

OTSEGO ELECTRIC COOPERATIVE, INC.

**SUBJECT: MEMBER-OWNED or DISTRIBUTED GENERATION**

**POLICY:** **NOTE:** Failure to comply with this Policy shall result in immediate suspension of service due to presentation of health risks to Cooperative employees. The Cooperative reserves the right in the future to establish a class for billing based on use and availability of distributed generation such that minimum service charges and fees will be required to meet Cooperative costs of service as long as Member continues to be connected to the Cooperative's grid.

**Emergency or Standby Generation**

Member-owned emergency or standby generation that is intended to serve the member only during outages shall be connected to the member's service using an approved transfer switch. The installation shall be inspected and approved by a Cooperative approved licensed electrical inspector. In no case shall an emergency or standby generator be connected to Otsego Electric Cooperative's distribution lines.

**Generation Connected in Parallel**

Member-owned generation that is designed to supplement power supplied by the Otsego Electric Cooperative, and is operated in parallel with the Cooperative's supplied power, shall be connected using approved interconnection equipment that meets the IEEE 1547 Standard for Interconnecting Distributed Resources with Electric Power Systems, as well as all National Electric Code (NEC) and National Electric Safety Code (NESC) requirements. This includes the following requirements:

- The installation shall be inspected and approved by a Cooperative approved licensed electrical inspector.
- The generation equipment must be automatically disconnected from the Cooperative's facilities whenever the Cooperative has an outage and no Cooperative power is supplied to the member.
- A readily accessible means of visible disconnect must be available to Cooperative personnel at all times. Cooperative personnel must have the ability to lock and tag this disconnect in the open position when system maintenance is required.

If additional cost is required to meter power flows, the member will reimburse the Cooperative for all added costs. The Cooperative will meter power flows into the consumer's premises and charge the member based on the usual rate class. Power that flows out of the member's premises will be metered separately and a credit to the member's account will be calculated on this metered power flow.

- The amount of credit will be equal to the Cooperative's avoided cost of power as shown on RUS Form 7 in Part L. kWh Purchased and Total Cost – Average Cost Per. This avoided cost is the cost of power plus transmission, corrected for system losses, to the member's meter. Loss corrections for power and transmission will be equal to those used to compute current monthly consumer bills. The cost includes a correction for losses using the percentage losses in the prior calendar year.

All other costs included in the usual rate class to the member are costs that are for a fixed Demand Charge based on the amount of power purchased by the member from the cooperative as determined at one point in time annually plus the costs of fixed facilities that must exist to serve the member, for operations and maintenance and for other services that must be provided to the member in conjunction with electrical service. These must be provided whether or not the member has their own generation and, therefore, may not be avoided.

This policy will be reviewed one year after the first member-owned, distributed generation is connected in parallel with Otsego Electric Cooperative's distribution system.

**CROSS REFERENCE:** This policy supersedes any contradictory provisions in the Member Rates Policy except with regard to the applicable monthly service charge.

**RESPONSIBILITY:** CEO and Board of Directors

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## **Member-Owned Distributed Generation**

### **Application Procedures**

**(for single-phase attachment of inverter/converter based parallel Distributed Generation (<=10kW))**

The application will be used by OEC to determine the required equipment configuration for the interface to OEC's electric distribution system. The member must complete the entire application. Failure to complete and submit application before installing distributed generation equipment including solar systems, battery energy storage systems, generators, or any other device capable of creating back feeding of power onto the OEC grid shall result in immediate suspension of service at the premises until full compliance is completed by Member including inspections as set forth below. **The Cooperative reserves the right in the future to establish a class for billing based on use and availability of distributed generation such that minimum service charges and fees will be required to meet Cooperative costs of service as long as Member continues to be connected to the Cooperative's grid.**

The following are general guidelines to be followed by the applicant and OEC for the interconnection of distributed generation not exceeding 10 kW of capacity with the OEC electrical distribution system.

1. The applicant reviews the application requirements, including Information Requirements, the Application Form, the Sample Installation diagram, and the OEC Interconnection Agreement for Distributed Generation.
2. The applicant completes the Application Form and returns it and related informational requirements to OEC along with a signed copy of the Information Request and the **\$50.00 administrative fee** (check payments should be made out to "OEC").
3. OEC reviews the Application Form and, if deemed necessary by OEC, conducts a field visit to evaluate the site-specific conditions. The cost of this initial field visit, if necessary, is covered by the \$50.00 administrative fee. Additional visits, if needed, could be billed at cost.
4. OEC provides the applicant with a written estimate for the cost of interconnection.
5. Applicant signs an Interconnection Agreement for Distributed Generation Not to Exceed 10kW.
6. If requested by OEC, applicant provides OEC proof of required insurance.
7. Contractor performs the installation work according to the approved drawings and data sheets but does not electrically connect the distributed generation equipment to the existing electrical system until OEC provides written permission.
8. Applicant acquires inspection certificate from an approved electrical inspector.

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**Member-Owned Distributed Generation**

9. Applicant provides proof of inspection to OEC.
10. OEC installs the bi-directional metering equipment.
11. OEC performs on-site verification of the installed equipment and performs a functional test of the members distributed generation to confirm anti-islanding operation.
12. Applicant connects the distributed generation system to OEC's electrical system.

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## **Member-Owned Distributed Generation**

### **Information Requirements**

**(for single-phase attachment of inverter/converter based parallel Distributed Generation (<=10kW))**

The Member shall furnish **ALL** of the following information to complete OEC's Engineering Review Process:

1. Application Form
2. Project Schedule
3. Site Plan
4. Description of Operation
5. One-Line Electrical Diagram of Complete Facility
6. Equipment Nameplate Data and Electrical Ratings for:
  - a. Interrupting Devices (main breaker, distributed generator feeder breaker)<sup>1</sup>
  - b. Line Disconnect Switch<sup>2</sup>
  - c. Inverter equipment (including firmware as applicable)<sup>3</sup>
  - d. Solar or WTG Meter

<sup>1</sup> Manufacturer, Type, Ampere Rating, Interrupting Ampere Rating

<sup>2</sup> Manufacturer, Type, Ampere Rating. Generating equipment shall be capable of being isolated from the utility system by means of an external, manual, visible, gang-operated, load break disconnecting switch. The disconnect switch shall be installed, owned, and maintained by the Member. It shall be located in the ac system between the power-producing equipment and its interconnection point with the OEC system. The disconnect switch must be rated for the voltage and current requirements of the installation. Disconnect devices shall meet applicable UL, ANSI, and IEEE standards, and shall be installed to meet all applicable local, state, and federal codes. The disconnect switch shall be clearly marked, "Generator Disconnect Switch," with permanent 3/8 inch letters or larger. The disconnect switch shall be located within 10 feet of OEC's external electric service meter. If such location is not possible, the Member will propose, subject to OEC approval, an alternate location. The disconnect switch shall be readily accessible for operation and locking by OEC personnel in the open position with a standard OEC, 3/8- inch shank padlock.

<sup>3</sup> Direct current generation can only be installed in parallel with the utility's system using a synchronous inverter. Only inverters designed to operate in parallel with the utility system shall be utilized for this purpose. The design shall be such as to disconnect this synchronous inverter upon a utility system interruption. Equipment must be selected from the "Certified Equipment" list maintained by the New York State PSC. Such equipment has dynamic anti-islanding protection as defined by IEEE 1547/UL 1741 and conforms to the maximum harmonic limits delineated in IEEE 519. Synchronization or re-synchronization of an inverter to the utility system shall not result in a voltage deviation that exceeds the requirements contained in Section II.E, Power Quality, of IEEE 519.

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**Member-Owned Distributed Generation**

**Application Form**

**(for single-phase attachment of inverter/converter based parallel  
Distributed Generation equipment 10 kW or smaller)**

**Member Information:**

Name: \_\_\_\_\_ Phone: (\_\_\_\_) \_\_\_\_\_  
Address: \_\_\_\_\_ Town: \_\_\_\_\_  
\_\_\_\_\_

**Consulting Engineer or Contractor:**

Name: \_\_\_\_\_ Phone: (\_\_\_\_) \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_

**Estimated In-Service Date:** \_\_\_\_\_

**Existing Electric Service:**

Capacity: \_\_\_\_\_ Amperes Voltage: \_\_\_\_\_ Volts

**Location of Protective Interface Equipment on Property:**

(include address if different from member address)

\_\_\_\_\_

**Energy Producing Equipment/Inverter Information:**

Manufacturer: \_\_\_\_\_  
Model No. \_\_\_\_\_ Version No. \_\_\_\_\_  
( ) Synchronous ( ) Induction ( ) Inverter ( ) Other \_\_\_\_\_  
Rating: \_\_\_\_\_ kW Rating: \_\_\_\_\_ kVA  
Interconnection Voltage: \_\_\_\_\_ Volts  
System Type Tested (Total System): ( ) Yes ( ) No; attach product literature  
Equipment Type Tested (i.e. Inverter, Protection System):  
( ) Yes ( ) No; attach product literature  
One Line Diagram attached: ( ) Yes  
Installation Test Plan attached: ( ) Yes

**Signature:**

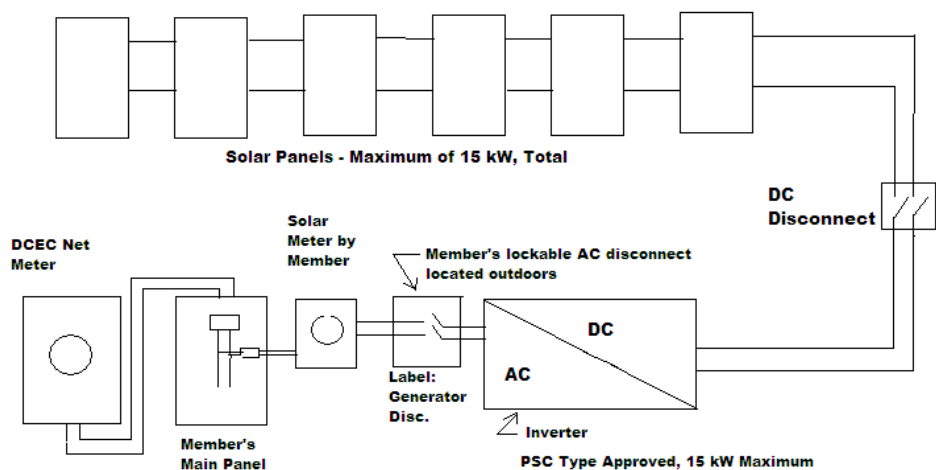
MEMBER SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

## Member-Owned Distributed Generation

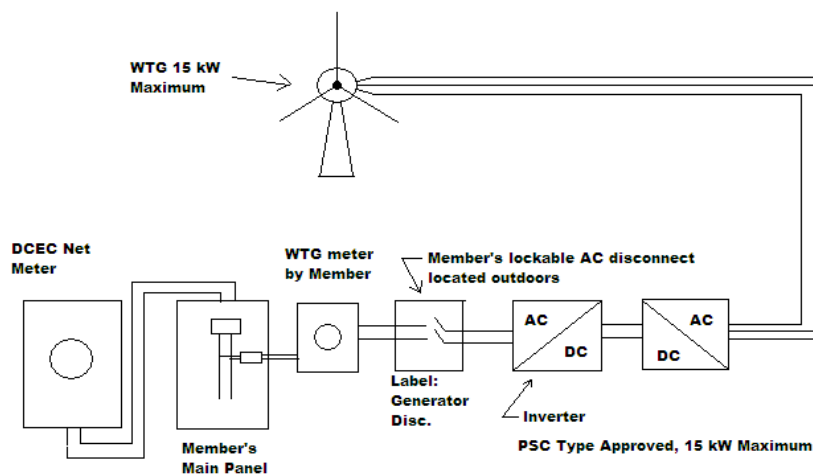
### Sample Installation Schematics

**Typical Member Solar Installation - 15 kW Maximum**



Solar Dist. Gen.  
DCEC  
4/16/09 PD

**Typical Member Wind Power Installation - 15 kW Maximum**



WTG Dist. Gen.  
DCEC  
04/16/09 PD

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**AGREEMENT**

**FOR**

**INTERCONNECTION OF MEMBER-OWNED DISTRIBUTED GENERATION**

**(for single-phase attachment of inverter/converter based parallel  
Distributed Generation equipment 10 kW or smaller)**

This Interconnection Agreement (“Agreement”) is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by the Otsego Electric Cooperative, Inc., (“OEC”), a corporation organized under the laws of the State of New York, and \_\_\_\_\_, (“DG Owner/Operator”), each hereinafter sometimes referred to individually as “Party” or both referred to collectively as the “Parties”. In consideration of the mutual covenants set forth herein, the Parties agree as follows:

This Agreement provides for the safe and orderly operation of the electrical facilities interconnecting the DG Owner/Operator’s electric power generator at \_\_\_\_\_ (project location or address) (“the Facilities”) and the electrical distribution system owned by OEC (“the System”). The point of interconnection between the Facilities and the System shall be defined as the weather head for overhead service entrances or the meter pan for underground service entrances.

This Agreement is subject to the by-laws, applicable tariffs, rates, rules and regulations in place between the DG Owner/Operator and OEC.

1. **Intent of Parties:** It is the intent of the DG Owner/Operator to interconnect an electric power generator to DCEC’s electrical distribution system (“the interconnection”).

It is the intent of DCEC to operate the distribution system to maintain a high level of service to their members and to maintain a high level of power quality.

It is the intent of both parties to operate their respective facilities in a way that ensures the safe and reliable provision of electric service.

2. **Operating Authority:** The DG Owner/Operator is responsible for establishing operating procedures and standards within their organization. The operating authority for the DG Owner/Operator shall ensure that the Operator in Charge of the generator is competent in the operation of the Facilities and is aware of the provisions of any operating agreements and regulations relating to safe operation of electrical power systems.

The operating authority for the DG Owner/Operator is \_\_\_\_\_  
(name or title of operating authority, along with address and telephone number).

3. **Operator in Charge:** The operator in charge is the person identified by name or job title responsible for the real time operation of all electrical facilities related to the interconnection and




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owned by their organization. The operator in charge for the DG Owner/Operator is \_\_\_\_\_  
(name or title of operator in charge, along with address  
and telephone number).

4. **Suspension of Interconnection:** The interconnection shall not compromise OEC's System protection or System operation. The operation of the DG Owner/Operator's Facilities and the quality of electrical energy supplied by the DG Owner/Operator shall meet the standards as specified by OEC. If the operation of the DG Owner/Operator's Facilities does not meet the standards as specified, then OEC will notify the DG Owner/Operator to take reasonable and expedient corrective action. OEC shall have the right to disconnect the DG Owner/Operator's Facilities until compliance is reasonably demonstrated. Notwithstanding, OEC may in its sole discretion disconnect the Owner/Operator's Facilities from OEC's System without notice if the operation of the Facilities imposes a threat, in OEC's sole judgment, to life, property or the System.
5. **Maintenance Outages:** Maintenance outages will occasionally be required on OEC's System and OEC will provide as much notice and planning as practicable to minimize such outages. It is noted that in some emergency cases such notice may not be practical. Compensation will not be made for the unavailability of OEC's System due to outages.
6. **Access:** Access is required at all times by OEC to the DG Owner/Operator's Facilities for maintenance, operating and meter reading. OEC reserves the right, but not the obligation, to inspect the DG Owner/Operator's Facilities.
7. **Costs of Interconnection to be Borne by DG Owner/Operator:** OEC shall record the costs of equipment purchases, labor, applicable overheads, and all other appropriate and assignable costs incurred by OEC in connection with designing, field engineering, staking, installing, and documenting the interconnection ("Interconnection Costs"). Such costs may be also be associated with the installation or modification of any metering equipment, protection devices or switches and any power quality devices or equipment. The DG Owner/Operator may request from OEC and will receive a non-binding written estimate of the interconnection costs. The DG Owner/Operator shall reimburse OEC for all Interconnection Costs within 30 days of receiving an invoice from OEC. Any upgrades to the System required to accommodate the interconnection will be owned and operated by OEC.
8. **Payment by DG Owner/Operator to OEC:** It is understood that the DG Owner/Operator shall maintain active membership status in good-standing while the Facilities are in operation and, as a result, will continue to receive electrical service pursuant to the bylaws of OEC. This agreement shall terminate upon a change in membership status by the DG Owner/Operator.
9. **Payment for Energy by OEC to DG Owner/Operator:** OEC shall credit the DG Owner/Operator for any energy that is injected into the OEC's electrical facilities during those times when generation from the Facilities exceeds the DG Owner/Operator's load. The price



**Otsego Electric  
Cooperative, Inc.**

A Touchstone Energy® Cooperative 

paid by OEC to the DG Owner/Operator for such energy shall be OEC's avoided cost of wholesale energy as shown on RUS Form 7, Park K (Total Average Cost in Cents/kWh). OEC shall pay the DG Owner/Operator for such energy once per year in January for the prior year's kWh or as soon as practicable after OEC receives all wholesale energy bills for the prior year. DCEC shall calculate the wholesale cost of energy each January for the prior year in a manner that complies with RUS guidelines for completion of Form 7, Park K. Wholesale energy costs include amounts paid to the New York Power Authority, amounts paid to the New York Independent System Operator (either directly or through an intermediary), amounts paid to New York State Electric and Gas and National Grid, and the cost of load management credits paid to DCEC members. Calculations will be the same as those used to compute the Power Cost Adjustment in members' monthly bills.

12. **Tax Status:** OEC is a cooperative, non-profit, membership corporation pursuant to the New York Rural Electric Cooperative Law. Nothing in this Agreement is intended to adversely affect OEC's tax status.

13. **Liability and Indemnification:** The DG Owner/Operator shall assume all liability for and shall indemnify OEC from and against any claims, losses, costs and expenses of any kind or character to the extent that they result from DG Owner/Operator's negligence or other wrongful conduct in connection with the design, construction and/or operation of the DG Owner/Operator's facility.

14. **Term and Termination:** This Agreement is intended to be valid for a period of ten (10) years. It may be canceled by either party upon not less than 12 months written notice to the other party. This Agreement is subject to applicable federal, state and local laws, rules, regulations and/or orders ("law"). If any provision of this Agreement is unenforceable under any applicable law or is held invalid, such holding shall not affect any other provision hereof, and this Agreement shall be construed as if such unenforceable or invalid provision had never been contained herein.

AGREED TO BY:

MEMBER (D-G Owner/Operator):

OTSEGO ELECTRIC COOPERATIVE, INC:

Name \_\_\_\_\_

Name \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

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

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

Approved by Board of Directors: 24Nov25