

**Program Cost-Effectiveness - 2020 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 Programs</b>											
Home Energy Assistance	1.38	1,161.1	838.8	-	71.3	968.3	7.0	12.6	418	2,329.9	46,634.7
Energy Star Homes	1.87	1,360.4	540.5	185.4	163.9	3,896.3	39.5	25.0	89	1,490.7	37,136.7
Home Performance with Energy Star	2.60	2,899.4	670.2	446.8	169.0	2,861.4	16.8	39.7	868	6,066.0	119,858.1
Energy Star Products	1.98	2,435.7	858.4	369.8	2,710.1	18,293.4	683.9	357.4	49,672	424.3	5,940.8
ISO-NE Forward Capacity Market Expenses	0.00	-	6.0	-	-	-	-	-	-	-	-
<b>Sub-Total Residential</b>	<b>2.01</b>	<b>7,856.5</b>	<b>2,914.0</b>	<b>1,002.0</b>	<b>3,114.1</b>	<b>26,019.4</b>	<b>747.2</b>	<b>434.8</b>	<b>51,047</b>	<b>10,311.0</b>	<b>209,570.4</b>
<b>Commercial, Industrial &amp; Municipal</b>											
Large Business Energy Solutions	2.05	3,294.5	624.6	983.8	2,564.1	33,333.9	388.8	353.5	39	-	-
Small Business Energy Solutions	1.32	1,366.4	581.1	457.9	1,209.6	15,939.1	72.9	108.2	119	-	-
Municipal Energy Solutions	0.96	246.8	163.3	93.4	128.8	1,674.0	10.1	13.1	12	245.8	3,195.0
Education	0.00	-	73.9	-	-	-	-	-	-	-	-
ISO Forward Capacity Market Expenses	0.00	-	14.0	-	-	-	-	-	-	-	-
<b>Sub-Total Commercial &amp; Industrial</b>	<b>1.64</b>	<b>4,907.6</b>	<b>1,456.8</b>	<b>1,535.1</b>	<b>3,902.5</b>	<b>50,947.0</b>	<b>471.8</b>	<b>474.8</b>	<b>170</b>	<b>245.8</b>	<b>3,195.0</b>
Smart Start	0.00	-	5.0	-	-	-	-	-	-	-	-
<b>Total</b>	<b>1.85</b>	<b>12,764.1</b>	<b>4,375.8</b>	<b>2,537.1</b>	<b>7,016.7</b>	<b>76,966.5</b>	<b>1,218.9</b>	<b>909.6</b>	<b>51,217</b>	<b>10,556.8</b>	<b>212,765.4</b>

Note: a 10% NEI adder is applied to total benefits excluding water.

<b>Annual kWh Savings</b>	7,016,661	69.4% kWh > 55%	<b>Lifetime kWh Savings</b>	76,966,456	55.2% kWh > 55%
<b>Annual MMBTU Savings (in kWh)</b>	<u>3,093,887</u>	<u>30.6%</u>	<b>Lifetime MMBTU Savings (in kWh)</b>	<u>62,355,397</u>	<u>44.8%</u>
	<b>10,110,547</b>	100.0%		<b>139,321,853</b>	100.0%

**Program Cost-Effectiveness - 2020 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 Programs</b>											
Home Energy Assistance	1.00	728.9	731.5	-	311.4	2,139.8	26.1	9.9	37	1,163.3	24,872.0
Energy Star Homes	5.94	1,454.1	152.4	92.4	77.1	1,525.7	23.1	8.9	40	1,981.6	49,248.3
Home Performance with Energy Star	2.92	3,187.3	801.6	291.7	381.4	8,327.0	184.5	1.4	139	5,411.4	125,440.0
Energy Star Products	2.44	2,488.5	938.7	79.3	3,801.1	22,053.9	1,084.1	436.8	77,772	149.8	2,096.5
ISO-NE Forward Capacity Market Expenses	0.00	-	3.1	-	-	-	-	-	-	-	-
<b>Sub-Total Residential</b>	<b>2.54</b>	<b>7,858.8</b>	<b>2,627.4</b>	<b>463.4</b>	<b>4,571.0</b>	<b>34,046.5</b>	<b>1,317.9</b>	<b>457.0</b>	<b>77,988</b>	<b>8,706.0</b>	<b>201,656.8</b>
<b>Commercial, Industrial &amp; Municipal</b>											
Large Business Energy Solutions	2.19	2,779.2	412.9	854.2	2,491.1	34,328.8	211.7	182.7	14	-	-
Small Business Energy Solutions	1.87	1,084.2	371.0	208.3	918.0	12,320.9	65.9	90.4	68	-	-
Municipal Energy Solutions	1.62	1,239.0	265.3	500.7	386.8	4,859.2	24.4	36.6	18	2,458.8	27,391.7
Education	0.00	-	9.2	-	-	-	-	-	-	-	-
ISO Forward Capacity Market Expenses	0.00	-	7.3	-	-	-	-	-	-	-	-
<b>Sub-Total Commercial &amp; Industrial</b>	<b>1.94</b>	<b>5,102.4</b>	<b>1,065.7</b>	<b>1,563.2</b>	<b>3,795.9</b>	<b>51,508.9</b>	<b>302.0</b>	<b>309.7</b>	<b>100</b>	<b>2,458.8</b>	<b>27,391.7</b>
Smart Start	0.00	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>2.27</b>	<b>12,961.2</b>	<b>3,693.1</b>	<b>2,026.6</b>	<b>8,366.9</b>	<b>85,555.4</b>	<b>1,619.9</b>	<b>766.7</b>	<b>78,088</b>	<b>11,164.9</b>	<b>229,048.5</b>

Note: a 10% NEI adder is applied to total benefits excluding water.

<b>Annual kWh Savings</b>	8,366,885	71.9% kWh > 55%	<b>Lifetime kWh Savings</b>	85,555,424	56.0% kWh > 55%
<b>Annual MMBTU Savings (in kWh)</b>	<u>3,272,099</u>	<u>28.1%</u>	<b>Lifetime MMBTU Savings (in kWh)</b>	<u>67,127,493</u>	<u>44.0%</u>
	<b>11,638,985</b>	100.0%		<b>152,682,917</b>	100.0%

Present Value Benefits - 2020 PLAN

	Total Benefits (\$000)	CAPACITY				ENERGY				Electric DRIPE	Total Electric Benefit	Gas Benefit	Gas DRIPE	Total Gas Benefit	Other Fuels	Fossil Emissions	Water Benefit	Non-Resource Benefit
		Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak									
<b>Residential Programs</b>																		
Home Energy Assistance	\$ 1,161	\$ 13	\$ -	\$ 15	\$ 13	\$ 17	\$ 20	\$ 7	\$ 8	\$ 3	\$ 96	\$ -	\$ -	\$ -	\$ 828	\$ 52	\$ -	\$ 185
Energy Star Homes	\$ 1,360	\$ 39	\$ -	\$ 40	\$ 34	\$ 75	\$ 82	\$ 17	\$ 21	\$ 8	\$ 317	\$ 0	\$ 0	\$ 0	\$ 872	\$ 44	\$ 9	\$ 119
Home Performance with Energy Star	\$ 2,899	\$ 45	\$ -	\$ 49	\$ 43	\$ 45	\$ 60	\$ 18	\$ 24	\$ 8	\$ 292	\$ -	\$ -	\$ 2,232	\$ 123	\$ -	\$ 252	
Energy Star Products	\$ 2,436	\$ 168	\$ -	\$ 227	\$ 197	\$ 451	\$ 298	\$ 208	\$ 139	\$ 112	\$ 1,801	\$ 13	\$ 0	\$ 14	\$ 76	\$ 6	\$ 349	\$ 189
ISO-NE Forward Capacity Market Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Sub-Total Residential</b>	<b>\$ 7,857</b>	<b>\$ 265</b>	<b>\$ -</b>	<b>\$ 330</b>	<b>\$ 287</b>	<b>\$ 589</b>	<b>\$ 461</b>	<b>\$ 250</b>	<b>\$ 192</b>	<b>\$ 132</b>	<b>\$ 2,505</b>	<b>\$ 14</b>	<b>\$ 0</b>	<b>\$ 14</b>	<b>\$ 4,009</b>	<b>\$ 224</b>	<b>\$ 359</b>	<b>\$ 745</b>
<b>Commercial/Industrial Programs</b>																		
Large Business Energy Solutions	\$ 3,294	\$ 310	\$ -	\$ 362	\$ 314	\$ 772	\$ 676	\$ 258	\$ 179	\$ 124	\$ 2,995	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 299
Small Business Energy Solutions	\$ 1,366	\$ 97	\$ -	\$ 113	\$ 98	\$ 328	\$ 264	\$ 158	\$ 127	\$ 58	\$ 1,242	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 124
Municipal Energy Solutions	\$ 247	\$ 12	\$ -	\$ 13	\$ 12	\$ 39	\$ 28	\$ 16	\$ 11	\$ 6	\$ 136	\$ -	\$ -	\$ -	\$ 85	\$ 3	\$ -	\$ 22
Education	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ISO Forward Capacity Market Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Sub-Total Commercial &amp; Industrial</b>	<b>\$ 4,908</b>	<b>\$ 419</b>	<b>\$ -</b>	<b>\$ 488</b>	<b>\$ 423</b>	<b>\$ 1,139</b>	<b>\$ 968</b>	<b>\$ 432</b>	<b>\$ 316</b>	<b>\$ 188</b>	<b>\$ 4,373</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 85</b>	<b>\$ 3</b>	<b>\$ -</b>	<b>\$ 446</b>
Smart Start	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 12,764</b>	<b>\$ 684</b>	<b>\$ -</b>	<b>\$ 818</b>	<b>\$ 710</b>	<b>\$ 1,728</b>	<b>\$ 1,429</b>	<b>\$ 682</b>	<b>\$ 508</b>	<b>\$ 319</b>	<b>\$ 6,879</b>	<b>\$ 14</b>	<b>\$ 0</b>	<b>\$ 14</b>	<b>\$ 4,094</b>	<b>\$ 228</b>	<b>\$ 359</b>	<b>\$ 1,191</b>

Present Value Benefits - 2020 ACTUAL

	Total Benefits (\$000)	CAPACITY				ENERGY				Other Non-Resource Benefit								
		Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric DRIPE	Electric Benefit	Gas Benefit	Gas DRIPE	Total Gas Benefit	Other Fuels	Fossil Emissions	Water Benefit	Other Non-Resource Benefit
<b>Residential Programs</b>																		
Home Energy Assistance	\$ 729	\$ 5	\$ -	\$ 6	\$ 5	\$ 60	\$ 40	\$ 18	\$ 11	\$ 12	\$ 157	\$ -	\$ -	\$ -	\$ 425	\$ 30	\$ -	\$ 116
Energy Star Homes	\$ 1,454	\$ 13	\$ -	\$ 14	\$ 12	\$ 32	\$ 32	\$ 8	\$ 8	\$ 4	\$ 122	\$ 0	\$ 0	\$ 0	\$ 1,145	\$ 58	\$ 2	\$ 127
Home Performance with Energy Star	\$ 3,187	\$ 1	\$ -	\$ 1	\$ 1	\$ 227	\$ 203	\$ 5	\$ 5	\$ 18	\$ 461	\$ -	\$ -	\$ -	\$ 2,311	\$ 137	\$ -	\$ 277
Energy Star Products	\$ 2,489	\$ 163	\$ -	\$ 235	\$ 204	\$ 611	\$ 363	\$ 248	\$ 145	\$ 149	\$ 2,117	\$ 5	\$ 0	\$ 5	\$ 27	\$ 2	\$ 123	\$ 215
ISO-NE Forward Capacity Market Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Sub-Total Residential</b>	<b>\$ 7,859</b>	<b>\$ 182</b>	<b>\$ -</b>	<b>\$ 256</b>	<b>\$ 222</b>	<b>\$ 930</b>	<b>\$ 638</b>	<b>\$ 278</b>	<b>\$ 168</b>	<b>\$ 183</b>	<b>\$ 2,857</b>	<b>\$ 5</b>	<b>\$ 0</b>	<b>\$ 5</b>	<b>\$ 3,909</b>	<b>\$ 228</b>	<b>\$ 125</b>	<b>\$ 735</b>
<b>Commercial/Industrial Programs</b>																		
Large Business Energy Solutions	\$ 2,779	\$ 170	\$ -	\$ 196	\$ 170	\$ 624	\$ 677	\$ 302	\$ 267	\$ 121	\$ 2,527	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 253
Small Business Energy Solutions	\$ 1,084	\$ 83	\$ -	\$ 95	\$ 83	\$ 268	\$ 215	\$ 112	\$ 87	\$ 44	\$ 986	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 99
Municipal Energy Solutions	\$ 1,239	\$ 31	\$ -	\$ 37	\$ 32	\$ 107	\$ 80	\$ 49	\$ 35	\$ 18	\$ 389	\$ -	\$ -	\$ -	\$ 713	\$ 27	\$ -	\$ 110
Education	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ISO Forward Capacity Market Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Sub-Total Commercial &amp; Industrial</b>	<b>\$ 5,102</b>	<b>\$ 284</b>	<b>\$ -</b>	<b>\$ 328</b>	<b>\$ 284</b>	<b>\$ 999</b>	<b>\$ 972</b>	<b>\$ 463</b>	<b>\$ 389</b>	<b>\$ 183</b>	<b>\$ 3,902</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 713</b>	<b>\$ 27</b>	<b>\$ -</b>	<b>\$ 461</b>
Smart Start	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 12,961</b>	<b>\$ 465</b>	<b>\$ -</b>	<b>\$ 584</b>	<b>\$ 506</b>	<b>\$ 1,929</b>	<b>\$ 1,610</b>	<b>\$ 741</b>	<b>\$ 557</b>	<b>\$ 366</b>	<b>\$ 6,759</b>	<b>\$ 5</b>	<b>\$ 0</b>	<b>\$ 5</b>	<b>\$ 4,622</b>	<b>\$ 254</b>	<b>\$ 125</b>	<b>\$ 1,197</b>

Portfolio Planned Versus Actual Performance - 2020									
Portfolio	Planned	Threshold	Actual	% of Plan	Design Coefficient	Actual Coefficient	Planned PI	Actual PI	Source
1 Lifetime kWh Savings	76,966,456	57,724,842	85,555,424	111%	1.925%	2.140%	\$ 84,138	\$ 79,026	Planned and Actual from Cost Eff Tab
2 Annual kWh Savings	7,016,661	5,262,496	8,366,885	119%	0.550%	0.656%	\$ 24,039	\$ 24,221	Planned and Actual from Cost Eff Tab
3 Summer Peak Demand kW	909.6144	591.2493	767	84%	0.660%	0.556%	\$ 28,847	\$ 20,544	Planned and Actual from Cost Eff Tab
4 Winter Peak Demand kW	1,218.9096	792.2913	1,620	133%	0.440%	0.550%	\$ 19,232	\$ 20,312	Planned and Actual from Cost Eff Tab
5 Total Resource Benefits	\$ 11,345,443		11,509,991	101%					Planned and Actual from Master Data Tab
6 Total Utility Costs	\$ 4,370,805		3,693,129	84%					Planned and Actual from Cost Eff Tab
7 Net Benefits	\$ 6,974,638	\$ 5,230,978	\$ 7,816,862	112%	1.925%	2.157%	\$ 84,138	\$ 79,678	Line 5 minus line 6
8 Total					5.500%	6.059%	\$ 240,394	\$ 223,781	

	Total Resource Cost Test		Source
	Planned	Actual	
9 Total Benefits (incl. NEIs)	\$ 12,764,134	\$ 12,961,173	Planned and Actual from Cost Eff Tab
10 Performance Incentive	\$ 240,394	\$ 223,781	from row 8 above
11 Participant Costs	\$ 2,537,145	\$ 2,026,582	Planned and Actual from Master Data Tab
12 Total Utility Costs	\$ 4,375,805	\$ 3,693,129	from row 6 above
13 Portfolio TRC BCR	1.78	2.18	row 9 divided by rows 10+11+12

All dollar values are expressed in 2020 dollars.

**Lifetime Energy Savings by Sector and Program  
2020**

	<b>Lifetime kWh Savings</b>	
	<b><u>Planned</u></b>	<b><u>Actual</u></b>
<b>Commercial &amp; Industrial</b>		
Large Business Energy Solutions	33,333,927	34,328,835
Small Business Energy Solutions	15,939,068	12,320,881
Municipal Energy Solutions	1,674,047	4,859,207
<b>Total Commercial &amp; Industrial</b>	<b>50,947,041</b>	<b>51,508,924</b>
<b>Residential</b>		
Home Energy Assistance	968,309	2,139,837
Energy Star Homes	3,896,343	1,525,707
Home Performance with Energy Star	2,861,351	8,327,016
Energy Star Products	18,293,411	22,053,940
<b>Total Residential</b>	<b>26,019,415</b>	<b>34,046,500</b>

**2020**

**Carry Forward Balance** \$ 1,226,564

**Funding:**

System Benefit Charge	\$ 4,079,423
RGGI Funding	\$ 156,526
FCM Payments	\$ 107,185
Interest	\$ 67,212
<b>Total Funding for Energy Efficiency Programs</b>	<b><u>\$ 4,410,347</u></b>

**Expenses:**

Transfer to Energy Efficiency Loan Fund	\$ 250,000.00
Energy Efficiency Expenditures	\$ 3,693,129
Performance Incentive <sup>1</sup> - 2019	143,980
Performance Incentive <sup>2</sup> - 2020	223,781
<b>Total Program Expenses</b>	<b><u>\$ 4,310,890</u></b>

**Carry Forward Balance** **\$ 1,326,020**

Notes

1. 2019 Performance Incentive accrued in 2019 and booked in 2020
2. 2020 Performance Incentive accrued in 2020 and booked in 2021