## Electric Light Department Town of South Hadley

85 Main Street South Hadley, MA 01075-2797 Telephone 413-536-1050 Fax 413-536-0741

#### NOTICE UNDER MASSACHUSETTS GENERAL LAWS CHAPTER 30A, SECTION 20

#### **BOARD OF COMMISSIONERS' MEETING**

A meeting of the Board of Commissioners of the Town of South Hadley Electric Light Department will be held at 6:00 P.M. on Thursday, October 22, 2015, in the Selectboard Meeting Room at 116 Main Street, South Hadley, Massachusetts.

AT THE ORDER OF ANNE S. AWAD, CHAIR OF THE BOARD

Anne S. Awad, Chair

#### **MEETING AGENDA**

#### Public comment

Minutes – September 10, 2015 Minutes – September 24, 2015

Minutes – October 8, 2015

Correspondence

Manager's Report/Chair's report

SHELD energy savings incentives (MMWEC presentation)

Discussion on extending LED street lighting to town byways.

Manager's Review

Discussion regarding Board composition

Meeting schedule for January

Adjourn

## TOWN OF SOUTH HADLEY, MASSACHUSETTS ELECTRIC LIGHT DEPARTMENT



## MANAGEMENT REPORT AUGUST 2015

#### TOWN OF SOUTH HADLEY, MASSACHUSETTS ELECTRIC LIGHT DEPARTMENT

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#### TOWN OF SOUTH HADLEY MASSACHUSETTS ELECTRIC LIGHT DEPARTMENT

#### FINANCIAL STATEMENT OVERVIEW

The 2015 year-to-date revenues from sale of electricity decreased by about \$581,000 compared with the same period in 2014. Actual kWh sold decreased by about 248,000 on a year-to-date basis. The average \$/kWh revenue decreased by \$.007200 in 2015. This revenue decrease, however, was offset by a decrease in cost of power of about \$628,000. The average \$/kWh cost decreased by \$.010968 in 2015. The 2015 net revenue after cost of electricity purchased showed an increase of about \$90,000 from 2014, or about 0.84% of 2014 revenues.

Distribution expenses increased by about \$66,000 compared to 2014. Customer account expenses and general and administrative expenses, on a combined basis, increased by about \$61,000 compared to 2014.

On a year-to-year comparative basis, the August 2015 results were not as good as the August 2014 results. For the period ended August 2015, SHELD shows a year-to-date loss of about \$8,000.

At August 31, 2015, SHELD shows a very healthy financial position. When compared to other companies in the electric power distribution industry, SHELD's 2015 liquidity and leverage ratios equal or exceed those of its peers.

## TOWN OF SOUTH HADLEY, MASSACHUSETTS ELECTRIC LIGHT DEPARTMENT STATEMENT OF NET POSITION AUGUST 31, 2015 AND 2014

Assets Liabilities and Net Position

ASSEIS			Liabilities and Net i osition				
	2015	2014		2015	2014		
Capital Assets			Long Term Liabilities				
Distribution Plant	\$ 29,356,387	\$ 30,177,220	Accrued Compensated Absences	\$ 965,670	\$ 1,126,329		
General Plant	5,713,881	6,341,364	Other Post-Employment Benefit	587,006	481,404		
Construction-in-Progress	598,385	13,927					
Total	35,668,653	36,532,511	Total	1,552,676	1,607,733		
Less Accumulated Depreciation	29,874,933	30,589,640	Less Current Portion	257,096	244,265		
Total Capital Assets	5,793,720	5,942,871	Total Long Term Liabilities	1,295,580	1,363,468		
Restricted Assets			Current Liabilities				
Cash - Depreciation Fund	4,961,474	4,936,074	CP of Accrued Compensated Absences	208,304	199,146		
Cash - Customer Deposits	218,294	178,700	CP of Post-Employment Benefits	48,792	45,119		
Investment - OPEB Liability Trust	604,902	617,746	Accounts Payable	238,183	566,711		
Deferred Charges	1,078,911	1,081,783	Customer Deposits	218,294	178,700		
-			Accrued Expenses	12,397	13,600		
Total Restricted Assets	6,863,581	6,814,303	Total Current Liabilities	725,970	1,003,276		
Current Assets			Net Position				
Cash - Operating Fund	2,909,229	2,334,248	Net Investment in Capital Assets	5,793,720	5,942,871		
Investment - MLDM Reserve Trust	11,748,211	11,648,825	Restricted	6,058,281	6,154,199		
Accounts Receivable - Net of Allowance	391,481	912,339	Unrestricted	14,352,193	13,736,027		
Inventory	438,976	466,616					
Prepaid Expense	56,030	56,123					
Other Assets	24,516	24,516					
<b>Total Current Assets</b>	15,568,443	15,442,667	Total Net Position	26,204,194	25,833,097		
TOTAL ASSETS	\$ 28,225,744	\$ 28,199,841	TOTAL LIABILITIES AND NET POSITION	\$ 28,225,744	\$ 28,199,841		

## TOWN OF SOUTH HADLEY, MASSACHUSETTS ELECTRIC LIGHT DEPARTMENT STATEMENT OF REVENUE AND EXPENSE EIGHT MONTHS ENDED AUGUST 31, 2015 AND 2014

	2015	2014	Variance
Operating Revenues	•		
Residential	\$ 5,683,779	\$ 6,023,299	\$ (339,520)
Commercial	1,786,832	1,863,441	(76,609)
Industrial	2,154,755	2,288,356	(133,601)
Municipal	569,650	597,680	(28,030)
Other	43,468	46,734	(3,266)
Total Operating Revenues	10,238,484	10,819,510	(581,026)
Operating Expense			
Cost of Power Sold			
Purchased Power	6,271,980	6,943,389	(671,409)
Transmission Expense	1,377,393	1,335,293	42,100
Supplies and Expenses	111,769	110,894	875
Total Cost of Power Sold	7,761,142	8,389,576	(628,434)
Distribution Expense			
Salaries and Wages	418,791	377,319	41,472
Supplies and Expenses	201,346	176,355	24,991
Total Distribution Expenses	620,137	553,674	66,463
Customer Accounts Expense			
Salaries and Wages	139,843	119,349	20,494
Supplies and Expenses	51,768	50,174	1,594
Uncollectible Accounts	36,688	100,000	(63,312)
Total Customer Accounts Expenses	228,299	269,523	(41,224)
General and Administrative Expense			
Salaries and Wages	330,234	207,237	122,997
Insurance	60,881	46,967	13,914
Pension and Benefits	304,773	331,212	(26,439)
General	54,989	49,162	5,827
Supplies and Expenses	93,171	126,361	(33,190)
Legal Expense	62,259	42,801	19,458
Total General and Administrative Expenses	906,307	803,740	102,567
Depreciation Expense	705,136	711,833	(6,697)
Total Operating Expenses	10,221,021	10,728,346	(507,325)
Operating Income (Loss)	17,463	91,165	(73,702)
Nonoperating Revenues	(24,998)	168,615	(193,613)
Income (Loss) Before Capital Contributions and			
Transfer Out	\$ (7,535)	\$ 259,780	\$ (267,315)

## TOWN OF SOUTH HADLEY, MASSACHUSETTS ELECTRIC LIGHT DEPARTMENT STATEMENT OF CASH FLOWS EIGHT MONTHS ENDED AUGUST 31, 2015 AND 2014

	2015	2014	Variance
Cash Flows from Operating Activities Receipts from Customers Payments to Power Suppliers Payments to Employees Payments for Other Operations	\$ 10,679,482 (7,649,775) (910,464) (1,443,632)	\$ 11,048,992 (8,291,255) (703,688) (1,110,786)	\$ (369,510) 641,480 (206,776) (332,846)
Net Cash Provided by (Used in) Operating Activities	675,611	943,263	(267,652)
	070,011	010,200	(207,002)
Cash Flows from Financing Activities* Acquisition of Capital Assets Proceeds from Disposition of Capital Assets Capital Contribution Transfers Out	(668,118) 3,003 42,463 (90,982)	(604,075) 117,174 (101,937)	(64,043) 3,003 (74,711) 10,955
Net Cash Provided by (Used in) Financing Activities	(713,634)	(588,838)	(124,796)
Cash Flows from Investing Activities  Nonoperating Revenues  Acquisition of Investment - OPEB Liability Trust  Acquisition of Investment - MLDM Reserve Trust	105,358 17,993 (61,036)	168,615 (30,188) (49,624)	(193,613) 48,181 (11,412)
Net Cash Provided by (Used in) Investing Activities	62,315	88,803	(156,844)
Net Increase (Decrease) in Cash	24,292	443,228	(549,292)
Cash - Beginning	8,064,705	7,005,794	1,058,911
Cash - Ending	\$ 8,088,997	\$ 7,449,022	\$ 509,619
Reconciliation of Operating Income (Loss) to Net Cash Provided (Used) by Operating Activities Operating Income (Loss) Adjustment to Reconcile Operating Income (Loss) to Net Cash Provided by (Used in) Operating Activities:	\$ 17,463	\$ 91,165	(73,702)
Depreciation Changes in Assets and Liabilities:	705,136	711,833	(6,697)
Deferred Charges Accounts Receivable	1,704 440,998	(29,160) 229,482	30,864 211,516
Inventory Prepaid Expense Other Current Assets Accounts Payable Customer Deposits Accrued Liabilities Accrued Compensated Absences Other Post-Employment Benefits	(29,955) - (433,991) 38,444 (12,340) (75,848) 24,000	(39,912) - (199,603) 24,400 458 130,600 24,000	9,957 - (234,388) 14,044 (12,798) (206,448)
Net Cash Provided by (Used in) Operating Activities	\$ 675,611	\$ 943,263	\$ (267,652)

<sup>\*</sup> Non-capital and Capital Financing Activities Combined

## TOWN OF SOUTH HADLEY, MASSACHUSETTS ELECTRIC LIGHT DEPARTMENT SCHEDULE OF ELECTRIC REVENUES, COST OF POWER, AND KILOWATT HOURS EIGHT MONTHS ENDED AUGUST 31, 2015 AND 2014

	2015		20	2014		<u>Variance</u>	
	\$ Amount	KWH	\$ Amount	KWH	\$ Amount	KWH	
Sale of Electricity		_	·	_			
Residential	\$ 5,683,779	41,232,297	\$ 6,023,299	41,556,950	\$ (339,520)	(324,653)	
Commercial	1,786,832	12,205,022	1,863,441	12,096,734	(76,609)	108,288	
Industrial	2,154,755	17,723,295	2,288,356	17,707,592	(133,601)	15,703	
Municipal	569,650	4,415,231	597,680	4,448,558	(28,030)	(33,327)	
Other	43,468	217,531	46,734	232,077	(3,266)	(14,546)	
Total Sale of Electricity	\$ 10,238,484	75,793,376	\$ 10,819,510	76,041,911	\$ (581,026)	(248,535)	
\$ / KWH	\$ 0.135084		\$ 0.142284		\$ (0.007200)		
Cost of Power							
Purchased Power	6,271,980	80,489,260	6,943,389	78,120,086	(671,409)	2,369,174	
Transmission Expense	1,377,393		1,335,293		42,100		
Supplies and Expenses	111,769		110,894		875		
Total Cost of Power	\$ 7,761,142	80,489,260	\$ 8,389,576	78,120,086	\$ (628,434)	2,369,174	
\$ / KWH	\$ 0.096425		\$ 0.107393		\$ (0.010968)		
Gross Profit	\$ 2,477,342		\$ 2,429,934		\$ 90,383		

## TOWN OF SOUTH HADLEY, MASSACHUSETTS ELECTRIC LIGHT DEPARTMENT PERCENT OF REVENUE ANALYSIS EIGHT MONTHS ENDED AUGUST 31, 2015 AND 2014

	2015	2014	Variance
Operating Revenues			
Residential	55.51	55.67	(0.16)
Commercial	17.45	17.22	0.23
Industrial	21.05	21.15	(0.10)
Municipal	5.56	5.52	0.04
Other	0.42	0.44	(0.02)
Total Operating Revenues	99.99	100.00	(0.01)
Operating Expense			
Cost of Power Sold			
Purchased Power	61.26	64.17	(2.91)
Transmission Expense	13.45	12.34	1.11
Supplies and Expenses	1.09	1.02	0.07
Total Cost of Electricity Sold	75.80	77.53	(1.73)
Distribution Expense			
Salaries and Wages	4.09	3.49	0.60
Supplies and Expenses	1.97	1.63	0.34
Total Distribution Expenses	6.06	5.12	0.94
Customer Accounts Expense			
Salaries and Wages	1.37	1.10	0.27
Supplies and Expenses	0.51	0.46	0.05
Uncollectible Accounts	0.36	0.92	(0.56)
Total Customer Accounts Expenses	2.24	2.48	(0.24)
General and Administrative Expense			
Salaries and Wages	3.23	1.92	1.31
Insurance	0.59	0.43	0.16
Pension and Benefits	2.98	3.06	(80.0)
General	0.54	0.45	0.09
Supplies and Expenses	0.91	1.17	(0.26)
Legal Expense	0.61	0.40	0.21
Total General and Administrative Expenses	8.86	7.43	1.43
Depreciation Expense	6.89	6.58	0.31
Total Operating Expenses	99.85	99.14	0.71
Operating Income (Loss)	0.14	0.86	(0.72)
Nonoperating Revenues	(0.24)	1.56	(1.80)
Income (Loss) Before Capital Contributions and Transfer Out	(0.10)	2.42	(2.52)
	(0.10)	£. 1£	(2.02)

#### TOWN OF SOUTH HADLEY, MASSACHUSETTS ELECTRIC LIGHT DEPARTMENT STATEMENT OF REVENUE AND EXPENSE AUGUST 31, 2015 AND 2014

	2015	2014	Variance
Operating Revenues			
Residential	\$ 886,89		\$ 63,886
Commercial	271,61		14,463
Industrial Municipal	305,78 60,68		(22,021) (1,195)
Municipal Other	5,52		(1,193)
Total Operating Revenues	1,530,50	1,475,242	55,259
Operating Expense			
Cost of Power Sold			
Purchased Power	437,59	•	43,285
Transmission Expense	161,59		(95,568)
Supplies and Expenses	12,96	9 15,257	(2,288)
Total Cost of Power Sold	612,15	666,724	(54,571)
Distribution Expense			
Salaries and Wages	43,79	0 42,244	1,546
Supplies and Expenses	19,85	27,552	(7,698)
Total Distribution Expenses	63,64	4 69,796	(6,152)
Customer Accounts Expense			
Salaries and Wages	25,58	9 14,883	10,706
Supplies and Expenses	29		1,949
Uncollectible Accounts	36,68	100,000	(63,312)
Total Customer Accounts Expenses	62,56	113,224	(50,657)
General and Administrative Expense			
Salaries and Wages	38,74	34,658	4,085
Insurance	7,98	5,373	2,612
Pension and Benefits	42,78	40,745	2,040
General	2,63	50	2,580
Supplies and Expenses	7,46	8,279	(812)
Legal Expense	7,35	5,596	1,759
Total General and Administrative Expenses	106,96	94,701	12,264
Depreciation Expense	89,31	7 88,979	338
Total Operating Expenses	934,64	6 1,033,424	(98,778)
Operating Income (Loss)	595,85	441,818	154,037
Nonoperating Revenues	(4,88	16,239	(21,123)
Income (Loss) Before Capital Contributions and			
Transfer Out	590,97	458,057	\$ 132,914

## TOWN OF SOUTH HADLEY, MASSACHUSETTS ELECTRIC LIGHT DEPARTMENT STATEMENT OF CASH FLOWS AUGUST 31, 2015 AND 2014

	2015	2014	\	/ariance
Cash Flows from Operating Activities Receipts from Customers Payments to Power Suppliers Payments to Employees Payments for Other Operations	\$ 1,449,816 (301,881) (112,091) (778,533)	\$ 1,446,059 (341,652) (80,515) (469,380)	\$	3,757 39,771 (31,576) (309,153)
Net Cash Provided by (Used in) Operating Activities	257,311	554,512		(297,201)
Cash Flows from Financing Activities* Acquisition of Capital Assets Proceeds from Disposition of Capital Assets Capital Contribution Transfers Out	(56,257) - (11,372)	(17,229) - (12,741)		(39,028) - - 1,369
Net Cash Provided by (Used in) Financing Activities	 (67,629)	 (29,970)		(37,659)
Cash Flows from Investing Activities  Nonoperating Revenues  Acquisition of Investment - OPEB Liability Trust  Acquisition of Investment - MLDM Reserve Trust	(4,884) 23,323 (6,020)	16,239 (1,608) (6,171)		(193,613) 24,931 151
Net Cash Provided by (Used in) Investing Activities	12,419	8,460		(168,531)
Net Increase (Decrease) in Cash	202,101	533,002		(503,391)
Cash - Beginning	7,886,896	6,916,019		970,877
Cash - Ending	\$ 8,088,997	\$ 7,449,021	\$	467,486
Reconciliation of Operating Income (Loss) to Net Cash Provided (Used) by Operating Activities Operating Income (Loss) Adjustment to Reconcile Operating Income (Loss) to Net Cash Provided by (Used in) Operating Activities:	\$ 595,855	\$ 441,818	\$	154,037
Depreciation	89,317	88,979		338
Changes in Assets and Liabilities: Deferred Charges Accounts Receivable Inventory	3,728 (80,685)	(3,058) (29,183)		6,786 (51,502)
Inventory Prepaid Expense Other Current Assets Accounts Payable Customer Deposits Accrued Liabilities Accrued Compensated Absences Other Post-Employment Benefits	(5,738) - (408,182) 9,057 1,659 49,300 3,000	9,185 - 9,377 (15,950) 1,044 49,300 3,000		(14,923) - (417,559) 25,007 615 -
Net Cash Provided by (Used in) Operating Activities	\$ 257,311	\$ 554,512	\$	(297,201)

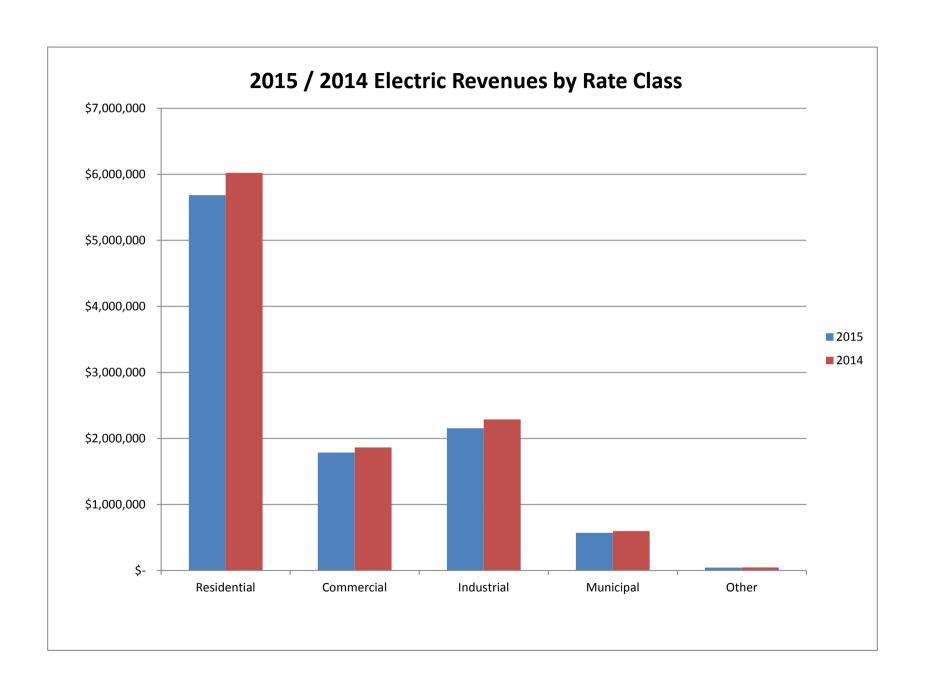
<sup>\*</sup> Non-capital and Capital Financing Activities Combined

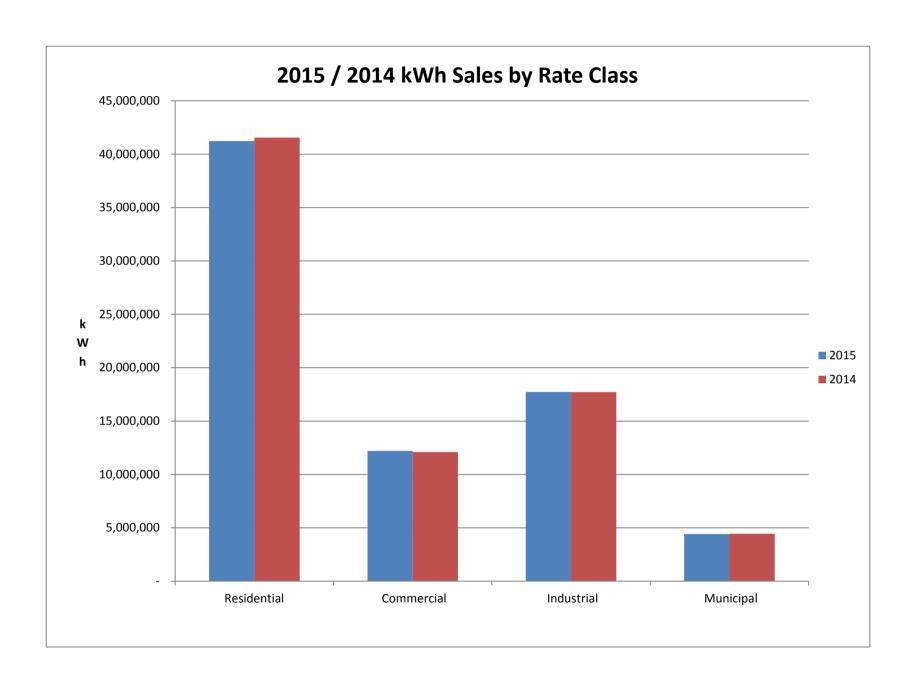
## TOWN OF SOUTH HADLEY, MASSACHUSETTS ELECTRIC LIGHT DEPARTMENT SCHEDULE OF ELECTRIC REVENUES, COST OF POWER, AND KILOWATT HOURS AUGUST 31, 2015 AND 2014

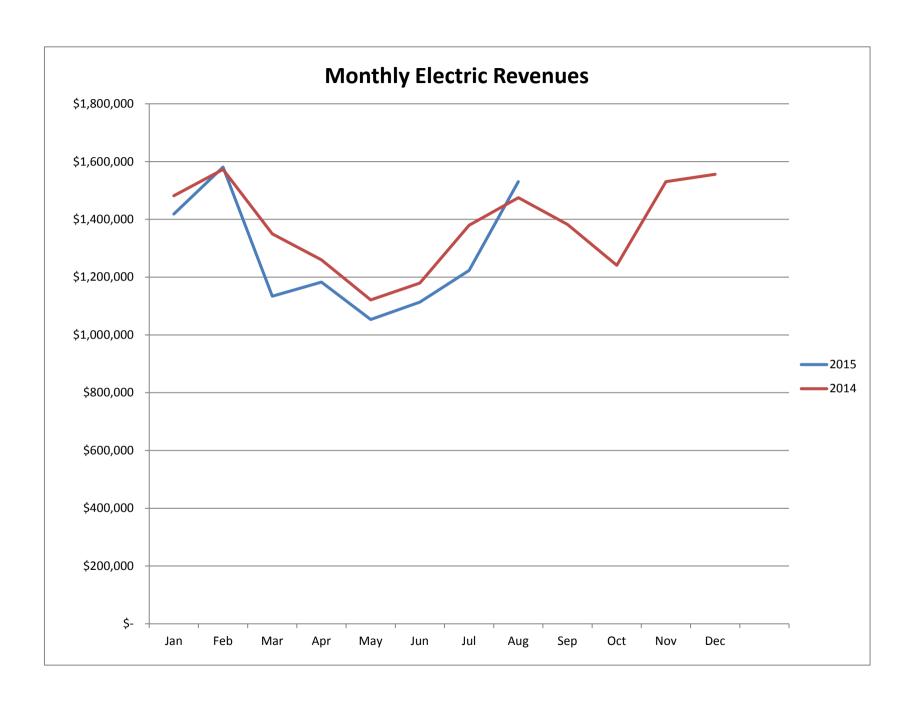
	2015		20	14	Variance		
	\$ Amount	KWH	\$ Amount	KWH	\$ Amount	KWH	
Sale of Electricity		_	·				
Residential	\$ 886,899	6,234,494	\$ 823,013	5,478,263	\$ 63,886	756,231	
Commercial	271,612	1,881,665	257,149	1,687,342	14,463	194,323	
Industrial	305,784	2,545,315	327,805	2,569,367	(22,021)	(24,052)	
Municipal	60,680	457,899	61,875	447,560	(1,195)	10,339	
Other	5,526	27,840	5,400	28,902	126	(1,062)	
Total Sale of Electricity	\$ 1,530,501	11,147,213	\$ 1,475,242	10,211,434	\$ 55,259	935,779	
\$ / KWH	\$ 0.137299		\$ 0.144470		\$ (0.007171)		
Cost of Power							
Purchased Power	437,594	11,091,767	394,309	9,770,438	43,285	1,321,329	
Transmission Expense	161,590		257,158		(95,568)		
Supplies and Expenses	12,969		15,257		(2,288)		
Total Cost of Power	\$ 612,153	11,091,767	\$ 666,724	9,770,438	\$ (54,571)	1,321,329	
\$ / KWH	\$ 0.055190		\$ 0.068239		\$ (0.013049)		
Gross Profit	\$ 918,348		\$ 808,518		\$ 11,974		

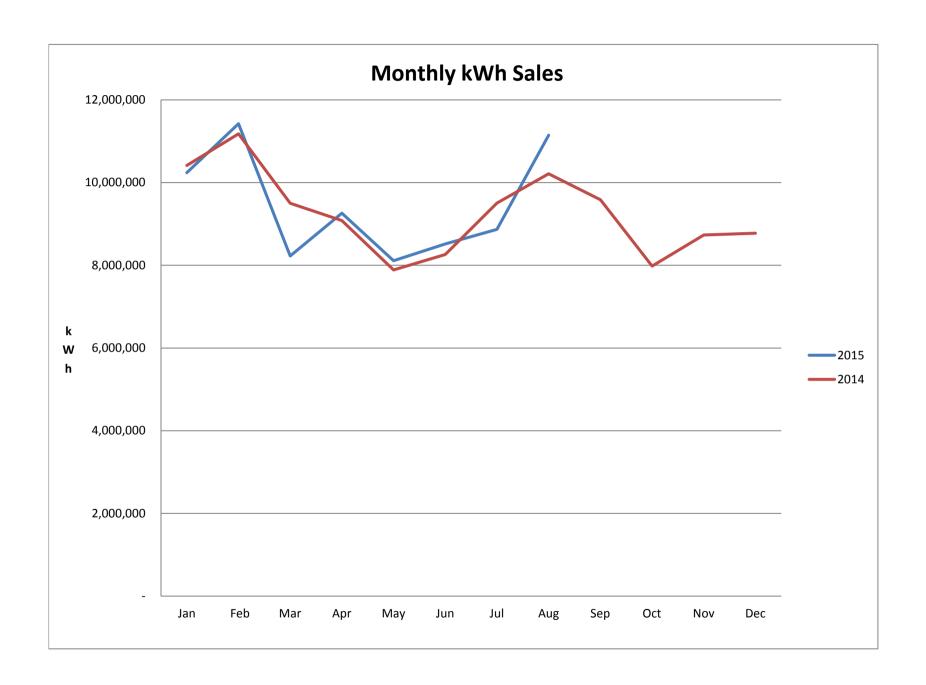
#### TOWN OF SOUTH HADLEY, MASSACHUSETTS ELECTRIC LIGHT DEPARTMENT PERCENT OF REVENUE ANALYSIS AUGUST 31, 2015 AND 2014

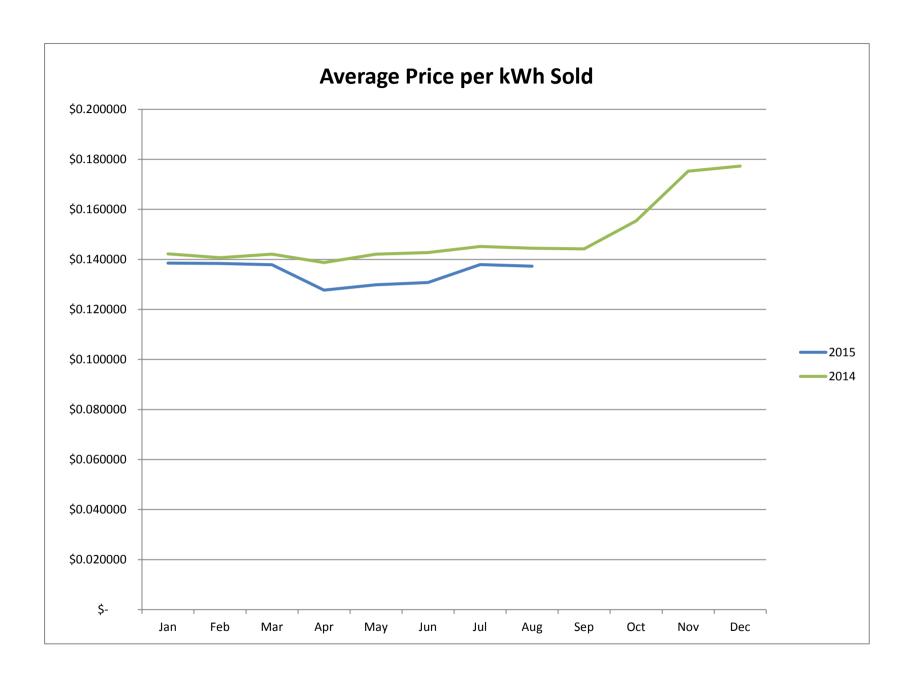
	2015	2014	Variance
Operating Revenues			
Residential	57.95	55.79	2.16
Commercial	17.75	17.43	0.32
Industrial	19.98	22.22	(2.24)
Municipal	3.96	4.19	(0.23)
Other	0.36	0.37	(0.01)
Total Operating Revenues	100.00	100.00	0.00
Operating Expense			
Cost of Power Sold			
Purchased Power	28.59	26.73	1.86
Transmission Expense	10.56	17.43	(6.87)
Supplies and Expenses	0.85	1.03	(0.18)
Total Cost of Power Sold	40.00	45.19	(5.19)
Distribution Expense			
Salaries and Wages	2.86	2.86	0.00
Supplies and Expenses	1.30	1.87	(0.57)
Total Distribution Expenses	4.16	4.73	(0.57)
Customer Accounts Expense			
Salaries and Wages	1.67	1.01	0.66
Supplies and Expenses	0.02	(0.11)	0.13
Uncollectible Accounts	2.40	6.78	(4.38)
Total Customer Accounts Expenses	4.09	7.68	(3.59)
General and Administrative Expense			
Salaries and Wages	2.53	2.35	0.18
Insurance	0.52	0.36	0.16
Pension and Benefits	2.80	2.76	0.04
General	0.17	0.00	0.17
Supplies and Expenses	0.49	0.56	(0.07)
Legal Expense	0.48	0.38	0.10
Total General and Administrative Expenses	6.99	6.41	0.58
Depreciation Expense	5.84	6.03	(0.19)
Total Operating Expenses	61.08	70.04	(8.96)
Operating Income (Loss)	38.92	29.96	8.96
Nonoperating Revenues	(0.32)	1.10	(1.42)
Income (Loss) Before Capital Contributions and Transfer Out	38.60	31.06	7.54

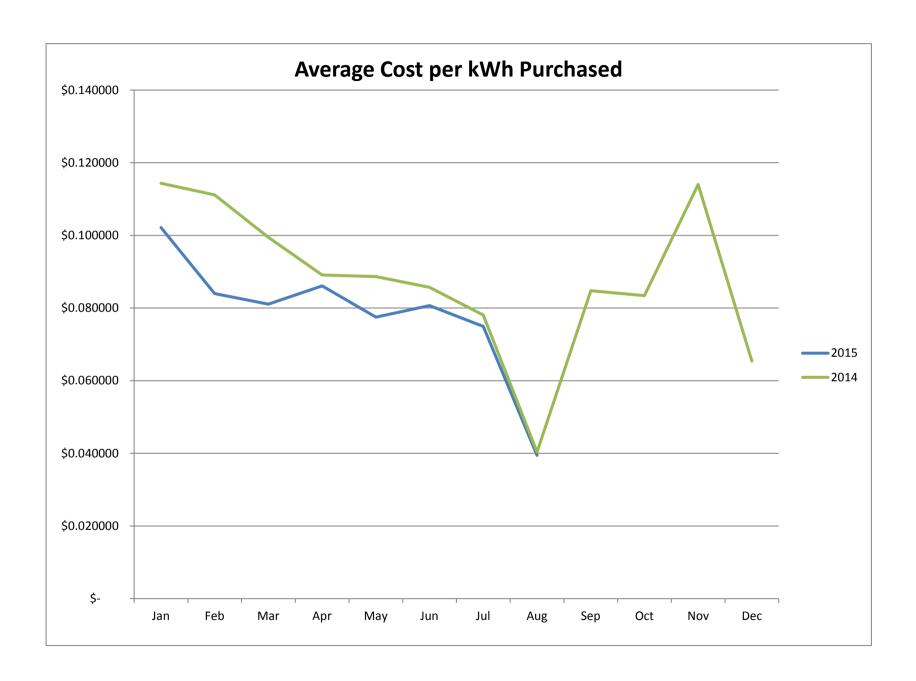


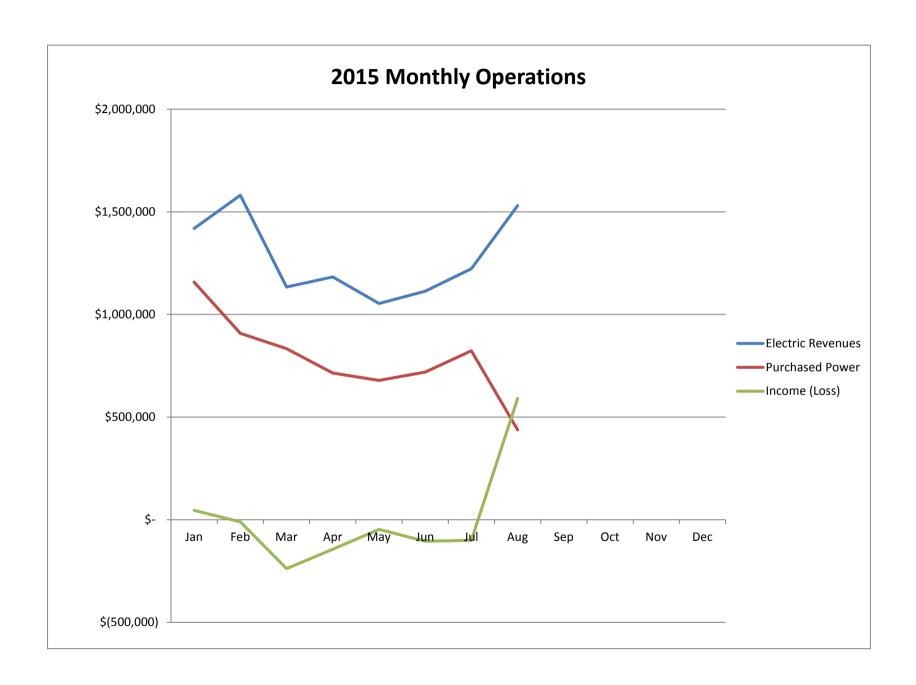


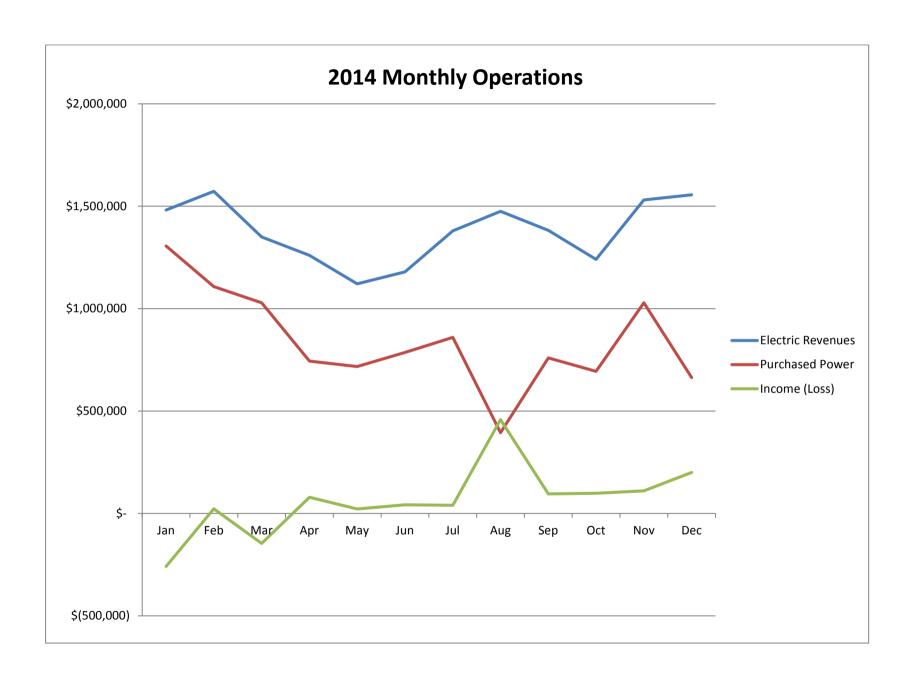












## SOUTH HADLEY ELECTRIC LIGHT DEPARTMENT OUTAGE REPORTS

#### **AUGUST 2015**

DAY	TIME OUT	TIME IN	Duration	LOCATION	POLE NO.	# OF CUST	CUST HOURS	CAUSE
1st	8/1/2015 6:36:00	8/1/2015 7:27:00	0.850	Old Willimansett Street	10	24	20.40	F
1st	8/1/2015 4:30:00	8/1/2015 6:00:00	1.500	Lathrop Street	51&53	7	10.50	D
1st	8/1/2015 4:30:00	8/1/2015 12:07:00	7.617	Lathrop Street	53	3	22.85	D
15th	8/15/2015 20:18:46	8/15/2015 20:18:46	0.00	23F5 Backbone	**	1,741	0.2	В
15th	8/15/2015 21:12:00	8/15/2015 21:37:00	0.417	River Road	21	50	20.83	С
20th	8/20/2015 2:45:00	8/20/2015 5:47:00	3.033	Granby Road	96 1/2	2	6.07	D
28th	8/28/2015 6:46:00	8/28/2015 7:25:00	0.650	Industrial Drive	10	4	2.60	F
TOTALS			14.067			1,831	83.41	

- CAUSE -

Equipment Failure G. A. Bump Overload (Circuit) B. Lightning H. C. Tree Condition Overload (Transformer) Ι. D. Auto Accident J. Meter Problem E. **Customer Fault** K. Weather (Snow, Ice, Etc.)

F. Animal L. Scheduled

# 2014 Retail Electric Rates in Deregulated and Regulated States

Prepared by
Paul Zummo, Manager, Policy Research and Analysis
American Public Power Association

Published April 2015



The American Public Power Association represents not-for-profit, community-owned electric utilities that power homes, businesses and streets in nearly 2,000 towns and cities, serving 48 million Americans. More at www.PublicPower.org.

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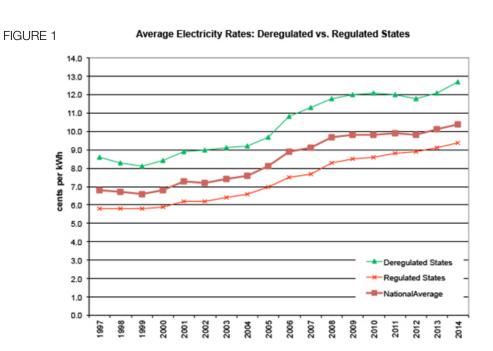
Contact MediaRelations@PublicPower.org or 202.467.2900

TABLE 1

## Average Revenue per Kilowatt-hour in Deregulated vs. Regulated States

	Deregulated States		Regulated States cents per kW	National Average Vh)
		`		,
1997	8.6		5.8	6.8
1998	8.3		5.8	6.7
1999	8.1		5.8	6.6
2000	8.4		5.9	6.8
2001	8.9		6.2	7.3
2002	9.0		6.2	7.2
2003	9.1		6.4	7.4
2004	9.2		6.6	7.6
2005	9.7		7.0	8.1
2006	10.8		7.5	8.9
2007	11.3		7.7	9.1
2008	11.8		8.3	9.7
2009	12.0		8.5	9.8
2010	12.1		8.6	9.8
2011	12.0		8.8	9.9
2012	11.8		8.9	9.8
2013	12.1		9.1	10.1
2014	12.7		9.4	10.4
CHANGE	<b>.</b>			
1997-201	4 4.1		3.6	3.6

Source: Energy Information Administration, Forms EIA-861 and EIA-826.



#### **ISO-New England Rates**

Five of the 15 states in the deregulated category are in the footprint of ISO-New England. Table 2 shows that rates for all five states were already well above the national average in 1997.

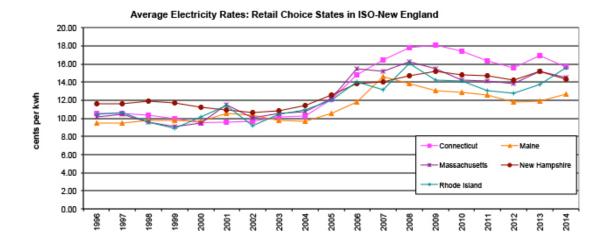
Over the 17-year period, Connecticut, Massachusetts, and Rhode Island experienced rate increases significantly above the national average. Figure 2 shows that rates in these New England states declined between 2008 and 2012 — most likely because of steep drops in the price of natural gas, which the New England region relies heavily on for generation.

Rates increased in 2013 in all five states but dropped back to 2012 levels in 2014 in Connecticut, New Hampshire and Massachusetts. Rates increased steadily in Rhode Island and Maine from 2012 to 2014 as natural gas prices increased.

TABLE 2
ISO-New England Average
Customer Electricity Rates

	1997	2014 (in cents per kWh)	Difference
Connecticut	10.5	16.9	6.4
Maine	9.5	12.6	3.1
Massachusetts	10.4	15.2	4.8
New Hampshire	11.6	15.2	3.6
Rhode Island	10.7	15.5	4.8
National Average	6.8	10.4	3.7





## APPA Selected Financial and Operating Ratios of Public Power Systems

Published February 2015

Ratio		5,000 to 10,000 Customers		Northeast		SHELD 2014	
Revenue per KWH							
a. All Retail Customers	\$	0.084	\$	0.129	\$	0.147	
b. Residential Customers	\$	0.098	\$	0.133	\$	0.149	
c. Commercial Customers	\$	0.095	\$	0.137	\$	0.157	
d. Industrial Customers	\$	0.074	\$	0.111	\$	0.132	
Debt to Total Assets		0.185		0.226		0.086	
3. Operating Ratio		0.922		0.899		0.961	
4. Current Ratio		2.410		2.150		14.141	
5 a. Times Interest Earned		7.940		2.030		-	
5 b. Debt Service Coverage		3.370		2.240		-	
Net Income per Revenue Dollar	\$	0.034	\$	0.050	\$	0.047	
7. Uncollectible Accounts per Revenue Dollar	\$	0.0009	\$	0.0028	\$	0.0061	
Retail Customer per Non-Power Generation							
Employee		295		374		413	
Total O&M Expense per KWH Sold	\$	0.08	\$	0.10	\$	0.14	
10. Total O&M Expense (Excluding Power							
Supply Exp.) per Retail Customer	\$	422	\$	689	\$	437	
11. Total Power Supply Expense per KWH Sold	\$	0.067	\$	0.071	\$	0.110	
12. Purchased Power Cost per KWH		0.064	\$	0.049	\$	0.091	
13. Retail Customers per Meter Reader		6,162		8,862		-	
14. Distribution O&M Expense per Retail Customer	\$	142	\$	185	\$	109	
15. Distribution O&M Expense per Circuit Mile	\$	5,065	\$	11,693	\$	7,300	
16. Customer Accounting, Service, and Sales							
Expense per Retail Customer	\$	52	\$	95	\$	46	
17. Administrative and General Expense per							
Retail Customer	\$	163	\$	180	\$	150	
18. Labor Expense per Worker-Hour	\$	32.78	\$	43.00	\$	44.07	
19. OSHA Incidence Rate (per 100 employees)		0.0		2.1		0.0	
20. Energy Loss Percentage		3.47%		3.09%		2.77%	
21. System Load Factor		59.0%		52.0%		52.0%	

The Financial and Operating Ratios presented above represent the 2013 mean values for 162 publically owned electric utilities located throughout the Untied States.

#### SOUTH HADLEY ELECTRIC LIGHT DEPARTMENT

#### SYSTEM RELIABILITY

To aid in evaluating system reliability, the industry has developed universally recognized indices to measure the duration and frequency of customer outages. Those indices are defined and discussed below.

**System Average Interruption Frequency Index (SAIFI)** – SAIFI is a measure of frequency. SAIFI measures the number of times the average customer experiences an interruption (> 1 minute) in supply.

**System Average Interruption Duration Index (SAIDI)** – SAIDI is a measure of duration. SAIDI measures the number of minutes over the year that the average customer is without power.

**Customer Average Interruption Index (CAIDI) -** CAIDI is a measure of the duration. CAIDI measures the average amount of time a customer is without power per interruption.

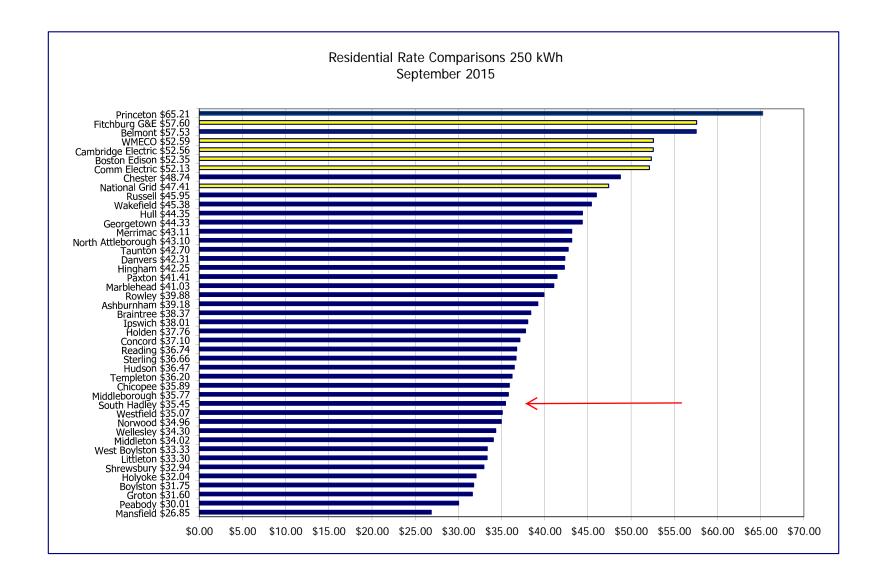
**Average System Availability Index (ASAI)** – ASAI is a measure of the overall reliability of the system. ASAI measures the percent of time during the year that the average customer has power.

The indices in isolation have little meaning. They only become significant when comparing a utilities performance against industry averages or in identifying trends.

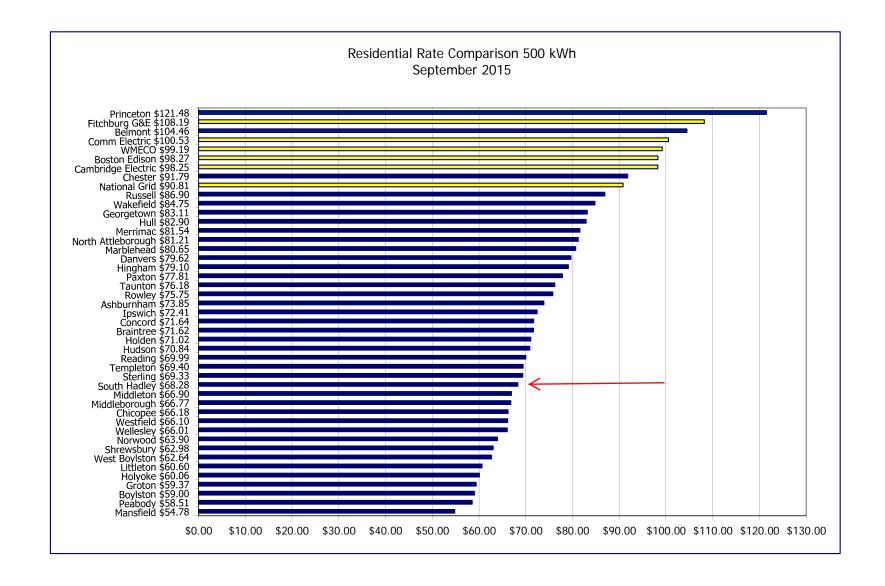
The following tables compares SHELD's indices for the past three complete years to the most currently available data on the industry.

Company / Industry	YEAR	SAIFI	SAIDI	CAIDI	ASAI
SHELD	2012	0.41	17.65	43.02	99.9966
	2013	0.09	7.19	78.78	99.9986
	2014	0.18	10.55	58.76	99.9980
Industry - Region 8	2013	0.51	35.02	65.44	99.9838
Industry - Overall	2005	1.60	54.03	65.91	99.7900
	2007	4.18	69.80	90.06	99.9700
	2009	0.88	68.98	86.75	99.9000
	2011	0.81	46.36	73.86	99.8600
	2013	1.11	58.49	96.47	99.8700

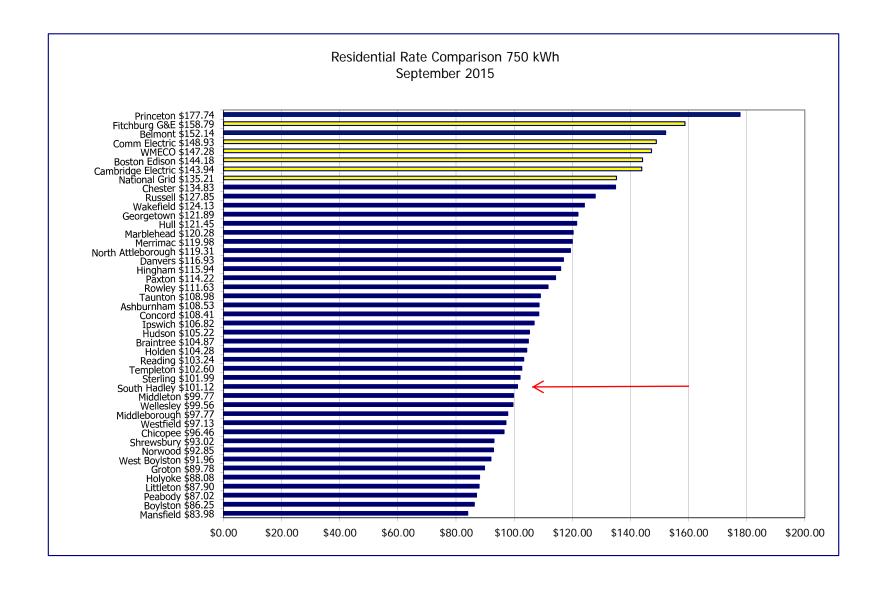




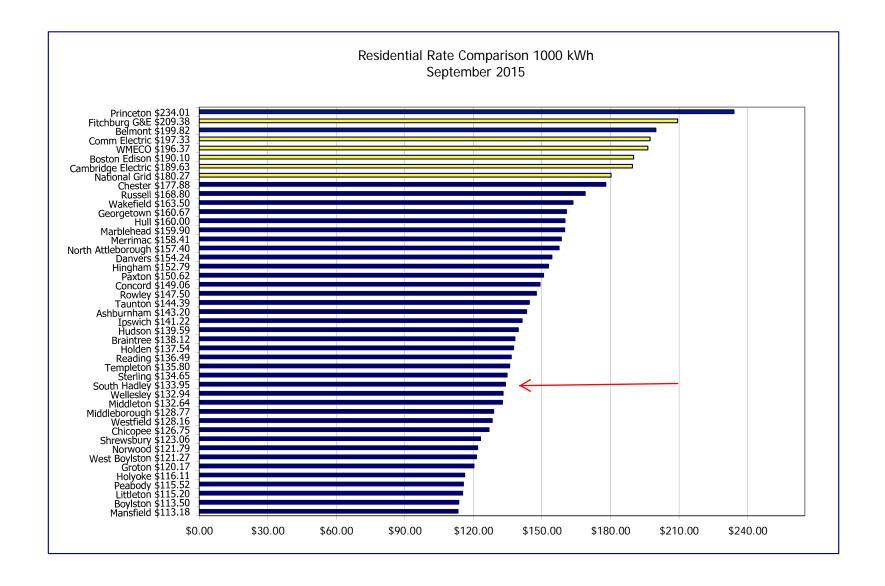














#### Energy Efficiency Programs

**Light Board Meeting** 

October 22, 2015







#### Massachusetts Municipal Wholesale Electric Company (MMWEC) Overview

- Established under Chapter 775 of the Acts of 1975
  - A not-for-profit, public corporation
  - A political subdivision of the Commonwealth
- Services
  - Power Supply Planning
  - Resource Development
  - Resource and Risk Management
  - Wholesale Market Solutions
  - Regulatory / Legislative
  - Pooled Loan Program
  - Business Support
  - Energy Efficiency



#### Outline

- SHELD Participation Overview
  - Services Provided
  - Savings
  - Expenditures
  - Year to Date Summary of Efficiency Programs
    - HELPS
    - Green Opportunities (GO) Program

## Home Energy Loss Prevention (HELPS) Program



- Residential Efficiency Program since 1989
- Home energy audits, lighting, Energy Star appliances and Cool Home heat pump and air conditioning rebates
- Toll Free Audit Request # 888-333-7525
- www.munihelps.org



### Participation Overview

- SHELD has been a HELPS participant since 2002
  - Services Provided:
    - Home Energy Audits 486 audits since inception
    - Home Efficiency Incentive (HEI) since 2009
      - For measures recommended in home energy audits
    - Energy Star Appliance Rebates introduced in 2004
    - Cool Homes Energy Star Central AC and Heat Pump
       added in 2013
    - On-Line Efficiency Catalog lighting, power strips added in 2009



## Participation Overview - continued

- Savings
  - Home Efficiency Incentive (HEI)
    - oil / natural gas / electric saving
    - 537 million BTU's saved since 2009
    - Equivalent to saving 157,382 kWh annually
  - Appliance and Cool Home Rebates
    - 3,167 appliance rebates since 2004
    - 12 Cool Homes rebates since 2013
    - 259,299 kWh annual savings as of 2015
  - Online Catalog
    - Has not been tracked historically
    - Has very low annual participation and minimal savings
    - 20,149 kWh savings YTD





#### Participation Overview continued

- Expenditures
  - Since 2004
    - \$222,771 in rebates
      - Not including solar = \$86,150 (estimated) in 2012-13
    - \$63,315 in audits





### Year to Date Activity January – September 2015



# Energy Star Cool Homes Central AC/Heat Pumps

Measures	#	Rebates	2015 YTD kWh savings	Lifetime kWh savings
Central AC150	1	\$150	88	1,051
Central AC300	2	\$600	226	4,071
Total	3	\$750	314	5,122

#### Energy Star Appliance Rebates

Measures	#	Rebates	2015 YTD kWh savings	Lifetime kWh savings
Room AC	2	\$50	63	564
Clothes Washer	22	\$800	2,460	29,522
Dehumidifier	20	\$490	2,141	38,532
Dishwasher	20	\$500	1,483	14,830
Heat Pump Water Heater	5	\$1,500	11,120	111,196
Refrigerator	30	\$825	2,029	24,346
Total	99	\$4,165	19,295	218,990





#### Energy Star Catalog

Measures	#	Rebates	2015 YTD kWh savings	Lifetime kWh savings
23w TCP Compact Fluorescent				
Bulbs	8	\$8.00	360	1440
30w MAXL 3-Way Compact Fluorescent Bulb	2	\$6.00	90	360
20w TCP Compact Fluorescent Bulb	2	\$2.00	90	360
Total	12	\$16.00	540	2160
Grand Total kWh Savings			20,149	226,272



#### Energy Audits and Measure Installations

Home Energy Audits	# of Audits	Cost
South Hadley	27	\$3,645

Home Efficiency Incentive	#	Rebates
Installed Insulation Projects recommended in		
audit	2	\$394.00

#### 2015 YTD Summary

Residential Services - HELPS	# Participants	Cost
Audits	27	\$3,645
Home Energy Incentive	2	\$394
On-line Catalog	12	\$16
Cool Homes	3	\$750
Appliance Rebates	99	\$4,165
Rebates and Audit's	135	\$8,970

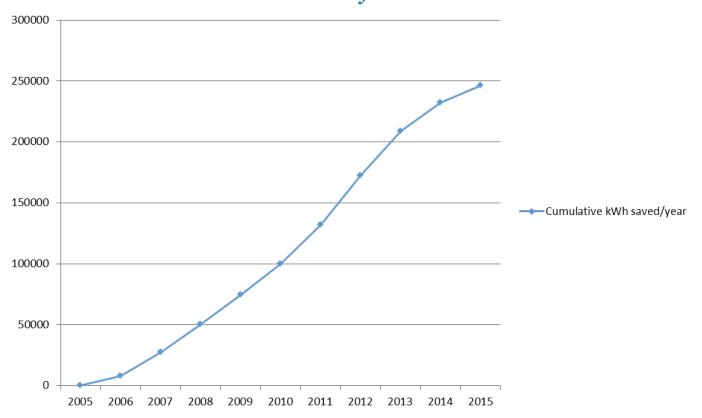
HELPS Rebate Breakout	#	Rebates	2015 YTD kWh savings	Lifetime kWh savings
Total Rebates/Cost/kWh savings	116	\$5,325	20,149	226,272





## Rebate Program kWh Savings 2005-2014

SHELD HELPS Rebate Program Cumulative kWh saved/year





#### MMWEC Green Opportunity (GO) Program



- For Commercial and Industrial Customers since 2010
- Lighting, Heating, Ventilation and AC rebates
- Prescriptive Program Toll Free Phone #: 844-371-6704
- Custom Program Toll Free Phone #: 877-259-3015
- www.mmwecgoprogram.org





- SHELD joined GO in 2014
  - DOER grant award for municipal utility efficiency program
  - Offers two services
    - Custom Program
      - Flexible program that handles all project types, assists customers with audits, guidance on project development
    - Prescriptive Lighting and HVAC
      - Provides set rebates for specific lighting and HVAC measures

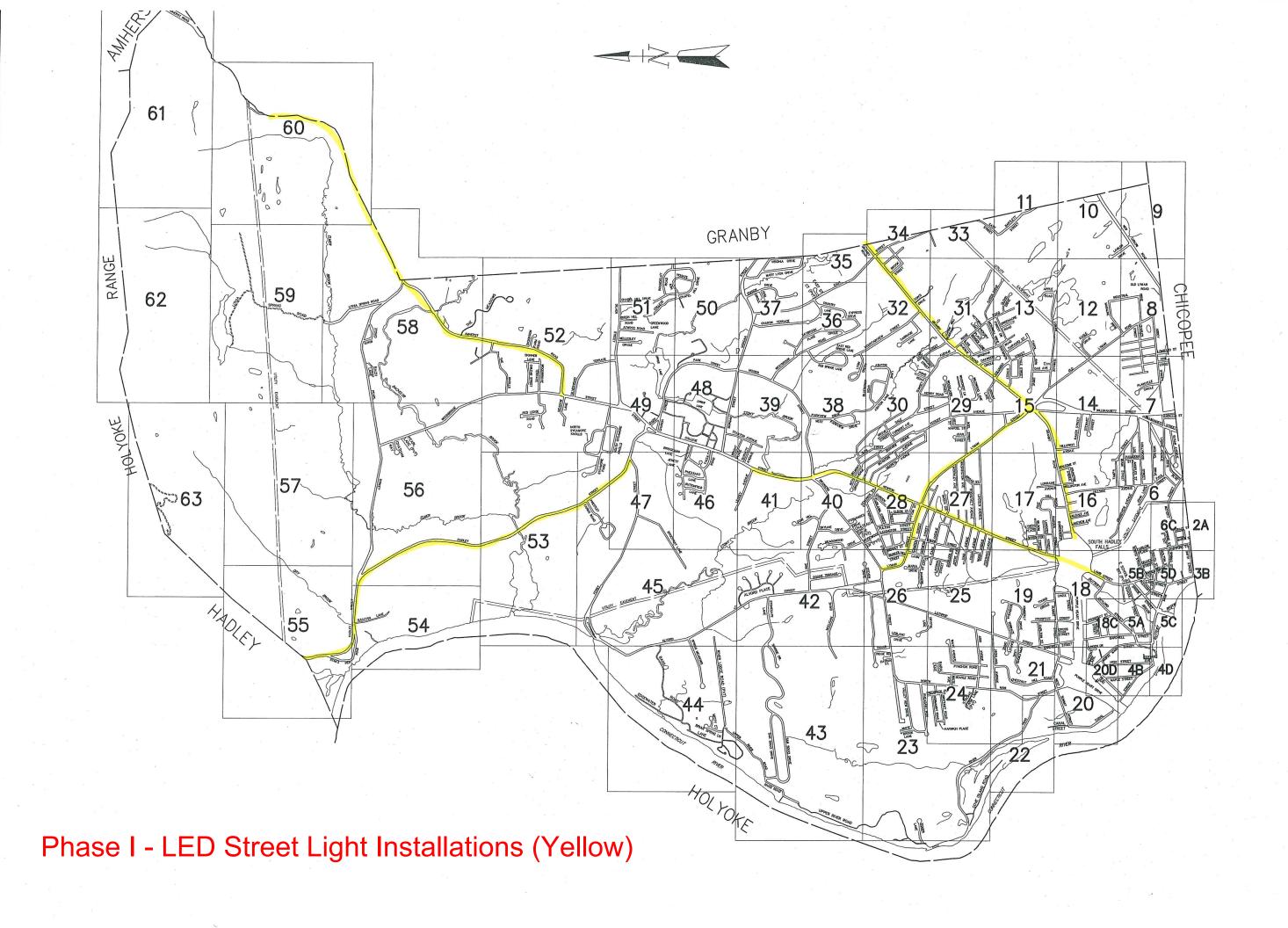


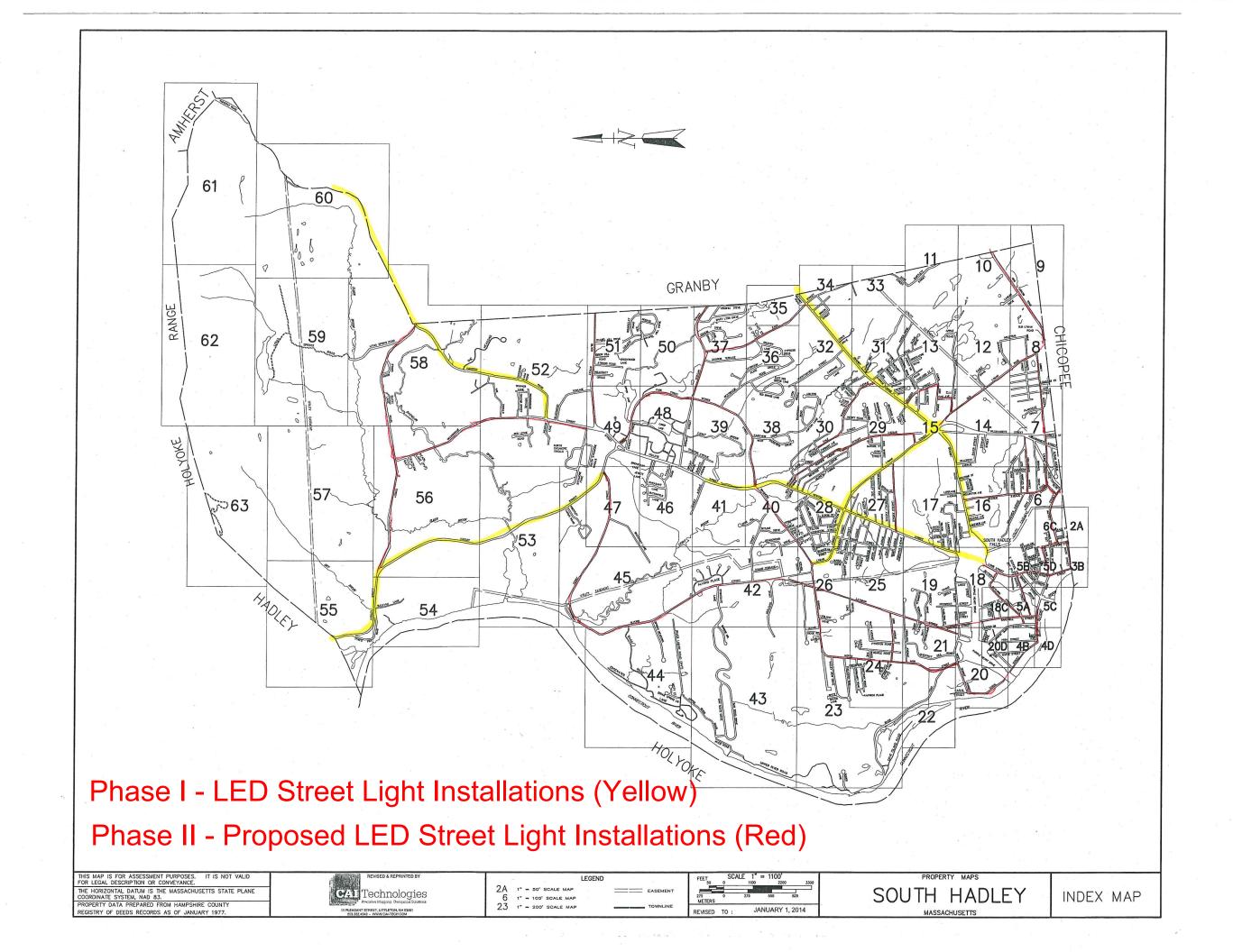
### GO Program Completed Prescriptive Lighting Projects

Туре	Participant Name	Pre- Approved Amount	Completion Date	Annual kWh Savings	kW Demand Savings
	The Villages of Shadowbrook Estate	\$4,900	4/30/2015	9,460	2.2
	Teddy Bear Pool & Spa Phase III	\$800	7/4/2015	7,568	1.76
Total Rebates Provided		\$5,700		17,028	3.96

#### Thank You

- HELPS munihelps.org
- GO mmwecgoprogram.org





#### South Hadley Electric Light Department Phase II LED Street Light Installations

Location ( Street or Partial Street)	Number of Lights	Location ( Street or Partial Street)	Number of Lights
Ferry Street	17	Lamb Street	6
Alvord Street	16	Bardwell Street	15
Lathrop Street	25	School Street	9
East Street	21	Gaylord Street	10
Morgan Street	21	North Main Street(Lower)	7
Park Street	15	Columbia Street	4
Mosier Street	18	Cornell Street	2
Brainerd Street	19	West Cornell Street	3
North Main Street(Upper)	19	Oak Avenue	1
West Summit Street	7	Lyman Terrace	3
Canal Street	11	Hillside Avenue	10
West Main Street	6	Hollywood Street	5
New Ludlow Road	7	Judd Avenue	4
Old Lyman Road	13	Lincoln Avenue	9
Abbey Street	12	Pittroff Avenue	10
Laurie Avenue	4	Pittroff Connector	1
Ludlow Road	6	Richview Avenue	8
Hartford Street	4	Belmont Ave	1
Bolton Street	4	Sunset Avenue	7
South Main Street	4	Dale Street	9
Spring Street	6	Silver Street	13
Smith Street	3	Pearl Street	23
		Woodbridge Street	21
Total	258	Total	181
Total LED Lights for Phase II Propo	osed Intallation		439