 Assignment**

- 6.1 You may assign your rights and obligations under this Agreement only with the prior written consent of Alectra Utilities, which shall not withhold its consent unreasonably. Alectra Utilities shall have the right to assign its rights and obligations under this Agreement without your consent.

I understand, accept and agree to comply with and be bound by the above terms and conditions governing the connection of my generation facility to Alectra Utilities' distribution system.

**Customer Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Print name:** \_\_\_\_\_

**Alectra Utilities Corporation Account Number:** \_\_\_\_\_

**Billing Address:** \_\_\_\_\_

I confirm that the following information is true and accurate:

**Nameplate rating of Generator:** \_\_\_\_ KW; **Total installed generation** \_\_\_\_ KW

**Project Location:** \_\_\_\_\_

**Connection Type:** \_\_\_\_\_

**IESO Reference Number (if applicable):** \_\_\_\_\_

**Type:**  Wind Turbine;  Photovoltaic (Solar);  Hydraulic Turbine;  Fuel Cell;  
 Other \_\_\_\_\_

**Inverter Utilized:**       Yes       No

**Inverter Certification:**  C22.2 #107.1       UL 1741       Site Certified by the ESA

<b>For Office use:</b> Station: _____ Feeder: _____ Date Connected: _____
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### Generator Protective Relay Settings

**Table 1 - Inverter Based Generation**

The following relay settings shall be used for inverters built to the CSA standard:

Source: CSA C22.3 NO.9:20

System Voltage <b>V</b> (Volts) $V_n = V$ nominal	Frequency <b>F</b> (Hertz)	Number of cycles to disconnect	
		Seconds	Cycles
$V < 0.5 V_n$	60	0.16	9.6
$0.5 V_n \leq V < 0.88 V_n$	60	2.00	120
$1.10 V_n < V < 1.20 V_n$	60	1.00	60
$V \geq 1.20 V_n$	60	0.16	9.6
$V_n$	$F < 57^*$	0.16	9.6
$V_n$	$F > 62$	0.16	9.6

\* The UL1741 & IEEE P1547 Standards use  $F < 56.5$  Hz. To be updated if CSA C22.3 No. 9:20 is changed.

**Table 2 - Non - Inverter Generation**

Requirements for Non-Inverter based generation are as follows:

Source: IEEE1547-2018 Table 11 and 18

System Voltage <b>V</b> (Volts) $V_n = V$ nominal	Frequency <b>F</b> (Hertz)	Clearing time*	
		Seconds	Cycles
$V < 0.5 V_n$	60	0.16	9.6
$0.5 V_n \leq V < 0.88 V_n$	60	2.00	120
$1.10 V_n < V < 1.20 V_n$	60	1.00	60
$V \geq 1.20 V_n$	60	0.16	9.6
$V_n$	$F < 56.5$	0.16	9.6
$V_n$	$F > 62$	0.16	9.6

\* Clearing time is the time between the start of the abnormal condition and the generation ceasing to energize Alectra Utilities' distribution system.

- If you are uncertain about your generation equipment's protective relay settings, please check with your generating equipment supplier.
- Automatic reconnect setting time for your generator is after five minutes of normal voltage and frequency on Alectra Utilities' distribution system.