

# **Net Metering Connection Agreement**

In consideration of Hydro One Networks Inc. (“Hydro One”) agreeing to allow you to connect your 50 kW or smaller generation facility to Hydro One’s distribution system, Hydro One requests that you understand and accept the following terms and conditions:

## **1.0 Eligibility**

- 1.1 Your generation facility must employ a renewable energy technology (“RET”), as RET is defined by Ontario’s Ministry of Energy.
- 1.2 You agree that your generation connection shall also be bound by the terms and conditions of Hydro One’s Conditions of Service, which have been filed with the Ontario Energy Board (“OEB”).

## **2.0 Technical Requirements**

- 2.1 You agree to have special transfer and isolating capabilities installed on your generation facility if you wish to run it during a Hydro One power outage. You also agree that your generating facility must be disconnected from Hydro One’s distribution system during such an outage.
- 2.3 You have installed an isolation device satisfying Section 84 of the Ontario Electrical Safety Code and agree to Hydro One’s staff operation of this as required for the maintenance and repair of the electrical system.
- 2.4 You agree to regular scheduled maintenance to your generation facility 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, statutes, codes, licensing requirements, directives, rules, regulations, protocols, policies, orders, injunctions, rulings, awards, judgments or decrees or any requirement or decision or agreement with or by any government or government department, commission, board, court authority or agency.

## **3.0 Liabilities**

- 3.1 You covenant and agree that the design, installation, maintenance, and operation of your generation facility are conducted in a manner that ensures the safety and security of both the generation facility and Hydro One’s distribution system. This includes, but is not limited to, automatic disconnection of the generation facility from Hydro One’s distribution system, as per Hydro One’s generator protective relay settings, in the event there is a Hydro One power outage or any abnormal operation of Hydro One’s distribution system. You acknowledge and agree that the protective relay settings of your generator are as specified in the attached brochure, which you have received together with this Agreement.
- 3.2 You acknowledge and agree that in the event Hydro One, in its sole discretion, determines that your generation facility damages and/or is producing adverse effects on other Hydro One customers or on Hydro One assets, you will disconnect your generation facility immediately from Hydro One’s distribution system and correct the problem at your own expense and you will indemnify and save harmless Hydro One for all of the damages and/or adverse effects caused by the connection of your generation facility to Hydro one’s distribution system.

## **4.0 Compensation and Billing**

- 4.1 You agree that Hydro One will not pay you for any excess generation that results in a net delivery of energy to Hydro One over a meter read period or billing period (whichever is greater).
- 4.2 You acknowledge and agree that there will be no carryover of excess generation from one billing period to the next.
- 4.3 You agree to be billed monthly if your generation facility rating is above 10 kW and you also agree that Hydro One may use your phone line to access your meter for billing purposes.

## **5.0 Future Charges**

- 5.1 You agree to pay, if required, any current or future charges or tariffs with respect to your connection to Hydro One’s distribution system, as approved by the OEB.

## **6.0 Termination**

- 6.1 You acknowledge that Hydro One reserves the right to terminate this Agreement and to disconnect your generation facility at any time if Hydro One discontinues the Net Metering program.

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 Hydro One's distribution system.

Customer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Print name and Hydro One account number: \_\_\_\_\_

I confirm that the following information is true and accurate:

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

Type:  Wind Turbine  Photovoltaic (Solar)  Hydraulic Turbine  Fuel Cell

Inverter Utilized:  Yes  No

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

*For office use: Station \_\_\_\_\_ Feeder \_\_\_\_\_ Date Connected \_\_\_\_\_*

## 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 C22.2 No. 107.1-01 Table 16

System Voltage $V_n = V$ nominal <b>V (Volts)</b>	Frequency <b>F (Hertz)</b>	Maximum number of cycles to disconnect	
		Seconds	Cycle
$V < 0.5 V_n$	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
$V \geq 1.37 V_n$	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  $F < \text{rated} \cdot 0.7$  i.e. 59.3 Hz.  
To update if CSA C22.2 No. 107.1-01 is changed

**Table 2 – Generation Other Than That Covered by Table 1**

Hydro One's minimum requirements for other generation are as follows:

System Voltage $V_n = V$ nominal <b>V (Volts)</b>	Frequency <b>F (Hertz)</b>	Maximum clearing time*	
		Seconds	Cycle
$V < 0.5 V_n$	60	0.16	9.6
$0.5 V_n \leq V < 0.88 V_n$	60	2	120
$1.10 V_n \leq V < 1.20 V_n$	60	1	60
$V \geq 1.20 V_n$	60	0.16	9.6
$V_n$	$F < 59.3$	0.16	9.6
$V_n$	$F > 60.5$	0.16	9.6

\*Clearing time is the time between the start of the abnormal condition and the generation ceasing to energize the Hydro One 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 5 minutes of normal voltage and frequency on the Hydro One distribution system