

# Town of Clayton Electric Department

Application Procedures for Interconnecting

A Certified Photo voltaic Generating Facility



**Town of Clayton  
Electric Department**

**Application Procedures for Interconnecting  
A Certified Photovoltaic Generating Facility**

- 1.0 The Customer completes the Interconnection Request (“Application”) and submits it to the Town of Clayton Electric Department.
- 2.0 The Electric Department acknowledges to the Customer receipt of the Application within three business days of receipt.
- 3.0 The Electric Department evaluates the Application for completeness and notifies the Customer within ten Business Days of receipt that the Application is or is not complete and, if not advises what material is missing.
- 4.0 The Electric Department verifies that the Photovoltaic Generating Facility can be interconnected safely and reliably. The Electric Department has 15 business days to complete this process. Unless the Electric Department determines and demonstrates that the Photovoltaic Generating Facility cannot be interconnected safely and reliably, the Electric Department approves the Application and returns it to the Customer.
- 5.0 After installation, the Customer returns the Certificate of Completion to the Electric Department. The Certificate of Completion shall include the signature of the local electrical inspector or an attached final electrical inspection referencing the PV installation. Prior to parallel operation, the Department may inspect the Photovoltaic Generating Facility for compliance with standards which may include a witness test. The Department will also schedule appropriate metering placement, if necessary.
- 6.0 The Electric Department notifies the Customer in writing that interconnection of the Photovoltaic Generating Facility is authorized. If the witness test is not satisfactory, the Electric Department has the right to disconnect the Photovoltaic Generating Facility. The Customer has no right to operate in parallel with the grid until a witness test has been performed or previously waived on the Application. The Electric Department is obligated to complete this witness test within ten business days of the receipt of the Certificate of Completion. If the Department does not inspect within ten business days or by mutual agreement of the Parties, the witness test is deemed waived.
- 7.0 Contact Information - The Customer must provide the contact information for the legal applicant (i.e., the Interconnection Customer). If another entity is

responsible for interfacing with the electric distribution system, that contact information must be provided on the Application.

- 8.0 Ownership Information - Enter the legal names of the owner(s) of the Photovoltaic Generating Facility.
- 9.0 Underwriters Laboratories (UL) 1741 Listed - This standard (“Inverters, Converters, and Controllers for Use in Independent Power Systems”) addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL 1741. The UL listing is then marked on the equipment and supporting documentation. The Photovoltaic Generation Facility must be listed and labeled in compliance.
- 10.0 Insurance Requirements - The Customer shall furnish to the Electric Department the required Certificate of Insurance naming the Town as additional insured prior to interconnection of the system. For residential customers the minimum coverage shall be a standard homeowner’s insurance policy with liability coverage in the amount of at least \$100,000 per occurrence. For non-residential customers the minimum coverage shall be comprehensive general liability insurance with coverage of at least \$300,000 per occurrence.
- 11.0 Permits and Electrical Inspections - The Customer shall obtain all local permits required for wiring modifications and/or installation of the Photovoltaic Generating System. The local Authority Having Jurisdiction shall perform required inspections and issue approval for connection.

Application ID No. \_\_\_\_\_  
(For Town Use Only)

**Town of Clayton  
Electric Department**

**Application  
for  
Interconnecting A Certified Photovoltaic Generating Facility**

This Application is considered complete when it provides all applicable and correct information required below. Additional information to evaluate the Application may be required.

Processing Fee

A non-refundable processing fee of \$100 must accompany this Application.

Interconnection Customer

Name: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_  
Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Contact (If different from Interconnection Customer)

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_  
Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Owner of the facility: \_\_\_\_\_

Small Generating Facility Information

Location (if different from above): \_\_\_\_\_  
Electric Service By: Town of Clayton (NC) Electric Department  
\*Account Number: \_\_\_\_\_

\* If Existing Customer



Contingent Approval to Interconnect the Small Generating Facility (For Town Use Only)

Interconnection of the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Photovoltaic Generating Facility No Larger Than 10 kW and return of the Certificate of Completion.

Town of Clayton

Signature: \_\_\_\_\_

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

Application ID Number: \_\_\_\_\_

Electric Department waives inspection/witness test?      Yes \_\_\_\_\_ No \_\_\_\_\_

Attachment 1 - Photovoltaic Interface Criteria

Attachment 2 - PV System Interconnection and Metering Notes

Attachment 3 - Single-Line Diagram for Interconnection of Photovoltaic Generation System Less Than 10 kW Capacity

Attachment 4 - Physical Connection Illustration for Metering and Disconnect

Attachment 5 - Certificate of Completion

Attachment 6 - Town of Clayton Electric Department Renewable Energy Facilities Rider

**TOWN OF CLAYTON**  
**Clayton, North Carolina**

**Bilateral Metering**  
**For**  
**Renewable Energy Facilities Rider**

**Availability**

This Rider is available only to a Customer who operates a solar photovoltaic, wind-powered, or biomass-fueled generating system. The Customer must have electric consumption billed under an appropriate rate. The rated output (ac) capacity of the generating system shall not exceed 10 kilowatts for a residential system. For a non-residential system the rated output (ac) capacity of the system shall not exceed the lesser of the Customer's annual maximum demand or 94 kilowatts. The generating system that is connected in parallel operation with service from Town and located on Customer's premises must be manufactured, installed and operated in accordance with governmental and industry standards and must fully conform with the Town's applicable Renewable Energy Interconnecting Interface Criteria. Metering of the renewable energy produced by the qualified facility must be separate from all premises consumption and installed in accordance with the requirements of the Town.

This Rider is available on a first-come, first-served basis, except that the aggregate capacity of Customer-owned renewable energy generators shall not exceed 5% of Town's peak load for the prior calendar year. If a Customer's proposed installation results in exceeding the limit, the Customer will be notified that service under this Rider will not be allowed.

**Type of Service**

This Rider is applicable to energy produced by the Customer's qualified renewable energy generating system. Electrical characteristics of the connection must be the same type supplied to Customer's premises at one point of delivery. Characteristics must be of a type normally available under the Service Regulations of the Town.

**Monthly Rate**

An amount computed under the applicable rate schedule and any other applicable Riders with which this Rider is used, as adjusted to reflect energy delivered to the Town as follows:

1. For non-TOU customers the amount of credit for all energy delivered to the Town will be \$0.0515 per kWhr. In no case shall the energy delivered to the Town be less than zero.
2. If the meter on the renewable energy interconnection output indicates a net consumption by the renewable energy source during any period, that energy consumption will be billed at the rate for the customer's normal consumption under the Town's RES, SGS, MGS, or LGS rates as applicable. Discovery of customer loads connected between the meter and the renewable energy source will result in disconnection of the system.

### **Definitions**

- Bilateral metering is defined as a system with separate meters for Customer consumption and renewable energy production. Bilateral metering is not net metering.

### **Special Conditions**

1. Customer must complete an applicable renewable energy interconnection request ("Application") and submit same to the Town of Clayton. This application and the interconnection shall be approved by the Town prior to the Customer receiving service under this Rider.
2. Customer's service shall be metered with two meters, one of which measures the energy provided by the Town and the other measures the amount of energy generated by the Customer's renewable energy generator.
3. In the event the Town determines that it is necessary to install a dedicated transformer or other equipment to protect the safety and quality of electric service provided to other customers, the PV system owner shall make an advance payment to the Town in an amount equal to the cost of the required facility modifications.
4. The Town reserves the right to test the Customer's renewable energy generator and the interconnection for compliance with the applicable interface criteria. Should it be determined that Customer's installation is in violation the Town will disconnect the renewable energy generator from the Town's distribution system and it shall remain disconnected until the installation is brought into compliance.



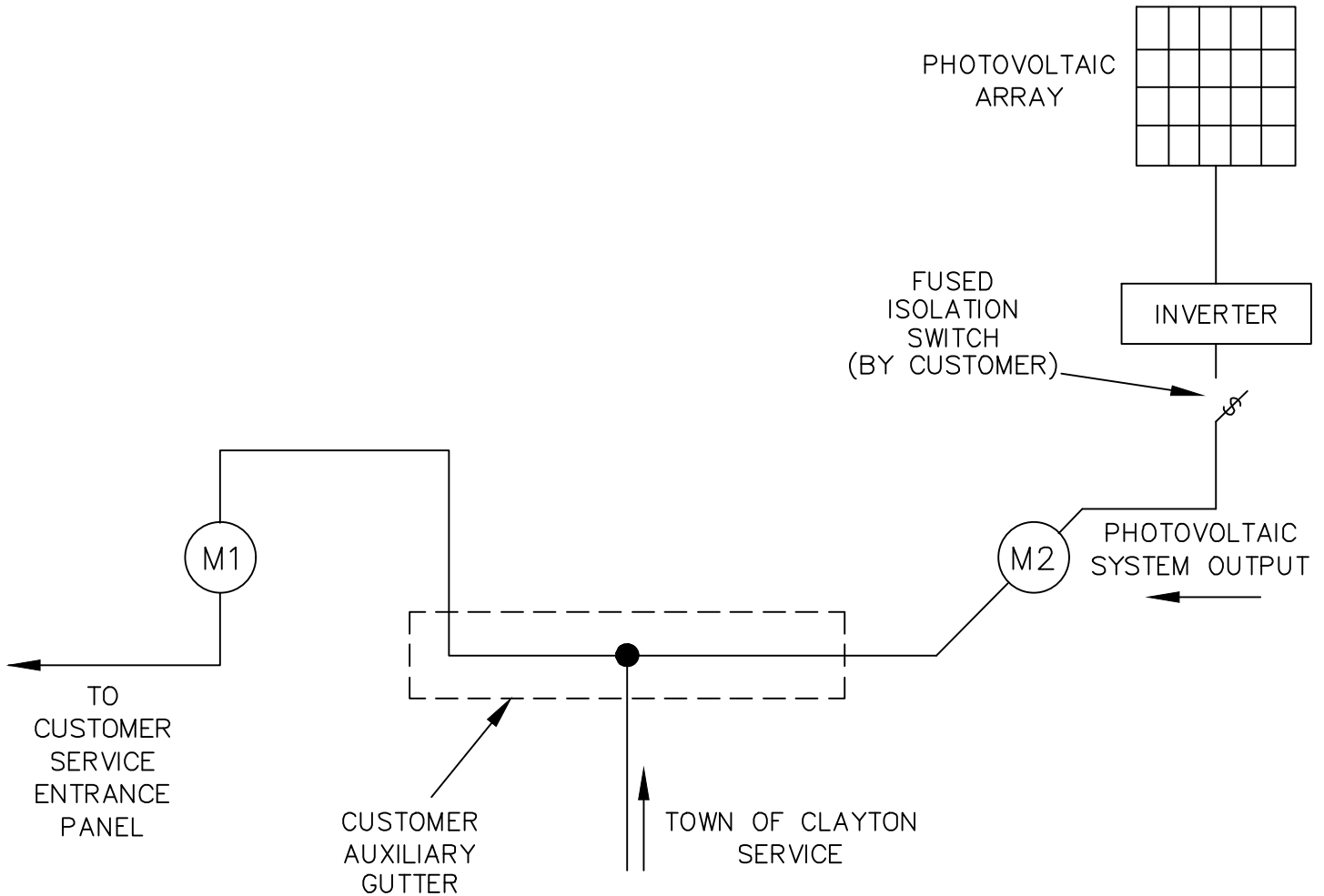
**Contract Period**

The Contract Period for service under this Rider shall be five (5) years and thereafter shall be renewed for successive one-year periods. After the initial period, Customer may terminate service under this Rider by giving at least sixty (60) days previous notice of such termination in writing to Town.

The Town may terminate service under this Rider at any time upon written notice to Customer in the event that Customer violates any of the terms or conditions of this Rider, or operates the generating system in a manner which is detrimental to Town or its Customers.

Effective for service rendered on and after \_\_\_\_\_.

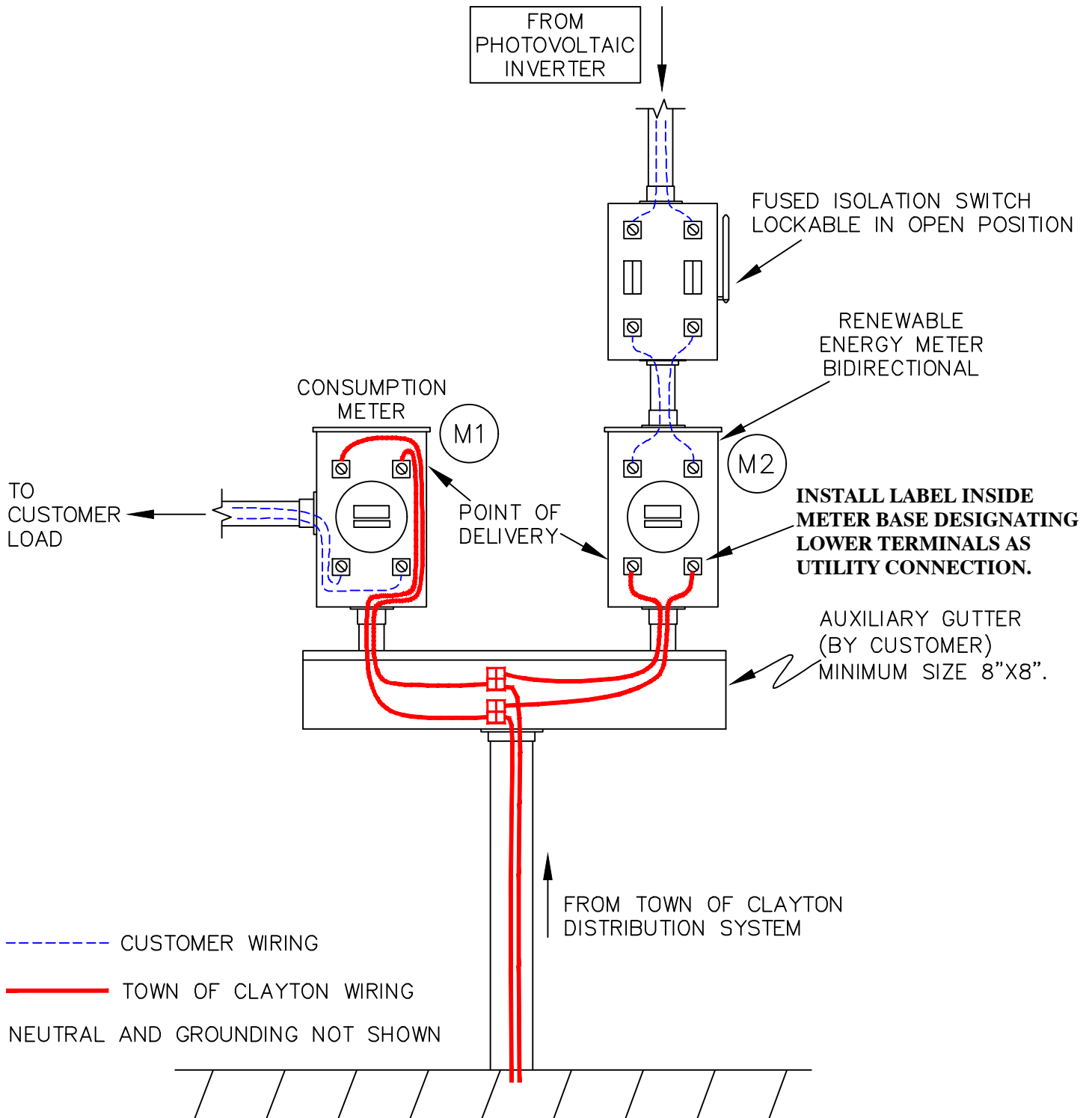
TOWN OF CLAYTON  
SOLAR PANEL INTERCONNECTION  
SINGLE LINE DIAGRAM FOR SYSTEM  
LESS THAN 10KW CAPACITY



NOTES:

1. CONNECT AS SHOWN ON PHYSICAL CONNECTION ILLUSTRATION
2. M1 IS METER FOR RESIDENTIAL SERVICE.
3. M2 IS BIDIRECTIONAL METER FOR SOLAR PANEL INPUT TO SYSTEM
4. INVERTER/ISOLATION SYSTEM TO BE UL 1741 LISTED AND INSTALLED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE. (NFPA 70)
5. ISOLATION SWITCH BY CUSTOMER TO BE SIZED PER NEC. MINIMUM SIZE=100A. LABEL: "SOLAR PANEL ISOLATION SWITCH". SWITCH SHALL BE LOCKABLE IN OPEN POSITION.

TOWN OF CLAYTON  
 SOLAR PANEL INTERCONNECTION INSTALLATION  
 PHYSICAL CONNECTION ILLUSTRATION FOR  
 METERING AND DISCONNECT  
 CONNECTION FOR METERS



**Town of Clayton  
Electric Department**

**Certificate of Completion  
For  
Certified Photovoltaic Generating Facility**

Installation Information

Check if Owner-Installed

Interconnecting Customer: \_\_\_\_\_ Contact Person: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Location of Facility (If different from above):

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_

Facsimile Number: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Electrician:

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_

License Number: \_\_\_\_\_

Date Approval to Install Facility granted by the Town of Clayton: \_\_\_\_\_

Application ID Number: \_\_\_\_\_

Inspection:

The system has been installed and inspected in compliance with the local Building/  
Electrical Code of the Town of Clayton, NC:

Signed (Local Electrical Inspector, or attach signed electrical inspection):

\_\_\_\_\_  
Name (Printed): \_\_\_\_\_

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

As a condition of interconnection you are required to send a copy of this form along with a copy of the signed electrical permit to:

Electric Department Director  
Town of Clayton Electric Department  
Post Office Box 879  
Clayton, NC 27528  
Fax No. (919) 553-1541

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Approval to Energize Facility (For Town use only)

Energization of the Facility is approved contingent upon the terms and conditions of this Agreement:

Authorized Town Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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