

## FOR BOARD ACTION

Agenda Item # 13

Meeting Date:

5/29/07

**SUBJECT:** Annual Update of Cost and Rate Schedules for Cogeneration & Small Power Production Rate (SPP) Tariff (Photovoltaic Rate)

**PREPARED BY:** Michael Heppelmann, Senior Financial Analyst

ITEM DESCRIPTION:

Section III, Paragraph A of the Rules Covering Cogeneration and Small Power Production Facilities states: "Schedules A through J attached hereto are hereby filed by RPU and shall remain in effect until modified or superseded by the Board. RPU will update these schedules after each calendar year as the required data becomes available."

The required data is now available that the financial records for 2006 are complete. Updates for Schedules A through J are attached. Currently RPU has only one customer being paid under the Cogeneration Rules and falls under the rate for 2006 Residential of \$.0860 which is the proposed rate for 2007. The 2005 rate in effect during 2006 was \$.0789. This represents a 9.0% change.

UTILITY BOARD ACTION REQUESTED:

It is recommended that the Utility Board request Common Council Approval of the updated Schedules A through J to be attached to the previously approved Rules Covering Cogeneration and Small Power Production Facilities.

  
General Manager

5/29/07  
Date

**ROCHESTER PUBLIC UTILITIES**

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SCHEDULE A

Estimated average system incremental energy cost per kWh:

2007: \$0.03664

2008: \$0.04087

2009: \$0.04303

2010: \$0.04624

2011: \$0.04623

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SCHEDULE B

1. Major generating facilities added over the next ten years
  - First unit
    - a. Name: Unnamed gas turbine
    - b. Nameplate rating proposed: 100,000kW
    - c. Fuel type proposed: Natural gas
    - d. Anticipated in-service date: 01/01/2016
    - e. Completed cost in dollars per kilowatt in the year in which the plant is expected to be put in service, including allowance for funds used during construction: \$644.73
    - f. Anticipated average annual fixed operating and maintenance costs in dollars per kilowatt: \$14.64
    - g. Anticipated average annual energy costs associated with the unit, including fuel costs and variable operating and maintenance costs, in dollars per kilowatt-hour: \$ 0.1712
    - h. Projected average number of kilowatt-hours per year the plant will generate during its useful life: 20,000,000
    - i. Average annual fuel savings (cost) resulting from the addition of this generating facility, stated in dollars per kilowatt: \$0.0

2. Planned firm capacity purchases, other than from qualifying facilities, during the next ten years.

- First planned purchase

Year of Purchase	Name of seller	Number of kilowatts of capacity to be purchased (kw Months)	Capacity cost in dollars per kilowatt	Associated energy cost in dollars per kilowatt-hour
2007	SMMPA	2,286,247	\$10.66	\$0.03617
2008	SMMPA	2,344,166	\$11.73	\$0.04038
2009	SMMPA	2,400,619	\$12.93	\$0.04254
2010	SMMPA	2,472,647	\$12.93	\$0.04576
2011	SMMPA	2,508,717	\$12.93	\$0.04575
2012	SMMPA	2,541,623	\$12.93	\$0.04574
2013	SMMPA	2,562,759	\$12.93	\$0.04573
2014	SMMPA	2,582,558	\$12.93	\$0.04572
2015	SMMPA	2,590,416	\$12.93	\$0.04572
2016	SMMPA	2,592,000	\$12.93	\$0.04571

3. Overall percentage of line losses due to the distribution, transmission, and transformation of electric energy: 2.5%
4. RPU's net annual avoided capacity cost for its next major generation facility stated in dollars per kilowatt-hour averaged over the total hours in the year: \$0.00461
5. This situation does not apply to RPU within the next ten years. (See Section III C 5.)
6. This situation does not apply to RPU within the next ten years. (See Section III C 6.)
7. This situation does not apply to RPU within the next ten years. (See Section III C 7.)
8. Because RPU's next planned capacity addition will be under the terms of a long term power supply contract (from SMMPA) in a year prior to RPU's next planned major generation facility addition, RPU's net annual avoided capacity cost in dollars per kilowatt-hours averaged over all the hours in the year is \$.007397. (See Section III C 8.)
9. This situation does not apply to RPU within the next ten years. (See Section III C 9.)
10. This situation does not apply to RPU within the next ten years. (See Section III C 10.)

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**Schedule C**

**Calculation of the Average Retail Utility Energy Rates**

	<b>2006</b>
<b>Residential</b>	
Total Revenues	33537874.39
Less fixed revenues (customer charge)	4827876.35
Net revenues	<u>28709998.04</u>
kWh	<u>333685036</u>
<b>Average retail energy rate</b>	<b><u>0.0860</u></b>
<b>Commercial</b>	
<b>SGS</b>	
Total Revenues	13227328.57
Less fixed revenues (customer charge)	932143.3
Net revenues	<u>12295185.27</u>
kWh	<u>145885321</u>
<b>Average retail energy rate</b>	<b><u>0.0843</u></b>
<b>MGS</b>	
Total Revenues	25292826.17
Less fixed revenues (customer charge)	0
Net revenues	<u>25292826.17</u>
kWh	<u>318528234</u>
<b>Average retail energy rate</b>	<b><u>0.0794</u></b>
<b>LGS</b>	
Total Revenues	11039699.18
Less fixed revenues (customer charge)	0
Net revenues	<u>11039699.18</u>
kWh	<u>159148939</u>
<b>Average retail energy rate</b>	<b><u>0.0694</u></b>
<b>INDUSTRIAL</b>	
Total Revenues	\$ 17,183,144.13
Less fixed revenues (customer charge)	0
Net revenues	<u>17183144.13</u>
kWh	<u>292580435</u>
<b>Average retail energy rate</b>	<b><u>0.0587</u></b>

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SCHEDULE D

Standard Contract for Qualifying Facilities of 0-40 kW

The Standard Contract for Qualifying Facilities of 0-40 kW is available at RPU's Service Center.

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**SCHEDULE E**

**Interconnection Policy**

**The State of Minnesota Distributed Generation Interconnection Requirements which includes the Proposed Interconnection Process for Distributed Generation Systems, Generation Interconnection Application, and the Engineering Data Submittal is available at RPU's Service Center.**

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SCHEDULE F

Procedure for Notification of Qualifying Facilities

This schedule contains procedures for notifying affected qualifying facilities of any periods of time when the utility will not purchase electric energy or capacity because of extraordinary operational circumstances which would make the costs of purchases during those periods greater than the cost of internal generation.

Rochester Public Utilities Notification Procedures:

RPU shall notify by phone, or other appropriate means, all qualifying facilities during any such periods described above.



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**SCHEDULE G**

**Procedure for Notification of Qualifying Facilities**

Computations used in Schedule A: and Schedule B, 1(e) – 1(i), 4(a)-4(h), 5(a), 5(b) and 6-10:

(See the attached work papers, which come from the Microsoft Excel spreadsheet workbook file PV Rate-2007.xls which is currently located on the RPU network at K:\RPU\GA\RATESTDY\2003 Rate Study\, and the Cognos datacubes referred to in the Excel file that are in the Cognos library 30 year plan PHVlt-2007, which is currently located on the RPU network at \\Rpu27\Analyst\_Lib\30 Year Plan PhVlt-2007\.)

Selected data for Schedule B:

**Schedule B, Section 4**

Completed cost\KW of next major generating unit		\$644.73
Marginal capital carrying charge rate		14.0%
	4.a	\$42.02
Discount rate		6.5%
Anticipated in-Service Date:		01/01/2016
Midpoint of reporting year		06/30/2007
Discounted value of completed cost/KW with carrying chg	4.b	\$74.44
Discounted value of fuel savings (cost)	4.c	\$0
Annual avoided capacity cost\KW	4.d	\$74.44
Annual avoided capacity cost\KW with reserve margin	4.e	\$85.60
Annual fixed O&M, discounted		\$12.08
Sum of cap cost w/reserve % and fixed O&M	4.f	\$85.60
System line loss % = 2.5%	4.g	\$86.76
Average annual hours unit is dispatched		0
Net annual avoided capacity cost/kwh	4.h	\$.00989

**Schedule B, section 8**

First capacity purchase:		2007
Capacity purchase amount, in dollars per kilowatt per billing period		\$10.66
Annual capacity purchase amount, in dollars per kilowatt of billed capacity	8.	\$64.00
Discounted value of fuel savings (cost)	8.	\$0
Annual avoided capacity cost/KW	8.	\$64.00
Annual avoided capacity cost/KW with reserve margin \	8.	\$64.00
System line loss % = 2.5%	8.	\$64.8
Net annual avoided capacity cost/kwh	8.	\$.007397

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SCHEDULE H

Standard Contract for Qualifying Facilities of 0-40 kW

Contract rates at which RPU purchases energy and capacity from all its wholesale suppliers:

SMMPA:

Capacity: \$10.66 per billed kW month (74% annual ratchet, maximum take of 216,000kW)

Transmission: \$2.66 per billed kW month (100% annual ratchet, maximum take of 216,000KW)

On-peak\* Energy: \$0.04616 per billed kWh

Off-peak Energy: \$0.03498 per billed kWh

\*On-Peak hours are defined as 10:00AM to 10:00PM on non-holiday weekdays. All other hours are off peak.

SCHEDULE I

ROCHESTER PUBLIC UTILITIES  
COGENERATION AND SMALL POWER PRODUCTION TARRIFF

Available in RPU's tariff "book".

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**SCHEDULE J**

**Notice to Customers**

1. Rochester Public Utilities is obligated to interconnect with and purchase electricity from qualifying co-generators and small power producers. Qualifying facilities are defined under Section II (Q) of RPU's Rules Covering Cogeneration and Small Power Production Facilities.
2. Rochester Public Utilities is obligated to provide information concerning its rates and interconnection policies relative to qualifying facilities to all interested persons free of charge upon request.
3. Any disputes over interconnection, sales, and purchases relative to qualifying facilities, are subject to resolution by the Minnesota Public Utilities Commission upon complaint.
4. Rochester Public Utilities  
4000 East River Rd NE  
Rochester, MN 55906-2813

RPU General Information            507-280-1540  
[www.rpu.org](http://www.rpu.org)



## RESOLUTION

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, that the Common Council of the said City is requested to approve revised Schedules A through J of the RPU Cogeneration and Small Power Production (SPP) Rate Tariff which are updated annually after each calendar year by RPU. This is required by Section III, paragraph A of the Rules Covering Cogeneration and Small Power Production Facilities (Minnesota Statutes Section 216B.164, Subdivision 9) which were previously approved by the Board/Council in June 2005.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 29<sup>th</sup> day of May, 2007.

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President

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Secretary