

**2017 New Hampshire Statewide Energy Efficiency Plan
Docket DE 14-216
- Summary of Revisions to the September 23, 2016 Plan –**

Page	Description of Change
Cover Page	Incorporated revision date.
Table of Contents	Added Attachment RG-1 reference.
Page 12	Updated the statewide benefit/cost ratio for Electric Residential in the graphic from 2.1 to 2.3 to reflect corrected electric DRIPE and other fuels benefits.
Attachment C, Page 34	Updated the percentage impact of including DRIPE in the statewide electric program benefits (from 0.9% to 1.6%) to reflect corrected DRIPE and other fuels benefits.
Attachment D, Pages 37- 41	Reflects corrected electric DRIPE and other fuels benefits.
Attachment DG, Pages 42 - 46	Reflects corrected electric DRIPE and other fuels benefits.
Attachment E, Pages 47 - 51	Reflects corrected electric DRIPE and other fuels benefits.
Attachment F, Pages 52 - 56	Reflects corrected electric DRIPE and other fuels benefits.
Attachment G, Pages 57 - 61	Reflects corrected electric DRIPE and other fuels benefits.
Attachment GG, Pages 62 - 66	Reflects corrected electric DRIPE and other fuels benefits.
Attachment H2, Pages 71 – 75	Reflects corrected electric DRIPE and other fuels benefits.
Attachment O, Pages 128 - 134	Excludes deferred taxes in the calculation of over and under recovery of costs associated with programs approved pursuant the 2017 Plan, as described in Section II.B.4 of the Settlement Agreement.
Attachment OG-1, Page 164A	Added Attachment OG-1 which expands the lost base revenue calculation for Liberty Utilities Gas (EnergyNorth) to include estimated information for the months of November and December, 2017, as described in Section II.B.1 of the Settlement Agreement.
Attachment Q, Pages 168 - 174	Excludes deferred taxes in the calculation of over and under recovery of costs associated with programs approved pursuant the 2017 Plan, as described in Section II.B.4 of the Settlement Agreement.
Attachment RG-1, Page 230	Added Attachment RG-1 which expands the lost base revenue calculation for Until Gas (Northern) to include estimated information for the months of November and December, 2017, as described in Section II.B.1 of the Settlement Agreement.

2017

New Hampshire Statewide Energy Efficiency Plan



Jointly Submitted by New Hampshire's Electric and Natural Gas Utilities

Liberty Utilities (Granite State Electric) Corp.d/b/a Liberty Utilities
New Hampshire Electric Cooperative, Inc.

Public Service Company of New Hampshire d/b/a Eversource Energy
Unitil Energy Systems, Inc.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Northern Utilities, Inc.

NHPUC Docket DE 14-216

September 23, 2016

Revised December 12, 2016

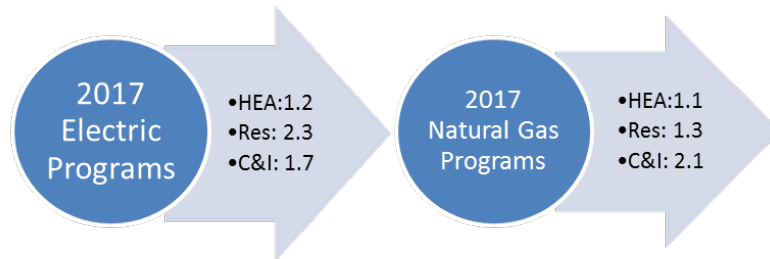


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4. Cost Effectiveness

Programs undergo rigorous cost-effectiveness screening to ensure the implementation of cost-effective programs with benefit-cost ratios equal to or greater than 1.0.



A. Program Funding

1. Electric Energy Efficiency Program Funding

The NHSaves programs offered by the NH Electric Utilities are funded through three main sources: 1) a portion of the System Benefits Charge (SBC) which is applied to the electric bills of all customers receiving delivery service through one of the NH Electric Utilities; 2) a portion of the Regional Greenhouse Gas Initiative (RGGI) auction proceeds; and 3) proceeds obtained by each of the NH Electric Utilities from ISO-NE for participation in ISO-NE's Forward Capacity Market (FCM). In addition, any unspent funds from prior program years are carried forward to future years, including interest at the prime rate.

The SBC revenue is estimated based on a forecast of each utility's 2017 sales and a SBC energy efficiency rate of \$0.00198 per kilowatt-hour. The proposed SBC rate is a \$0.00018 increase from the current SBC energy efficiency rate of \$0.0018 per kilowatt-hour, but is approximately 12.4 percent lower than SBC energy efficiency rate of \$0.00226 estimated and included in the Settlement Agreement that led to the Commission's Order No. 25, 932 in the EERS proceeding.

The estimated RGGI proceeds were provided to the NH Electric Utilities by the NHPUC's staff. The ISO-NE FCM proceeds are estimated based on forecasted prices for the energy efficiency demand assets. All ISO-NE capacity payments from demand reductions resulting from the energy efficiency programs are used to support the NHSaves Electric Programs and provide additional energy efficiency opportunities to NH's residents, businesses and municipalities.

Table III.3 summarizes the estimated program funding by source for 2017.

ATTACHMENT C: AVOIDED COSTS

Summary of Avoided Costs

In accordance with Commission Order No. 23,850, in DE 01-057, dated November 29, 2001, the NH Utilities use common avoided costs to ensure that all New Hampshire customers will have access to the programs and services that result in the same calculated avoided cost, regardless of their utility. These avoided costs are incorporated into the Total Resource Cost (“TRC”) test consistent with Order No. 22,875 in DR 96-150: Electric Utility Restructuring on Requests for Rehearing, Reconsideration and Clarification. The TRC test estimates the present value of energy and non-energy impacts over the life of program measures and compares that to the program cost plus any out-of-pockets costs that customers pay for energy efficiency measures. For 2017, the New Hampshire TRC test uses a nominal discount rate of 3.5 percent ¹ and a general inflation rate of 1.18 percent² within the TRC test

The avoided costs used in the TRC test are largely based on the 2015 *Avoided Energy Supply Costs in New England: 2015 Final Report* (“2015 AESC”). The 2015 AESC is a regional study sponsored by the New England States’ energy efficiency program administrators. The 2015 AESC provides avoided costs for electricity including energy and capacity as well as avoided costs for fossil fuels and wood. The NH Utilities have opted to not use the optional retail adders for electricity or natural gas avoided costs provided in the study, as each utility considers the avoided costs excluding the adder to be a better approximation of the energy service costs avoided by their customers.

Demand Reduction Induced Price Effect

The 2015 AESC includes Demand Reduction Induced Price Effects (“DRIPE”) for both electricity and natural gas. DRIPE refers to the reduction in wholesale market prices resulting from reduced demand from energy efficiency. DRIPE effects on wholesale prices are typically very small. However, their impact when multiplied across the entire wholesale market may be significant.

Because the region relies heavily upon natural gas generation, electric conservation results in both “own-fuel” DRIPE (reductions in electricity costs) and “cross-fuel” DRIPE (reductions in gas costs from reduced electricity consumption). Likewise with natural gas, DRIPE includes an “own-fuel” component and a “cross-fuel” component (a reduction in electricity costs resulting from reduced natural gas consumption).

Beginning in 2017, the NH Utilities are counting all applicable New Hampshire electric and natural gas DRIPE avoided costs from the 2015 AESC into their benefit-cost calculations. Including the avoided cost of DRIPE increased the statewide electric program benefits by 1.6% and the statewide natural gas program benefits by 17.4%. The DRIPE values are included in the Present Value Benefits table of this Plan (reference Attachments D, DG, E, F, G and GG).

¹ Based on June, 2016 Prime Rate in accordance with the Final Energy Efficiency Working Group Report, dated July 6, 1999 in DR 96-150. <http://www.moneycafe.com/library/primerate.htm>

² Based on inflation from January 2015 to January 2016, <http://research.stlouisfed.org/fred2/data/GDPDEF.txt>

Program Cost-Effectiveness - 2017 PLAN

	Total Resource Benefit / Cost Ratio	Benefits (\$000)	Utility Costs (\$000)	Customer Costs (\$000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served	Annual MMBTU Savings	Lifetime MMBTU Savings
Residential											
Home Energy Assistance	1.16	\$ 455.1	\$ 392.2	\$ -	42.4	530.5	5.5	4.9	42	966.9	21,427.2
ENERGY STAR Homes	3.48	\$ 496.4	\$ 120.0	\$ 22.5	49.1	1,016.0	11.2	0.9	37	1,105.6	27,621.7
Home Performance with ENERGY STAR	1.80	\$ 587.3	\$ 185.5	\$ 141.2	110.9	1,919.1	25.9	9.9	61	1,224.5	26,425.4
ENERGY STAR Products ¹	2.86	\$ 789.4	\$ 240.1	\$ 35.9	959.6	7,897.0	275.4	147.6	10,704	22.4	246.1
ISO-NE FCM Expenses		\$ -	\$ 8.6	\$ -	-	-	-	-	-	-	-
Sub-Total Residential	2.03	\$ 2,328.2	\$ 946.3	\$ 199.6	1,162.0	11,362.6	318.0	163.3	10,844	3,319.4	75,720.4
Commercial & Industrial											
Large Business Energy Solutions	2.43	\$ 2,928.3	\$ 703.0	\$ 504.1	2,378.1	34,390.5	169.2	250.4	44	-	-
Small Business Energy Solutions	1.97	\$ 1,303.2	\$ 445.3	\$ 217.2	1,259.3	16,697.1	60.2	106.8	512	-	-
Municipal Energy Solutions	1.23	\$ 415.4	\$ 180.0	\$ 156.9	329.1	4,364.0	29.5	49.7	41	-	-
Education	-	\$ -	\$ 23.4	\$ -	-	-	-	-	-	-	-
ISO-NE FCM Expenses	-	\$ -	\$ 20.0	\$ -	-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	2.07	\$ 4,646.9	\$ 1,371.7	\$ 878.2	3,966.5	55,451.5	258.9	406.9	598	-	-
Total	2.05	\$ 6,975.2	\$ 2,318.0	\$ 1,077.8	5,128.6	66,814.1	576.9	570.3	11,442	3,319.4	75,720.4

Note 1: Plan includes 10,704 customers purchasing a total of 40,606 ENERGY STAR lighting products (estimated at 4/customer) and 553 ENERGY STAR appliances.

Annual kWh Savings	5,128,578.0	84%	kWh > 55%	Lifetime kWh Savings	66,814,094.8	75.1%	kWh > 55%
Annual MMBTU Savings (in kWh)	<u>972,809.8</u>	<u>16%</u>		Lifetime MMBTU Savings (in kWh)	<u>22,191,460.3</u>	<u>24.9%</u>	
	6,101,387.8	100%			89,005,555.1	100.0%	

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Present Value Benefits - 2017 PLAN

	Total Benefits (\$000)	CAPACITY				ENERGY				Electric DRIPE	Gas Benefits	Gas DRIPE	Other Fuels Benefits	Non-Fuels Benefits	
		Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak						
Residential															
Home Energy Assistance	\$ 455.1	\$ 9.5	\$ -	\$ 1.0	\$ 4.2	\$ 8.9	\$ 12.3	\$ 4.1	\$ 5.1	\$ 0.8	\$ -	\$ -	\$ 409.1	\$ -	
ENERGY STAR Homes	\$ 496.4	\$ 1.7	\$ -	\$ 0.2	\$ 0.8	\$ 19.6	\$ 40.6	\$ 1.2	\$ 1.3	\$ 1.1	\$ -	\$ -	\$ 428.6	\$ 1.4	
Home Performance with ENERGY STAR	\$ 587.3	\$ 25.3	\$ -	\$ 2.7	\$ 11.1	\$ 35.7	\$ 70.8	\$ 3.7	\$ 4.6	\$ 2.4	\$ -	\$ -	\$ 431.0	\$ -	
ENERGY STAR Products	\$ 789.4	\$ 197.3	\$ -	\$ 22.3	\$ 90.6	\$ 128.8	\$ 180.2	\$ 58.5	\$ 71.4	\$ 18.3	\$ 1.2	\$ 0.3	\$ 1.8	\$ 18.7	
ISO-NE FCM Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Sub-Total Residential	\$ 2,328.2	\$ 233.8	\$ -	\$ 26.3	\$ 106.6	\$ 193.0	\$ 303.9	\$ 67.4	\$ 82.4	\$ 22.6	\$ 1.2	\$ 0.3	\$ 1,270.5	\$ 20.1	
Commercial & Industrial															
Large Business Energy Solutions	\$ 2,928.3	\$ 574.6	\$ -	\$ 62.5	\$ 253.4	\$ 696.5	\$ 633.8	\$ 373.0	\$ 285.3	\$ 49.1	\$ -	\$ -	\$ -	\$ -	
Small Business Energy Solutions	\$ 1,303.2	\$ 219.3	\$ -	\$ 24.1	\$ 97.6	\$ 245.5	\$ 204.5	\$ 268.9	\$ 219.0	\$ 24.4	\$ -	\$ -	\$ -	\$ -	
Municipal Energy Solutions	\$ 415.4	\$ 102.0	\$ -	\$ 11.2	\$ 45.4	\$ 94.3	\$ 78.1	\$ 45.2	\$ 32.5	\$ 6.8	\$ -	\$ -	\$ -	\$ -	
Education	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
ISO-NE FCM Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Sub-Total Commercial & Industrial	\$ 4,646.9	\$ 895.9	\$ -	\$ 97.8	\$ 396.4	\$ 1,036.3	\$ 916.4	\$ 687.0	\$ 536.8	\$ 80.3	\$ -	\$ -	\$ -	\$ -	
Total	\$ 6,975.2	\$ 1,129.7	\$ -	\$ 124.1	\$ 503.0	\$ 1,229.3	\$ 1,220.3	\$ 754.5	\$ 619.2	\$ 102.9	\$ 1.2	\$ 0.3	\$ 1,270.5	\$ 20.1	

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Performance Incentive Calculation 2017

	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial		
1. Benefit/Cost Ratio	2.00	
2. Threshold Benefit / Cost Ratio ¹	1.00	
3. Lifetime kWh Savings	55,451,541	
4. Threshold Lifetime kWh Savings (65%) ²	36,043,502	
5. Implementation Expenses	\$1,371,690	
6. Benefit / Cost Percentage of Implementation Expenses	2.75%	
7. Lifetime kWh Percentage of Implementation Expenses	2.75%	
8. Commercial & Industrial Performance Incentive	\$75,443	
9. Maximum Commercial & Industrial Performance Incentive (6.875%)	\$94,304	
Residential		
10. Benefit / Cost Ratio	1.94	
11. Threshold Benefit / Cost Ratio ¹	1.00	
12. Lifetime kWh Savings	11,362,553	
13. Threshold Lifetime kWh Savings (65%) ²	7,385,660	
14. Implementation Expenses	\$946,314	
15. Benefit / Cost Percentage of Implementation Expenses	2.75%	
16. Lifetime kWh Percentage of Implementation Expenses	2.75%	
17. Residential Performance Incentive	\$52,047	
18. Maximum Residential Performance Incentive (6.875%)	\$65,059	
19. TOTAL PLANNED / EARNED INCENTIVE	\$127,490	

Notes

1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
2. Actual Lifetime kWh Savings for each sector must be greater than or equal to 65% of projected savings.

**Planned Versus Actual Benefit / Cost Ratio by Sector
2017**

	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial		
1. Benefits (Value) From Eligible Programs	\$ 4,646,920	
2. Implementation Expenses	\$ 1,371,690	
3. Customer Contribution	\$ 878,213	
4. Performance Incentive	\$ 75,443	
5. Total Costs	\$ 2,325,346	
6. Benefit/Cost Ratio - Commercial & Industrial Sector	2.00	
Residential		
7. Benefits (Value) From Eligible Programs	\$ 2,328,250	
8. Implementation Expenses	\$ 946,314	
9. Customer Contribution	\$ 199,557	
10. Performance Incentive	\$ 52,047	
11. Total Costs	\$ 1,197,918	
12. Benefit/Cost Ratio - Residential Sector	1.94	

**Lifetime Energy Savings by Sector and Program
2017**

	Lifetime kWh Savings	
	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial		
Large Business Energy Solutions	34,390,514	
Small Business Energy Solutions	16,697,063	
Municipal Energy Solutions	4,363,964	
Total Commercial & Industrial	55,451,541	
Residential		
Home Energy Assistance	530,488	
ENERGY STAR Homes	1,015,973	
Home Performance with ENERGY STAR	1,919,084	
ENERGY STAR Products	7,897,008	
Total Residential	11,362,553	

Program Cost-Effectiveness - 2017 PLAN

	Total Resource Benefit / Cost Ratio	Benefits (\$000)	Utility Costs (\$000)	Customer Costs (\$000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served	Annual MMBTU Savings	Lifetime MMBTU Savings
Residential											
Home Energy Assistance	1.07	\$ 1,075.2	\$ 1,005.7	\$ -	50.7	1,014.9	-	-	198	5,302.0	106,032.4
ENERGY STAR Homes	2.11	\$ 468.1	\$ 136.0	\$ 85.4	28.7	718.1	-	-	44	1,828.7	45,716.3
Home Performance with ENERGY STAR	1.36	\$ 1,705.0	\$ 729.2	\$ 526.8	185.4	3,707.4	-	-	207	7,369.3	156,463.3
ENERGY STAR Products	1.06	\$ 1,762.0	\$ 815.2	\$ 851.6	39.5	671.2	4.7	-	1,322	10,383.6	178,692.9
Home Energy Reports	1.84	\$ 416.7	\$ 227.0	\$ -	-	-	-	-	38,000	9,700.0	32,600.0
Sub-Total Residential	1.24	\$ 5,427.0	\$ 2,913.1	\$ 1,463.9	304.3	6,111.5	4.7	-	39,771	34,583.6	519,504.8
Commercial & Industrial											
Large Business Energy Solutions	2.07	\$ 5,755.4	\$ 1,563.1	\$ 1,221.5	-	-	-	-	225	50,253.0	654,549.7
Small Business Energy Solutions	2.15	\$ 4,557.2	\$ 1,373.0	\$ 749.8	1.3	24.2	-	-	2,797	38,717.4	517,573.3
Education	0.00	\$ -	\$ 64.5	\$ -	-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	2.07	\$ 10,312.5	\$ 3,000.6	\$ 1,971.3	1.3	24.2	-	-	3,022	88,970.4	1,172,123.0
Total	1.68	\$ 15,739.6	\$ 5,913.7	\$ 3,435.1	305.6	6,135.7	4.7	-	42,793	123,554.0	1,691,627.8

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Present Value Benefits - 2017 PLAN

	Total Benefits (\$000)	Gas Benefits	Gas DRIPE	Electric Benefits	Electric DRIPE	Non-Fuels Benefits
Residential						
Home Energy Assistance	\$ 1,075.2	\$ 901.1	\$ 111.2	\$ 61.8	\$ 1.2	\$ -
ENERGY STAR Homes	\$ 468.1	\$ 381.2	\$ 40.8	\$ 45.3	\$ 0.7	\$ -
Home Performance with ENERGY STAR	\$ 1,705.0	\$ 1,323.8	\$ 157.1	\$ 220.3	\$ 3.9	\$ -
ENERGY STAR Products	\$ 1,762.0	\$ 1,509.6	\$ 211.1	\$ 40.4	\$ 0.9	\$ -
Home Energy Reports	\$ 416.7	\$ 279.7	\$ 137.1	\$ -	\$ -	\$ -
Sub-Total Residential	\$ 5,427.0	\$ 4,395.3	\$ 657.3	\$ 367.8	\$ 6.6	\$ -
Commercial & Industrial						
Large Business Energy Solutions	\$ 5,755.4	\$ 4,731.5	\$ 1,023.8	\$ -	\$ -	\$ -
Small Business Energy Solutions	\$ 4,557.2	\$ 3,739.0	\$ 791.0	\$ 1.5	\$ 0.0	\$ 25.7
Education	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-Total Commercial & Industrial	\$ 10,312.5	\$ 8,470.5	\$ 1,814.8	\$ 1.5	\$ 0.0	\$ 25.7
Total	\$ 15,739.6	\$ 12,865.8	\$ 2,472.2	\$ 369.3	\$ 6.6	\$ 25.7

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Performance Incentive Calculation 2017

	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial		
1. Benefit/Cost Ratio	2.01	
2. Threshold Benefit / Cost Ratio ¹	1.00	
3. Lifetime MMBtu Savings	1,172,123	
4. Threshold Lifetime MMBtu Savings (65%) ²	761,880	
5. Implementation Expenses	\$3,000,600	
6. Benefit / Cost Percentage of Budget	2.75%	
7. Lifetime MMBtu Percentage of Budget	2.75%	
 8. Commercial & Industrial Performance Incentive	 \$165,033	
9. Maximum Commercial & Industrial Performance Incentive (6.875%)	\$206,291	
 Residential		
10. Benefit / Cost Ratio	1.20	
11. Threshold Benefit / Cost Ratio ¹	1.00	
12. Lifetime MMBtu Savings	519,505	
13. Threshold Lifetime MMBtu Savings (65%) ²	337,678	
14. Implementation Expenses	\$2,913,120	
15. Benefit / Cost Percentage of Budget	2.75%	
16. Lifetime MMBtu Percentage of Budget	2.75%	
 17. Residential Performance Incentive	 \$160,222	
18. Maximum Residential Performance Incentive (6.875%)	\$200,277	
 19. TOTAL PLANNED / EARNED INCENTIVE	 \$325,255	

Notes

1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
2. Actual Lifetime MMBtu Savings for each sector must be greater than or equal to 65% of projected savings.

**Planned Versus Actual Benefit / Cost Ratio by Sector
2017**

	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial		
1. Benefits (Value) From Eligible Programs	\$ 10,312,524	
2. Implementation Expenses	\$ 3,000,600	
3. Customer Contribution	\$ 1,971,268	
4. Performance Incentive	\$ 165,033	
5. Total Costs	\$ 5,136,901	
6. Benefit/Cost Ratio - Commercial & Industrial Sector	2.01	
Residential		
7. Benefits (Value) From Eligible Programs	\$ 5,427,042	
8. Implementation Expenses	\$ 2,913,120	
9. Customer Contribution	\$ 1,463,879	
10. Performance Incentive	\$ 160,222	
11. Total Costs	\$ 4,537,221	
12. Benefit/Cost Ratio - Residential Sector	1.20	

**Lifetime Energy Savings by Sector and Program
2017**

	Lifetime MMBtu Savings	
	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial		
Large Business Energy Solutions	654,550	
Small Business Energy Solutions	517,573	
Education	0	
Total Commercial & Industrial	1,172,123	
Residential		
Home Energy Assistance	106,032	
ENERGY STAR Homes	45,716	
Home Performance with ENERGY STAR	156,463	
ENERGY STAR Products	178,693	
Home Energy Reports	32,600	
Total Residential	519,505	

Program Cost-Effectiveness - 2017 PLAN

	Total Resource Benefit / Cost Ratio	Benefit (\$000)	Utility Costs (\$000)	Member Costs (\$000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Members Served	Annual MMBTU Savings	Lifetime MMBTU Savings
Residential											
Home Energy Assistance	1.15	\$ 327.4	\$ 284.3	\$ -	41.3	500.1	7.0	2.4	35	965.7	18,637.6
ENERGY STAR Homes	2.54	\$ 720.7	\$ 172.8	\$ 111.3	228.6	5,607.2	60.2	2.0	22	916.8	22,869.2
Home Performance with ENERGY STAR	1.33	\$ 458.9	\$ 218.5	\$ 127.0	100.2	1,725.7	22.9	1.8	61	1,214.4	24,287.5
ENERGY STAR Products ¹	2.33	\$ 874.9	\$ 338.2	\$ 37.9	1,008.7	8,361.4	278.6	161.1	11,582	50.4	553.9
ISO-NE FCM Expenses	0.00	\$ -	\$ 3.0	\$ -	-	-	-	-	-	-	-
Sub-Total Residential	1.84	\$ 2,381.9	\$ 1,016.8	\$ 276.2	1,378.8	16,194.3	368.7	167.4	11,700	3,147.2	66,348.2
Commercial & Industrial											
Large Business Energy Solutions	2.57	\$ 1,363.0	\$ 209.7	\$ 321.3	1,056.6	13,736.4	173.5	175.6	19	-	-
Small Business Energy Solutions	2.28	\$ 1,098.2	\$ 241.3	\$ 240.5	718.0	9,334.0	273.8	175.1	50	-	-
Municipal Energy Solutions	1.01	\$ 282.8	\$ 175.0	\$ 104.6	178.6	2,322.3	14.9	25.8	23	280.0	3,640.4
Smart Start	0.00	\$ -	\$ -	\$ -	-	-	-	-	-	-	-
Education	0.00	\$ -	\$ 39.4	\$ -	-	-	-	-	-	-	-
ISO-NE FCM Expenses	0.00	\$ -	\$ 7.0	\$ -	-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	2.05	\$ 2,744.0	\$ 672.3	\$ 666.3	1,953.3	25,392.7	462.2	376.5	92	280.0	3,640.4
Total	1.95	\$ 5,125.8	\$ 1,689.1	\$ 942.5	3,332.1	41,587.1	830.9	543.9	11,792	3,427.2	69,988.6

Note 1: Plan includes 11,582 members purchasing a total of 41,457 ENERGY STAR lighting products (estimated at 4/member) and 1,218 Energy Star appliances.

Annual kWh Savings	3,332,083	76.8%	kWh > 55%	Lifetime kWh Savings	41,587,069	67.0%	kWh > 55%
Annual MMBTU Savings (in kWh)	<u>1,004,411</u>	<u>23.2%</u>		Lifetime MMBTU Savings (in kWh)	<u>20,511,638</u>	<u>33.0%</u>	
	4,336,494	100.0%			62,098,707	100.0%	

Present Value Benefits - 2017 PLAN

	Total Benefits (\$000)	Summer Generation	CAPACITY Winter Generation	Transmission	Distribution	ENERGY Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric DRIPE	Gas Benefit	Gas DRIPE	Other Fuels Benefit	Other Resource
Residential Programs														
Home Energy Assistance	\$ 327.4	\$ 3.6	\$ -	\$ 0.4	\$ 1.7	\$ 8.9	\$ 15.7	\$ 2.0	\$ 2.5	\$ 0.8	\$ -	\$ -	\$ 291.7	\$ -
ENERGY STAR Homes	\$ 720.7	\$ 6.2	\$ -	\$ 0.7	\$ 2.7	\$ 109.7	\$ 228.4	\$ 4.6	\$ 6.2	\$ 5.4	\$ 0.1	\$ 0.0	\$ 354.6	\$ 2.1
Home Performance with ENERGY STAR	\$ 458.9	\$ 2.6	\$ -	\$ 0.3	\$ 1.2	\$ 32.8	\$ 68.0	\$ 1.7	\$ 2.1	\$ 2.2	\$ -	\$ -	\$ 348.0	\$ -
ENERGY STAR Products	\$ 874.9	\$ 217.8	\$ -	\$ 24.6	\$ 99.9	\$ 131.8	\$ 180.8	\$ 72.4	\$ 79.0	\$ 19.2	\$ 2.7	\$ 0.6	\$ 4.0	\$ 42.1
ISO-NE FCM Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-Total Residential	\$ 2,381.9	\$ 230.3	\$ -	\$ 26.0	\$ 105.4	\$ 283.2	\$ 493.0	\$ 80.6	\$ 89.8	\$ 27.6	\$ 2.8	\$ 0.6	\$ 998.4	\$ 44.2
Commercial/Industrial Programs														
Large Business Energy Solutions	\$ 1,363.0	\$ 354.8	\$ -	\$ 39.0	\$ 158.1	\$ 301.3	\$ 279.1	\$ 125.9	\$ 82.8	\$ 22.1	\$ -	\$ -	\$ -	\$ -
Small Business Energy Solutions	\$ 1,098.2	\$ 353.7	\$ -	\$ 38.9	\$ 157.6	\$ 201.0	\$ 174.7	\$ 87.6	\$ 70.1	\$ 14.7	\$ -	\$ -	\$ -	\$ -
Municipal Energy Solutions	\$ 282.8	\$ 52.1	\$ -	\$ 5.7	\$ 23.2	\$ 50.9	\$ 41.7	\$ 23.1	\$ 17.1	\$ 3.7	\$ -	\$ -	\$ 65.2	\$ -
Smart Start	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Education	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ISO FCM Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-total Commercial & Industrial	\$ 2,744.0	\$ 760.6	\$ -	\$ 83.6	\$ 338.9	\$ 553.2	\$ 495.5	\$ 236.5	\$ 170.0	\$ 40.4	\$ -	\$ -	\$ 65.2	\$ -
Total	\$ 5,125.8	\$ 990.9	\$ -	\$ 109.6	\$ 444.3	\$ 836.3	\$ 988.4	\$ 317.1	\$ 259.8	\$ 68.0	\$ 2.8	\$ 0.6	\$ 1,063.6	\$ 44.2

**Performance Incentive Calculation
2017**

	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial		
1. Benefit/Cost Ratio	2.0	
2. Threshold Benefit / Cost Ratio ¹	1.0	
3. Lifetime kWh Savings	25,392,728	
4. Threshold Lifetime kWh Savings (65%) ²	16,505,273	
5. Implementation Expenses	\$672,347	
6. Benefit / Cost Percentage of Implementation Expenses	2.75%	
7. Lifetime kWh Percentage of Implementation Expenses	2.75%	
8. Commercial & Industrial Performance Incentive	\$36,979	
9. Maximum Commercial & Industrial Performance Incentive (6.875%)	\$46,224	
Residential		
10. Benefit / Cost Ratio	1.8	
11. Threshold Benefit / Cost Ratio ¹	1.0	
12. Lifetime kWh Savings	16,194,341	
13. Threshold Lifetime kWh Savings (65%) ²	10,526,322	
14. Implementation Expenses	\$1,016,776	
15. Benefit / Cost Percentage of Implementation Expenses	2.75%	
16. Lifetime kWh Percentage of Implementation Expenses	2.75%	
17. Residential Performance Incentive	\$55,923	
18. Maximum Residential Performance Incentive (6.875%)	\$69,903	
19. TOTAL PLANNED / EARNED INCENTIVE	\$92,902	

Notes

1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
2. Actual Lifetime kWh Savings for each sector must be greater than or equal to 65% of projected savings.

**Planned Versus Actual Benefit / Cost Ratio by Sector
2017**

		<u>Planned</u>	<u>Actual</u>
Commercial & Industrial			
1. Benefits (Value) From Eligible Programs	\$	2,743,957	
2. Implementation Expenses	\$	672,347	
3. Member Contribution	\$	666,333	
4. Performance Incentive	\$	36,979	
5. Total Costs	\$	1,375,659	
6. Benefit/Cost Ratio - Commercial & Industrial Sector		2.0	
Residential			
7. Benefits (Value) From Eligible Programs	\$	2,381,856	
8. Implementation Expenses	\$	1,016,776	
9. Member Contribution	\$	276,185	
10. Performance Incentive	\$	55,923	
11. Total Costs	\$	1,348,883	
12. Benefit/Cost Ratio - Residential Sector		1.8	

**Lifetime Energy Savings by Sector and Program
2017**

	Lifetime kWh Savings	
	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial		
Large Business Energy Solutions	13,736,351	
Small Business Energy Solutions	9,334,031	
Municipal Energy Solutions	2,322,346	
Total Commercial & Industrial	25,392,728	
Residential		
Home Energy Assistance	500,121	
ENERGY STAR Homes	5,607,177	
Home Performance with ENERGY STAR	1,725,672	
ENERGY STAR Products	8,361,371	
Total Residential	16,194,341	

Program Cost-Effectiveness - 2017 PLAN

	Total Resource Benefit / Cost Ratio	Benefit (\$000)	Utility Costs (\$000)	Customer Costs (\$000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served	Annual MMBTU Savings	Lifetime MMBTU Savings
Residential Programs											
Home Energy Assistance	1.21	\$ 4,191.3	\$ 3,450.4	\$ (0.0)	429.2	5,979.9	61.6	40.3	500	11,489.3	235,517.2
ENERGY STAR Homes	3.52	\$ 4,893.0	\$ 1,147.2	\$ 241.0	986.3	22,488.5	197.5	75.8	377	9,335.7	233,057.3
Home Performance w/ ENERGY STAR	1.49	\$ 5,569.5	\$ 2,161.1	\$ 1,575.1	578.1	6,843.3	66.2	76.0	1,070	15,376.1	306,920.5
ENERGY STAR Products ¹	3.46	\$ 8,143.6	\$ 2,044.3	\$ 307.0	7,773.2	69,878.4	2,235.9	1,452.1	79,497	682.0	7,501.9
Home Energy Reports	1.85	\$ 655.4	\$ 355.1	\$ -	2,600.0	7,131.2	273.1	296.8	50,000	-	-
Customer Engagement Platform	0.00	\$ -	\$ 85.1	\$ -	-	-	-	-	-	-	-
ISO-NE Forward Capacity Market	0.00	\$ -	\$ 48.0	\$ -	-	-	-	-	-	-	-
	0.00	\$ -	\$ -	\$ -	-	-	-	-	-	-	-
Sub-Total Residential	2.05	\$ 23,452.9	\$ 9,291.1	\$ 2,123.0	12,366.9	112,321.2	2,834.2	1,940.9	131,444	36,883.0	782,996.8
Commercial, Industrial & Municipal											
Large Business Energy Solutions	1.81	\$ 23,670.0	\$ 5,257.7	\$ 7,791.0	20,649.1	284,362.9	1,616.4	2,076.7	282	-	-
Small Business Energy Solutions	1.44	\$ 9,431.0	\$ 3,104.6	\$ 3,424.7	9,330.8	113,826.8	716.3	885.5	387	-	-
Municipal Energy Solutions	1.56	\$ 5,990.8	\$ 1,452.4	\$ 2,378.8	4,419.7	58,769.7	348.5	614.4	325	3,433.1	33,710.1
C&I Customer Partnerships	0.00	\$ -	\$ 20.1	\$ -	-	-	-	-	4	-	-
Energy Rewards RFP Program	2.02	\$ 3,277.2	\$ 668.7	\$ 956.1	3,172.0	40,436.4	191.0	293.5	4	-	-
Customer Engagement Platform	0.00	\$ -	\$ 127.6	\$ -	-	-	-	-	-	-	-
Education	0.00	\$ -	\$ 210.0	\$ -	-	-	-	-	-	-	-
ISO-NE Forward Capacity Market	0.00	\$ -	\$ 112.0	\$ -	-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	1.66	\$ 42,369.0	\$ 10,953.1	\$ 14,550.6	37,571.5	497,395.8	2,872.2	3,870.1	1,002	3,433.1	33,710.1
Smart Start	0.00	\$ -	\$ 52.0	\$ -	-	-	-	-	-	-	-
Total	1.78	\$ 65,821.9	\$ 20,296.3	\$ 16,673.6	49,938.4	609,717.0	5,706.4	5,811.0	132,446	40,316.1	816,706.9

Note 1: Plan includes 62,139 purchasing a total of 248,557 ENERGY STAR lighting products (estimated at 4/customer) and 17,358 ENERGY STAR appliances.

Annual kWh Savings	49,938,422	80.9%	kWh > 55%	Lifetime kWh Savings	609,716,972	71.8%	kWh > 55%
Annual MMBTU Savings (in kWh)	<u>11,815,484</u>	<u>19.1%</u>		Lifetime MMBTU Savings (in kWh)	<u>239,353,177</u>	<u>28.2%</u>	
	61,753,907	100.0%			849,070,149	100.0%	

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Present Value Benefits - 2017 PLAN

	CAPACITY								ENERGY									
	Total Benefits (\$000)	Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric DRIPE	Gas Benefit	Gas DRIPE	Other Fuels Benefit	Other Resource				
Residential Programs																		
Home Energy Assistance	\$ 4,191.3	\$ 83.8	\$ -	\$ 9.2	\$ 37.2	\$ 102.1	\$ 147.9	\$ 43.4	\$ 53.6	\$ 8.6	\$ 218.6	\$ 25.4	\$ 3,461.5	\$ -				
ENERGY STAR Homes	\$ 4,893.0	\$ 252.6	\$ -	\$ 27.0	\$ 109.4	\$ 422.5	\$ 793.5	\$ 82.0	\$ 92.5	\$ 22.1	\$ 638.8	\$ 68.5	\$ 2,370.2	\$ 13.9				
Home Performance w/ ENERGY STAR	\$ 5,569.5	\$ 176.4	\$ -	\$ 19.2	\$ 77.8	\$ 115.0	\$ 159.1	\$ 52.5	\$ 65.3	\$ 11.3	\$ -	\$ -	\$ 4,892.8	\$ -				
ENERGY STAR Products	\$ 8,143.6	\$ 2,187.6	\$ -	\$ 245.6	\$ 995.5	\$ 1,076.6	\$ 1,564.8	\$ 642.6	\$ 612.0	\$ 150.3	\$ 36.1	\$ 7.7	\$ 54.1	\$ 570.8				
Home Energy Reports	\$ 655.4	\$ 127.8	\$ -	\$ 15.5	\$ 62.7	\$ 123.2	\$ 169.8	\$ 51.0	\$ 64.0	\$ 41.3	\$ -	\$ -	\$ -	\$ -				
Customer Engagement Platform	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
ISO-NE Forward Capacity Market	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
Sub-Total Residential	\$ 23,452.9	\$ 2,828.2	\$ -	\$ 316.5	\$ 1,282.6	\$ 1,839.4	\$ 2,835.1	\$ 871.6	\$ 887.5	\$ 233.6	\$ 893.4	\$ 101.6	\$ 10,778.6	\$ 584.7				
Commercial/Industrial Programs																		
Large Business Energy Solutions	\$ 23,670.0	\$ 4,458.9	\$ -	\$ 487.5	\$ 1,975.8	\$ 5,703.9	\$ 5,630.2	\$ 2,759.5	\$ 2,230.2	\$ 423.8	\$ -	\$ -	\$ -	\$ -				
Small Business Energy Solutions	\$ 9,431.0	\$ 1,781.9	\$ -	\$ 195.9	\$ 793.8	\$ 2,247.9	\$ 2,209.3	\$ 1,068.2	\$ 947.1	\$ 187.0	\$ -	\$ -	\$ -	\$ -				
Municipal Energy Solutions	\$ 5,990.8	\$ 1,268.6	\$ -	\$ 139.2	\$ 564.1	\$ 1,224.0	\$ 1,010.5	\$ 640.4	\$ 483.9	\$ 90.1	\$ -	\$ -	\$ 569.9	\$ -				
C&I Customer Partnerships	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
Energy Rewards RFP Program	\$ 3,277.2	\$ 595.3	\$ -	\$ 65.4	\$ 265.1	\$ 738.4	\$ 728.7	\$ 446.5	\$ 374.4	\$ 63.5	\$ -	\$ -	\$ -	\$ -				
Customer Engagement Platform	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
Education	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
ISO-NE Forward Capacity Market	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
Sub-Total Commercial & Industrial	\$ 42,369.0	\$ 8,104.7	\$ -	\$ 888.0	\$ 3,598.8	\$ 9,914.3	\$ 9,578.7	\$ 4,914.6	\$ 4,035.6	\$ 764.4	\$ -	\$ -	\$ -	\$ -				
Smart Start	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
Total	\$ 65,821.9	\$ 10,932.9	\$ -	\$ 1,204.5	\$ 4,881.4	\$ 11,753.7	\$ 12,413.9	\$ 5,786.2	\$ 4,923.1	\$ 998.0	\$ 893.4	\$ 101.6	\$ 10,778.6	\$ 584.7				

Performance Incentive Calculation 2017

	<u>Planned</u>	<u>Actual</u>
Commercial/Industrial Incentive		
1. Benefit/Cost Ratio	1.62	
2. Threshold Benefit / Cost Ratio ¹	1.00	
3. Lifetime kWh Savings	497,395,771	
4. Threshold Lifetime kWh Savings (65%) ²	323,307,251	
5. Implementation Expenses	\$10,953,109	
6. Benefit / Cost Percentage of Implementaton Expenses	2.75%	
7. Lifetime kWh Percentage of Implementation Expenses	2.75%	
 8. Commercial & Industrial Performance Incentive	 \$602,421	
9. Maximum Commercial & Industrial Performance Incentive (6.875%)	\$753,026	
 Residential Incentive		
10. Benefit / Cost Ratio	1.97	
11. Threshold Benefit / Cost Ratio ¹	1.00	
12. Lifetime kWh Savings	112,321,201	
13. Threshold Lifetime kWh Savings (65%)	73,008,781	
14. Implementation Expenses	\$9,291,146	
15. Benefit / Cost Percentage of Implementation Expenses	2.75%	
16. Lifetime kWh Percentage of Implementation Expenses	2.75%	
 17. Residential Performance Incentive	 \$511,013	
18. Maximum Residential Performance Incentive (6.875%)	\$638,766	
 19. TOTAL PLANNED / EARNED INCENTIVE	 \$1,113,434	

Notes

1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
2. Actual Lifetime kWh Savings for each sector must be greater than or equal to 65% of projected savings.

**Planned Versus Actual Benefit / Cost Ratio by Sector
2017**

	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial		
1. Benefits (Value) From Eligible Programs	\$ 42,368,981	\$ -
2. Implementation Expenses	\$ 10,953,109	\$ -
3. Customer Contribution	\$ 14,550,561	\$ -
4. Performance Incentive	\$ 602,421	\$ -
5. Total Costs	\$ 26,106,091	\$ -
6. Benefit/Cost Ratio - Commercial & Industrial Sector	1.62	
Residential		
7. Benefits (Value) From Eligible Programs	\$ 23,452,896	\$ -
8. Implementation Expenses	\$ 9,291,146	\$ -
9. Customer Contribution	\$ 2,123,050	\$ -
10. Performance Incentive	\$ 511,013	\$ -
11. Total Costs	\$ 11,925,209	\$ -
12. Benefit/Cost Ratio - Residential Sector	1.97	

**Lifetime Energy Savings by Sector and Program
2017**

	Lifetime kWh Savings	
	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial		
Large Business Energy Solutions	284,362,894	
Small Business Energy Solutions	113,826,834	
Municipal Energy Solutions	58,769,686	
Energy Rewards RFP Program	40,436,356	
Customer Engagement Platform	-	
Education	-	
ISO-NE Forward Capacity Market	-	
Total Commercial & Industrial	497,395,771	
Residential		
Home Energy Assistance	5,979,861	
ENERGY STAR Homes	22,488,505	
Home Performance w/ ENERGY STAR	6,843,259	
ENERGY STAR Products	69,878,393	
Home Energy Reports	7,131,184	
Customer Engagement Platform	-	
ISO-NE Forward Capacity Market	-	
Total Residential	112,321,201	

Program Cost-Effectiveness - 2017 PLAN

	Total Resource Benefit / Cost Ratio	Benefit (\$000)	Utility Costs (\$000)	Customer Costs (\$000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served	Annual MMBTU Savings	Lifetime MMBTU Savings
Residential Programs											
Home Energy Assistance	1.29	\$ 693.0	\$ 538.9	\$ -	36.1	476	5.6	5.7	71	1,892.0	37,504.0
Energy Star Homes	1.69	\$ 306.2	\$ 130.0	\$ 51.0	36.1	686	5.9	1.5	18	665.3	16,599.9
Home Performance with Energy Star	1.37	\$ 637.9	\$ 300.0	\$ 165.0	55.5	875	15.4	2.0	61	1,717.6	36,502.0
Energy Star Products ¹	2.70	\$ 1,274.8	\$ 402.8	\$ 69.5	1,406.5	11,833	397.5	212.5	16,661	394.6	4,341.0
ISO Forward Capacity Market Expenses		\$ -	\$ 23.0	\$ -	-	-	-	-	-	-	-
Sub-Total Residential	1.73	\$ 2,912.0	\$ 1,394.7	\$ 285.5	1,534.2	13,869	424.4	221.7	16,811	4,669.5	94,946.9
Commercial & Industrial Programs											
Large Business Energy Solutions	1.77	\$ 3,559.6	\$ 804.9	\$ 1,205.7	2,851.1	37,064	264.0	439.1	11	-	-
Small Business Energy Solutions	1.39	\$ 2,118.2	\$ 686.1	\$ 836.6	1,597.4	20,944	149.5	282.2	57	-	-
Municipal Energy Solutions	1.31	\$ 1,040.9	\$ 476.5	\$ 320.0	718.9	9,346	67.0	126.9	15	300.0	6,000.0
Education		\$ -	\$ 45.0	\$ -	-	-	-	-	-	-	-
ISO Forward Capacity Market Expenses		\$ -	\$ 18.8	\$ -	-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	1.53	\$ 6,718.7	\$ 2,031.3	\$ 2,362.3	5,167.4	67,354	480.5	848.2	83	300.0	6,000.0
Total	1.59	\$ 9,630.7	\$ 3,426.0	\$ 2,647.8	6,701.6	81,223	905.0	1,069.9	16,894	4,969.5	100,946.9
¹ Plan includes 16,661 customers purchasing a total of 59,016 ENERGY STAR lighting products (estimated at 4/customer) and 1,907 ENERGY STAR appliances											
Annual kWh Savings		6,701,632	82.1%	kWh > 55%	Lifetime kWh Savings			81,223,208	73.3%	kWh > 55%	
Annual MMBTU Savings (in kWh)		<u>1,456,417</u>	<u>17.9%</u>		Lifetime MMBTU Savings (in kWh)			<u>29,584,617</u>	<u>26.7%</u>		
		8,158,049	100.0%					110,807,825	100.0%		

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Present Value Benefits - 2017 PLAN

	CAPACITY					ENERGY									
	Total Benefits (\$000)	Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric DRIPE	Gas Benefit	Gas DRIPE	Other Fuels Benefit	Non-Fuels Benefits	
Residential Programs															
Home Energy Assistance	\$ 693.0	\$ 13.4	\$ -	\$ 1.5	\$ 5.9	\$ 8.1	\$ 12.1	\$ 3.3	\$ 4.0	\$ 0.7	\$ -	\$ -	\$ 643.7	\$ 0.3	
Energy Star Homes	\$ 306.2	\$ 3.9	\$ -	\$ 0.4	\$ 1.7	\$ 11.4	\$ 21.2	\$ 5.3	\$ 3.5	\$ 0.8	\$ 0.1	\$ 0.0	\$ 257.4	\$ 0.5	
Home Performance with Energy Star	\$ 637.9	\$ 3.7	\$ -	\$ 0.4	\$ 1.7	\$ 17.1	\$ 28.9	\$ 3.8	\$ 2.6	\$ 1.2	\$ -	\$ -	\$ 578.4	\$ -	
Energy Star Products	\$ 1,274.8	\$ 282.8	\$ -	\$ 32.0	\$ 129.9	\$ 201.3	\$ 263.4	\$ 92.3	\$ 102.7	\$ 27.0	\$ 14.2	\$ 3.1	\$ 46.2	\$ 79.9	
ISO-NE Forward Capacity Market Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Sub-Total Residential	\$ 2,912.0	\$ 303.9	\$ -	\$ 34.3	\$ 139.2	\$ 237.9	\$ 325.7	\$ 104.6	\$ 112.9	\$ 29.7	\$ 14.3	\$ 3.1	\$ 1,525.7	\$ 80.7	
Commercial & Industrial Programs															
Large Business Energy Solutions	\$ 3,559.6	\$ 887.2	\$ -	\$ 97.5	\$ 395.3	\$ 812.7	\$ 655.5	\$ 384.8	\$ 268.0	\$ 58.7	\$ -	\$ -	\$ -	\$ -	
Small Business Energy Solutions	\$ 2,118.2	\$ 574.9	\$ -	\$ 63.2	\$ 255.9	\$ 430.7	\$ 314.1	\$ 262.9	\$ 184.2	\$ 32.4	\$ -	\$ -	\$ -	\$ -	
Municipal Energy Solutions	\$ 1,040.9	\$ 256.3	\$ -	\$ 28.2	\$ 114.2	\$ 191.1	\$ 139.4	\$ 117.7	\$ 82.8	\$ 14.5	\$ -	\$ -	\$ 96.5	\$ -	
ISO Forward Capacity Market Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Sub-Total Commercial & Industrial	\$ 6,718.7	\$ 1,718.3	\$ -	\$ 188.9	\$ 765.4	\$ 1,434.5	\$ 1,109.0	\$ 765.4	\$ 535.1	\$ 105.6	\$ -	\$ -	\$ 96.5	\$ -	
Total	\$ 9,630.7	\$ 2,022.2	\$ -	\$ 223.2	\$ 904.6	\$ 1,672.5	\$ 1,434.7	\$ 870.0	\$ 648.0	\$ 135.2	\$ 14.3	\$ 3.1	\$ 1,622.2	\$ 80.7	

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Performance Incentive Calculation 2017

	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial Incentive		
1. Benefit/Cost Ratio	1.49	
2. Threshold Benefit / Cost Ratio ¹	1.00	
3. Lifetime kWh Savings	67,354,220	
4. Threshold Lifetime kWh Savings (65%) ²	43,780,243	
5. Implementation Expenses	\$2,031,293	
6. Benefit / Cost Percentage of Implementation Expenses	2.75%	
7. Lifetime kWh Percentage of Implementation Expenses	2.75%	
 8. Commercial & Industrial Performance Incentive	 \$111,721	
9. Maximum Commercial & Industrial Performance Incentive (6.875%)	\$139,651	
 Residential Incentive		
10. Benefit / Cost Ratio	1.66	
11. Threshold Benefit / Cost Ratio ¹	1.00	
12. Lifetime kWh Savings	13,868,988	
13. Threshold Lifetime kWh Savings (65%) ²	9,014,842	
14. Implementation Expenses	\$1,394,700	
15. Benefit / Cost Percentage of Implementation Expenses	2.75%	
16. Lifetime kWh Percentage of Implementation Expenses	2.75%	
 17. Residential Performance Incentive	 \$76,708	
18. Maximum Residential Performance Incentive (6.875%)	\$95,886	
 19. TOTAL PLANNED / EARNED INCENTIVE	 \$188,430	

Notes

1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
2. Actual Lifetime kWh Savings for each sector must be greater than or equal to 65% of projected savings.

**Planned Versus Actual Benefit / Cost Ratio by Sector
 2017**

	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial		
1. Benefits (Value) From Eligible Programs	\$ 6,718,683	
2. Implementation Expenses	\$ 2,031,293	
3. Customer Contribution	\$ 2,362,286	
4. Performance Incentive	\$ 111,721	
5. Total Costs	\$ 4,505,299	
6. Benefit/Cost Ratio - Commercial & Industrial	1.49	
Residential		
7. Benefits (Value) From Eligible Programs	\$ 2,911,975	
8. Implementation Expenses	\$ 1,394,700	
9. Customer Contribution	\$ 285,490	
10. Performance Incentive	\$ 76,708	
11. Total Costs	\$ 1,756,899	
12. Benefit/Cost Ratio - Residential Sector	1.66	

**Lifetime Energy Savings by Sector and Program
2017**

	Lifetime kWh Savings	
	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial		
Large Business Energy Solutions	37,063,830	
Small Business Energy Solutions	20,944,074	
Municipal Energy Solutions	9,346,316	
Total Commercial & Industrial	67,354,220	
Residential		
Home Energy Assistance	476,109	
Energy Star Homes	685,521	
Home Performance with Energy Star	874,567	
Energy Star Products	11,832,790	
Total Residential	13,868,988	

Program Cost-Effectiveness - 2017 PLAN

	Total Resource Benefit / Cost Ratio	Benefits (\$000)	Utility Costs (\$000)	Customer Costs (\$000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served	Annual MMBTU Savings	Lifetime MMBTU Savings
Residential Programs											
Home Energy Assistance	1.03	\$ 249.5	\$ 241.1	\$ -	19.5	354	4.3	0.3	42	1,206.6	23,672.0
Energy Star Homes	1.71	\$ 357.9	\$ 160.5	\$ 49.1	42.5	970	10.0	0.7	42	1,276.5	31,681.5
Home Performance with Energy Star	1.23	\$ 253.0	\$ 136.8	\$ 69.4	10.8	184	1.9	0.2	30	1,228.8	25,504.0
Energy Star Products	1.15	\$ 499.5	\$ 210.0	\$ 224.0	18.5	289	5.2	-	397	2,987.7	50,524.9
Sub-Total Residential	1.25	\$ 1,359.8	\$ 748.5	\$ 342.4	91.4	1,797	21.4	1.2	511	6,699.6	131,382.4
Commercial & Industrial Programs											
Large Business Energy Solutions	2.24	\$ 3,291.8	\$ 413.8	\$ 1,058.4	-	-	-	-	43	19,472.3	385,820.2
Small Business Energy Solutions	1.58	\$ 781.8	\$ 241.5	\$ 252.7	-	-	-	-	72	4,403.6	89,832.3
Education		\$ -	\$ 14.4	\$ -	-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	2.06	\$ 4,073.6	\$ 669.7	\$ 1,311.0	-	-	-	-	115	23,875.9	475,652.5
Total	1.77	\$ 5,433.4	\$ 1,418.2	\$ 1,653.5	91.4	1,797	21.4	1.2	626	30,575.5	607,034.9

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Present Value Benefits - 2017 PLAN

	Total Benefits (\$000)	Gas Benefit	Gas DRIPE	Electric Benefits	Electric DRIPE	Non-Fuels Benefits
Residential Programs						
Home Energy Assistance	\$ 249.5	\$ 201.4	\$ 25.2	\$ 22.4	\$ 0.4	\$ 0.2
Energy Star Homes	\$ 357.9	\$ 264.1	\$ 28.4	\$ 62.8	\$ 1.0	\$ 1.6
Home Performance with Energy Star	\$ 253.0	\$ 214.9	\$ 25.9	\$ 11.8	\$ 0.2	\$ 0.1
Energy Star Products	\$ 499.5	\$ 421.0	\$ 61.0	\$ 17.1	\$ 0.4	\$ -
Sub-Total Residential	\$ 1,359.8	\$ 1,101.3	\$ 140.6	\$ 114.1	\$ 2.0	\$ 1.9
Commercial & Industrial Programs						
Large Business Energy Solutions	\$ 3,291.8	\$ 2,866.8	\$ 423.2	\$ -	\$ -	\$ 1.7
Small Business Energy Solutions	\$ 781.8	\$ 675.5	\$ 97.8	\$ -	\$ -	\$ 8.5
Sub-Total Commercial & Industrial	\$ 4,073.6	\$ 3,542.3	\$ 521.1	\$ -	\$ -	\$ 10.2
Total	\$ 5,433.4	\$ 4,643.7	\$ 661.6	\$ 114.1	\$ 2.0	\$ 12.0

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**Performance Incentive Calculation
2017**

	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial Incentive		
1. Benefit/Cost Ratio	2.02	
2. Threshold Benefit / Cost Ratio ¹	1.00	
3. Lifetime MMBtu Savings	475,653	
4. Threshold Lifetime MMBtu Savings (65%) ²	309,174	
5. Implementation Expenses	\$669,697	
6. Benefit / Cost Percentage of Implementation Expenses	2.75%	
7. Lifetime MMBtu Percentage of Implementation Expenses	2.75%	
8. Commercial & Industrial Performance Incentive	\$36,833	
9. Maximum Commercial & Industrial Performance Incentive (6.875%)	\$46,042	
Residential Incentive		
10. Benefit / Cost Ratio	1.20	
11. Threshold Benefit / Cost Ratio ¹	1.00	
12. Lifetime MMBtu Savings	131,382	
13. Threshold Lifetime MMBtu Savings (65%) ²	85,399	
14. Implementation Expenses	\$748,478	
15. Benefit / Cost Percentage of Implementation Expenses	2.75%	
16. Lifetime MMBtu Percentage of Implementation Expenses	2.75%	
17. Residential Performance Incentive	\$41,166	
18. Maximum Residential Performance Incentive (6.875%)	\$51,458	
19. TOTAL PLANNED / EARNED INCENTIVE	\$78,000	

Notes

1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
2. Actual Lifetime gas MMBtu savings for each sector must be greater than or equal to 65% of projected savings.

**Planned Versus Actual Benefit / Cost Ratio by Sector
2017**

	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial		
1. Benefits (Value) From Eligible Programs	\$ 4,073,586	
2. Implementation Expenses	\$ 669,697	
3. Customer Contribution	\$ 1,311,049	
4. Performance Incentive	\$ 36,833	
5. Total Costs	\$ 2,017,580	
6. Benefit/Cost Ratio - Commercial & Industrial Sector	2.02	
Residential		
7. Benefits (Value) From Eligible Programs	\$ 1,359,827	
8. Implementation Expenses	\$ 748,478	
9. Customer Contribution	\$ 342,416	
10. Performance Incentive	\$ 41,166	
11. Total Costs	\$ 1,132,060	
12. Benefit/Cost Ratio - Residential Sector	1.20	

**Lifetime Energy Savings by Sector and Program
2017**

	Lifetime MMBtu Savings	
	<u>Planned</u>	<u>Actual</u>
Commercial & Industrial		
Large Business Energy Solutions	385,820	
Small Business Energy Solutions	89,832	
Total Commercial & Industrial	475,653	
Residential		
Home Energy Assistance	23,672	
Energy Star Homes	31,682	
Home Performance with Energy Star	25,504	
Energy Star Products	50,525	
Total Residential	131,382	

NHSAVES ELECTRIC PROGRAMS - 2017 UTILITY GOALS BY PROGRAM
Total Customers Served, Program Budgets, Lifetime kWh and MMBtu Savings

	LU Electric		NHEC		Eversource		Unitil Electric		Total	
Home Energy Assistance										
Number of Units / Lifetime kWh Savings	42	530,488	35	500,121	500	5,979,861	71	476,109	648	7,486,579
B/C Ratio / Planned Budget	1.16	\$392,168	1.15	\$284,308	1.21	\$3,450,394	1.29	\$538,874		\$4,665,744
/ Lifetime MMBtu Savings		21,427		18,638		235,517		37,504		313,086
Home Performance w/ENERGY STAR										
Number of Participants / Lifetime kWh Savings	61	1,919,084	61	1,725,672	1,070	6,843,259	61	874,567	1,253	11,362,582
B/C Ratio / Planned Budget	1.80	\$185,503	1.33	\$218,456	1.49	\$2,161,079	1.37	\$300,000		\$2,865,037
/ Lifetime MMBtu Savings		26,425		24,288		306,920		36,502		394,135
ENERGY STAR Homes										
Number of Homes / Lifetime kWh Savings	37	1,015,973	22	5,607,177	377	22,488,505	18	685,521	454	29,797,177
B/C Ratio / Planned Budget	3.48	\$120,031	2.54	\$172,764	3.52	\$1,147,211	1.69	\$130,000		\$1,570,006
/ Lifetime MMBtu Savings		27,622		22,869		233,057		16,600		300,148
ENERGY STAR Products										
Number of Participants / Lifetime kWh Savings	10,704	7,897,008	11,582	8,361,371	79,497	69,878,393	16,661	11,832,790	118,444	97,969,563
B/C Ratio / Planned Budget	2.86	\$240,062	2.33	\$338,248	3.46	\$2,044,264	2.70	\$402,826		\$3,025,399
/ Lifetime MMBtu Savings		246		554		7,502		4,341		12,643
Large Business Energy Solutions										
Number of Participants / Lifetime kWh Savings	44	34,390,514	19	13,736,351	282	284,362,894	11	37,063,830	356	369,553,589
B/C Ratio / Planned Budget	2.43	\$703,050	2.57	\$209,679	1.81	\$5,257,680	1.77	\$804,856		\$6,975,265
/ Lifetime MMBtu Savings		0		0		0		0		0
Small Business Energy Solutions										
Number of Participants / Lifetime kWh Savings	512	16,697,063	50	9,334,031	387	113,826,834	57	20,944,074	1,006	160,802,002
B/C Ratio / Planned Budget	1.97	\$445,265	2.28	\$241,342	1.44	\$3,104,617	1.39	\$686,088		\$4,477,313
/ Lifetime MMBtu Savings		0		0		0		0		0
Municipal										
Number of Participants / Lifetime kWh Savings	41	4,363,964	23	2,322,346	325	58,769,686	15	9,346,316	405	74,802,312
B/C Ratio / Planned Budget	1.23	\$179,990	1.01	\$174,968	1.56	\$1,452,443	1.31	\$476,529		\$2,283,930
/ Lifetime MMBtu Savings		0		3,640		33,710		6,000		43,351
Educational Programs										
Number of Participants / Planned Budget	0	\$23,435	0	\$39,358	0	\$210,000	0	\$45,000	0	\$317,793
Company Specific Programs / FCM Expenses										
Number of Participants / Lifetime kWh Savings	0	0	0	0	50,008	47,567,540	0	0	50,008	47,567,540
B/C Ratio / Planned Budget		\$28,500		\$10,000		\$1,416,568		\$41,820		\$1,496,888
/ Lifetime MMBtu Savings		0		0		0		0		
Smart Start (Eversource)										
Number of Participants / Planned Budget	0	\$0	0	\$0	0	\$52,000	0	\$0	0	\$52,000
Utility Performance Incentive										
Planned Budget		\$127,490		\$92,902		\$1,113,434		\$188,430		\$1,522,256
TOTAL PLANNED BUDGET		\$2,445,494		\$1,782,025		\$21,409,689		\$3,614,422		\$29,251,630

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NHSAVES ELECTRIC PROGRAMS
SBC¹ and RGGI Funding Allocation
2017 Budget

Program Allocation Summary

Program	RGGI	SBC ¹	TOTAL
HEA²			
LU-Electric	10.38765%	89.61235%	100.00000%
NHEC	11.70104%	88.29896%	100.00000%
Eversource	10.04361%	89.95639%	100.00000%
Unitil	9.85091%	90.14909%	100.00000%
Municipal			
LU-Electric	100.00000%	0.00000%	100.00000%
NHEC	100.00000%	0.00000%	100.00000%
Eversource	100.00000%	0.00000%	100.00000%
Unitil	100.00000%	0.00000%	100.00000%

A	B	C	D
Utility	HEA Budget	RGGI HEA ³	SBC HEA ⁴
LU-Electric	\$ 392,168	\$40,737	\$351,431
NHEC	\$ 284,308	\$33,267	\$251,041
Eversource	\$ 3,450,394	\$346,544	\$3,103,850
Unitil	\$ 538,874	\$53,084	\$485,790
Total	\$ 4,665,744	\$473,632	\$4,192,112

Notes:

¹ SBC = System Benefits Charge, Forward Capacity Market and Carryforward/Interest

² HEA Allocation

RGGI HEA = RGGI HEA (C) /Total HEA Funds (B)

SBC HEA = SBC HEA (D) /Total HEA Funds (B)

³ 17.0% of Total RGGI Funds including SB 268 funding less RGGI HEA Performance Incentive (((\$2,939,302 x .17) - (\$473,632 x .055))

⁴ SBC HEA = Utility's total HEA program budget (B) less RGGI HEA (C)

NHSAVES ELECTRIC PROGRAMS - 2017 UTILITY GOALS BY PROGRAM
Total Customers Served, Program Budgets, Lifetime kWh and MMBtu Savings
(System Benefits Charge, Forward Capacity Market and Interest Funds Only)

	LU Electric		NHEC		Eversource		Unitil Electric		Total	
Home Energy Assistance										
Number of Units / Lifetime kWh Savings	38	475,383	31	441,602	450	5,379,267	64	429,208	583	6,725,460
B/C Ratio / Planned Budget	1.04	\$351,431	1.02	\$251,041	1.09	\$3,103,850	1.16	\$485,790		\$4,192,112
/ Lifetime MMBtu Savings		19,201		16,457		211,863		33,810		281,330
Home Performance w/ENERGY STAR										
Number of Participants / Lifetime kWh Savings	61	1,919,084	61	1,725,672	1,070	6,843,259	61	874,567	1,253	11,362,582
B/C Ratio / Planned Budget	1.80	\$185,503	1.33	\$218,456	1.49	\$2,161,079	1.37	\$300,000		\$2,865,037
/ Lifetime MMBtu Savings		26,425		24,288		306,920		36,502		394,135
ENERGY STAR Homes										
Number of Homes / Lifetime kWh Savings	37	1,015,973	22	5,607,177	377	22,488,505	18	685,521	454	29,797,177
B/C Ratio / Planned Budget	3.48	\$120,031	2.54	\$172,764	3.52	\$1,147,211	1.69	\$130,000		\$1,570,006
/ Lifetime MMBtu Savings		27,622		22,869		233,057		16,600		300,148
ENERGY STAR Products										
Number of Participants / Lifetime kWh Savings	10,704	7,897,008	11,582	8,361,371	79,497	69,878,393	16,661	11,832,790	118,444	97,969,563
B/C Ratio / Planned Budget	2.86	\$240,062	2.33	\$338,248	3.46	\$2,044,264	2.70	\$402,826		\$3,025,399
/ Lifetime MMBtu Savings		246		554		7,502		4,341		12,643
Large Business Energy Solutions										
Number of Participants / Lifetime kWh Savings	44	34,390,514	19	13,736,351	282	284,362,894	11	37,063,830	356	369,553,589
B/C Ratio / Planned Budget	2.43	\$703,050	2.57	\$209,679	1.81	\$5,257,680	1.77	\$804,856		\$6,975,265
/ Lifetime MMBtu Savings		0		0		0		0		0
Small Business Energy Solutions										
Number of Participants / Lifetime kWh Savings	512	16,697,063	50	9,334,031	387	113,826,834	57	20,944,074	1,006	160,802,002
B/C Ratio / Planned Budget	1.97	\$445,265	2.28	\$241,342	1.44	\$3,104,617	1.39	\$686,088		\$4,477,313
/ Lifetime MMBtu Savings		0		0		0		0		0
Municipal										
Number of Participants / Lifetime kWh Savings	0	0	0	0	0	0	0	0	0	0
B/C Ratio / Planned Budget	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0		\$0
/ Lifetime MMBtu Savings		0		0		0		0		0
Educational Programs										
Number of Participants / Planned Budget	0	\$23,435	0	\$39,358	0	\$210,000	0	\$45,000	0	\$317,793
Company Specific Programs / FCM Expenses										
Number of Participants / Lifetime kWh Savings	0	0	0	0	50,008	47,567,540	0	0	50,008	47,567,540
B/C Ratio / Planned Budget		\$28,500		\$10,000		\$1,416,568		\$41,820		\$1,496,888
/ Lifetime MMBtu Savings		0		0		0		0		
Smart Start (NHEC/PSNH), RLF (UES)										
Number of Participants / Planned Budget	0	\$0	0	\$0	0	\$52,000	0	\$0	0	\$52,000
Utility Performance Incentive										
Planned Budget		\$115,350		\$81,449		\$1,014,490		\$159,301		\$1,370,590
TOTAL PLANNED BUDGET		\$2,212,627		\$1,562,337		\$19,511,758		\$3,055,681		\$26,342,402

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NHSAVES ELECTRIC PROGRAMS - 2017 UTILITY GOALS BY PROGRAM
Total Customers Served, Program Budgets, Lifetime kWh and MMBtu Savings

(Energy Efficiency Fund Only - Regional Greenhouse Gas Initiative)

	LU Electric		NHEC		Eversource		Unitil Electric		Total	
Home Energy Assistance										
Number of Units / Lifetime kWh Savings	4	55,105	4	58,519	50	600,594	7	46,901	66	761,119
B/C Ratio / Planned Budget	0.12	\$40,737	0.13	\$33,267	0.12	\$346,544	0.13	\$53,084		\$473,632
/ Lifetime MMBtu Savings		2,226		2,181		23,654		3,694		31,755
Home Performance w/ENERGY STAR										
Number of Participants / Lifetime kWh Savings	0	0	0	0	0	0	0	0	0	0
B/C Ratio / Planned Budget	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0		\$0
/ Lifetime MMBtu Savings		0		0		0		0		0
ENERGY STAR Homes										
Number of Homes / Lifetime kWh Savings	0	0	0	0	0	0	0	0	0	0
B/C Ratio / Planned Budget	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0		\$0
/ Lifetime MMBtu Savings		0		0		0		0		0
ENERGY STAR Products										
Number of Participants / Lifetime kWh Savings	0	0	0	0	0	0	0	0	0	0
B/C Ratio / Planned Budget	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0		\$0
/ Lifetime MMBtu Savings		0		0		0		0		0
Large Business Energy Solutions										
Number of Participants / Lifetime kWh Savings	0	0	0	0	0	0	0	0	0	0
B/C Ratio / Planned Budget	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0		\$0
/ Lifetime MMBtu Savings		0		0		0		0		0
Small Business Energy Solutions										
Number of Participants / Lifetime kWh Savings	0	0	0	0	0	0	0	0	0	0
B/C Ratio / Planned Budget	0.00	\$0	0.00	\$0	0.00	\$0	0.00	\$0		\$0
/ Lifetime MMBtu Savings		0		0		0		0		0
Municipal										
Number of Participants / Lifetime kWh Savings	41	4,363,964	23	2,322,346	325	58,769,686	15	9,346,316	405	74,802,312
B/C Ratio / Planned Budget	1.23	\$179,990	1.01	\$174,968	1.56	\$1,452,443	1.31	\$476,529		\$2,283,930
/ Lifetime MMBtu Savings		0		3,640		33,710		6,000		43,351
Educational Programs										
Number of Participants / Planned Budget		\$0		\$0		\$0		\$0		\$0
Company Specific Programs / FCM Expenses										
Number of Participants / Lifetime kWh Savings	0	0	0	0	0	0	0	0	0	0
B/C Ratio / Planned Budget		\$0		\$0		\$0		\$0		\$0
/ Lifetime MMBtu Savings		0		0		0		0		0
Smart Start (NHEC/PSNH), RLF (UES)										
Number of Participants / Planned Budget	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Utility Performance Incentive										
Planned Budget		\$12,140		\$11,453		\$98,944		\$29,129		\$151,666
TOTAL PLANNED BUDGET		\$232,867		\$219,688		\$1,897,931		\$558,741		\$2,909,228

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NHSAVES GAS PROGRAMS - 2017 UTILITY GOALS BY PROGRAM
Total Customers Served, Program Budgets and Lifetime MMBtu Savings

	LU Gas		Unitil Gas		Total	
Home Energy Assistance						
Number of Units / Lifetime MMBtu Savings	198	106,032	42	23,672	240	129,704
B/C Ratio / Planned Budget	1.07	\$1,005,700	1.03	\$241,086		\$1,246,786
Home Performance w/ENERGY STAR						
Number of Participants / Lifetime MMBtu Savings	207	156,463	30	25,504	237	181,967
B/C Ratio / Planned Budget	1.36	\$729,200	1.23	\$136,849		\$866,049
ENERGY STAR Homes						
Number of Homes / Lifetime MMBtu Savings	44	45,716	42	31,682	86	77,398
B/C Ratio / Planned Budget	2.11	\$136,000	1.71	\$160,496		\$296,496
ENERGY STAR Products						
Number of Participants / Lifetime kWh Savings	1,322	178,693	397	50,525	1,719	229,218
B/C Ratio / Planned Budget	1.06	\$815,220	1.15	\$210,047		\$1,025,267
/ Lifetime MMBtu Savings						
Large Business Energy Solutions						
Number of Participants / Lifetime MMBtu Savings	225	654,550	43	385,820	268	1,040,370
B/C Ratio / Planned Budget	2.07	\$1,563,100	2.24	\$413,844		\$1,976,944
Small Business Energy Solutions						
Number of Participants / Lifetime MMBtu Savings	2,797	517,573	72	89,832	2,869	607,406
B/C Ratio / Planned Budget	2.15	\$1,373,000	1.58	\$241,453		\$1,614,453
Education						
B/C Ratio / Planned Budget		\$64,500		\$14,400		\$78,900
Company Specific Programs						
Number of Participants / Lifetime MMBtu Savings	38,000	32,600	0	0	38,000	32,600
B/C Ratio / Planned Budget	1.84	\$227,000	0.00	\$0		\$227,000
Utility Performance Incentive						
Planned Budget		\$325,255		\$78,000		\$403,254
Total Program Expenses		\$6,238,975		\$1,496,174		\$7,735,149

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**Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
2017 System Benefits Charge ("SBC") Calculation**

Year	EE Total Budget	RGGI Revenues	FCM Revenues	Other Revenues	Carryforward with Interest	Current Year Interest	SBC Requirement	Forecasted Distribution (kWh)	SBC Rate EE Portion (cents/kWh)	SBC Rate EAP Portion (cents/kWh)	SBC Rate LBR Portion (cents/kWh)	2017 Total SBC Rate (cents/kWh)
Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M
2017	\$ 2,445,494	\$ 221,401	\$ 217,502	\$ -	\$ (132,282)	\$ (2,462)	\$ 1,876,771	946,620,592	0.198	0.150	0.006	0.354

Col. A: Effective year (January 1, 2017 - December 31, 2017)
Col. B: Budget per Attachment H2
Col. C: Budget per Attachment H2
Col. D: Budget per Attachment H2
Col. E: Budget per Attachment H2
Col. F: CORE Electric Program Budget 2017
Col. G: Page 2, Line 13, Col. O
Col. H: Col. B - Col. C - Col. D - Col. E + Col. F - Col. G
Col. I: Company Forecast
Col. J: (Col. H / Col. I) x 100
Col. K: EAP Portion of SBC Rate
Col. L: Page 3, Col. G
Col. M: Col. J + Col. K + Col. L

Revised December 12, 2016

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Energy Efficiency Expense & SBC Revenue Reconciliation
January 1, 2017 to December 31, 2017

Line	Description	Carryover 12/31/16	Forecast Jan 2017	Forecast Feb 2017	Forecast Mar 2017	Forecast Apr 2017	Forecast May 2017	Forecast June 2017	Forecast Jul 2017	Forecast Aug 2017	Forecast Sep 2017	Forecast Oct 2017	Forecast Nov 2017	Forecast Dec 2017	2017 Total
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N	Col. O
1	SBC Revenues		167,308	150,176	149,563	141,101	140,553	159,607	180,543	173,865	155,962	143,085	147,784	164,290	1,873,837
2	RGGI Revenues		18,450	18,450	18,450	18,450	18,450	18,450	18,450	18,450	18,450	18,450	18,450	18,450	221,401
3	FCM Revenues		18,125	18,125	18,125	18,125	18,125	18,125	18,125	18,125	18,125	18,125	18,125	18,125	217,502
4	Other Revenues		-	-	-	-	-	-	-	-	-	-	-	-	-
5	Total Revenues		203,884	186,752	186,138	177,676	177,128	196,182	217,118	210,440	192,537	179,660	184,359	200,866	2,312,740
6	Program Expenses		203,791	203,791	203,791	203,791	203,791	203,791	203,791	203,791	203,791	203,791	203,791	203,791	2,445,494
7	Total Program Expenses		203,791	203,791	203,791	203,791	203,791	203,791	203,791	203,791	203,791	203,791	203,791	203,791	2,445,494
8	Current Month (Over)/Under Recovery		93	(17,040)	(17,653)	(26,115)	(26,663)	(7,609)	13,327	6,649	(11,254)	(24,131)	(19,432)	(2,925)	
9	Cummulative (Over)(Under Recovery		93	(16,947)	(34,600)	(60,715)	(87,378)	(94,987)	(81,660)	(75,011)	(86,265)	(110,396)	(129,828)	(132,754)	
10	Deferred Taxes @ 39.61%	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	Net EE SBC Deferral (Over)/Under Recovery	-	93	(16,947)	(34,600)	(60,715)	(87,378)	(94,987)	(81,660)	(75,011)	(86,265)	(110,396)	(129,828)	(132,754)	
12	Interest @ Prime Rate		0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	
13	Interest on Deferral Balance		0	(25)	(75)	(139)	(216)	(266)	(258)	(228)	(235)	(287)	(350)	(383)	(2,462)
14	Monthly Sales (kWh)		84,520,507	75,865,762	75,555,820	71,281,140	71,004,135	80,629,651	91,206,265	87,832,695	78,788,378	72,283,288	74,657,067	82,995,884	946,620,592
15	EE SBC Rate (¢/kWh)		0.198	0.198	0.198	0.198	0.198	0.198	0.198	0.198	0.198	0.198	0.198	0.198	

Line 1: (Line 14 x Line 15) / 100
Line 2: Page 1, Col. C
Line 3: Page 1, Col. D
Line 4: Page 1, Col. E
Line 5: Sum of Lines 1 through Lines 4
Line 6: Page 1, Col. B
Line 7: Sum of Line 6
Line 8: Line 5 - Line 7
Line 9: Prior month Line 9 + Current month Line 8
Line 10: Line 9 x 39.61% per DE 13-063 Settlement
Line 11: Line 9 - Line 10
Line 12: Prime Rate / 12
Line 13: (Prior Month Line 11 + Current Month Line 11) / 2 x Line 12
Line 14: Company Forecast
Line 15: Page 1, Col. J

Revised December 12, 2016

**Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
2017 System Benefits Charge Calculation (LBR Component)**

Year	Forecasted LBR Revenue	Prior Year Deferral with Interest	Current Year Interest	Total LBR Revenue	Forecasted Distribution (MWH)	SBC Rate LBR Portion (cents/kWh)
Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G
2017	\$ 59,190	\$ -	\$ 426	\$ 59,616	946,620,592	0.006

Col. A: Effective year (January 1, 2017 - December 31, 2017)
Col. B: Page 4, Line 12, Col. O
Col. C: Prior Year LBR Component (Over)/Under recovery, with interest
Col. D: Page 5, Col. O, Line 8
Col. E: Col. B + Col. C + Col. D
Col. F: Company Forecast
Col. G: (Col. E * 100) / Col. F

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Lost Base Revenue Reconciliation
January 1, 2017 to December 31, 2017

Line	Description	Carryover 12/31/16	Forecast Jan 2017	Forecast Feb 2017	Forecast Mar 2017	Forecast Apr 2017	Forecast May 2017	Forecast June 2017	Forecast Jul 2017	Forecast Aug 2017	Forecast Sep 2017	Forecast Oct 2017	Forecast Nov 2017	Forecast Dec 2017	2017 Total
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N	Col. O
1	Revenue Recovery		\$5,282	\$4,741	\$4,722	\$4,455	\$4,437	\$5,039	\$5,700	\$5,489	\$4,924	\$4,517	\$4,666	\$5,187	\$59,157
2	Lost Revenues		\$420	\$840	\$1,259	\$2,099	\$2,939	\$3,778	\$4,618	\$5,457	\$6,297	\$8,396	\$10,495	\$12,594	\$59,190
3	Current Month (Over)/Under Recovery		\$4,862	\$3,902	\$3,462	\$2,356	\$1,499	\$1,261	\$1,082	\$32	(\$1,373)	(\$3,879)	(\$5,829)	(\$7,407)	
4	Cumulative (Over)/Under Recovery	-	\$4,862	\$8,764	\$12,226	\$14,582	\$16,080	\$17,341	\$18,423	\$18,455	\$17,082	\$13,203	\$7,374	(\$33)	
5	Deferred Taxes @ 39.61%	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
6	Net EE SBC Deferral (Over)/Under Recovery	-	\$4,862	\$8,764	\$12,226	\$14,582	\$16,080	\$17,341	\$18,423	\$18,455	\$17,082	\$13,203	\$7,374	(\$33)	
7	Interest @ Prime Rate		0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	
8	Interest on Deferral Balance			\$20	\$31	\$39	\$45	\$49	\$52	\$54	\$52	\$44	\$30	\$11	\$426
9	Monthly Sales (kWh)		84,520,507	75,865,762	75,555,820	71,281,140	71,004,135	80,629,651	91,206,265	87,832,695	78,788,378	72,283,288	74,657,067	82,995,884	946,620,592
10	SBC Rate (LBR Component, ¢/kWh)		0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	

Line 1: (Line 9 x Line 10) / 100
Line 2: Page 4, Line 12
Line 3: Line 1 - Line 2
Line 4: Prior month Line 4 + Current month Line 3
Line 5: Line 4 x 39.61% per DE 13-063 Settlement
Line 6: Line 4 - Line 5
Line 7: Prime Rate / 12
Line 8: (Prior Month Line 6 + Current Month Line 6) / 2 x Line 7
Line 9: Company Forecast
Line 10: Page 3, Col. G

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Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Calculation of Average Distribution Rates at the Rate Level Effective July 1, 2016
Based on Billing Determinants for the Twelve Months Ending December 2015

Distribution rates excluding customer, meter, and per luminaire charges

<u>Line</u>	<u>Rate Class</u>	<u>Delivery</u> <u>kWh</u>	Distribution	<u>\$/kWh</u>
			Revenue Excluding <u>Fixed Charges</u>	
	Col. A	Col. B	Col. C	Col. D
1	Residential Rate D	273,818,053	\$ 12,085,971	\$ 0.04414
2	Residential TOU Rate D-10	5,571,935	\$ 187,376	\$ 0.03363
3	Residential Electric Heat Rate T	<u>17,379,770</u>	<u>\$ 643,399</u>	<u>\$ 0.03702</u>
4	Residential Subtotal	296,769,758	\$ 12,916,746	\$ 0.04352
5	General Service Rate G-1	385,699,306	\$ 8,195,338	\$ 0.02125
6	General Service Rate G-2	155,554,136	\$ 4,062,812	\$ 0.02612
7	General Service Rate G-3	90,016,335	\$ 3,738,378	\$ 0.04153
8	Commercial Electric Heat Rate V	<u>316,195</u>	<u>\$ 13,460</u>	<u>\$ 0.04257</u>
9	Commercial and Industrial subtotal	631,585,972	\$ 16,009,988	\$ 0.02535
10	Outdoor Lighting Rate M		\$ -	
11	Total Retail	928,355,730	\$ 28,926,734	\$ 0.03116

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Bill Impacts of Changes in System Benefits Charge

	1/1/17 Bill at current SBC level	1/1/17 Bill at proposed SBC level
System Benefits Charge (\$/kWh)	\$0.00330	\$0.00354
<u>Bill per month, including Liberty's default energy service</u>		
Residential Rate D (625 kWh/month)	\$93.36	\$93.51
General Service Rate G-2 (40 kW, 10,000 kWh/month)	\$1,579.34	\$1,581.74
<u>Change from previous rate level - \$ per month</u>		
Residential Rate D (625 kWh/month)		\$0.15
General Service Rate G-2 (40 kW, 10,000 kWh/month)		\$2.40
<u>Change from previous rate level - %</u>		
Residential Rate D (625 kWh/month)		0.16%
General Service Rate G-2 (40 kW, 10,000 kWh/month)		0.15%

*The Company's energy service rate changes monthly for G-2 customers. To show the impact of the SBC rate change, the calculation shows bill impact with the SBC at \$0.00330 and the proposed rate of \$0.00354 at January 1, 2017.

Calculation of Lost Revenues - Liberty Utilities Gas (Energy North)
Year 2017
Savings and lost revenues are estimated based on a calendar year.

	Annualized Therm Savings	"Installed" Savings												Total
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Residential														
Jan	17,905	1,492	1,492	1,492	1,492	1,492	1,492	1,492	1,492	1,492	1,492	1,492	1,492	17,905
Feb	17,905		1,492	1,492	1,492	1,492	1,492	1,492	1,492	1,492	1,492	1,492	1,492	16,413
Mar	17,905			1,492	1,492	1,492	1,492	1,492	1,492	1,492	1,492	1,492	1,492	14,921
Apr	23,874				1,990	1,990	1,990	1,990	1,990	1,990	1,990	1,990	1,990	17,906
May	23,874					1,990	1,990	1,990	1,990	1,990	1,990	1,990	1,990	15,916
Jun	23,874						1,990	1,990	1,990	1,990	1,990	1,990	1,990	13,927
Jul	27,455							2,288	2,288	2,288	2,288	2,288	2,288	13,728
Aug	27,455								2,288	2,288	2,288	2,288	2,288	11,440
Sep	27,455									2,288	2,288	2,288	2,288	9,152
Oct	50,134										4,178	4,178	4,178	12,534
Nov	50,134											4,178	4,178	8,356
Dec	50,134												4,178	4,178
Total	358,104	1,492	2,984	4,476	6,466	8,455	10,445	12,733	15,021	17,309	21,486	25,664	29,842	156,373
		1,492	4,476	8,953	15,418	23,874	34,318	47,051	62,072	79,380	100,866	126,531	156,373	
Proposed Distribution Rate Lost Revenue														\$ 0.5772
														\$ 90,258
C&I														
Jan	43,837	3,653	3,653	3,653	3,653	3,653	3,653	3,653	3,653	3,653	3,653	3,653	3,653	43,837
Feb	43,837		3,653	3,653	3,653	3,653	3,653	3,653	3,653	3,653	3,653	3,653	3,653	40,184
Mar	43,837			3,653	3,653	3,653	3,653	3,653	3,653	3,653	3,653	3,653	3,653	36,531
Apr	58,449				4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871	43,837
May	58,449					4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871	38,966
Jun	58,449						4,871	4,871	4,871	4,871	4,871	4,871	4,871	34,095
Jul	67,216							5,601	5,601	5,601	5,601	5,601	5,601	33,608
Aug	67,216								5,601	5,601	5,601	5,601	5,601	28,007
Sep	67,216									5,601	5,601	5,601	5,601	22,405
Oct	122,743										10,229	10,229	10,229	30,686
Nov(Staff1-10)	122,743											10,229	10,229	20,457
Dec(Staff 1-10)	122,743												10,229	10,229
Total	876,735	3,653	7,306	10,959	15,830	20,701	25,572	31,173	36,774	42,376	52,604	62,833	73,061	382,841
		3,653	10,959	21,919	37,749	58,449	84,021	115,194	151,968	194,343	246,947	309,780	382,841	
Proposed Distribution Rate Lost Revenue														\$ 0.2485
														\$ 95,136
Total Lost Revenue														\$ 185,394

**PSNH d/b/a Eversource Energy
2017 System Benefits Charge ("SBC") Calculation
(\$ in 000's)**

Year	EE Total Budget	RGGI Revenues	FCM Revenues	Other Revenues	Carryforward with Interest	Current Year Interest	SBC Requirement	Forecasted Distribution (MWH)	SBC Rate EE Portion (cents/kWh)	SBC Rate EAP Portion (cents/kWh)	SBC Rate LBR Portion (cents/kWh)	2017 Total SBC Rate (cents/kWh)
Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M
2017	\$ 21,410	\$ 1,898	\$ 3,617	\$ -	\$ -	\$ 10	\$ 15,905	8,027,604	0.198	0.150	0.008	0.356

Col. A: Effective year (January 1, 2017 - December 31, 2017)
Col. B: Reference Table III.3 - NHSaves Electric Program Funding 2017
Col. C: Reference Table III.3 - NHSaves Electric Program Funding 2017
Col. D: Reference Table III.3 - NHSaves Electric Program Funding 2017
Col. E: Reference Table III.3 - NHSaves Electric Program Funding 2017
Col. F: CORE Electric Program Budget 2017
Col. G: Page 2, Line 13, Col. O
Col. H: Col. B - Col. C - Col. D - Col. E + Col. F + Col. G
Col. I: Company Forecast
Col. J: (Col. H / Col. I) x 100
Col. K: EAP Portion of SBC Rate
Col. L: Page 3, Col. G
Col. M: Col. J + Col. K + Col. L

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PSNH d/b/a Eversource Energy
Energy Efficiency Expense & SBC Revenue Reconciliation
January 1, 2017 to December 31, 2017
(\$ in 000's)

Line	Description	Carryover 12/31/16	Forecast Jan 2017	Forecast Feb 2017	Forecast Mar 2017	Forecast Apr 2017	Forecast May 2017	Forecast June 2017	Forecast Jul 2017	Forecast Aug 2017	Forecast Sep 2017	Forecast Oct 2017	Forecast Nov 2017	Forecast Dec 2017	2017 Total
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N	Col. O
1	SBC Revenues		1,437	1,276	1,304	1,212	1,215	1,311	1,486	1,476	1,259	1,240	1,249	1,436	15,905
2	RGGI Revenues		-	-	474	-	-	474	-	-	474	-	-	474	1,898
3	FCM Revenues		188	171	197	342	376	376	342	393	342	376	342	171	3,617
4	Other Revenues		-	-	-	-	-	-	-	-	-	-	-	-	-
5	Total Revenues		1,625	1,447	1,975	1,554	1,591	2,162	1,829	1,870	2,076	1,617	1,591	2,082	21,420
6	Program Expenses		1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	21,410
7	Total Program Expenses		1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	21,410
8	Current Month (Over)/Under Recovery		159	337	(191)	230	193	(378)	(44)	(86)	(292)	168	193	(298)	
9	Cumulative (Over)/Under Recovery	-	159	495	304	534	727	349	305	219	(72)	95	288	(10)	
10	Deferred Taxes @ 40.330%	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	Net EE SBC Deferral (Over)/Under Recovery	-	159	495	304	534	727	349	305	219	(72)	95	288	(10)	
12	Interest @ Prime Rate		0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	
13	Interest on Deferral Balance		0	1	1	1	2	2	1	1	0	0	1	0	10
14	Monthly Sales (MWh)		725,421	644,258	658,342	611,908	613,222	661,793	750,284	745,138	635,592	626,060	630,587	725,000	8,027,604
15	EE SBC Rate		0.198	0.198	0.198	0.198	0.198	0.198	0.198	0.198	0.198	0.198	0.198	0.198	

Line 1: (Line 14 x Line 15) / 100
Line 2: Page 1, Col. C
Line 3: Page 1, Col. D
Line 4: Page 1, Col. E
Line 5: Sum of Lines 1 through Lines 4
Line 6: Page 1, Col. B
Line 7: Sum of Line 6
Line 8: Line 7 - Line 5
Line 9: Prior month Line 9 + Current month Line 8
Line 10: Line 9 x 40.330%
Line 11: Line 9 - Line 10
Line 12: Prime Rate / 12
Line 13: (Prior Month Line 11 + Current Month Line 11) / 2 x Line 12
Line 14: Company Forecast
Line 15: Page 1, Col. J

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**PSNH d/b/a Eversource Energy
2017 System Benefits Charge Calculation (LBR Component)
(\$ in 000's)**

Year	Forecasted LBR Revenue	Prior Year Deferral with Interest	Current Year Interest	Total LBR Revenue	Forecasted Distribution (MWH)	SBC Rate LBR Portion (cents/kWh)
Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G
2017	\$ 607	\$ -	\$ (4)	\$ 603	8,027,604	0.008

Col. A: Effective year (January 1, 2017 - December 31, 2017)
Col. B: Page 4, Line 12, Col. O / 1000
Col. C: Prior Year LBR Component (Over)/Under recovery, with interest
Col. D: Page 5, Col. O, Line 8
Col. E: Col. B + Col. C + Col. D
Col. F: Company Forecast
Col. G: (Col. E * 100) / Col. F

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PSNH d/b/a Eversource Energy
Estimated Monthly and Cumulative Savings (kWh) and Lost Base Revenue
January 1, 2017 to December 31, 2017

Line	Description	12/31/2016	Forecast Jan 2017	Forecast Feb 2017	Forecast Mar 2017	Forecast Apr 2017	Forecast May 2017	Forecast June 2017	Forecast Jul 2017	Forecast Aug 2017	Forecast Sep 2017	Forecast Oct 2017	Forecast Nov 2017	Forecast Dec 2017	2017 Annual Savings
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N	Col. O
1	Residential Annualized Savings		774,992	774,992	774,992	1,005,841	1,005,841	1,005,841	898,661	898,661	898,661	1,442,804	1,442,804	1,442,804	12,366,893
2	C&I Annualized Savings		1,064,527	1,064,527	1,064,527	2,404,578	2,404,578	2,404,578	2,392,054	2,392,054	2,392,054	6,662,684	6,662,684	6,662,684	37,571,529
3	Total		1,839,519	1,839,519	1,839,519	3,410,418	3,410,418	3,410,418	3,290,715	3,290,715	3,290,715	8,105,489	8,105,489	8,105,489	49,938,422
			Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	June 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Cumulative LBR Savings
4	Monthly Residential Savings		64,583	64,583	64,583	83,820	83,820	83,820	74,888	74,888	74,888	120,234	120,234	120,234	
5	Cumulative Residential Savings		64,583	129,165	193,748	277,568	361,388	445,208	520,097	594,985	669,873	790,107	910,341	1,030,574	5,987,637
6	Average Residential Distribution Rate		0.04087	0.04087	0.04087	0.04087	0.04087	0.04087	0.04087	0.04087	0.04087	0.04087	0.04087	0.04087	
7	Lost Residential Revenue	\$	2,639	\$ 5,279	\$ 7,918	\$ 11,344	\$ 14,770	\$ 18,196	\$ 21,256	\$ 24,317	\$ 27,378	\$ 32,292	\$ 37,206	\$ 42,120	\$ 244,715
8	Monthly C&I Savings		88,711	88,711	88,711	200,381	200,381	200,381	199,338	199,338	199,338	555,224	555,224	555,224	
9	Cumulative C&I Savings		88,711	177,421	266,132	466,513	666,895	867,276	1,066,614	1,265,952	1,465,290	2,020,513	2,575,737	3,130,961	14,058,014
10	Average C&I Distribution Rate		0.02578	0.02578	0.02578	0.02578	0.02578	0.02578	0.02578	0.02578	0.02578	0.02578	0.02578	0.02578	
11	Lost C&I Revenue	\$	2,287	\$ 4,574	\$ 6,861	\$ 12,027	\$ 17,193	\$ 22,358	\$ 27,497	\$ 32,636	\$ 37,775	\$ 52,089	\$ 66,403	\$ 80,716	\$ 362,416
12	Total Lost Revenue	\$	4,926	\$ 9,853	\$ 14,779	\$ 23,371	\$ 31,962	\$ 40,554	\$ 48,754	\$ 56,953	\$ 65,153	\$ 84,381	\$ 103,608	\$ 122,836	607,130

Line 1: Estimated Savings per 2017 Core Filing
Line 2: Estimated Savings per 2017 Core Filing
Line 3: Line 1 + Line 2
Line 4: Line 1 / 12
Line 5: Prior Month Line 5 + Current Month Line 4
Line 6: Page 6, Line 1, Col. D
Line 7: Line 5 x Line 6
Line 8: Line 2 / 12
Line 9: Prior Month Line 9 + Current Month Line 8
Line 10: Page 6, Line 5, Col. D
Line 11: Line 9 x Line 10
Line 12: Line 7 + Line 11

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PSNH d/b/a Eversource Energy
Lost Base Revenue Reconciliation
January 1, 2017 to December 31, 2017
(\$ in 000's)

Line	Description	Carryover 12/31/16	Forecast Jan 2017	Forecast Feb 2017	Forecast Mar 2017	Forecast Apr 2017	Forecast May 2017	Forecast June 2017	Forecast Jul 2017	Forecast Aug 2017	Forecast Sep 2017	Forecast Oct 2017	Forecast Nov 2017	Forecast Dec 2017	2017 Total
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N	Col. O
1	Revenue Recovery		54	48	49	46	46	50	56	56	48	47	47	54	603
2	Lost Revenues		5	10	15	23	32	41	49	57	65	84	104	123	607
3	Current Month (Over)/Under Recovery		(50)	(39)	(35)	(23)	(14)	(9)	(8)	1	17	37	56	68	
4	Cumulative (Over)/Under Recovery	-	(50)	(88)	(123)	(145)	(159)	(169)	(176)	(175)	(158)	(120)	(64)	4	
5	Deferred Taxes @ 40.330%	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	Net EE SBC Deferral (Over)/Under Recovery	-	(50)	(88)	(123)	(145)	(159)	(169)	(176)	(175)	(158)	(120)	(64)	4	
7	Interest @ Prime Rate		0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	
8	Interest on Deferral Balance		(0)	(0)	(0)	(0)	(0)	(0)	(1)	(1)	(0)	(0)	(0)	(0)	(4)
9	Monthly Sales (MWh)		725,421	644,258	658,342	611,908	613,222	661,793	750,284	745,138	635,592	626,060	630,587	725,000	8,027,604
10	SBC Rate (LBR Component)		0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	

Line 1: (Line 9 x Line 10) / 100
Line 2: Page 4, Line 12 / 1000
Line 3: Line 2 - Line 1
Line 4: Prior month Line 4 + Current month Line 3
Line 5: Line 4 x 40.330%
Line 6: Line 4 - Line 5
Line 7: Prime Rate / 12
Line 8: (Prior Month Line 6 + Current Month Line 6) / 2 x Line 7
Line 9: Company Forecast
Line 10: Page 3, Col. G

Revised December 12, 2016

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Public Service Company of New Hampshire dba Eversource Energy
Calculation of Average Distribution Rates at the Rate Level Effective July 1, 2016
Based on Billing Determinants for the Twelve Months Ending December 2014

Distribution rates excluding customer, meter, and per luminaire charges

<u>Line</u>	<u>Rate Class</u> Col. A	<u>Delivery</u> <u>kWh</u> Col. B	<u>Distribution</u> <u>Revenue</u> <u>Excluding</u> <u>Fixed Charges</u> Col. C	<u>\$/kWh</u> Col. D
1	Residential Rate R	3,183,054,832	\$ 130,106,577	\$ 0.04087
2	General Service Rate G	1,714,139,426	\$ 66,208,472	\$ 0.03862
3	Primary General Service Rate GV	1,661,784,325	\$ 33,636,195	\$ 0.02024
4	Large General Service Rate LG	<u>1,308,837,521</u>	<u>\$ 20,928,858</u>	<u>\$ 0.01599</u>
5	Commercial and Industrial subtotal	4,684,761,272	\$ 120,773,525	\$ 0.02578
6	Outdoor Lighting Rate OL		\$ -	
7	Outdoor Lighting Rate EOL		\$ -	
8	Total Retail	7,867,816,104	\$ 250,880,102	\$ 0.03189

Revised December 12, 2016

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Bill Impacts of Changes in System Benefits Charge - PSNH d/b/a Eversource Energy

	Current Rates	2017
System Benefits Charge (\$/kWh)	\$ 0.00330	\$ 0.00356
<u>Bill per month, including PSNH default energy service</u>		
Residential Rate R (625 kWh/month)	\$ 125.55	\$ 125.71
General Service Rate G, three-phase service (40 kW, 10,000 kWh/month)	\$ 1,863.20	\$ 1,865.76
<u>Change from previous rate level - \$ per month</u>		
Residential Rate R (625 kWh/month)		\$ 0.16
General Service Rate G, three-phase service (40 kW, 10,000 kWh/month)		\$ 2.56
<u>Change from previous rate level - %</u>		
Residential Rate R (625 kWh/month)		0.1%
General Service Rate G, three-phase service (40 kW, 10,000 kWh/month)		0.1%

Revised December 12, 2016

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Calculation of Lost Revenues - Unitil Gas (Northern)
Year 2017
Savings and lost revenues are estimated based on a calendar year.

	Annualized	"Installed" Savings														
	Therm Savings	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total		
Residential																
Jan	2,680	223	223	223	223	223	223	223	223	223	223	223	223	2,680		
Feb	3,350		279	279	279	279	279	279	279	279	279	279	279	3,071		
Mar	3,350			279	279	279	279	279	279	279	279	279	279	2,792		
Apr	2,680				223	223	223	223	223	223	223	223	223	2,010		
May	2,680					223	223	223	223	223	223	223	223	1,787		
Jun	2,680						223	223	223	223	223	223	223	1,563		
Jul	6,700							558	558	558	558	558	558	3,350		
Aug	6,700								558	558	558	558	558	2,792		
Sep	5,360									447	447	447	447	1,787		
Oct	7,370										614	614	614	1,843		
Nov	5,360											447	447	893		
Dec	18,089												1,507	1,507		
Total	66,999	223	503	782	1,005	1,228	1,452	2,010	2,568	3,015	3,629	4,076	5,583	26,074		
		223	726	1,508	2,513	3,741	5,193	7,203	9,771	12,786	16,415	20,491	26,074			
Proposed Distribution Rate															\$	0.5536
Lost Revenue															\$	14,435
C&I																
Jan	7,162	597	597	597	597	597	597	597	597	597	597	597	597	7,162		
Feb	7,162		597	597	597	597	597	597	597	597	597	597	597	6,565		
Mar	21,487			1,791	1,791	1,791	1,791	1,791	1,791	1,791	1,791	1,791	1,791	17,906		
Apr	31,037				2,586	2,586	2,586	2,586	2,586	2,586	2,586	2,586	2,586	23,278		
May	11,937					995	995	995	995	995	995	995	995	7,958		
Jun	9,550						796	796	796	796	796	796	796	5,571		
Jul	7,162							597	597	597	597	597	597	3,581		
Aug	16,712								1,393	1,393	1,393	1,393	1,393	6,963		
Sep	16,712									1,393	1,393	1,393	1,393	5,571		
Oct	21,487										1,791	1,791	1,791	5,372		
Nov(Staff1-10)	28,649											2,387	2,387	4,775		
Dec(Staff 1-10)	59,686												4,974	4,974		
Total	238,743	597	1,194	2,984	5,571	6,565	7,361	7,958	9,351	10,743	12,534	14,921	19,895	99,675		
		597	1,791	4,775	10,345	16,911	24,272	32,230	41,581	52,324	64,858	79,780	99,675			
Proposed Distribution Rate															\$	0.1555
Lost Revenue															\$	15,499
Total Lost Revenue															\$	29,934