



CANADIAN NIAGARA POWER INC.

A FORTIS ONTARIO Company

## MicroFIT-Generation Connection Application

For Connection of Micro-Generation Facilities of  $\leq 10$  kW

This application is applicable to individual or multiple generating units at the Applicant's facility with total nameplate rating of 10 kW or less. The applicant's generation facility must generate electricity from a renewable energy source that is wind, water, solar radiation, or agricultural biomass.

The Applicant must have a signed contract with the Ontario Power Authority prior to CNPI processing this application.

For generation size up to 10 kW, a Connection Impact Assessment will not be required and Canadian Niagara Power Inc. will not perform such an assessment. There may be a limitation on the number of micro-generation facilities that can be connected to the same distribution transformer or feeder.

**IMPORTANT:** All fields below are mandatory, except where noted. Incomplete applications will be not be processed and returned by Canadian Niagara Power Inc.

**Please return the completed form by email, mail or fax to:**

Canadian Niagara Power Inc.  
1130 Bertie Street  
P.O. Box 1218  
Fort Erie, ON, L2A 5Y2

Attn: **MicroFIT Generation Connections**

Email: [microFIT@cnpower.com](mailto:microFIT@cnpower.com)

Telephone: (905) 871-0330 extension 3205

FAX: (905) 871-8772

Attention: **MicroFIT Generation Connections**

**NOTE:** Applicants are cautioned NOT to incur significant expenses until Canadian Niagara Power Inc. has approved the connection of the proposed generation facility.

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**Date of Application:** \_\_\_\_\_ (dd / mm / yyyy)

**1. microFIT reference number\*:**  
(\*not required for Net Metering applications)

Note that microFIT applications CANNOT be processed without a valid reference number issued by the OPA.

**2. Project/Customer Name:** \_\_\_\_\_

**3. Proposed In-Service Date:**  (dd / mm / yyyy)



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**4. Project Information:**

	Applicant (mandatory)	Engineering Consultant (Electrical) (optional)
Company/Person		
Contact		
Mailing address line 1		
Mailing address line 2		
Telephone		
Cell		
Fax		
Email		

**5. Project Location:** Address \_\_\_\_\_  
 City/Town/Township \_\_\_\_\_  
 Lot Number(s) \_\_\_\_\_  
 Concession Number(s) \_\_\_\_\_

**6. Program Type:**

**A. microFIT**  *(Complete all sections)*

**B. Net Metering to microFIT Conversion**

- i)  Existing Net Metering Customer *upgrading* generation size and/or technology/ fuel type, up to 10 kW **(Complete all sections)**
- ii)  Existing Net Metering Customer with *no upgrades* in generation size and/or technology/ fuel type, up to 10 kW **(Complete sections 6, 7 and 8 only)**

**C. Net Metering**  *(Complete all sections)*

**7. Customer Status:**

Existing Canadian Niagara Power Inc. Customer?  Yes  No

If yes, Canadian Niagara Power Inc. Account Number: \_\_\_\_\_

Name of Account Holder\*: \_\_\_\_\_  
 (\*must be the same name as applicant)

Are you a GST registrant?  Yes  No

If yes, provide your GST registration number: \_\_\_\_\_ - \_\_\_\_\_ RT \_\_\_\_\_



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### 8. Project Size:

Number of Units \_\_\_\_\_

Nameplate Rating of Each Unit \_\_\_\_\_ kW

Generator connecting on  single phase  three phase

Existing Total Nameplate Capacity \_\_\_\_\_ kW

Proposed Total Nameplate Capacity \_\_\_\_\_ kW

### 9. Fuel Type:

<input type="checkbox"/>	Wind Turbine	<input type="checkbox"/>	Hydraulic Turbine
<input type="checkbox"/>	Solar/Photovoltaic Cells (Rooftop)	<input type="checkbox"/>	Solar / Photovoltaic Cells (Ground mount)
<input type="checkbox"/>	Biomass	<input type="checkbox"/>	Bio-diesel
<input type="checkbox"/>	Bio-gas	<input type="checkbox"/>	Other ( <i>please specify</i> ): _____

### 10. Customer Owned Step-up Interface Transformer (*if applicable*):

a. Transformer rating \_\_\_\_\_ kVA

b. High voltage winding connection  Delta  Star  
 Grounding method of star connected high voltage winding neutral  
 Solid  Ungrounded  Impedance grounded: R \_\_\_\_\_ X \_\_\_\_\_ ohms

c. Low voltage winding connection  Delta  Star  
 Grounding method of star connected low voltage winding neutral  
 Solid  Ungrounded  Impedance grounded: R \_\_\_\_\_ X \_\_\_\_\_ ohms

**Note:** The term 'High Voltage' refers to the connection voltage to Canadian Niagara Power Inc.'s distribution system and 'Low Voltage' refers to the generator / inverter output voltage.

### 11. Generator / Inverter Information:

(For generation facilities installing more than one type of generator, complete section 10)

a. Manufacturer: \_\_\_\_\_

b. Model No. \_\_\_\_\_

c. Number of phases  Single Phase  Three Phase

d. Nameplate rating: \_\_\_\_\_ kW

e. Generator / Inverter AC output voltage \_\_\_\_\_ Volts



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- f. Type of inverter:  Self-commutated  Line-commutated  Other, please specify \_\_\_\_\_
- g. Are power factor correction capacitors automatically switched off when generator breaker opens?  
 Yes  No
- h. Is the generator / inverter paralleling equipment and / or design pre-certified and meets anti-islanding test requirements?  Yes  No
- i. If answer to the above question is Yes, to which standard(s),  
e.g. CSA C22.2 No. 107.1-01, UL1741, etc. \_\_\_\_\_
- j. Method of synchronizing the generator / inverter to Canadian Niagara's system  
 Manual  Automatic
- k. Maximum Inrush Current upon generator or inverter connection ( $I_{inrush} / I_{rated}$ ) \_\_\_\_\_ per unit

### 12. Grid Interface Controller (if applicable):

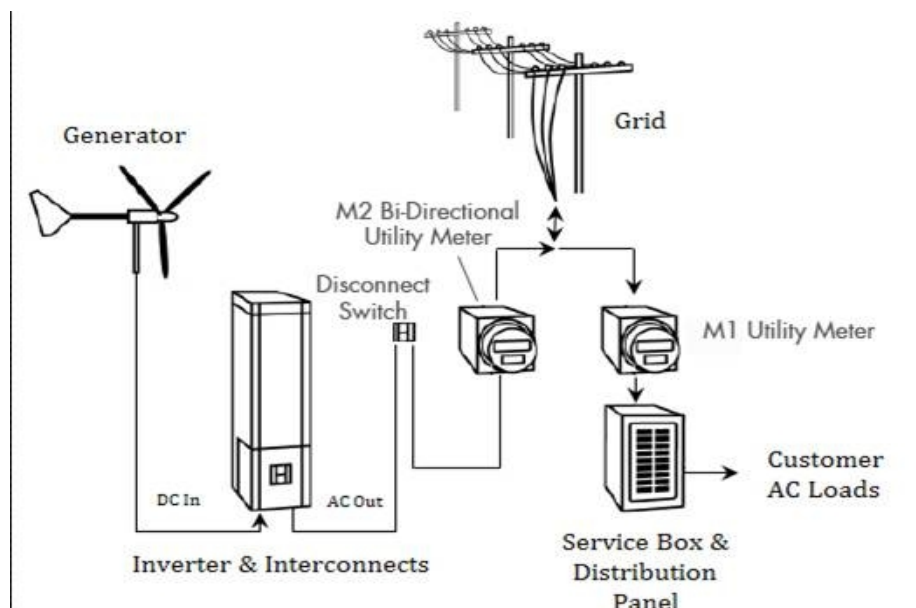
- a. Manufacturer: \_\_\_\_\_ Model Number: \_\_\_\_\_

### 13. Type of Connection:

Due to Federal regulatory requirements, the generator must be directly connected to the CNPI system through a separate and distinct revenue meter. The use of indirect or series-connected revenue metering is prohibited.

Diagram 1 - Typical Parallel Metering Connection

Source: Solera Sustainable Energies Company Limited





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**14. Connection to Canadian Niagara Power Inc.'s Distribution System:**

*(To be completed by Canadian Niagara Power Inc.)*

a. Connection voltage to Canadian Niagara Power Inc.'s distribution system: \_\_\_\_\_ kV

b. Station: \_\_\_\_\_

c. Feeder: \_\_\_\_\_



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### General Terms and Requirements:

1. By submitting this application, the Applicant authorizes the collection by Canadian Niagara Power Inc. ("CNPI"), of the information set out in this application and otherwise collected in accordance with the terms hereof, the terms of CNPI's Conditions of Service, CNPI's Privacy Policy and the requirements of the Distribution System Code and the use of such information for the purposes of the connection of the generation facility to CNPI's distribution system and all related services.
2. Applicants are reminded that all provisions of the Distribution System Code and CNPI's Conditions of Service are applicable for this connection. In particular, applicants are cautioned that CNPI cannot guarantee continuous and uninterrupted electrical supply to any part of its distribution system. Although CNPI will use reasonable diligence to ensure consistent electrical reliability and power quality, occasional outages and abnormal voltages may still occur. CNPI is not responsible for any financial loss, damage or injury incurred by the Applicant as a result of such events.
3. Inverter-based generating units must not inject DC greater than 0.5% of the full rated output current at the point of connection of the generating units. The generated harmonic levels must not exceed those given in the CAN/CSA-C61000-3-6 Standards.
4. In connection with CNPI's obligation to maintain the safety and reliability of its distribution system, you acknowledge, warrant and agree:
  - a. That in the event CNPI determines that your generation facility (i) causes damage to; and/or (ii) adversely affects other distribution system customers or CNPI's assets, you will disconnect your generation facility immediately from the distribution system upon direction from CNPI and correct the problem at your own expense prior to reconnection.
  - b. That you have installed or will install prior to the connection of your generation facility to CNPI's distribution system, an isolation device satisfying Section 84 of the Ontario Electrical Safety Code and agree to allow CNPI's staff access to and operation of this as required for the maintenance and repair of the distribution system.
  - c. 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.
  - d. That during a power outage on CNPI's distribution 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 CNPI's distribution system, as per the generator protective relay settings set out in this Application, in the event of a power



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outage on CNPI's distribution system or any abnormal operation of CNPI's distribution system.

- e. 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 CNPI's distribution system.
5. Applicants are cautioned that they are **NOT permitted** to interconnect any new generation to CNPI's distribution system without CNPI's express permission **under any circumstances**. In addition, provincial regulations and CNPI policies require that CNPI (or an agent of CNPI) perform a verification of new generation connection facilities and must be in attendance to install the appropriate revenue metering prior to interconnection. Failure to abide by these requirements will result in refusal by CNPI to connect the new generation installation.
6. **Liabilities:** The Applicant will indemnify and save harmless for all damages and/or adverse effects resulting from any reasonable CNPI's operation of its distribution system or events that may occur from time to time that affect this distribution system. CNPI shall not be liable to the Applicant 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.