

Borough of Lavallette

Uniform Technical and Procedural Interconnection Agreement for Self Generation Facilities for Inverted Based Wind and Photovoltaic Systems.

Between THE BOROUGH OF LAVALLETTE

And

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Property Owners Name

1. Objectives

This document has been prepared by the Borough of Lavallette Electric Utility for customers installing inverter based wind and photovoltaic (PV) systems to 100 KW that are eligible for interconnection under the Borough's Self Generation Ordinance. This agreement addresses the technical requirements, and the procedural process for the interconnection between the utility's distribution system and a customer's wind or PV system.

2. This Agreement is expressed governed by Article III of Chapter § 24 of the Code of the Borough of Lavallette entitled Self Generation. Any part of this agreement that may be different from the code, the code shall govern.

3. The customer grant to the Borough of Lavallette an absolute right of entry on the property for the purpose of inspection or in the case of an emergency for any purposes in regards to the electric system.

4. Customer shall fill out and execute all forms attached to this application.

5. The customer must provide complete plans and specifications of the proposed equipment, including a single-line diagram and details of proposed protective schemes. Plans must be certified by an electrical engineer.

6. It shall be the responsibility of the Customer to obtain any and all other permits and approvals required including but not limited to zoning, building, electrical and / or approvals from the State or Federal governments.

**BOROUGH OF LAVALLETTE ELECTRIC UTILITY  
INTERCONNECTION APPLICATION/AGREEMENT  
FOR SELF GENERATION FACILITIES FOR WIND-BASED AND PHOTOVOLTAIC (PV) SYSTEMS**

**A. Applicant Information**

Name: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

**B. Location Where Facility is to be installed:**

Owner's Name: \_\_\_\_\_  
Street Address: \_\_\_\_\_ Daytime Phone: \_\_\_\_\_  
Email: \_\_\_\_\_ Electric Account No.: \_\_\_\_\_

**C. System Information**

Manufacturer Name Plate AC Power Rating: \_\_\_\_\_ kW  
System Type: (Solar or Wind) \_\_\_\_\_  
Inverter Manufacturer: \_\_\_\_\_  
Inverter Model No: \_\_\_\_\_  
Inverter Location: (Indoor or Outdoor) \_\_\_\_\_  
Array Location (if applicable.): \_\_\_\_\_  
Outdoor Manual AC Disconnect Switch -Location: \_\_\_\_\_

**D. Documentation.** The following documents have been provided:

1. Copy of site survey form clearly showing location of Array (if solar), Inverter, and Disconnect.
2. Copy of electrical permit.

**E. Installation Contractor Information**

Installation Contractor (Company Name) \_\_\_\_\_  
Contractor's License No.: \_\_\_\_\_ Proposed Installation Date: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Daytime Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Email: \_\_\_\_\_

**F. Hardware and Installation Compliance**

If Photovoltaic, the proposed System hardware shall be in compliance with Underwriters Laboratories (UL) 1741, Standard for Static Inverters and Charge Controllers for Use in Photovoltaic Systems; UL 1703, Standard for Safety: Flat-Plate Photovoltaic Modules and Panels; and IEEE 1262-1995, IEEE Recommended Practice for Qualification of Photovoltaic (PV) Modules. System must be installed in compliance with IEEE Standard 929-2000, Recommended Practice for Utility Interface of Photovoltaic Systems.

All System types must be installed in compliance with applicable requirements of local electrical codes, the Borough of Lavallette Electric Utility ("Borough") codes and the National Electrical

Code (NEC) and must use a non-islanding inverter as defined under IEEE Standard 929-2000 (section 3.2 to 3.4).

The System must have a lockable, visible disconnect device, accessible at all times to Borough personnel.

If the System is designed to provide uninterruptible power to critical loads, either through energy storage, back-up generator, or the generation source, the System will include a parallel blocking scheme for this backup source. This function may be integral to the inverter manufacturer's packaged system.

Signed (Contractor): \_\_\_\_\_ Date: \_\_\_\_\_

Name (Print): \_\_\_\_\_

## **G. Additional Terms and Conditions**

### **a) Operation/Disconnection**

Owner shall be responsible for the safe operation of the System and shall be responsible for the cost of all repairs, corrections, or updating of the interconnection facilities.

If it appears to the Borough, at any time, in the reasonable exercise of its judgment, that operation of the System is adversely affecting or may adversely affect the Borough's electrical distribution system, the Borough may immediately take any and all steps it reasonably believes necessary to mitigate or cure the conditions including, without limitation, disconnecting the System from the Borough's electrical system.

Owner shall permit unlimited right onto Owner's property for safety reasons or to disconnect the System whenever the Borough believes that continued operation of the System could result in harm to the Borough's electric distribution system, or employees, or to a customer of the Borough.

Owner shall at all times permit Borough employees and inspectors reasonable access to inspect, test, or examine the System or metering equipment. Owner may be liable for the costs and expenses incurred by the Borough related to disconnection and reconnection of the System by the Borough.

### **b) Liability/Indemnity**

Owner hereby covenants and agrees to assume all risk of and liability for personal injuries (including death) and damage to property arising out of or caused by the operation of the System, including, but not limited to direct, consequential, punitive damages, to the Borough or any other customer as a result of the operation of the System.

Owner hereby covenants and agrees to indemnify, protect, defend and save harmless the Borough, its affiliates, officers, directors, employees and agents from and against any and all claims and demands for damages to property and injury or death to persons which may arise out of, or be related to, or caused by, the operation of the System or its interconnection to the Borough's electrical system.

**H. Electrical Code Inspection**

The items in this section were inspected with regard to the System referenced above and the System satisfies applicable electrical code requirements.

Inspector Name (Print): \_\_\_\_\_

Signed (Inspector): \_\_\_\_\_

**I. Owner Acknowledgment**

The System has been installed to my satisfaction and I have been given System warranty information, and an operation manual. I have also been instructed in the operation of the System by the manufacturer and/or the installer of the System. I agree to operate and maintain the System in accordance with manufacturer’s recommended practices as well as the Borough’s interconnection standards. Further, I agree to notify the Borough 30 days prior to modification or replacement of the System’s components or design. Any such modification or replacement may require submission of a new Application to the Borough.

I have read and understand the Borough of Lavallette Electric Utility Tariff for Self Generation Installations.

I agree to abide by the terms of this Agreement.

I agree to comply with the current version of the Borough of Lavallette Electric Utility Self Generation Policy.

I agree not to operate the System in parallel with the Borough until this Agreement is fully executed by a duly authorized officer of the Borough. I also agree to install a warning label on or near my service meter location.

Signed (Owner): \_\_\_\_\_

Print (Owner): \_\_\_\_\_

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

**J. Borough Agreement Acceptance**

The Borough does not, by execution of this Agreement, assume any responsibility or liability for damage to property or physical injury to persons. Further, this Agreement does not constitute a dedication of the Owner’s System to the Borough’s electrical system equipment or facilities.

This Agreement is accepted by the Borough on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Borough Representative Name (Print): \_\_\_\_\_

Borough Representative Name (Signed): \_\_\_\_\_

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

**K. Application and Processing Fee**

Please provide a \$1,500 check made payable to:  
Borough of Lavallette

## **Article III. Self-Generation Standards**

### **24-15. Scope and establishment of rules.**

In order to allow customers of Borough of Lavallette Electric Utility the opportunity of interconnecting with self-generation equipment to the Borough of Lavallette electric distribution system, the following rules and provisions are hereby established.

### **24-16. Consultation with Borough of Lavallette Electric Utility.**

A. To assure safety and the optimum value for both the customer and the Borough of Lavallette Electric Utility, it is essential for the customer to consult with the utility before purchasing, constructing, operating, or interconnecting any self-generation equipment to the system. No self-generating equipment may be connected to the Borough of Lavallette Electric Utility unless the customer notifies the Borough of Lavallette Electric Utility and all necessary equipment, in the opinion of the Borough of Lavallette Electric Utility, is properly installed to isolate the generating equipment from the Borough of Lavallette Electric Utility system.

B. The Borough of Lavallette Electric Utility will assist the customer in evaluating the feasibility of the proposed self-generation project, in particular helping the customer evaluate the economics of the project after taking into account the customer's responsibility and obligation to pay all interconnection costs.

### **24-17. General requirements.**

A. No self-generating equipment or facility may be connected to the Borough of Lavallette Electric Utility without express authorization from the Borough of Lavallette Electric Utility and unless the requirements contained in this rule are fully and completely satisfied.

B. The customer must provide complete plans and specifications of the proposed equipment, including a single-line diagram and details of proposed protective schemes. Plans must be certified by an electrical engineer. Upon receipt of the certified plans and a fee of \$1,500, as provided in § 24-16G below, to compensate the Borough of Lavallette Electric Utility for the cost of engineering services provided herein, the Borough of Lavallette Electric Utility will provide specific switching, breaker, and isolation plans for installation at the customer's expense. Any review of plans by the Borough of Lavallette Electric Utility does not constitute approval of the correctness of customer's plans.

C. Installation must be in compliance with the National Electrical Code and all applicable municipal, county, and federal codes or regulations.

D. Prior to connection to the Borough of Lavallette Electric Utility system, the equipment and interconnection shall be inspected by the Borough of Lavallette Electric Utility or its qualified representative. Inspections undertaken by the Borough of Lavallette Electric Utility shall be undertaken solely for the purpose of determining compliance with the proposed plans and for the safety and integrity of the Borough of Lavallette Electric Utility system. Nothing done by

the Borough of Lavallette Electric Utility inspector shall constitute approval or waiver by any other inspector who may be authorized to inspect such facility and interconnection.

E. Prior to interconnection with the Borough of Lavallette Electric Utility system, the customer shall enter into a written agreement with the Borough of Lavallette Electric Utility. In addition to the operating provisions contained in these rules, this agreement shall permit unlimited right of entry to the customer's property for safety reasons or to disconnect whenever the Borough of Lavallette Electric Utility believes that continued operation of the self-generation equipment could result in harm to the Borough of Lavallette Electric Utility system or employees or to a customer of the Borough of Lavallette Electric Utility. Borough of Lavallette Electric Utility employees shall have the right to inspect and test the interconnection facilities during reasonable hours. This agreement also shall require the safe operation of the equipment or facility, indemnification of the Borough of Lavallette Electric Utility for damages of any type, including, but not limited to, direct, consequential, punitive damages, to the Borough of Lavallette Electric Utility or any other customer as a result of the operation of the self-generation equipment or facility. The agreement shall contain such other provisions as are appropriate for the protection and safe operation of the Borough of Lavallette Electric Utility.

F. The customer shall be responsible for the safe operation of the self-generation equipment and shall be responsible for all costs of repairs, corrections, or updating of interconnection facilities.

G. The customer shall be financially responsible for all costs of interconnection, including, but not limited to, review of the plans for equipment and the proposed isolation scheme, voltage regulation, wiring, labor, special metering, and inspection. The Borough of Lavallette Electric Utility shall provide a good faith estimate of the cost of reviewing the plans, inspections, and for the cost of all equipment that may be necessary to interconnect the self-generating equipment with the Borough of Lavallette Electric Utility, and the customer shall pay the Borough of Lavallette Electric Utility the full amount of the good faith estimate. Any amounts not expended shall be returned to the customer. Any additional costs reasonably incurred by the Borough of Lavallette Electric Utility to complete the interconnection with the customer shall be paid to the Borough of Lavallette Electric Utility prior to interconnection. The customer shall be responsible for the cost of periodic testing of the interconnection facilities.

H. The customer shall not change any aspect of the operation, the wiring, the controls, or the interconnection of the self-generation equipment without first providing prior written notice to the Borough of Lavallette Electric Utility of all proposed changes to the plans or the as-built drawings, as the case may be. All changes or proposed changes shall be certified by an electrical engineer, in the same manner as provided in § 24-16A above. This information is essential for determining whether the existing interconnection equipment is adequate for the requirements and for safety reasons in the event of emergency cutoff. Customer shall pay all reasonable engineering fees incurred by the Borough of Lavallette Electric Utility to review and inspect the proposed installation.

I. Self-generating equipment that is intended to operate in parallel with the Borough of Lavallette Electric Utility shall be subject to a contract that provides for such interconnected parallel operation.

#### **24-18. Electrical requirements.**

A. For facilities intended to operate in synchronization with the Borough of Lavallette Electric Utility:

(1) The interconnection point between the self-generator and the Borough of Lavallette Electric Utility shall be on the customer's side of the designated metering location. It shall operate in synchronization with the municipal system.

(2) Electrical quality must be sixty-hertz, alternating current having voltage and phase characteristics acceptable to the Borough of Lavallette Electric Utility. Operation of the self-generating unit shall not result in flicker, voltage fluctuations, interference with electronic equipment, or damage to Borough of Lavallette Electric Utility or customer-owned equipment.

(3) Equipment shall be capable of being manually and automatically isolated from the Borough of Lavallette Electric Utility system within a maximum of 10 seconds, and provide for automatic disconnection from utility lines that have been de-energized.

(4) All costs incurred to interconnect the self-generation equipment shall be the responsibility of the customer.

B. For generating equipment not intended to operate as interconnected generating facilities:

(1) The customer shall install all equipment, switches and devices necessary to allow such facility that is capable of being served by the generating equipment to be electrically isolated from the Borough of Lavallette Electric Utility.

(2) All generating equipment subject to this subsection shall be designed so that it is incapable of being operated unless it is isolated and disconnected from the Borough of Lavallette Electric Utility.

#### **24-19. Meter requirements.**

A. All metering costs associated with the interconnection or the interconnected operation of the equipment shall be the responsibility of the customer.

B. Any deliveries to the Borough of Lavallette Electric Utility shall be through a separate billing meter. Reversing meters are not permitted.

#### **24-20. Purchase of excess generation.**

A. The Borough of Lavallette Electric Utility and the customer shall enter into an agreement that addresses all purchase and payment obligations. The Borough of Lavallette Electric Utility shall only be required to purchase from Public Utility Regulatory Policy Act (PURPA) qualifying facilities, pursuant to 18 CFR 292.300.

B. Rates for the purchase of excess energy from the PURPA-qualifying facility shall be based upon the Borough of Lavallette Electric Utility's avoided cost. The avoided cost shall be calculated so that it takes into account the all inclusive cost of energy, including capacity costs, availability, dispatchability, load limitations, operating contingencies or limitation, energy costs, and administrative costs. If the Municipal Utility does not require capacity and would receive no benefit from the addition of capacity, the Municipal Utility shall only pay for the avoided cost of energy, excluding all capacity costs.

**24-21. Violations and penalties.**

Any person, firm or corporation that shall be convicted of a violation of a provision of this article shall, upon conviction thereof by any court authorized by law to hear and determine the matter, be subject to a fine of no less than \$100 and no more than \$1,000, imprisonment not to exceed 90 days or community service of not more than 90 days, or any combination of fine, imprisonment and community service, as such court in its discretion may impose. Each day that such violation exists shall constitute a separate offense.