



Town of Rowley
Municipal Lighting Plant
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NET METERING POLICY

This policy sets forth interconnection requirements, equipment specifications, and proposed metering for residential 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 properties only. Specifically, owner occupied, single family/duplex homes. 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 does not exceed 10 (ten) kilowatts.¹
- 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 KW.
- 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.

2. General Provisions

¹ Customer Generator Facilities greater than 10 KW will be reviewed on a case-by-case basis.

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.

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) 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.

- g) RMLP shall own the meter and the Interconnecting Customer shall pay to RMLP 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.

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 the 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 kilowatts 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".

As approved by Rowley Light Commission, June 2010



ROWLEY MUNICIPAL LIGHTING PLANT

NET METERING APPLICATION AND COMPLIANCE FORM

For Installation of Customer-Owned, Grid Connected
Electric Generating Systems of 10 kW or Less

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. Installation

1. Proposed installation date: _____

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

F. Interconnection Compliance & Owner Acknowledgement

- 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 of less".
- 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.
- The customer shall submit documentation to RMLP that the system has been inspected and approved by the local permitting agency regarding electrical code requirements.
- Customer shall not commence parallel operation of the generating system until written approval of the interconnection has been given by RMLP.
- 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: _____

