

## CALCULATION OF THE DEFAULT SERVICE CHARGE

## Non-G1 Class Default Service:

	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Total
<b>Power Supply Charge</b>							
As Shown on Schedule LSM-2, Page 1 of 2							
<b>Residential Class</b>							
1 Reconciliation	\$7,818	\$8,849	\$8,231	\$7,529	\$6,915	\$5,984	\$45,326
2 Total Costs	\$3,305,422	\$4,786,084	\$4,523,768	\$3,150,456	\$2,493,286	\$2,090,458	\$20,349,474
3 Reconciliation plus Total Costs (L.1 + L.2)	\$3,313,240	\$4,794,933	\$4,531,999	\$3,157,986	\$2,500,201	\$2,096,442	\$20,394,801
4 kWh Purchases	<u>38,942,387</u>	<u>44,077,885</u>	<u>40,996,863</u>	<u>37,504,254</u>	<u>34,442,431</u>	<u>29,806,398</u>	<u>225,770,218</u>
5 Total, Before Losses (L.3 / L.4)	\$0.08508	\$0.10878	\$0.11055	\$0.08420	\$0.07259	\$0.07034	\$0.09033
6 Losses	<u>6.40%</u>						
7 Total Retail Rate - Residential Variable Power Supply Charge (L.5 * (1+L.6))	\$0.09053	\$0.11575	\$0.11762	\$0.08959	\$0.07724	\$0.07484	
8 Total Retail Rate - Residential Fixed Power Supply Charge (L.5 * (1+L.6))							\$0.09612
<b>G2 and OL Class</b>							
9 Reconciliation	\$2,878	\$3,124	\$2,989	\$2,885	\$2,892	\$2,745	\$17,513
10 Total Costs	\$1,266,339	\$1,883,080	\$1,341,068	\$1,305,649	\$805,271	\$728,384	\$7,329,791
11 Reconciliation plus Total Costs (L.9 + L.10)	\$1,269,217	\$1,886,205	\$1,344,057	\$1,308,534	\$808,163	\$731,130	\$7,347,304
12 kWh Purchases	<u>14,336,491</u>	<u>15,564,907</u>	<u>14,891,774</u>	<u>14,375,804</u>	<u>14,408,148</u>	<u>13,677,416</u>	<u>87,254,540</u>
13 Total, Before Losses (L.11 / L.12)	\$0.08853	\$0.12118	\$0.09025	\$0.09102	\$0.05609	\$0.05346	\$0.08421
14 Losses	<u>6.40%</u>						
15 Total Retail Rate - G2 and OL Variable Power Supply Charge (L.13 * (1+L.14))	\$0.09420	\$0.12894	\$0.09603	\$0.09685	\$0.05968	\$0.05688	
16 Total Retail Rate - G2 and OL Fixed Power Supply Charge (L.13 * (1+L.14))							\$0.08959

	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Total
<b>Renewable Portfolio Standard (RPS) Charge</b>							
As Shown on Schedule LSM-3, Page 1 of 2							
17 Reconciliation	(\$94,088)	(\$105,326)	(\$98,697)	(\$91,618)	(\$86,268)	(\$76,790)	(\$552,786)
18 Total Costs	<u>\$296,835</u>	<u>\$343,888</u>	<u>\$322,243</u>	<u>\$299,133</u>	<u>\$281,669</u>	<u>\$250,728</u>	<u>\$1,794,496</u>
19 Reconciliation plus Total Costs (L.17 + L.18)	\$202,747	\$238,562	\$223,547	\$207,515	\$195,401	\$173,938	\$1,241,710
20 kWh Purchases	<u>53,278,878</u>	<u>59,642,792</u>	<u>55,888,638</u>	<u>51,880,059</u>	<u>48,850,578</u>	<u>43,483,815</u>	<u>313,024,759</u>
21 Total, Before Losses (L.19 / L.20)	\$0.00381	\$0.00400	\$0.00400	\$0.00400	\$0.00400	\$0.00400	\$0.00397
22 Losses	<u>6.40%</u>						
23 Total Retail Rate - Variable RPS Charge (L.21 * (1+L.22))	\$0.00405	\$0.00426	\$0.00426	\$0.00426	\$0.00426	\$0.00426	
24 Total Retail Rate - Fixed RPS Charge (L.21 * (1+L.22))							\$0.00422

<b>TOTAL DEFAULT SERVICE CHARGE</b>							
25 Total Retail Rate - Residential Variable Default Service Charge (L.7 + L.23)	\$0.09458	\$0.12001	\$0.12188	\$0.09385	\$0.08150	\$0.07910	
26 Total Retail Rate - Residential Fixed Default Service Charge (L.8+L.24)							\$0.10034
27 Total Retail Rate - G2 and OL Variable Default Service Charge (L.15 + L.23)	\$0.09825	\$0.13320	\$0.10029	\$0.10111	\$0.06394	\$0.06114	
28 Total Retail Rate - G2 and OL Fixed Default Service Charge (L.16+L.24)							\$0.09381

Authorized by NHPUC Order No. in Case No. DE 17-038, dated

## CALCULATION OF THE DEFAULT SERVICE CHARGE

<b>Non-G1 Class Default Service:</b>		<b>Jun-17</b>	<b>Jul-17</b>	<b>Aug-17</b>	<b>Sep-17</b>	<b>Oct-17</b>	<b>Nov-17</b>	<b>Total</b>
<b>Power Supply Charge</b>								
<b>Residential Class</b>								
1	Reconciliation	\$6,198	\$8,404	\$8,810	\$7,116	\$6,485	\$6,728	\$43,741
2	Total Costs	\$2,085,177	\$2,822,129	\$3,029,323	\$2,478,282	\$2,232,844	\$2,414,771	\$15,062,527
3	Reconciliation plus Total Costs (L.1 + L.2)	\$2,091,375	\$2,830,532	\$3,038,133	\$2,485,398	\$2,239,329	\$2,421,500	\$15,106,267
4	kWh Purchases	<u>30,258,204</u>	<u>41,029,619</u>	<u>43,012,807</u>	<u>34,741,288</u>	<u>31,662,309</u>	<u>32,849,001</u>	<u>213,553,229</u>
5	Total, Before Losses (L.3 / L.4)	\$0.06912	\$0.06899	\$0.07063	\$0.07154	\$0.07073	\$0.07372	\$0.07074
6	Losses	<u>6.40%</u>						
7	Total Retail Rate—Residential Variable Power Supply Charge (L.5 * (1+L.6))	\$0.07354	\$0.07340	\$0.07515	\$0.07612	\$0.07525	\$0.07843	
8	Total Retail Rate—Residential Fixed Power Supply Charge (L.5 * (1+L.6))							\$0.07526
<b>G2 and OL Class</b>								
9	Reconciliation	\$2,904	\$3,430	\$3,557	\$3,061	\$2,897	\$2,798	\$18,648
10	Total Costs	\$901,935	\$1,155,649	\$1,177,344	\$999,567	\$930,952	\$973,570	\$6,139,015
11	Reconciliation plus Total Costs (L.9 + L.10)	\$904,838	\$1,159,079	\$1,180,901	\$1,002,629	\$933,849	\$976,368	\$6,157,664
12	kWh Purchases	<u>14,178,510</u>	<u>16,747,872</u>	<u>17,367,926</u>	<u>14,946,721</u>	<u>14,145,927</u>	<u>13,663,893</u>	<u>91,050,850</u>
13	Total, Before Losses (L.11 / L.12)	\$0.06382	\$0.06921	\$0.06799	\$0.06708	\$0.06602	\$0.07146	\$0.06763
14	Losses	<u>6.40%</u>						
15	Total Retail Rate—G2 and OL Variable Power Supply Charge (L.13 * (1+L.14))	\$0.06790	\$0.07364	\$0.07234	\$0.07137	\$0.07024	\$0.07603	
16	Total Retail Rate—G2 and OL Fixed Power Supply Charge (L.13 * (1+L.14))							\$0.07196

<b>Renewable Portfolio Standard (RPS) Charge</b>								
17	Reconciliation	(\$80,064)	(\$104,101)	(\$108,791)	(\$89,525)	(\$82,535)	(\$83,805)	(\$548,820)
18	Total Costs	<u>\$230,227</u>	<u>\$299,339</u>	<u>\$312,826</u>	<u>\$257,430</u>	<u>\$237,331</u>	<u>\$240,979</u>	<u>\$1,578,133</u>
19	Reconciliation plus Total Costs (L.17 + L.18)	\$150,163	\$195,239	\$204,035	\$167,905	\$154,796	\$157,175	\$1,029,313
20	kWh Purchases	<u>44,436,714</u>	<u>57,777,491</u>	<u>60,380,734</u>	<u>49,688,009</u>	<u>45,808,236</u>	<u>46,512,894</u>	<u>304,604,079</u>
21	Total, Before Losses (L.19 / L.20)	\$0.00338	\$0.00338	\$0.00338	\$0.00338	\$0.00338	\$0.00338	\$0.00338
22	Losses	<u>6.40%</u>						
23	Total Retail Rate—Variable RPS Charge (L.21 * (1+L.22))	\$0.00360	\$0.00360	\$0.00360	\$0.00360	\$0.00360	\$0.00360	
24	Total Retail Rate—Fixed RPS Charge (L.21 * (1+L.22))							\$0.00360

<b>TOTAL DEFAULT SERVICE CHARGE</b>								
25	Total Retail Rate—Residential Variable Default Service Charge (L.7 + L.23)	\$0.07714	\$0.07700	\$0.07875	\$0.07972	\$0.07885	\$0.08203	
26	Total Retail Rate—Residential Fixed Default Service Charge (L.8+L.24)							\$0.07886
27	Total Retail Rate—G2 and OL Variable Default Service Charge (L.15 + L.23)	\$0.07150	\$0.07724	\$0.07594	\$0.07497	\$0.07384	\$0.07963	
28	Total Retail Rate—G2 and OL Fixed Default Service Charge (L.16+L.24)							\$0.07556

Authorized by NHPUC Order No. 26,004 in Case No. DE 17-038, dated April 10, 2017

**CALCULATION OF THE DEFAULT SERVICE CHARGE****G1 Class Default Service:**

	<u>Dec-17</u>	<u>Jan-18</u>	<u>Feb-18</u>	<u>Mar-18</u>	<u>Apr-18</u>	<u>May-18</u>	<u>Total</u>
<b>Power Supply Charge</b>	As Shown on Schedule LSM-4, Page 1 of 2						
1 Reconciliation							\$107,283
2 Total Costs excl. wholesale supplier charge							<u>\$26,300</u>
3 Reconciliation plus Total Costs excl. wholesale supplier charge (L.1 + L.2)							\$133,583
4 kWh Purchases							<u>16,276,613</u>
5 Total, Before Losses (L.3 / L.4)							\$0.00821
6 Losses							<u>4.591%</u>
7 Power Supply Charge excl. wholesale supplier charge (L.5 * (1+L.6)) (2)	\$0.00858	\$0.00858	\$0.00858	\$0.00858	\$0.00858	\$0.00858	\$0.00858
8a Wholesale Supplier Charge	MARKET	MARKET	MARKET	MARKET	MARKET	MARKET	
8b Losses	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	
8 Retail Rate - Wholesale Supplier Charge (L.8a * (1+L.8b))	MARKET	MARKET	MARKET	MARKET	MARKET	MARKET	
9 Total Retail Rate - Power Supply Charge (L.7 + L.8)	MARKET	MARKET	MARKET	MARKET	MARKET	MARKET	
<b>Renewable Portfolio Standard (RPS) Charge</b>	As Shown on Schedule LSM-5, Page 1 of 2						
10 Reconciliation	(\$10,587)	(\$10,818)	(\$10,641)	(\$10,509)	(\$10,532)	(\$10,670)	(\$63,757)
11 Total Costs	<u>\$15,301</u>	<u>\$16,180</u>	<u>\$15,916</u>	<u>\$15,718</u>	<u>\$15,753</u>	<u>\$15,959</u>	<u>\$94,826</u>
12 Reconciliation plus Total Costs (L.10+ L.11)	\$4,714	\$5,362	\$5,275	\$5,209	\$5,221	\$5,289	\$31,069
13 kWh Purchases	<u>2,702,868</u>	<u>2,761,660</u>	<u>2,716,568</u>	<u>2,682,767</u>	<u>2,688,739</u>	<u>2,724,011</u>	16,276,613
14 Total, Before Losses (L.12 / L.13)	\$0.00174	\$0.00194	\$0.00194	\$0.00194	\$0.00194	\$0.00194	
15 Losses	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	
16 Total Retail Rate - RPS Charge (L.14 * (1+L.15))	\$0.00182	\$0.00203	\$0.00203	\$0.00203	\$0.00203	\$0.00203	
<b>TOTAL DEFAULT SERVICE CHARGE</b>							
17 Total Retail Rate - Default Service Charge (L.9 + L.16)	<b>MARKET</b>	<b>MARKET</b>	<b>MARKET</b>	<b>MARKET</b>	<b>MARKET</b>	<b>MARKET</b>	

Authorized by NHPUC Order No. in Case No. DE 17-038, dated

**CALCULATION OF THE DEFAULT SERVICE CHARGE**

<b>G1 Class Default Service:</b>	<b><u>Jun-17</u></b>	<b><u>Jul-17</u></b>	<b><u>Aug-17</u></b>	<b><u>Sep-17</u></b>	<b><u>Oct-17</u></b>	<b><u>Nov-17</u></b>	<b><u>Total</u></b>
<b><i>Power Supply Charge</i></b>							
1 Reconciliation							\$117,921
2 Total Costs excl. wholesale supplier charge							<u>\$24,974</u>
3 Reconciliation plus Total Costs excl. wholesale supplier charge (L.1 + L.2)							\$142,895
4 kWh Purchases							<u>18,853,229</u>
5 Total, Before Losses (L.3 / L.4)							\$0.00758
6 Losses							<u>4.591%</u>
7 Power Supply Charge excl. wholesale supplier charge (L.5 * (1+L.6)) (2)	\$0.00793	\$0.00793	\$0.00793	\$0.00793	\$0.00793	\$0.00793	\$0.00793
8a Wholesale Supplier Charge	MARKET	MARKET	MARKET	MARKET	MARKET	MARKET	
8b Losses	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	
8 Retail Rate—Wholesale Supplier Charge (L.8a * (1+L.8b))	MARKET	MARKET	MARKET	MARKET	MARKET	MARKET	
9 Total Retail Rate—Power Supply Charge (L.7 + L.8)	MARKET	MARKET	MARKET	MARKET	MARKET	MARKET	
<b><i>Renewable Portfolio Standard (RPS) Charge</i></b>							
10 Reconciliation	(\$12,039)	(\$11,925)	(\$12,555)	(\$12,483)	(\$10,757)	(\$10,314)	(\$70,073)
11 Total Costs	<u>\$17,054</u>	<u>\$16,891</u>	<u>\$17,784</u>	<u>\$17,683</u>	<u>\$15,237</u>	<u>\$14,610</u>	<u>\$99,259</u>
12 Reconciliation plus Total Costs (L.10 + L.11)	\$5,014	\$4,967	\$5,229	\$5,199	\$4,480	\$4,296	\$29,185
13 kWh Purchases	<u>3,239,206</u>	<u>3,208,317</u>	<u>3,377,950</u>	<u>3,358,649</u>	<u>2,894,145</u>	<u>2,774,962</u>	18,853,229
14 Total, Before Losses (L.12 / L.13)	\$0.00155	\$0.00155	\$0.00155	\$0.00155	\$0.00155	\$0.00155	
15 Losses	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	<u>4.591%</u>	
16 Total Retail Rate—RPS Charge (L.14 * (1+L.15))	\$0.00162	\$0.00162	\$0.00162	\$0.00162	\$0.00162	\$0.00162	
<b>TOTAL DEFAULT SERVICE CHARGE</b>							
17 Total Retail Rate—Default Service Charge (L.9 + L.16)	MARKET	MARKET	MARKET	MARKET	MARKET	MARKET	

Authorized by NHPUC Order No. 26,004 in Case No. DE 17-038, dated April 10, 2017

**SUMMARY OF LOW-INCOME  
 ELECTRIC ASSISTANCE PROGRAM DISCOUNTS**

**Low-Income Electric Assistance Program (LI-EAP) Discounts for Eligible Customers**

Tier	Percentage of Federal Poverty Guidelines	Discount (5)	Blocks	LI-EAP discount	LI-EAP discount	LI-EAP discount	LI-EAP discount				LI-EAP discount					
				Delivery Only; Excludes Supply	Fixed-Default-Service Supply-Only	Fixed Default Service Supply Only	Variable-Default-Service Supply-Only				Variable Default Service Supply Only					
				Aug-Nov 2017 (1) Dec 2017-May 2018 (1)	Aug-Nov 2017 (2)	Dec 2017-May 2018 (2)	Aug-17 (3)	Sep-17 (3)	Oct-17 (3)	Nov-17 (3)	Dec-17 (3)	Jan-18 (3)	Feb-18 (3)	Mar-18 (3)	Apr-18 (3)	May-18 (3)
1 (4)	N/A	N/A														
2	151 - 200	8%	Customer Charge	(\$1.22)												
			First 750 kWh	(\$0.00541)	<del>(\$0.00631)</del>	(\$0.00803)	<del>(\$0.00630)</del>	<del>(\$0.00638)</del>	<del>(\$0.00631)</del>	<del>(\$0.00656)</del>	(\$0.00757)	(\$0.00960)	(\$0.00975)	(\$0.00751)	(\$0.00652)	(\$0.00633)
			Excess 750 kWh	\$0.00000	<del>\$0.00000</del>	\$0.00000	<del>\$0.00000</del>	<del>\$0.00000</del>	<del>\$0.00000</del>	<del>\$0.00000</del>	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000
3 6100	126 - 150	22%	Customer Charge	(\$3.35)												
			First 750 kWh	(\$0.01487)	<del>(\$0.01735)</del>	(\$0.02207)	<del>(\$0.01733)</del>	<del>(\$0.01754)</del>	<del>(\$0.01735)</del>	<del>(\$0.01805)</del>	(\$0.02081)	(\$0.02640)	(\$0.02681)	(\$0.02065)	(\$0.01793)	(\$0.01740)
			Excess 750 kWh	\$0.00000	<del>\$0.00000</del>	\$0.00000	<del>\$0.00000</del>	<del>\$0.00000</del>	<del>\$0.00000</del>	<del>\$0.00000</del>	<del>\$0.00000</del>	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000
4	101 - 125	36%	Customer Charge	(\$5.49)												
			First 750 kWh	(\$0.02433)	<del>(\$0.02839)</del>	(\$0.03612)	<del>(\$0.02835)</del>	<del>(\$0.02870)</del>	<del>(\$0.02839)</del>	<del>(\$0.02953)</del>	(\$0.03405)	(\$0.04320)	(\$0.04388)	(\$0.03379)	(\$0.02934)	(\$0.02848)
			Excess 750 kWh	\$0.00000	<del>\$0.00000</del>	\$0.00000	<del>\$0.00000</del>	<del>\$0.00000</del>	<del>\$0.00000</del>	<del>\$0.00000</del>	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000
5	76 - 100	52%	Customer Charge	(\$7.92)												
			First 750 kWh	(\$0.03514)	<del>(\$0.04101)</del>	(\$0.05218)	<del>(\$0.04095)</del>	<del>(\$0.04145)</del>	<del>(\$0.04100)</del>	<del>(\$0.04266)</del>	(\$0.04918)	(\$0.06241)	(\$0.06338)	(\$0.04880)	(\$0.04238)	(\$0.04113)
			Excess 750 kWh	\$0.00000	<del>\$0.00000</del>	\$0.00000	<del>\$0.00000</del>	<del>\$0.00000</del>	<del>\$0.00000</del>	<del>\$0.00000</del>	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000
6	0 - 75	76%	Customer Charge	(\$11.58)												
			First 750 kWh	(\$0.05136)	<del>(\$0.05993)</del>	(\$0.07626)	<del>(\$0.05985)</del>	<del>(\$0.06059)</del>	<del>(\$0.05993)</del>	<del>(\$0.06234)</del>	(\$0.07188)	(\$0.09121)	(\$0.09263)	(\$0.07133)	(\$0.06194)	(\$0.06012)
			Excess 750 kWh	\$0.00000	<del>\$0.00000</del>	\$0.00000	<del>\$0.00000</del>	<del>\$0.00000</del>	<del>\$0.00000</del>	<del>\$0.00000</del>	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000

- (1) Discount calculated using total utility charges from Page 4 (excluding the Electricity Consumption Tax) multiplied by the appropriate discount. These figures exclude default service and are applicable to customers choosing a Competitive Supplier or self-supply. Customers taking default service from the Company would receive these discounts plus the appropriate discount applicable to default service supply.
- (2) Discount calculated using Non-G1 class (Residential) Fixed Default Service Rate multiplied by the appropriate discount. These figures exclude delivery.
- (3) Discount calculated using Non-G1 class (Residential) Variable Default Service Rate, for the applicable month, multiplied by the appropriate discount. These figures exclude delivery.
- (4) Tier 1 was eliminated by Order No. 25,200 in DE 10-192 dated March 4, 2011.
- (5) Discounts effective July 1, 2016 in accordance with Order No. 25-901 in DE 14-078.

Authorized by NHPUC Order No. 26,042 in Case No. DE 17-038 402, dated July 24, 2017

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Unitil Energy Systems, Inc.  
 Calculation of Non-G1 Class Default Service Power Supply Charge

	<u>Dec-17 Estimated</u>	<u>Jan-18 Estimated</u>	<u>Feb-18 Estimated</u>	<u>Mar-18 Estimated</u>	<u>Apr-18 Estimated</u>	<u>May-18 Estimated</u>	<u>Total</u>
<b><u>Residential Class</u></b>							
1 Reconciliation (1)	\$7,818	\$8,849	\$8,231	\$7,529	\$6,915	\$5,984	\$45,326
2 Total Costs (Page 2)	<u>\$3,305,422</u>	<u>\$4,786,084</u>	<u>\$4,523,768</u>	<u>\$3,150,456</u>	<u>\$2,493,286</u>	<u>\$2,090,458</u>	<u>\$20,349,474</u>
3 Reconciliation plus Total Costs (L.1 + L.2)	\$3,313,240	\$4,794,933	\$4,531,999	\$3,157,986	\$2,500,201	\$2,096,442	\$20,394,801
4 kWh Purchases	<u>38,942,387</u>	<u>44,077,885</u>	<u>40,996,863</u>	<u>37,504,254</u>	<u>34,442,431</u>	<u>29,806,398</u>	<u>225,770,218</u>
5 Total, Before Losses (L.3 / L.4)	\$0.08508	\$0.10878	\$0.11055	\$0.08420	\$0.07259	\$0.07034	\$0.09033
6 Losses	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>
7 Total Retail Rate - Residential Variable Power Supply Charge (L.5 * (1+L.6))	\$0.09053	\$0.11575	\$0.11762	\$0.08959	\$0.07724	\$0.07484	
8 Total Retail Rate - Residential Fixed Power Supply Charge (L.5 * (1+L.6))							\$0.09612
<b><u>G2 and OL Class</u></b>							
9 Reconciliation (1)	\$2,878	\$3,124	\$2,989	\$2,885	\$2,892	\$2,745	\$17,513
10 Total Costs (Page 2)	<u>\$1,266,339</u>	<u>\$1,883,080</u>	<u>\$1,341,068</u>	<u>\$1,305,649</u>	<u>\$805,271</u>	<u>\$728,384</u>	<u>\$7,329,791</u>
11 Reconciliation plus Total Costs (L.9 + L.10)	\$1,269,217	\$1,886,205	\$1,344,057	\$1,308,534	\$808,163	\$731,130	\$7,347,304
12 kWh Purchases	<u>14,336,491</u>	<u>15,564,907</u>	<u>14,891,774</u>	<u>14,375,804</u>	<u>14,408,148</u>	<u>13,677,416</u>	<u>87,254,540</u>
13 Total, Before Losses (L.11 / L.12)	\$0.08853	\$0.12118	\$0.09025	\$0.09102	\$0.05609	\$0.05346	\$0.08421
14 Losses	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>
15 Total Retail Rate - G2 and OL Variable Power Supply Charge (L.13 * (1+L.14))	\$0.09420	\$0.12894	\$0.09603	\$0.09685	\$0.05968	\$0.05688	
16 Total Retail Rate - G2 and OL Fixed Power Supply Charge (L.13 * (1+L.14))							\$0.08959

(1) As filed in DE 17-038 (April 2017). Power Supply Charge balance as of February 28, 2017, as adjusted, allocated between rate periods (June-November 2017 and December 2017-May 2018) and rate classes (Residential and G2/OL), and then to each month, December 2017 through May 2018, on equal per kWh basis.

	Reconciliation <u>per period</u>	
Rate period: June-November 2017	\$62,389	
Rate period: December 2017-May 2018	<u>\$62,840</u>	
Total	\$125,229	
	Dec 2017-May 2018 Reconciliation	
	<u>kWh purchases</u>	<u>% by class</u>
Residential class	225,770,218	72.13%
G2 and OL class	<u>87,254,540</u>	27.87%
Total	313,024,759	<u>\$62,840</u>

00201

Redacted

Unitil Energy Systems, Inc.  
Itemized Costs for Non-G1 Class Default Service Charge

Calculation of Working Capital Supplier Charges and GIS Support Payments															
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
Non-G1 Class (Residential) DS Supplier Charges (1)	Non-G1 Class (G2 and OL) DS Supplier Charges (1)	GIS Support Payments	Number of Days of Lag / 365 (2)	Working Capital Requirement ((a+b+c)*d)	Prime Rate	Supply Related Working Capital (e * f)	Provision for Uncollected Accounts	Internal Company Administrative Costs	Legal Charges	Consulting Outside Service Charges	Default Service Portion of the annual PUC Assessment	Non-G1 Class (Residential) DS Supplier Charges (col. a)	Non-G1 Class (G2 and OL) DS Supplier Charges (col. b)	Total Remaining Costs (sum col. c + g + h + i + j + k + l)	Total All Costs (sum col. m + n + o)
Dec-17		\$457	7.27%		4.25%			\$2,790	\$0	\$0	\$792				\$4,571,761
Jan-18		\$518	7.27%		4.25%			\$2,790	\$0	\$0	\$792				\$6,669,165
Feb-18		\$580	7.27%		4.25%			\$2,790	\$0	\$0	\$792				\$5,864,836
Mar-18		\$543	7.27%		4.25%			\$2,790	\$0	\$0	\$792				\$4,456,105
Apr-18		\$504	7.27%		4.25%			\$2,790	\$0	\$0	\$792				\$3,298,557
May-18		\$475	7.27%		4.25%			\$2,790	\$0	\$0	\$792				\$2,818,842
Total		\$3,077						\$16,739	\$0	\$0	\$4,749				\$27,679,265

00202

Total Costs Allocated to the Residential Class and the G2/OL Class

Non-G1 Class (Residential) DS Supplier Charges (col. a)	Allocation of Remaining Costs (col. o) to Residential Class (3)	Total Non-G1 Class (Residential) Power Supply Charges (iii) = (i) + (ii)	Non-G1 Class (G2 and OL) DS Supplier Charges (col. b)	Allocation of Remaining Costs (col. o) to G2 and OL Class (3)	Total Non-G1 Class (G2 and OL) Power Supply Charges (vi) = (iv) + (v)
(i)	(ii)	(iii) = (i) + (ii)	(iv)	(v)	(vi) = (iv) + (v)
Dec-17		\$3,305,422			\$1,266,339
Jan-18		\$4,786,084			\$1,883,080
Feb-18		\$4,523,768			\$1,341,068
Mar-18		\$3,150,456			\$1,305,649
Apr-18		\$2,493,286			\$805,271
May-18		\$2,090,458			\$728,384
Total		\$20,349,474			\$7,329,791

- (1) Estimates based on monthly average wholesale rate times estimated monthly purchases.
- (2) Number of days lag equals 26.55. Calculated using revenue lag of 61.15 days less cost lead of 34.60 days. Revenue lag per Schedule DN-1, Page 4 of 23 and cost lead per Schedule DN-1, Page 22 of 23, DE 17-038 filed April 3, 2017.
- (3) Remaining Costs (column o) allocated between the Residential Class and the G2 and Outdoor Lighting Class based on estimated monthly kWh purchases, as shown below:

Estimated kWh Purchases - Residential Class	Estimated kWh Purchases - G2 and OL Class	Total Non-G1 Class kWh Purchases	Residential Class kWh Purchases / Total Non-G1 Class kWh Purchases	G2 and OL Class kWh Purchases / Total Non-G1 Class kWh Purchases	
Dec-17	38,942,387	14,336,491	53,278,878	73.1%	26.9%
Jan-18	44,077,885	15,564,907	59,642,792	73.9%	26.1%
Feb-18	40,996,863	14,891,774	55,888,638	73.4%	26.6%
Mar-18	37,504,254	14,375,804	51,880,059	72.3%	27.7%
Apr-18	34,442,431	14,408,148	48,850,578	70.5%	29.5%
May-18	29,806,398	13,677,416	43,483,815	68.5%	31.5%
Total	225,770,218	87,254,540	313,024,759		

Unitil Energy Systems, Inc.  
 Calculation of Non-G1 Class Default Service Renewable Portfolio Standard (RPS) Charge

	<b><u>Dec-17</u></b>	<b><u>Jan-18</u></b>	<b><u>Feb-18</u></b>	<b><u>Mar-18</u></b>	<b><u>Apr-18</u></b>	<b><u>May-18</u></b>	<b><u>Total</u></b>
1 Reconciliation (1)	(\$94,088)	(\$105,326)	(\$98,697)	(\$91,618)	(\$86,268)	(\$76,790)	(\$552,786)
2 Total Costs (Page 2)	\$296,835	\$343,888	\$322,243	\$299,133	\$281,669	\$250,728	\$1,794,496
3 Reconciliation plus Total Costs (L.1 + L.2)	\$202,747	\$238,562	\$223,547	\$207,515	\$195,401	\$173,938	\$1,241,710
4 kWh Purchases	<u>53,278,878</u>	<u>59,642,792</u>	<u>55,888,638</u>	<u>51,880,059</u>	<u>48,850,578</u>	<u>43,483,815</u>	<u>313,024,759</u>
5 Total, Before Losses (L.3 / L.4)	\$0.00381	\$0.00400	\$0.00400	\$0.00400	\$0.00400	\$0.00400	\$0.00397
6 Losses	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>
7 Total Retail Rate - Variable RPS Charge (L.5 * (1+L.6))	\$0.00405	\$0.00426	\$0.00426	\$0.00426	\$0.00426	\$0.00426	
8 Total Retail Rate - Fixed RPS Charge (L.5 * (1+L.6))							\$0.00422

(1) As filed in DE 17-038 (April 2017). Renewable Portfolio Standard Charge balance as of February 28, 2017, as adjusted, allocated between rate periods (June-November 2017 and December 2017-May 2018) and then to each month on equal per kWh basis.

Reconciliation amount for June-November 2017	(\$548,820)
Reconciliation amount for December 2017-May 2018	<u>(\$552,786)</u>
Total	(\$1,101,607)

	(a)	<i>Calculation of Working Capital</i>				(f)
	Renewable Energy Credits (1)	Number of Days of Lag / 365 (2)	Working Capital Requirement (a*b)	(d) Prime Rate	Supply Related Working Capital (c * d)	Total Costs (sum a + e)
Dec-17	\$307,157	(79.07%)	(\$242,856)	4.25%	(\$10,321)	\$296,835
Jan-18	\$355,845	(79.07%)	(\$281,352)	4.25%	(\$11,957)	\$343,888
Feb-18	\$333,448	(79.07%)	(\$263,643)	4.25%	(\$11,205)	\$322,243
Mar-18	\$309,534	(79.07%)	(\$244,735)	4.25%	(\$10,401)	\$299,133
Apr-18	\$291,463	(79.07%)	(\$230,447)	4.25%	(\$9,794)	\$281,669
May-18	<u>\$259,446</u>	(79.07%)	<u>(\$205,133)</u>	4.25%	<u>(\$8,718)</u>	<u>\$250,728</u>
Total	\$1,856,893		(\$1,468,166)		(\$62,397)	\$1,794,496

(1) Schedule LSG-4.

(2) Number of days lag equals (288.59). Calculated using revenue lag of 61.15 days less cost lead of 349.74 days. Revenue lag per Schedule DN-1, Page 4 of 23 and cost lead per Schedule DN-1, Page 22 of 23, DE 17-038 filed April 3, 2017.

00204

Unitil Energy Systems, Inc.  
 Calculation of G1 Large General Service Class Default Service Power Supply Charge

00205

	<b>Total Dec 17-May 18</b>
1 Reconciliation (1)	\$107,283
2 Total Costs excl. wholesale supplier charge (Page 2)	<u>\$26,300</u>
3 Reconciliation plus Total Costs excl. wholesale supplier charge (L.1 + L.2)	\$133,583
4 kWh Purchases	<u>16,276,613</u>
5 Total, Before Losses (L.3 / L.4)	\$0.00821
6 Losses	<u>4.591%</u>
7 Power Supply Charge excl. wholesale supplier charge (L.5 * (1+L.6)) (2)	\$0.00858

(1) As filed in DE 17-038 (April 2017). Power Supply Charge balance as of February 28, 2017, as adjusted, allocated between rate periods (June-November 2017 and December 2017-May 2018) on equal per kWh basis.

Reconciliation amount for June-November 2017	\$117,921
Reconciliation amount for December 2017-May 2018	<u>\$107,283</u>
Total	\$225,205

(2) The total G1 Power Supply Charge will equal the sum of Line 7 plus a wholesale supplier charge which shall be determined at the end of each month. The wholesale supply charges will be determined as the sum of the average ISO-New England real time hourly locational marginal prices for the New Hampshire load zone, weighted by the wholesale hourly kWh volumes of the Company's G1 Default Service customers, and charges for capacity, ancillary services, and other supplier costs established through a competitive bidding process.

*Calculation of Working Capital  
Supplier Charges and GIS Support Payments*

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	Total G1 Class DS Supplier Charges (1)	GIS Support Payments	Number of Days of Lag / 365 (2)	Working Capital Requirement (3)	Prime Rate	Supply Related Working Capital (d * e)	Provision for Uncollected Accounts	Internal Company Administrative Costs	Legal Charges	Consulting Outside Service Charges	Default Service Portion of the annual PUC Assessment	Total Costs (sum a + b + f + g + h + i + j + k)
Dec-17		\$26	0.35%	\$599	4.25%	\$25	\$0	\$4,290	\$0	\$0	\$42	\$4,383
Jan-18		\$26	0.35%	\$814	4.25%	\$35	\$0	\$4,290	\$0	\$0	\$42	\$4,393
Feb-18		\$27	0.35%	\$698	4.25%	\$30	\$0	\$4,290	\$0	\$0	\$42	\$4,388
Mar-18		\$26	0.35%	\$602	4.25%	\$26	\$0	\$4,290	\$0	\$0	\$42	\$4,384
Apr-18		\$26	0.35%	\$441	4.25%	\$19	\$0	\$4,290	\$0	\$0	\$42	\$4,376
May-18		<u>\$26</u>	0.35%	\$427	4.25%	<u>\$18</u>	<u>\$0</u>	<u>\$4,290</u>	<u>\$0</u>	<u>\$0</u>	<u>\$42</u>	<u>\$4,376</u>
Total		\$157				\$152	\$0	\$25,739	\$0	\$0	\$251	\$26,300

(1) DS Supplier Charges to be determined at the end of each month.

(2) Number of days lag equals 1.26. Calculated using revenue lag of 42.90 days less cost lead of 41.64 days. Revenue lag per Schedule DN-1, Page 4 of 23 and cost lead per Schedule DN-1, Page 20 of 23, DE 17-038 filed April 3, 2017.

(3) The working capital requirement equals the supplier charge plus GIS Support payment times the number of days lag divided by 365. As the G1 class supplier charge is not determined using a contract price, estimates of the G1 class power supply costs were calculated based on the forecasted G1 class kWh purchases and an estimated price per kWh. The estimated price per kWh was determined by comparing a historical relationship between G1 and Non-G1 class supplier pricing and then applying that relationship to the current average Non-G1 supplier price per kWh. Actual working capital will be determined using the actual supplier charges in each month.

00206

Unitil Energy Systems, Inc.  
 Calculation of G1 Class Default Service Renewable Portfolio Standard (RPS) Charge

	<b><u>Dec-17</u></b>	<b><u>Jan-18</u></b>	<b><u>Feb-18</u></b>	<b><u>Mar-18</u></b>	<b><u>Apr-18</u></b>	<b><u>May-18</u></b>	<b><u>Total</u></b>
1 Reconciliation (1)	(\$10,587)	(\$10,818)	(\$10,641)	(\$10,509)	(\$10,532)	(\$10,670)	(\$63,757)
2 Total Costs (Page 2)	\$15,301	\$16,180	\$15,916	\$15,718	\$15,753	\$15,959	\$94,826
3 Reconciliation plus Total Costs (L.1 + L.2)	\$4,714	\$5,362	\$5,275	\$5,209	\$5,221	\$5,289	\$31,069
4 kWh Purchases	2,702,868	2,761,660	2,716,568	2,682,767	2,688,739	2,724,011	16,276,613
00007 5 Total, Before Losses (L.3 / L.4)	\$0.00174	\$0.00194	\$0.00194	\$0.00194	\$0.00194	\$0.00194	
6 Losses	4.591%	4.591%	4.591%	4.591%	4.591%	4.591%	
7 Total Retail Rate - Variable RPS Charge (L.5 * (1+L.6))	\$0.00182	\$0.00203	\$0.00203	\$0.00203	\$0.00203	\$0.00203	

(1) As filed in DE 17-038 (April 2017). Renewable Portfolio Standard Charge balance as of February 28, 2017, as adjusted, allocated between rate periods (June-November 2017 and December 2017-May 2018) and then to each month on equal per kWh basis.

Reconciliation amount for June-November 2017	(\$70,073)
Reconciliation amount for December 2017-May 2018	(\$63,757)
Total	(\$133,830)

Unitil Energy Systems, Inc.  
Itemized Costs for G1 Class Default Service Renewable Portfolio Standard Charge

Schedule LSM-5  
Page 2 of 2

	(a) Renewable Energy Credits (1)	<i>Calculation of Working Capital</i>				(f) Total Costs (sum a + e)
		(b) Number of Days of Lag / 365 (2)	(c) Working Capital Requirement (a*b)	(d) Prime Rate	(e) Supply Related Working Capital (c * d)	
Dec-17	\$15,859	(82.74%)	(\$13,122)	4.25%	(\$558)	\$15,301
Jan-18	\$16,769	(82.74%)	(\$13,875)	4.25%	(\$590)	\$16,180
Feb-18	\$16,496	(82.74%)	(\$13,649)	4.25%	(\$580)	\$15,916
Mar-18	\$16,290	(82.74%)	(\$13,479)	4.25%	(\$573)	\$15,718
Apr-18	\$16,327	(82.74%)	(\$13,509)	4.25%	(\$574)	\$15,753
May-18	<u>\$16,541</u>	(82.74%)	(\$13,686)	4.25%	<u>(\$582)</u>	<u>\$15,959</u>
Total	\$98,282				(\$3,456)	\$94,826

(1) Schedule LSG-4.

(2) Number of days lag equals (302.01). Calculated using revenue lag of 42.90 days less cost lead of 344.91 days. Revenue lag per Schedule DN-1, Page 4 of 23 and cost lead per Schedule DN-1, Page 20 of 23, DE 17-038 filed April 3, 2017.

00208

**Unitil Energy Systems, Inc.**  
**Internal Administrative Costs associated with Default Service**

	<u>G1 Class</u>	<u>Non-G1 Class</u>	<u>Total</u>	Notes:	
<b>Energy Contracts Department:</b>					
1	Average Cost of Labor per Hour	\$47.48	\$47.48	\$47.48	1
2	Estimated Annual Hours Required to Accomplish Tasks	<u>249.4</u>	<u>150.6</u>	<u>400.0</u>	
3	Cost of Labor	\$11,842	\$7,150	\$18,992	
4	Overhead (Line 3 * Overhead rate)	<u>\$14,447</u>	<u>\$8,724</u>	<u>\$23,170</u>	2
5	<b>Total Labor and Overhead Cost</b>	<u>\$26,288</u>	<u>\$15,874</u>	<u>\$42,162</u>	
<b>Regulatory Services Department:</b>					
1	Average Cost of Labor per Hour	\$55.67	\$55.67	\$55.67	1
2	Estimated Annual Hours Required to Accomplish Tasks	<u>88.0</u>	<u>35.0</u>	<u>123.0</u>	
3	Cost of Labor	\$4,899	\$1,948	\$6,847	
4	Overhead (Line 3 * Overhead rate)	<u>\$5,977</u>	<u>\$2,377</u>	<u>\$8,354</u>	2
5	<b>Total Labor and Overhead Cost</b>	<u>\$10,876</u>	<u>\$4,326</u>	<u>\$15,201</u>	
<b>Accounts Payable Department:</b>					
1	Average Cost of Labor per Hour	\$25.64	\$25.64	\$25.64	1
2	Estimated Annual Hours Required to Accomplish Tasks	<u>6.0</u>	<u>6.0</u>	<u>12.0</u>	
3	Cost of Labor	\$154	\$154	\$308	
4	Overhead (Line 3 * Overhead rate)	<u>\$188</u>	<u>\$188</u>	<u>\$375</u>	2
5	<b>Total Labor and Overhead Cost</b>	<u>\$342</u>	<u>\$342</u>	<u>\$683</u>	
<b>General Accounting Department:</b>					
1	Average Cost of Labor per Hour	\$46.47	\$46.47	\$46.47	1
2	Estimated Annual Hours Required to Accomplish Tasks	<u>6.0</u>	<u>6.0</u>	<u>12.0</u>	
3	Cost of Labor	\$279	\$279	\$558	
4	Overhead (Line 3 * Overhead rate)	<u>\$340</u>	<u>\$340</u>	<u>\$680</u>	2
5	<b>Total Labor and Overhead Cost</b>	<u>\$619</u>	<u>\$619</u>	<u>\$1,238</u>	
<b>Finance Department:</b>					
1	Average Cost of Labor per Hour	\$49.02	\$49.02	\$49.02	1
2	Estimated Annual Hours Required to Accomplish Tasks	<u>26.0</u>	<u>26.0</u>	<u>52.0</u>	
3	Cost of Labor	\$1,275	\$1,275	\$2,549	
4	Overhead (Line 3 * Overhead rate)	<u>\$1,555</u>	<u>\$1,555</u>	<u>\$3,110</u>	2
5	<b>Total Labor and Overhead Cost</b>	<u>\$2,829</u>	<u>\$2,829</u>	<u>\$5,659</u>	
<b>Communications Department:</b>					
1	Average Cost of Labor per Hour	\$49.59	\$49.59	\$49.59	1
2	Estimated Annual Hours Required to Accomplish Tasks	<u>60.0</u>	<u>60.0</u>	<u>120.0</u>	
3	Cost of Labor	\$2,975	\$2,975	\$5,951	
4	Overhead (Line 3 * Overhead rate)	<u>\$3,630</u>	<u>\$3,630</u>	<u>\$7,260</u>	2
5	<b>Total Labor and Overhead Cost</b>	<u>\$6,605</u>	<u>\$6,605</u>	<u>\$13,211</u>	
<b>Business Development Department:</b>					
1	Average Cost of Labor per Hour	\$46.04	\$46.04	\$46.04	1
2	Estimated Annual Hours Required to Accomplish Tasks	<u>8.0</u>	<u>0.0</u>	<u>8.0</u>	
3	Cost of Labor	\$368	\$0	\$368	
4	Overhead (Line 3 * Overhead rate)	<u>\$449</u>	<u>\$0</u>	<u>\$449</u>	2
5	<b>Total Labor and Overhead Cost</b>	<u>\$818</u>	<u>\$0</u>	<u>\$818</u>	
<b>Information Systems Department:</b>					
1	Average Cost of Labor per Hour	\$44.60	\$44.60	\$44.60	1
2	Estimated Annual Hours Required to Accomplish Tasks	<u>3.6</u>	<u>1.4</u>	<u>5.0</u>	
3	Cost of Labor	\$161	\$62	\$223	
4	Overhead (Line 3 * Overhead rate)	<u>\$196</u>	<u>\$76</u>	<u>\$272</u>	2
5	<b>Total Labor and Overhead Cost</b>	<u>\$356</u>	<u>\$139</u>	<u>\$495</u>	
<b>Customer Service Department:</b>					
1	Average Cost of Labor per Hour	\$25.76	\$25.76	\$25.76	1
2	Estimated Annual Hours Required to Accomplish Tasks	<u>48.0</u>	<u>48.0</u>	<u>96.0</u>	
3	Cost of Labor	\$1,236	\$1,236	\$2,473	
4	Overhead (Line 3 * Overhead rate)	<u>\$1,509</u>	<u>\$1,509</u>	<u>\$3,017</u>	2
5	<b>Total Labor and Overhead Cost</b>	<u>\$2,745</u>	<u>\$2,745</u>	<u>\$5,490</u>	
	<b>TOTAL ANNUAL COST</b>	<u>\$51,478</u>	<u>\$33,479</u>	<u>\$84,957</u>	

Notes:

- 1) See Schedule LSM-6, Page 2 of 2.
- 2) Based on Unitil Service Corp. overhead rate of 122% (2016 average rate).

**Unitil Service Corp.**  
**Average Cost of Labor per Hour by Department**

<u>Department</u> (a)	<u>Full Time Equivalent (1)</u> (b)	<u>Annualized Base Labor</u> (c)	<u>Open Positions</u> (d)	<u>Open Positions (2)</u> (e)	<u>Total Positions</u> (b) + (d) = (f)	<u>Total Salaries</u> (c) + (e) = (g)	<u>Avg Hrly Labor Cost (3)</u> (g) ÷ (f) ÷ 2080 = (h)
Energy Contracts	8.00	\$790,111	0.0	\$0	8.00	\$790,111	\$47.48
Regulatory / Legal	10.00	\$1,157,839	0.0	\$0	10.00	\$1,157,839	\$55.67
Accounts Payable	5.00	\$266,683	0.0	\$0	5.00	\$266,683	\$25.64
General Accounting	20.60 (4)	\$1,991,270	0.0	\$0	20.60	\$1,991,270	\$46.47
Finance	4.00	\$414,660	1.0	\$95,137	5.00	\$509,797	\$49.02
Communications	8.00	\$855,283	1.0	\$73,039	9.00	\$928,322	\$49.59
Customer Energy Solutions (formerly Business Services)	24.00	\$2,298,097	0.0	\$0	24.00	\$2,298,097	\$46.04
Information Technology	25.00	\$2,312,452	3.0	\$284,975	28.00	\$2,597,427	\$44.60
Customer Service	66.00	\$3,452,340	5.0	\$351,297	71.00	\$3,803,636	\$25.76

(1) Annualized salaries of active employees as of September 1, 2017.

(2) Salary range midpoint of open positions as of September 1, 2017.

(3) Total Salaries ÷ Total Positions ÷ (40 hours/wk \* 52 weeks/yr).

(4) Includes two part-time employees.

**Unitil Energy Systems, Inc.  
Typical Bill Impacts by Rate Component**

**Residential Rate D 650 kWh Bill**

Rate Components	9/1/2017	12/1/2017	Difference	Current Bill*	As Revised Bill*	Difference	%
	Current Rate	As Revised					Difference to
							Total Bill
Customer Charge	\$15.24	\$15.24	\$0.00	\$15.24	\$15.24	\$0.00	0.0%
	<u>\$/kWh</u>	<u>\$/kWh</u>					
Distribution Charge	\$0.03682	\$0.03682	\$0.00000	\$23.93	\$23.93	\$0.00	0.0%
External Delivery Charge	\$0.02637	\$0.02637	\$0.00000	\$17.14	\$17.14	\$0.00	0.0%
Stranded Cost Charge	(\$0.00057)	(\$0.00057)	\$0.00000	(\$0.37)	(\$0.37)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00139	\$0.00139	\$0.00000	\$0.90	\$0.90	\$0.00	0.0%
System Benefits Charge	\$0.00357	\$0.00357	\$0.00000	\$2.32	\$2.32	\$0.00	0.0%
Default Service Charge	<u>\$0.07886</u>	<u>\$0.10034</u>	<u>\$0.02148</u>	<u>\$51.26</u>	<u>\$65.22</u>	<u>\$13.96</u>	<u>12.6%</u>
Total kWh Charges	\$0.14644	\$0.16792	\$0.02148				
Total Bill				\$110.43	\$124.39	\$13.96	12.6%

**Regular General G2 Demand, 11 kW, 2,800 kWh Typical Bill**

Rate Components	9/1/2017	12/1/2017	Difference	Current Bill*	As Revised Bill*	Difference	%
	Current Rate	As Revised					Difference to
							Total Bill
Customer Charge	\$27.43	\$27.43	\$0.00	\$27.43	\$27.43	\$0.00	0.0%
	<u>All kW</u>	<u>All kW</u>					
Distribution Charge	\$10.35	\$10.35	\$0.00	\$113.85	\$113.85	\$0.00	0.0%
Stranded Cost Charge	(\$0.11)	(\$0.11)	\$0.00	(\$1.21)	(\$1.21)	\$0.00	0.0%
Total kW Charges	\$10.24	\$10.24	\$0.00	\$112.64	\$112.64	\$0.00	0.0%
	<u>\$/kWh</u>	<u>\$/kWh</u>					
Distribution Charge	\$0.00116	\$0.00116	\$0.00000	\$3.25	\$3.25	\$0.00	0.0%
External Delivery Charge	\$0.02637	\$0.02637	\$0.00000	\$73.84	\$73.84	\$0.00	0.0%
Stranded Cost Charge	(\$0.00011)	(\$0.00011)	\$0.00000	(\$0.31)	(\$0.31)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00139	\$0.00139	\$0.00000	\$3.89	\$3.89	\$0.00	0.0%
System Benefits Charge	\$0.00357	\$0.00357	\$0.00000	\$10.00	\$10.00	\$0.00	0.0%
Default Service Charge	<u>\$0.07556</u>	<u>\$0.09381</u>	<u>\$0.01825</u>	<u>\$211.57</u>	<u>\$262.67</u>	<u>\$51.10</u>	<u>11.6%</u>
Total kWh Charges	\$0.10794	\$0.12619	\$0.01825	\$302.23	\$353.33	\$51.10	11.6%
Total Bill				\$442.30	\$493.40	\$51.10	11.6%

\* Impacts do not include the Electricity Consumption Tax.

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**Unitil Energy Systems, Inc.  
Typical Bill Impacts by Rate Component**

<b><u>Regular General G2 Quick Recovery Water Heating and Space Heating 1,660 kWh Typical Bill</u></b>							
	9/1/2017	12/1/2017					%
<u>Rate Components</u>	<u>Current Rate</u>	<u>As Revised</u>	<u>Difference</u>	<u>Current Bill*</u>	<u>As Revised Bill*</u>	<u>Difference</u>	<u>Difference to Total Bill</u>
Customer Charge	\$9.14	\$9.14	\$0.00	\$9.14	\$9.14	\$0.00	0.0%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.03265	\$0.03265	\$0.00000	\$54.20	\$54.20	\$0.00	0.0%
External Delivery Charge	\$0.02637	\$0.02637	\$0.00000	\$43.77	\$43.77	\$0.00	0.0%
Stranded Cost Charge	(\$0.00057)	(\$0.00057)	\$0.00000	(\$0.95)	(\$0.95)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00139	\$0.00139	\$0.00000	\$2.31	\$2.31	\$0.00	0.0%
System Benefits Charge	\$0.00357	\$0.00357	\$0.00000	\$5.93	\$5.93	\$0.00	0.0%
Default Service Charge	<u>\$0.07556</u>	<u>\$0.09381</u>	<u>\$0.01825</u>	<u>\$125.43</u>	<u>\$155.72</u>	<u>\$30.30</u>	<u>12.6%</u>
Total kWh Charges	\$0.13897	\$0.15722	\$0.01825	\$230.69	\$260.99	\$30.30	12.6%
<b>Total Bill</b>				<b>\$239.83</b>	<b>\$270.13</b>	<b>\$30.30</b>	<b>12.6%</b>

<b><u>Regular General G2 kWh Meter 115 kWh Typical Bill</u></b>							
	9/1/2017	12/1/2017					%
<u>Rate Components</u>	<u>Current Rate</u>	<u>As Revised</u>	<u>Difference</u>	<u>Current Bill*</u>	<u>As Revised Bill*</u>	<u>Difference</u>	<u>Difference to Total Bill</u>
Customer Charge	\$17.27	\$17.27	\$0.00	\$17.27	\$17.27	\$0.00	0.0%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.01556	\$0.01556	\$0.00000	\$1.79	\$1.79	\$0.00	0.0%
External Delivery Charge	\$0.02637	\$0.02637	\$0.00000	\$3.03	\$3.03	\$0.00	0.0%
Stranded Cost Charge	(\$0.00057)	(\$0.00057)	\$0.00000	(\$0.07)	(\$0.07)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00139	\$0.00139	\$0.00000	\$0.16	\$0.16	\$0.00	0.0%
System Benefits Charge	\$0.00357	\$0.00357	\$0.00000	\$0.41	\$0.41	\$0.00	0.0%
Default Service Charge	<u>\$0.07556</u>	<u>\$0.09381</u>	<u>\$0.01825</u>	<u>\$8.69</u>	<u>\$10.79</u>	<u>\$2.10</u>	<u>6.7%</u>
Total kWh Charges	\$0.12188	\$0.14013	\$0.01825	\$14.02	\$16.11	\$2.10	6.7%
<b>Total Bill</b>				<b>\$31.29</b>	<b>\$33.38</b>	<b>\$2.10</b>	<b>6.7%</b>

\* Impacts do not include the Electricity Consumption Tax.

**Unitil Energy Systems, Inc.**  
**Typical Bill Impacts for Residential Rate Class based on Mean and Median Usage**

**Residential Rate D 612 kWh Bill - Mean Use\***

	9/1/2017	12/1/2017					%
<u>Rate Components</u>	<u>Current Rate</u>	<u>As Revised</u>	<u>Difference</u>	<u>Current Bill**</u>	<u>As Revised Bill**</u>	<u>Difference</u>	<u>Difference to Total Bill</u>
Customer Charge	\$15.24	\$15.24	\$0.00	\$15.24	\$15.24	\$0.00	0.0%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.03682	\$0.03682	\$0.00000	\$22.53	\$22.53	\$0.00	0.0%
External Delivery Charge	\$0.02637	\$0.02637	\$0.00000	\$16.14	\$16.14	\$0.00	0.0%
Stranded Cost Charge	(\$0.00057)	(\$0.00057)	\$0.00000	(\$0.35)	(\$0.35)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00139	\$0.00139	\$0.00000	\$0.85	\$0.85	\$0.00	0.0%
System Benefits Charge	\$0.00357	\$0.00357	\$0.00000	\$2.18	\$2.18	\$0.00	0.0%
Default Service Charge	<u>\$0.07886</u>	<u>\$0.10034</u>	<u>\$0.02148</u>	<u>\$48.26</u>	<u>\$61.41</u>	<u>\$13.15</u>	<u>12.5%</u>
Total kWh Charges	\$0.14644	\$0.16792	\$0.02148				
Total Bill				\$104.86	\$118.01	\$13.15	12.5%

**Residential Rate D 504 kWh Bill - Median Use\***

	9/1/2017	12/1/2017					%
<u>Rate Components</u>	<u>Current Rate</u>	<u>As Revised</u>	<u>Difference</u>	<u>Current Bill**</u>	<u>As Revised Bill**</u>	<u>Difference</u>	<u>Difference to Total Bill</u>
Customer Charge	\$15.24	\$15.24	\$0.00	\$15.24	\$15.24	\$0.00	0.0%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.03682	\$0.03682	\$0.00000	\$18.56	\$18.56	\$0.00	0.0%
External Delivery Charge	\$0.02637	\$0.02637	\$0.00000	\$13.29	\$13.29	\$0.00	0.0%
Stranded Cost Charge	(\$0.00057)	(\$0.00057)	\$0.00000	(\$0.29)	(\$0.29)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00139	\$0.00139	\$0.00000	\$0.70	\$0.70	\$0.00	0.0%
System Benefits Charge	\$0.00357	\$0.00357	\$0.00000	\$1.80	\$1.80	\$0.00	0.0%
Default Service Charge	<u>\$0.07886</u>	<u>\$0.10034</u>	<u>\$0.02148</u>	<u>\$39.75</u>	<u>\$50.57</u>	<u>\$10.83</u>	<u>10.3%</u>
Total kWh Charges	\$0.14644	\$0.16792	\$0.02148				
Total Bill				\$89.05	\$99.87	\$10.83	12.2%

\* Based on billing period March 2016 through February 2017.  
\*\* Impacts do not include the Electricity Consumption Tax.

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Unitil Energy Systems, Inc.  
Average Class Bill Impacts  
Due to Proposed Default Service Rate Changes Effective December 1, 2017

(A) <u>Class of Service</u>	(B) <u>Annual Number of Customers (luminaires for Outdoor Lighting)</u>	(C) <u>Annual kWh Sales</u>	(D) <u>Annual kW / kVA Sales</u>	(E) <u>Proposed DSC Change \$</u>	(F) <u>Estimated Annual Revenue \$ Under Present Rates</u>	(G) <u>Estimated Annual Revenue \$ Under Proposed Rates</u>	(H) <u>Proposed Net Change Revenue \$</u>	(I) <u>% Change DSC Revenue</u>
Residential	785,306	497,875,828	n/a	\$10,694,373	\$84,877,003	\$95,571,376	\$10,694,373	12.6%
General Service	131,872	354,161,409	1,348,556	\$6,463,446	\$55,699,771	\$62,163,217	\$6,463,446	11.6%
Outdoor Lighting	110,850	8,241,454	n/a	\$150,407	\$2,715,599	\$2,866,006	\$150,407	5.5%
Total	1,028,028	860,278,690		\$17,308,225	\$143,292,374	\$160,600,599	\$17,308,225	12.1%

(B), (C), (D) Test year billing determinants in DE 16-384.

(E) Difference in proposed rate and current rate, times the billing determinants shown in Column (C).

(F) Based on current rates times billing determinants shown in Columns (B), (C) and (D).

(G) Sum of Columns (E) and (F)

(H) Column (G) minus Column (F)

(I) Column (H) divided by Column (F)

**Unitil Energy Systems, Inc.**  
**Typical Bill Impacts - September 1, 2017 vs. December 1, 2017**  
**Impacts do NOT include the Electricity Consumption Tax**  
**Impact on D Rate Customers**

<u>Average kWh</u>	<u>Total Bill Using Rates 9/1/2017</u>	<u>Total Bill Using Rates 12/1/2017</u>	<u>Total Difference</u>	<u>% Total Difference</u>
125	\$33.55	\$36.23	\$2.69	8.0%
150	\$37.21	\$40.43	\$3.22	8.7%
200	\$44.53	\$48.82	\$4.30	9.6%
250	\$51.85	\$57.22	\$5.37	10.4%
300	\$59.17	\$65.62	\$6.44	10.9%
350	\$66.49	\$74.01	\$7.52	11.3%
400	\$73.82	\$82.41	\$8.59	11.6%
450	\$81.14	\$90.80	\$9.67	11.9%
500	\$88.46	\$99.20	\$10.74	12.1%
525	\$92.12	\$103.40	\$11.28	12.2%
550	\$95.78	\$107.60	\$11.81	12.3%
575	\$99.44	\$111.79	\$12.35	12.4%
600	\$103.10	\$115.99	\$12.89	12.5%
625	\$106.77	\$120.19	\$13.43	12.6%
650	\$110.43	\$124.39	\$13.96	12.6%
675	\$114.09	\$128.59	\$14.50	12.7%
700	\$117.75	\$132.78	\$15.04	12.8%
725	\$121.41	\$136.98	\$15.57	12.8%
750	\$125.07	\$141.18	\$16.11	12.9%
775	\$128.73	\$145.38	\$16.65	12.9%
825	\$136.05	\$153.77	\$17.72	13.0%
925	\$150.70	\$170.57	\$19.87	13.2%
1,000	\$161.68	\$183.16	\$21.48	13.3%
1,250	\$198.29	\$225.14	\$26.85	13.5%
1,500	\$234.90	\$267.12	\$32.22	13.7%
2,000	\$308.12	\$351.08	\$42.96	13.9%
3,500	\$527.78	\$602.96	\$75.18	14.2%
5,000	\$747.44	\$854.84	\$107.40	14.4%

	<u>Rates - Effective September 1, 2017</u>	<u>Rates - Proposed December 1, 2017</u>	<u>Difference</u>
Customer Charge	\$15.24	\$15.24	\$0.00
	<u>kWh</u>	<u>kWh</u>	<u>kWh</u>
Distribution Charge:	\$0.03682	\$0.03682	\$0.00000
External Delivery Charge	\$0.02637	\$0.02637	\$0.00000
Stranded Cost Charge	(\$0.00057)	(\$0.00057)	\$0.00000
Storm Recovery Adjustment Factor	\$0.00139	\$0.00139	\$0.00000
System Benefits Charge	\$0.00357	\$0.00357	\$0.00000
Default Service Charge	<u>\$0.07886</u>	<u>\$0.10034</u>	<u>\$0.02148</u>
<b>TOTAL</b>	<b>\$0.14644</b>	<b>\$0.16792</b>	<b>\$0.02148</b>

**Unitil Energy Systems, Inc.**  
**Typical Bill Impacts - September 1, 2017 vs. December 1, 2017**  
**Impacts do NOT include the Electricity Consumption Tax**  
**Impact on G2 Rate Customers**

<u>Load Factor</u>	<u>Average Monthly kW</u>	<u>Average Monthly kWh</u>	<u>Total Bill Using Rates 9/1/2017</u>	<u>Total Bill Using Rates 12/1/2017</u>	<u>Total Difference</u>	<u>% Total Difference</u>
20%	5	730	\$157.43	\$170.75	\$13.32	8.5%
20%	10	1,460	\$287.42	\$314.07	\$26.65	9.3%
20%	15	2,190	\$417.42	\$457.39	\$39.97	9.6%
20%	25	3,650	\$677.41	\$744.02	\$66.61	9.8%
20%	50	7,300	\$1,327.39	\$1,460.62	\$133.23	10.0%
20%	75	10,950	\$1,977.37	\$2,177.21	\$199.84	10.1%
20%	100	14,600	\$2,627.35	\$2,893.80	\$266.45	10.1%
20%	150	21,900	\$3,927.32	\$4,326.99	\$399.68	10.2%
36%	5	1,314	\$220.46	\$244.44	\$23.98	10.9%
36%	10	2,628	\$413.50	\$461.46	\$47.96	11.6%
36%	15	3,942	\$606.53	\$678.47	\$71.94	11.9%
36%	25	6,570	\$992.60	\$1,112.50	\$119.90	12.1%
36%	50	13,140	\$1,957.76	\$2,197.57	\$239.81	12.2%
36%	75	19,710	\$2,922.93	\$3,282.63	\$359.71	12.3%
36%	100	26,280	\$3,888.09	\$4,367.70	\$479.61	12.3%
36%	150	39,420	\$5,818.42	\$6,537.84	\$719.41	12.4%
50%	5	1,825	\$275.62	\$308.93	\$33.31	12.1%
50%	10	3,650	\$523.81	\$590.42	\$66.61	12.7%
50%	15	5,475	\$772.00	\$871.92	\$99.92	12.9%
50%	25	9,125	\$1,268.38	\$1,434.91	\$166.53	13.1%
50%	50	18,250	\$2,509.34	\$2,842.40	\$333.06	13.3%
50%	75	27,375	\$3,750.29	\$4,249.88	\$499.59	13.3%
50%	100	36,500	\$4,991.24	\$5,657.37	\$666.12	13.3%
50%	150	54,750	\$7,473.15	\$8,472.33	\$999.19	13.4%

  

	<u>Rates - Effective September 1,</u>	<u>Rates - Proposed December 1, 2017</u>	<u>Difference</u>
Customer Charge	\$27.43	\$27.43	\$0.00
	<u>All kW</u>	<u>All kW</u>	<u>All kW</u>
Distribution Charge	\$10.35	\$10.35	\$0.00
Stranded Cost Charge	(\$0.11)	(\$0.11)	\$0.00
<b>TOTAL</b>	<b>\$10.24</b>	<b>\$10.24</b>	<b>\$0.00</b>
	<u>kWh</u>	<u>kWh</u>	<u>kWh</u>
Distribution Charge	\$0.00116	\$0.00116	\$0.00000
External Delivery Charge	\$0.02637	\$0.02637	\$0.00000
Stranded Cost Charge	(\$0.00011)	(\$0.00011)	\$0.00000
Storm Recovery Adj. Factor	\$0.00139	\$0.00139	\$0.00000
System Benefits Charge	\$0.00357	\$0.00357	\$0.00000
Default Service Charge	<u>\$0.07556</u>	<u>\$0.09381</u>	<u>\$0.01825</u>
<b>TOTAL</b>	<b>\$0.10794</b>	<b>\$0.12619</b>	<b>\$0.01825</b>

Unitil Energy Systems, Inc. Typical Bill Impacts - September 1, 2017 vs. December 1, 2017 Impacts do NOT include the Electricity Consumption Tax Impact on G2 kWh Meter Rate Customers																																												
<u>Average Monthly kWh</u>	<u>Total Bill Using Rates 9/1/2017</u>	<u>Total Bill Using Rates 12/1/2017</u>	<u>Total Difference</u>	<u>% Total Difference</u>																																								
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900	\$126.96	\$143.39	\$16.43	12.9%																																								
<table border="1"> <thead> <tr> <th></th> <th><u>Rates - Effective September 1, 2017</u></th> <th><u>Rates - Proposed December 1, 2017</u></th> <th><u>Difference</u></th> </tr> </thead> <tbody> <tr> <td>kWh Meter Customer Charge</td> <td>\$17.27</td> <td>\$17.27</td> <td>\$0.00</td> </tr> <tr> <td></td> <td><u>All kWh</u></td> <td><u>All kWh</u></td> <td><u>All kWh</u></td> </tr> <tr> <td>Distribution Charge</td> <td>\$0.01556</td> <td>\$0.01556</td> <td>\$0.00000</td> </tr> <tr> <td>External Delivery Charge</td> <td>\$0.02637</td> <td>\$0.02637</td> <td>\$0.00000</td> </tr> <tr> <td>Stranded Cost Charge</td> <td>(\$0.00057)</td> <td>(\$0.00057)</td> <td>\$0.00000</td> </tr> <tr> <td>Storm Recovery Adjustment Factor</td> <td>\$0.00139</td> <td>\$0.00139</td> <td>\$0.00000</td> </tr> <tr> <td>System Benefits Charge</td> <td>\$0.00357</td> <td>\$0.00357</td> <td>\$0.00000</td> </tr> <tr> <td>Default Service Charge</td> <td><u>\$0.07556</u></td> <td><u>\$0.09381</u></td> <td><u>\$0.01825</u></td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>\$0.12188</b></td> <td><b>\$0.14013</b></td> <td><b>\$0.01825</b></td> </tr> </tbody> </table>						<u>Rates - Effective September 1, 2017</u>	<u>Rates - Proposed December 1, 2017</u>	<u>Difference</u>	kWh Meter Customer Charge	\$17.27	\$17.27	\$0.00		<u>All kWh</u>	<u>All kWh</u>	<u>All kWh</u>	Distribution Charge	\$0.01556	\$0.01556	\$0.00000	External Delivery Charge	\$0.02637	\$0.02637	\$0.00000	Stranded Cost Charge	(\$0.00057)	(\$0.00057)	\$0.00000	Storm Recovery Adjustment Factor	\$0.00139	\$0.00139	\$0.00000	System Benefits Charge	\$0.00357	\$0.00357	\$0.00000	Default Service Charge	<u>\$0.07556</u>	<u>\$0.09381</u>	<u>\$0.01825</u>	<b>TOTAL</b>	<b>\$0.12188</b>	<b>\$0.14013</b>	<b>\$0.01825</b>
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<b>TOTAL</b>	<b>\$0.12188</b>	<b>\$0.14013</b>	<b>\$0.01825</b>																																									

Unitil Energy Systems, Inc. Typical Bill Impacts - September 1, 2017 vs. December 1, 2017 Impacts do NOT include the Electricity Consumption Tax Impact on G2 QRWH and SH Rate Customers																																												
<u>Average kWh</u>	<u>Total Bill Using Rates 9/1/2017</u>	<u>Total Bill Using Rates 12/1/2017</u>	<u>Total Difference</u>	<u>% Total Difference</u>																																								
100	\$23.04	\$24.86	\$1.83	7.9%																																								
200	\$36.93	\$40.58	\$3.65	9.9%																																								
300	\$50.83	\$56.31	\$5.48	10.8%																																								
400	\$64.73	\$72.03	\$7.30	11.3%																																								
500	\$78.63	\$87.75	\$9.13	11.6%																																								
750	\$113.37	\$127.06	\$13.69	12.1%																																								
1,000	\$148.11	\$166.36	\$18.25	12.3%																																								
1,500	\$217.60	\$244.97	\$27.38	12.6%																																								
2,000	\$287.08	\$323.58	\$36.50	12.7%																																								
2,500	\$356.57	\$402.19	\$45.63	12.8%																																								
<table border="1"> <thead> <tr> <th></th> <th><u>Rates - Effective September 1, 2017</u></th> <th><u>Rates - Proposed December 1, 2017</u></th> <th><u>Difference</u></th> </tr> </thead> <tbody> <tr> <td>Customer Charge</td> <td>\$9.14</td> <td>\$9.14</td> <td>\$0.00</td> </tr> <tr> <td></td> <td><u>All kWh</u></td> <td><u>All kWh</u></td> <td><u>All kWh</u></td> </tr> <tr> <td>Distribution Charge</td> <td>\$0.03265</td> <td>\$0.03265</td> <td>\$0.00000</td> </tr> <tr> <td>External Delivery Charge</td> <td>\$0.02637</td> <td>\$0.02637</td> <td>\$0.00000</td> </tr> <tr> <td>Stranded Cost Charge</td> <td>(\$0.00057)</td> <td>(\$0.00057)</td> <td>\$0.00000</td> </tr> <tr> <td>Storm Recovery Adjustment Factor</td> <td>\$0.00139</td> <td>\$0.00139</td> <td>\$0.00000</td> </tr> <tr> <td>System Benefits Charge</td> <td>\$0.00357</td> <td>\$0.00357</td> <td>\$0.00000</td> </tr> <tr> <td>Default Service Charge</td> <td><u>\$0.07556</u></td> <td><u>\$0.09381</u></td> <td><u>\$0.01825</u></td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>\$0.13897</b></td> <td><b>\$0.15722</b></td> <td><b>\$0.01825</b></td> </tr> </tbody> </table>						<u>Rates - Effective September 1, 2017</u>	<u>Rates - Proposed December 1, 2017</u>	<u>Difference</u>	Customer Charge	\$9.14	\$9.14	\$0.00		<u>All kWh</u>	<u>All kWh</u>	<u>All kWh</u>	Distribution Charge	\$0.03265	\$0.03265	\$0.00000	External Delivery Charge	\$0.02637	\$0.02637	\$0.00000	Stranded Cost Charge	(\$0.00057)	(\$0.00057)	\$0.00000	Storm Recovery Adjustment Factor	\$0.00139	\$0.00139	\$0.00000	System Benefits Charge	\$0.00357	\$0.00357	\$0.00000	Default Service Charge	<u>\$0.07556</u>	<u>\$0.09381</u>	<u>\$0.01825</u>	<b>TOTAL</b>	<b>\$0.13897</b>	<b>\$0.15722</b>	<b>\$0.01825</b>
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Unitil Energy Systems, Inc. Typical Bill Impacts - September 1, 2017 vs. December 1, 2017 Impacts do NOT include the Electricity Consumption Tax Impact on OL Rate Customers *								
	Nominal Watts	Lumens	Type	Average Monthly kWh	Total Bill Using Rates 9/1/2017	Total Bill Using Rates 12/1/2017	Total Difference	% Total Difference
<u>Mercury Vapor:</u>								
1	100	3,500	ST	40	\$17.26	\$17.99	\$0.73	4.2%
2	175	7,000	ST	67	\$22.57	\$23.79	\$1.22	5.4%
3	250	11,000	ST	95	\$27.63	\$29.36	\$1.73	6.3%
4	400	20,000	ST	154	\$37.30	\$40.11	\$2.81	7.5%
5	1,000	60,000	ST	388	\$82.89	\$89.97	\$7.08	8.5%
6	250	11,000	FL	95	\$28.77	\$30.50	\$1.73	6.0%
7	400	20,000	FL	154	\$38.76	\$41.57	\$2.81	7.3%
8	1,000	60,000	FL	388	\$78.50	\$85.58	\$7.08	9.0%
9	100	3,500	PB	40	\$17.39	\$18.12	\$0.73	4.2%
10	175	7,000	PB	67	\$21.72	\$22.94	\$1.22	5.6%
<u>High Pressure Sodium:</u>								
11	50	4,000	ST	21	\$15.46	\$15.84	\$0.38	2.5%
12	100	9,500	ST	43	\$19.47	\$20.26	\$0.78	4.0%
13	150	16,000	ST	60	\$21.37	\$22.46	\$1.10	5.1%
14	250	30,000	ST	101	\$29.54	\$31.38	\$1.84	6.2%
15	400	50,000	ST	161	\$40.85	\$43.79	\$2.94	7.2%
16	1,000	140,000	ST	398	\$83.45	\$90.71	\$7.26	8.7%
17	150	16,000	FL	60	\$23.64	\$24.73	\$1.10	4.6%
18	250	30,000	FL	101	\$31.13	\$32.97	\$1.84	5.9%
19	400	50,000	FL	161	\$40.32	\$43.26	\$2.94	7.3%
20	1,000	140,000	FL	398	\$83.81	\$91.07	\$7.26	8.7%
21	50	4,000	PB	21	\$14.47	\$14.85	\$0.38	2.6%
22	100	95,000	PB	43	\$18.33	\$19.12	\$0.78	4.3%
<u>Metal Halide:</u>								
23	175	8,800	ST	66	\$26.53	\$27.74	\$1.20	4.5%
24	250	13,500	ST	92	\$31.02	\$32.70	\$1.68	5.4%
25	400	23,500	ST	148	\$37.83	\$40.53	\$2.70	7.1%
26	175	8,800	FL	66	\$29.54	\$30.75	\$1.20	4.1%
27	250	13,500	FL	92	\$34.13	\$35.81	\$1.68	4.9%
28	400	23,500	FL	148	\$40.19	\$42.89	\$2.70	6.7%
29	175	8,800	PB	66	\$25.28	\$26.49	\$1.20	4.8%
30	250	13,500	PB	92	\$29.23	\$30.91	\$1.68	5.7%
31	400	23,500	PB	148	\$36.58	\$39.28	\$2.70	7.4%
Luminaire Charges For Year Round Service:								
Rates - Effective September 1, 2017								
		Mercury Vapor Rate/Mo.		Sodium Vapor Rate/Mo.		Metal Halide Rate/Mo.		
Customer Charge	\$0.00	1	\$12.96	11	\$13.20	23	\$19.44	
		2	\$15.37	12	\$14.85	24	\$21.13	
	<u>All kWh</u>	3	\$17.42	13	\$14.92	25	\$21.92	
Distribution Charge	\$0.00116	4	\$20.75	14	\$18.68	26	\$22.45	
External Delivery Charge	\$0.02637	5	\$41.19	15	\$23.55	27	\$24.24	
Stranded Cost Charge	(\$0.00057)	6	\$18.56	16	\$40.67	28	\$24.28	
Storm Recovery Adj. Factor	\$0.00139	7	\$22.21	17	\$17.19	29	\$18.19	
System Benefits Charge	\$0.00357	8	\$36.80	18	\$20.27	30	\$19.34	
Default Service Charge	\$0.07556	9	\$13.09	19	\$23.02	31	\$20.67	
		10	\$14.52	20	\$41.03			
<b>TOTAL</b>	<b>\$0.10748</b>			21	\$12.21			
				22	\$13.71			
Rates - Proposed December 1, 2017								
		Mercury Vapor Rate/Mo.		Sodium Vapor Rate/Mo.		Metal Halide Rate/Mo.		
Customer Charge	\$0.00	1	\$12.96	11	\$13.20	23	\$19.44	
		2	\$15.37	12	\$14.85	24	\$21.13	
	<u>All kWh</u>	3	\$17.42	13	\$14.92	25	\$21.92	
Distribution Charge	\$0.00116	4	\$20.75	14	\$18.68	26	\$22.45	
External Delivery Charge	\$0.02637	5	\$41.19	15	\$23.55	27	\$24.24	
Stranded Cost Charge	(\$0.00057)	6	\$18.56	16	\$40.67	28	\$24.28	
Storm Recovery Adj. Factor	\$0.00139	7	\$22.21	17	\$17.19	29	\$18.19	
System Benefits Charge	\$0.00357	8	\$36.80	18	\$20.27	30	\$19.34	
Default Service Charge	\$0.09381	9	\$13.09	19	\$23.02	31	\$20.67	
		10	\$14.52	20	\$41.03			
<b>TOTAL</b>	<b>\$0.12573</b>			21	\$12.21			
				22	\$13.71			
	Difference	Mercury Vapor-Difference		Sodium Vapor-Difference		Metal Halide-Difference		
Customer Charge	\$0.00	1	\$0.00	11	\$0.00	23	\$0.00	
		2	\$0.00	12	\$0.00	24	\$0.00	
	<u>All kWh</u>	3	\$0.00	13	\$0.00	25	\$0.00	
Distribution Charge	\$0.00000	4	\$0.00	14	\$0.00	26	\$0.00	
External Delivery Charge	\$0.00000	5	\$0.00	15	\$0.00	27	\$0.00	
Stranded Cost Charge	\$0.00000	6	\$0.00	16	\$0.00	28	\$0.00	
Storm Recovery Adj. Factor	\$0.00000	7	\$0.00	17	\$0.00	29	\$0.00	
System Benefits Charge	\$0.00000	8	\$0.00	18	\$0.00	30	\$0.00	
Default Service Charge	\$0.01825	9	\$0.00	19	\$0.00	31	\$0.00	
		10	\$0.00	20	\$0.00			
<b>TOTAL</b>	<b>\$0.01825</b>			21	\$0.00			
				22	\$0.00			

\* Luminaire charges based on All-Night Service option.

**Unitil Energy Systems, Inc.**  
**Typical Bill Impacts by Rate Component**

**Residential Rate D 650 kWh Bill**

Rate Components	Effective rates -		Difference	Current Bill*	As Revised Bill*	Difference	Difference to Total Bill
	December 1, 2016	December 1, 2017					
Customer Charge	\$10.27	\$15.24	\$4.97	\$10.27	\$15.24	\$4.97	4.8%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge							
First 250 kWh	\$0.03603	\$0.03682	\$0.00079	\$9.01	\$9.21	\$0.20	0.2%
Excess 250 kWh	\$0.04103	\$0.03682	(\$0.00421)	\$16.41	\$14.73	(\$1.68)	(1.6%)
External Delivery Charge	\$0.02144	\$0.02637	\$0.00493	\$13.94	\$17.14	\$3.20	3.1%
Stranded Cost Charge	(\$0.00018)	(\$0.00057)	(\$0.00039)	(\$0.12)	(\$0.37)	(\$0.25)	(0.2%)
Storm Recovery Adj.	\$0.00221	\$0.00139	(\$0.00082)	\$1.44	\$0.90	(\$0.53)	(0.5%)
System Benefits Charge	\$0.00330	\$0.00357	\$0.00027	\$2.15	\$2.32	\$0.18	0.2%
Default Service Charge	<u>\$0.07690</u>	<u>\$0.10034</u>	<u>\$0.02344</u>	<u>\$49.99</u>	<u>\$65.22</u>	<u>\$15.24</u>	<u>14.8%</u>
First 250 kWh	\$0.13970	\$0.16792	\$0.02822				
Excess 250 kWh	\$0.14470	\$0.16792	\$0.02322				
<b>Total Bill</b>				\$103.08	\$124.39	\$21.31	20.7%

**Regular General G2 Demand, 11 kW, 2,800 kWh Typical Bill**

Rate Components	Effective rates -		Difference	Current Bill*	As Revised Bill*	Difference	Difference to Total Bill
	December 1, 2016	December 1, 2017					
Customer Charge	\$18.41	\$27.43	\$9.02	\$18.41	\$27.43	\$9.02	2.2%
	<b><u>All kW</u></b>	<b><u>All kW</u></b>					
Distribution Charge	\$10.31	\$10.35	\$0.04	\$113.41	\$113.85	\$0.44	0.1%
Stranded Cost Charge	<u>(\$0.04)</u>	<u>(\$0.11)</u>	<u>(\$0.07)</u>	<u>(\$0.44)</u>	<u>(\$1.21)</u>	<u>(\$0.77)</u>	<u>(0.2%)</u>
Total	\$10.27	\$10.24	(\$0.03)	\$112.97	\$112.64	(\$0.33)	(0.1%)
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.00199	\$0.00116	(\$0.00083)	\$5.57	\$3.25	(\$2.32)	(0.6%)
External Delivery Charge	\$0.02144	\$0.02637	\$0.00493	\$60.03	\$73.84	\$13.80	3.3%
Stranded Cost Charge	(\$0.00004)	(\$0.00011)	(\$0.00007)	(\$0.11)	(\$0.31)	(\$0.20)	(0.0%)
Storm Recovery Adj.	\$0.00221	\$0.00139	(\$0.00082)	\$6.19	\$3.89	(\$2.30)	(0.6%)
System Benefits Charge	\$0.00330	\$0.00357	\$0.00027	\$9.24	\$10.00	\$0.76	0.2%
Default Service Charge	<u>\$0.07324</u>	<u>\$0.09381</u>	<u>\$0.02057</u>	<u>\$205.07</u>	<u>\$262.67</u>	<u>\$57.60</u>	<u>13.8%</u>
Total	\$0.10214	\$0.12619	\$0.02405	\$285.99	\$353.33	\$67.34	16.1%
<b>Total Bill</b>				\$417.37	\$493.40	\$76.03	18.2%

\* Impacts do not include the Electricity Consumption Tax.

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**Unitil Energy Systems, Inc.**  
**Typical Bill Impacts by Rate Component**

<b>Regular General G2 Quick Recovery Water Heating and Space Heating 1,660 kWh Typical Bill</b>							
							%
<u>Rate Components</u>	<u>Effective rates - December 1, 2016</u>	<u>Proposed rates - December 1, 2017</u>	<u>Difference</u>	<u>Current Bill*</u>	<u>As Revised Bill*</u>	<u>Difference</u>	<u>Difference to Total Bill</u>
Customer Charge	\$6.25	\$9.14	\$2.89	\$6.25	\$9.14	\$2.89	1.3%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.03272	\$0.03265	(\$0.00007)	\$54.32	\$54.20	(\$0.12)	(0.1%)
External Delivery Charge	\$0.02144	\$0.02637	\$0.00493	\$35.59	\$43.77	\$8.18	3.6%
Stranded Cost Charge	(\$0.00018)	(\$0.00057)	(\$0.00039)	(\$0.30)	(\$0.95)	(\$0.65)	(0.3%)
Storm Recovery Adj.	\$0.00221	\$0.00139	(\$0.00082)	\$3.67	\$2.31	(\$1.36)	(0.6%)
System Benefits Charge	\$0.00330	\$0.00357	\$0.00027	\$5.48	\$5.93	\$0.45	0.2%
Default Service Charge	<u>\$0.07324</u>	<u>\$0.09381</u>	<u>\$0.02057</u>	<u>\$121.58</u>	<u>\$155.72</u>	<u>\$34.15</u>	<u>15.1%</u>
Total	\$0.13273	\$0.15722	\$0.02449	\$220.33	\$260.99	\$40.65	17.9%
Total Bill				\$226.58	\$270.13	\$43.54	19.2%

<b>Regular General G2 kWh Meter 115 kWh Typical Bill</b>							
							%
<u>Rate Components</u>	<u>Effective rates - December 1, 2016</u>	<u>Proposed rates - December 1, 2017</u>	<u>Difference</u>	<u>Current Bill*</u>	<u>As Revised Bill*</u>	<u>Difference</u>	<u>Difference to Total Bill</u>
Customer Charge	\$13.94	\$17.27	\$3.33	\$13.94	\$17.27	\$3.33	11.3%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.03410	\$0.01556	(\$0.01854)	\$3.92	\$1.79	(\$2.13)	(7.3%)
External Delivery Charge	\$0.02144	\$0.02637	\$0.00493	\$2.47	\$3.03	\$0.57	1.9%
Stranded Cost Charge	(\$0.00018)	(\$0.00057)	(\$0.00039)	(\$0.02)	(\$0.07)	(\$0.04)	(0.2%)
Storm Recovery Adj.	\$0.00221	\$0.00139	(\$0.00082)	\$0.25	\$0.16	(\$0.09)	(0.3%)
System Benefits Charge	\$0.00330	\$0.00357	\$0.00027	\$0.38	\$0.41	\$0.03	0.1%
Default Service Charge	<u>\$0.07324</u>	<u>\$0.09381</u>	<u>\$0.02057</u>	<u>\$8.42</u>	<u>\$10.79</u>	<u>\$2.37</u>	<u>8.1%</u>
Total	\$0.13411	\$0.14013	\$0.00602	\$15.42	\$16.11	\$0.69	2.4%
Total Bill				\$29.36	\$33.38	\$4.02	13.7%

\* Impacts do not include the Electricity Consumption Tax.

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