Canadian Niagara Power Inc.
cnpplanning2@cnpower.com | 905-871-0330

# Form C – Micro-Generation Connection Application

For Connection of Micro-Generation Facilities of ≤ 10 kW

**NOTE: Applicants are cautioned NOT to incur significant expenses until Canadian Niagara Power Inc. has issued an *Offer to Connect* for the proposed generation facility.**

This application is applicable to individual or multiple units at the Applicant's facility with a total nameplate rating of 10 kW or less. The Applicant's generation facility must generate electricity from a renewable energy resource.

General terms and connections are included at the end of this application document.

There will be a connection capacity assessment performed for all proposed generation connections. There may be a limitation on the number of generation facilities that can be connected to the same distribution transformer, feeder, or substation. Insufficient generation capacity will be sufficient grounds to deny this application.

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

Please submit the completed form with the required documents by email or mail to:

Canadian Niagara Power Inc.
Attn: Planning & Engineering
1130 Bertie Street
Fort Erie, ON, L2A 5Y2
Tel: (905) 871-0330
Email: cnpplanning2@cnpower.com

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## Application Information

| | |
|---|---|
| **Date:** (YYYY/MM/DD) | |
| **Project Name:** | |
| **IESO Reference Number:** (If Applicable) | |
| **Proposed In-Service Date:** (YYYY/MM/DD) | |

## Contact Information

| | **Generator Owner** (Mandatory) | **Site Owner** (Mandatory) | **Consultant** (Optional) |
|---|---|---|---|
| **Company/Person:** | | | |
| **Contact Person:** | | | |
| **Mailing Address Line 1:** | | | |
| **Mailing Address Line 2:** | | | |
| **Telephone:** | | | |
| **Cell:** | | | |
| **Email:** | | | |

## Customer Status

| | | |
|---|---|---|
| **Are you an existing Canadian Niagara Power Inc. customer?** | ☑ Yes | ☐ No |
| **If yes, CNPI Account Number:** | | |
| **Customer name registered on this account:** | | |
| **Are you an HST registrant?** | ☑ Yes | ☐ No |
| **If yes, provide your HST registration number:** | _____-_____RT_____ | |

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## Generator Information

| | | |
|---|---|---|
| **Project Location:** | **Address:** | |
| | **City/Town/Township:** | |
| | **Postal Code:** | |
| | **Lot Number(s):** | |
| | **Concession Number(s):** | |
| **Project Size:** | **Number of Units:** | |
| | **Nameplate Rating of Each Unit (kW):** | |
| | **Generator Connecting On:** | ☐ Single Phase ☑ 3-Phase |
| | **Existing Total Nameplate Capacity (kW):** | |
| | **Proposed Total Nameplate Capacity (kW):** | |
| **Project Intent:** | ☐ Load Displacement ☑ Net Metering ☐ Emergency Backup<br>☐ Other (please specify) _____ | |
| **Generator Type:** | ☑ Synchronous ☐ Induction ☐ Inverter-Type | |
| **Project Type:**<br>**i. Existing:** | ☐ None ☐ Solar (rooftop) ☐ Solar (non-rooftop)<br>☐ Energy Storage ☐ Biofuel ☐ Wind Turbine<br>☐ Hydraulic Turbine ☐ Co-gen/CHP (Combined Heat and Power)<br>☐ Other (please specify) _____ | |
| **ii. New:** | ☐ Solar (rooftop) ☐ Solar (non-rooftop) ☐ Energy Storage<br>☐ Biofuel ☐ Wind Turbine ☐ Hydraulic Turbine<br>☐ Co-gen/CHP (Combined Heat and Power)<br>☐ Other (please specify) _____ | |

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## Connection Information

Customer Owned Step-up Interface Transformer (if applicable)

| | |
|---|---|
| **Transformer Rating (kVA):** | |
| **High voltage winding connection:** | ☑ Delta ☐ Star |
| **Grounding Method of Star connected high voltage winding neutral:** | ☐ Solid ☑ Ungrounded<br>☐ Impedance Grounded: R_____X_____ (ohms) |
| **Low voltage winding connection:** | ☐ Delta ☐ Star |
| **Grounding Method of Star connected low voltage winding neutral:** | ☐ Solid ☐ Ungrounded<br>☑ Impedance Grounded: R_____X_____ (ohms) |

**NOTE**: The Term "high voltage" refers to the connection voltage to Canadian Niagara Power's distribution system and "low voltage" refers to the generator / inverter output voltage

Generator / Inverter Information

| | | |
|---|---|---|
| **Manufacturer:** | | |
| **Model Number:** | | |
| **Nameplate Rating (kW):** | | |
| **Number of Phases:** | ☐ Single Phase ☐ 3-Phase | |
| **Generator/Inverter AC Output (Volts):** | | |
| **Type of Inverter:** | ☐ Self-Commutated ☐ Line-Commutated<br>☐ Other (specify): _____ | |
| **Are power factor correction capacitors automatically switched off when generator breaker opens?** | ☐ Yes ☐ No | |
| **Is the generator/inverter paralleling equipment and/or design pre-certified and meets anti-islanding test requirements?** | ☐ Yes ☐ No | |
| **If the answer to the above is Yes, to which standard(s)? e.g., CSA C22.2 No.107.1-01, UL1741, etc.** | | |
| **Method of synchronizing the generator/inverter to Canadian Niagara Power Inc.'s system?** | ☐ Manual | ☐ Automatic |
| **Maximum inrush current upon generator or inverter connections ($I_{inrush}/I_{rated}$) (per unit)** | | |

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Grid Interface Controller (if applicable)

| | |
|---|---|
| **Manufacturer:** | |
| **Model Number:** | |

**Type of Connection**

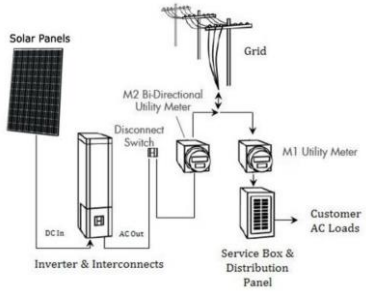
Select the Single Line Diagram below that is appropriate for your connection to the Canadian Niagara Power Inc. distribution system.

**a.** ☐ Alternative #1 – Parallel Metering Connection

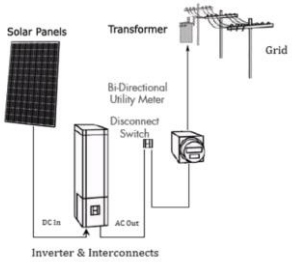
**b.** ☐ Alternative #2 – Stand-Alone Connection

**c.** ☑ Alternative #3 – Net Metering Connection

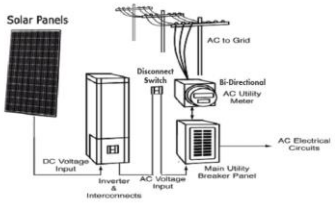
Alternative #1 – Parallel Metering Connection




Alternative #2 – Stand-Alone Connection




Alternative #3 – Net Metering Connection




**Canadian Niagara Power Inc.'s Distribution System**

(to be completed by Canadian Niagara Power Inc.)

| | |
|---|---|
| **Feeder Connection Voltage (kV):** | |
| **Feeder:** | |
| **Station:** | |

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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 (DSC) 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. As required by the DSC, all applications will be subjected to a Capacity Screening Test (CST) by CNPI, to ensure that there is sufficient remaining generation capacity available. This test reviews the capacity at the Transmission Substation and Transmission Network that supplies electricity to the relevant portion of CNPI's distribution system to be used by the applicant. If this application fails the CST, it will be denied with no further review.

4. 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.

5. 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 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

6. 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

7. **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.