

Reading Municipal Light Department (RMLD) Board of Commissioners
Power & Rate Committee Regular Session Agenda

Monday, December 5, 2011

7:00 p.m.

General Manager's Conference Room

1. Regular Session

Call Meeting to Order.

2. Executive Session

Suggested Motion:

Move that the Board go into Executive Session to discuss power supply based on Chapter 164 Section 47D exemption from public records and open meeting requirements in certain instances and return to Regular Session.

Note: Polling of the Power & Rate Committee members is required.

3. Return to Regular Session

4. Swift River LLC - Renewable Energy Certificates

5. Sustainable Energy Policy - Attachment

6. Net Metering Rate - Attachment

7. Motion to Adjourn

SUSTAINABLE ENERGY POLICY

Reading Municipal Light Department

To: Vin Cameron

From: Jane Parenteau
Bill Seldon

Date: November 30, 2011

Subject: Response to 10/24 Power & Rate Committee Questions

At the October 24, 2011 joint meeting of the Power & Rate Committee and Citizens' Advisory Board (CAB), additional information was requested regarding the discussion relating to the proposed Sustainability Policy as well as the October 21, 2011 Renewable Energy Certificates (RECs) memo (Attachment 1). Below please find RMLD's analysis and answers to the following questions:

- **If the RMLD was allowed to sell RECs and invest the revenue received in sustainable projects within the RMLD service territory, what would be the cost of this?**

It is estimated that for every \$100,000, the RMLD could potentially install 16kW of solar array, which would generate about 20,000 kWh per year.

- **What is the premium associated with including Renewable projects in the RMLD's power supply portfolio?**

Attachment 2 is the energy analysis of hydro, solar and biomass costs which compares these to a Power Strip which is around the clock (ATC) energy. Capacity costs and benefits have not been included.

For analysis purposes, the RMLD assumed a purchase of 5 MWs of energy. Due to the varying efficiency of intermittent renewable resources, it was assumed that when the renewable project was not generating, the ISO-NE energy would be utilized in order to compare all the projects on a level basis.

The analysis also assumes that the RMLD would be allowed to sell the RECs to reduce the overall costs of the projects, at a cost of \$0.03/kWh, with the exception of solar, where the seller retains the RECs.

Over a 10 year period (2011 – 2020), the Net Present Value of the premium associated with the Renewable Project (including RECs) versus Conventional generation is \$19.3 million.

RMLD supports the diversification of the Power Supply Portfolio to include Renewable Projects. The proposal to the Power & Rate Committee recommends that on a short-term basis, the RMLD set a policy to allow the sale of RECs to minimize the premium associated with the projects paid by all RMLD customers. RMLD believes that a Renewable Portfolio Standard (RPS) could eventually be mandated on municipals. The Purchase Power Agreements (PPAs) that the RMLD has entered into with both Swift River Hydro as well as Concord Steam is allowing these projects to obtain financing and either remain as viable projects or be developed.

Attachments: 2

ATTACHMENT 1

To: Vin Cameron
 From: Jane Parenteau
 Bill Seldon
 Date: October 21, 2011
 Subject: Renewable Energy Certificates (RECs)

The Reading Municipal Light Department (RMLD) entered into a Purchase Power Agreement (PPA) with Swift River Hydro for the output of four hydro projects including capacity, energy, Renewable Energy Certificates (RECs) and all other environmental attributes. In addition, RMLD has signed a PPA with Concord Steam, a biomass project which is scheduled to be operational in early 2013.

Swift River Hydro

Table 1 shows the projected monthly Mwh generation for each of the four projects that RMLD has negotiated a PPA: Woronoco, Turners Falls, Pepperell, and Indian River. Swift River currently has a PPA for the Collins project with NSTAR which expires in September, 2013.

**Table 1
 Projected Monthly Mwh**

	Average <u>Woronoco</u>	Average <u>Turners Falls</u>	Average <u>Pepperell³</u>	2011 <u>Indian River</u>	2011-12 Total <u>Energy Output</u>	Average <u>Collins</u>	2015 Total <u>Energy Output</u>
January	993	139	685	307	2,124	581	2,704
February	898	169	688	263	2,018	515	2,533
March	1,367	418	972	440	3,197	707	3,903
April	1,503	392	957	793	3,645	703	4,348
May	1,267	231	811	634	2,944	665	3,609
June	750	13	529	329	1,621	442	2,063
July	460	247	308	154	1,168	271	1,439
August	387	244	264	129	1,024	258	1,282
September	364	0	233	127	723	215	937
October	521	68	410	207	1,206	313	1,519
November	839	91	566	379	1,875	440	2,314
December	1,001	264	700	467	2,433	561	2,993
Annual Output:	10,350	2,276	7,123	4,228	23,978	5,667	29,645
CT Class 1 RECs:	3,881 ¹	2,276 ⁴	7,123 ⁵	4,228 ⁸	17,509	-	17,509
CT Class 2 RECs:	6,469 ¹	-	-	-	6,469	5,667 ¹⁰	12,136
Rf New RECs:	3,881 ²	-	3,775 ⁶	-	7,657	-	7,657
Rf Existing RECs:	6,469 ²	-	3,348 ⁶	-	9,817	-	9,817
MA Class 1 RECs:	4,037 ³	-	8,500 ⁷	4,228 ⁹	16,765	5,667 ¹¹	22,432
MA Class 2 RECs:	6,314 ³	-	-	-	6,314	-	6,314

The RMLD has several options available regarding RECs.

Potential Options:

Option 1: If the RMLD would like to refer to the output of the hydro projects as “renewable”, then RMLD would need to retire the RECs from the projects. By doing so, the value of the RECs would be zero.

Option 2: Currently the RMLD does not have a RPS. The RMLD could set a policy where a portion of the RECs are sold and a portion could be retired. This would provide RMLD with additional funds that could be earmarked for other sustainable projects within the RMLD service territory (i.e., Solar on municipal buildings).

Option 3: The RMLD could market all the RECs until it has a RPS. The revenue that RMLD receives as a result of this could be used to lower the overall cost of the project. For Swift River, it is estimated that utilizing this option could reduce the overall cost of the project by approximately \$20/Mwh.

Energy Services would like to work with the RMLD Board and CAB to determine the direction that would best serve the interest of the RMLD customers.

With the lack of an RPS, many municipalities are marketing the value of the RECs associated with their renewable resources. These systems include Ipswich, Princeton, Taunton and Templeton. Additionally, Holden, Wellesley, Middleborough, and Concord are currently selling their Solar RECs (SRECs).

We look forward to discussing this concept with you as well as both the RMLD and CAB Boards.

Revision No. I

RMLD Policy No,

Effective Date

Review Date

Sustainable Energy Policy

General Manager

Per Board Vote
Chairman/Date

I. PURPOSE

- A. To develop a practical approach to addressing the need for sustainable energy alternatives that are energy efficient while simultaneously balancing power supply costs.
- B. To establish general guidelines that promote practical, cost efficient sustainable energy alternatives.

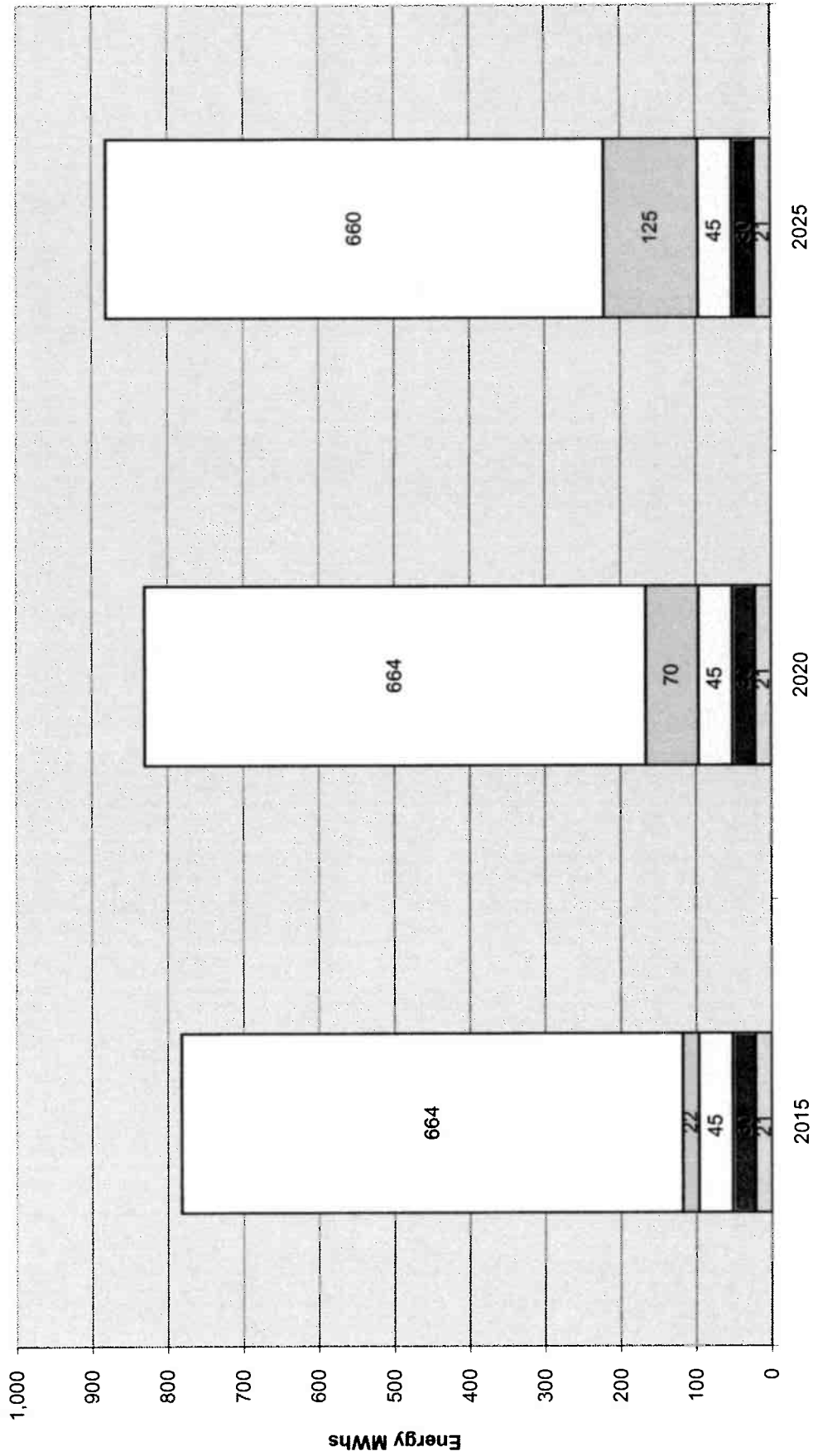
II. RESPONSIBILITIES

- A. RMLD Commission
 - 1. Responsible for approving this policy.
 - 2. Representation for the Board of Commissioners is governed by RMLD Policy #19 as revised.
- B. RMLD Power & Rate Committee
 - 1. Review all RMLD recommended sustainable energy alternatives and ensure that they meet the policy guidelines.
- ~~C.~~ C. General Manager
 - 1. Responsible for implementing this policy.
- D. Energy Services Division
 - 1. Responsible for assisting the General Manager in implementing this policy and associated activities.
 - 2. Responsible for presenting the General Manager with projects that staff has determined meet the criteria of this policy.
 - 3. Responsible for evaluating and overseeing the projects necessary to achieve the goals of this policy.

III. POLICY ELEMENTS

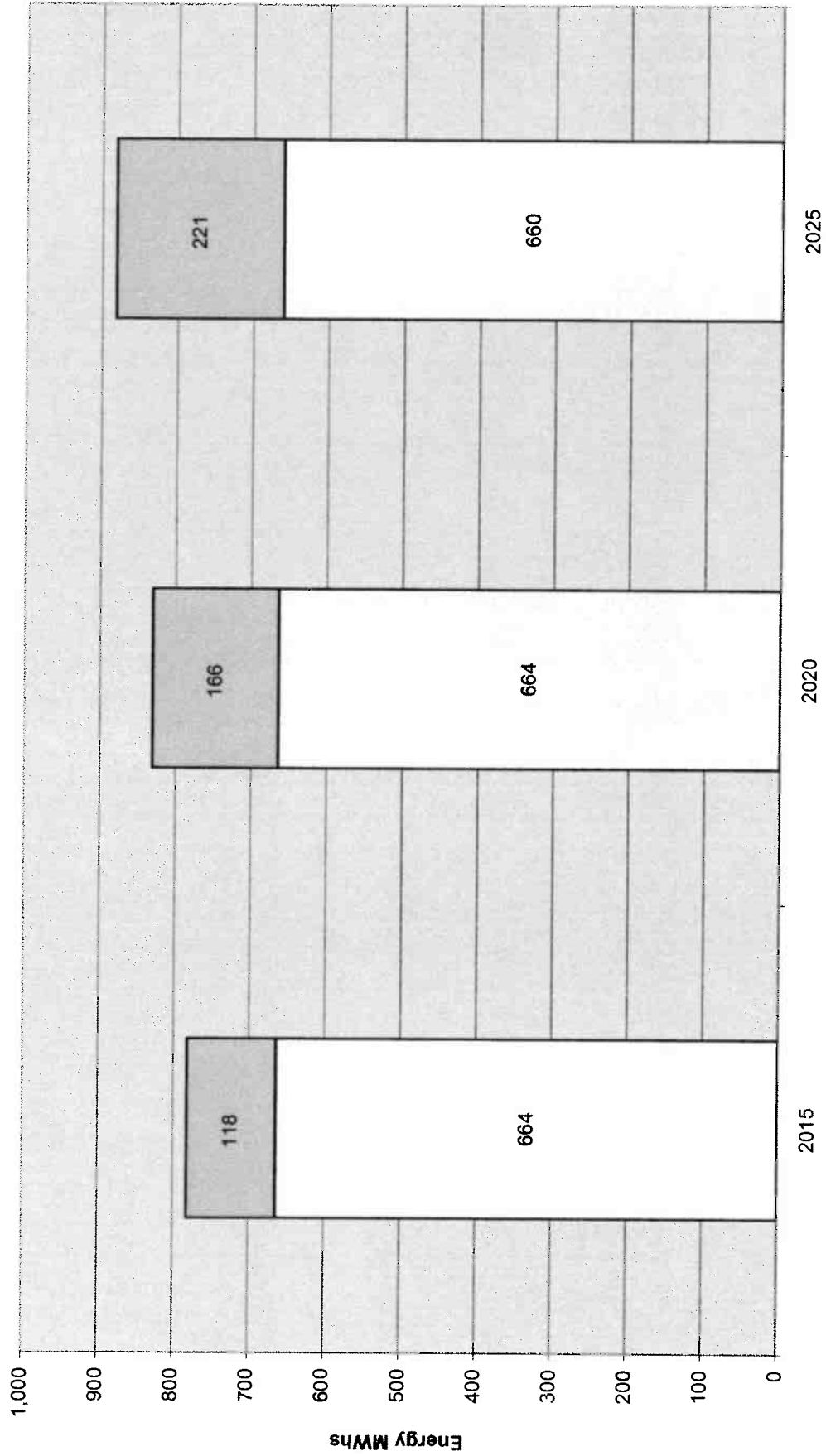
- A. The RMLD is striving to develop a practical approach to addressing the need for sustainable energy alternatives while simultaneously balancing power supply costs. Sustainable energy meets the needs of the present without compromising future generations. Sustainable energy sources can include, but are not limited to hydro, solar, wind, geothermal and biomass-energy.
- B. The RMLD will review the power supply portfolio from time to time with the intention of meeting specific sustainability target percentages. Specifically RMLD will strive to reach 15 percent sustainability by 2015, 20 percent sustainability by 2020 and 25 percent sustainability by 2025. These target dates will be reviewed by the Power and Rate Committee every three years.
- C. If Massachusetts law requires the RMLD to Participate in Massachusetts Renewable Portfolio Standard (RPS) the RMLD will review and make required adjustments to the RMLD's power supply portfolio.
- D. The RMLD will analyze sustainable power supply projects with a competitive average power supply cost. Only projects that meet this criterion will initially be brought to the General Manager for further review.
- E. Sustainable energy projects shall provide all project attributes including, but not limited to capacity, energy and Renewable Energy Certificates (RECs) Solar Project RECs will be excluded from this requirement.
- F. In the interest of providing RMLD ratepayers with sustainable energy that is cost effective the RMLD shall have the ability to market all or a portion of the RECs from any given potential project until the target date deadline or an RPS becomes applicable to the RMLD. At such time the RECs will be retired up to the target amount or the amount required by required by the RPS.
- G. The RMLD will strive to diversify sustainable energy projects by type, size, and location and will also include environmental impacts in the evaluation process.

Proposed Sustainable Energy Amounts



Pasny
 Swift River
 Concord Steam
 New Sustainable
 Non Sustainable

Proposed Sustainable Energy Amounts



□ Non Sustainable ■ Sustainable

NET METERING RATE

NET METERING COMMERCIAL

Commercial/Industrial Customer Owned Generation

Available in:

Reading, Lynnfield Center, North Reading, and Wilmington

Applicable to:

Individual commercial/industrial customers for all commercial uses. This rate and the Terms and Conditions contained therein govern certain renewable generation facilities located on a commercial/industrial customer's premise, where the facility is owned or leased by the commercial/industrial customer, located in the customer premise and used solely for the purpose of the customer's own consumption.

Rates and Billing:

During a billing period, if the customer uses more electricity than its facility feeds back into RMLD's system, then the customer will be billed based on the rate applicable to that customer's class of service under the applicable RMLD tariff.

If, during a billing period, the customer's facility feeds back on to the RMLD system more electricity than is supplied by RMLD, the customer shall be billed the minimum charge applicable to customer's class of service and shall be credited for the excess electricity in kWh generated and fed into RMLD's system up to 50% of the customer's historic peak demand; however, RMLD reserves the right to discontinue credit for such excess to the extent that it deems unnecessary to meet the needs of RMLD's customers, upon thirty (30) days' notice to customer. The rate credited to the customer for excess energy fed into RMLD's distribution system shall be equal to the then-applicable RMLD's Monthly Fuel Charge, which may be adjusted by the Standard Fuel Charge Clause, for the billing period in which the credit was generated.

RMLD may impose additional Terms and Conditions, as it deems necessary, in its sole discretion, for the protection of its distribution system, service territory, or its customers.

General Terms:

Service hereunder is subject to the General Terms and Conditions which are incorporated herein and are a part of this rate.

Rate Filed:

Effective: On Billing on or After

Filed by: Vincent F. Cameron Jr, General Manager

RMLD Terms and Conditions for Commercial Customer Owned Generation

This tariff and the terms and conditions contained herein govern generation facilities located on a commercial customer's (*i.e.*, a customer currently receiving service from RMLD pursuant to one of RMLD's commercial and industrial tariffs) premises, where such facilities are owned or leased by the commercial customer, located on the customer's premises and used solely for the purpose of the customer's own consumption.

Availability: Net metering is available to generation facilities owned or leased by a commercial customer, located on the commercial customer's property where such customer currently receives service from RMLD, for the purpose of offsetting all or part of that customer's own electric power requirements from solar, wind, fuel cell or hydroelectric sources ("Facility"). The use of a Facility for providing service to a third party is strictly prohibited. Under no circumstance shall output from the Facility be provided or credited to any third party. The availability of net metering to a commercial customer that owns or leases a Facility ("Customer") is subject to the terms and conditions contained in this tariff. RMLD's General Terms and Conditions shall also apply to service under this tariff and Terms and Conditions, where not inconsistent with any specific provision hereof. In its sole discretion, RMLD may limit the cumulative generating capacity of all Facilities in its service territory.

1. Construction of the Facility. The Customer may proceed to construct the Facility once the RMLD has received the completed Attachment 1 - Application for Commercial Customer Owned Generation and said application has been approved by the RMLD. The Application shall be accompanied by a one-line diagram of the proposed Facility, and the application fee as determined by RMLD. The RMLD will not approve any such application if it determines that the Facility will have an adverse impact on RMLD's system or does not or will not comply with any of RMLD's Terms and Conditions. The Facility system capacity is subject to RMLD inspection and approval. The Facility shall be designed, constructed and operated in a manner that causes it to meet or exceed all applicable safety and electrical standards, including but not limited to the Massachusetts Building Code, the Massachusetts Department of Public Utilities' regulations, the National Electric Code, the National Electrical Safety Code, Institute of Electronic, and Electrical Engineers (IEEE), United Laboratories (UL) and RMLD's General Terms and Conditions for Service. The Customer is responsible for all permits and regulatory approvals necessary for construction of the Facility.

2. Interconnection and Operation. The Customer may operate Facility and interconnect with the RMLD's system only after the following has occurred:

2.1 Municipal Inspection. Upon completing construction, the Interconnecting Customer will cause the Facility to be inspected or otherwise certified and/or approved by the local wiring inspector.

2.2 Certificate of Completion. The Customer shall return the Certificate of Completion appearing as Attachment 2 – Certification of Completion for Commercial Customer Owned Generation, to the RMLD, P.O. Box 150, Reading, MA 01867-250.

2.3 RMLD Right to Inspection. Within ten (10) business days after the receipt of the Certificate of Completion, the RMLD 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 RMLD's requirements including these Terms and Conditions and RMLD's General Terms and Conditions. The RMLD has the right to disconnect the Facility in the event of improper installation or failure to return the Certificate of Completion to the RMLD.

2.4 Interconnection Metering/Wiring. The Customer shall furnish and have installed, if not already in place, the necessary meter socket and wiring in accordance with all applicable safety and electrical standards. The Customer shall have installed a second meter socket and necessary wiring between the output of the Facility and the Customer's main electrical service. The meter socket shall be located outside of a location approved by RMLD. The second meter socket shall be supplied by the RMLD at the Customer's expense. The Customer shall supply a safety disconnect switch adjacent to RMLD's metering equipment that is accessible by RMLD at all times.

2.5 Payment of Any Upgrades. The Customer shall be responsible for paying RMLD for any upgrades to RMLD's system necessitated by the connection of the Facility to RMLD's system. The Customer is also responsible for equipment expenses including net meters necessary to accommodate the Facility as set forth herein.

3. Safe Operation and Maintenance. The Customer shall be solely responsible for constructing, operating, maintaining, and repairing the Facility in a safe manner.

The RMLD may temporarily disconnect the Facility to facilitate planned or emergency RMLD work. In addition, RMLD may disconnect the Facility from its system at any time that RMLD determines, in its sole discretion, that the safety and reliability of RMLD's system may be compromised by the operation of the Facility. In the event that

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Effective:

Filed by:

**Town of Reading, Massachusetts
Municipal Light Department**

MDPU #

Facility damages RMLD's system, the Customer shall be solely responsible for all costs associated with the repair and/or replacement of damaged portion of RMLD's system and/or equipment.

4. Metering and Billing. All Facilities constructed, installed, inspected, operated and maintained in accordance with these Terms and Conditions qualify for net metering as follows:

4.1 RMLD Installs Net Meter. RMLD shall furnish and install a meter capable of net metering within ten (10) business days after the inspection of the Facility set forth in Section 2.3.

5. Limitation of Liability, Indemnification and Insurance. RMLD shall not be liable to the Customer or any other person for any loss, injury, damage, casualty, fees or penalties, asserted on the basis of any theory, arising from, related to or caused by the construction, installation, operation, maintenance or repair of the Facility, and associated equipment and wiring, except to the extent of its own gross negligence or willful misconduct, but only to the extent permitted by law. Neither by inspection nor non-rejection nor in any other way does RMLD give any warranty, expressed or implied as to the adequacy, safety or other characteristics of any equipment, wiring or devices, installed on the Customer's premises, including the Facility. The Customer shall indemnify and hold harmless RMLD, its board members, managers, employees, agents, consultants, attorneys and assigns from and against any and all losses, claims, damages, costs, demands, fines, judgments, penalties, payments and liabilities, together with any costs and expenses (including attorneys' fees) incurred in connection with, resulting from, relating to or arising out of the construction, operation, maintenance and repair of the Facility, including the Customer's failure to comply with these Terms and Conditions or any abnormality or failure in the operation of the Facility, or any adverse impact to RMLD's system or its other customers. The Customer shall maintain sufficient insurance to cover any damage to RMLD's system caused by the construction, operation, maintenance and repair the Facility and shall name RMLD as additional insured. The Customer shall provide RMLD with proof of satisfactory insurance upon request by RMLD.

6. Termination. Service may be terminated under the following conditions.

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

6.2 By RMLD. The RMLD may terminate service under this tariff (1) if the Facility fails to operate for any consecutive twelve month period or (2) in the event that the Facility impairs the operation of RMLD'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.

7. Assignment/Transfer of Ownership of the Facility. In the event that a transfer of ownership of the Facility to a new Customer occurs, the new Customer must file Attachment 1 – Application for Commercial Customer Owned Generation and the application must be approved by RMLD.

8. Rates and Billing. During a billing period, if the Customer uses more electricity than its Facility feeds back into RMLD's system, then the Customer will be billed based on the rate applicable to that Customer's class of service under the applicable RMLD tariff. If, during a billing period, the Customer's Facility feeds back on to the RMLD system more electricity than is supplied by RMLD, the Customer shall be billed the minimum charge applicable to Customer's class of service and shall be credited for the excess electricity in kWh generated and fed into RMLD's system; however, RMLD reserves the right to discontinue credit for such excess to the extent that it deems unnecessary to meet the needs of RMLD's customers, upon thirty (30) days' notice to Customer. The rate credited to the Customer for excess energy fed into RMLD's distribution system shall be equal to the then-applicable RMLD's Monthly Fuel Charge, which may be adjusted by the Standard Fuel Adjustment Clause, for the billing period in which the credit was generated.

RMLD may impose additional Terms and Conditions as it deems necessary, in its sole discretion, for the protection of its distribution system, service territory, or its customers.

Rate Filed:

Effective:

Filed by:

Attachment 1
Application for Commercial Customer Owned Generation

Contact Information

Legal Name and address of Interconnecting Customer applicant

RMLD Customer (print): _____

Name and Title of Individual Filing Application: _____

Address of Interconnection Facility: _____

City: _____ State _____ Zip Code: _____

Telephone (Office): _____ (Cell): _____

Facsimile Number: _____ E-Mail Address: _____

Alternative Contact Information (e.g., system installation contractor or coordinating company)

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Office): _____ (Cell): _____

Facsimile Number: _____ E-Mail Address: _____

Facility Information

RMLD Account Number (required – on bill) _____

Meter Number(s) (required – on bill) _____

Inverter Manufacturer: _____ Model Name & #: _____ Quantity Used: _____

Nameplate Rating: _____ (kW) _____ (kVA) _____ (AC Volts) Single _____ or Three _____ Phase

System Design Capacity: _____ (kW) _____ (kVA)

Electrical Contractor: Name, address, phone # and contact name

Prime Mover. Photovoltaic Fuel Cell IC Engine Other: _____

Energy Source: Solar Wind Hydro Natural Gas Other: _____

UL1741 Listed? Yes _____ No _____

One line diagram attached? Yes _____ No _____

Estimated Installation Date: _____ Estimated In-Service Date: _____

Customer Signature

I hereby certify that, to the best of my knowledge, all of the information provided in this application is true and I have reviewed and agree to the RMLD's

Tariff MDPU # _____ and Terms and Conditions for Commercial Customer Owned Generation :

Rate Filed:

Effective:

Filed by:

1209494_1

Town of Reading, Massachusetts
Municipal Light Department

MDPU # 226

Interconnecting Customer Signature _____ Date _____

Title: _____

Please attach manufacturer's document showing UL1741 listing to this document and mail to above address.

Approval to Install Facility (For RMLD use only)

Installation of the Facility is approved contingent upon the terms and conditions of this Agreement, and agreement to any system modifications, if required

(Are system modifications required? Yes No To be Determined).

RMLD Signature: _____ Title: _____ Date: _____

RMLD UA Number: _____ RMLD waives inspection/witness test? Yes__ No ____

Rate Filed:
Effective:
Filed by:

1209494_1

Attachment 2
Certificate of Completion for Commercial Customer Owned Generation
Certificate of Completion

Installation Information

Interconnecting Customer (Print): _____
Title: _____
Mailing Address: _____
Location of Facility (if different from above): _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Facsimile Number: _____ E-Mail Address: _____
Account # (required - on bill) _____ Meter # (required - on bill) _____

Electrician or Electrical Installation Contractor:

Business Name: _____ Contact Name (Print) _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Facsimile Number: _____ E-Mail Address: _____
License number: _____
RMLD Date of Installation Approval: _____ Signature _____
RMLD Utility Authorization Number _____

Inspection:

The system has been installed and inspected in compliance with the local Building/Electrical Code of

(City/County)

Signed (local Electrical Wiring Inspector), _____

Name (printed): _____

Date: _____

Rate Filed:

Effective:

Filed by:

**Attachment 2
Certificate of Completion for Commercial Customer Owned Generation
Certificate of Completion
(Continued)**

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

RMLD
P.O. BOX 150
READING MA 01867-0250

Received by RMLD _____
Date & Initial

Rate Filed:
Effective:
Filed by:
1209495_1

NET METERING RESIDENTIAL

Residential Customer Owned Renewable Generation Under 20 kW

Available in:

Reading, Lynnfield Center, North Reading, and Wilmington

Applicable to:

Individual residential customers for all domestic uses. This rate and the Terms and Conditions contained therein govern certain renewable generation facilities located on a residential customer's premise, where the facility is owned or leased by the residential customer, located in the customer premise and used solely for the purpose of the customer's own consumption.

Rates and Billing:

During a billing period, if the customer uses more electricity than its premise feeds back into RMLD's system, then the customer will be billed based on the rate applicable to that customer's class of service under the applicable RMLD tariff.

If, during a billing period, the customer's facility feeds back on to the RMLD system more electricity than is supplied by RMLD, the customer shall be billed the minimum charge applicable to customer's class of service and shall be credited for the excess electricity in kWh generated and fed into RMLD's system, however, RMLD reserves the right to discontinue credit for such excess to the extent that it deems unnecessary to meet the needs of RMLD's customers, upon thirty (30) days' notice to customer. The rate credited to the customer for excess energy fed into RMLD's distribution system shall be equal to the then-applicable RMLD's Monthly Fuel Charge, which may be adjusted by the Standard Fuel Charge Clause, for the billing period in which the credit was generated.

RMLD may impose additional Terms and Conditions, as it deems necessary, in its sole discretion, for the protection of its distribution system, service territory, or its customers.

General Terms:

Service hereunder is subject to the General Terms and Conditions which are incorporated herein and are a part of this rate.

Rate Filed:

Effective: On Billing on or After

Filed by: Vincent F. Cameron Jr, General Manager

RMLD Terms and Conditions for Residential Customer Owned Generation Less than 20 kW

This tariff and the terms and conditions contained herein govern generation facilities located on a residential customer's premises, where such facilities are owned or leased by the residential customer, located on the customer's premises, and used solely for the purpose of the customer's own consumption.

Availability: Net metering is available to generation facilities owned or leased by a residential customer, located on the residential customer's property where such customer currently receives service from RMLD, for the purpose of offsetting all or part of that customer's own electric power requirements and capable of producing no more than 20 KW from solar, wind, fuel cell, combined heat and power, or hydroelectric sources ("Facility"). The use of a Facility for providing service to a third party is strictly prohibited. Under no circumstance shall output from the Facility be provided or credited to any third party. The availability of net metering to a residential customer that owns or leases a Facility ("Customer") is subject to the terms and conditions contained in this tariff. RMLD's General Terms and Conditions shall also apply to service under this tariff and Terms and Conditions, where not inconsistent with any specific provision hereof. In its sole discretion, RMLD may limit the cumulative generating capacity of all Facilities in its service territory.

1. Construction of the Facility. The Customer may proceed to construct the Facility once the RMLD has received the completed Attachment 1 - Application for Residential Customer Owned Generation Under 20 kW and said application has been approved by the RMLD. The Application shall be accompanied by a one-line diagram of the proposed Facility, and the application fee as determined by RMLD. The RMLD will not approve any such application if it determines that the Facility will have an adverse impact on RMLD's system or does not or will not comply with any of RMLD's Terms and Conditions. The Facility system capacity is subject to RMLD inspection and approval. The Facility shall be designed, constructed and operated in a manner that causes it to meet or exceed all applicable safety and electrical standards, including but not limited to the Massachusetts Building Code, the Massachusetts Department of Public Utilities' regulations, the National Electric Code, the National Electrical Safety Code, Institute of Electronic, and Electrical Engineers (IEEE), United Laboratories (UL) and RMLD's General Terms and Conditions for Service. The Customer is responsible for all permits and regulatory approvals necessary for construction of the Facility.

2. Interconnection and Operation. The Customer may operate Facility and interconnect with the RMLD's system only after the following has occurred:

2.1 Municipal Inspection. Upon completing construction, the Interconnecting Customer will cause the Facility to be inspected or otherwise certified and/or approved by the local wiring inspector.

2.2 Certificate of Completion. The Customer shall return the Certificate of Completion appearing as Attachment 2 - Certification of Completion for Residential Customer Owned Generation Under 20 kW, to the RMLD, P.O. Box 150, Reading, MA 01867-250.

2.3 RMLD Right to Inspection. Within ten (10) business days after the receipt of the Certificate of Completion, the RMLD 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 RMLD's requirements including these Terms and Conditions and RMLD's General Terms and Conditions. The RMLD has the right to disconnect the Facility in the event of improper installation or failure to return the Certificate of Completion to the RMLD.

2.4 Interconnection Metering/Wiring. The Customer shall furnish and have installed, if not already in place, the necessary meter socket and wiring in accordance with all applicable safety and electrical standards. The Customer shall have installed a second meter socket and necessary wiring between the output of the Facility and the Customer's main electrical service. The meter socket shall be located outside of a location approved by RMLD. The second meter socket shall be supplied by the RMLD at the Customer's expense. The Customer shall supply a safety disconnect switch adjacent to RMLD's metering equipment that is accessible by RMLD at all times.

2.5 Payment of Any Upgrades. The Customer shall be responsible for paying RMLD for any upgrades to RMLD's system necessitated by the connection of the Facility to RMLD's system. The Customer is also responsible for equipment expenses including net meters necessary to accommodate the Facility as set forth herein.

3. Safe Operation and Maintenance. The Customer shall be solely responsible for constructing, operating, maintaining, and repairing the Facility in a safe manner.

The RMLD may temporarily disconnect the Facility to facilitate planned or emergency RMLD work. In addition, RMLD may disconnect the Facility from its system at any time that RMLD determines, in its sole discretion, that the safety and reliability of RMLD's system may be compromised by the operation of the Facility. In the event that

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**Town of Reading, Massachusetts
Municipal Light Department**

MDPU #

Facility damages RMLD's system, the Customer shall be solely responsible for all costs associated with the repair and/or replacement of damaged portion of RMLD's system and/or equipment.

4. Metering and Billing. All Facilities constructed, installed, inspected, operated and maintained in accordance with these Terms and Conditions qualify for net metering as follows:

4.1 RMLD Installs Net Meter. RMLD shall furnish and install a meter capable of net metering within ten (10) business days after the inspection of the Facility set forth in Section 2.3.

5. Limitation of Liability, Indemnification and Insurance. RMLD shall not be liable to the Customer or any other person for any loss, injury, damage, casualty, fees or penalties, asserted on the basis of any theory, arising from, related to or caused by the construction, installation, operation, maintenance or repair of the Facility, and associated equipment and wiring, except to the extent of its own gross negligence or willful misconduct, but only to the extent permitted by law. Neither by inspection nor non-rejection nor in any other way does RMLD give any warranty, expressed or implied as to the adequacy, safety or other characteristics of any equipment, wiring or devices, installed on the Customer's premises, including the Facility. The Customer shall indemnify and hold harmless RMLD, its board members, managers, employees, agents, consultants, attorneys and assigns from and against any and all losses, claims, damages, costs, demands, fines, judgments, penalties, payments and liabilities, together with any costs and expenses (including attorneys' fees) incurred in connection with, resulting from, relating to or arising out of the construction, operation, maintenance and repair of the Facility, including the Customer's failure to comply with these Terms and Conditions or any abnormality or failure in the operation of the Facility, or any adverse impact to RMLD's system or its other customers. The Customer shall maintain sufficient insurance to cover any damage to RMLD's system caused by the construction, operation, maintenance and repair the Facility and shall name RMLD as additional insured. The Customer shall provide RMLD with proof of satisfactory insurance upon request by RMLD.

6. Termination. Service may be terminated under the following conditions.

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

6.2 By RMLD. The RMLD may terminate service under this tariff (1) if the Facility fails to operate for any consecutive twelve month period or (2) in the event that the Facility impairs the operation of RMLD'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.

7. Assignment/Transfer of Ownership of the Facility. In the event that a transfer of ownership of the Facility to a new Customer occurs, the new Customer must file Attachment 1 – Application for Residential Customer Owned Generation and the application must be approved by RMLD.

8. Rates and Billing. During a billing period, if the Customer uses more electricity than its Facility feeds back into RMLD's system, then the Customer will be billed based on the rate applicable to that Customer's class of service under the applicable RMLD tariff. If, during a billing period, the Customer's Facility feeds back on to the RMLD system more electricity than is supplied by RMLD, the Customer shall be billed the minimum charge applicable to Customer's class of service and shall be credited for the excess electricity in kWh generated and fed into RMLD's system; however, RMLD reserves the right to discontinue credit for such excess to the extent that it deems unnecessary to meet the needs of RMLD's customers, upon thirty (30) days' notice to Customer. The rate credited to the Customer for excess energy fed into RMLD's distribution system shall be equal to the then-applicable RMLD's Monthly Fuel Charge, which may be adjusted by the Standard Fuel Adjustment Clause, for the billing period in which the credit was generated.

RMLD may impose additional Terms and Conditions as it deems necessary, in its sole discretion, for the protection of its distribution system, service territory, or its customers.

Rate Filed:

Effective:

Filed by:

Attachment 1
Application for Residential Customer Owned Generation Under 20 kW

Contact Information

Legal Name and address of Interconnecting Customer applicant

RMLD Customer (print): _____

Name and Title of Individual Filing Application: _____

Address of Interconnection Facility: _____

City: _____ State _____ Zip Code: _____

Telephone (Office): _____ (Cell): _____

Facsimile Number: _____ E-Mail Address: _____

Alternative Contact Information (e.g., system installation contractor or coordinating company)

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Office): _____ (Cell): _____

Facsimile Number: _____ E-Mail Address: _____

Facility Information

RMLD Account Number (required – on bill) _____

Meter Number(s) (required – on bill) _____

Inverter Manufacturer: _____ Model Name & #: _____ Quantity Used: _____

Nameplate Rating: ____ (kW) ____ (kVA) ____ (AC Volts) Single ____ or Three ____ Phase

System Design Capacity: ____ (kW) ____ (kVA)

Electrical Contractor: Name, address, phone # and contact name

Prime Mover. Photovoltaic Fuel Cell IC Engine Other: _____

Energy Source: Solar Wind Hydro Natural Gas Other: _____

UL1741 Listed? Yes ____ No ____

One line diagram attached? Yes ____ No ____

Estimated Installation Date: _____ Estimated In-Service Date: _____

Rate Filed:

Effective:

Filed by:

Customer Signature

I hereby certify that, to the best of my knowledge, all of the information provided in this application is true and I have reviewed and agree to the RMLD's Tariff MDPU # ___ and Terms and Conditions for Commercial Customer Owned Generation Under 20 kW.

Interconnecting Customer Signature _____ Date _____

Title: _____

Please attach manufacturer's document showing UL1741 listing to this document and mail to above address.

Approval to Install Facility (For RMLD use only)

Installation of the Facility is approved contingent upon the terms and conditions of this Agreement, and agreement to any system modifications, if required

(Are system modifications required? Yes No To be Determined).

RMLD Signature: _____ Title: _____ Date: _____

RMLD UA Number: _____ RMLD waives inspection/witness test? Yes ___ No ___

Rate Filed:

Effective:

Filed by:

**Attachment 2
Certificate of Completion for Residential Customer Owned Generation Under 20 kW
Certificate of Completion**

Installation Information

Interconnecting Customer (Print): _____
Title: _____
Mailing Address: _____
Location of Facility (if different from above): _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Facsimile Number: _____ E-Mail Address: _____
Account # (required - on bill) _____ Meter # (required - on bill) _____

Electrician or Electrical Installation Contractor:

Business Name: _____ Contact Name (Print) _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Facsimile Number: _____ E-Mail Address: _____
License number: _____
RMLD Date of Installation Approval: _____ Signature _____
RMLD Utility Authorization Number _____

Inspection:

The system has been installed and inspected in compliance with the local Building/Electrical Code of

(City/County)

Signed (local Electrical Wiring Inspector), _____

Name (printed): _____

Date: _____

**Rate Filed:
Effective:
Filed by:**

**Attachment 2
Certificate of Completion for Residential Customer Owned Generation
Certificate of Completion
(Continued)**

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

RMLD
P.O. BOX 150
READING MA 01867-0250

Received by RMLD _____
Date & Initial

Rate Filed:
Effective:
Filed by:

