

Unitil Energy Systems, Inc.
NHPUC Docket No. DE 17-136 (DE 20-092)
2021 Annual Report – Lost Base Revenue

In accordance with the requirements of the Settlement Agreement approved by the New Hampshire Public Utilities Commission in Order No. 26,553, dated November 12, 2021 in DE 20-092, Unitil Energy Systems, Inc. (“UES”) herein provides its calculation of lost base revenue (“LBR”) for 2021. A description of how the Average Distribution Rate (“ADR”) for lost revenue was calculated, including information on the inclusion or exclusion of relevant inputs such as customer charges, meter charges, or outdoor lighting services is included herein. As required, the billing determinants in such calculation are based on 2021 data and rates in effect throughout 2021. The reconciliation of LBR with revenue collected through the lost revenue component of the System Benefits Charge is also provided as part of this report. The contents of the report are provided below.

Page 1 provides the total LBR for January through December 2021. The calculation is based on the kWh savings provided on page 3 and the ADRs provided on page 4.

Page 2 provides a reconciliation of the 2021 LBR from page 1 with revenues collected through the lost revenue component of the System Benefits Charge.

Page 3 provides program year 2021 savings for the LBR calculations.

Pages 4 and 5 provides support for program year 2020 savings for the LBR calculations.

Page 6 provides the calculation of the ADR for the January 1 to December 31, 2020 period. As shown, the ADR does not include customer, meter or luminaire charges.

Pages 7 through 10 provide supporting detail for the ADRs calculated on page 6. Pages 7 and 8 provide support for the ADR effective January 1, 2021 through May 31, 2021. Pages 9 and 10 provide support for the ADR effective June 1, 2021 through December 31, 2021.

Pages 11 through 14 provide supporting documentation of the distribution rates in effect January 1 to December 31, 2021, which are used in the calculations on pages 7 through 10.

Page 15 provides supporting documentation for billing determinants used in the ADR calculations. This data was extracted from the company’s billing system. Note that for customer counts, these figures were derived for each rate class by dividing customer charge revenue by the customer charge in effect. This method was used since customer counts change throughout the month. Dividing customer charge revenue by the customer charge in effect results in a customer count that reflects the billing determinant for the month. As indicated above, the ADR does not include customer charges so this method has no impact on LBR.

With respect to the calculation of ADR, as shown on page 4, UES calculated an ADR for each sector by dividing the total demand and energy distribution revenue by the kWh for the applicable time period. Details by class are shown on pages 5-8. As shown, the demand and energy distribution revenue is calculated by multiplying the distribution rates that were billed for the period by the billing determinants for the same period.

Unitil Energy System, Inc.
Monthly and Cumulative Savings and Lost Base Revenue
January 1, 2021 to December 31, 2021

Unitil Energy Systems, Inc.
 NHPUC Docket No. DE 17-136 (Copied to DE 20-092)
 2021 Annual Report
 Page 1 of 15

Line	Description	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	2021
		12/31/2020	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	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 kWh Savings (2017)	1,344,216	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Residential Annualized kWh Savings (2018)	2,482,564	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Residential Annualized kWh Savings (2019)	4,692,054	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Residential Annualized kWh Savings (2020)	5,744,122	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Residential Annualized kWh Savings (2021)	-	186,209	550,237	814,227	46,261	583,129	526,832	537,508	306,990	262,261	272,017	1,476,947	73,431	5,636,050
6	Residential Annualized Savings Retirements (2020)*	-	(120,827)	(113,051)	(120,626)	(134,129)	(147,581)	(60,300)	(80,521)	(125,128)	(109,886)	(90,740)	(107,641)	-	(1,210,431)
7	Remove (17, 18, 19) Savings reflected in the DE 21-030 Rate Case TY	-	-	-	-	-	-	(8,518,834)	-	-	-	-	-	-	(8,518,834)
8	Remove 2020 Savings reflected in the DE 21-030 Rate Case TY*	-	-	-	-	-	-	(2,721,507)	-	-	-	-	-	-	(2,721,507)
			Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	LBR Savings
9	Monthly Residential kWh Savings (2017 - 2019)	709,903	709,903	709,903	709,903	709,903	709,903	-	-	-	-	-	-	-	3,549,514
10	Average Residential Distribution Rate	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03942	0.03942	0.03942	0.03942	0.03942	0.03942	0.03942	0.03942
11	Lost Residential Revenue	\$ 25,258	\$ 25,258	\$ 25,258	\$ 25,258	\$ 25,258	\$ 25,258	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Monthly Residential kWh Savings (2020)*	478,677	468,608	459,187	449,135	437,957	425,659	193,842	187,132	176,704	167,547	159,985	151,015	151,015	3,427,786
13	Average Residential Distribution Rate	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03942	0.03942	0.03942	0.03942	0.03942	0.03942	0.03942	0.03942
14	Lost Residential Revenue	\$ 16,673	\$ 16,338	\$ 15,980	\$ 15,583	\$ 15,145	\$ 15,145	\$ 7,641	\$ 7,377	\$ 6,966	\$ 6,605	\$ 6,307	\$ 5,953	\$ 5,953	\$ 126,520
15	Monthly Residential kWh Savings	-	15,517	45,853	67,852	3,855	48,594	43,903	44,792	25,582	21,855	22,668	123,079	6,119	469,671
16	Cumulative Residential kWh Savings (2021)	-	15,517	61,371	129,223	133,078	181,672	225,575	270,367	295,949	317,805	340,473	463,552	469,671	2,904,251
17	Average Residential Distribution Rate	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03942	0.03942	0.03942	0.03942	0.03942	0.03942	0.03942	0.03942
18	Lost Residential Revenue	\$ 552	\$ 2,184	\$ 4,598	\$ 4,735	\$ 6,464	\$ 8,892	\$ 10,658	\$ 11,666	\$ 12,528	\$ 13,421	\$ 14,273	\$ 15,145	\$ 15,145	\$ 112,485
19	Total Residential Lost Revenue	\$ 42,484	\$ 43,780	\$ 45,836	\$ 45,576	\$ 46,867	\$ 46,867	\$ 16,533	\$ 18,035	\$ 18,632	\$ 19,133	\$ 19,728	\$ 24,226	\$ 24,467	\$ 365,297
*Effective June 1, 2021, 2020 savings adjusted to reflect savings in the test year															
Line	Description	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	2021
		12/31/2020	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	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
20	C&I Annualized kWh Savings (2017)	6,004,884	-	-	-	-	-	-	-	-	-	-	-	-	-
21	C&I Annualized kWh Savings (2018)	6,708,144	-	-	-	-	-	-	-	-	-	-	-	-	-
22	C&I Annualized kWh Savings (2019)	6,410,154	-	-	-	-	-	-	-	-	-	-	-	-	-
23	C&I Annualized kWh Savings (2020)	9,599,726	-	-	-	-	-	-	-	-	-	-	-	-	-
24	C&I Annualized kWh Savings (2021)	-	-	91,908	178,396	382,742	578,380	412,831	897,831	725,462	573,371	1,056,037	1,270,008	3,696,499	9,863,465
25	C&I Monthly kW Savings (2019)	1,139	95	-	-	-	-	-	-	-	-	-	-	-	-
26	C&I Monthly kW Savings (2020)	1,211	101	-	-	-	-	-	-	-	-	-	-	-	-
27	C&I Monthly kW Savings (2021)	-	-	11	31	6	54	46	118	61	86	163	229	367	1,172
28	Remove (17, 18, 19) kWh Savings reflected in the DE 21-030 Rate Case TY	-	-	-	-	-	-	(19,123,182)	-	-	-	-	-	-	-
29	Remove 2020 kWh Savings reflected in the DE 21-030 Rate Case TY*	-	-	-	-	-	-	(2,889,692)	-	-	-	-	-	-	-
30	Remove 2019 kW Savings reflected in the DE 21-030 Rate Case TY	-	-	-	-	-	-	(1,139)	-	-	-	-	-	-	-
31	Remove 2020 kW Savings reflected in the DE 21-030 Rate Case TY*	-	-	-	-	-	-	(363)	-	-	-	-	-	-	-
			Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	LBR Savings
32	Monthly C&I Savings (2017 & 2018)	1,059,419	1,059,419	1,059,419	1,059,419	1,059,419	1,059,419	-	-	-	-	-	-	-	-
33	Average C&I Distribution Rate	0.03169	0.03169	0.03169	0.03169	0.03169	0.03169	0.03647	0.03647	0.03647	0.03647	0.03647	0.03647	0.03647	0.03647
34	Lost C&I Revenue	\$ 33,573	\$ 33,573	\$ 33,573	\$ 33,573	\$ 33,573	\$ 33,573	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
35	Monthly C&I Savings (2019)	534,180	534,180	534,180	534,180	534,180	534,180	-	-	-	-	-	-	-	-
36	Average C&I Distribution Rate	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00401	0.00401	0.00401	0.00401	0.00401	0.00401	0.00401	0.00401
37	Lost C&I Revenue	\$ 166	\$ 166	\$ 166	\$ 166	\$ 166	\$ 166	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
38	Monthly C&I Savings (2020)*	799,977	799,977	799,977	799,977	799,977	799,977	559,169	559,169	559,169	559,169	559,169	559,169	559,169	559,169
39	Average C&I Distribution Rate	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00401	0.00401	0.00401	0.00401	0.00401	0.00401	0.00401	0.00401
40	Lost C&I Revenue	\$ 248	\$ 248	\$ 248	\$ 248	\$ 248	\$ 248	\$ 2,242	\$ 2,242	\$ 2,242	\$ 2,242	\$ 2,242	\$ 2,242	\$ 2,242	\$ 16,936
41	Monthly C&I kWh Savings	-	-	7,659	14,866	31,895	48,198	34,403	74,819	60,455	47,781	88,003	105,834	308,042	-
42	Cumulative C&I kWh Savings (2021)	-	-	7,659	22,525	54,421	102,619	137,021	211,841	272,296	320,077	408,080	513,914	821,955	2,872,407
43	Average C&I Distribution Rate	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00401	0.00401	0.00401	0.00401	0.00401	0.00401	0.00401	0.00401
44	Lost C&I Revenue	\$ -	\$ -	\$ 2	\$ 7	\$ 17	\$ 32	\$ 549	\$ 849	\$ 1,092	\$ 1,284	\$ 1,636	\$ 2,061	\$ 3,296	\$ 10,826
45	Cumulative C&I kW Savings (2019)	1,139	1,139	1,139	1,139	1,139	1,139	0	0	0	0	0	0	0	0
46	Average C&I Demand Rate	\$ 9.12	\$ 9.12	\$ 9.12	\$ 9.12	\$ 9.12	\$ 9.12	\$ 9.17	\$ 9.17	\$ 9.17	\$ 9.17	\$ 9.17	\$ 9.17	\$ 9.17	\$ 9.17
47	Lost C&I Demand Revenue	\$ 10,388	\$ 10,388	\$ 10,388	\$ 10,388	\$ 10,388	\$ 10,388	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48	Cumulative C&I kW Savings (2020)*	1,211	1,211	1,211	1,211	1,211	1,211	849	849	849	849	849	849	849	849
49	Average C&I Demand Rate	\$ 9.12	\$ 9.12	\$ 9.12	\$ 9.12	\$ 9.12	\$ 9.12	\$ 9.17	\$ 9.17	\$ 9.17	\$ 9.17	\$ 9.17	\$ 9.17	\$ 9.17	\$ 9.17
50	Lost C&I Demand Revenue	\$ 11,049	\$ 11,049	\$ 11,049	\$ 11,049	\$ 11,049	\$ 11,049	\$ 7,781	\$ 7,781	\$ 7,781	\$ 7,781	\$ 7,781	\$ 7,781	\$ 7,781	\$ 109,709
51	Monthly C&I kW Savings (2021)	-	0	11	31	6	54	46	118	61	86	163	229	367	-
52	Cumulative C&I kW Savings	-	0	11	42	48	102	148	266	326	413	576	804	1,172	-
53	Average C&I Demand Rate	\$ 9.12	\$ 9.12	\$ 9.12	\$ 9.12	\$ 9.12	\$ 9.12	\$ 9.17	\$ 9.17	\$ 9.17	\$ 9.17	\$ 9.17	\$ 9.17	\$ 9.17	\$ 9.17
54	Lost C&I Demand Revenue	\$ -	\$ -	\$ 102	\$ 384	\$ 442	\$ 934	\$ 1,360	\$ 2,437	\$ 2,994	\$ 3,787	\$ 5,279	\$ 7,376	\$ 10,744	\$ 35,838
55	Total C&I Lost Revenue	\$ 55,423	\$ 55,528	\$ 55,814	\$ 55,881	\$ 56,388	\$ 56,388	\$ 11,932	\$ 13,310	\$ 14,109	\$ 15,093	\$ 16,938	\$ 19,460	\$ 24,063	\$ 393,940
56	Total Lost Revenue	\$ 97,906	\$ 99,307	\$ 101,651	\$ 101,457	\$ 103,256	\$ 103,256	\$ 28,466	\$ 31,345	\$ 32,741	\$ 34,226	\$ 36,666	\$ 43,686	\$ 48,530	\$ 759,237
*Effective June 1, 2021, 2020 savings adjusted to reflect savings in the test year															

Unitil Energy System, Inc.
Lost Base Revenue Reconciliation
January 1, 2021 to December 31, 2021

Line	Description	Actual Jan-21	Actual Feb-21	Actual Mar-21	Actual Apr-21	Actual May-21	Actual Jun-21	Actual Jul-21	Actual Aug-21	Actual Sep-21	Actual Oct-21	Actual Nov-21	Actual Dec-21	2021 Total
Total		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
1	Beginning Balance	\$ 204,234	\$ 228,089	\$ 253,379	\$ 278,488	\$ 318,406	\$ 359,873	\$ 314,229	\$ 263,333	\$ 212,516	\$ 164,380	\$ 137,266	\$ 119,557	
2	Lost Revenues	\$ 97,906	\$ 99,307	\$ 101,651	\$ 101,457	\$ 103,256	\$ 28,466	\$ 31,345	\$ 32,741	\$ 34,226	\$ 36,666	\$ 43,686	\$ 48,530	\$ 759,237
REVENUE														
3	Revenue (\$)	\$ 74,647	\$ 74,617	\$ 77,275	\$ 62,335	\$ 62,724	\$ 75,009	\$ 83,037	\$ 84,213	\$ 82,865	\$ 64,196	\$ 61,737	\$ 72,603	\$ 875,257
4	Cumulative (Over)/Under Recovery	\$ 227,493	\$ 252,780	\$ 277,754	\$ 317,610	\$ 358,938	\$ 313,330	\$ 262,537	\$ 211,861	\$ 163,877	\$ 136,850	\$ 119,214	\$ 95,485	
INTEREST														
5	Average Monthly Balance	\$ 215,863	\$ 240,434	\$ 265,567	\$ 298,049	\$ 338,672	\$ 336,602	\$ 288,383	\$ 237,597	\$ 188,197	\$ 150,615	\$ 128,240	\$ 107,521	
6	Interest Rate	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%
7	Days per Month	<u>31</u>	<u>28</u>	<u>31</u>	<u>30</u>	<u>31</u>	<u>30</u>	<u>31</u>	<u>31</u>	<u>30</u>	<u>31</u>	<u>30</u>	<u>31</u>	<u>365</u>
8	Computed Interest	\$ 596	\$ 599	\$ 733	\$ 796	\$ 935	\$ 899	\$ 796	\$ 656	\$ 503	\$ 416	\$ 343	\$ 297	\$ 7,568
9	Ending Balance (Over)/Under Recovery	\$ 228,089	\$ 253,379	\$ 278,488	\$ 318,406	\$ 359,873	\$ 314,229	\$ 263,333	\$ 212,516	\$ 164,380	\$ 137,266	\$ 119,557	\$ 95,781	

Line 1: Prior period ending balance. 2020 Annual Report, page 2, line 9, col. M.

Line 2: Page 1, Line 12

Line 3: Actual Revenues

Line 4: Line 1 + Line 2 - Line 3

Line 5: (Line 1 + Line 4)/2

Line 6: Prime Rate

Line 8: Line 7 * ((Line 5/# days per year) * Line 9))

Line 9: Line 4 + Line 8

Unitil Energy System, Inc.
Electric Savings for LBR Calculation
Program Year 2021

2021 Annual Energy Savings - kWh						2021 Peak Demand Savings - kW								
PLAN	ACTUAL	SAVINGS CAP	VARIANCE			PLAN	ACTUAL	SAVINGS CAP	VARIANCE					
	Annual kWh	Annual kWh	Plan @ 110% kWh	Cap - Actual kWh	Variance from Plan	Annual kW	Annual kW	Plan @ 110% kW	Cap - Actual kW	Variance from Plan				
1. Residential Programs														
2. EnergyStar Homes	98,566	58,261				-								
3. Home Performance w/EnergyStar	92,603	176,692				-								
4. EnergyStar Products	2,075,702	3,224,639				-								
5. Home Energy Reports	1,851,185	2,173,800				-								
6. Home Energy Assistance	80,494	175,100				-								
7. Residential	4,198,549	5,808,493				n/a	n/a	(Note 2)						
8.														
9. Commercial & Industrial Programs														
10. Large Business Energy Solutions	5,582,936	4,953,191				684	413							
11. Small Business Energy Solutions	3,994,703	4,764,184				364	686							
12. Municipal Energy Solutions	414,280	447,877				18	88							
13. Commercial & Industrial	9,991,919	10,165,251				1,065	1,187							
14.					(Note 1)									
15. Total Savings Portfolio	14,090,468	15,973,745	15,499,515	(474,230)	13.4%	1,065	1,187	1,172	-	11.4%				

LBR Savings Allocation		(1,449,928)	(1,356,615)	(1,447,516)	(1,609,544)	(1,770,970)	(723,601)	(966,257)	(1,501,540)	(1,318,633)	(1,088,880)	(1,291,689)	-	
	Prior Year	Actual Jan-21	Actual Feb-21	Actual Mar-21	Actual Apr-21	Actual May-21	Actual Jun-21	Actual Jul-21	Actual Aug-21	Actual Sep-21	Actual Oct-21	Actual Nov-21	Actual Dec-21	Total
16. Residential Programs														
17. Annualized kWh Savings by Month	Installed kWh / Mo. (Note 3)	186,209	550,237	814,227	46,261	583,129	526,832	537,508	306,990	262,261	272,017	1,476,947	73,431	5,636,050
18. Annualized kWh Retirements by Month	2020 Savings (120,827)	(120,827)	(113,051)	(120,626)	(134,129)	(147,581)	(60,300)	(80,521)	(125,128)	(109,886)	(90,740)	(107,641)	0	(1,210,431)
19. Remove kWh Savings for Rate Case	2017, 2018, 2019 and 2020 (Note 4)	0	0	0	0	0	(11,240,341)	0	0	0	0	0	0	(11,240,341)
20.														
21. Monthly Incremental	L. 17 / 12	15,517	45,853	67,852	3,855	48,594	43,903	44,792	25,582	21,855	22,668	123,079	6,119	469,671
22. Monthly Retirements/Removals	(L. 18 + L. 19) / 12	(10,069)	(9,421)	(10,052)	(11,177)	(12,298)	(941,720)	(6,710)	(10,427)	(9,157)	(7,562)	(8,970)	-	(1,037,564)
23. Monthly Cumulative	Sum of L. 21 + L. 22	5,448	36,432	57,800	(7,322)	36,296	(897,817)	38,082	15,155	12,698	15,106	114,109	6,119	(567,893)
24. Monthly Cumulative Including Prior	Sum of L. 23 + Prior	1,188,580	1,194,028	1,230,460	1,288,260	1,280,938	1,317,234	419,416	457,499	472,654	485,352	500,458	614,567	9,881,551
25. Commercial & Industrial Programs														
27. Annualized kWh by Month	Installed kWh / Mo. (Note 3)	0	91,908	178,396	382,742	578,380	412,831	897,831	725,462	573,371	1,056,037	1,270,008	3,696,499	9,863,465
28. Annualized kWh Retirements by Month	2020 Savings	0	0	0	0	0	0	0	0	0	0	0	0	0
29. Remove kWh Savings for Rate Case	2017, 2018, 2019 and 2020 (Note 4)	0	0	0	0	0	(22,012,868)	0	0	0	0	0	0	(22,012,868)
30.														
31. Monthly Incremental	L. 27 / 12	0	7,659	14,866	31,895	48,198	34,403	74,819	60,455	47,781	88,003	105,834	308,042	821,955
32. Monthly Retirements/Removals	(L. 28 + L. 29) / 12	-	-	-	-	-	(1,834,406)	-	-	-	-	-	-	(1,834,406)
33. Monthly Cumulative	Sum of L. 31 + L. 32	0	7,659	14,866	31,895	48,198	(1,800,003)	74,819	60,455	47,781	88,003	105,834	308,042	(1,012,450)
34. Monthly Cumulative Including Prior	Sum of L. 33 + Prior	2,393,575	2,393,575	2,401,234	2,416,100	2,447,996	2,496,194	696,191	771,010	831,465	879,246	967,249	1,073,083	18,754,469
35.														
36. Peak Demand - kW	Installed kW / Mo.	-	11	31	6	54	46	118	61	86	163	229	367	1,172
37. Remove kW Savings for Rate Case	2019 and 2020 (Note 4)	-	-	-	-	-	(1,502)	-	-	-	-	-	-	(1,502)
38. Monthly Cumulative	Sum of L. 36 + L. 37	-	11	31	6	54	(1,456)	118	61	86	163	229	367	(330)
39. Monthly Cumulative Including Prior	Sum of L. 38 + Prior	2,350	2,350	2,362	2,393	2,399	2,453	997	1,114	1,175	1,261	1,424	1,653	21,601
40.														
41. Total Annualized Savings														
42. Total Annualized kWh by Mo.	L. 17 + L. 27 + Prior	186,209	828,354	1,820,978	2,249,980	3,411,489	4,351,152	5,786,492	6,818,943	7,654,576	8,982,629	11,729,585	15,499,515	
43. Percent of Plan Savings	L. 42 ÷ L. 15 Plan	1%	6%	13%	16%	24%	31%	41%	48%	54%	64%	83%	110%	

NOTES:

1. Equals [(Actual + Plan) - 1]. See Settlement, Page 5 in DE 15-137. "In each calendar year, for each utility, the savings for which lost revenue may be recovered will be capped at 110% of planned annual savings."
2. LBR associated with residential peak reductions is not applicable.
3. Adjustments were made to December 2021 savings data to reflect compliance with the 110% cap on LBR collections per Settlement in DE 15-137. See Note 1.
4. Effective June 1, 2021: 2017, 2018, 2019 and 2020 savings reflected in the test year were removed from the LBR calculation.

**Unitil Energy System, Inc.
2020 Residential Installed kWh Savings
Savings Annualization**

Unitil Energy Systems, Inc.
NHPUC Docket No. DE 17-136 (Copied to DE 20-092)
2021 Annual Report
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Line	Description	2020												Annual Savings
		Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	
		Col. A Col. C	Col. D Col. D	Col. E Col. E	Col. F Col. F	Col. G Col. G	Col. H Col. H	Col. I Col. I	Col. J Col. J	Col. K Col. K	Col. L Col. L	Col. M Col. M	Col. N Col. N	
1	Monthly Residential kWh Savings	134,045	243,706	882,553	402,367	529,210	722,187	561,503	1,094,035	631,791	468,711	74,014	-	5,744,122
2														
3	Monthly Residential Annualized kWh Savings													
4	January 2020	11,170.45	11,170	11,170	11,170	11,170	11,170	11,170	11,170	11,170	11,170	11,170	11,170	134,045
5	February 2020		20,309	20,309	20,309	20,309	20,309	20,309	20,309	20,309	20,309	20,309	20,309	223,397
6	March 2020			73,546	73,546	73,546	73,546	73,546	73,546	73,546	73,546	73,546	73,546	735,461
7	April 2020				33,531	33,531	33,531	33,531	33,531	33,531	33,531	33,531	33,531	301,775
8	May 2020					44,101	44,101	44,101	44,101	44,101	44,101	44,101	44,101	352,806
9	June 2020						60,182	60,182	60,182	60,182	60,182	60,182	60,182	421,276
10	July 2020							46,792	46,792	46,792	46,792	46,792	46,792	280,751
11	August 2020								91,170	91,170	91,170	91,170	91,170	455,848
12	September 2020									52,649	52,649	52,649	52,649	210,597
13	October 2020										39,059	39,059	39,059	117,178
14	November 2020											6,168	6,168	12,336
15	December 2020												-	-
16	Total 2020 Savings Realized in 2020	11,170	31,479	105,025	138,556	182,657	242,839	289,631	380,800	433,450	472,509	478,677	478,677	3,245,471
17														
18	2020 Residential kWh Savings Realized in 2021	-	20,309	147,092	100,592	176,403	300,911	280,751	638,187	421,194	351,533	61,678	-	2,498,651

**Unitil Energy System, Inc.
2020 Residential Installed kWh Savings Retired in 2021
Savings Annualization Retirements by Month**

Line	Description	2020												Annual Savings
		Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	
		Col. C Col. A	Col. D Col. D	Col. E Col. E	Col. F Col. F	Col. G Col. G	Col. H Col. H	Col. I Col. I	Col. J Col. J	Col. K Col. K	Col. L Col. L	Col. M Col. M	Col. N Col. N	
1	Monthly Residential kWh 2020 Savings	(120,827)	(113,051)	(120,626)	(134,129)	(147,581)	(144,720)	(161,043)	(214,506)	(164,829)	(120,987)	(129,169)	-	(1,571,468)
2														
3	Monthly Residential Annualized kWh Savings													
4	January 2020	(10,069)	(10,069)	(10,069)	(10,069)	(10,069)	(10,069)	(10,069)	(10,069)	(10,069)	(10,069)	(10,069)	(10,069)	(120,827)
5	February 2020		(9,421)	(9,421)	(9,421)	(9,421)	(9,421)	(9,421)	(9,421)	(9,421)	(9,421)	(9,421)	(9,421)	(103,630)
6	March 2020			(10,052)	(10,052)	(10,052)	(10,052)	(10,052)	(10,052)	(10,052)	(10,052)	(10,052)	(10,052)	(100,522)
7	April 2020				(11,177)	(11,177)	(11,177)	(11,177)	(11,177)	(11,177)	(11,177)	(11,177)	(11,177)	(100,596)
8	May 2020					(12,298)	(12,298)	(12,298)	(12,298)	(12,298)	(12,298)	(12,298)	(12,298)	(98,387)
9	June 2020						(12,060)	(12,060)	(12,060)	(12,060)	(12,060)	(12,060)	(12,060)	(84,420)
10	July 2020							(13,420)	(13,420)	(13,420)	(13,420)	(13,420)	(13,420)	(80,521)
11	August 2020								(17,875)	(17,875)	(17,875)	(17,875)	(17,875)	(89,377)
12	September 2020									(13,736)	(13,736)	(13,736)	(13,736)	(54,943)
13	October 2020										(10,082)	(10,082)	(10,082)	(30,247)
14	November 2020											(10,764)	(10,764)	(21,528)
15	December 2020												-	-
16	Total 2020 Savings Realized in 2020 Removed June 1, 2021	(10,069)	(19,490)	(29,542)	(40,719)	(53,018)	(65,078)	(78,498)	(96,374)	(110,109)	(120,192)	(130,956)	(130,956)	(885,000)
17														
18	2020 Residential kWh Savings Realized in 2021	-	(9,421)	(20,104)	(33,532)	(49,194)	(60,300)	(80,521)	(125,128)	(109,886)	(90,740)	(107,641)	-	(686,468)

Unitil Energy Systems, Inc.
Calculation of Average Distribution Rate for Lost Revenue
Based on Actual Billing Determinants for January - May 2021 and Effective Distribution Rates*

	(1)	(2)	(3) = (1) + (2)	(4)	(5)	(6) = (1) / (4)	(7) = (2) / (5)	(8) = (3) / (4)
	Revenue							
<u>Rate Class</u>	<u>Demand Charges</u>	<u>kWh Charges</u>	<u>Total Demand and kWh Charges</u>	<u>Delivery kW</u>	<u>Delivery kWh</u>	<u>Average Distribution Rate \$/kW</u>	<u>Average Distribution Rate \$/kWh^(a)</u>	<u>Average Distribution Rate \$/kWh^(b)</u>
1 Residential D	\$ -	\$ 7,513,107	\$ 7,513,107	-	211,160,962	N/A	N/A	\$ 0.03558
2 Regular General G2	\$ 5,182,543	\$ 80,208	\$ 5,262,751	493,884	130,987,963	\$ 10.49	\$ 0.00061	\$ 0.04018
3 Large General Service Rate G1	\$ 2,986,600	\$ -	\$ 2,986,600	401,418	129,346,653	\$ 7.44	\$ -	\$ 0.02309
4 Commercial and Industrial	\$ 8,169,143	\$ 80,208	\$ 8,249,351	895,302	260,334,616	\$ 9.12	\$ 0.00031	\$ 0.03169

Note: See pages 7-8 for details.

* Revenues include demand charges and kWh charges only.

Customer, meter and per luminaire charges are excluded.

(a) For 2019 and 2020 C&I Savings.

(b) For 2017 and 2018 C&I Savings (in 2020 calculation).

Calculation of Average Distribution Rate for Lost Revenue
Based on Actual Billing Determinants for June - December 2021 and Effective Distribution Rates*

	(1)	(2)	(3) = (1) + (2)	(4)	(5)	(6) = (1) / (4)	(7) = (2) / (5)	(8) = (3) / (4)
	Revenue							
<u>Rate Class</u>	<u>Demand Charges</u>	<u>kWh Charges</u>	<u>Total Demand and kWh Charges</u>	<u>Delivery kW</u>	<u>Delivery kWh</u>	<u>Average Distribution Rate \$/kW</u>	<u>Average Distribution Rate \$/kWh^(a)</u>	<u>Average Distribution Rate \$/kWh^(b)</u>
1 Residential D	\$ -	\$ 12,154,959	\$ 12,154,959	-	308,344,971	N/A	N/A	\$ 0.03942
2 Regular General G2	\$ 8,288,888	\$ 814,298	\$ 9,103,186	789,799	195,028,650	\$ 10.49	\$ 0.00418	\$ 0.04668
3 Large General Service Rate G1	\$ 4,497,352	\$ 763,639	\$ 5,260,991	604,403	198,864,288	\$ 7.44	\$ 0.00384	\$ 0.02646
4 Commercial and Industrial	\$ 12,786,240	\$ 1,577,937	\$ 14,364,177	1,394,202	393,892,938	\$ 9.17	\$ 0.00401	\$ 0.03647

Note: See pages 9-10 for details.

* Revenues include demand charges and kWh charges only.

Customer, meter and per luminaire charges are excluded.

(a) For 2019 and 2020 C&I Savings.

(b) For 2017 and 2018 C&I Savings (in 2020 calculation).

Unitil Energy Systems, Inc.
Calculation of Distribution Revenue at the Rate Level Effective January 1, 2021 - May 31, 2021
Based on Billing Determinants for January - May 2021

Unitil Energy Systems, Inc.
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Rate Class	Customer Group		(a)	(b)	(c)			
			1/1/2021 Monthly Distribution Charge (1)	Jan - May Billing Determinants (2)	Customer/Meter/Luminaire	Demand	kWh	Total
Residential Rate R	Standard Rate	Customer Charge	\$ 16.22	339,194	\$ 5,501,724			
		All kWh	\$ 0.03558	211,160,962		\$ 7,513,107	\$ 13,014,831	
Total Rate R		Customers		339,194				
		Meters		n/a				
		KWH		211,160,962				
		Revenue			\$ 5,501,724	\$ -	\$ 7,513,107	\$ 13,014,831
General Rate G2	Standard Rate	Customer Charge	\$ 29.19	52,700	\$ 1,538,302			
		Demand charge (All KW)	\$ 10.51	493,884		\$ 5,190,717		
		All KWH	\$ -	128,342,376		\$ -		
		Transformer Ownership Credit, G2	\$ (0.50000)	16,347		\$ (8,174)	\$ 6,729,019	
	G2 - kWh Meter	Customer Charge	\$ 18.38	1,857	\$ 34,130			
		All KWH	\$ 0.00883	196,338		\$ 1,734	\$ 35,864	
	QR Water Heating and/or Space Heat	Customer Charge	\$ 9.73	1,259	\$ 12,250			
		All KWH	\$ 0.03204	2,449,249		\$ 78,474	\$ 90,724	
	Total Rate G2		Customers		55,816			
			Meters		n/a			
		Billing demand		493,884				
		KWH		130,987,963				
		Revenue			\$ 1,584,682	\$ 5,182,543	\$ 80,208	\$ 6,855,607
Large General Rate G1	Standard Rate	Customer Charge Secondary Voltage	\$ 162.18	672	\$ 108,988			
		Customer Charge Primary Voltage	\$ 86.49	144	\$ 12,453			
		All kVA	\$ 7.60	401,418		\$ 3,050,778		
		All KWH	\$ -	129,346,653		\$ -		
		Transformer Ownership Credit, G1	\$ (0.50000)	128,356		\$ (64,178)	\$ 3,108,042	
Total Rate G1		Customers Secondary Voltage		672				
		Customers Primary Voltage		144				
		Meters		n/a				
		Billing demand		401,418				
		KWH		129,346,653				
		Revenue			\$ 121,441	\$ 2,986,600	\$ -	\$ 3,108,042

Outdoor Lighting Rate OL	100W Mercury Vapor Street	\$13.28	13,919	\$	184,842				
	175W Mercury Vapor Street	\$15.75	793	\$	12,493				
	250W Mercury Vapor Street	\$17.85	771	\$	13,754				
	400W Mercury Vapor Street	\$21.25	1,298	\$	27,584				
	1000W Mercury Vapor Street	\$42.19	24	\$	1,013				
	250W Mercury Vapor Flood	\$19.02	665	\$	12,652				
	400W Mercury Vapor Flood	\$22.75	901	\$	20,505				
	1000W Mercury Vapor Flood	\$37.70	144	\$	5,429				
	100W Mercury Vapor Power Bracket	\$13.41	3,894	\$	52,213				
	175W Mercury Vapor Power Bracket	\$14.87	557	\$	8,277				
	50W Sodium Vapor Street	\$13.52	35,908	\$	485,479				
	100W Sodium Vapor Street	\$15.22	1,309	\$	19,930				
	150W Sodium Vapor Street	\$15.28	3,906	\$	59,691				
	250W Sodium Vapor Street	\$19.14	12,893	\$	246,776				
	400W Sodium Vapor Street	\$24.13	2,711	\$	65,421				
	1000W Sodium Vapor Street	\$41.66	1,606	\$	66,885				
	150W Sodium Vapor Flood	\$17.61	2,690	\$	47,379				
	250W Sodium Vapor Flood	\$20.76	3,790	\$	78,671				
	400W Sodium Vapor Flood	\$23.58	4,857	\$	114,525				
	1000W Sodium Vapor Flood	\$42.03	2,467	\$	103,675				
	50W Sodium Vapor Power Bracket	\$12.51	1,387	\$	17,355				
	100W Sodium Vapor Power Bracket	\$14.04	904	\$	12,691				
	175W Metal Halide Street	\$19.91	1	\$	20				
	250W Metal Halide Street	\$21.65	-	\$	-				
	400W Metal Halide Street	\$22.45	-	\$	-				
	175W Metal Halide Flood	\$23.00	-	\$	-				
	250W Metal Halide Flood	\$24.83	-	\$	-				
	400W Metal Halide Flood	\$24.88	-	\$	-				
	175W Metal Halide Power Bracket	\$32.22	535	\$	17,222				
	250W Metal Halide Power Bracket	\$18.63	-	\$	-				
	400W Metal Halide Power Bracket	\$19.81	-	\$	-				
	1000W Metal Halide Flood (Contracts)	\$21.17	-	\$	-				
	42W 3780 K LED Area Light Fixture	\$13.16	-	\$	-				
	57W 5130K LED Area Light Fixture	\$13.21	-	\$	-				
	25W 2500K LED Cobra Head Fixture	\$13.11	-	\$	-				
	88W 8800K LED Cobra Head Fixture	\$13.30	-	\$	-				
	108W 10800K LED Cobra Head Fixture	\$13.36	-	\$	-				
	193W 19300K LED Cobra Head Fixture	\$13.62	-	\$	-				
	123W 11070K LED Flood Light Fixture	\$13.41	-	\$	-				
	194W 20340K LED Flood Light Fixture	\$13.62	-	\$	-				
	297W 32850K LED Flood Light Fixture	\$13.93	-	\$	-				
	Special Agreement Customer Installed LED - Avg.	\$13.02	10,671	\$	138,888				
Total Rate OL	Luminaires		108,601						
	Customers		n/a						
	Meters		-						
	KWH	\$ -	1,666,468						
	Revenue			\$	1,813,368	\$	-	\$	-
							\$	-	\$
Total Retail	Customers		395,681						
	Meters		n/a						
	Luminaires		109,135						
	Billing Demand		895,302						
	KWH		473,162,046						
	Revenue			\$	9,021,216	\$	8,169,143	\$	7,593,315
							\$		24,791,847

(1) See page 15 for support of customer counts and kWh data.

Unitil Energy Systems, Inc.
Calculation of Distribution Revenue at the Rate Level Effective June 1, 2021 - December 31, 2021
Based on Billing Determinants for June - December 2021

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Rate Class	Customer Group		(a)	(b)	(c)			
			6/1/2021 Monthly Distribution Charge (1)	Jun - Dec Billing Determinants (2)	Customer/ Meter/ Luminaire	Demand	kWh	Total
Residential Rate R	Standard Rate	Customer Charge	\$ 16.22	481,475	\$ 7,809,523			
		All kWh	\$ 0.03942	308,344,971		\$ 12,154,959	\$ 19,964,482	
Total Rate R		Customers		481,475				
		Meters		n/a				
		KWH		308,344,971				
		Revenue			\$ 7,809,523	\$ -	\$ 12,154,959	\$ 19,964,482
General Rate G2	Standard Rate	Customer Charge	\$ 29.19	74,796	\$ 2,183,293			
		Demand charge (All KW)	\$ 10.51	789,799		\$ 8,300,791		
		All KWH	\$ 0.00384	192,820,651			\$ 740,431	
		Transformer Ownership Credit, G2	\$ (0.50000)	23,805		\$ (11,902)		\$ 11,224,515
	G2 - kWh Meter	Customer Charge	\$ 18.38	2,603	\$ 47,843			
		All KWH	\$ 0.01267	230,780			\$ 2,924	\$ 50,767
	QR Water Heating and/or Space Heat	Customer Charge	\$ 9.73	1,762	\$ 17,144			
		All KWH	\$ 0.03588	1,977,219			\$ 70,943	\$ 88,087
	Total Rate G2		Customers		79,161			
			Meters		n/a			
		Billing demand		789,799				
		KWH		195,028,650				
		Revenue			\$ 2,248,280	\$ 8,288,888	\$ 814,298	\$ 11,363,369
Large General Rate G1	Standard Rate	Customer Charge Secondary Voltage	\$ 162.18	942	\$ 152,771			
		Customer Charge Primary Voltage	\$ 86.49	236	\$ 20,415			
		All kVA	\$ 7.60	604,403		\$ 4,593,461		
		All KWH	\$ 0.00384	198,864,288			\$ 763,639	
		Transformer Ownership Credit, G1	\$ (0.50000)	192,218		\$ (96,109)		\$ 5,434,176
Total Rate G1		Customers Secondary Voltage		942				
		Customers Primary Voltage		236				
		Meters		n/a				
		Billing demand		604,403				
		KWH		198,864,288				
		Revenue			\$ 173,185	\$ 4,497,352	\$ 763,639	\$ 5,434,176

Outdoor Lighting Rate OL	100W Mercury Vapor Street	\$13.28	13,919	\$	184,842
	175W Mercury Vapor Street	\$15.75	793	\$	12,493
	250W Mercury Vapor Street	\$17.85	771	\$	13,754
	400W Mercury Vapor Street	\$21.25	1,298	\$	27,584
	1000W Mercury Vapor Street	\$42.19	24	\$	1,013
	250W Mercury Vapor Flood	\$19.02	665	\$	12,652
	400W Mercury Vapor Flood	\$22.75	901	\$	20,505
	1000W Mercury Vapor Flood	\$37.70	144	\$	5,429
	100W Mercury Vapor Power Bracket	\$13.41	3,894	\$	52,213
	175W Mercury Vapor Power Bracket	\$14.87	557	\$	8,277
	50W Sodium Vapor Street	\$13.52	35,908	\$	485,479
	100W Sodium Vapor Street	\$15.22	1,309	\$	19,930
	150W Sodium Vapor Street	\$15.28	3,906	\$	59,691
	250W Sodium Vapor Street	\$19.14	12,893	\$	246,776
	400W Sodium Vapor Street	\$24.13	2,711	\$	65,421
	1000W Sodium Vapor Street	\$41.66	1,606	\$	66,885
	150W Sodium Vapor Flood	\$17.61	2,690	\$	47,379
	250W Sodium Vapor Flood	\$20.76	3,790	\$	78,671
	400W Sodium Vapor Flood	\$23.58	4,857	\$	114,525
	1000W Sodium Vapor Flood	\$42.03	2,467	\$	103,675
	50W Sodium Vapor Power Bracket	\$12.51	1,387	\$	17,355
	100W Sodium Vapor Power Bracket	\$14.04	904	\$	12,691
	175W Metal Halide Street	\$19.91	1	\$	20
	250W Metal Halide Street	\$21.65	-	\$	-
	400W Metal Halide Street	\$22.45	-	\$	-
	175W Metal Halide Flood	\$23.00	-	\$	-
	250W Metal Halide Flood	\$24.83	-	\$	-
	400W Metal Halide Flood	\$24.88	-	\$	-
	175W Metal Halide Power Bracket	\$32.22	535	\$	17,222
	250W Metal Halide Power Bracket	\$18.63	-	\$	-
	400W Metal Halide Power Bracket	\$19.81	-	\$	-
	1000W Metal Halide Flood (Contracts)	\$21.17	-	\$	-
	42W 3780 K LED Area Light Fixture	\$13.16	-	\$	-
	57W 5130K LED Area Light Fixture	\$13.21	-	\$	-
	25W 2500K LED Cobra Head Fixture	\$13.11	-	\$	-
	88W 8800K LED Cobra Head Fixture	\$13.30	-	\$	-
	108W 10800K LED Cobra Head Fixture	\$13.36	-	\$	-
	193W 19300K LED Cobra Head Fixture	\$13.62	-	\$	-
	123W 11070K LED Flood Light Fixture	\$13.41	-	\$	-
	194W 20340K LED Flood Light Fixture	\$13.62	-	\$	-
	297W 32850K LED Flood Light Fixture	\$13.93	-	\$	-
	Special Agreement Customer Installed LED - Avg.	\$13.02	10,671	\$	138,888

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Total Rate OL	Luminaires		108,601						
	Customers		n/a						
	Meters		-						
	KWH	\$ 0.00384	1,666,468						
	Revenue			\$	1,813,368	\$	-	\$	6,399
									1,819,768

Total Retail	Customers		561,578						
	Meters		n/a						
	Luminaires		109,135						
	Billing Demand		1,394,202						
	KWH		703,904,377						
	Revenue			\$	12,044,356	\$	12,786,240	\$	13,739,295
									38,581,794

(1) See page 15 for support of customer counts and kWh data.

SUMMARY OF DELIVERY SERVICE RATES

Each bill rendered for electric delivery service shall be calculated through the application of the effective rates as listed below.

<u>Class</u>		<u>Distribution Charge*</u>	<u>Non-Transmission External Delivery Charge**</u>	<u>Transmission External Delivery Charge**</u>	<u>Total External Delivery Charge**</u>	<u>Stranded Cost Charge**</u>	<u>Storm Recovery Adjustment Factor***</u>	<u>System Benefits Charge****</u> (1)	<u>Total Delivery Charges</u>
D	Customer Charge	\$16.22							\$16.22
	All kWh	\$0.03558	(\$0.00019)	\$0.03632	\$0.03613	(\$0.00025)	\$0.00084	\$0.00752	\$0.07982
G2	Customer Charge	\$29.19							\$29.19
	All kW	\$10.51				(\$0.05)			\$10.46
	All kWh	\$0.00000	(\$0.00019)	\$0.03632	\$0.03613	(\$0.00005)	\$0.00084	\$0.00752	\$0.04444
G2 - kWh meter	Customer Charge	\$18.38							\$18.38
	All kWh	\$0.00883	(\$0.00019)	\$0.03632	\$0.03613	(\$0.00025)	\$0.00084	\$0.00752	\$0.05307
G2 - Quick Recovery Water Heat and/or Space Heat	Customer Charge	\$9.73							\$9.73
	All kWh	\$0.03204	(\$0.00019)	\$0.03632	\$0.03613	(\$0.00025)	\$0.00084	\$0.00752	\$0.07628
G1	Customer Charge	\$162.18	Secondary Voltage						\$162.18
	Customer Charge	\$86.49	Primary Voltage						\$86.49
	All kVA	\$7.60				(\$0.06)			\$7.54
	All kWh	\$0.00000	(\$0.00019)	\$0.03632	\$0.03613	(\$0.00006)	\$0.00084	\$0.00752	\$0.04443
ALL GENERAL	Transformer Ownership Credit (kW/kVa)								(\$0.50)
	Voltage Discount at 4,160 Volts or Over (all kW/kVA and kWh)								2.00%
	Voltage Discount at 34,500 Volts or Over (all kW/kVA and kWh)								3.50%

(1) Includes low-income portion of \$0.00150 per kWh, energy efficiency portion of \$0.00528 per kWh and lost base revenue portion of \$0.00074 per kWh.

* Authorized by NHPUC Order No. 26,236 in Case No. DE 19-043, dated April 22, 2019
 ** Authorized by NHPUC Order No. 26,388 in Case No. DE 20-098, dated July 31, 2020
 *** Authorized by NHPUC Order No. 26,236 in Case No. DE 19-043, dated April 22, 2019
 **** Authorized by NHPUC Order No. 26,323 in Case No. DE 17-136, dated December 31, 2019

SUMMARY OF DELIVERY SERVICE RATES (continued)

Class	Distribution Charge*	Non-Transmission	Transmission	External Delivery Charge**	Stranded Cost Charge**	Storm Recovery Adjustment Factor***	System Benefits Charge****	Total Delivery Charges
		External Delivery Charge**	External Delivery Charge**					
OL							(1)	
All kWh	\$0.00000	(\$0.00019)	\$0.03632	\$0.03613	(\$0.00025)	\$0.00084	\$0.00752	\$0.04424

Luminaire Charges

Lamp Size Nominal Watts	Lumens (Approx.)	All-Night Service	Midnight Service	Description	Price Per Luminaire	
		Monthly kWh	Monthly kWh		Per Mo.	Per Year
100	3,500	43	20	Mercury Vapor Street	\$13.28	\$159.36
175	7,000	71	33	Mercury Vapor Street	\$15.75	\$189.00
250	11,000	100	46	Mercury Vapor Street	\$17.85	\$214.20
400	20,000	157	73	Mercury Vapor Street	\$21.25	\$255.00
1,000	60,000	372	173	Mercury Vapor Street	\$42.19	\$506.28
250	11,000	100	46	Mercury Vapor Flood	\$19.02	\$228.24
400	20,000	157	73	Mercury Vapor Flood	\$22.75	\$273.00
1,000	60,000	380	176	Mercury Vapor Flood	\$37.70	\$452.40
100	3,500	48	22	Mercury Vapor Power Bracket	\$13.41	\$160.92
175	7,000	71	33	Mercury Vapor Power Bracket	\$14.87	\$178.44
50	4,000	23	11	Sodium Vapor Street	\$13.52	\$162.24
100	9,500	48	22	Sodium Vapor Street	\$15.22	\$182.64
150	16,000	65	30	Sodium Vapor Street	\$15.28	\$183.36
250	30,000	102	47	Sodium Vapor Street	\$19.14	\$229.68
400	50,000	161	75	Sodium Vapor Street	\$24.13	\$289.56
1,000	140,000	380	176	Sodium Vapor Street	\$41.66	\$499.92
150	16,000	65	30	Sodium Vapor Flood	\$17.61	\$211.32
250	30,000	102	47	Sodium Vapor Flood	\$20.76	\$249.12
400	50,000	161	75	Sodium Vapor Flood	\$23.58	\$282.96
1,000	140,000	380	176	Sodium Vapor Flood	\$42.03	\$504.36
50	4,000	23	11	Sodium Vapor Power Bracket	\$12.51	\$150.12
100	9,500	48	22	Sodium Vapor Power Bracket	\$14.04	\$168.48
175	8,800	74	34	Metal Halide Street	\$19.91	\$238.92
250	13,500	102	47	Metal Halide Street	\$21.65	\$259.80
400	23,500	158	73	Metal Halide Street	\$22.45	\$269.40
175	8,800	74	34	Metal Halide Flood	\$23.00	\$276.00
250	13,500	102	47	Metal Halide Flood	\$24.83	\$297.96
400	23,500	158	73	Metal Halide Flood	\$24.88	\$298.56
1,000	86,000	374	174	Metal Halide Flood	\$32.22	\$386.64
175	8,800	74	34	Metal Halide Power Bracket	\$18.63	\$223.56
250	13,500	102	47	Metal Halide Power Bracket	\$19.81	\$237.72
400	23,500	158	73	Metal Halide Power Bracket	\$21.17	\$254.04
42	3,600	15	7	LED Area Light Fixture	\$13.16	\$157.92
57	5,200	20	9	LED Area Light Fixture	\$13.21	\$158.52
25	3,000	9	4	LED Cobra Head Fixture	\$13.11	\$157.32
88	8,300	30	14	LED Cobra Head Fixture	\$13.30	\$159.60
108	11,500	37	17	LED Cobra Head Fixture	\$13.36	\$160.32
193	21,000	67	31	LED Cobra Head Fixture	\$13.62	\$163.44
123	12,180	43	20	LED Flood Light Fixture	\$13.41	\$160.92
194	25,700	67	31	LED Flood Light Fixture	\$13.62	\$163.44
297	38,100	103	48	LED Flood Light Fixture	\$13.93	\$167.16

(1) Includes low-income portion of \$0.00150 per kWh, energy efficiency portion of \$0.00528 per kWh and lost base revenue portion of \$0.00074 per kWh.

* Authorized by NHPUC Order No. 26,236 in Case No. DE 19-043, dated April 22, 2019

** Authorized by NHPUC Order No. 26,388 in Case No. DE 20-098, dated July 31, 2020

*** Authorized by NHPUC Order No. 26,236 in Case No. DE 19-043, dated April 22, 2019

**** Authorized by NHPUC Order No. 26,323 in Case No. DE 17-136, dated December 31, 2019

Issued: August 5, 2020
Effective: August 1, 2020

Issued By: Robert B. Hevert
Sr. Vice President

SUMMARY OF DELIVERY SERVICE RATES

Each bill rendered for electric delivery service shall be calculated through the application of the effective rates as listed below.

<u>Class</u>		<u>Distribution Charge*</u>	<u>Non-Transmission External Delivery Charge**</u>	<u>Transmission External Delivery Charge**</u>	<u>Total External Delivery Charge**</u>	<u>Stranded Cost Charge**</u>	<u>Storm Recovery Adjustment Factor***</u>	<u>System Benefits Charge****</u> (1)	<u>Total Delivery Charges</u>
D	Customer Charge	\$16.22							\$16.22
	All kWh	\$0.03942	(\$0.00019)	\$0.03632	\$0.03613	(\$0.00025)	\$0.00047	\$0.00752	\$0.08329
G2	Customer Charge	\$29.19							\$29.19
	All kW	\$10.51				(\$0.05)			\$10.46
	All kWh	\$0.00384	(\$0.00019)	\$0.03632	\$0.03613	(\$0.00005)	\$0.00047	\$0.00752	\$0.04791
G2 - kWh meter	Customer Charge	\$18.38							\$18.38
	All kWh	\$0.01267	(\$0.00019)	\$0.03632	\$0.03613	(\$0.00025)	\$0.00047	\$0.00752	\$0.05654
G2 - Quick Recovery Water Heat and/or Space Heat	Customer Charge	\$9.73							\$9.73
	All kWh	\$0.03588	(\$0.00019)	\$0.03632	\$0.03613	(\$0.00025)	\$0.00047	\$0.00752	\$0.07975
G1	Customer Charge	\$162.18	Secondary Voltage						\$162.18
	Customer Charge	\$86.49	Primary Voltage						\$86.49
	All kVA	\$7.60				(\$0.06)			\$7.54
	All kWh	\$0.00384	(\$0.00019)	\$0.03632	\$0.03613	(\$0.00006)	\$0.00047	\$0.00752	\$0.04790
ALL GENERAL	Transformer Ownership Credit (kW/kVa)								(\$0.50)
	Voltage Discount at 4,160 Volts or Over (all kW/kVA and kWh)								2.00%
	Voltage Discount at 34,500 Volts or Over (all kW/kVA and kWh)								3.50%

(1) Includes low-income portion of \$0.00150 per kWh, energy efficiency portion of \$0.00528 per kWh and lost base revenue portion of \$0.00074 per kWh.

* Authorized by NHPUC Order No. 26,484 in Case No. DE 21-030, dated May 27, 2021
** Authorized by NHPUC Order No. 26,388 in Case No. DE 20-098, dated July 31, 2020
*** Authorized by NHPUC Secretarial Letter in Case No. DE 18-036, dated April 13, 2021
**** Authorized by NHPUC Order No. 26,323 in Case No. DE 17-136, dated December 31, 2019

SUMMARY OF DELIVERY SERVICE RATES (continued)

Class	Distribution Charge*	Non-Transmission	Transmission	External Delivery Charge**	Stranded Cost Charge**	Storm Recovery Adjustment Factor***	System Benefits Charge****	Total Delivery Charges
		External Delivery Charge**	External Delivery Charge**					
OL								
All kWh	\$0.00384	(\$0.00019)	\$0.03632	\$0.03613	(\$0.00025)	\$0.00047	\$0.00752	\$0.04771

Luminaire Charges

Lamp Size Nominal Watts	Lumens (Approx.)	All-Night Service	Midnight Service	Description	Price Per Luminaire	
		Monthly kWh	Monthly kWh		Per Mo.	Per Year
100	3,500	43	20	Mercury Vapor Street	\$13.28	\$159.36
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1,000	60,000	380	176	Mercury Vapor Flood	\$37.70	\$452.40
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400	50,000	161	75	Sodium Vapor Street	\$24.13	\$289.56
1,000	140,000	380	176	Sodium Vapor Street	\$41.66	\$499.92
150	16,000	65	30	Sodium Vapor Flood	\$17.61	\$211.32
250	30,000	102	47	Sodium Vapor Flood	\$20.76	\$249.12
400	50,000	161	75	Sodium Vapor Flood	\$23.58	\$282.96
1,000	140,000	380	176	Sodium Vapor Flood	\$42.03	\$504.36
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1,000	86,000	374	174	Metal Halide Flood	\$32.22	\$386.64
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400	23,500	158	73	Metal Halide Power Bracket	\$21.17	\$254.04
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57	5,200	20	9	LED Area Light Fixture	\$13.21	\$158.52
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88	8,300	30	14	LED Cobra Head Fixture	\$13.30	\$159.60
108	11,500	37	17	LED Cobra Head Fixture	\$13.36	\$160.32
193	21,000	67	31	LED Cobra Head Fixture	\$13.62	\$163.44
123	12,180	43	20	LED Flood Light Fixture	\$13.41	\$160.92
194	25,700	67	31	LED Flood Light Fixture	\$13.62	\$163.44
297	38,100	103	48	LED Flood Light Fixture	\$13.93	\$167.16

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*** Authorized by NHPUC Secretarial Letter in Case No. DE 18-036, dated April 13, 2021

**** Authorized by NHPUC Order No. 26,323 in Case No. DE 17-136, dated December 31, 2019

Issued: June 2, 2021
Effective: June 1, 2021

Issued By: Robert B. Hevert
Sr. Vice President

Unitil Energy Systems, Inc.
 Average Distribution Rate Support

January - December 2021

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	
No. of Customers										
	Customer Charge Revenue				Customer Charge					
Rate Class	Total Jan-March	April	May	Total Jan - May	Total Jan - May	in Effect	Customers (e)/(f)	Total 2021	Total Jun - December	Customers (i)/(f)
Residential	\$3,287,239	\$1,096,731	\$1,117,753	\$5,501,724	\$5,501,724	\$16.22	339,194	\$13,311,246	\$7,809,523	481,475
G2 kWh Meter	\$20,511	\$6,837	\$6,782	\$34,130	\$34,130	\$18.38	1,857	\$81,973	\$47,843	2,603
G2 QR Water Heating and/or Space Heat	\$7,346	\$2,442	\$2,462	\$12,250	\$12,250	\$9.73	1,259	\$29,394	\$17,144	1,762
G2	\$920,754	\$306,718	\$310,830	\$1,538,302	\$1,538,302	\$29.19	52,700	\$3,721,595	\$2,183,293	74,796
G1 Primary Voltage	\$6,748	\$2,851	\$2,854	\$12,453	\$12,453	\$86.49	144	\$32,868	\$20,415	236
G1 Secondary Voltage	\$65,196	\$21,735	\$22,056	\$108,988	\$108,988	\$162.18	672	\$261,759	\$152,771	942
OL	\$0	\$0	\$0	\$0	\$0	n/a	n/a	\$0	\$0	n/a
	\$4,307,795	\$1,437,315	\$1,462,737	\$7,207,847	\$7,207,847			\$17,438,835	\$10,230,988	
G2 Transformer Ownership Credits	(\$4,394)	(\$1,884)	(\$1,896)	(\$8,174)	(\$8,174)	(\$0.50)	16,347	(\$20,076)	(\$11,902)	23,805
G1 Transformer Ownership Credits	(\$38,336)	(\$13,019)	(\$12,823)	(\$64,178)	(\$64,178)	(\$0.50)	128,356	(\$160,287)	(\$96,109)	192,218
	(\$42,730)	(\$14,903)	(\$14,718)	(\$72,352)	(\$72,352)			(\$180,363)	(\$108,011)	
kWh Usage	January - March	April	May	Total Jan-May	Total 2021			Total Jun - December		
Residential	142,463,812	34,853,776	33,843,374	211,160,962	519,505,933			308,344,971		
G2 kWh Meter	131,314	33,199	31,825	196,338	427,118			230,780		
G2 QR Water Heating and/or Space Heat	1,855,643	337,991	255,615	2,449,249	4,426,468			1,977,219		
G2	80,801,580	23,419,096	24,121,700	128,342,376	321,163,027			192,820,651		
G1 Primary Voltage	31,933,933	10,003,531	10,271,265	52,208,729	130,307,817			78,099,088		
G1 Secondary Voltage	46,856,068	14,802,852	15,479,004	77,137,924	197,903,124			120,765,200		
OL	1,666,468	579,895	581,813	2,828,176	6,838,225			4,010,049		
	305,708,818	84,030,340	84,584,596	474,323,754	1,180,571,712			706,247,958		
Distribution Revenues					Calculated Dist rates			Calculated Dist rates		
Residential	\$5,068,873	\$1,240,100	\$1,204,157	\$7,513,130	0.03558	\$19,591,180	\$12,078,050	\$0.03917		
G2 kWh Meter	\$1,159	\$293	\$281	\$1,734	0.00883	\$4,598	\$2,864	\$0.01241		
G2 QR Water Heating and/or Space Heat	\$59,455	\$10,829	\$9,472	\$78,756	0.03216	\$148,919	\$70,163	\$0.03549		
G2	\$0	\$0	\$1	\$1	0.00000	\$691,225	\$691,224	\$0.00358		
G1 Primary Voltage	\$0	\$0	\$0	\$0	0.00000	\$279,388	\$279,388	\$0.00358		
G1 Secondary Voltage	\$0	\$0	\$0	\$0	0.00000	\$433,328	\$433,328	\$0.00359		
Ol	\$444,371	\$148,594	\$148,636	\$741,601	0.26222	\$1,791,843	\$1,050,243	\$0.26190		
	\$5,573,858	\$1,399,816	\$1,361,546	\$8,335,220		\$22,940,481	\$14,605,260			
Demand Usage (kW, kVA)										
G2 Demand	291,929	99,451	102,504	493,884		1,283,683	789,799			
G1 Demand	239,996	80,729	80,693	401,418		1,005,821	604,403			
	531,925	180,180	183,197	895,302		2,289,504	1,394,202			
Demand Revenue										
G2 Distribution Demand	\$3,068,183	\$1,045,234	\$1,077,319	\$5,190,736	\$10.51	\$13,491,551	\$8,300,815	\$10.51		
G1 Distribution Demand	\$1,823,970	\$613,539	\$613,270	\$3,050,778	\$7.60	\$7,644,239	\$4,593,461	\$7.60		
	\$4,892,153	\$1,658,773	\$1,690,589	\$8,241,515		\$21,135,790	\$12,894,275			

Note: G1 excludes backup/auxiliary service customer.

Unitil Energy Systems, Inc.
Actual C&I kW Savings Derivation
January 1, 2021 to December 31, 2021

Line No.	Description	Unitil
1.	Gross Annualized kWh Savings	501,959
2.	Maximum Demand Factor (MDF)	<u>Varies by Measure</u>
3.	Extended Maximum Load Reduction kW	6,606
4.	% kW Demand Reduction at Customer Peak	<u>Varies by Measure</u>
5.	Sub-Total Customer Peak kW Reduction	1,187
6.	% Net to Gross	<u>Varies by Measure</u>
7.	Sub-Total Customer Peak kW Reduction	1,187
8.	% In-Service Rate	<u>Varies by Measure</u>
9.	Sub-Total Customer Peak kW Reduction	1,187
10.	% kW Realization Rate	<u>Varies by Measure</u>
11.	Sub-Total Customer Peak kW Reduction	1,187
12.	% Billing Adjustment to Reflect Ratchets	<u>100%</u>
13.	Sub-Total Customer Peak kW Reduction	1,187
14.	% Retirement Adjustment	<u>100%</u>
15.	Sub-Total Customer Peak kW Reduction	1,187
16.	% Annual Savings Achieved in First Year	<u>27.5%</u>
17.	Total Customer Peak Reduction in First Year (Note 1)	326
18.	Annualized (x12)	3,909
19.	Average Distribution Rate (ADR) - \$/kW	<u>\$ 9.17</u>
20.	LBR Calculation - Ln 18 times Ln 19	<u><u>\$ 35,838</u></u>

1. Reflects application of the LBR earnings cap of 110% of Planned kW Savings. See Unitil Energy Systems, Inc.'s 2021 Annual Report, Page 3 of 9.

Description	Residential kWh	Commercial kWh	C&I kW	Total	Reference
1. Program Year 2017 Actual LBR Savings (Jan - May)	560,090	2,502,035	-	3,062,125	DE 14-216, 2017 Annual Report, P. 3 / 12 * 5
2. 2021 Average Distribution Rate (ADR) (Jan - May)	<u>\$0.03558</u>	<u>\$0.03169</u>	-		DE 20-092, 2021 Annual Report, P. 1 Lines 10 & 33
3. Sub-Total LBR	\$ 19,928	\$ 79,289	\$ -	\$ 99,217	Line 1 * Line 2
4. Program Year 2018 Actual LBR Savings (Jan - May)	1,195,090	2,795,060	-	3,990,150	DE 17-136, 2018 Annual Report, P. 3 / 12 * 5
5. Program Year 2018 Actual Retired LBR Savings (Jan - May)	(160,688)	-	-	(160,688)	DE 17-136, 2019 Annual Report, P. 1 Line 4 / 12 * 5
6. 2021 Average Distribution Rate (ADR) (Jan - May)	<u>\$0.03558</u>	<u>\$0.03169</u>	-		DE 20-092, 2021 Annual Report, P. 1 Lines 10 & 33
7. Sub-Total LBR	\$ 36,804	\$ 88,575	\$ -	\$ 125,379	Lines (4 + 5) * Line 6
8. Program Year 2019 Actual LBR Savings (Jan - May)	(Note 1) 1,955,023	2,670,898	5,695	4,625,920	DE 17-136, 2019 Annual Report, P. 3 Line 17 & 26 & 34 * 12 / 12 * 5
9. 2021 Average Distribution Rate (ADR) (Jan - May)	<u>\$0.03558</u>	<u>\$0.00031</u>	<u>\$9.12</u>		DE 20-092, 2021 Annual Report, P. 1 Line 10 & 36 & 46
10. Sub-Total LBR	\$ 69,560	\$ 828	\$ 51,938	\$ 122,326	Line 8 * Line 9
11. Sub-Total Savings (Measures Installed in 2017 - 2019)	3,710,203	7,967,993	-	11,678,195	Line 1 + Line 4 + Line 8
12. Sub-Total 2017-2019 LBR	\$ 126,292	\$ 168,693	\$ 51,938	\$ 346,923	Line 3 + Line 7 + Line 10
13. Program Year 2020 Actual LBR Savings (Jan - May)	2,240,546	3,999,886	6,057	6,240,432	DE 20-092, 2021 Annual Report, P. 1 Line 12 & Line 38 & Line 48
14. 2021 Average Distribution Rate (ADR) (Jan - May)	<u>\$0.03558</u>	<u>\$0.00031</u>	<u>\$9.12</u>		DE 20-092, 2021 Annual Report, P. 1 Line 13 & 39 & 49
15. Sub-Total LBR	\$ 79,719	\$ 1,240	\$ 55,243	\$ 136,202	Line 13 * Line 14
16. Program Year 2020 Actual LBR Savings (Jun - Dec)	1,187,240	3,914,186	5,940	5,101,427	DE 20-092, 2021 Annual Report, P. 1 Line 12 & Line 38 & Line 48
17. 2021 Average Distribution Rate (ADR) (Jun - Dec)	<u>\$0.03942</u>	<u>\$0.00401</u>	<u>\$9.17</u>		DE 20-092, 2021 Annual Report, P. 1 Line 13 & 39 & 49
18. Sub-Total LBR	\$ 46,801	\$ 15,696	\$ 54,466	\$ 116,963	Line 16 * Line 17
19. Program Year 2021 Actual LBR Savings (Jan - May)	520,860	187,224	204	708,084	DE 20-092, 2021 Annual Report, P. 3 Line 16 & 42 & 52
20. 2021 Average Distribution Rate (ADR) (Jan - May)	<u>\$0.03558</u>	<u>\$0.00031</u>	<u>\$9.12</u>		DE 20-092, 2021 Annual Report, P. 3 Line 17 & 43 & 53
21. Sub-Total LBR	\$ 18,532	\$ 58	\$ 1,862	\$ 20,453	Line 19 * Line 20
22. Program Year 2021 Actual LBR Savings (Jun - Dec)	2,383,391	2,685,184	3,705	5,068,575	DE 20-092, 2021 Annual Report, P. 3 Line 16 & 42 & 52
23. 2021 Average Distribution Rate (ADR) (Jan - Dec)	<u>\$0.03942</u>	<u>\$0.00401</u>	<u>\$9.17</u>		DE 20-092, 2021 Annual Report, P. 3 Line 17 & 43 & 53
24. Sub-Total LBR	\$ 93,953	\$ 10,768	\$ 33,976	\$ 138,697	Line 22 * Line 23
25. Total 2021 Actual LBR	\$ 365,297	\$ 196,454	\$ 197,486	\$ 759,237	Line 12 + Line 15 + Line 18 + Line 21 + Line 24

Comments

- In 2019 the ADR disaggregates kWh and kW components as specified in the Settlement Agreement in DE 17-136 (Order No. 26,095). Adjustments made for amounts recovered in base rate case, DE 21-030 for 2017, 2018 and 2019 LBR.
- 2020 Savings adjusted to reflect rate case in DE 21-030 and 2020 savings retirements

Program Cost-Effectiveness - 2021 ACTUAL

	Benefit/Cost Ratio		Benefits (\$000)						Number of Customers Served	Annual MMBTU Savings	Lifetime MMBTU Savings
	Granite State Test	Granite State Test	Utility Costs (\$000)	Customer Costs (\$000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings			
Residential Programs											
B1 - Home Energy Assistance	1.01	1,756.054	1,730.657	-	175.100	2,988.438	63.180	6.974	171	1,159	24,788
A1 - Energy Star Homes	7.86	1,304.189	165.837	56.100	58.261	1,151.915	13.959	11.131	29	1,768	42,848
A2 - Home Performance with Energy Star	2.73	2,698.230	987.149	246.871	176.692	3,355.124	28.624	22.185	185	4,683	100,843
A3 - Energy Star Products	1.52	1,586.829	1,043.217	155.838	3,224.639	15,077.067	761.851	484.854	74,290	(5,405)	(10,640)
A4 - Residential Behavior	1.53	250.000	163.736	-	2,173.800	2,173.800	469.267	302.700	21,299	-	-
A5 - Residential Active Demand Response	-	-	67.749	-	-	-	-	-	200	-	-
A6b - Res ISO Forward Capacity Market Expenses	-	-	5.759	-	-	-	-	-	-	-	-
Sub-Total Residential	1.82	7,595.303	4,164.104	458.810	5,808.493	24,746.344	1,336.881	827.843	96,174	2,205	157,839
Commercial, Industrial & Municipal											
C1 - Large Business Energy Solutions	2.98	4,553.501	1,529.984	1,789.346	4,953.191	53,534.394	596.667	412.791	40	(1,890)	(18,822)
C2 - Small Business Energy Solutions	3.48	5,131.234	1,474.901	1,282.717	4,764.184	50,551.289	687.343	685.852	269	(1,604)	(17,125)
C3 - Municipal Energy Solutions	2.21	493.664	223.471	274.760	447.877	4,478.767	69.509	88.121	6	(286)	(2,860)
C5 - C&I Active Demand Response	-	-	168.950	-	-	-	-	-	-	-	-
C6b - C&I ISO Forward Capacity Market Expenses	-	-	10.210	-	-	-	-	-	-	-	-
C6c - C&I Education	-	-	12.254	-	-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	2.98	10,178.399	3,419.770	3,346.823	10,165.251	108,564.451	1,353.519	1,186.764	315	(3,780)	(38,806)
Total	2.34	17,773.702	7,583.874	3,805.632	15,973.745	133,310.795	2,690.400	2,014.607	96,489	(1,574)	119,032

Annual kWh Savings	15,973,745	Lifetime kWh Savings	133,310,795	79.3%	kWh > 55%
Annual MMBTU Savings (in kWh)	<u>-461,381</u>	Lifetime MMBTU Savings (in kWh)	<u>34,884,965</u>	20.7%	
	15,512,363		168,195,760	100.0%	
Annual Savings as a % of 2019 Sales 1.37%					
		Low-Income	\$	380.78	
		Residential	\$	40.30	
		C&I	\$	307.34	

Notes

- (1) The Granite State Test is used as the primary cost test, as approved in Order No. 36,322, 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 2021 Dollars.
- (3) Per past precedent, discount and inflation rates have been updated for the year in which measures will be installed, and were updated in June 2020 for program year 2021

Program Cost-Effectiveness - 2021 PLAN

	Benefit / Cost Ratio	Benefits (\$000)							Number of Customers Served	Annual MMBTU Savings	Lifetime MMBTU Savings
	Granite State Test	Granite State Test	Utility Costs (\$000)	Customer Costs (\$000)	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings			
Residential Programs											
B1 - Home Energy Assistance	1.20	1,628.055	1,353.131	-	80.494	1,119.286	8.072	16.542	122	2,692	53,818
A1 - Energy Star Homes	3.48	1,557.070	446.821	7.800	98.566	2,415.653	2.767	1.452	66	1,796	44,989
A2 - Home Performance with Energy Star	2.63	2,111.216	801.804	408.512	92.603	1,631.808	13.321	34.432	109	3,196	64,090
A3 - Energy Star Products	1.37	1,433.351	1,044.547	150.010	2,075.702	12,485.550	384.618	271.239	35,887	(2,527)	(2,914)
A4 - Residential Behavior	1.38	212.897	153.784	-	1,851.185	1,851.185	399.623	257.776	22,700	-	-
A5 - Residential Active Demand Response	-	-	122.100	-	-	-	-	-	510	-	-
A6b - Res ISO Forward Capacity Market Expenses	-	-	26.500	-	-	-	-	-	-	-	-
Sub-Total Residential	1.76	6,942.588	3,948.687	566.322	4,198.549	19,503.482	808.401	581.441	59,394	5,158	159,983
Commercial, Industrial & Municipal											
C1 - Large Business Energy Solutions	3.78	6,172.142	1,632.099	1,454.618	5,582.936	62,400.291	748.690	683.672	248	(780)	(8,002)
C2 - Small Business Energy Solutions	1.48	2,323.052	1,570.430	904.077	3,894.703	40,043.750	452.339	363.710	259	(8,640)	(86,495)
C3 - Municipal Energy Solutions	1.31	346.657	265.230	54.525	414.280	4,365.016	16.048	17.838	27	(99)	(989)
C5 - C&I Active Demand Response	-	-	227.343	-	-	-	-	-	9	-	-
C6b - C&I ISO Forward Capacity Market Expenses	-	-	25.000	-	-	-	-	-	-	-	-
C6c - C&I Education	-	-	74.785	-	-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	2.33	8,841.850	3,794.887	2,413.220	9,891.919	106,809.056	1,217.077	1,065.220	543	(9,519)	(95,486)
Total	2.04	15,784.439	7,743.573	2,979.542	14,090.468	126,312.538	2,025.478	1,646.661	59,937	(4,361)	64,497

Annual kWh Savings	14,090,468	Lifetime kWh Savings	126,312,538	87.0%	kWh > 55%
Annual MMBTU Savings (in kWh)	<u>-1,278,089</u>	Lifetime MMBTU Savings (in kWh)	<u>18,902,163</u>	<u>13.0%</u>	
	12,812,379		145,214,702	100.0%	

Annual Savings as a % of 2019 Sales	1.15%
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Low-Income	\$	297.72
Residential	\$	42.98
C&I	\$	341.05

Notes

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- (2) Utility and Customer Costs and Benefits are expressed in 2021 Dollars.
- (3) Per past precedent, discount and inflation rates have been updated for the year in which measures will be installed, and were updated in June 2020 for program year 2021.

Present Value Benefits - 2021 ACTUAL

	Total Benefits (\$000)	Resource Benefits (\$000)											Non-Resource Benefits (\$000)			Environmental Benefits (\$000)			
		Electric											Non-Electric		Fossil Emissions		Other Non-Resource Benefits	Total Non-Resource Benefits	
		CAPACITY				ENERGY				DRIPE	Total Electric Benefit	Other Fuels	Water Benefit	Total Resource Benefits					
		Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak										Electric DRIPE
Granite State Test																			
Residential Programs																			
B1 - Home Energy Assistance	\$ 1,756	\$ 13	\$ -	\$ 12	\$ 11	\$ 144	\$ 56	\$ 4	\$ 7	\$ 11	\$ 257	\$ 587	\$ 0	\$ 845	\$ 45	\$ 867	\$ 911	\$ 122	
A1 - Energy Star Homes	\$ 1,304	\$ 20	\$ -	\$ 20	\$ 17	\$ 19	\$ 20	\$ 5	\$ 3	\$ 3	\$ 107	\$ 1,126	\$ 1	\$ 1,234	\$ 70	\$ 308	\$ 378	\$ 28	
A2 - Home Performance with Energy Star	\$ 2,698	\$ 36	\$ -	\$ 36	\$ 31	\$ 74	\$ 80	\$ 39	\$ 31	\$ 9	\$ 335	\$ 2,204	\$ 1	\$ 2,541	\$ 157	\$ 635	\$ 792	\$ 130	
A3 - Energy Star Products	\$ 1,587	\$ 154	\$ -	\$ 216	\$ 187	\$ 366	\$ 328	\$ 187	\$ 130	\$ 102	\$ 1,671	\$ (178)	\$ 102	\$ 1,595	\$ (8)	\$ 373	\$ 365	\$ 683	
A4 - Residential Behavior	\$ 250	\$ 16	\$ -	\$ 30	\$ 26	\$ 60	\$ 50	\$ 28	\$ 19	\$ 20	\$ 250	\$ -	\$ -	\$ 250	\$ -	\$ 62	\$ 62	\$ 106	
A5 - Residential Active Demand Response	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
A6b - Res ISO Forward Capacity Market Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Sub-Total Residential	\$ 7,595	\$ 239	\$ -	\$ 314	\$ 272	\$ 663	\$ 533	\$ 263	\$ 190	\$ 146	\$ 2,620	\$ 3,740	\$ 105	\$ 6,465	\$ 263	\$ 2,246	\$ 2,509	\$ 1,069	
Commercial/Industrial Programs																			
C1 - Large Business Energy Solutions	\$ 4,554	\$ 344	\$ -	\$ 405	\$ 351	\$ 1,072	\$ 999	\$ 816	\$ 585	\$ 296	\$ 4,868	\$ (292)	\$ -	\$ 4,576	\$ (22)	\$ 458	\$ 435	\$ 2,345	
C2 - Small Business Energy Solutions	\$ 5,131	\$ 593	\$ -	\$ 691	\$ 599	\$ 1,076	\$ 692	\$ 962	\$ 523	\$ 275	\$ 5,411	\$ (266)	\$ 7	\$ 5,152	\$ (21)	\$ 515	\$ 493	\$ 2,207	
C3 - Municipal Energy Solutions	\$ 494	\$ 68	\$ -	\$ 82	\$ 71	\$ 101	\$ 55	\$ 93	\$ 43	\$ 29	\$ 541	\$ (44)	\$ -	\$ 497	\$ (3)	\$ 50	\$ 46	\$ 198	
C5 - C&I Active Demand Response	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
C6b - C&I ISO Forward Capacity Market Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
C6c - C&I Education	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Sub-Total Commercial & Industrial	\$ 10,178	\$ 1,005	\$ -	\$ 1,178	\$ 1,020	\$ 2,250	\$ 1,746	\$ 1,870	\$ 1,151	\$ 600	\$ 10,820	\$ (602)	\$ 7	\$ 10,225	\$ (47)	\$ 1,022	\$ 975	\$ 4,751	
Total	\$ 17,774	\$ 1,244	\$ -	\$ 1,492	\$ 1,292	\$ 2,913	\$ 2,279	\$ 2,133	\$ 1,341	\$ 746	\$ 13,440	\$ 3,138	\$ 112	\$ 16,691	\$ 216	\$ 3,268	\$ 3,484	\$ 5,819	

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(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 - 2021 PLAN

	Total Benefits (\$000)	Resource Benefits (\$000)										Non-Resource Benefits (\$000)			Environmental Benefits (\$000)			
		Electric										Non-Electric		Total Resource Benefits		Fossil Emissions	Other Non-Resource Benefits	Total Non-Resource Benefits
		CAPACITY				ENERGY				DRIPE	Total Electric Benefit	Other Fuels	Water Benefit					
		Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak									
Granite State Test																		
Residential Programs																		
B1 - Home Energy Assistance	\$ 1,628	\$ 25	\$ -	\$ 26	\$ 23	\$ 20	\$ 20	\$ 18	\$ 14	\$ 4	\$ 150	\$ 1,390	\$ -	\$ 1,540	\$ 88	\$ -	\$ 88	\$ 46
A1 - Energy Star Homes	\$ 1,557	\$ 0	\$ -	\$ 0	\$ 0	\$ 38	\$ 45	\$ 0	\$ 0	\$ 4	\$ 88	\$ 1,392	\$ -	\$ 1,480	\$ 77	\$ 370	\$ 447	\$ 47
A2 - Home Performance with Energy Star	\$ 2,111	\$ 51	\$ -	\$ 53	\$ 46	\$ 21	\$ 21	\$ 34	\$ 26	\$ 5	\$ 256	\$ 1,752	\$ -	\$ 2,008	\$ 103	\$ 502	\$ 605	\$ 65
A3 - Energy Star Products	\$ 1,433	\$ 102	\$ -	\$ 138	\$ 119	\$ 291	\$ 250	\$ 165	\$ 120	\$ 76	\$ 1,261	\$ (61)	\$ 235	\$ 1,435	\$ (1)	\$ 300	\$ 299	\$ 558
A4 - Residential Behavior	\$ 213	\$ 14	\$ -	\$ 25	\$ 22	\$ 51	\$ 42	\$ 24	\$ 16	\$ 17	\$ 213	\$ -	\$ -	\$ 213	\$ -	\$ 53	\$ 53	\$ 90
A5 - Residential Active Demand Response	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A6b - Res ISO Forward Capacity Market Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-Total Residential	\$ 6,943	\$ 193	\$ -	\$ 242	\$ 210	\$ 421	\$ 378	\$ 241	\$ 177	\$ 107	\$ 1,968	\$ 4,473	\$ 235	\$ 6,676	\$ 267	\$ 1,225	\$ 1,492	\$ 805
Commercial/Industrial Programs																		
C1 - Large Business Energy Solutions	\$ 6,172	\$ 623	\$ -	\$ 719	\$ 623	\$ 1,170	\$ 1,155	\$ 962	\$ 724	\$ 331	\$ 6,306	\$ (124)	\$ -	\$ 6,182	\$ (10)	\$ 618	\$ 608	\$ 2,722
C2 - Small Business Energy Solutions	\$ 2,323	\$ 296	\$ -	\$ 351	\$ 304	\$ 809	\$ 566	\$ 761	\$ 446	\$ 234	\$ 3,767	\$ (1,340)	\$ -	\$ 2,427	\$ (103)	\$ 243	\$ 139	\$ 1,763
C3 - Municipal Energy Solutions	\$ 347	\$ 14	\$ -	\$ 17	\$ 14	\$ 111	\$ 107	\$ 39	\$ 37	\$ 25	\$ 363	\$ (15)	\$ -	\$ 348	\$ (1)	\$ 35	\$ 34	\$ 193
C5 - C&I Active Demand Response	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
C6b - C&I ISO Forward Capacity Market Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
C6c - C&I Education	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-Total Commercial & Industrial	\$ 8,842	\$ 933	\$ -	\$ 1,086	\$ 941	\$ 2,090	\$ 1,828	\$ 1,762	\$ 1,207	\$ 589	\$ 10,436	\$ (1,480)	\$ -	\$ 8,956	\$ (114)	\$ 896	\$ 781	\$ 4,678
Total	\$ 15,784	\$ 1,126	\$ -	\$ 1,328	\$ 1,151	\$ 2,510	\$ 2,205	\$ 2,003	\$ 1,384	\$ 696	\$ 12,404	\$ 2,993	\$ 235	\$ 15,632	\$ 152	\$ 2,121	\$ 2,273	\$ 5,483

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

Performance Incentive - 2021 Actual

Portfolio Planned Versus Actual Performance - 2021										
Portfolio	Planned	Threshold	Actual	% of Plan	Design Coefficient	Actual Coefficient	Planned PI	125% of Planned PI	Actual PI	Source
1 Lifetime kWh Savings	126,312,538	94,734,404	133,310,795	106%	1.925%	2.032%	\$ 149,064	\$ 186,330	\$ 154,078	Planned and Actual from Cost Eff Tab
2 Annual kWh Savings	14,090,468	7,045,234	15,973,745	113%	0.550%	0.624%	\$ 42,590	\$ 53,237	\$ 47,286	Planned and Actual from Cost Eff Tab
3 Summer Peak Demand kW	1,647	1,235	2,015	122%	0.660%	0.807%	\$ 51,108	\$ 63,884	\$ 61,238	Planned and Actual from Cost Eff Tab
4 Winter Peak Demand kW	2,025	1,519	2,690	133%	0.440%	0.550%	\$ 34,072	\$ 42,590	\$ 41,711	Planned and Actual from Cost Eff Tab
5 Active Demand kW		-		-	0.000%	-	\$ -	\$ -	\$ -	Planned and Actual from ADR Cost Eff Tab
6 Total Resource Benefits	\$ 15,632,186		16,690,838	107%						Planned and Actual from Benefits Tab
7 Total Utility Costs ¹	\$ 7,743,573		7,583,874	98%						Planned and Actual from Cost Eff Tab
8 Net Benefits	\$ 7,888,613	\$ 5,127,599	\$ 9,106,964	115%	1.925%	2.222%	\$ 149,064	\$ 186,330	\$ 168,537	Line 5 minus line 6
9 Total					5.500%	6.235%	\$ 425,897	\$ 532,371	\$ 472,850	

	Granite State Test		Source
	Planned	Actual	
10 Total Benefits	\$ 15,784,439	\$ 17,773,702	Planned and Actual from Cost Eff Tab
11 Performance Incentive	\$ 425,897	\$ 472,850	from row 8 above
12 Total Utility Costs	\$ 7,743,573	\$ 7,583,874	from row 6 above
13 Portfolio GST BCR	1.93	2.21	row 9 divided by rows 10+11

Costs, Benefits, and PI Expressed in 2021 Dollars.

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.

2021 Annual Report Reconciliation

Unitil Energy Services - Unitil Electric
 January 1, 2021 - December 31, 2021

		Total 2021
1.	Ending Balance: 12/31/2020	(Over)/Under \$ (707,478)
2.	Prior Year(s) True Up	\$ 176,940
3.	Beginning Balance 1/1/2021	<u>\$ (530,538)</u>
2021 Revenues		
4.	System Benefits Charge Revenue	\$ 6,243,595
5.	FCM Revenue	\$ 565,223
6.	RGGI Proceeds	\$ 282,648
7.	Estimated Interest	\$ 32,729
8.	Total Funding	Σ Lines 4 - 7 <u>\$ 7,124,195</u>
2021 Expenses		
9.	Program Expenses	\$ 7,583,874
10.	Current Year Planned PI	\$ 324,275
11.	Total Expenses	Lines 9 + 10 <u>\$ 7,908,148</u>
12.	Prelim Ending Balance: 12/31/2021	Lines 3 - 6 + 11 <u>\$ 253,416</u>
13.	Current Year Actual PI	\$ 472,850
14.	Expected Ending Balance: 12/31/2021	Line 12 +10 - 13 <u>\$ 253,416</u>

Notes:

Line 2: Prior Year(s) True-Up reflects adjustments to the 2020 ending balance related to 2020 PI and interest, as booked in 2021

Line 8: Current Year (2021) Planned PI reflects 65% of the original 2021 planned PI filed on September 1, 2020 in Docket DE 20-092.

Line 9: Current Year (2021) Actual PI reflects the PI calculation from this annual report.

2021 Annual Report Reconciliation

Unitil - RGGI On-Bill Financing

January 1, 2021 - December 31, 2021

Revenue and Expense Reconciliation

	<u>Resi</u>	<u>C&I</u>	<u>Total</u>
Beginning Balance: 1/1/2021	\$290,972	\$579,139	\$870,111
2021 Revenues			
Customer Loan Repayments	\$28,930	\$106,738	\$135,668
New Grant Funding	\$0	\$0	\$0
Total Revenues	\$28,930	\$106,738	\$135,668
2021 Expenses			
Customer On-Bill Loans	\$55,127	\$66,455	\$121,582
Administrative Expense	\$0	\$0	\$0
Defaults and Write Offs	\$0	\$0	\$0
Total Expenses	\$55,127	\$66,455	\$121,582
Ending Balance: 12/31/2021	\$264,776	\$619,422	\$884,198