

FOR
SYSTEMS
10 TO 100
KW(DC)

IN EFFECT
MAY 1, 2015



Renewable Distributed Generation

MIDDLEBOROUGH GAS AND ELECTRIC DEPARTMENT
M.D.P.U. No. 177
RENEWABLE DISTRIBUTED GENERATION TARIFF

Applicability

The following tariff provisions shall be applicable to a Host Customer, as defined herein that requests to install and connect a Renewable Generating facility with a total generating capacity greater than 10 kW (direct current) but less than 100 kW (direct current) to the distribution system of the Middleborough Gas and Electric Department (the “Department”). Service under this rate to any Host Customer is subject to the Department’s printed requirements and the Department’s Terms and Conditions – Distribution Service, as in effect from time to time. Customers with Renewable Distributed Generating facilities with a generating capacity greater than 100 kilowatts who generate all or a significant portion of the Host Customers electrical power and energy requirements, will receive service under the Department’s Renewable Energy Buyback Rate, MDPU 160.

Section 1.01 Definitions

The terms set forth below shall be defined as follows, unless the context otherwise requires.

Applicable General Service Rate means the Department’s rate under which the customer would be eligible to receive firm service if the Customer did not generate any of its own electric power and energy requirements.

Billing Period means the period of time set forth in the Department’s terms and conditions for which the Department bills a Customer for its electricity consumed or estimated to have been consumed.

Customer means any person, partnership, corporation, or any other entity, whether public or private, who obtains electric service at a customer delivery point and who is a customer of record of the Department for its own electricity consumption.

Host Customer means a Customer with a Renewable Distributed Generating Facility that generates electricity on the Customer’s side of the meter.

ISO-NE means ISO New England Inc., the independent system operator for New England, or its successor, authorized by the Federal Energy Regulatory Commission to operate the New England bulk power system and administer New England’s organized wholesale electricity market pursuant to the ISO-NE Tariff and operation agreements with transmission owners.

Generating Credit means the monetary value of the excess electricity generated by a Renewable Distributed Generating Facility, calculated pursuant to Section 1.04, below.

Renewable Distributed Generating Facility means a facility for the production of electrical energy that uses sunlight or wind to generate electricity and is interconnected to the Department.

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Section 1.02 Interconnection

Interconnection of Renewable Distributed Generation facilities is governed by the terms of the Department's Interconnection Application and Agreement, which sets forth the following information:

- (a) Application procedures;
- (b) Information necessary for requests;
- (c) Metering and technical requirements; and
- (d) Termination and suspension provisions.

The Customer shall indicate its request for Renewable Distributed Generation Service on its application.

Section 1.03 Metering and Reporting of Generation

1. The Department shall install, at the Host Customer's expense, a revenue-grade meter to measure the generator's kilowatt-hour ("kWh") output. All electricity used by the customer will flow through the Customer's billing meter, and all electricity produced by the Renewable Distributed Generating Facility will flow through the generator meter.

Section 1.04 Billing

1. All electricity used by the Customer and flowing through the Customer's billing meter will be charged at the Applicable General Service Rate.
2. For all electricity produced by the Renewable Distributed Generating Facility and flowing through the generator meter the Department shall calculate for each Billing Period a Generating Credit equal to the product of:
 - (a) the sum of the kWh generated in the Billing Period; and
 - (b) the sum of the following Department charges in the Applicable General Service Rate:
 - (i) the New York Hydropower Authority Hydropower Credit if applicable;
 - (ii) the Purchased Power Charge;
and
 - (iii) the Purchased Power Adjustment.

For any Billing Period for which the Department calculates a Generating Credit for a Host Customer, the Department shall apply the Generating Credit to the Host Customer's account. The Department shall carry forward, from Billing Period to Billing Period, any remaining Generating Credit balance. At the Host Customer's option any cumulative Generating Credit may be refunded to the Host Customer at the end of a Calendar Quarter.

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Section 1.05 Renewable Energy and Environmental Attributes

The provision of this Renewable Distributed Generation Tariff service does not entitle the Department to ownership of, or title to, the environmental attributes, including renewable energy certificates, associated with any electricity produced by a Renewable Distributed Generation facility.

Rate Filed: April 23, 2015
Effective: May 1, 2015
Filed By: Jacqueline L. Crowley, General Manager



Exhibit A: Interconnection Application and Compliance Form For Photovoltaic Systems Up to 100 kW

A. APPLICANT INFORMATION

Company Name: _____ MGED Account No.: _____ *

Mailing Address: _____ City, State & Zip: _____

Street Address (if different from above): _____ City, State & Zip: _____

Contact Name: _____ Daytime Phone: _____ Fax: _____ *

Email: _____

B. PHOTOVOLTAIC INFORMATION

*****Applicant shall provide schematics & other documentation as required by MGED engineering.*****

System Name/Model: _____ Array DC Power (Watts): _____

List Manufacturer/Model No. for: _____ Modules: _____ Inverter: _____

System Location: _____ Inverter Location: _____ *

AC Disconnect Location: _____

C. INSTALLATION CONTRACTOR INFORMATION

Installation Contractor Name: _____ FL License No.: _____ *

Address: _____ City, State & Zip: _____

Daytime Phone: _____ Fax: _____ *

Email: _____ Proposed Installation Date: _____

D. HARDWARE AND INSTALLATION COMPLIANCE

1. The system hardware is in compliance with Underwriters Laboratories (UL) Standard 1741, Standard for Static Inverters and Charge Controllers for Use in Photovoltaic Systems and UL 1703, Standard for Safety: Flat-Plate Photovoltaic Modules and Panels.
2. The system will be installed in compliance with IEEE 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems the currently adopted National Electrical Code (NEC), National Electric Safety Code (NESC), and local building codes. As planned, the system meets the technical requirements of the MGED Interconnection Requirements.
3. All manufacturers' warranties are in effect, and the system installation will be permitted and inspected by the local wiring inspector.

Signed (Contractor): _____ Date: _____ *

Name (Print): _____ Company: _____ Permit No. _____

E. OWNER ACKNOWLEDGEMENT

I am solely responsible for the operation of this system and will adhere to all instructions, requests and notifications of the MGED when operating this system. I have read and agree to comply with MGED's Interconnection Application & Compliance form requirements attached herein.

Signed (Owner): _____ Date: _____

F. UTILITY APPROVAL

1. Satisfies MGED interconnection requirements

MGED Representative Name (Print): _____ *

MGED Representative Signature: _____ *

2. Confirmed for Activation & Operation:

Inspector Name (Print): _____ *

Inspector Signature: _____ Date: _____ *



Interconnection Agreement for Renewable Distributed Generation Between 10kW and 100kW

This Agreement is made and entered into by and between the Middleborough Gas and Electric Department (“MGED” or “Department”), a municipal electric utility existing under the laws of the State of Massachusetts, whose address is 32 South Main Street, Middleborough, Massachusetts, and _____ (“Customer”), whose electric service address is _____, (the “Service Address”), and is effective as of the date last signed below.

1. REPRESENTATIONS. The signatories hereto individually and collectively make the following representations:

a) They are individually authorized and competent to sign this Agreement and that they have read the Agreement and agree to be bound by its terms.

b) Customer owns the Renewable Distributed Generation system(s) (“DG system”) at the Service Address set forth above, and whose primary business is not the generation of electricity for retail or wholesale sale from the same Service Address and for the purpose of this Agreement is the person in whose name electric service is listed at the Service Address.

c) The Renewable Distributed Generation system(s) for consideration under this agreement is/are:

Technology (solar, wind, etc.): _____

Size: _____ KW (DC capacity)

2. TERMS AND CONDITIONS

a) Customer shall be solely responsible for ensuring that the Renewable Distributed Generation system(s) equipment installed for this program meets all applicable codes, standards, and regulatory requirements.

b) The Renewable Distributed Generation system(s) shall be located at the Service Address at all times during the term of this Agreement.

c) For DG Systems:

c1. The Customer must receive electric power from MGED and be eligible to receive service under the Department’s Renewable Distributed Generation tariff, MDPU No. 177.

c2. The Customer must provide MGED with a copy of the electrical one-line diagram for the DG system.

c3. The Gross Power Rating of the DG system shall be less than 100 kilowatts direct current.

c4. The Customer shall complete a DG Interconnection Application and Compliance Form attached and incorporated herein as Exhibit A, and be granted permission by MGED to interconnect to its electric distribution system prior to the operation of the proposed DG system. The Customer agrees to maintain compliance with all of MGED's interconnection requirements.

c5. MGED shall receive all of the energy generated by the DG system at the Service Address. The Customer's "Billed Energy" shall be applied to the applicable standard tariff energy rate and shall be calculated as the full amount used as metered on this account at the Service Address.

c6. The Customer shall, at the Customer's expense, install and maintain a manual disconnect switch to provide a separation point between the AC power output of the Renewable Distributed Generation system(s) and any Customer facilities connected to the Department's electrical system. The switch must be labeled and highly visible. The manual disconnect switch shall be mounted separately from the meter socket and shall be readily accessible at all times to the Department and shall be capable of being locked in the open position by the Department. The Department may open and lock the switch, isolating the Renewable Distributed Generation system(s) from the Department's electrical service grid without prior notice to the Customer. To the extent practical, the Department will attempt to notify the Customer of its intent to disconnect the Renewable Distributed Generation system(s) from the Department's electrical service grid, but shall have no liability for failure to do so.

c7. The Department may disconnect the Renewable Distributed Generation facility from its system at any time that the Department determines, in its sole discretion, that the safety and reliability of its system may be compromised by the operation of the Facility. In the event that the Renewable Distributed Generation system damages Department's system, the Customer shall be solely responsible for all costs associated with the repair and/or replacement of the damaged portion of the Department's system and/or equipment.

c8. The Department may perform an anti-islanding test or observe the automatic shutdown before giving final written approval for interconnection of the Renewable Distributed Generation system(s). The anti-islanding test requires that the unit shut down upon sensing the loss of power on the distribution system. This can be simulated by either removing the customer meter or opening a disconnection switch while the generator is operating. Voltage across the customer side of the meter or disconnection switch shall be measured and must be observed to reduce to zero within two seconds after disconnection. The test shall be conducted with the generation as close to its full output as possible. If a voltage is sustained after the disconnection, approval of the installation shall not be given until corrective measures are taken with a subsequent successful shutdown test.

c9. The Renewable Distributed Generation system will be installed in compliance with IEEE 1547, "Standard for Interconnecting Distributed Resources with Electric Power Systems", the currently adopted National Electrical Code (NEC), National Electric Safety Code (NESC), and local building codes. The Renewable Distributed Generation system will meet: UL Standard 1741, "Inverters, Converters and Charge Controllers for Use in Independent Power Systems"; UL Standard 1703, Flat-Plate Photovoltaic Modules and Panels; and any Department-specific technical standards. The Department shall not be responsible for the protection of the Renewable Distributed

Generation system. The Customer shall be responsible for protection of the Renewable Distributed Generation system against possible damage resulting from parallel operation with the Department so long as the Department adheres to Good Utility Practice. The Department shall not be held responsible for potential occurrences of transient voltage, harmonics, frequency deviations and voltage fluctuation arising from operation of the Renewable Distributed Generation system.

- d) This Agreement is assignable by Customer to any subsequent purchaser of the Service Address.
- e) Under the terms of this Agreement, MGED does not imply any representation or warranty by MGED of the design, installation or operation of the Renewable Distributed Generation equipment, and MGED expressly disclaims any and all warranties of the equipment as to workmanship, quality, or performance, including the fitness of the equipment for the purpose intended.
- f) MGED shall not be responsible or liable for any personal injury or property damage caused by the Renewable Distributed Generation system(s) or any individual component equipment of the system(s).
- g) Customer shall indemnify, defend, and hold MGED, its employees, agents, successors, assigns, subsidiaries and affiliates harmless against any and all claims, demands, liens, lawsuits, judgments or actions of whatsoever nature that may be brought on account of the installation, maintenance, operation, repair, or replacement of the Solar system or any component equipment of the system.
- h) This Agreement and the terms contained in the Agreement shall be binding and enforceable against the parties for as long as the Agreement remains in effect.
- i) If any disputes arise concerning this Agreement, including but not limited to enforcement of any term or condition of the Agreement, parties specifically agree to be responsible for their own attorney's fees and costs, whether incurred at trial or on appeal unless awarded as part of any settlement or judgment. Failure of either party to enforce any term or condition of this Agreement shall not constitute a waiver of that term or condition or of any other term or condition of this Agreement.
- j) The parties agree that a cause of action for breach of any provision of this Agreement shall not accrue with regard to statutory time limitations until the non-breaching party actually discovers the breach.
- k) If any of the representations of the Customer are false or incorrect, such false or incorrect representation shall constitute a material breach of this Agreement.
- l) This Agreement shall be exclusively governed by and interpreted in accordance with the laws of the State of Massachusetts.
- m) This Agreement shall be binding upon and inure to the benefit of the successors and assigns of the respective parties hereto, and shall not be assigned by either party without the written consent of the other party, which consent shall not be unreasonably withheld. Customer is released from any and all future liability under this Agreement upon its assignment.
- n) Customer acknowledges that as a Municipal Utility, MGED is required to provide public information on the location and size of the Renewable Distributed Generation system(s) to both public and private

entities upon written request unless the Renewable Distributed Generation customer is otherwise exempt.

o) MGED will own, read, and maintain a department Renewable Distributed Generation system(s) meter(s).

p) Customer hereby grants to MGED, its employees, agents, and contractors a non-exclusive license of free access to all areas where Renewable Distributed Generation system meter(s) are installed for any purpose necessary or appropriate to allow MGED to exercise any rights secured to or performance of any obligations imposed by this Agreement.

IN WITNESS WHEREOF, Customer and MGED executed this Agreement which is effective on the date last signed below.

CUSTOMER CORPORATION:

By: _____

Print Name: _____

Title: _____

Date: _____

Middleborough Gas & Electric Department:

By: _____

Name: _____

Title: _____