

Program Cost-Effectiveness - 2022 Actual

	Benefit/Cost Ratios		Benefits (\$000)		Utility Costs (\$000 - 2022\$) ²		Customer Costs (\$000 - 2022\$) ²		Annual Net MWh Savings	Lifetime Net MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served	Annual Net MMBtu Savings	Lifetime Net MMBtu Savings
	Granite State Test	Granite State Test													
Residential Programs															
B1 - Home Energy Assistance	0.93	\$	1,123	\$	1,208	\$	-		580.526	5,060.267	80.9	63.8	97	957.5	24,128.3
A1 - Energy Star Homes	4.92	\$	1,129	\$	229	\$	202		74.348	1,603.841	8.8	7.8	31	1,223.7	28,723.4
A2 - Home Performance with Energy Star	2.41	\$	1,271	\$	528	\$	168		41.006	589.132	5.0	3.1	96	2,401.1	51,517.2
A3 - Energy Star Products	2.35	\$	1,040	\$	443	\$	314		1,073.963	9,655.733	192.2	193.6	8,843	(78.5)	3,679.0
A4 - Residential Behavior	1.12	\$	233	\$	208	\$	-		2,342.277	2,342.3	505.6	326.2	19,907	-	-
A5 - Residential Active Demand Response	-	\$	-	\$	57	\$	-		-	-	-	-	504	-	-
A6b - Res ISO Forward Capacity Market Expenses	-	\$	-	\$	8	\$	-		-	-	-	-	-	-	-
Sub-Total Residential	1.79	\$	4,797	\$	2,681	\$	684		4,112.1	19,251.2	792.5	594.4	29,478	4,503.9	108,047.9
Commercial, Industrial & Municipal															
C1 - Large Business Energy Solutions	2.39	\$	2,777	\$	1,164	\$	854		3,576.6	37,173.1	541.7	277.7	36	(1,105.2)	(10,969.5)
C2 - Small Business Energy Solutions	2.72	\$	3,173	\$	1,168	\$	720		3,009.163	34,032.639	444.0	537.3	188	(832.1)	(8,868.9)
C3 - Municipal Energy Solutions	1.22	\$	275	\$	225	\$	301		303.6	3,193.7	51.1	45.7	8	(101.9)	(1,008.7)
C5 - C&I Active Demand Response	-	\$	-	\$	105	\$	-		-	-	-	-	11	-	-
C6b - C&I ISO Forward Capacity Market Expenses	-	\$	-	\$	17	\$	-		-	-	-	-	-	-	-
C6c - C&I Education	-	\$	-	\$	18	\$	-		-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	2.31	\$	6,224	\$	2,696	\$	1,875		6,889.4	74,399.5	1,036.8	860.7	243	(2,039.3)	(20,847.1)
Total	2.05	\$	11,021	\$	5,377	\$	2,559		11,001.6	93,650.7	1,829.2	1,455.1	29,721.0	2,464.6	87,200.8

Notes:

(1) The Granite State Test is used as the primary cost test, as approved in Order No. 26,322, and includes an annual NEI adder of \$405.71 per weatherization project in the Home Energy Assistance program. For the illustrative Total Resource Cost Test, NEI adders of 25% for Residential and 10% for C&I are applied to total benefits excluding water.

(2) Utility and Customer Costs and Benefits are expressed in 2022 Dollars.

(3) Per past precedent, discount and inflation rates have been updated for the year in which measures will be installed, and were updated as of June 2021 for program year 2022.

Annual kWh Savings	11,001,558	93.8%	kWh > 65%	Lifetime kWh Savings	93,650,709	78.6%	kWh > 65%
Annual MMBTU Savings (in kWh)	<u>722,300</u>	<u>6.2%</u>		Lifetime MMBTU Savings (in kWh)	<u>25,556,025</u>	<u>21.4%</u>	
	11,723,858	100.0%			119,206,734	100.0%	

Annual Net Savings as a % of 2019 Sales	0.95%
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Spending per Customer	Low-Income	\$	181.93
	Residential	\$	24.65
	C&I	\$	246.84

Program Cost-Effectiveness - 2022 Compliance Plan

	Benefit / Cost Ratios		Benefits (\$000)		Utility Costs (\$000 - 2022\$) ²		Customer Costs (\$000 - 2022\$) ²		Annual Net MWh Savings	Lifetime Net MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served	Annual Net MMBtu Savings	Lifetime Net MMBtu Savings
	Granite State Test	Granite State Test													
Residential Programs															
B1 - Home Energy Assistance	1.73	\$	2,078	\$	1,204	\$	-		142.4	2,096.2	21.9	22.7	112	2,124.8	43,427.1
A1 - Energy Star Homes	3.39	\$	1,643	\$	484	\$	238		124.4	3,000.0	37.1	1.9	158	1,564.0	38,400.0
A2 - Home Performance with Energy Star	2.08	\$	1,415	\$	681	\$	73		156.5	3,145.6	38.8	13.6	66	1,808.0	36,241.9
A3 - Energy Star Products	2.09	\$	1,095	\$	525	\$	268		800.1	8,586.0	165.0	105.5	5,499	482.3	10,211.5
A4 - Residential Behavior	1.76	\$	309	\$	175	\$	-		3,100.0	3,100.0	669.2	431.7	-	-	-
A5 - Residential Active Demand Response	-	\$	-	\$	67	\$	-		-	-	-	-	-	-	-
A6b - Res ISO Forward Capacity Market Expenses	-	\$	-	\$	11	\$	-		-	-	-	-	-	-	-
A6c - Res Education	-	\$	-	\$	33	\$	-		-	-	-	-	-	-	-
Sub-Total Residential	2.06	\$	6,539	\$	3,181	\$	579		4,323.4	19,927.7	932.0	575.3	5,835	5,979.1	128,280.5
Commercial, Industrial & Municipal															
C1 - Large Business Energy Solutions	2.05	\$	2,517	\$	1,225	\$	426		2,266.5	28,144.5	427.1	353.8	146	(354.1)	(3,653.8)
C2 - Small Business Energy Solutions	1.74	\$	2,063	\$	1,183	\$	527		2,160.3	26,503.5	243.6	208.1	321	(368.7)	(3,855.9)
C3 - Municipal Energy Solutions	1.18	\$	256	\$	217	\$	34		308.5	3,457.4	29.4	28.7	9	(33.9)	(305.0)
C5 - C&I Active Demand Response	-	\$	-	\$	175	\$	-		-	-	-	-	-	-	-
C6b - C&I ISO Forward Capacity Market Expenses	-	\$	-	\$	18	\$	-		-	-	-	-	-	-	-
C6c - C&I Education	-	\$	-	\$	29	\$	-		-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	1.70	\$	4,837	\$	2,848	\$	986		4,735.3	58,105.4	700.1	590.5	476	(756.7)	(7,814.7)
Total	1.89	\$	11,376	\$	6,029	\$	1,565		9,058.7	78,033.1	1,632.1	1,165.9	6,310.7	5,222.4	120,465.8

Notes:

- (1) The Granite State Test is used as the primary cost test, as approved in Order No. 26,322, and includes an annual NEI adder of \$405.71 per weatherization project in the Home Energy Assistance program. For the illustrative Total Resource Cost Test, NEI adders of 25% for Residential and 10% for C&I are applied to total benefits excluding water.
- (2) Utility and Customer Costs and Benefits are expressed in 2022 Dollars.
- (3) Per past precedent, discount and inflation rates have been updated for the year in which measures will be installed, and were updated as of June 2021 for program year 2022.

Annual kWh Savings	9,058,743	85.5%	kWh > 65%	Lifetime kWh Savings	78,033,127	68.8%	kWh > 65%
Annual MMBTU Savings (in kWh)	<u>1,530,547</u>	<u>14.5%</u>		Lifetime MMBTU Savings (in kWh)	<u>35,305,051</u>	<u>31.2%</u>	
	10,589,290	100.0%			113,338,178	100.0%	

Annual Net Savings as a % of 2019 Sales	0.78%
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Spending per Customer	Low-Income	\$	181.37
	Residential	\$	33.08
	C&I	\$	260.74

Present Value Benefits - 2022 Report

	Total Benefits (\$000) ¹	Resource Benefits (\$000)										Non-Resource Benefits (\$000)			Environmental Benefits (\$000) ³				
		CAPACITY				ENERGY				Electric DRIPE	Total Electric Benefit	Non-Electric		Total Resource Benefits		Fossil Emissions	Other Non-Resource Benefits ²	Total Non-Resource Benefits	
		Granite State Test	Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak			Summer Off Peak	Other Fuels						Water Benefit
Residential Programs																			
B1 - Home Energy Assistance	\$ 1,123	\$ 22	\$ -	\$ 45	\$ 46	\$ 107	\$ 104	\$ 44	\$ 41	\$ 29	\$ 439	\$ 635	\$ 0	\$ 1,074	\$ 50	\$ -	\$ 50	\$ 251	
A1 - Energy Star Homes	\$ 1,129	\$ 7	\$ -	\$ 13	\$ 13	\$ 37	\$ 43	\$ 8	\$ 7	\$ 5	\$ 133	\$ 942	\$ 4	\$ 1,079	\$ 50	\$ 269	\$ 319	\$ 51	
A2 - Home Performance with Energy Star	\$ 1,271	\$ 1	\$ -	\$ 3	\$ 3	\$ 12	\$ 14	\$ 4	\$ 4	\$ 2	\$ 43	\$ 1,131	\$ 0	\$ 1,174	\$ 97	\$ 293	\$ 390	\$ 22	
A3 - Energy Star Products	\$ 1,040	\$ 60	\$ -	\$ 123	\$ 127	\$ 194	\$ 221	\$ 81	\$ 70	\$ 46	\$ 921	\$ 76	\$ 36	\$ 1,034	\$ 6	\$ 249	\$ 255	\$ 439	
A4 - Residential Behavior	\$ 233	\$ 15	\$ -	\$ 28	\$ 29	\$ 60	\$ 49	\$ 23	\$ 17	\$ 13	\$ 233	\$ -	\$ -	\$ 233	\$ -	\$ 58	\$ 58	\$ 150	
A5 - Residential Active Demand Response	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Sub-Total Residential	\$ 4,797	\$ 106	\$ -	\$ 211	\$ 218	\$ 409	\$ 432	\$ 161	\$ 139	\$ 95	\$ 1,769	\$ 2,785	\$ 40	\$ 4,594	\$ 203	\$ 870	\$ 1,073	\$ 914	
Commercial/Industrial Programs																			
C1 - Large Business Energy Solutions	\$ 2,777	\$ 123	\$ -	\$ 240	\$ 248	\$ 792	\$ 546	\$ 470	\$ 311	\$ 208	\$ 2,937	\$ (221)	\$ 77	\$ 2,792	\$ (15)	\$ 272	\$ 256	\$ 1,810	
C2 - Small Business Energy Solutions	\$ 3,173	\$ 259	\$ -	\$ 498	\$ 514	\$ 659	\$ 403	\$ 541	\$ 291	\$ 171	\$ 3,336	\$ (164)	\$ 13	\$ 3,185	\$ (12)	\$ 317	\$ 305	\$ 1,594	
C3 - Municipal Energy Solutions	\$ 275	\$ 21	\$ -	\$ 40	\$ 41	\$ 57	\$ 44	\$ 46	\$ 31	\$ 17	\$ 297	\$ (21)	\$ -	\$ 276	\$ (1)	\$ 28	\$ 26	\$ 156	
C5 - C&I Active Demand Response	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Sub-Total Commercial & Industrial	\$ 6,224	\$ 402	\$ -	\$ 778	\$ 803	\$ 1,508	\$ 993	\$ 1,057	\$ 633	\$ 396	\$ 6,569	\$ (406)	\$ 90	\$ 6,253	\$ (29)	\$ 616	\$ 588	\$ 3,560	
Total	\$ 11,021	\$ 507	\$ -	\$ 989	\$ 1,020	\$ 1,917	\$ 1,425	\$ 1,218	\$ 772	\$ 490	\$ 8,339	\$ 2,378	\$ 130	\$ 10,847	\$ 174	\$ 1,486	\$ 1,660	\$ 4,474	

Notes:

- (1) The Granite State Test is used as the primary cost test, as approved in Order No. 26,322. Benefits are calculated based on net savings.
- (2) Non-resource benefits include NEIs, which are only applied to the Home Energy Assistance program in the GST primary cost test.
- (3) Non-embedded environmental benefits are not included in the GST primary cost test.

Present Value Benefits - 2022 PLAN

	Total Benefits (\$000) ¹	Resource Benefits (\$000)											Non-Resource Benefits (\$000)			Environmental Benefits (\$000) ³			
		CAPACITY				ENERGY				Electric DRIPE	Total Electric Benefit	Non-Electric		Total Resource Benefits	Fossil Emissions		Other Non-Resource Benefits ²	Total Non-Resource Benefits	
		Granite State Test	Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak			Summer Off Peak	Other Fuels						Water Benefit
Residential Programs																			
B1 - Home Energy Assistance	\$ 2,078	\$ 15	\$ -	\$ 28	\$ 29	\$ 41	\$ 45	\$ 18	\$ 17	\$ 8	\$ 200	\$ 1,214	\$ 15	\$ 1,429	\$ 81	\$ 567	\$ 649	\$ 84	
A1 - Energy Star Homes	\$ 1,643	\$ 2	\$ -	\$ 3	\$ 3	\$ 80	\$ 101	\$ 2	\$ 2	\$ 9	\$ 202	\$ 1,371	\$ -	\$ 1,573	\$ 70	\$ 393	\$ 463	\$ 90	
A2 - Home Performance with Energy Star	\$ 1,415	\$ 12	\$ -	\$ 21	\$ 22	\$ 72	\$ 90	\$ 14	\$ 12	\$ 10	\$ 254	\$ 1,092	\$ 4	\$ 1,350	\$ 65	\$ 336	\$ 402	\$ 106	
A3 - Energy Star Products	\$ 1,095	\$ 43	\$ -	\$ 84	\$ 87	\$ 188	\$ 205	\$ 62	\$ 54	\$ 40	\$ 762	\$ 208	\$ 110	\$ 1,080	\$ 15	\$ 243	\$ 257	\$ 377	
A4 - Residential Behavior	\$ 309	\$ 20	\$ -	\$ 37	\$ 38	\$ 79	\$ 65	\$ 30	\$ 22	\$ 18	\$ 309	\$ -	\$ -	\$ 309	\$ -	\$ 77	\$ 77	\$ 199	
Sub-Total Residential	\$ 6,539	\$ 91	\$ -	\$ 173	\$ 179	\$ 461	\$ 506	\$ 127	\$ 106	\$ 85	\$ 1,727	\$ 3,885	\$ 129	\$ 5,741	\$ 231	\$ 1,617	\$ 1,848	\$ 856	
Commercial/Industrial Programs																			
C1 - Large Business Energy Solutions	\$ 2,517	\$ 176	\$ -	\$ 339	\$ 350	\$ 453	\$ 383	\$ 401	\$ 307	\$ 129	\$ 2,538	\$ (60)	\$ 44	\$ 2,522	\$ (5)	\$ 248	\$ 243	\$ 1,269	
C2 - Small Business Energy Solutions	\$ 2,063	\$ 111	\$ -	\$ 211	\$ 218	\$ 483	\$ 344	\$ 389	\$ 252	\$ 123	\$ 2,130	\$ (64)	\$ 2	\$ 2,068	\$ (5)	\$ 207	\$ 202	\$ 1,189	
C3 - Municipal Energy Solutions	\$ 256	\$ 14	\$ -	\$ 26	\$ 27	\$ 33	\$ 32	\$ 61	\$ 54	\$ 16	\$ 261	\$ (5)	\$ -	\$ 256	\$ (0)	\$ 26	\$ 25	\$ 168	
Sub-Total Commercial & Industrial	\$ 4,837	\$ 301	\$ -	\$ 576	\$ 595	\$ 969	\$ 758	\$ 850	\$ 613	\$ 267	\$ 4,930	\$ (129)	\$ 46	\$ 4,847	\$ (10)	\$ 480	\$ 470	\$ 2,626	
Total	\$ 11,376	\$ 392	\$ -	\$ 750	\$ 774	\$ 1,430	\$ 1,264	\$ 977	\$ 719	\$ 352	\$ 6,656	\$ 3,755	\$ 175	\$ 10,587	\$ 221	\$ 2,097	\$ 2,318	\$ 3,482	

Notes:

- (1) The Granite State Test is used as the primary cost test, as approved in Order No. 26,322. Benefits are calculated based on net savings.
- (2) Non-resource benefits include NEIs, which are only applied to the Home Energy Assistance program in the GST primary cost test.
- (3) Non-embedded environmental benefits are not included in the GST primary cost test.

Performance Incentive - 2022 Actual

Portfolio Planned Versus Actual Performance - 2022										
Portfolio	Planned	Threshold	Actual	% of Plan	Design Coefficient	Actual Coefficient	Planned PI	125% of Planned PI	Actual PI	Source
Lifetime kWh Savings	78,033,127	58,524,845	93,650,709	120%	1.925%	2.310%	\$ 116,057	\$ 145,072	\$ 124,232	Planned and Actual from Cost Eff Tab
Annual kWh Savings	9,058,743	6,794,058	11,001,558	121%	0.550%	0.668%	\$ 33,159	\$ 41,449	\$ 35,919	Planned and Actual from Cost Eff Tab
Summer Peak Demand kW	1,166	758	1,455	125%	0.660%	0.824%	\$ 39,791	\$ 49,739	\$ 44,294	Planned and Actual from Cost Eff Tab
Winter Peak Demand kW	1,632	1,061	1,829	112%	0.440%	0.493%	\$ 26,527	\$ 33,159	\$ 26,517	Planned and Actual from Cost Eff Tab
Total Resource Benefits	\$ 10,587,337		\$ 10,847,452	102%						Planned and Actual from Benefits Tab
Total Utility Costs ^{1,2}	\$ 6,028,950		\$ 5,377,388	89%						Planned and Actual from Cost Eff Tab
Net Benefits	\$ 4,558,387	\$ 3,418,790	\$ 5,470,064	120%	1.925%	2.310%	\$ 116,057	\$ 145,072	\$ 124,218	Line 5 minus line 6
Total					5.500%	6.605%	\$ 331,592	\$ 414,490	\$ 355,180	

	Granite State Test		Source
	Planned	Actual	
Total Benefits	\$ 11,375,870	\$ 11,021,443	Planned and Actual from Cost Eff Tab
Performance Incentive	\$ 331,592	\$ 355,180	from row 9 above
Total Utility Costs	\$ 6,028,950	\$ 5,377,388	from row 7 above
Portfolio GST BCR	1.79	1.92	row 10 divided by rows 11+12

Costs, Benefits, and PI Expressed in 2022 Dollars.

Note that in order to avoid a circular reference in the calculation of performance incentive, "Total Utility Costs" does not include the value of PI.

2022 Annual Report Reconciliation

Unitil Energy Services - Unitil Electric
 January 1, 2022 - December 31, 2022

		Total 2022
1.	Ending Balance: 12/31/2021	(Over)/Under \$ 401,498
2.	Prior Year(s) True Up	<u>\$ 2,942</u>
3.	Beginning Balance 1/1/2022	\$ 404,440
2022 Revenues		
4.	System Benefits Charge Revenue	\$ 5,937,362
5.	FCM Revenue	\$ 497,800
6.	RGGI Proceeds	\$ 348,250
7.	Estimated Interest	<u>\$ 49,351</u>
8.	Total Funding	\$ 6,832,763
2022 Expenses		
9.	Program Expenses	\$ 5,377,388
10.	Current Year Planned PI	<u>\$ 331,592</u>
11.	Total Expenses	\$ 5,708,980
12.	Prelim Ending Balance: 12/31/2022	Lines 3 - 8 + 11 \$ (719,343)
13.	Current Year Actual PI	\$ 355,180
14.	Expected Ending Balance: 12/31/2022	Line 12 - 10 + 13 \$ (695,755)

Notes:

Line 2: Prior Year(s) True-Up reflects adjustments to the 2021 ending balance related to 2021 PI and interest, as booked in 2022

Line 13: Current Year (2022) Actual PI reflects the PI calculation from this annual report.

Line 14: Corrected a formula error from initial filing. No other content is affected.

2022 Annual Report Reconciliation
Unitil - RGGI On-Bill Financing
January 1, 2022 - December 31, 2022

Revenue and Expense Reconciliation

	<u>Resi</u>		<u>C&I</u>		<u>Total</u>
Beginning Balance: 1/1/2022	\$ 264,776	\$	619,422	\$	884,198
2022 Revenues					
Customer Loan Repayments	\$ 32,779	\$	62,894	\$	95,673
New Grant Funding	\$ -	\$	-	\$	-
Total Revenues	<u>\$ 32,779</u>	\$	<u>62,894</u>	\$	<u>95,673</u>
2022 Expenses					
Customer On-Bill Loans	\$ 22,500	\$	193,335	\$	215,835
Administrative Expense	\$ -	\$	-	\$	-
Defaults and Write Offs	\$ -	\$	8,723	\$	8,723
Total Expenses	<u>\$ 22,500</u>	\$	<u>202,058</u>	\$	<u>224,558</u>
Ending Balance: 12/31/2022	\$ 275,054	\$	480,258	\$	755,313