



July 9, 2018

Debra A. Howland  
Executive Director  
New Hampshire Public Utilities Commission  
21 South Fruit Street, Suite 10  
Concord, NH 03301-2429

NHPUC 11JUL'18AM11:17

Re: Docket No. DE 14-216; CORE Energy Efficiency Programs  
New Hampshire Electric Cooperative, Inc. – Calculation of Member Incentive  
Program Year 2017

Dear Director Howland:

Enclosed for filing with the Commission are an original and six copies of the Member Incentive for New Hampshire Electric Cooperative Inc.'s CORE Energy Efficiency programs operated from January 1, 2017 through December 31, 2017 as approved by the Commission in its Order No. 25,976 issued on December 23, 2016 in Docket No. DE 14-216.

Please contact me if there are any questions regarding this filing.

Very truly yours,

Carol Woods  
Energy Solutions Executive

Enclosure (7 copies)  
cc: Service List (electronic mail only)

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	
<b>Residential</b>												
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 <sup>1</sup>	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	\$ -	-	-	-	-	-	-	-	
<b>Sub-Total Residential</b>	<b>1.84</b>	<b>\$ 2,381.9</b>	<b>\$ 1,016.8</b>	<b>\$ 276.2</b>	<b>1,378.8</b>	<b>16,194.3</b>	<b>368.7</b>	<b>167.4</b>	<b>11,700</b>	<b>3,147.2</b>	<b>66,348.2</b>	
<b>Commercial &amp; Industrial</b>												
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	\$ -	-	-	-	-	-	-	-	
<b>Sub-Total Commercial &amp; Industrial</b>	<b>2.05</b>	<b>\$ 2,744.0</b>	<b>\$ 672.3</b>	<b>\$ 666.3</b>	<b>1,953.3</b>	<b>25,392.7</b>	<b>462.2</b>	<b>376.5</b>	<b>92</b>	<b>280.0</b>	<b>3,640.4</b>	
<b>Total</b>	<b>1.95</b>	<b>\$ 5,125.8</b>	<b>\$ 1,689.1</b>	<b>\$ 942.5</b>	<b>3,332.1</b>	<b>41,587.1</b>	<b>830.9</b>	<b>543.9</b>	<b>11,792</b>	<b>3,427.2</b>	<b>69,988.6</b>	

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>	
	<u>4,336,494</u>	<u>100.0%</u>			<u>62,098,707</u>	<u>100.0%</u>	

Program Cost-Effectiveness - 2017 Actual

	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	
<b>Residential</b>												
Home Energy Assistance	1.40	\$ 391.6	\$ 280.1	\$ -	35.8	481.1	8.6	4.3	32	1,015.7	22,003.5	
ENERGY STAR Homes	3.06	\$ 502.2	\$ 129.7	\$ 34.6	100.7	2,436.5	26.1	1.0	12	966.4	24,103.0	
Home Performance with ENERGY STAR	1.42	\$ 312.0	\$ 148.6	\$ 70.7	62.3	1,118.5	15.3	0.5	34	741.0	15,231.0	
ENERGY STAR Products <sup>1</sup>	3.98	\$ 1,328.9	\$ 295.2	\$ 38.5	1,199.9	10,101.1	407.2	289.1	14,830	51.1	561.6	
ISO-NE FCM Expenses	0.00	\$ -	\$ 3.6	\$ -	-	-	-	-	-	-	-	
<b>Sub-Total Residential</b>	<b>2.53</b>	<b>\$ 2,534.7</b>	<b>\$ 857.3</b>	<b>\$ 143.9</b>	<b>1,398.7</b>	<b>14,137.2</b>	<b>457.2</b>	<b>295.0</b>	<b>14,908</b>	<b>2,774.2</b>	<b>61,899.2</b>	
<b>Commercial &amp; Industrial</b>												
Large Business Energy Solutions	2.19	\$ 1,345.6	\$ 236.8	\$ 377.1	1,258.3	16,368.3	144.9	121.3	14	-	-	
Small Business Energy Solutions	1.53	\$ 598.8	\$ 238.2	\$ 153.9	487.2	6,648.1	34.3	64.5	37	-	-	
Municipal Energy Solutions	1.09	\$ 388.1	\$ 158.4	\$ 198.3	168.8	2,194.9	15.3	26.6	13	830.8	10,228.1	
Smart Start	2.30	\$ 197.6	\$ 2.2	\$ 83.9	253.4	3,294.2	62.0	-	-	-	-	
Education	0.00	\$ -	\$ 24.6	\$ -	-	-	-	-	-	-	-	
ISO-NE FCM Expenses	0.00	\$ -	\$ 8.5	\$ -	-	-	-	-	-	-	-	
<b>Sub-Total Commercial &amp; Industrial</b>	<b>1.71</b>	<b>\$ 2,530.0</b>	<b>\$ 668.5</b>	<b>\$ 813.2</b>	<b>2,167.7</b>	<b>28,505.5</b>	<b>256.4</b>	<b>212.4</b>	<b>64</b>	<b>830.8</b>	<b>10,228.1</b>	
<b>Total</b>	<b>2.04</b>	<b>\$ 5,064.7</b>	<b>\$ 1,525.8</b>	<b>\$ 957.0</b>	<b>3,566.4</b>	<b>42,642.8</b>	<b>713.6</b>	<b>507.3</b>	<b>14,972</b>	<b>3,605.0</b>	<b>72,127.3</b>	

Note 1: Actual includes 13,446 members purchasing a total of 53,782 ENERGY STAR lighting products (estimated at 4/member) and 1,384 Energy Star appliances.

Annual kWh Savings	3,566,408	77.1%	kWh > 55%	Lifetime kWh Savings	42,642,770	66.9%	kWh > 55%
Annual MMBTU Savings (in kWh)	1,056,511	22.9%		Lifetime MMBTU Savings (in kWh)	21,138,430	33.1%	
	4,622,919	100.0%			63,781,200	100.0%	

Present Value Benefits - 2017 PLAN

	Total Benefits (\$000)	CAPACITY				ENERGY				Electric DRIPE	Gas Benefit	Gas DRIPE	Other Fuels Benefit	Other Resource
		Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak					
<b>Residential Programs</b>														
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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Sub-Total Residential</b>	<b>\$ 2,381.9</b>	<b>\$ 230.3</b>	<b>\$ -</b>	<b>\$ 26.0</b>	<b>\$ 105.4</b>	<b>\$ 283.2</b>	<b>\$ 493.0</b>	<b>\$ 80.6</b>	<b>\$ 89.8</b>	<b>\$ 27.6</b>	<b>\$ 2.8</b>	<b>\$ 0.6</b>	<b>\$ 998.4</b>	<b>\$ 44.2</b>
<b>Commercial/Industrial Programs</b>														
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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Sub-total Commercial &amp; Industrial</b>	<b>\$ 2,744.0</b>	<b>\$ 760.6</b>	<b>\$ -</b>	<b>\$ 83.6</b>	<b>\$ 338.9</b>	<b>\$ 553.2</b>	<b>\$ 495.5</b>	<b>\$ 236.5</b>	<b>\$ 170.0</b>	<b>\$ 40.4</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 65.2</b>	<b>\$ -</b>
<b>Total</b>	<b>\$ 5,125.8</b>	<b>\$ 990.9</b>	<b>\$ -</b>	<b>\$ 109.6</b>	<b>\$ 444.3</b>	<b>\$ 836.3</b>	<b>\$ 988.4</b>	<b>\$ 317.1</b>	<b>\$ 259.8</b>	<b>\$ 68.0</b>	<b>\$ 2.8</b>	<b>\$ 0.6</b>	<b>\$ 1,063.6</b>	<b>\$ 44.2</b>

Present Value Benefits - 2017 Actual

	Total Benefits (\$000)	CAPACITY				ENERGY				Electric DRIPE	Gas Benefit	Gas DRIPE	Other Fuels Benefit	Other Resource
		Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak					
<b>Residential Programs</b>														
Home Energy Assistance	\$ 391.6	\$ 7.4	\$ -	\$ 0.8	\$ 3.4	\$ 8.7	\$ 16.0	\$ 1.6	\$ 2.1	\$ 0.7	\$ -	\$ -	\$ 350.9	\$ -
ENERGY STAR Homes	\$ 502.2	\$ 3.1	\$ -	\$ 0.3	\$ 1.3	\$ 47.4	\$ 98.8	\$ 2.4	\$ 2.9	\$ 2.3	\$ 0.1	\$ 0.0	\$ 341.1	\$ 2.4
Home Performance with ENERGY STAR	\$ 312.0	\$ 0.5	\$ -	\$ 0.1	\$ 0.2	\$ 21.2	\$ 44.9	\$ 0.9	\$ 0.8	\$ 1.4	\$ -	\$ -	\$ 241.9	\$ -
ENERGY STAR Products	\$ 1,328.9	\$ 444.1	\$ -	\$ 49.8	\$ 201.8	\$ 157.6	\$ 212.4	\$ 92.9	\$ 97.4	\$ 22.8	\$ 2.7	\$ 0.6	\$ 4.1	\$ 42.7
ISO-NE FCM Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Sub-Total Residential</b>	<b>\$ 2,534.7</b>	<b>\$ 455.1</b>	<b>\$ -</b>	<b>\$ 51.0</b>	<b>\$ 206.8</b>	<b>\$ 234.9</b>	<b>\$ 372.1</b>	<b>\$ 97.8</b>	<b>\$ 103.1</b>	<b>\$ 27.3</b>	<b>\$ 2.8</b>	<b>\$ 0.6</b>	<b>\$ 937.9</b>	<b>\$ 45.1</b>
<b>Commercial/Industrial Programs</b>														
Large Business Energy Solutions	\$ 1,345.6	\$ 245.2	\$ -	\$ 27.0	\$ 109.2	\$ 327.7	\$ 387.9	\$ 124.0	\$ 98.4	\$ 26.2	\$ -	\$ -	\$ -	\$ -
Small Business Energy Solutions	\$ 598.8	\$ 135.3	\$ -	\$ 14.8	\$ 60.1	\$ 126.6	\$ 107.6	\$ 80.5	\$ 64.1	\$ 9.8	\$ -	\$ -	\$ -	\$ -
Municipal Energy Solutions	\$ 388.1	\$ 53.8	\$ -	\$ 5.9	\$ 24.0	\$ 48.7	\$ 38.4	\$ 22.6	\$ 16.0	\$ 3.5	\$ -	\$ -	\$ 175.3	\$ -
Smart Start	\$ 197.6	\$ -	\$ -	\$ -	\$ -	\$ 60.5	\$ 131.4	\$ -	\$ -	\$ 5.6	\$ -	\$ -	\$ -	\$ -
Education	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ISO FCM Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Sub-total Commercial &amp; Industrial</b>	<b>\$ 2,530.0</b>	<b>\$ 434.3</b>	<b>\$ -</b>	<b>\$ 47.7</b>	<b>\$ 193.3</b>	<b>\$ 563.5</b>	<b>\$ 665.3</b>	<b>\$ 227.0</b>	<b>\$ 178.5</b>	<b>\$ 45.1</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 175.3</b>	<b>\$ -</b>
<b>Total</b>	<b>\$ 5,064.7</b>	<b>\$ 889.4</b>	<b>\$ -</b>	<b>\$ 98.7</b>	<b>\$ 400.1</b>	<b>\$ 798.4</b>	<b>\$ 1,037.4</b>	<b>\$ 324.8</b>	<b>\$ 281.6</b>	<b>\$ 72.4</b>	<b>\$ 2.8</b>	<b>\$ 0.6</b>	<b>\$ 1,113.2</b>	<b>\$ 45.1</b>

**Performance Incentive Calculation  
 2017**

	<u>Planned</u>	<u>Actual</u>
<b>Commercial &amp; Industrial</b>		
1. Benefit/Cost Ratio	2.0	1.7
2. Threshold Benefit / Cost Ratio <sup>1</sup>	1.0	1.0
3. Lifetime kWh Savings	<b>25,392,728</b>	<b>28,505,529</b>
4. Threshold Lifetime kWh Savings (65%) <sup>2</sup>	16,505,273	
5. Implementation Expenses	\$672,347	\$668,501
6. Benefit / Cost Percentage of Implementation Expenses	2.75%	2.75%
7. Lifetime kWh Percentage of Implementation Expenses	2.75%	2.75%
<b>8. Commercial &amp; Industrial Performance Incentive</b>	<b>\$36,979</b>	<b>\$35,952</b>
<b>9. Maximum Commercial &amp; Industrial Performance Incentive (6.875%)</b>	<b>\$46,224</b>	
<b>Residential</b>		
10. Benefit / Cost Ratio	1.8	2.5
11. Threshold Benefit / Cost Ratio <sup>1</sup>	1.0	1.0
12. Lifetime kWh Savings	<b>16,194,341</b>	<b>14,137,241</b>
13. Threshold Lifetime kWh Savings (65%) <sup>2</sup>	10,526,322	
14. Implementation Expenses	\$1,016,776	\$857,252
15. Benefit / Cost Percentage of Implementation Expenses	2.75%	2.75%
16. Lifetime kWh Percentage of Implementation Expenses	2.75%	2.75%
<b>17. Residential Performance Incentive</b>	<b>\$55,923</b>	<b>\$52,980</b>
<b>18. Maximum Residential Performance Incentive (6.875%)</b>	<b>\$69,903</b>	
<b>19. TOTAL PLANNED / EARNED INCENTIVE</b>	<b>\$92,902</b>	<b>\$88,932</b>

**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>
<b>Commercial &amp; Industrial</b>			
1. Benefits (Value) From Eligible Programs	\$	2,743,957	\$ 2,529,990
2. Implementation Expenses	\$	672,347	\$ 668,501
3. Member Contribution	\$	666,333	\$ 813,161
4. Performance Incentive	\$	36,979	\$ 35,952
5. Total Costs	\$	1,375,659	\$ 1,517,614
6. Benefit/Cost Ratio - Commercial & Industrial Sector		<b>2.0</b>	<b>1.7</b>
<b>Residential</b>			
7. Benefits (Value) From Eligible Programs	\$	2,381,856	\$ 2,534,689
8. Implementation Expenses	\$	1,016,776	\$ 857,252
9. Member Contribution	\$	276,185	\$ 143,871
10. Performance Incentive	\$	55,923	\$ 52,980
11. Total Costs	\$	1,348,883	\$ 1,054,103
12. Benefit/Cost Ratio - Residential Sector		<b>1.8</b>	<b>2.4</b>

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

	Lifetime kWh Savings	
	<u>Planned</u>	<u>Actual</u>
<b>Commercial &amp; Industrial</b>		
Large Business Energy Solutions	13,736,351	16,368,267
Small Business Energy Solutions	9,334,031	6,648,117
Municipal Energy Solutions	2,322,346	2,194,946
Smart Start	0	3,294,200
<b>Total Commercial &amp; Industrial</b>	<b>25,392,728</b>	<b>28,505,529</b>
<b>Residential</b>		
Home Energy Assistance	500,121	481,132
ENERGY STAR Homes	5,607,177	2,436,513
Home Performance with ENERGY STAR	1,725,672	1,118,482
ENERGY STAR Products	8,361,371	10,101,114
<b>Total Residential</b>	<b>16,194,341</b>	<b>14,137,241</b>



**2017 End of Year Reconciliation**

	<u>2017</u>
<b>Carry Forward Balance</b>	<b>\$ 129,159</b>
<b>Funding:</b>	
System Benefit Charge	\$ 1,490,912
RGGI Funding	\$ 200,119
FCM Payments	94,997
Interest	10,521
<b>Total Funding for Energy Efficiency Programs</b>	<b><u>\$ 1,796,550</u></b>
<b>Expenses:</b>	
Energy Efficiency Expenditures	\$ 1,538,715
Correction-Reclassify 2016 RGGI RFP Funding	\$ 8,120
Member Incentive <sup>1</sup> - 2016	118,029
Member Incentive <sup>2</sup> - 2017	88,932
<b>Total Program Expenses</b>	<b><u>\$ 1,753,795</u></b>
<b>Carry Forward Balance</b>	<b><u><u>\$ 171,913</u></u></b>

Notes

1. 2016 Member Incentive accrued in 2016 and booked in 2017

2. 2017 Member Incentive accrued in 2017 and booked in 2018