



**Public Service
of New Hampshire**

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Public Service Company of New Hampshire
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The Northeast Utilities System

Jeaneen M. Coolbroth
Southern Division Manager

ORIGINAL	
N.H.P.U.C. Case No.	DE 09-035
Exhibit No.	# 26
Witness	JP
DO NOT REMOVE FROM FILE	

March 11, 2010

Mr. Timothy J. Clougherty
Deputy Director of Public Works
City of Manchester
227 Maple Street
Manchester, NH 03103

Subject: Public Service of New Hampshire (PSNH) Energy Efficient Outdoor
Lighting Delivery Service Rate EOL (Rate EOL) Discussion

Dear Mr. Clougherty:

During the technical session of NHPUC Docket DE 09-035 (the PSNH Rate Case) held on Wednesday, March 3rd, PSNH and the City of Manchester (City) discussed scheduling a meeting to review questions the City has regarding the information previously provided by PSNH. The City also suggested there may be potential amendments to PSNH Rate EOL that, should they prove to be viable, could possibly reduce costs to the City. Would you or your office contact Diane Monteith, the City's PSNH Account Executive by phone at 634-2374 or email, monted@nu.com, and provide her with options for meeting dates. We would like to schedule the meeting within the next few weeks.

In response to your most recent inquiry regarding the charges billed to the City under Rate EOL, I have attached information explaining the charges, as well as the services PSNH provides to the City under Rate EOL.

The information includes the following:

** previously provided*

*Page 1 – This pie chart shows the percentage of City outdoor lights by wattage. Note 71% of the lights receiving service under Rate EOL are less than 100 watts. This confirms the City has a very efficient street lighting system.

*Page 2 – This bar chart shows an annual savings of approximately \$740,000 by the City resulting from the conversion from Rate OL to Rate EOL. This analysis is based on rates effective January 1, 2009, and the lighting inventory in June 2009.

At current rates, the City will realize an additional annual savings of \$77,000 by purchasing energy service from a competitive energy supplier.

Page 3 – This bar chart illustrates the annual average cost per light fixture by rate component, as well as a summary of the services provided under each component. As shown under the distribution component:

- 87% of the distribution component (or \$67.87 of the \$78.01 total for distribution service) recovers costs associated with delivering power over PSNH's distribution lines, including the maintenance and operation of PSNH's distribution system, power restoration, service operations, customer service operations, lighting inventory and tracking systems.
- 13% of the distribution component (or \$10.14 of the \$78.01 total for distribution service) recovers costs associated with six-year group lamp replacements, which includes changing the lamp, photocell, cleaning the refractor and, if needed, replacing the refractor. In addition, if lamps burn out prior to a group lamp replacement and PSNH is notified, PSNH will change the lamp.
- These percentages are based on the 2008 per books cost of service study filed with the New Hampshire Public Utilities Commission in Docket No. DE 09-035.
- Based on this analysis, if the costs of lighting maintenance were removed from Rate EOL, the City would continue to pay the remaining 87% of the distribution component, as well as 100% of the transmission, stranded cost recovery, system benefits charges and the electricity consumption tax. On average, PSNH utilizes two and one half, 1-person crews in the Hooksett and Bedford Area Work Centers to perform non-billable lighting maintenance for the City.

Page 4 – The first example in this table summarizes the average cents per kilowatt-hour for Delivery Service and Energy Service for each of PSNH's major rate classes. The ratio of 'Delivery Service to Energy Service' is dependent on a customer's kilowatt-hour usage and must be taken into account when making comparisons.

The second example compares 42 kilowatt-hours per month, the average use per light fixture for the City, on Residential Rate R and Small Business Rate G vs. the total average for Rate EOL. As shown, the ratio of 'Delivery Service to Energy Service' for Rate R and Rate G is significantly different from the total average for those rates. The ratio of 'Delivery Service to Energy Service' for 42 kilowatt-hours per month is similar for all 3 rates: Rate R, Rate G and Rate EOL.

Page 5 – This table was filed with the New Hampshire Public Utilities Commission in Docket No. DE 09-035. It compares the annual charges under the all-night lighting option to the Midnight option by lighting type. This analysis is based on the rates effective January 1, 2009, and the estimated equipment and installation costs at the time of the filing. Under the Midnight Lighting option, a new photocell would be installed to turn the light off at midnight. This new lighting option could be utilized to reduce the City's outdoor lighting expense.

Mr. Timothy J. Clougherty

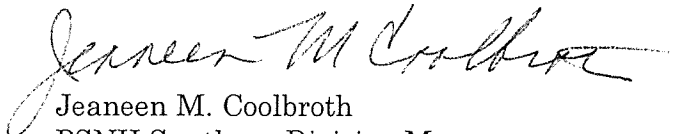
Page 3

March 10, 2010

In order for the City to significantly reduce the outdoor lighting expense, PSNH recommends removing outdoor lights that are no longer needed or converting a portion of the outdoor lights to the Midnight Option.

We look forward to continuing our discussions with you. Please provide us with the questions and agenda items you would like to address at the meeting. Our Cost of Service subject matter experts will be in attendance to cover the technical aspects of the EOL rate structure.

Sincerely,



Jeaneen M. Coolbroth
PSNH Southern Division Manager

enclosures: 5

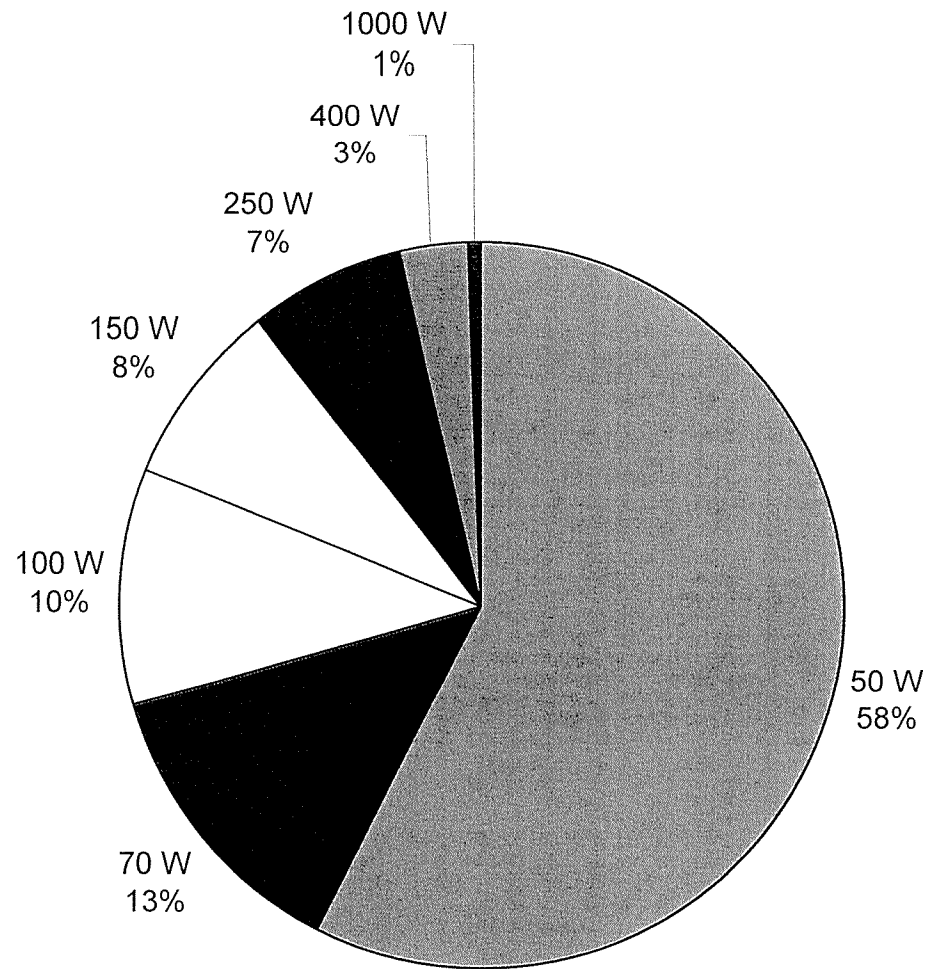
c: Jay W. Davini – Public Utilities Coordinator

Diane Monteith – Public Service of NH

Douglas L. Patch – Orr & Reno

Kevin Sheppard – Director of Public Works

City of Manchester
Percentage of Lights by Wattage
"The City of Manchester Has a Very Efficient Lighting System."

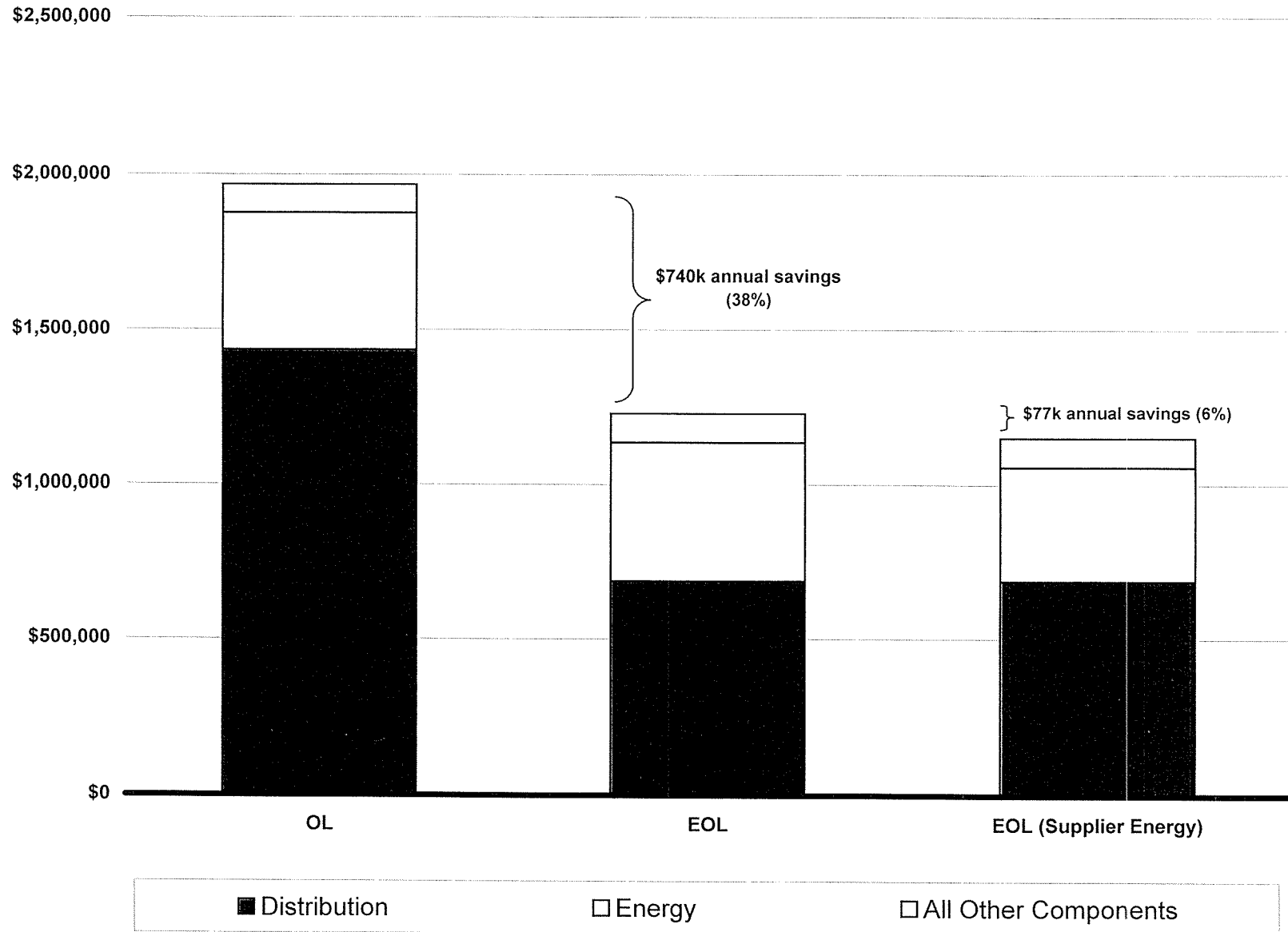


City of Manchester

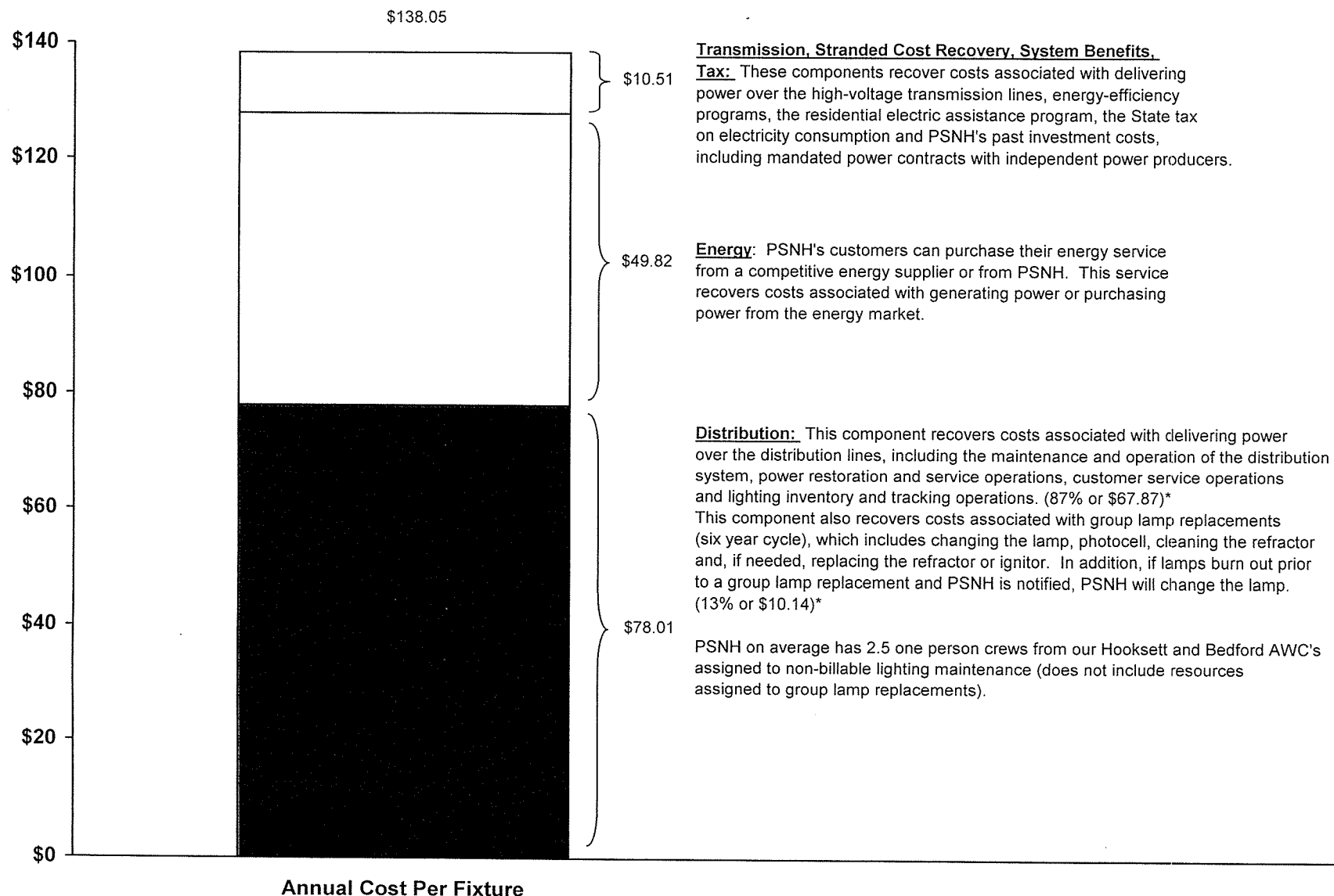
Comparison of Rate OL and Rate EOL Annual Bill Amounts

"The City of Manchester saves \$740k annually under Rate EOL."

(Based on rates effective January 1, 2009 and the lights in place in June 2009)



City of Manchester
Annual Average Cost per Fixture and Services Provided Under Rate EOL
 (Based on rates effective January 1, 2009 and the lights in place in June 2009)



* Percentages based on the 2008 Per Book Cost of Service Study filed in Docket No. DE 09-035 for Energy Efficient Street Lighting Rate EOL
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Public Service Company of New Hampshire

**Average Cents/KWH by Major Rate Class
Based on Total Revenue/Total kWh
Rates Effective January 1, 2010**

	<u>Residential Rate R</u>		<u>Sm Business Rate G</u>		<u>Md Business Rate GV</u>		<u>Lighting Rate OL</u>		<u>Lighting Rate EOL</u>	
Delivery	7.71	46%	6.45	42%	4.49	33%	22.23	71%	18.78	68%
Energy	<u>8.96</u>	54%	<u>8.96</u>	58%	<u>8.96</u>	67%	<u>8.96</u>	29%	<u>8.96</u>	32%
Total	16.67		15.41		13.45		31.19		27.74	

Average Annual KWH per Fixture (City of Manchester): 502

Average Monthly KWH per Fixture (City of Manchester): 42

**Average Cents/KWH Under Rate R and Rate G for a Customer Using 42 KWH/Month
Rates Effective January 1, 2010**

	<u>Residential Rate R</u> (42 KWH/Month)		<u>Sm Business Rate G</u> (42 KWH/Month)		<u>Lighting Rate EOL</u> (Total Revenue/Total kWh)	
Delivery	29.67	77%	34.67	79%	18.78	68%
Energy	<u>8.96</u>	23%	<u>8.96</u>	21%	<u>8.96</u>	32%
Total	38.63		43.63		27.74	

Energy-Efficient Outdoor Lighting Service Rate EOL
Comparison of Annual Charges Under All-Night Option and Midnight Option
and Simple Payback to Convert From the All-Night Option to the Midnight Option
Based on Rates Effective January 1, 2009

	<u>Lumens</u>	<u>Watts</u>	<u>All-Night Option Annual Charge</u>	<u>Midnight Option Annual Charge</u>	<u>Annual \$ Savings</u>	<u>Annual % Savings</u>	<u>Conversion Not During Lamp Replacement</u>		<u>Conversion During Lamp Replacement</u>	
							<u>Estimated Installed Cost of Midnight Option Photocell per Luminaire</u>	<u>Simple Payback (Years)</u>	<u>Estimated Equipment Cost of Midnight Option Photocell per Luminaire</u>	<u>Simple Payback (Years)</u>
High Pressure Sodium	4,000	50	\$ 101.16	\$ 84.96	\$ 16.20	16.0%	\$160.00	9.88	\$20.00	1.23
	5,800	70	\$ 116.07	\$ 91.80	\$ 24.27	20.9%	\$160.00	6.59	\$20.00	0.82
	9,500	100	\$ 153.21	\$ 117.72	\$ 35.49	23.2%	\$160.00	4.51	\$20.00	0.56
	16,000	150	\$ 194.40	\$ 141.27	\$ 53.13	27.3%	\$160.00	3.01	\$20.00	0.38
	30,000	250	\$ 255.07	\$ 169.54	\$ 85.53	33.5%	\$160.00	1.87	\$20.00	0.23
	50,000	400	\$ 342.29	\$ 211.46	\$ 130.83	38.2%	\$160.00	1.22	\$20.00	0.15
	130,000	1,000	\$ 760.14	\$ 451.88	\$ 308.26	40.6%	\$160.00	0.52	\$20.00	0.06
Metal Halide	5,000	70	\$ 119.92	\$ 94.92	\$ 25.00	20.8%	\$160.00	6.40	\$20.00	0.80
	8,000	100	\$ 160.65	\$ 126.48	\$ 34.17	21.3%	\$160.00	4.68	\$20.00	0.59
	13,000	150	\$ 202.92	\$ 149.68	\$ 53.24	26.2%	\$160.00	3.01	\$20.00	0.38
	13,500	175	\$ 217.08	\$ 159.17	\$ 57.91	26.7%	\$160.00	2.76	\$20.00	0.35
	20,000	250	\$ 261.53	\$ 180.70	\$ 80.83	30.9%	\$160.00	1.98	\$20.00	0.25
	36,000	400	\$ 349.36	\$ 222.73	\$ 126.63	36.2%	\$160.00	1.26	\$20.00	0.16
	100,000	1,000	\$ 767.57	\$ 463.99	\$ 303.58	39.6%	\$160.00	0.53	\$20.00	0.07

* Filed with the New Hampshire Public Utilities Commission in Docket No. DE 09-035.