



An Exelon Company

NEW JERSEY LEVEL 1 INTERCONNECTION APPLICATION/AGREEMENT

**With Terms and Conditions for Interconnection
For a Level 1 Review (Certified Inverter-Based Generators 10kW or Less)**

The Green Power Connection™ Team
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A PHI Company
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An Exelon Company

INTERCONNECTION APPLICATION/AGREEMENT – PART 1

**With Terms and Conditions for Interconnection
For a Level 1 Review (Certified Inverter-based Generators 10kW or Less)
(Application & Conditional Agreement – to be filled out prior to installation)**

CUSTOMER GENERATOR CONTACT INFORMATION

Legal Name and Mailing Address of Customer-Generator: (if an Individual, Individual's Name)

Customer Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Contact Person/Authorized Agent (if other than above): _____
Mailing Address (if other than above): _____
Telephone (Daytime): _____ (Evening): _____
Fax Number: _____ E-Mail Address (Required): _____

Alternate Project Contact Information: (if different from Customer-Generator above)

Alternate Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Fax Number: _____ E-Mail Address (Required): _____

If an email is provided for your alternate contact, that contact will receive all email communications.

THE CUSTOMER-GENERATOR FACILITY'S INFORMATION

Facility Address: _____
City: _____ State: NJ Zip Code: _____
Nearest Crossing Street: _____
ACE Account #: _____ Meter #: _____
Current Annual Energy Consumption: _____ kWh
Check if this Facility (building) is, or is going to be, NEW CONSTRUCTION: (Optional)
Estimated In-service Date: _____
Energy Source: _____ Prime Mover: _____
Type of Application: Initial Addition/Upgrade ¹

Initial Rating: DC Generator Total² Nameplate Rating: _____ (kW), AC Inverter Total³ Rating _____ (kW), AC System Design Total Capacity⁴: _____ (kW) _____ (kVA)

¹ Initial if first time generator request. Addition/Upgrade if this is an add-on to a previously approved system.

² Sum of all generators or PV Panels

³ Sum of all inverters.

⁴ This will be your system design capacity based upon your unique system variables.

Added Rating (if upgrade): DC Generator Total Nameplate Rating: _____ (kW), AC Inverter Total Rating _____ (kW), AC System Design Total Capacity: _____ (kW) _____ (kVA)

Total Rating (if upgrade): DC Generator Total Nameplate Rating: _____ (kW), AC Inverter Total Rating _____ (kW), AC System Design Total Capacity: _____ (kW) _____ (kVA)

Generator (or PV Panel) Manufacturer, Model #⁵: _____

A copy of Generator nameplate and Manufacturer's Specification Sheet may also be submitted

Number of Generators (or PV Panels): _____

Type of Tracking if PV: Fixed Single Axis Double Axis

Array Azimuth if PV: _____ ° Array Tilt if PV: _____ °

Shading Angles if PV at E, 120°, 150°, S, 210°, 240°, W: _____ ° (Separate with comas)

Inverter Manufacturer⁶: _____ Model Number(s) of Inverter⁷: _____

Number of Inverters⁸: _____ Inverter Type: Forced Commutated Line Commutated

Ampere Rating: _____ Amps_{AC}, Number of Phases: 1 3

Nominal Voltage Rating: _____ V_{AC}, Nominal DC Voltage: _____ V_{DC},

Power Factor: _____ %, Frequency: _____ Hz,

IEEE1547/UL1741 Certification⁹: Yes No

ACE Taggable, Lockable, Accessible Disconnect¹⁰: Yes No

If Yes, Location: _____

One-line Diagram Attached (Required): Yes No

Site Plan Attached (Required): Yes No

Do you plan to export power?¹¹ Yes No If Yes, Estimated Maximum: _____ kW_{AC}

Estimated Gross Annual Energy Production: _____ kWh

EQUIPMENT INSTALLATION CONTRACTOR Owner (Customer) Installed: Yes No

Contractor Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Contact Person: _____

Telephone (Daytime): _____ (Evening): _____

Fax Number: _____ E-Mail Address (Required): _____

⁵ If more than one type, please list all manufactures and model numbers.

⁶ If more than one manufacture, please list all.

⁷ If more than one model number, please list all.

⁸ Attach additional sheets as necessary in the event of multiple inverters of various types/sizes

⁹ If yes, attach manufacturer's cut sheet showing listing and label information from the appropriate listing authority, i.g. UL 1741 listing. If no, facility is not eligible.

¹⁰ This is strongly recommended by the utility. Best practice is to have an externally accessible, lockable, disconnect with visible open/close connection and to have appropriate signage on the disconnect, such as 'Solar PV AC Disconnect' (preferably red) and on the meter housing 'Caution, Solar Electric System' (preferably yellow). If the disconnect is not in the immediate vicinity of the meter, please include the disconnect location on the meter signage. This enables the utility and first responders to more quickly deal with an emergency situation.

¹¹ Yes, if your expected maximum output of the inverter (kW AC) is greater than the lowest load you anticipate at your facility during maximum PV output (kW). The difference would be the amount you may export.

ELECTRICAL CONTRACTOR (If different from Equipment Installation Contractor)

Electrical Contractor Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Contact Person: _____

Telephone (Daytime): _____ (Evening): _____

Fax Number: _____ E-Mail Address: _____

CUSTOMER-GENERATOR INSURANCE DISCLOSURE

The attached Terms and Conditions contain provisions related to liability, and indemnification and should be carefully considered by the Customer-Generator. The Customer-Generator is not required to obtain liability insurance coverage as part of this Application/Agreement; however, the Customer-Generator is advised to consider obtaining appropriate coverage.

CUSTOMER-GENERATOR SIGNATURE

I hereby certify that: 1) I have read and understand the Terms and Conditions which are attached hereto by reference and are made a part of this Application/Agreement. 2) The Equipment Installation Contractor is acting on behalf of the Customer-Generator and the EDC (as defined) is authorized to act in reliance upon the Equipment Installation Contractor's relationship with the Customer-Generator. 3) The Applicant shall notify the EDC of any changes to the proposed Customer-Generator Facility that would be subject to the criteria for a Level 1 review (e.g., Equipment Installation Contractor, inverter manufacturer/model number, size, etc.). 4) Once an Interconnection Request is deemed complete, any modification to the proposed Customer-Generator Facility that would affect the application review criteria for a Level 1 review that is not agreed to in writing by the EDC, shall require submission of a new Interconnection Request. 5) To the best of my knowledge, all of the information provided in this Interconnection Application/Agreement is true and I agree to abide by the attached Terms and Conditions for Interconnection, including the application process set forth therein.

Customer-Generator Signature: _____ Date: _____

Printed Name: _____ Title: _____

Conditional Approval to Interconnect Customer-Generator Facility (for Use by EDC Only)

The requested information is complete and interconnection of the Customer-Generator Facility is approved contingent upon the Terms and Conditions of this Agreement, the return of a duly executed Certificate of Completion, verification of electrical inspection, successful witness test or EDC waiver thereof and upon signature and return of this Part 1 or by notification by electronic mail or other acceptable means by the EDC.

EDC Signature: _____ Date: _____

Printed Name: _____ Title: _____

Interconnection Application/Agreement

Terms and Conditions for Interconnection

For a Level 1 Review (Certified Inverter-based Generators 10kW or Less)

1. **Construction of the Customer-Generator Facility.** The Customer-Generator may proceed to construct (including operational testing not to exceed 2 hours) the Customer-Generator Facility once the approval to install the Customer-Generator Facility has been received from the Electric Distribution Company (EDC).

The Customer-Generator Facility shall be constructed in accordance with information provided in Part 1 of the Interconnection Application/Agreement, IEEE 1547 and the Board's regulations.

2. **Interconnection and Operation.** The Customer-Generator may interconnect and operate the Customer-Generator Facility with the EDC's system once all of the following have occurred:

2.1. **Electrical Inspection:** Upon completing construction, the Customer-Generator will have the Customer-Generator Facility inspected or otherwise certified by the local electrical wiring inspection authority having jurisdiction, that the facility meets the requirements of the National Electric Code.

2.2. **Certificate of Completion:** The Applicant shall provide the EDC with a completed copy of the Certificate of Completion, including evidence of the electrical inspection by the local authority having jurisdiction. The evidence of completion of the electrical inspection may be provided on inspection forms used by local inspecting authorities.

2.3. **Inspection:** The EDC has either completed its inspection or waived the right to inspection in the Application/Agreement as follows:

2.3.1. **EDC Right of Inspection.** After receipt of the Certificate of Approval, the EDC will, upon reasonable notice (minimum of 10-days notice as noted in 2.3.2 below) and at a mutually convenient time, conduct an inspection of the Customer-Generator Facility and observe a Witness Test to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with its requirements.

2.3.2. **Witness Test.** For Level 1 review projects only, if the EDC does not inspect the installation within 10 business days after the minimum notice period of 10 business days, or by mutual agreement of the Parties, the Witness Test is deemed waived.

2.4. Metering: Revenue quality metering equipment shall be installed and tested by the EDC. (Note: The EDC may allow interconnected operations prior to the meter installation.)

2.5. Acceptance: The EDC's representative has signed Part 2, the Certificate of Completion, approving the facility for energization.

3. **Periodic Testing.** All interconnection-related protective functions and associated batteries shall be periodically tested at intervals specified by the manufacturer, system integrator, or authority that has jurisdiction over the Customer-Generator Facility interconnection. Periodic test reports or a log for inspection shall be maintained.

4. **Safe Operations and Maintenance.** The Customer-Generator shall be fully responsible to operate, maintain, and repair the Customer-Generator Facility as required to ensure that the Customer-Generator Facility complies at all times with the interconnection standards it has been certified to meet.

5. **Access.** The EDC shall have access to the metering equipment and the disconnecting means of the Customer-Generator Facility at all times. The EDC shall provide reasonable notice to the Customer-Generator, when possible, prior to using its right of access. In an emergency or outage situation, where there is no access to an AC disconnecting means such as a switch or breaker, the EDC may disconnect the service to the premise.

6. **Exterior AC Disconnect Switch.** Based upon the EDC's concern for the safety of its associates and for the safety of the general public, the EDC recommends the installation of an exterior AC disconnect switch, to be available to utility personnel at all times. If such switch is installed outside the Customer-Generator's premises, it should be located near the billing meter or, in the alternative, near where the service entrance facilities enter the premises. Also if installed, this AC disconnect switch shall have a plaque to state the existence of the generating equipment controlled by the switch, and its location if applicable. (See sample of AC Disconnect Switch placard.) However, New Jersey's Net Metering regulations do not specifically require the installation of an exterior externally operable AC disconnect switch for use in isolating the Customer-Generator Facility.

6.1 The use of an exterior AC disconnect switch, readily-accessible to the EDC, available to utility personnel at all times: (i) provides the EDC with a means to isolate the Customer-Generator Facility from its main distribution panel; (ii) allows the EDC to perform testing on the installation; and (iii) allows the EDC to perform work on the local electrical system without interrupting the Customer-Generator's service for safety reasons. Customer-Generator recognizes that without this switch, service to its premises will be interrupted when work must be performed. (Please Note: Some EDCs may provide additional

incentives to encourage the Customer-Generator to provide & install an exterior AC disconnect switch, readily accessible to the EDC adjacent to the EDC's electrical meter or at a location approved by the EDC. Please contact your EDC or refer to your EDC's tariff for specific information.)

6.2 If a readily accessible exterior AC disconnect switch to the EDC is not utilized, then the EDC may install an externally located plaque at the meter location to indicate the presence of the Customer-Generator Facility. In accordance with Article 690.56 of the National Electrical Code (2005), the Customer-Generator must install a plaque indicating where the AC disconnect means is located. If the Customer-Generator does not have an external meter, the plaque shall be placed in the vicinity of the service entrance or lateral. The plaque shall be made of a suitable weather proof, UV resistant, permanent-type material and be yellow with black lettering.

6.3 In accordance with Article 690.14(D) of the National Electrical Code (2005), for utility-interactive inverters mounted in not-readily accessible locations to utility personnel, a permanent plaque or directory, denoting all electrical power sources and disconnect switches on or in the premises, shall be installed by the Customer-Generator at each service equipment location, and at the locations of all electric power production sources capable of being interconnected with the utility. Plaques shall be made of a suitable weather proof, UV resistant, permanent-type material and be yellow with black lettering.

7. Operations / Disconnection. The EDC may temporarily disconnect the Customer-Generator Facility upon occurrence of the following conditions:

7.1. For scheduled outages upon reasonable notice,

7.2. For unscheduled outages or emergency conditions,

7.3. If the EDC determines that the Customer-Generator Facility does not operate in a manner consistent with this Application/Agreement.

7.4. If the EDC determines that continued operation of the Customer-Generator Facility is a safety hazard to the EDC's personnel or to the general public.

7.5. In the event the interconnection equipment used by the Customer-Generator Facility is de-listed by the Nationally Recognized Testing Laboratory that provided the listing at the time the interconnection was approved and the EDC ascertains that the continued operation has the potential to cause a safety, reliability or a power quality problem.

8. Indemnification. The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under these terms and conditions on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

9. Limitation of Liability. Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of these terms and conditions, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever.

10. Termination. This Application/Agreement may be terminated under the following conditions:

10.1. By Customer-Generator. The Customer-Generator may terminate this Application/Agreement by providing written notice to the EDC.

10.2. By the EDC. The EDC may terminate this Application/Agreement if the Customer-Generator fails to remedy a violation of terms of this Application/Agreement upon written notice and a reasonable opportunity to cure.

11. Permanent Disconnection. In the event the Application/Agreement is terminated, the EDC shall have the right to disconnect its facilities or direct the Customer-Generator to disconnect its Customer-Generator Facility.

12. Survival Rights. This Application/Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill its rights or obligations that arose under the Application/Agreement.

13. Assignment/Transfer of Ownership of the Customer-Generator Facility: This Application/Agreement shall survive the transfer of ownership of the Customer-Generator Facility to a new owner unless the new owner terminates this Application/Agreement and so notifies the EDC in writing. The EDC will be responsible for contacting the new customer to execute a new Application/Agreement or assignment agreement, in order for the new owner to be treated as a Net Metering customer.

14. **Definitions.** The capitalized terms used herein, and the definitions of such terms, are as those used in N.J.A.C. 14:4-9, “Net Metering and Interconnection Standards for Class I Renewable Energy Systems.”

15. **Notice.** Unless otherwise provided in this Application/Agreement, any written notice, demand, or request required or authorized in connection with this Application/Agreement (“Notice”) shall be deemed properly given if delivered in person, delivered by Electronic Mail (E-mail) delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

If to EDC:

The contact listed on the EDC website as the primary contact for the EDC listed in the Customer-Generator’s Facility Information section on Page 1 of the Interconnection Application/Agreement.

If to Customer-Generator:

The contact listed in the Legal Name and Mailing Address of Customer-Generator section on Page 1 of the Interconnection Application/Agreement. The Customer-Generator is responsible for notifying the EDC of any change in the contact party information.

In the event the original applicant sells or otherwise transfers ownership of the property listed in the Customer-Generator Facility’s Information section listed on Page 1 of the Interconnection Application/Agreement, the original applicant shall provide the EDC with the appropriate contact information for the new owner of the property. Upon any subsequent transfer of ownership, the then current owner shall provide the EDC with the new owner’s information.

16. **Important Note.** Running grid-tied generation at a premise will generally raise voltage levels. A proper voltage drop/rise study must be done to insure that resulting voltages do not cause problems at the customer premise and/or to the operation of the inverter. If there are times when generator output will exceed the load of the premise, this will cause voltage rise across the line transformer and service line to the facility. Be sure this is taken into account when doing a voltage drop/rise analysis. If there are other customers that have grid-tied solar and their premise is fed by the same line transformer, be sure to take that into account when considering voltage rise across the line transformer. If the new generation system causes high voltage for other customers fed by the same transformer, it will be the responsibility of

the newest generator installation to remediate the high voltage. The normal voltage at the meter without generation is 120 V +/- 5% (or other secondary voltages such as 208, 240, 480, etc.). Be sure to assume the highest voltage (+ 5%) at the meter when doing the voltage drop/rise analysis to insure acceptable voltage at the premise and at the inverter. **The utility is not responsible for elevated voltage caused by the operation of a generator.** The electrical grid has been designed to maintain 120 V +/- 5% (or other standard secondary voltages) during the course of the normal load cycle.



An Exelon Company

INTERCONNECTION APPLICATION/AGREEMENT - PART 2

With Terms and Conditions for Interconnection

For a Level 1 Review (Certified Inverter-based Generators 10kW or Less)

(Final Agreement – to be completed after installation and prior to interconnection)

Certificate of Completion¹²

CUSTOMER GENERATOR INFORMATION

Legal Name and Mailing Address of Customer-Generator (if an Individual, Individual's Name)

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Contact Person/Authorized Agent (If other than above): _____

Mailing Address (If other than above): _____

Telephone (Daytime): _____ (Evening): _____

Fax Number: _____ E-Mail Address: _____

THE CUSTOMER-GENERATOR FACILITY'S INFORMATION

Facility Address: _____

City: _____ State: NJ Zip Code: _____

Nearest Crossing Street: _____

ACE Account #: _____ Meter #: _____

Energy Source: _____ Prime Mover: _____

Inverter Type: _____ Inverter Manufacturer: _____

Number of Inverters: _____ Model Number(s) of Inverter: _____

Rating: DC Generator Total¹³ Nameplate Rating: _____ (kW), AC Inverter Total¹⁴ Rating _____

(kW), AC System Design Total Capacity¹⁵: _____ (kW) _____ (kVA)

EQUIPMENT INSTALLATION CONTRACTOR

Owner (Customer) Installed: Yes No

Contractor Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Contact Person: _____

Telephone (Daytime): _____ (Evening): _____

Fax Number: _____ E-Mail Address: _____

The undersigned asserts that the Equipment has been installed in accordance with Part 1 of the Interconnection Application/Agreement as well as all applicable codes and regulations.

Signed: _____ Date: _____

Printed Name: _____ Title: _____

¹² Information entered here on Certificate of Completion (Part 2) must match part 1

¹³ Sum of all generators or PV Panels

¹⁴ Sum of all inverters.

¹⁵ This will be your system design capacity based upon your unique system variables.

ELECTRICAL CONTRACTOR (if Different from Equipment Installation Contractor)

Electrical Contractor Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Contact Person: _____

Telephone (Daytime): _____ (Evening): _____

Fax Number: _____ E-Mail Address: _____

The undersigned asserts that the Equipment has been installed in accordance with Part 1 of the Interconnection Application/Agreement as well as all applicable codes and regulations.

Signed: _____ Date: _____

Printed Name: _____ Title: _____

ELECTRICAL INSPECTION

Completion of local inspections may be designated on inspection forms used by local inspecting authorities.

The system has been installed and inspected in compliance with the provisions of the National Electrical Code and other applicable codes and standards as well as the local Building/Electrical Code of: _____ (Appropriate Governmental Authority)

Signed: _____ Date: _____

Printed Name: _____ Title: _____

CUSTOMER-GENERATOR SIGNATURE¹⁶

The Customer-Generator Facility is complete and ready for interconnected operation in accordance with all of the provisions of the Interconnection Application/Agreement. The Customer-Generator acknowledges that it shall **not** operate the Facility until receipt of Final Acceptance (below), or as otherwise provided for by regulation.

Signed: _____ Date: _____

Printed Name: _____ Title: _____

Final Acceptance to Interconnect Small Generator Facility (for Use by EDC Only)

The requirements for interconnection are complete and interconnection of the Customer-Generator Facility is accepted upon signature and return of this Certificate of Completion or by notification by electronic mail or other acceptable means by the EDC.

Electric Distribution Company waives Witness Test? (Initial) Yes (____) No (____)

If no, Successful Witness Test Date: _____ Passed: (Initial) (____)

EDC Signature: _____ Date: _____

Printed Name: _____ Title: _____

16 As a condition of interconnected operation, you are required to send mail/e-mail a completed signed copy of this Certificate of Completion to your EDC at the address in the Terms & Conditions for Interconnection.