Town of Clayton
Electric Department

Application Procedures for Interconnecting

A Certified Photovoltaic Generating Facility

Town of Clayton

Electric Department

Application Procedures for Interconnecting A

Certified Photovoltaic Generating Facility

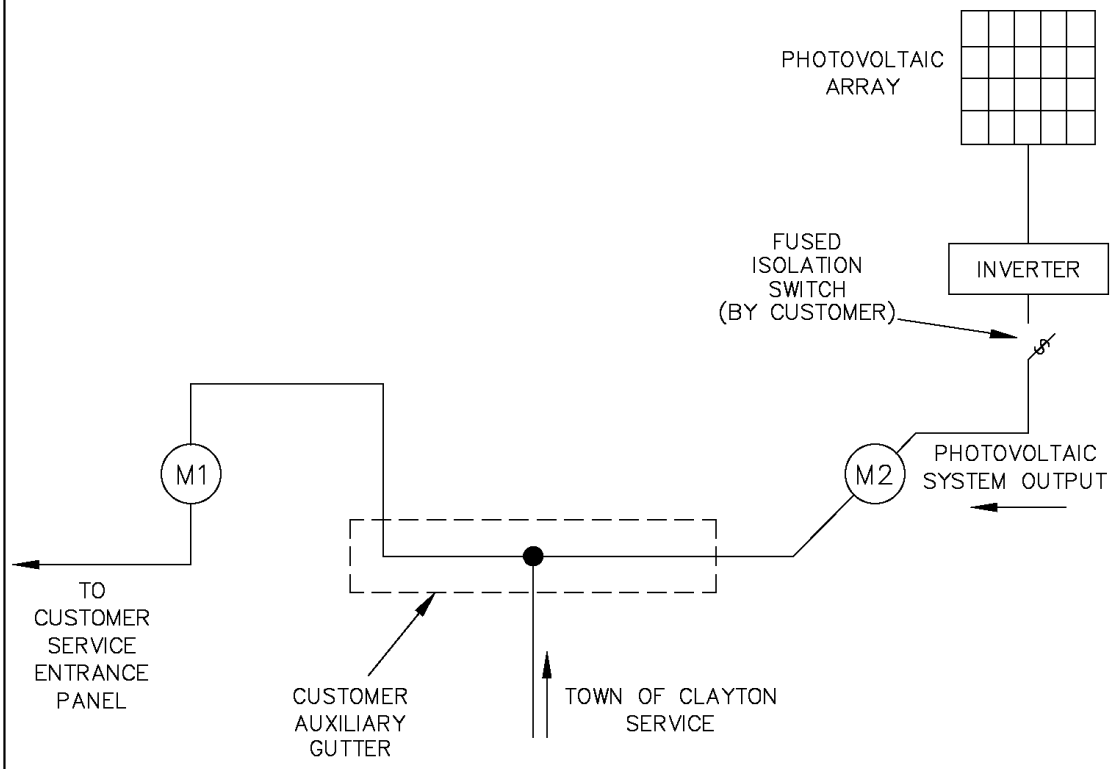
1.0 The Contractor/Customer completes the Solar Interconnection Application and a Building and Zoning Compliance Application and sends them to the Inspections Department for review.

2.0 Please note that the Town of Clayton uses a bilateral metering system, otherwise known as "Buy all, Sell all". This means that the Town will require a two-meter system for all solar installations that we allow. One meter measures all energy coming from the grid to the customer (the consumption meter), and the second meter measures all energy produced by the photovoltaic array, which is sold back to the grid (the production meter). The Town also requires a disconnect between the photovoltaic array and the production meter that is fully accessible by Town staff. The second electric meter will be added to the permitting cost. The service rider included in this application packet has more information on compensation for energy sold back to the grid, and more information on construction specifications can be found in the drawings included in this packet.

3.0 Once the Inspections and Electrical Departments have reviewed the application and determined that it meets the Towns specifications, the customer will be notified that their permit application is approved and ready for pickup. This notification will allow payment of all fees and the issues of your permit for the project. The permitting fees and all associated fees will be detailed in a fee sheet. After which the photovoltaic array system may be installed on the customer's property as approved by zoning & planning dept.

4.0 Once all work has been completed on the photovoltaic array, you will contact the Inspections department requesting an inspection of the system installed. Upon satisfactory installation as required by all applicable codes and the Town's requirements, approval to install the production meter will be released, and the customer can begin using their photovoltaic array.

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



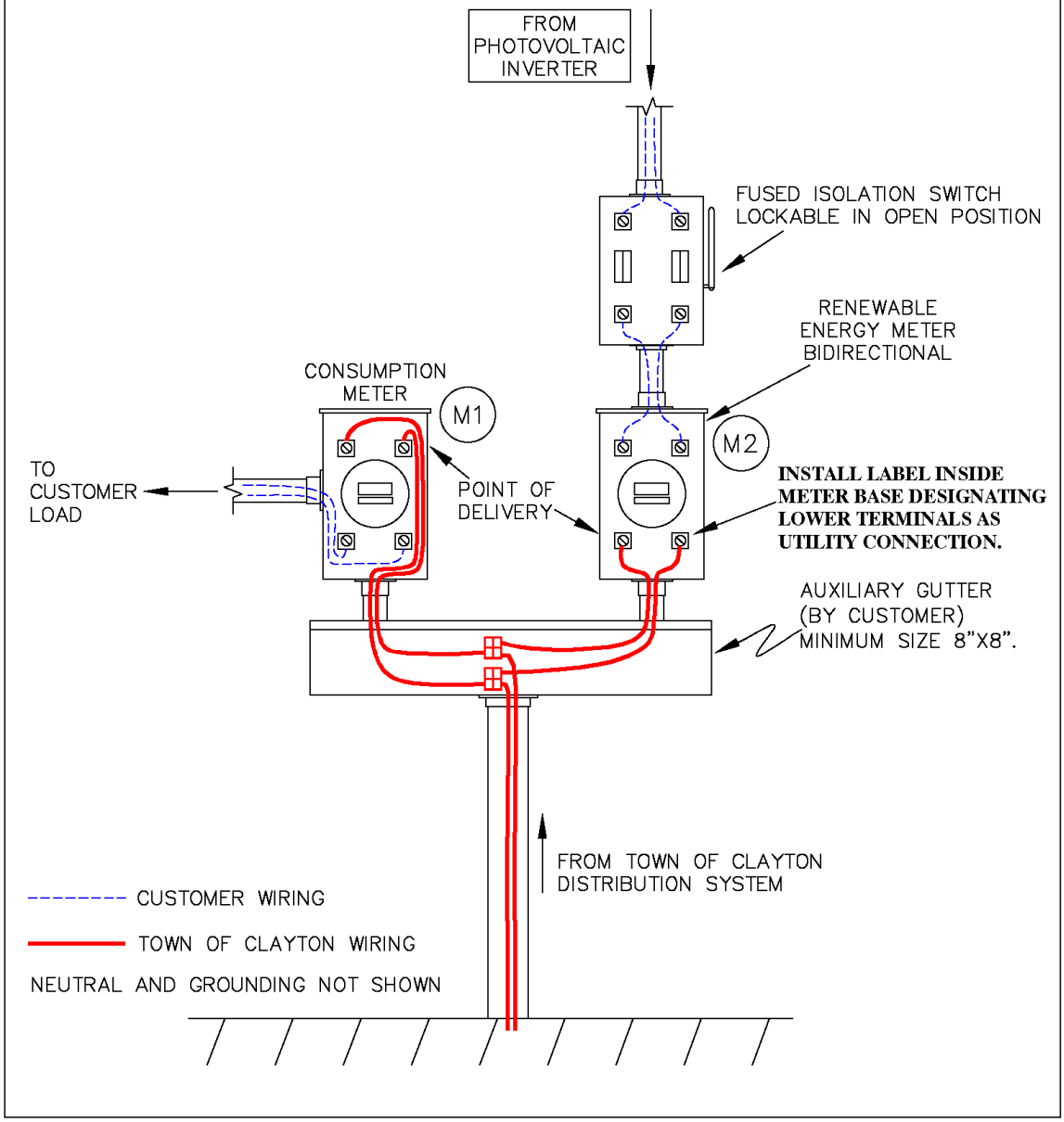
NOTES:

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
Inspections Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002

Solar Permit Application

(Town of Clayton Customers Only)

Application Review: *Staff will review applications for completeness and approval. Applicants will be notified by email when the permit is ready for payment. All applications, plans, and supporting documents should be emailed to PermitSubmittals@TownofClaytonNc.org*

Applicant Information

Applicant Name: _____

Applicant Address: _____ **City:** _____ **State:** _____ **Zip:** _____

Subdivision/Development: _____ **Lot#:** _____

Phone#: _____ **Email:** _____

Site Information

Project Address: _____

Description of Proposed Work: _____

Size of proposed photovoltaic array (in KW AC): _____

Size of existing service? ____ 100 amp ____ 200 amp ____ 400 amp ____ 600 amp _____Other

Is there a battery associated with the proposed installation? ____ Yes ____ No

Is there an EV charger on the premises (or is there a proposed EV Charger)? ____ Yes ____ No

Is the house equipped with natural gas? ____ Yes ____ No
If so, which appliances? (Furnace, Water Heater, Stove, Other)

_____ _____
Applicant's Signature Date

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 _____.