



TOWN OF ROWLEY

## **Municipal Lighting Plant**

47 SUMMER ST, P.O. BOX 355

ROWLEY, MASS. 01969

[978]-948-3992

### **NET METERING POLICY**

This policy sets forth interconnection requirements, equipment specifications, and proposed metering for residential or commercial customers who may choose self-generation of electric energy using photovoltaic (PV), wind or co-generation electric generating equipment. **Inspectional Services must be contacted regarding installations to assure all applicable permits are obtained.**

#### 1. Applicability of Policy

- a) This policy is intended for use at residential or commercial properties. Rowley Municipal Lighting Plant (RMLP) will offer net metering to their customers who generate electricity on the customer's side of the meter, provided that the generating capacity of the customer-generating facility falls between 10 KW to 500 KW in size.
- b) In no circumstances shall the output from the net metering facility be sold to a third party or credited to a third party or another RMLP customer.
- c) Customer generation types include photovoltaic, wind turbine units and micro turbine (heat recovery) installations.

Traditional gasoline or natural gas fired portable or permanently mounted emergency generators are explicitly excluded from this policy.

- d) Maximum peak electric output of the generating installation covered by this policy is 10 to 500 KW in size.
- e) The customer is solely responsible for securing and complying with all local permitting processes including zoning, electrical, building inspection, and any and all other special permits that may be required.

- f) Net metering will be available on a first-come, first-served basis until the cumulative output capacity of net metering systems equals 2.0 percent of RMLP peak demand occurring since July 2012. Customers wishing to participate in the RMLP net metering program should contact RMLP. In its sole discretion, RMLP may limit further the cumulative generating capacity of all Facilities in its service territory.
- g) Installations under this policy will be limited to 50% of the customers annual peak demand. If the customer does not have a demand meter at the premise, the installation will be limited to 40% of the annual energy usage based on a capacity factor of 15%. Installations will be limited to a maximum size of 500 kW.

## 2. General Provisions

### **Access Control**

Representatives of RMLP shall, at all reasonable times, have access to the Customer's Facility to make reasonable inspections. At the Customer's Facility, RMLP representatives shall identify themselves to the Interconnecting Customer's representative, state the object of their visit, and conduct themselves in a manner that will not interfere with the construction or operation of the Customer's Facility. RMLP will have control such that it may open or close the required disconnect switch.

### **Force Majeure**

An event of Force Majeure means any act of God, labor disturbance, act of the public enemy, war, insurrection riot, fire storm or flood, explosion, breakage or accident to machinery or equipment, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond either party's control. A Force Majeure event does not include an act of negligence or intentional wrongdoing. Neither RMLP nor the Interconnecting Customer will be considered in default as to any obligation under Interconnection Requirements if prevented from fulfilling the obligation due to an event of Force Majeure. However, a party whose performance is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligation under these Interconnection Requirements.

### **Indemnification**

The Interconnecting Customer shall at all times indemnify, defend, and hold RMLP 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, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from RMLP's performance of its obligations under these Interconnection Requirements on behalf of the Interconnecting Customer, except in cases of gross negligence or intentional wrongdoing by RMLP.

### **Interconnection Problems**

If, due to the interconnection of the Customer's Facility, when combined with pre-existing facilities interconnected to RMLP's system, the rating of any of RMLP's equipment or the equipment of others connected to RMLP's system will be exceeded or its control function will be adversely affected, RMLP shall have the right to require the Interconnecting Customer to pay for the purchase, installation, replacement or modification of equipment to eliminate the condition. Where such action is deemed necessary by RMLP, RMLP will, where possible, permit the Interconnecting Customer to choose among two or more options for meeting RMLP's requirements.

### **Inspection**

Within ten (10) business days after the receipt of the Final Wiring Inspection, RMLP shall, upon reasonable notice, and at a mutually convenient time, conduct an inspection of the Facility to ensure that all equipment has been properly installed, and that all electric connections have been made in accordance with the RMLP's requirements including these Terms and Conditions and the RMLP's General Terms and Conditions. RMLP has the right to disconnect the Facility in the event of improper installation or non-compliance with building or electrical codes.

### **Termination**

Service may be terminated under the following conditions.

By Interconnecting Customer: The Customer may terminate service under this tariff by providing written notice to RMLP.

By RMLP: RMLP may terminate service under this tariff (1) if the Facility fails to operate for any consecutive twelve month period, (2) in the event that the Facility impairs the operation of RMLP's electric distribution system or service to other Customers or materially impairs the local circuit and the Customer does not cure the impairment at its sole expense, or (3) RMLP terminates service under this tariff.

### 3. Metering

- a) The generating facility must be inverter-based.
- b) The aggregate generation capacity on the distribution circuit to which the Customer Generating Facility will interconnect, including the capacity of the Customer-Generating Facility shall not contribute more than 10% to the distribution circuit's maximum fault current at the point on the high voltage (primary) level that is nearest the proposed point of common coupling as determined by RMLP.
- c) If a single-phase Customer-Generating Facility is to be connected to a transformer center tap neutral of a 240 volt service, the addition of the Customer-Generating Facility shall not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.
- d) The Facility shall provide a disconnect switch at the interconnection point with RMLP that can be opened for isolation. The switch, which must be permanently and clearly marked and labeled for its function, shall be in a readily accessible location normally within **10 feet** of the Customer's service panel, where utility personnel can operate the switch at any time. RMLP shall have the right to open this disconnect switch during emergency conditions and with reasonable notice to the Interconnecting Customer at other times. RMLP shall exercise such right in accordance with Good Utility Practice. The switch shall be gang operated, have a visible break when open, be rated to interrupt the maximum generator or photovoltaic output and be capable of being locked open, tagged and grounded on the RMLP side by RMLP personnel. The switch shall be code compliant and of a type generally accepted for use in the application. The switch should be located within view of the revenue meter.
- e) Interconnecting Customer will be responsible for reasonable and necessary costs incurred by RMLP for the purchase, installation, operation, maintenance, testing, repair and replacement of metering and data acquisition equipment.
- f) Interconnecting customer will be responsible for any engineering cost incurred by RMLP in the interconnection process of the customers generating facility.
- g) If, at any time, any metering equipment is found to be inaccurate by a margin greater than allowed under applicable criteria, rules and standards, RMLP shall cause such metering equipment to be made accurate or replaced. The cost to repair or replace the meter shall be borne by RMLP. Meter readings

for the period of inaccuracy shall be adjusted so far as the same can be reasonably ascertained; provided, however, no adjustment prior to the beginning of the preceding month shall be made except by agreement of the Parties. Each Party shall comply with any reasonable request of the other concerning the sealing of meters and the presence of a representative of either Party shall receive notification anytime that seals are broken and testing is done or other matters affecting the accuracy of the measurement of electricity delivered from the Facility. If either Party believes that there has been a meter failure or stoppage, it shall immediately notify the other.

- h) RMLP shall own the meter and the Interconnecting Customer shall pay to RMLP the cost installed of the metering equipment, a monthly charge to cover meter maintenance, incremental reading and billing costs. These charges, if any, are set forth in the applicable RMLP rates, as amended from time to time.
- i) The net metering facility must be located on property owned or occupied by the customer-generator and must operate in parallel with the RMLP's existing distribution facilities. The primary intent of the net metering facility must be to offset some of the customer-generator's own on-site electric power requirements. RMLP does not allow the use of neighborhood or network net metering.

#### 4. Requirements for Inverter Based Installations

- a) RMLP's distribution circuits generally operate with automatic re-closers, which activate following a trip without regard to whether the Facility is keeping the circuit energized. The Interconnecting Customer is responsible for protecting their equipment from being re-connected out of synch with RMLP's system. The Customer's Facility will be required to automatically disconnect from RMLP's system in the event of a power outage.
- b) For Facilities that utilize photovoltaic (PV) technology, it is required that the system be installed in compliance with IEEE Standard 929-2000, "IEEE Recommended Practice for Utility Interface of (PV) Systems". The inverter shall meet the Underwriters Laboratories Inc. Standard UL 1741, "Static Inverters and Charge Controllers for Use in PV Power Systems". Based on the information supplied by the Interconnecting Customer, if RMLP determines the inverter is in compliance with UL 1741, the Interconnecting Customer's request for interconnection will be approved.
- c) For facilities that utilize wind technology or other direct current energy sources and employ inverters for production of alternating current, the inverter shall meet the Underwriters Laboratories Inc. Standard UL 1741, "Static Inverters and Charge Controllers for Use in Photovoltaic Power Systems." Based on the

information supplied by the Interconnecting Customer, if RMLP determines the inverter is in compliance with UL 1741, the Interconnecting Customer's request for interconnection will be approved.

- d) The installations described in 4b & 4c of this policy shall comply with all requirements of the Massachusetts Electrical Code, including Amendments.
- e) The following information must be submitted by the Interconnecting Customer for review and acceptance by RMLP prior to RMLP's approving the Interconnecting Customer's request for interconnection:
  - An electrical one-line diagram depicting the entire system and how the inverter will be interconnected relative to the service entrance panel and the electric revenue meter.
  - The make, model and manufacturer's specification sheet for the inverter.
  - Application forms

#### 5. Excess Generation Delivered to RMLP

- a) RMLP will install bi-directional metering equipment that is capable of registering the flow of electricity in each direction at the sole expense of the Interconnecting Customer.
- b) During a billing period, if the Interconnecting Customer uses more electricity than it generates, the Customer will be billed based on the rate applicable to their class of service. If during a billing period the Customer generates more electricity than they have used, the Customer will be billed the minimum charge applicable to the Customer's class of service and be credited for the excess electricity generated and fed onto RMLP's system by multiplying the excess electricity generated and measured in KWH by the wholesale cost of energy only, excluding transmission cost. Any credit will appear on the customer's next monthly invoice as a line item with the nomenclature "Net Metering Credit".
- c) Any accumulated kilowatt-hour credits shall be used within 12 months from the month earned or shall revert to RMLP without any compensation to the Customer.

As approved by Rowley Light Commission, July 2013



**ROWLEY MUNICIPAL LIGHTING PLANT**

**NET METERING APPLICATION AND COMPLIANCE FORM**

For Installation of Customer-Owned, Grid Connected  
Electric Generating Systems of 10 kW to 500 KW

**A. Applicant Information:**

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

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

Installation Address: \_\_\_\_\_ Electric Account # \_\_\_\_\_

Daytime Phone: \_\_\_\_\_ Email: \_\_\_\_\_

**B. System Installer Information:**

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

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

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

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

**C. Electric System Information**

Identify Type of System:  Solar PV Array  Fuel Cell  Wind  Other

System Description: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Type/Style: \_\_\_\_\_

Nameplate Data: \_\_\_\_\_

Voltage & Frequency: \_\_\_\_\_

Maximum kW Output: \_\_\_\_\_

**D. Inverter Information**

Manufacturer & Model # \_\_\_\_\_

Nameplate Data: \_\_\_\_\_

\_\_\_\_\_

Voltage & Frequency: \_\_\_\_\_

Operating Power Factor: \_\_\_\_\_

Location:  Indoor  Outdoor  Location on Property: \_\_\_\_\_

**E. Certifications**

The generating facility meets the requirements of applicable IEEE standards and is listed by Underwriters Laboratories (UL) or other nationally recognized testing laboratory

Signed (Equipment Vendor): \_\_\_\_\_ Date: \_\_\_\_\_

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

Listing: \_\_\_\_\_ (UL or other NRTL)

**F. Installation**

1. Proposed installation date: \_\_\_\_\_

2. Submit/Attach a one-line diagram for proposed electrical system (see attached example).

**G. Interconnection Compliance & Owner Acknowledgement**

- o The electrical system referenced above shall meet Rowley Municipal Lighting Plant’s (RMLP’s) “Interconnection Standards for Customer-Owned, Grid Electric Generating Systems of 10KW to 500KW”.
- o Customer shall be solely responsible for obtaining and complying with any and all necessary easements, licenses and permits, or exemptions, as may be required by any federal, state, local statutes, regulations, ordinances or other legal mandates.
- o The customer shall submit documentation to RMLP that the system has been inspected and approved by the local permitting agency regarding electrical code requirements.
- o Customer shall not commence parallel operation of the generating system until written approval of the interconnection has been given by RMLP.
- o By signing of this Application and Compliance Form, Customer acknowledges they have received the Net Metering Policy as approved by the Rowley Light Commission.

Signed (Customer): \_\_\_\_\_ Date: \_\_\_\_\_

**APPROVAL:**

Office Manager: \_\_\_\_\_ Date: \_\_\_\_\_

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

General Manager: \_\_\_\_\_ Date: \_\_\_\_\_