Program Cost-Effectiveness - 2023 Actual

	Benefit/Cost Ratio Granite State Test	Benefits ($000) Granite State Test (2023$)	Utility Costs ($000 - 2023$)[2]	Customer Costs ($000 - 2023$)[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
Residential Programs											
B1 - Home Energy Assistance	1.14	$ 1,483.2	$ 1,304.9	$ 12.3	198.6	2,556.2	48.0	32.1	125	1,277.6	26,629.1
A1 - Energy Star Homes	3.91	$ 876.3	$ 224.0	$ 12.4	57.2	1,212.5	13.7	4.3	31	854.2	20,532.5
A2 - Home Performance with Energy Star	1.95	$ 1,822.7	$ 932.4	$ 298.7	131.8	2,282.3	30.0	16.8	180	3,262.1	66,466.7
A3 - Energy Star Products	1.62	$ 1,084.8	$ 668.8	$ 227.1	997.3	8,982.6	132.3	213.8	2,005	353.3	4,911.5
A4 - Residential Behavior	1.77	$ 266.9	$ 151.0	$ -	2,731.5	2,731.5	589.7	380.4	18,782	-	-
A5 - Residential Active Demand Response		$ -	$ 78.3	$ -	-	-	-	-		-	-
A6b - Res ISO Forward Capacity Market Expenses		$ -	$ 7.6	$ -	-	-	-	-	-	-	-
A6c - Res Education		$ -	$ 12.4	$ -	-	-	-	-	-	-	-
Sub-Total Residential	**1.64**	**$ 5,533.8**	**$ 3,379.4**	**$ 550.5**	**4,116.4**	**17,765.1**	**813.6**	**647.4**	**21,123**	**5,747.0**	**118,539.8**
Commercial, Industrial & Municipal											
C1 - Large Business Energy Solutions	2.87	$ 3,775.3	$ 1,316.5	$ 3,816.2	4,545.8	41,403.6	412.6	601.9	39	(1,815.7)	(11,902.6)
C2 - Small Business Energy Solutions	1.97	$ 2,685.9	$ 1,365.5	$ 735.4	4,232.4	28,746.4	619.1	660.4	288	(1,055.9)	(6,430.3)
C3 - Municipal Energy Solutions	2.40	$ 504.6	$ 210.7	$ 362.8	250.9	1,802.4	17.7	26.3	8	251.6	8,405.9
C5 - C&I Active Demand Response		$ -	$ 124.5	$ -	-	-	-	-		-	-
C6b - C&I ISO Forward Capacity Market Expenses		$ -	$ 15.5	$ -	-	-	-	-	-	-	-
C6c - C&I Education		$ -	$ 29.8	$ -	-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	**2.27**	**$ 6,965.7**	**$ 3,062.6**	**$ 4,914.4**	**9,029.2**	**71,952.4**	**1,049.3**	**1,288.5**	**335**	**(2,620.0)**	**(9,927.0)**
Total	**1.94**	**$ 12,499.6**	**$ 6,441.9**	**$ 5,465.0**	**13,145.5**	**89,717.5**	**1,862.9**	**1,935.9**	**21,458**	**3,127.1**	**108,612.8**

Annual kWh Savings	13,145,536	93.5%	**kWh > 65%**	**Lifetime** kWh Savings	89,717,513	73.8%	**kWh > 65%**
Annual MMBTU Savings (in kWh)	916,449	6.5%		**Lifetime** MMBTU Savings (in kWh)	31,831,281	26.2%	
	14,061,986	100.0%			**121,548,794**	100.0%	

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.
(2) Utility and Customer Costs and Benefits are expressed in 2023 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 2022-23.

Program Cost-Effectiveness - 2023 Plan

	Benefit/Cost Ratio Granite State Test	Benefits ($000) Granite State Test (2023$)	Utility Costs ($000 - 2023$)[2]	Customer Costs ($000 - 2023$)[2]	Annual Net MWh Savings	Lifetime Net MWh Savings	Winter kW Savings	Summer kW Savings	Number of Customers Served[4]	Annual Net MMBtu Savings	Lifetime Net MMBtu Savings
Residential Programs											
B1 - Home Energy Assistance	1.86	$ 2,433.7	$ 1,311.0	$ -	144.4	2,159.0	21.7	24.2	112	2,425.5	49,628.6
A1 - Energy Star Homes	3.55	$ 1,778.2	$ 500.7	$ 249.4	118.4	2,835.0	30.1	2.0	161	1,690.0	41,550.0
A2 - Home Performance with Energy Star	2.14	$ 1,503.2	$ 703.7	$ 75.2	157.3	3,163.6	38.8	14.0	150	1,869.8	37,547.3
A3 - Energy Star Products	2.04	$ 1,103.4	$ 541.7	$ 272.0	788.3	8,024.0	150.5	105.6	2,719	558.2	10,799.9
A4 - Residential Behavior	1.68	$ 304.5	$ 181.5	$ -	3,116.3	3,116.3	672.7	433.9	18,000	-	-
A5 - Residential Active Demand Response		$ -	$ 69.3	$ -	-	-	-	-		-	-
A6b - Res ISO Forward Capacity Market Expenses		$ -	$ 11.2	$ -	-	-	-	-	-	-	-
A6c - Res Education		$ -	$ 31.0	$ -	-	-	-	-	-	-	-
Sub-Total Residential	**2.13**	**$ 7,122.9**	**$ 3,350.1**	**$ 596.6**	**4,324.7**	**19,298.0**	**913.8**	**579.7**	**21,142**	**6,543.4**	**139,525.8**
Commercial, Industrial & Municipal											
C1 - Large Business Energy Solutions	1.44	$ 2,001.8	$ 1,394.6	$ 349.2	2,419.2	29,284.3	182.8	129.1	128	(330.0)	(2,890.4)
C2 - Small Business Energy Solutions	1.59	$ 2,145.1	$ 1,346.2	$ 513.3	2,354.4	28,951.3	216.7	166.9	327	(408.3)	(4,236.2)
C3 - Municipal Energy Solutions	1.12	$ 241.6	$ 216.1	$ 32.3	324.0	3,614.8	30.5	8.5	7	(32.0)	(287.8)
C5 - C&I Active Demand Response		$ -	$ 199.3	$ -	-	-	-	-		-	-
C6b - C&I ISO Forward Capacity Market Expenses		$ -	$ 20.9	$ -	-	-	-	-	-	-	-
C6c - C&I Education		$ -	$ 27.8	$ -	-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	**1.37**	**$ 4,388.5**	**$ 3,205.0**	**$ 894.8**	**5,097.5**	**61,850.4**	**430.0**	**304.5**	**462**	**(770.3)**	**(7,414.4)**
Total	**1.76**	**$ 11,511.5**	**$ 6,555.1**	**$ 1,491.4**	**9,422.3**	**81,148.4**	**1,343.8**	**884.2**	**21,604**	**5,773.2**	**132,111.3**

Annual kWh Savings	9,422,287	84.8%	**kWh > 65%**	**Lifetime** kWh Savings	81,148,382	67.7%	**kWh > 65%**
Annual MMBTU Savings (in kWh)	1,691,950	15.2%		**Lifetime** MMBTU Savings (in kWh)	38,718,005	32.3%	
	11,114,237	100.0%			**119,866,387**	100.0%	

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.
(2) Utility and Customer Costs and Benefits are expressed in 2023 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 2022-23.
(4) Note that the participant counts (column P) for some programs in the 2022-23 plan filing included a formula error and have been updated to reflect actual planned participant

Present Value Benefits - 2023 Actual

	Total Benefits ($000)[1]	Resource Benefits ($000)													Non-Resource Benefits ($000)			Environmental Benefits ($000)[3]
		Electric										Non-Electric						
		CAPACITY				ENERGY												
	Granite State Test	Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric DRIPE	Total Electric Benefit	Other Fuels	Water Benefit	Total Resource Benefits	Fossil Emissions	Other Non-Resource Benefits[2]	Total Non-Resource Benefits	
Residential Programs																		
B1 - Home Energy Assistance	**$ 1,483.2**	$ 19	$ -	$ 36	$ 37	$ 49	$ 58	$ 23	$ 20	$ 10	**$ 252**	$ 755	$ 0	**$ 1,007**	$ 54	$ 422	**$ 476**	**$ 98**
A1 - Energy Star Homes	**$ 876.3**	$ 4	$ -	$ 7	$ 7	$ 31	$ 35	$ 5	$ 4	$ 4	**$ 96**	$ 739	$ 1	**$ 836**	$ 41	$ 209	**$ 249**	**$ 38**
A2 - Home Performance with Energy Star	**$ 1,822.7**	$ 13	$ -	$ 24	$ 24	$ 49	$ 61	$ 15	$ 13	$ 8	**$ 206**	$ 1,500	$ 0	**$ 1,707**	$ 116	$ 427	**$ 542**	**$ 76**
A3 - Energy Star Products	**$ 1,084.8**	$ 63	$ -	$ 130	$ 135	$ 176	$ 194	$ 85	$ 76	$ 46	**$ 904**	$ 102	$ 71	**$ 1,077**	$ 8	$ 252	**$ 259**	**$ 407**
Sub-Total Residential	**$ 5,533.8**	**$ 109**	**$ -**	**$ 230**	**$ 237**	**$ 374**	**$ 406**	**$ 153**	**$ 133**	**$ 83**	**$ 1,725**	**$ 3,097**	**$ 72**	**$ 4,894**	**$ 218**	**$ 1,375**	**$ 1,594**	**$ 808**
Commercial/Industrial Programs																		
C1 - Large Business Energy Solutions	**$ 3,775.3**	$ 278	$ -	$ 550	$ 568	$ 978	$ 498	$ 567	$ 344	$ 211	**$ 3,994**	$ (204)	$ -	**$ 3,790**	$ (15)	$ 379	**$ 364**	**$ 1,872**
C2 - Small Business Energy Solutions	**$ 2,685.9**	$ 182	$ -	$ 396	$ 409	$ 556	$ 394	$ 427	$ 267	$ 172	**$ 2,804**	$ (110)	$ 0	**$ 2,694**	$ (8)	$ 269	**$ 261**	**$ 1,481**
C3 - Municipal Energy Solutions	**$ 504.6**	$ 7	$ -	$ 16	$ 16	$ 40	$ 21	$ 28	$ 14	$ 11	**$ 154**	$ 334	$ -	**$ 488**	$ 17	$ 49	**$ 66**	**$ 94**
Sub-Total Commercial & Industrial	**$ 6,965.7**	**$ 468**	**$ -**	**$ 962**	**$ 993**	**$ 1,574**	**$ 914**	**$ 1,022**	**$ 625**	**$ 395**	**$ 6,952**	**$ 19**	**$ 0**	**$ 6,972**	**$ (6)**	**$ 697**	**$ 691**	**$ 3,446**
Total	**$ 12,499.6**	**$ 577**	**$ -**	**$ 1,192**	**$ 1,230**	**$ 1,948**	**$ 1,319**	**$ 1,175**	**$ 758**	**$ 478**	**$ 8,677**	**$ 3,116**	**$ 72**	**$ 11,866**	**$ 212**	**$ 2,072**	**$ 2,285**	**$ 4,254**

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 Asssitance program in the GST primary cost test.

(3) Non-embedded environmental benefits are not included in the GST primary cost test.

Present Value Benefits - 2023 PLAN

	Total Benefits ($000)[1]	Resource Benefits ($000)													Non-Resource Benefits ($000)			Environmental Benefits ($000)[3]
		Electric										Non-Electric						
		CAPACITY				ENERGY												
	Granite State Test	Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric DRIPE	Total Electric Benefit	Other Fuels	Water Benefit	Total Resource Benefits	Fossil Emissions	Other Non-Resource Benefits[2]	Total Non-Resource Benefits	
Residential Programs																		
B1 - Home Energy Assistance	**$ 2,433.7**	$ 17	$ -	$ 31	$ 32	$ 42	$ 46	$ 20	$ 18	$ 9	**$ 215**	$ 1,442	$ 15	**$ 1,672**	$ 101	$ 661	**$ 761**	**$ 82**
A1 - Energy Star Homes	**$ 1,778.2**	$ 2	$ -	$ 3	$ 3	$ 65	$ 82	$ 2	$ 2	$ 8	**$ 168**	$ 1,529	$ -	**$ 1,696**	$ 82	$ 424	**$ 506**	**$ 70**
A2 - Home Performance with Energy Star	**$ 1,503.2**	$ 13	$ -	$ 23	$ 23	$ 74	$ 92	$ 15	$ 12	$ 11	**$ 263**	$ 1,162	$ 4	**$ 1,430**	$ 73	$ 356	**$ 430**	**$ 102**
A3 - Energy Star Products	**$ 1,103.4**	$ 42	$ -	$ 82	$ 85	$ 177	$ 191	$ 61	$ 54	$ 39	**$ 732**	$ 228	$ 127	**$ 1,086**	$ 17	$ 240	**$ 257**	**$ 344**
Sub-Total Residential	**$ 7,122.9**	**$ 85**	**$ -**	**$ 177**	**$ 182**	**$ 437**	**$ 480**	**$ 128**	**$ 109**	**$ 84**	**$ 1,682**	**$ 4,361**	**$ 146**	**$ 6,189**	**$ 273**	**$ 1,757**	**$ 2,030**	**$ 814**
Commercial/Industrial Programs																		
C1 - Large Business Energy Solutions	**$ 2,001.8**	$ 56	$ -	$ 110	$ 114	$ 544	$ 356	$ 395	$ 301	$ 133	**$ 2,010**	$ (49)	$ 45	**$ 2,006**	$ (4)	$ 196	**$ 192**	**$ 1,219**
C2 - Small Business Energy Solutions	**$ 2,145.1**	$ 78	$ -	$ 150	$ 155	$ 753	$ 382	$ 332	$ 231	$ 142	**$ 2,223**	$ (72)	$ 1	**$ 2,151**	$ (6)	$ 215	**$ 209**	**$ 1,235**
C3 - Municipal Energy Solutions	**$ 241.6**	$ 3	$ -	$ 6	$ 7	$ 59	$ 82	$ 32	$ 39	$ 19	**$ 247**	$ (5)	$ -	**$ 242**	$ (0)	$ 24	**$ 24**	**$ 167**
Sub-Total Commercial & Industrial	**$ 4,388.5**	**$ 138**	**$ -**	**$ 266**	**$ 275**	**$ 1,357**	**$ 819**	**$ 759**	**$ 570**	**$ 294**	**$ 4,479**	**$ (127)**	**$ 46**	**$ 4,399**	**$ (10)**	**$ 435**	**$ 425**	**$ 2,621**
Total	**$ 11,511.5**	**$ 223**	**$ -**	**$ 443**	**$ 457**	**$ 1,794**	**$ 1,299**	**$ 887**	**$ 680**	**$ 378**	**$ 6,161**	**$ 4,234**	**$ 193**	**$ 10,588**	**$ 263**	**$ 2,192**	**$ 2,455**	**$ 3,436**

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 Asssitance program in the GST primary cost test.

(3) Non-embedded environmental benefits are not included in the GST primary cost test.

Portfolio Planned Versus Actual Performance - 2023

	Portfolio	Planned	Threshold	Actual	% of Plan	Design Coefficient	Actual Coefficient	Planned PI	*125% of Planned PI*	Actual PI	Source
1	Lifetime kWh Savings	81,148,382	*60,861,287*	89,717,513	111%	1.925%	2.128%	$ 126,185	*$ 157,731*	$ 137,102	Planned and Actual from Cost Eff Tab
2	Annual kWh Savings	9,422,287	*7,066,715*	13,145,536	140%	0.550%	0.688%	$ 36,053	*$ 45,066*	$ 44,288	Planned and Actual from Cost Eff Tab
3	Summer Peak Demand kW	884	*575*	1,936	219%	0.660%	0.825%	$ 43,263	*$ 54,079*	$ 53,146	Planned and Actual from Cost Eff Tab
4	Winter Peak Demand kW	1,344	*873*	1,863	139%	0.440%	0.550%	$ 28,842	*$ 36,053*	$ 35,431	Planned and Actual from Cost Eff Tab
5	Total Resource Benefits	$ 10,587,737		$ 11,865,564	112%						Planned and Actual from Benefits Tab
6	Total Utility Costs[1,2]	$ 6,555,063		$ 6,441,938	98%						Planned and Actual from Cost Eff Tab
7	Net Benefits	$ 4,032,674	*$ 3,024,505*	$ 5,423,626	134%	1.925%	2.406%	$ 126,185	*$ 157,731*	$ 155,009	Line 5 minus line 6
8	Total					5.500%	6.597%	$ 360,528	*$ 450,661*	$ 424,976	

		Granite State Test Planned	Actual	Source
9	Total Benefits	$ 11,511,468	$ 12,499,568	Planned and Actual from Cost Eff Tab
10	Performance Incentive	$ 360,528	$ 424,976	from row 8 above
11	Total Utility Costs	$ 6,555,063	$ 6,441,938	from row 6 above
12	**Portfolio GST BCR**	**1.66**	**1.82**	row 9 divided by rows 10+11

Costs, Benefits, and PI Expressed in 2023 Dollars.

Notes:

[1] 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.

2023 Annual Report Reconciliation
Unitil Energy Services - Unitil Electric
January 1, 2023 - December 31, 2023

				Total 2023
1.	**Ending Balance: 12/31/2022**	**(Over)/Under**	$	(719,343)
2.	Prior Year(s) True Up		$	23,589
3.	**Beginning Balance 1/1/2023**		**$**	**(695,755)**
2023 Revenues				
4.	System Benefits Charge Revenue		$	6,244,287
5.	FCM Revenue		$	360,528
6.	RGGI Proceeds		$	209,307
7.	Estimated Interest		$	139,026
8.	**Total Funding**	**Σ Lines 4 - 7**	**$**	**6,953,147**
2023 Expenses				
9.	Program Expenses		$	6,441,938
10.	Current Year Planned PI		$	187,475
11.	DOE Marketing		$	9,893
12.	**Total Expenses**	**∑ Lines 9 + 10 +11**	**$**	**6,639,306**
13.	**Prelim Ending Balance: 12/31/2023**	**Lines 3 - 8 + 12**	**$**	**(1,009,596)**
14.	Current Year Actual PI		$	424,976
15.	**Expected Ending Balance: 12/31/2023**	**Line 13 - 10 + 14**	**$**	**(772,094)**

Notes:

Line 2: Prior Year(s) True-Up reflects adjustments to the 2022 ending balance related to 2022 PI and interest, as booked in 2023.

Line 13: Current Year (2023) Actual PI reflects the PI calculation from this annual report.

2023 Annual Report Reconciliation
Unitil - RGGI On-Bill Financing
January 1, 2023 - December 31, 2023

Revenue and Expense Reconciliation

	Resi	C&I	Total
Beginning Balance: 1/1/2023	**$ 275,054**	**$ 480,259**	**$ 755,313**
2023 Revenues			
Customer Loan Repayments	$ 39,627	$ 103,341	**$ 142,968**
New Grant Funding	$ -	$ -	**$ -**
Total Revenues	**$ 39,627**	**$ 103,341**	**$ 142,968**
2023 Expenses			
Customer On-Bill Loans	$ 119,413	$ 374,353	**$ 493,766**
Administrative Expense	$ -	$ -	**$ -**
Defaults and Write Offs	$ 179	$ -	**$ 179**
Total Expenses	$ 119,592	$ 374,353	**$ 493,945**
Ending Balance: 12/31/2023	**$ 195,089**	**$ 209,246**	**$ 404,336**