

## CALCULATION OF THE DEFAULT SERVICE CHARGE

## Non-G1 Class Default Service:

	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Total
<b>Power Supply Charge</b>							
As shown on Schedule LSM-2							
<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>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>
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	
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>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>
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	
Total Retail Rate - G2 and OL Fixed Power Supply Charge (L.13 * (1+L.14))							\$0.07196

<b>Renewable Portfolio Standard (RPS) Charge</b>							
As shown on Schedule LSM-3							
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>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<u>6.40%</u>	<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>							
<b>Total Retail Rate - Residential Variable Default Service Charge (L.7 + L.23)</b>							
25	<b>\$0.07714</b>	<b>\$0.07700</b>	<b>\$0.07875</b>	<b>\$0.07972</b>	<b>\$0.07885</b>	<b>\$0.08203</b>	
<b>Total Retail Rate - Residential Fixed Default Service Charge (L.8+L.24)</b>							
26							<b>\$0.07886</b>
<b>Total Retail Rate - G2 and OL Variable Default Service Charge (L.15 + L.23)</b>							
27	<b>\$0.07150</b>	<b>\$0.07724</b>	<b>\$0.07594</b>	<b>\$0.07497</b>	<b>\$0.07384</b>	<b>\$0.07963</b>	
<b>Total Retail Rate - G2 and OL Fixed Default Service Charge (L.16+L.24)</b>							
28							<b>\$0.07556</b>

Authorized by NHPUC Order No.

in Case No. DE 17-038, dated

## CALCULATION OF THE DEFAULT SERVICE CHARGE

Non-G1 Class Default Service:		Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Total
<b>Power Supply Charge</b>								
<u><b>Residential Class</b></u>								
1	Reconciliation	\$124,241	\$141,925	\$131,784	\$121,358	\$108,808	\$96,942	\$725,058
2	Total Costs	\$2,362,812	\$3,585,043	\$3,335,796	\$2,271,335	\$1,574,577	\$1,317,412	\$14,446,975
3	Reconciliation plus Total Costs (L.1 + L.2)	\$2,487,053	\$3,726,967	\$3,467,580	\$2,392,692	\$1,683,386	\$1,414,354	\$15,172,033
4	kWh Purchases	<u>37,759,581</u>	<u>43,133,984</u>	<u>40,052,139</u>	<u>36,883,213</u>	<u>33,069,246</u>	<u>29,462,745</u>	<u>220,360,906</u>
5	Total, Before Losses (L.3 / L.4)	\$0.06587	\$0.08640	\$0.08658	\$0.06487	\$0.05090	\$0.04800	\$0.06885
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))	\$0.07008	\$0.09193	\$0.09212	\$0.06902	\$0.05416	\$0.05108	
8	Total Retail Rate—Residential Fixed Power Supply Charge (L.5 * (1+L.6))							\$0.07326
<u><b>G2 and OL Class</b></u>								
9	Reconciliation	\$45,599	\$48,557	\$48,906	\$46,321	\$45,286	\$45,762	\$280,431
10	Total Costs	\$848,591	\$1,204,050	\$1,206,798	\$833,543	\$617,871	\$583,471	\$5,294,323
11	Reconciliation plus Total Costs (L.9 + L.10)	\$894,191	\$1,252,607	\$1,255,704	\$879,864	\$663,157	\$629,233	\$5,574,754
12	kWh Purchases	<u>13,857,906</u>	<u>14,756,581</u>	<u>14,862,714</u>	<u>14,077,304</u>	<u>13,762,711</u>	<u>13,907,230</u>	<u>85,224,446</u>
13	Total, Before Losses (L.11 / L.12)	\$0.06453	\$0.08488	\$0.08449	\$0.06250	\$0.04819	\$0.04525	\$0.06541
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))	\$0.06866	\$0.09032	\$0.08989	\$0.06650	\$0.05127	\$0.04814	
16	Total Retail Rate—G2 and OL Fixed Power Supply Charge (L.13 * (1+L.14))							\$0.06960
<b>Renewable Portfolio Standard (RPS) Charge</b>								
17	Reconciliation	(\$97,229)	(\$109,045)	(\$103,440)	(\$95,992)	(\$88,215)	(\$81,694)	(\$575,615)
18	Total Costs	<u>\$143,653</u>	<u>\$336,663</u>	<u>\$319,361</u>	<u>\$296,365</u>	<u>\$272,359</u>	<u>\$252,230</u>	<u>\$1,620,630</u>
19	Reconciliation plus Total Costs (L.17 + L.18)	\$46,424	\$227,617	\$215,921	\$200,374	\$184,144	\$170,536	\$1,045,016
20	kWh Purchases	<u>51,617,486</u>	<u>57,890,565</u>	<u>54,914,853</u>	<u>50,960,517</u>	<u>46,831,957</u>	<u>43,369,975</u>	<u>305,585,353</u>
21	Total, Before Losses (L.19 / L.20)	\$0.00090	\$0.00393	\$0.00393	\$0.00393	\$0.00393	\$0.00393	\$0.00342
22	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>
23	Total Retail Rate—Variable RPS Charge (L.21 * (1+L.22))	\$0.00096	\$0.00418	\$0.00418	\$0.00418	\$0.00418	\$0.00418	
24	Total Retail Rate—Fixed RPS Charge (L.21 * (1+L.22))							\$0.00364
<b>TOTAL DEFAULT SERVICE CHARGE</b>								
25	Total Retail Rate—Residential Variable Default Service Charge (L.7 + L.23)	\$0.07104	\$0.09611	\$0.09630	\$0.07320	\$0.05834	\$0.05526	
26	Total Retail Rate—Residential Fixed Default Service Charge (L.8 + L.24)							\$0.07690
27	Total Retail Rate—G2 and OL Variable Default Service Charge (L.15 + L.23)	\$0.06962	\$0.09450	\$0.09407	\$0.07068	\$0.05545	\$0.05232	
28	Total Retail Rate—G2 and OL Fixed Default Service Charge (L.16 + L.24)							\$0.07324

Authorized by NHPUC Order No. 25,951 in Case No. DE 16-250, dated October 7, 2016

NHPUC No. 3 - Electricity Delivery  
Unitil Energy Systems, Inc.

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### CALCULATION OF THE DEFAULT SERVICE CHARGE

#### G1 Class Default Service:

	<u>Jun-17</u>	<u>Jul-17</u>	<u>Aug-17</u>	<u>Sep-17</u>	<u>Oct-17</u>	<u>Nov-17</u>	<u>Total</u>
<b>Power Supply Charge</b>	As shown on Schedule LSM-4						
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>Renewable Portfolio Standard (RPS) Charge</b>	As shown on Schedule LSM-5						
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.

in Case No. DE 17-038, dated

NHPUC No. 3—Electricity Delivery  
Unitil Energy Systems, Inc.

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### CALCULATION OF THE DEFAULT SERVICE CHARGE

#### G1 Class Default Service:

	<u>Dec-16</u>	<u>Jan-17</u>	<u>Feb-17</u>	<u>Mar-17</u>	<u>Apr-17</u>	<u>May-17</u>	<u>Total</u>
<b><i>Power Supply Charge</i></b>							
1 Reconciliation							(\$92,268)
2 Total Costs excl. wholesale supplier charge							<u>\$24,427</u>
3 Reconciliation plus Total Costs excl. wholesale supplier charge (L.1 + L.2)							(\$67,841)
4 kWh Purchases							17,176,440
5 Total, Before Losses (L.3 + L.4)							(\$0.00395)
6 Losses							<u>4.591%</u>
7 Power Supply Charge excl. wholesale supplier charge (L.5 * (1 + L.6)) (2)	(\$0.00413)	(\$0.00413)	(\$0.00413)	(\$0.00413)	(\$0.00413)	(\$0.00413)	(\$0.00413)
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	\$1,714	\$1,767	\$1,874	\$1,790	\$1,803	\$1,754	\$10,703
11 Total Costs	<u>\$7,777</u>	<u>\$16,751</u>	<u>\$17,761</u>	<u>\$16,973</u>	<u>\$17,093</u>	<u>\$16,631</u>	<u>\$92,986</u>
12 Reconciliation plus Total Costs (L.10 + L.11)	\$9,491	\$18,518	\$19,635	\$18,763	\$18,896	\$18,386	\$103,689
13 kWh Purchases	<u>2,751,130</u>	<u>2,835,770</u>	<u>3,006,840</u>	<u>2,873,340</u>	<u>2,893,760</u>	<u>2,815,600</u>	17,176,440
14 Total, Before Losses (L.12 + L.13)	\$0.00345	\$0.00653	\$0.00653	\$0.00653	\$0.00653	\$0.00653	
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))	\$0.00361	\$0.00683	\$0.00683	\$0.00683	\$0.00683	\$0.00683	
<b><i>TOTAL DEFAULT SERVICE CHARGE</i></b>							
17 Total Retail Rate—Default Service Charge (L.9 + L.16)	MARKET	MARKET	MARKET	MARKET	MARKET	MARKET	

Authorized by NHPUC Order No. 25,951 in Case No. DE 16-250, dated October 7, 2016

	<u>Jun-17</u> <u>Estimated</u>	<u>Jul-17</u> <u>Estimated</u>	<u>Aug-17</u> <u>Estimated</u>	<u>Sep-17</u> <u>Estimated</u>	<u>Oct-17</u> <u>Estimated</u>	<u>Nov-17</u> <u>Estimated</u>	<u>Total</u>
<b><u>Residential Class</u></b>							
1 Reconciliation (1)	\$6,198	\$8,404	\$8,810	\$7,116	\$6,485	\$6,728	\$43,741
2 Total Costs (Page 5)	<u>\$2,085,177</u>	<u>\$2,822,129</u>	<u>\$3,029,323</u>	<u>\$2,478,282</u>	<u>\$2,232,844</u>	<u>\$2,414,771</u>	<u>\$15,062,527</u>
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>	<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))	\$0.07354	\$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><u>G2 and OL Class</u></b>							
9 Reconciliation (1)	\$2,904	\$3,430	\$3,557	\$3,061	\$2,897	\$2,798	\$18,648
10 Total Costs (Page 5)	<u>\$901,935</u>	<u>\$1,155,649</u>	<u>\$1,177,344</u>	<u>\$999,567</u>	<u>\$930,952</u>	<u>\$973,570</u>	<u>\$6,139,015</u>
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>	<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))	\$0.06790	\$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

(1) Balance as of February 28, 2017 modified, as detailed below, to include the reconciliation of estimated costs and revenues for March, April and May 2017. Figure is then allocated between rate periods (June-November 2017 and December 2017-May 2018) and rate classes (Residential and G2/OL), and then to each month, June through November 2017, on equal per kWh basis.

a February 28, 2017 balance - Schedule LSM-2, Page 2			\$2,384,997
b less: Estimated remaining prior period reconciliation - Mar, Apr, May 2017:			
c Estimated costs - Mar, Apr, May 2017 as filed in DE 16-250			\$7,198,208
d Estimated revenue-Mar, Apr, May 2017			<u>\$9,457,977</u>
e line c - line d			(\$2,259,768)
f Reconciliation for June 1, 2017-May 31, 2018 (line a + line e)			\$125,229
	Non-G1 total	Reconciliation	
g Rate period: June-November 2017	<u>kWh purchases</u>	<u>% per period</u>	<u>per period</u>
h Rate period: December 2017-May 2018	304,604,079	49.82%	\$62,389
i Total	<u>306,766,841</u>	50.18%	<u>\$62,840</u>
	611,370,919		\$125,229
	Jun-Nov 2017	Jun-Nov 2017	
j Residential class	<u>kWh purchases</u>	<u>% by class</u>	<u>by class</u>
k G2 and OL class	213,553,229	70.11%	\$43,741
l Total	<u>91,050,850</u>	29.89%	<u>\$18,648</u>
	304,604,079		\$62,389

Unitil Energy Systems, Inc.  
Reconciliation of Non-G1 Class Power Supply Charge Costs and Revenues

Schedule LSM-2  
Page 2 of 5

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	Beginning Balance	Total Costs (Page 3)	Total Revenue (Page 4)	Ending Balance Before Interest (a + b - c)	Average Monthly Balance ((a+d) / 2)	Interest Rate	Number of Days / Month	Computed Interest	Ending Balance with Interest (d + h)
Mar-16	\$4,400,619	\$4,032,778	\$4,129,683	\$4,303,715	\$4,352,167	3.25%	31	\$11,980	\$4,315,695
Apr-16	\$4,315,695	\$2,733,279	\$3,472,541	\$3,576,433	\$3,946,064	3.50%	30	\$11,321	\$3,587,753
May-16	\$3,587,753	\$2,274,721	\$3,342,491	\$2,519,983	\$3,053,868	3.50%	31	\$9,053	\$2,529,037
Jun-16	\$2,529,037	\$2,186,042	\$2,812,283	\$1,902,796	\$2,215,916	3.50%	30	\$6,357	\$1,909,153
Jul-16	\$1,909,153	\$3,373,354	\$3,561,456	\$1,721,050	\$1,815,102	3.50%	31	\$5,381	\$1,726,431
Aug-16	\$1,726,431	\$3,581,612	\$3,419,234	\$1,888,809	\$1,807,620	3.50%	31	\$5,359	\$1,894,168
Sep-16	\$1,894,168	\$2,222,645	\$2,729,513	\$1,387,300	\$1,640,734	3.50%	30	\$4,707	\$1,392,007
Oct-16	\$1,392,007	\$2,774,966	\$2,322,261	\$1,844,712	\$1,618,360	3.50%	31	\$4,798	\$1,849,510
Nov-16	\$1,849,510	\$2,542,546	\$2,449,006	\$1,943,050	\$1,896,280	3.50%	30	\$5,440	\$1,948,490
Dec-16	\$1,948,490	\$2,815,775	\$3,776,003	\$988,262	\$1,468,376	3.50%	31	\$4,353	\$992,615
Jan-17	\$992,615	\$4,677,563	\$4,064,972	\$1,605,206	\$1,298,911	3.50%	31	\$3,861	\$1,609,067
Feb-17	\$1,609,067	<u>\$3,994,677</u>	<u>\$3,224,102</u>	\$2,379,642	\$1,994,355	3.50%	28	<u>\$5,355</u>	\$2,384,997
Total		\$37,209,958	\$39,303,544					\$77,964	

Calculation of Working Capital Supplier Charges and GIS Support Payments												
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	Total Non-G1 Class DS Supplier Charges	GIS Support Payments	Number of Days of Lag / 365 (1)	Working Capital Requirement ((a+b)*c)	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)
Mar-16	\$4,007,362	\$485	6.50%	\$260,345	3.50%	\$9,112	\$12,569	\$2,464	\$0	\$0	\$786	\$4,032,778
Apr-16	\$2,700,587	\$448	6.50%	\$175,456	3.50%	\$6,141	\$23,472	\$2,464	(\$620)	\$0	\$787	\$2,733,279
May-16	\$2,236,019	\$426	6.50%	\$145,277	3.50%	\$5,085	\$29,947	\$2,464	\$0	\$0	\$780	\$2,274,721
Jun-16	\$2,131,258	\$378	7.24%	\$154,237	3.50%	\$5,398	\$45,387	\$2,464	\$375	\$0	\$781	\$2,186,042
Jul-16	\$3,330,062	\$385	7.24%	\$240,978	3.50%	\$8,434	\$31,227	\$2,464	\$0	\$0	\$781	\$3,373,354
Aug-16	\$3,489,636	\$1,126	7.24%	\$252,578	3.50%	\$8,840	\$78,770	\$2,464	\$0	\$0	\$776	\$3,581,612
Sep-16	\$2,180,403	\$537	7.24%	\$157,804	3.50%	\$5,523	\$32,944	\$2,464	\$0	\$0	\$773	\$2,222,645
Oct-16	\$2,740,237	\$556	7.24%	\$198,313	3.50%	\$6,941	\$23,989	\$2,464	\$0	\$0	\$779	\$2,774,966
Nov-16	\$2,502,901	\$737	7.24%	\$181,154	3.50%	\$6,340	\$22,391	\$2,464	\$6,933	\$0	\$779	\$2,542,546
Dec-16	\$2,778,318	\$395	7.24%	\$201,057	3.64%	\$7,318	\$26,296	\$2,661	\$0	\$0	\$787	\$2,815,775
Jan-17	\$4,643,601	\$419	7.24%	\$336,023	3.75%	\$12,601	\$17,491	\$2,661	\$0	\$0	\$790	\$4,677,563
Feb-17	<u>\$3,972,297</u>	<u>\$566</u>	7.24%	\$287,461	3.75%	<u>\$10,780</u>	<u>\$7,586</u>	<u>\$2,661</u>	<u>\$0</u>	<u>\$0</u>	<u>\$787</u>	<u>\$3,994,677</u>
Total	\$36,712,682	\$6,458				\$92,514	\$352,070	\$30,158	\$6,688	\$0	\$9,388	\$37,209,958

(1) For the months Mar-May 2016, number of days lag equals 23.71. Calculated using revenue lag of 55.15 days less cost lead of 31.44 days. Revenue lag per Schedule BC-1, Page 4 of 23 and cost lead per Schedule BC-1, Page 22 of 23, DE 15-079 filed April 3, 2015.

For the months Jun 2016-Feb 2017, number of days lag equals 26.41. Calculated using revenue lag of 62.25 days less cost lead of 35.84 days. Revenue lag per Schedule DN-1, Page 4 of 23 and cost lead per Schedule DN-1, Page 22 of 23, DE 16-250 filed April 1, 2016.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
	Total Residential Class Billed Default Service kWh (1)	Unbilled Factor (2)	Residential Class Unbilled kWh (a * b)	Effective Fixed Power Supply Charge	Residential Class Unbilled Power Supply Charge Revenue (c * d)	Total G2/OL Class Billed Default Service kWh (1)	Unbilled Factor (2)	G2/OL Class Unbilled kWh (f * g)	Effective Fixed Power Supply Charge	G2/OL Class Unbilled Power Supply Charge Revenue (h * i)	Reversal of prior month unbilled	Total Billed Non-G1 Class Power Supply Charge Revenue (1)	Total Revenue (e + j + k + l)
Mar-16	33,721,715	44.08%	14,863,071	\$0.08905	\$1,323,556	13,744,308	44.08%	6,057,895	\$0.08627	\$522,615	(\$1,923,927)	\$4,207,438	\$4,129,683
Apr-16	30,430,521	40.41%	12,296,854	\$0.08905	\$1,095,035	12,729,875	40.41%	5,144,093	\$0.08627	\$443,781	(\$1,846,171)	\$3,779,896	\$3,472,541
May-16	26,275,808	47.40%	12,455,849	\$0.08905	\$1,109,193	11,716,824	47.40%	5,554,272	\$0.08627	\$479,167	(\$1,538,816)	\$3,292,946	\$3,342,491
Jun-16	30,605,712	50.61%	15,490,460	\$0.05760	\$892,251	13,217,695	50.61%	6,689,868	\$0.05642	\$377,442	(\$1,588,360)	\$3,130,951	\$2,812,283
Jul-16	38,539,558	56.19%	21,656,207	\$0.05760	\$1,247,398	15,439,908	56.19%	8,676,017	\$0.05642	\$489,501	(\$1,269,693)	\$3,094,251	\$3,561,456
Aug-16	47,797,592	36.98%	17,677,088	\$0.05760	\$1,018,200	17,784,967	36.98%	6,577,453	\$0.05642	\$371,100	(\$1,736,898)	\$3,766,832	\$3,419,234
Sep-16	36,740,344	39.72%	14,591,942	\$0.05760	\$840,496	14,805,207	39.72%	5,880,095	\$0.05642	\$331,755	(\$1,389,300)	\$2,946,562	\$2,729,513
Oct-16	28,268,034	51.67%	14,607,243	\$0.05760	\$841,377	12,075,593	51.67%	6,239,950	\$0.05642	\$352,058	(\$1,172,251)	\$2,301,076	\$2,322,261
Nov-16	28,852,388	57.38%	16,554,736	\$0.05760	\$953,553	11,578,696	57.38%	6,643,549	\$0.05642	\$374,829	(\$1,193,435)	\$2,314,060	\$2,449,006
Dec-16	34,729,541	60.06%	20,857,428	\$0.07326	\$1,528,015	12,630,416	60.06%	7,585,415	\$0.06960	\$527,945	(\$1,328,382)	\$3,048,425	\$3,776,003
Jan-17	41,414,367	49.26%	20,401,256	\$0.07326	\$1,494,596	15,061,760	49.26%	7,419,619	\$0.06960	\$516,405	(\$2,055,960)	\$4,109,931	\$4,064,972
Feb-17	<u>35,573,974</u>	45.31%	16,118,939	\$0.07326	<u>\$1,180,873</u>	<u>13,723,655</u>	45.31%	6,218,331	\$0.06960	<u>\$432,796</u>	<u>(\$2,011,002)</u>	<u>\$3,621,434</u>	<u>\$3,224,102</u>
Total	412,949,553				\$13,524,544	164,508,904				\$5,219,394	(\$19,054,195)	\$39,613,802	\$39,303,544

(1) Per billing system  
(2) Detail of Unbilled Factors for the Residential, Regular General, and Outdoor Lighting Classes:

	Non-G1 Class Billed kWh	Direct Estimate of Unbilled kWh	Unbilled kWh / Billed kWh
Mar-16	68,800,566	30,324,308	44.08%
Apr-16	63,626,562	25,711,244	40.41%
May-16	56,592,537	26,827,267	47.40%
Jun-16	65,481,513	33,142,140	50.61%
Jul-16	78,182,802	43,932,600	56.19%
Aug-16	93,051,802	34,413,552	36.98%
Sep-16	74,297,503	29,508,293	39.72%
Oct-16	59,563,056	30,778,655	51.67%
Nov-16	59,557,707	34,172,636	57.38%
Dec-16	68,354,874	41,051,705	60.06%
Jan-17	80,117,573	39,466,960	49.26%
Feb-17	70,366,968	31,884,008	45.31%

Redacted

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

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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)
Jun-17		\$406	7.27%		4.00%			\$2,661	\$0	\$0	\$784				\$2,987,112
Jul-17		\$416	7.27%		4.00%			\$2,661	\$0	\$0	\$784				\$3,977,777
Aug-17		\$541	7.27%		4.00%			\$2,661	\$0	\$0	\$784				\$4,206,667
Sep-17		\$565	7.27%		4.00%			\$2,661	\$0	\$0	\$784				\$3,477,850
Oct-17		\$465	7.27%		4.00%			\$2,661	\$0	\$0	\$784				\$3,163,796
Nov-17		\$429	7.27%		4.00%			\$2,661	\$0	\$0	\$784				\$3,388,341
Total		\$2,821						\$15,965	\$0	\$0	\$4,704				\$21,201,542

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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	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
(i)	(ii)	(iii) = (i) + (ii)	(iv)	(v)	(vi) = (iv) + (v)
Jun-17		\$2,085,177			\$901,935
Jul-17		\$2,822,129			\$1,155,649
Aug-17		\$3,029,323			\$1,177,344
Sep-17		\$2,478,282			\$999,567
Oct-17		\$2,232,844			\$930,952
Nov-17		\$2,414,771			\$973,570
Total		\$15,062,527			\$6,139,015

(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			Residential Class kWh Purchases / Total Non-G1 Class kWh Purchases	G2 and OL Class kWh Purchases / Total Non-G1 Class kWh Purchases
	Purchases - Residential Class	Estimated kWh Purchases - G2 and OL Class	Total Non-G1 Class kWh Purchases		
Jun-17	30,258,204	14,178,510	44,436,714	68.1%	31.9%
Jul-17	41,029,619	16,747,872	57,777,491	71.0%	29.0%
Aug-17	43,012,807	17,367,926	60,380,734	71.2%	28.8%
Sep-17	34,741,288	14,946,721	49,688,009	69.9%	30.1%
Oct-17	31,662,309	14,145,927	45,808,236	69.1%	30.9%
Nov-17	32,849,001	13,663,893	46,512,894	70.6%	29.4%
Total	213,553,229	91,050,850	304,604,079		



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

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	<u>Jun-17</u> <u>Estimated</u>	<u>Jul-17</u> <u>Estimated</u>	<u>Aug-17</u> <u>Estimated</u>	<u>Sep-17</u> <u>Estimated</u>	<u>Oct-17</u> <u>Estimated</u>	<u>Nov-17</u> <u>Estimated</u>	<u>Total</u>
1 Reconciliation (1)	(\$80,064)	(\$104,101)	(\$108,791)	(\$89,525)	(\$82,535)	(\$83,805)	(\$548,820)
2 Total Costs (Page 5)	<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>
3 Reconciliation plus Total Costs (L.1 + L.2)	\$150,163	\$195,239	\$204,035	\$167,905	\$154,796	\$157,175	\$1,029,313
4 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>
5 Total, Before Losses (L.3 / L.4)	\$0.00338	\$0.00338	\$0.00338	\$0.00338	\$0.00338	\$0.00338	\$0.00338
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))	\$0.00360	\$0.00360	\$0.00360	\$0.00360	\$0.00360	\$0.00360	
8 Total Retail Rate - Fixed RPS Charge (L.5 * (1+L.6))							\$0.00360

(1) Balance as of February 28, 2017 modified, as detailed below, to reflect that current rates include a reconciliation through May 31, 2017, and to reflect accruals for RPS. Figure is then allocated between rate periods (June-November 2017 and December 2017-May 2018) and then to each month, June through November 2017, on equal per kWh basis.

a February 28, 2017 actual balance - Schedule LSM-3, Page 2 (\$1,688,216)

b less: Estimated remaining prior period reconciliation - Mar, Apr, May 2017:

c	Estimated kWh Sales Mar-May 2017	132,671,474
d	Amount of reconciliation in current RPS Charge	<u>(\$0.00200)</u>
e	Estimated amount of reconciliation - Mar-May 2017	(\$265,343)

f plus: Non-G1 Class RPS amounts included in rate filings, Mar 2016-Feb 2017 \$3,171,985

g less: Non-G1 Class RPS amounts, CY 2016 requirement, purchased \$2,850,719

h Net Non-G1 Class RPS amounts included in rate filings, Mar 2016-Feb 2017 \$321,267

i Total reconciliation for June 1, 2017-May 31, 2018 (line a - line e + line h) (\$1,101,607)

	Non-G1 total <u>kWh purchases</u>	<u>% per period</u>	Reconciliation <u>per period</u>
j Rate period: June-November 2017	304,604,079	49.82%	(\$548,820)
k Rate period: December 2017-May 2018	<u>306,766,841</u>	50.18%	<u>(\$552,786)</u>
l Total	611,370,919		(\$1,101,607)

Unitil Energy Systems, Inc.  
Reconciliation of Non-G1 Class RPS Costs and Revenues

Schedule LSM-3  
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	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	Beginning Balance	Total Costs (Page 3)	Total Revenue (Page 4)	Ending Balance Before Interest (a + b - c)	Average Monthly Balance ((a+d) / 2)	Interest Rate	Number of Days / Month	Computed Interest	Ending Balance with Interest (d + h)
Mar-16	(\$3,676,431)	\$0	\$236,322	(\$3,912,753)	(\$3,794,592)	3.25%	31	(\$10,445)	(\$3,923,199)
Apr-16	(\$3,923,199)	\$53,590	\$201,422	(\$4,071,031)	(\$3,997,115)	3.50%	30	(\$11,467)	(\$4,082,498)
May-16	(\$4,082,498)	\$880,983	\$195,717	(\$3,397,231)	(\$3,739,865)	3.50%	31	(\$11,087)	(\$3,408,318)
Jun-16	(\$3,408,318)	\$201,043	\$114,336	(\$3,321,611)	(\$3,364,965)	3.50%	30	(\$9,654)	(\$3,331,265)
Jul-16	(\$3,331,265)	\$38,517	\$135,420	(\$3,428,168)	(\$3,379,716)	3.50%	31	(\$10,019)	(\$3,438,187)
Aug-16	(\$3,438,187)	\$106,720	\$129,742	(\$3,461,209)	(\$3,449,698)	3.50%	31	(\$10,227)	(\$3,471,435)
Sep-16	(\$3,471,435)	\$1,628,062	\$104,117	(\$1,947,491)	(\$2,709,463)	3.50%	30	\$15,174 (2)	(\$1,932,316)
Oct-16	(\$1,932,316)	\$197,940	\$88,770	(\$1,823,146)	(\$1,877,731)	3.50%	31	(\$5,566)	(\$1,828,713)
Nov-16	(\$1,828,713)	\$197,940	\$93,272	(\$1,724,045)	(\$1,776,379)	3.50%	30	(\$5,096)	(\$1,729,141)
Dec-16	(\$1,729,141)	\$205,434	\$185,421	(\$1,709,129)	(\$1,719,135)	3.50%	31	(\$5,096)	(\$1,714,226)
Jan-17	(\$1,714,226)	\$198,222	\$199,550	(\$1,715,554)	(\$1,714,890)	3.50%	31	(\$5,098)	(\$1,720,652)
Feb-17	(\$1,720,652)	<u>\$198,222</u>	<u>\$161,216</u>	(\$1,683,646)	(\$1,702,149)	3.50%	28	<u>(\$4,570)</u>	(\$1,688,216)
Total		\$3,906,671	\$1,845,305					(\$73,151)	

(1) Includes \$22,947.32 to adjust interest due to accrual.

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

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		<i>Calculation of Working Capital</i>				
(a)		(b)	(c)	(d)	(e)	(f)
Renewable Energy Credits		Number of Days of Lag / 365 (1)	Working Capital Requirement (a*b)	Prime Rate	Supply Related Working Capital (c * d)	Total Costs (sum a + e)
Mar-16	\$0	(87.62%)	\$0	3.50%	\$0	\$0
Apr-16	\$55,285	(87.62%)	(\$48,441)	3.50%	(\$1,695)	\$53,590
May-16	\$908,855	(87.62%)	(\$796,331)	3.50%	(\$27,872)	\$880,983
Jun-16	\$206,146	(70.73%)	(\$145,816)	3.50%	(\$5,104)	\$201,043
Jul-16	\$39,495	(70.73%)	(\$27,936)	3.50%	(\$978)	\$38,517
Aug-16	\$109,429	(70.73%)	(\$77,404)	3.50%	(\$2,709)	\$106,720
Sep-16	\$1,677,757	(70.73%)	(\$1,186,749)	3.50%	(\$49,696) (2)	\$1,628,062
Oct-16	\$202,965	(70.73%)	(\$143,565)	3.50%	(\$5,025)	\$197,940
Nov-16	\$202,965	(70.73%)	(\$143,565)	3.50%	(\$5,025)	\$197,940
Dec-16	\$210,863	(70.73%)	(\$149,152)	3.64%	(\$5,429)	\$205,434
Jan-17	\$203,623	(70.73%)	(\$144,031)	3.75%	(\$5,401)	\$198,222
Feb-17	<u>\$203,623</u>	(70.73%)	<u>(\$144,031)</u>	3.75%	<u>(\$5,401)</u>	<u>\$198,222</u>
Total	\$4,021,005				(\$114,334)	\$3,906,671

(1) For the months March-May 2016, number of days lag equals (319.81). Calculated using revenue lag of 55.15 days less cost lead of 374.96 days. Revenue lag per Schedule BC-1, Page 4 of 23 and cost lead per Schedule BC-1, Page 22 of 23, DE 15-079 filed April 3, 2015.

For the months June 2016-February 2017, number of days lag equals (258.18). Calculated using revenue lag of 62.25 days less cost lead of 320.43 days. Revenue lag per Schedule DN-1, Page 4 of 23 and cost lead per Schedule DN-1, Page 22 of 23, DE 16-250 filed April 1, 2016.

(2) Includes (\$8,159.29) to adjust working capital due to accrual.

Unitil Energy Systems, Inc.  
Non-G1 Class Default Service Renewable Portfolio Standard Charge Revenue

Schedule LSM-3  
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	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Total Non-G1 Class Billed Default Service kWh (1)	Unbilled Factor (2)	Non-G1 Class Unbilled kWh (a * b)	Effective Fixed RPS Charge	Non-G1 Class Unbilled RPS Charge Revenue (c * d)	Reversal of prior month unbilled	Total Billed Non- G1 Class RPS Charge Revenue (1)	Total Revenue (e + f + g)
Mar-16	47,466,023	44.08%	20,920,966	\$0.00504	\$105,442	(\$109,879)	\$240,759	\$236,322
Apr-16	43,160,396	40.41%	17,440,947	\$0.00504	\$87,902	(\$105,442)	\$218,961	\$201,422
May-16	37,992,633	47.40%	18,010,122	\$0.00504	\$90,771	(\$87,902)	\$192,848	\$195,717
Jun-16	43,823,407	50.61%	22,180,329	\$0.00218	\$48,353	(\$90,771)	\$156,754	\$114,336
Jul-16	53,979,466	56.19%	30,332,224	\$0.00218	\$66,124	(\$48,353)	\$117,649	\$135,420
Aug-16	65,582,558	36.98%	24,254,542	\$0.00218	\$52,875	(\$66,124)	\$142,991	\$129,742
Sep-16	51,545,551	39.72%	20,472,036	\$0.00218	\$44,629	(\$52,875)	\$112,363	\$104,117
Oct-16	40,343,627	51.67%	20,847,193	\$0.00218	\$45,447	(\$44,629)	\$87,952	\$88,770
Nov-16	40,431,084	57.38%	23,198,286	\$0.00218	\$50,572	(\$45,447)	\$88,147	\$93,272
Dec-16	47,359,956	60.06%	28,442,843	\$0.00364	\$103,532	(\$50,572)	\$132,462	\$185,421
Jan-17	56,476,127	49.26%	27,820,876	\$0.00364	\$101,268	(\$103,532)	\$201,814	\$199,550
Feb-17	<u>49,297,629</u>	45.31%	22,337,270	\$0.00364	<u>\$81,308</u>	<u>(\$101,268)</u>	<u>\$181,176</u>	<u>\$161,216</u>
Total	577,458,457				\$878,223	(\$906,795)	\$1,873,876	\$1,845,305

(1) Per billing system

(2) Detail of Unbilled Factors for the Residential, Regular General, and Outdoor Lighting Classes:

	Billed kWh	Direct Estimate of Unbilled kWh	Unbilled kWh / Billed kWh
Mar-16	68,800,566	30,324,308	44.08%
Apr-16	63,626,562	25,711,244	40.41%
May-16	56,592,537	26,827,267	47.40%
Jun-16	65,481,513	33,142,140	50.61%
Jul-16	78,182,802	43,932,600	56.19%
Aug-16	93,051,802	34,413,552	36.98%
Sep-16	74,297,503	29,508,293	39.72%
Oct-16	59,563,056	30,778,655	51.67%
Nov-16	59,557,707	34,172,636	57.38%
Dec-16	68,354,874	41,051,705	60.06%
Jan-17	80,117,573	39,466,960	49.26%
Feb-17	70,366,968	31,884,008	45.31%

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

Schedule LSM-3  
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	(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)	
Jun-17	\$237,746	(79.07%)	(\$187,975)	4.00%	(\$7,519)	\$230,227
Jul-17	\$309,116	(79.07%)	(\$244,405)	4.00%	(\$9,776)	\$299,339
Aug-17	\$323,043	(79.07%)	(\$255,416)	4.00%	(\$10,217)	\$312,826
Sep-17	\$265,838	(79.07%)	(\$210,187)	4.00%	(\$8,407)	\$257,430
Oct-17	\$245,082	(79.07%)	(\$193,776)	4.00%	(\$7,751)	\$237,331
Nov-17	<u>\$248,849</u>	(79.07%)	(\$196,755)	4.00%	<u>(\$7,870)</u>	<u>\$240,979</u>
Total	\$1,629,673				(\$51,541)	\$1,578,133

(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.



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

	<b>Total Jun17-Nov17</b>	
1 Reconciliation (1)	\$117,921	
2 Total Costs excl. wholesale supplier charge (Page 5)	\$24,974	
3 Reconciliation plus Total Costs excl. wholesale supplier charge (L.1 + L.2)	\$142,895	
4 kWh Purchases	18,853,229	
5 Total, Before Losses (L.3 / L.4)	\$0.00758	
6 Losses	4.591%	
7 Power Supply Charge excl. wholesale supplier charge (L.5 * (1+L.6)) (2)	\$0.00793	
 (1) Balance as of February 28, 2017 modified, as detailed below, to reflect that current rates include a reconciliation through May 31, 2017, and to incorporate the difference between the estimated supplier cost and revenue in March 2017. Figure is then allocated between rate periods (June-November 2017 and December 2017-May 2018) and then to each month, June through November 2017, on equal per kWh basis.		
a February 28, 2017 actual balance - Schedule LSM-4, Page 2	\$199,432	
b less: Estimated remaining reconciliation - Mar, Apr, May 2017:		
c Estimated kWh Sales March-May 2017	8,227,692	
d Amount of reconciliation in current rate	<u>(\$0.00562)</u>	
e Estimated amount of reconciliation to be credited March-May 2017	(\$46,240)	
f less: Estimated overcollection due to difference between the estimated supplier cost and revenue in March 2017	\$20,467	
g Total reconciliation for June 1, 2017-May 31, 2018 (line a - line e + line f)	\$225,205	
h kWh purchases forecast June-November 2017	18,853,229	52.36%
i kWh purchases forecast December 2017-May 2018	<u>17,152,369</u>	47.64%
j Total	36,005,598	
k Reconciliation amount for June-November 2017 (line g * line h%)	\$117,921	
l Reconciliation amount for December 2017-May 2018 (line g * line i%)	<u>\$107,283</u>	
m Total (line k + line l)	\$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.

Unitil Energy Systems, Inc.  
Reconciliation of G1 Class Power Supply Charge Costs and Revenues

Schedule LSM-4  
Page 2 of 5

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	Beginning	Total Costs (Page	Total Revenue	Ending	Average		Number of	Computed	Ending Balance
	Balance	3)	(Page 4)	Balance	Monthly	Interest Rate	Days / Month	Interest	with Interest (d
				Before	Balance				+ h)
				Interest	((a+d) / 2)				
				(a + b - c)					
Mar-16	(\$338,784)	\$131,703	\$108,398	(\$315,479)	(\$327,132)	3.25%	31	(\$901)	(\$316,380)
Apr-16	(\$316,380)	\$84,735	\$58,504	(\$290,149)	(\$303,264)	3.50%	30	(\$870)	(\$291,019)
May-16	(\$291,019)	\$129,370	\$94,931	(\$256,579)	(\$273,799)	3.50%	31	(\$812)	(\$257,391)
Jun-16	(\$257,391)	\$191,671	\$99,042	(\$164,762)	(\$211,076)	3.50%	30	(\$606)	(\$165,367)
Jul-16	(\$165,367)	\$130,097	\$126,330	(\$161,601)	(\$163,484)	3.50%	31	(\$485)	(\$162,086)
Aug-16	(\$162,086)	\$279,150	\$191,882	(\$74,818)	(\$118,452)	3.50%	31	(\$351)	(\$75,169)
Sep-16	(\$75,169)	\$273,755	\$232,516	(\$33,930)	(\$54,550)	3.50%	30	(\$156)	(\$34,087)
Oct-16	(\$34,087)	\$56,244	\$86,611	(\$64,454)	(\$49,270)	3.50%	31	(\$146)	(\$64,600)
Nov-16	(\$64,600)	\$160,490	\$100,987	(\$5,097)	(\$34,849)	3.50%	30	(\$100)	(\$5,197)
Dec-16	(\$5,197)	\$309,035	\$104,449	\$199,388	\$97,095	3.50%	31	\$288	\$199,676
Jan-17	\$199,676	\$198,229	\$214,136	\$183,770	\$191,723	3.50%	31	\$570	\$184,340
Feb-17	\$184,340	<u>\$163,196</u>	<u>\$148,618</u>	\$198,917	\$191,628	3.50%	28	<u>\$515</u>	\$199,432
Total		\$2,107,675	\$1,566,405					(\$3,054)	

Redacted

Unitil Energy Systems, Inc.  
Itemized Costs for G1 Class Default Service Power Supply Charge

Schedule LSM-4  
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<div> <div>Calculation of Working Capital</div> <div>Supplier Charges and GIS Support Payments</div> </div>											
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Total G1 Class DS Supplier Charges	GIS Support Payments	Number of Days of Lag / 365 (1)	Working Capital Requirement	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)
Mar-16	\$29	(2.53%)		3.50%			\$3,772	\$0	\$0	\$47	\$131,703
Apr-16	\$26	(2.53%)		3.50%			\$3,772	(\$36)	\$0	\$46	\$84,735
May-16	\$29	(2.53%)		3.50%			\$3,772	\$0	\$0	\$53	\$129,370
Jun-16	\$25	(1.33%)		3.50%			\$3,772	\$25	\$0	\$52	\$191,671
Jul-16	\$26	(1.33%)		3.50%			\$3,772	\$0	\$0	\$52	\$130,097
Aug-16	\$83	(1.33%)		3.50%			\$3,772	\$0	\$0	\$57	\$279,150
Sep-16	\$42	(1.33%)		3.50%			\$3,772	\$0	\$0	\$60	\$273,755
Oct-16	\$39	(1.33%)		3.50%			\$3,772	\$0	\$0	\$54	\$56,244
Nov-16	\$51	(1.33%)		3.50%			\$3,772	\$483	\$0	\$54	\$160,490
Dec-16	\$23	(1.33%)		3.64%			\$4,062	\$0	\$0	\$46	\$309,035
Jan-17	\$23	(1.33%)		3.75%			\$4,062	\$0	\$0	\$43	\$198,229
Feb-17	<u>\$34</u>	(1.33%)		3.75%			<u>\$4,062</u>	<u>\$0</u>	<u>\$0</u>	<u>\$47</u>	<u>\$163,196</u>
Total	\$429						\$46,129	\$472	\$0	\$612	\$2,107,675

(1) For the months March-May 2016, number of days lag equals (9.24). Calculated using revenue lag of 40.41 days less cost lead of 49.65 days. Revenue lag per Schedule BC-1, Page 4 of 23 and cost lead per Schedule BC-1, Page 20 of 23, DE 15--079 filed April 3, 2015.

For the months June 2016-February 2017, number of days lag equals (4.87). Calculated using revenue lag of 42.88 days less cost lead of 47.75 days. Revenue lag per Schedule DN-1, Page 4 of 23 and cost lead per Schedule DN-1, Page 20 of 23, DE 16-250 filed April 1, 2016.

Unitil Energy Systems, Inc.  
G1 Class Default Service Power Supply Charge Revenue

Schedule LSM-4  
Page 4 of 5

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Total G1 Class Billed Default Service kWh (1)	Unbilled Factor (2)	G1 Class Unbilled kWh (a * b)	Effective Variable Power Supply Charge	G1 Class Unbilled Power Supply Charge Revenue (c * d)	Reversal of prior month unbilled	Total Billed G1 Class Power Supply Charge Revenue (1)	Total Revenue (e + f + g)
Mar-16	2,842,044	45.12%	1,282,386	\$0.03743	\$48,000	(\$59,608)	\$120,006	\$108,398
Apr-16	2,540,085	42.92%	1,090,210	\$0.02562	\$27,931	(\$48,000)	\$78,572	\$58,504
May-16	2,604,299	51.16%	1,332,411	\$0.03330	\$44,369	(\$27,931)	\$78,493	\$94,931
Jun-16	2,929,521	45.37%	1,329,206	\$0.03386	\$45,007	(\$44,369)	\$98,404	\$99,042
Jul-16	3,589,066	46.24%	1,659,429	\$0.03212	\$53,301	(\$45,007)	\$118,036	\$126,330
Aug-16	4,814,274	40.39%	1,944,284	\$0.03845	\$74,758	(\$53,301)	\$170,426	\$191,882
Sep-16	3,999,333	46.39%	1,855,361	\$0.05896	\$109,392	(\$74,758)	\$197,881	\$232,516
Oct-16	2,798,769	51.67%	1,446,238	\$0.04061	\$58,732	(\$109,392)	\$137,271	\$86,611
Nov-16	2,818,553	54.55%	1,537,659	\$0.03470	\$53,357	(\$58,732)	\$106,362	\$100,987
Dec-16	2,781,151	56.53%	1,572,259	\$0.03706	\$58,268	(\$53,357)	\$99,538	\$104,449
Jan-17	3,084,224	50.82%	1,567,384	\$0.07012	\$109,905	(\$58,268)	\$162,499	\$214,136
Feb-17	<u>2,925,236</u>	50.57%	1,479,164	\$0.05262	<u>\$77,834</u>	<u>(\$109,905)</u>	<u>\$180,690</u>	<u>\$148,618</u>
Total	37,726,555				\$760,853	(\$742,627)	\$1,548,179	\$1,566,405

(1) Per billing system

(2) Detail of Unbilled Factors for the Large General Class:

	Billed kWh	Direct Estimate of Unbilled kWh	Unbilled kWh / Billed kWh
Mar-16	28,508,137	12,863,428	45.12%
Apr-16	28,553,210	12,255,098	42.92%
May-16	27,368,674	14,002,356	51.16%
Jun-16	30,747,800	13,951,135	45.37%
Jul-16	32,732,952	15,134,303	46.24%
Aug-16	35,598,590	14,376,783	40.39%
Sep-16	31,702,613	14,707,398	46.39%
Oct-16	27,982,369	14,459,628	51.67%
Nov-16	26,593,634	14,508,131	54.55%
Dec-16	27,126,203	15,335,165	56.53%
Jan-17	27,777,988	14,116,611	50.82%
Feb-17	27,435,574	13,872,976	50.57%

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)
Jun-17	\$30	0.35%	\$543	4.00%	\$22	\$0	\$4,062	\$0	\$0	\$49	\$4,163
Jul-17	\$30	0.35%	\$562	4.00%	\$22	\$0	\$4,062	\$0	\$0	\$49	\$4,163
Aug-17	\$32	0.35%	\$595	4.00%	\$24	\$0	\$4,062	\$0	\$0	\$49	\$4,166
Sep-17	\$31	0.35%	\$588	4.00%	\$24	\$0	\$4,062	\$0	\$0	\$49	\$4,166
Oct-17	\$27	0.35%	\$500	4.00%	\$20	\$0	\$4,062	\$0	\$0	\$49	\$4,158
Nov-17	<u>\$26</u>	0.35%	\$511	4.00%	<u>\$20</u>	<u>\$0</u>	<u>\$4,062</u>	<u>\$0</u>	<u>\$0</u>	<u>\$49</u>	<u>\$4,157</u>
Total	\$176				\$132	\$0	\$24,369	\$0	\$0	\$296	\$24,974

(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.



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

Schedule LSM-5  
Page 1 of 5

	<u>Jun-17 Estimated</u>	<u>Jul-17 Estimated</u>	<u>Aug-17 Estimated</u>	<u>Sep-17 Estimated</u>	<u>Oct-17 Estimated</u>	<u>Nov-17 Estimated</u>	<u>Total</u>
1 Reconciliation (1)	(\$12,039)	(\$11,925)	(\$12,555)	(\$12,483)	(\$10,757)	(\$10,314)	(\$70,073)
2 Total Costs (Page 5)	<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>
3 Reconciliation plus Total Costs (L.1 + L.2)	\$5,014	\$4,967	\$5,229	\$5,199	\$4,480	\$4,296	\$29,185
4 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
5 Total, Before Losses (L.3 / L.4)	\$0.00155	\$0.00155	\$0.00155	\$0.00155	\$0.00155	\$0.00155	
6 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>	
7 Total Retail Rate - Variable RPS Charge (L.5 * (1+L.6))	\$0.00162	\$0.00162	\$0.00162	\$0.00162	\$0.00162	\$0.00162	

(1) Balance as of February 28, 2017 modified, as detailed below, to reflect that current rates include a reconciliation through May 31, 2017, and to reflect accruals for RPS. Figure is then allocated between rate periods (June-November 2017 and December 2017-May 2018) and then to each month, June through November 2017, on equal per kWh basis.

a February 28, 2017 actual balance - Schedule LSM-5, Page 2 (\$144,391)

b less: Estimated remaining prior period reconciliation - Mar, Apr, May 2017:

c Estimated kWh Sales Mar-May 2017 8,227,692

d Amount of reconciliation in current rate \$0.00065

e Estimated amount of reconciliation - Mar-May 2017 \$5,348

f plus: G1 Class RPS amounts included in rate filings, Mar 2016-Feb 2017 \$212,783

g less: G1 Class RPS amounts, CY 2016 requirement, purchased \$196,874

h Net G1 Class RPS amounts included in rate filings, Mar 2016-Feb 2017 \$15,909

i Total reconciliation for June 1, 2017-May 31, 2018 (line a - Line e + line h) (\$133,830)

j kWh purchases forecast June-November 2017 18,853,229 52.36%

k kWh purchases forecast December 2017-May 2018 17,152,369 47.64%

l Total 36,005,598

m Reconciliation amount for June-November 2017 (line i \* line j%) (\$70,073)

n Reconciliation amount for December 2017-May 2018 (line i \* line k%) (\$63,757)

o Total (line m + line n) (\$133,830)

Unitil Energy Systems, Inc.  
Reconciliation of G1 Class RPS Costs and Revenues

Schedule LSM-5  
Page 2 of 5

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	Beginning Balance	Total Costs (Page 3)	Total Revenue (Page 4)	Ending Balance Before Interest (a + b - c)	Average Monthly Balance ((a+d) / 2)	Interest Rate	Number of Days / Month	Computed Interest	Ending Balance with Interest (d + h)
Mar-16	(\$271,849)	\$0	\$15,557	(\$287,406)	(\$279,627)	3.25%	31	(\$770)	(\$288,176)
Apr-16	(\$288,176)	\$6,245	\$12,632	(\$294,563)	(\$291,369)	3.50%	30	(\$836)	(\$295,399)
May-16	(\$295,399)	\$102,660	\$15,314	(\$208,053)	(\$251,726)	3.50%	31	(\$746)	(\$208,799)
Jun-16	(\$208,799)	\$23,343	\$13,579	(\$199,035)	(\$203,917)	3.50%	30	(\$585)	(\$199,620)
Jul-16	(\$199,620)	\$2,655	\$18,119	(\$215,084)	(\$207,352)	3.50%	31	(\$615)	(\$215,698)
Aug-16	(\$215,698)	\$7,355	\$23,558	(\$231,901)	(\$223,800)	3.50%	31	(\$663)	(\$232,564)
Sep-16	(\$232,564)	\$114,039	\$18,066	(\$136,592)	(\$184,578)	3.50%	30	\$153 (1)	(\$136,438)
Oct-16	(\$136,438)	\$13,642	\$11,040	(\$133,836)	(\$135,137)	3.50%	31	(\$401)	(\$134,237)
Nov-16	(\$134,237)	\$13,642	\$13,444	(\$134,038)	(\$134,138)	3.50%	30	(\$385)	(\$134,423)
Dec-16	(\$134,423)	\$14,158	\$10,123	(\$130,389)	(\$132,406)	3.50%	31	(\$393)	(\$130,781)
Jan-17	(\$130,781)	\$13,660	\$20,858	(\$137,979)	(\$134,380)	3.50%	31	(\$399)	(\$138,378)
Feb-17	(\$138,378)	<u>\$13,660</u>	<u>\$19,293</u>	(\$144,012)	(\$141,195)	3.50%	28	<u>(\$379)</u>	(\$144,391)
Total		\$325,059	\$191,583					(\$6,018)	

(1) Includes \$682.77 to adjust interest due to accrual.

<i>Calculation of Working Capital</i>						
	(a)	(b)	(c)	(d)	(e)	(f)
	Renewable Energy Credits	Number of Days of Lag / 365 (1)	Working Capital Requirement (a*b)	Prime Rate	Supply Related Working Capital (c * d)	Total Costs (sum a + e)
Mar-16	\$0	(88.59%)	\$0	3.50%	\$0	\$0
Apr-16	\$6,445	(88.59%)	(\$5,709)	3.50%	(\$200)	\$6,245
May-16	\$105,945	(88.59%)	(\$93,859)	3.50%	(\$3,285)	\$102,660
Jun-16	\$23,984	(76.34%)	(\$18,309)	3.50%	(\$641)	\$23,343
Jul-16	\$2,728	(76.34%)	(\$2,082)	3.50%	(\$73)	\$2,655
Aug-16	\$7,557	(76.34%)	(\$5,769)	3.50%	(\$202)	\$7,355
Sep-16	\$115,868	(76.34%)	(\$88,453)	3.50%	(\$1,829)(2)	\$114,039
Oct-16	\$14,017	(76.34%)	(\$10,701)	3.50%	(\$375)	\$13,642
Nov-16	\$14,017	(76.34%)	(\$10,701)	3.50%	(\$375)	\$13,642
Dec-16	\$14,562	(76.34%)	(\$11,117)	3.64%	(\$405)	\$14,158
Jan-17	\$14,062	(76.34%)	(\$10,735)	3.75%	(\$403)	\$13,660
Feb-17	<u>\$14,062</u>	(76.34%)	(\$10,735)	3.75%	<u>(\$403)</u>	<u>\$13,660</u>
Total	\$333,248				(\$8,189)	\$325,059

(1) For the months March-May 2016, number of days lag equals (323.36). Calculated using revenue lag of 40.41 days less cost lead of 363.77 days. Revenue lag per Schedule BC-1, Page 4 of 23 and cost lead per Schedule BC-1, Page 20 of 23, DE 15-079 filed April 3, 2015.

For the months June 2016-February 2017, number of days lag equals (278.64). Calculated using revenue lag of 42.88 days less cost lead of 321.52 days. Revenue lag per Schedule DN-1, Page 4 of 23 and cost lead per Schedule DN-1, Page 20 of 23, DE 16-250 filed April 1, 2016.

(2) Includes \$1,266.54 to adjust working capital due to accrual.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Total G1 Class Billed Default Service kWh (1)	Unbilled Factor (2)	G1 Class Unbilled kWh (a * b)	Effective Variable RPS Charge	G1 Class Unbilled RPS Charge Revenue (c * d)	Reversal of prior month unbilled	Total Billed G1 Class RPS Charge Revenue (1)	Total Revenue (e + f + g)
Mar-16	2,842,044	45.12%	1,282,386	\$0.00538	\$6,899	(\$6,633)	\$15,290	\$15,557
Apr-16	2,540,085	42.92%	1,090,210	\$0.00538	\$5,865	(\$6,899)	\$13,666	\$12,632
May-16	2,604,299	51.16%	1,332,411	\$0.00538	\$7,168	(\$5,865)	\$14,011	\$15,314
Jun-16	2,929,521	45.37%	1,329,206	\$0.00462	\$6,141	(\$7,168)	\$14,606	\$13,579
Jul-16	3,589,066	46.24%	1,659,429	\$0.00462	\$7,667	(\$6,141)	\$16,593	\$18,119
Aug-16	4,814,274	40.39%	1,944,284	\$0.00462	\$8,983	(\$7,667)	\$22,242	\$23,558
Sep-16	3,999,333	46.39%	1,855,361	\$0.00462	\$8,572	(\$8,983)	\$18,477	\$18,066
Oct-16	2,798,769	51.67%	1,446,238	\$0.00462	\$6,682	(\$8,572)	\$12,930	\$11,040
Nov-16	2,818,553	54.55%	1,537,659	\$0.00462	\$7,104	(\$6,682)	\$13,022	\$13,444
Dec-16	2,781,151	56.53%	1,572,259	\$0.00361	\$5,676	(\$7,104)	\$11,551	\$10,123
Jan-17	3,084,224	50.82%	1,567,384	\$0.00683	\$10,705	(\$5,676)	\$15,828	\$20,858
Feb-17	<u>2,925,236</u>	50.57%	1,479,164	\$0.00683	<u>\$10,103</u>	<u>(\$10,705)</u>	\$19,896	<u>\$19,293</u>
Total	37,726,555				\$91,564	(\$88,094)		\$191,583

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(1) Per billing system

(2) Detail of Unbilled Factors for the Large General Class:

	Billed kWh	Direct Estimate of Unbilled kWh	Unbilled kWh / Billed kWh
Mar-16	28,508,137	12,863,428	45.12%
Apr-16	28,553,210	12,255,098	42.92%
May-16	27,368,674	14,002,356	51.16%
Jun-16	30,747,800	13,951,135	45.37%
Jul-16	32,732,952	15,134,303	46.24%
Aug-16	35,598,590	14,376,783	40.39%
Sep-16	31,702,613	14,707,398	46.39%
Oct-16	27,982,369	14,459,628	51.67%
Nov-16	26,593,634	14,508,131	54.55%
Dec-16	27,126,203	15,335,165	56.53%
Jan-17	27,777,988	14,116,611	50.82%
Feb-17	27,435,574	13,872,976	50.57%

		<i>Calculation of Working Capital</i>				
	(a)	(b)	(c)	(d)	(e)	(f)
	Renewable Energy Credits (1)	Number of Days of Lag / 365 (2)	Working Capital Requirement (a*b)	Prime Rate	Supply Related Working Capital (c * d)	Total Costs (sum a + e)
Jun-17	\$17,638	(82.74%)	(\$14,594)	4.00%	(\$584)	\$17,054
Jul-17	\$17,469	(82.74%)	(\$14,455)	4.00%	(\$578)	\$16,891
Aug-17	\$18,393	(82.74%)	(\$15,219)	4.00%	(\$609)	\$17,784
Sep-17	\$18,288	(82.74%)	(\$15,132)	4.00%	(\$605)	\$17,683
Oct-17	\$15,759	(82.74%)	(\$13,039)	4.00%	(\$522)	\$15,237
Nov-17	<u>\$15,110</u>	(82.74%)	(\$12,502)	4.00%	<u>(\$500)</u>	<u>\$14,610</u>
Total	\$102,656				(\$3,398)	\$99,259

(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.



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

**Residential Rate D 612 kWh Bill**

	4/1/2017	6/1/2017					%
<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	\$10.27	\$10.27	\$0.00	\$10.27	\$10.27	\$0.00	0.0%
	<u><b>\$/kWh</b></u>	<u><b>\$/kWh</b></u>					
Distribution Charge							
First 250 kWh	\$0.03603	\$0.03603	\$0.00000	\$9.01	\$9.01	\$0.00	0.0%
Excess 250 kWh	\$0.04103	\$0.04103	\$0.00000	\$14.85	\$14.85	\$0.00	0.0%
External Delivery Charge	\$0.02144	\$0.02144	\$0.00000	\$13.12	\$13.12	\$0.00	0.0%
Stranded Cost Charge	(\$0.00018)	(\$0.00018)	\$0.00000	(\$0.11)	(\$0.11)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00221	\$0.00221	\$0.00000	\$1.35	\$1.35	\$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>\$0.07690</u>	<u>\$0.07886</u>	<u>\$0.00196</u>	<u>\$47.06</u>	<u>\$48.26</u>	<u>\$1.20</u>	<u>1.2%</u>
First 250 kWh	\$0.13997	\$0.14193	\$0.00196				
Excess 250 kWh	\$0.14497	\$0.14693	\$0.00196				
Total Bill				\$97.74	\$98.94	\$1.20	1.2%

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

	4/1/2017	6/1/2017					%
<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	\$18.41	\$18.41	\$0.00	\$18.41	\$18.41	\$0.00	0.0%
	<u><b>All kW</b></u>	<u><b>All kW</b></u>					
Distribution Charge	\$10.31	\$10.31	\$0.00	\$113.41	\$113.41	\$0.00	0.0%
Stranded Cost Charge	<u>(\$0.04)</u>	<u>(\$0.04)</u>	<u>\$0.00</u>	<u>(\$0.44)</u>	<u>(\$0.44)</u>	<u>\$0.00</u>	<u>0.0%</u>
Total	\$10.27	\$10.27	\$0.00	\$112.97	\$112.97	\$0.00	0.0%
	<u><b>\$/kWh</b></u>	<u><b>\$/kWh</b></u>					
Distribution Charge	\$0.00199	\$0.00199	\$0.00000	\$5.57	\$5.57	\$0.00	0.0%
External Delivery Charge	\$0.02144	\$0.02144	\$0.00000	\$60.03	\$60.03	\$0.00	0.0%
Stranded Cost Charge	(\$0.00004)	(\$0.00004)	\$0.00000	(\$0.11)	(\$0.11)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00221	\$0.00221	\$0.00000	\$6.19	\$6.19	\$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>\$0.07324</u>	<u>\$0.07556</u>	<u>\$0.00232</u>	<u>\$205.07</u>	<u>\$211.57</u>	<u>\$6.50</u>	<u>1.6%</u>
Total	\$0.10241	\$0.10473	\$0.00232	\$286.75	\$293.24	\$6.50	1.6%
Total Bill				\$418.13	\$424.62	\$6.50	1.6%

\* Impacts do not include the Electricity Consumption Tax.

**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>							
	4/1/2017	6/1/2017					%
<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	\$6.25	\$6.25	\$0.00	\$6.25	\$6.25	\$0.00	0.0%
	<u>\$/kWh</u>	<u>\$/kWh</u>					
Distribution Charge	\$0.03272	\$0.03272	\$0.00000	\$54.32	\$54.32	\$0.00	0.0%
External Delivery Charge	\$0.02144	\$0.02144	\$0.00000	\$35.59	\$35.59	\$0.00	0.0%
Stranded Cost Charge	(\$0.00018)	(\$0.00018)	\$0.00000	(\$0.30)	(\$0.30)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00221	\$0.00221	\$0.00000	\$3.67	\$3.67	\$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>\$0.07324</u>	<u>\$0.07556</u>	<u>\$0.00232</u>	<u>\$121.58</u>	<u>\$125.43</u>	<u>\$3.85</u>	<u>1.7%</u>
Total	\$0.13300	\$0.13532	\$0.00232	\$220.78	\$224.63	\$3.85	1.7%
Total Bill				\$227.03	\$230.88	\$3.85	1.7%

<b><u>Regular General G2 kWh Meter 115 kWh Typical Bill</u></b>							
	4/1/2017	6/1/2017					%
<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	\$13.94	\$13.94	\$0.00	\$13.94	\$13.94	\$0.00	0.0%
	<u>\$/kWh</u>	<u>\$/kWh</u>					
Distribution Charge	\$0.03410	\$0.03410	\$0.00000	\$3.92	\$3.92	\$0.00	0.0%
External Delivery Charge	\$0.02144	\$0.02144	\$0.00000	\$2.47	\$2.47	\$0.00	0.0%
Stranded Cost Charge	(\$0.00018)	(\$0.00018)	\$0.00000	(\$0.02)	(\$0.02)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00221	\$0.00221	\$0.00000	\$0.25	\$0.25	\$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>\$0.07324</u>	<u>\$0.07556</u>	<u>\$0.00232</u>	<u>\$8.42</u>	<u>\$8.69</u>	<u>\$0.27</u>	<u>0.9%</u>
Total	\$0.13438	\$0.13670	\$0.00232	\$15.45	\$15.72	\$0.27	0.9%
Total Bill				\$29.39	\$29.66	\$0.27	0.9%

\* 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\***

	4/1/2017	6/1/2017					%
<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	\$10.27	\$10.27	\$0.00	\$10.27	\$10.27	\$0.00	0.0%
	<u>\$/kWh</u>	<u>\$/kWh</u>					
Distribution Charge							
First 250 kWh	\$0.03603	\$0.03603	\$0.00000	\$9.01	\$9.01	\$0.00	0.0%
Excess 250 kWh	\$0.04103	\$0.04103	\$0.00000	\$14.85	\$14.85	\$0.00	0.0%
External Delivery Charge	\$0.02144	\$0.02144	\$0.00000	\$13.12	\$13.12	\$0.00	0.0%
Stranded Cost Charge	(\$0.00018)	(\$0.00018)	\$0.00000	(\$0.11)	(\$0.11)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00221	\$0.00221	\$0.00000	\$1.35	\$1.35	\$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>\$0.07690</u>	<u>\$0.07886</u>	<u>\$0.00196</u>	<u>\$47.06</u>	<u>\$48.26</u>	<u>\$1.20</u>	<u>1.2%</u>
First 250 kWh	\$0.13997	\$0.14193	\$0.00196				
Excess 250 kWh	\$0.14497	\$0.14693	\$0.00196				
Total Bill				\$97.74	\$98.94	\$1.20	1.2%

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

	4/1/2017	6/1/2017					%
<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	\$10.27	\$10.27	\$0.00	\$10.27	\$10.27	\$0.00	0.0%
	<u>\$/kWh</u>	<u>\$/kWh</u>					
Distribution Charge							
First 250 kWh	\$0.03603	\$0.03603	\$0.00000	\$9.01	\$9.01	\$0.00	0.0%
Excess 250 kWh	\$0.04103	\$0.04103	\$0.00000	\$10.42	\$10.42	\$0.00	0.0%
External Delivery Charge	\$0.02144	\$0.02144	\$0.00000	\$10.81	\$10.81	\$0.00	0.0%
Stranded Cost Charge	(\$0.00018)	(\$0.00018)	\$0.00000	(\$0.09)	(\$0.09)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00221	\$0.00221	\$0.00000	\$1.11	\$1.11	\$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>\$0.07690</u>	<u>\$0.07886</u>	<u>\$0.00196</u>	<u>\$38.76</u>	<u>\$39.75</u>	<u>\$0.99</u>	<u>1.2%</u>
First 250 kWh	\$0.13997	\$0.14193	\$0.00196				
Excess 250 kWh	\$0.14497	\$0.14693	\$0.00196				
Total Bill				\$82.08	\$83.07	\$0.99	1.2%

\* Based on billing period March 2016 through February 2017.

\*\* Impacts do not include the Electricity Consumption Tax.

Unitil Energy Systems, Inc.  
Average Class Bill Impacts  
Due to Proposed Default Service Rate Changes Effective June 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	\$975,837	\$79,355,550	\$80,331,387	\$975,837	1.2%
General Service	131,872	354,161,409	1,348,556	\$821,654	\$52,657,161	\$53,478,815	\$821,654	1.6%
Outdoor Lighting	110,850	8,241,454	n/a	\$19,120	\$2,484,726	\$2,503,847	\$19,120	0.8%
Total	1,028,028	860,278,690		\$1,816,611	\$134,497,438	\$136,314,049	\$1,816,611	1.4%

(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)

<b>Unitil Energy Systems, Inc.</b> <b>Typical Bill Impacts - April 1, 2017 vs. June 1, 2017 due to Change in Default Service Charge</b> <b>Impacts do NOT include the Electricity Consumption Tax</b> <b>Impact on D Rate Customers</b>				
<b>Average kWh</b>	<b>Total Bill Using Rates 4/1/2017</b>	<b>Total Bill Using Rates 6/1/2017</b>	<b>Total Difference</b>	<b>% Total Difference</b>
125	\$27.77	\$28.01	\$0.25	0.9%
250	\$45.26	\$45.75	\$0.49	1.1%
500	\$81.51	\$82.49	\$0.98	1.2%
600	\$96.00	\$97.18	\$1.18	1.2%
750	\$117.75	\$119.22	\$1.47	1.2%
1,000	\$153.99	\$155.95	\$1.96	1.3%
1,250	\$190.23	\$192.68	\$2.45	1.3%
1,500	\$226.48	\$229.42	\$2.94	1.3%
2,000	\$298.96	\$302.88	\$3.92	1.3%
3,500	\$516.42	\$523.28	\$6.86	1.3%
5,000	\$733.87	\$743.67	\$9.80	1.3%

  

	<b>Rates - Effective April 1, 2017</b>	<b>Rates - Proposed June 1, 2017</b>	<b>Difference</b>
Customer Charge	<b>\$10.27</b>	<b>\$10.27</b>	<b>\$0.00</b>
	<b>kWh</b>	<b>kWh</b>	<b>kWh</b>
Distribution Charge: First 250 kWh	\$0.03603	\$0.03603	\$0.00000
Excess 250 kWh	\$0.04103	\$0.04103	\$0.00000
External Delivery Charge	\$0.02144	\$0.02144	\$0.00000
Stranded Cost Charge	(\$0.00018)	(\$0.00018)	\$0.00000
Storm Recovery Adjustment Factor	\$0.00221	\$0.00221	\$0.00000
System Benefits Charge	\$0.00357	\$0.00357	\$0.00000
Default Service Charge	<u>\$0.07690</u>	<u>\$0.07886</u>	<u>\$0.00196</u>
<b>TOTAL</b> First 250 kWh	<b>\$0.13997</b>	<b>\$0.14193</b>	<b>\$0.00196</b>
Excess 250 kWh	<b>\$0.14497</b>	<b>\$0.14693</b>	<b>\$0.00196</b>

Unitil Energy Systems, Inc.						
Typical Bill Impacts - April 1, 2017 vs. June 1, 2017 due to Change in Default Service Charge						
Impacts do NOT include the Electricity Consumption Tax						
Impact on G2 Rate Customers						
Load Factor	Average Monthly kW	Average Monthly kWh	Total Bill Using Rates 4/1/2017	Total Bill Using Rates 6/1/2017	Total Difference	% Total Difference
20%	5	730	\$144.52	\$146.21	\$1.69	1.2%
20%	10	1,460	\$270.63	\$274.02	\$3.39	1.3%
20%	15	2,190	\$396.74	\$401.82	\$5.08	1.3%
20%	25	3,650	\$648.96	\$657.42	\$8.47	1.3%
20%	50	7,300	\$1,279.50	\$1,296.44	\$16.94	1.3%
20%	75	10,950	\$1,910.05	\$1,935.45	\$25.40	1.3%
20%	100	14,600	\$2,540.60	\$2,574.47	\$33.87	1.3%
20%	150	21,900	\$3,801.69	\$3,852.50	\$50.81	1.3%
36%	5	1,314	\$204.33	\$207.38	\$3.05	1.5%
36%	10	2,628	\$390.24	\$396.34	\$6.10	1.6%
36%	15	3,942	\$576.16	\$585.31	\$9.15	1.6%
36%	25	6,570	\$947.99	\$963.24	\$15.24	1.6%
36%	50	13,140	\$1,877.58	\$1,908.06	\$30.48	1.6%
36%	75	19,710	\$2,807.16	\$2,852.89	\$45.73	1.6%
36%	100	26,280	\$3,736.74	\$3,797.71	\$60.97	1.6%
36%	150	39,420	\$5,595.91	\$5,687.37	\$91.45	1.6%
50%	5	1,825	\$256.66	\$260.89	\$4.23	1.6%
50%	10	3,650	\$494.91	\$503.37	\$8.47	1.7%
50%	15	5,475	\$733.15	\$745.86	\$12.70	1.7%
50%	25	9,125	\$1,209.65	\$1,230.82	\$21.17	1.8%
50%	50	18,250	\$2,400.89	\$2,443.23	\$42.34	1.8%
50%	75	27,375	\$3,592.13	\$3,655.64	\$63.51	1.8%
50%	100	36,500	\$4,783.38	\$4,868.06	\$84.68	1.8%
50%	150	54,750	\$7,165.86	\$7,292.88	\$127.02	1.8%
	<u>Rates - Effective April 1, 2017</u>	<u>Rates - Proposed June 1, 2017</u>	<u>Difference</u>			
Customer Charge	\$18.41	\$18.41	\$0.00			
	<u>All kW</u>	<u>All kW</u>	<u>All kW</u>			
Distribution Charge	\$10.31	\$10.31	\$0.00			
Stranded Cost Charge	(\$0.04)	(\$0.04)	\$0.00			
TOTAL	\$10.27	\$10.27	\$0.00			
	<u>kWh</u>	<u>kWh</u>	<u>kWh</u>			
Distribution Charge	\$0.00199	\$0.00199	\$0.00000			
External Delivery Charge	\$0.02144	\$0.02144	\$0.00000			
Stranded Cost Charge	(\$0.00004)	(\$0.00004)	\$0.00000			
Storm Recovery Adj. Factor	\$0.00221	\$0.00221	\$0.00000			
System Benefits Charge	\$0.00357	\$0.00357	\$0.00000			
Default Service Charge	\$0.07324	\$0.07556	\$0.00232			
TOTAL	\$0.10241	\$0.10473	\$0.00232			

<b>Unitil Energy Systems, Inc.</b> <b>Typical Bill Impacts - April 1, 2017 vs. June 1, 2017 due to Change in Default Service Charge</b> <b>Impacts do NOT include the Electricity Consumption Tax</b> <b>Impact on G2 kWh Meter Rate Customers</b>				
<b>Average Monthly kWh</b>	<b>Total Bill Using Rates 4/1/2017</b>	<b>Total Bill Using Rates 6/1/2017</b>	<b>Total Difference</b>	<b>% Total Difference</b>
15	\$15.96	\$15.99	\$0.03	0.2%
75	\$24.02	\$24.19	\$0.17	0.7%
150	\$34.10	\$34.45	\$0.35	1.0%
250	\$47.54	\$48.12	\$0.58	1.2%
350	\$60.97	\$61.79	\$0.81	1.3%
450	\$74.41	\$75.46	\$1.04	1.4%
550	\$87.85	\$89.13	\$1.28	1.5%
650	\$101.29	\$102.80	\$1.51	1.5%
750	\$114.73	\$116.47	\$1.74	1.5%
900	\$134.88	\$136.97	\$2.09	1.5%
	<b>Rates - Effective April 1, 2017</b>	<b>Rates - Proposed June 1, 2017</b>	<b>Difference</b>	
kWh Meter Customer Charge	<b>\$13.94</b>	<b>\$13.94</b>	<b>\$0.00</b>	
	<b><u>All kWh</u></b>	<b><u>All kWh</u></b>	<b><u>All kWh</u></b>	
Distribution Charge	\$0.03410	\$0.03410	\$0.00000	
External Delivery Charge	\$0.02144	\$0.02144	\$0.00000	
Stranded Cost Charge	(\$0.00018)	(\$0.00018)	\$0.00000	
Storm Recovery Adjustment Factor	\$0.00221	\$0.00221	\$0.00000	
System Benefits Charge	\$0.00357	\$0.00357	\$0.00000	
Default Service Charge	<u>\$0.07324</u>	<u>\$0.07556</u>	<u>\$0.00232</u>	
<b>TOTAL</b>	<b>\$0.13438</b>	<b>\$0.13670</b>	<b>\$0.00232</b>	

<b>Unitil Energy Systems, Inc.</b> <b>Typical Bill Impacts - April 1, 2017 vs. June 1, 2017 due to Change in Default Service Charge</b> <b>Impacts do NOT include the Electricity Consumption Tax</b> <b>Impact on G2 QRWH and SH Rate Customers</b>				
<b>Average kWh</b>	<b>Total Bill Using Rates 4/1/2017</b>	<b>Total Bill Using Rates 6/1/2017</b>	<b>Total Difference</b>	<b>% Total Difference</b>
100	\$19.55	\$19.78	\$0.23	1.2%
200	\$32.85	\$33.31	\$0.46	1.4%
300	\$46.15	\$46.85	\$0.70	1.5%
400	\$59.45	\$60.38	\$0.93	1.6%
500	\$72.75	\$73.91	\$1.16	1.6%
750	\$106.00	\$107.74	\$1.74	1.6%
1,000	\$139.25	\$141.57	\$2.32	1.7%
1,500	\$205.75	\$209.23	\$3.48	1.7%
2,000	\$272.25	\$276.89	\$4.64	1.7%
2,500	\$338.75	\$344.55	\$5.80	1.7%
	<b>Rates - Effective April 1, 2017</b>	<b>Rates - Proposed June 1, 2017</b>	<b>Difference</b>	
Customer Charge	<b>\$6.25</b>	<b>\$6.25</b>	<b>\$0.00</b>	
	<b><u>All kWh</u></b>	<b><u>All kWh</u></b>	<b><u>All kWh</u></b>	
Distribution Charge	\$0.03272	\$0.03272	\$0.00000	
External Delivery Charge	\$0.02144	\$0.02144	\$0.00000	
Stranded Cost Charge	(\$0.00018)	(\$0.00018)	\$0.00000	
Storm Recovery Adjustment Factor	\$0.00221	\$0.00221	\$0.00000	
System Benefits Charge	\$0.00357	\$0.00357	\$0.00000	
Default Service Charge	<u>\$0.07324</u>	<u>\$0.07556</u>	<u>\$0.00232</u>	
<b>TOTAL</b>	<b>\$0.13300</b>	<b>\$0.13532</b>	<b>\$0.00232</b>	

Unitil Energy Systems, Inc. Typical Bill Impacts - April 1, 2017 vs. June 1, 2017 due to Change in Default Service Charge Impacts do NOT include the Electricity Consumption Tax Impact on OL Rate Customers *								
	Nominal Watts	Lumens	Type	Average Monthly kWh	Total Bill Using Rates 4/1/2017	Total Bill Using Rates 6/1/2017	Total Difference	% Total Difference
<u>Mercury Vapor:</u>								
1	100	3,500	ST	40	\$15.37	\$15.46	\$0.09	0.6%
2	175	7,000	ST	67	\$20.50	\$20.66	\$0.16	0.8%
3	250	11,000	ST	95	\$25.39	\$25.61	\$0.22	0.9%
4	400	20,000	ST	154	\$34.69	\$35.05	\$0.36	1.0%
5	1,000	60,000	ST	388	\$78.74	\$79.64	\$0.90	1.1%
6	250	11,000	FL	95	\$26.51	\$26.73	\$0.22	0.8%
7	400	20,000	FL	154	\$36.13	\$36.49	\$0.36	1.0%
8	1,000	60,000	FL	388	\$74.42	\$75.32	\$0.90	1.2%
9	100	3,500	PB	40	\$15.49	\$15.58	\$0.09	0.6%
10	175	7,000	PB	67	\$19.66	\$19.82	\$0.16	0.8%
<u>High Pressure Sodium:</u>								
11	50	4,000	ST	21	\$13.66	\$13.71	\$0.05	0.4%
12	100	9,500	ST	43	\$17.54	\$17.64	\$0.10	0.6%
13	150	16,000	ST	60	\$19.34	\$19.48	\$0.14	0.7%
14	250	30,000	ST	101	\$27.24	\$27.47	\$0.23	0.9%
15	400	50,000	ST	161	\$38.17	\$38.54	\$0.37	1.0%
16	1,000	140,000	ST	398	\$79.25	\$80.18	\$0.92	1.2%
17	150	16,000	FL	60	\$21.58	\$21.72	\$0.14	0.6%
18	250	30,000	FL	101	\$28.80	\$29.03	\$0.23	0.8%
19	400	50,000	FL	161	\$37.65	\$38.02	\$0.37	1.0%
20	1,000	140,000	FL	398	\$79.60	\$80.53	\$0.92	1.2%
21	50	4,000	PB	21	\$12.69	\$12.74	\$0.05	0.4%
22	100	9,500	PB	43	\$16.41	\$16.51	\$0.10	0.6%
<u>Metal Halide:</u>								
23	175	8,800	ST	66	\$24.40	\$24.55	\$0.15	0.6%
24	250	13,500	ST	92	\$28.73	\$28.94	\$0.21	0.7%
25	400	23,500	ST	148	\$35.23	\$35.57	\$0.34	1.0%
26	175	8,800	FL	66	\$27.37	\$27.52	\$0.15	0.6%
27	250	13,500	FL	92	\$31.79	\$32.00	\$0.21	0.7%
28	400	23,500	FL	148	\$37.56	\$37.90	\$0.34	0.9%
29	175	8,800	PB	66	\$23.17	\$23.32	\$0.15	0.7%
30	250	13,500	PB	92	\$26.96	\$27.17	\$0.21	0.8%
31	400	23,500	PB	148	\$34.00	\$34.34	\$0.34	1.0%
<u>Luminaire Charges For Year Round Service:</u>								
<b>Rates - Effective April 1, 2017</b>								
		<u>Mercury Vapor Rate/Mo.</u>		<u>Sodium Vapor Rate/Mo.</u>		<u>Metal Halide Rate/Mo.</u>		
Customer Charge	\$0.00	1 \$11.28		11 \$11.51		23 \$17.65		
		2 \$13.65		12 \$13.14		24 \$19.32		
	<u>All kWh</u>	3 \$15.67		13 \$13.20		25 \$20.09		
Distribution Charge	\$0.00199	4 \$18.94		14 \$16.91		26 \$20.62		
External Delivery Charge	\$0.02144	5 \$39.06		15 \$21.70		27 \$22.38		
Stranded Cost Charge	(\$0.00018)	6 \$16.79		16 \$38.55		28 \$22.42		
Storm Recovery Adj. Factor	\$0.00221	7 \$20.38		17 \$15.44		29 \$16.42		
System Benefits Charge	\$0.00357	8 \$34.74		18 \$18.47		30 \$17.55		
Default Service Charge	<u>\$0.07324</u>	9 \$11.40		19 \$21.18		31 \$18.86		
		10 \$12.81		20 \$38.90				
<b>TOTAL</b>	<b>\$0.10227</b>			21 \$10.54				
				22 \$12.01				
<b>Rates - Proposed June 1, 2017</b>								
		<u>Mercury Vapor Rate/Mo.</u>		<u>Sodium Vapor Rate/Mo.</u>		<u>Metal Halide Rate/Mo.</u>		
Customer Charge	\$0.00	1 \$11.28		11 \$11.51		23 \$17.65		
		2 \$13.65		12 \$13.14		24 \$19.32		
	<u>All kWh</u>	3 \$15.67		13 \$13.20		25 \$20.09		
Distribution Charge	\$0.00199	4 \$18.94		14 \$16.91		26 \$20.62		
External Delivery Charge	\$0.02144	5 \$39.06		15 \$21.70		27 \$22.38		
Stranded Cost Charge	(\$0.00018)	6 \$16.79		16 \$38.55		28 \$22.42		
Storm Recovery Adj. Factor	\$0.00221	7 \$20.38		17 \$15.44		29 \$16.42		
System Benefits Charge	\$0.00357	8 \$34.74		18 \$18.47		30 \$17.55		
Default Service Charge	<u>\$0.07556</u>	9 \$11.40		19 \$21.18		31 \$18.86		
		10 \$12.81		20 \$38.90				
<b>TOTAL</b>	<b>\$0.10459</b>			21 \$10.54				
				22 \$12.01				
	<u>Difference</u>	<u>Mercury Vapor-Difference</u>		<u>Sodium Vapor-Difference</u>		<u>Metal Halide-Difference</u>		
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	<u>\$0.00232</u>	9 \$0.00		19 \$0.00		31 \$0.00		
		10 \$0.00		20 \$0.00				
<b>TOTAL</b>	<b>\$0.00232</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 612 kWh Bill**

<u>Rate Components</u>	<u>Jun 2016 Rates</u>	<u>Proposed Jun 2017 Rates</u>	<u>Difference</u>	<u>Current Bill*</u>	<u>As Revised Bill*</u>	<u>Difference</u>	<u>% Difference to Total Bill</u>
Customer Charge	\$10.27	\$10.27	\$0.00	\$10.27	\$10.27	\$0.00	0.0%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge							
First 250 kWh	\$0.03404	\$0.03603	\$0.00199	\$8.51	\$9.01	\$0.50	0.6%
Excess 250 kWh	\$0.03904	\$0.04103	\$0.00199	\$14.13	\$14.85	\$0.72	0.8%
External Delivery Charge	\$0.02131	\$0.02144	\$0.00013	\$13.04	\$13.12	\$0.08	0.1%
Stranded Cost Charge	\$0.00018	(\$0.00018)	(\$0.00036)	\$0.11	(\$0.11)	(\$0.22)	(0.3%)
Storm Recovery Adj.	\$0.00221	\$0.00221	\$0.00000	\$1.35	\$1.35	\$0.00	0.0%
System Benefits Charge	\$0.00330	\$0.00357	\$0.00027	\$2.02	\$2.18	\$0.17	0.2%
Default Service Charge	<u>\$0.05978</u>	<u>\$0.07886</u>	<u>\$0.01908</u>	<u>\$36.59</u>	<u>\$48.26</u>	<u>\$11.68</u>	<u>13.6%</u>
First 250 kWh	\$0.12082	\$0.14193	\$0.02111				
Excess 250 kWh	\$0.12582	\$0.14693	\$0.02111				
<b>Total Bill</b>				\$86.02	\$98.94	\$12.92	15.0%

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

<u>Rate Components</u>	<u>Jun 2016 Rates</u>	<u>Proposed Jun 2017 Rates</u>	<u>Difference</u>	<u>Current Bill*</u>	<u>As Revised Bill*</u>	<u>Difference</u>	<u>% Difference to Total Bill</u>
Customer Charge	\$18.41	\$18.41	\$0.00	\$18.41	\$18.41	\$0.00	0.0%
	<b><u>All kW</u></b>	<b><u>All kW</u></b>					
Distribution Charge	\$10.31	\$10.31	\$0.00	\$113.41	\$113.41	\$0.00	0.0%
Stranded Cost Charge	<u>\$0.04</u>	<u>(\$0.04)</u>	<u>(\$0.08)</u>	<u>\$0.44</u>	<u>(\$0.44)</u>	<u>(\$0.88)</u>	<u>(0.2%)</u>
Total	\$10.35	\$10.27	(\$0.08)	\$113.85	\$112.97	(\$0.88)	(0.2%)
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.00000	\$0.00199	\$0.00199	\$0.00	\$5.57	\$5.57	1.5%
External Delivery Charge	\$0.02131	\$0.02144	\$0.00013	\$59.67	\$60.03	\$0.36	0.1%
Stranded Cost Charge	\$0.00004	(\$0.00004)	(\$0.00008)	\$0.11	(\$0.11)	(\$0.22)	(0.1%)
Storm Recovery Adj.	\$0.00221	\$0.00221	\$0.00000	\$6.19	\$6.19	\$0.00	0.0%
System Benefits Charge	\$0.00330	\$0.00357	\$0.00027	\$9.24	\$10.00	\$0.76	0.2%
Default Service Charge	<u>\$0.05860</u>	<u>\$0.07556</u>	<u>\$0.01696</u>	<u>\$164.08</u>	<u>\$211.57</u>	<u>\$47.49</u>	<u>12.8%</u>
Total	\$0.08546	\$0.10473	\$0.01927	\$239.29	\$293.24	\$53.96	14.5%
<b>Total Bill</b>				\$371.55	\$424.62	\$53.08	14.3%

\* Impacts do not include the Electricity Consumption Tax.

**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>							
<u>Rate Components</u>	<u>Jun 2016 Rates</u>	<u>Proposed Jun 2017 Rates</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	\$6.25	\$0.00	\$6.25	\$6.25	\$0.00	0.0%
	<u>\$/kWh</u>	<u>\$/kWh</u>					
Distribution Charge	\$0.03073	\$0.03272	\$0.00199	\$51.01	\$54.32	\$3.30	1.7%
External Delivery Charge	\$0.02131	\$0.02144	\$0.00013	\$35.37	\$35.59	\$0.22	0.1%
Stranded Cost Charge	\$0.00018	(\$0.00018)	(\$0.00036)	\$0.30	(\$0.30)	(\$0.60)	(0.3%)
Storm Recovery Adj.	\$0.00221	\$0.00221	\$0.00000	\$3.67	\$3.67	\$0.00	0.0%
System Benefits Charge	\$0.00330	\$0.00357	\$0.00027	\$5.48	\$5.93	\$0.45	0.2%
Default Service Charge	<u>\$0.05860</u>	<u>\$0.07556</u>	<u>\$0.01696</u>	<u>\$97.28</u>	<u>\$125.43</u>	<u>\$28.15</u>	<u>14.1%</u>
Total	\$0.11633	\$0.13532	\$0.01899	\$193.11	\$224.63	\$31.52	15.8%
Total Bill				\$199.36	\$230.88	\$31.52	15.8%

<b><u>Regular General G2 kWh Meter 115 kWh Typical Bill</u></b>							
<u>Rate Components</u>	<u>Jun 2016 Rates</u>	<u>Proposed Jun 2017 Rates</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	\$13.94	\$0.00	\$13.94	\$13.94	\$0.00	0.0%
	<u>\$/kWh</u>	<u>\$/kWh</u>					
Distribution Charge	\$0.03211	\$0.03410	\$0.00199	\$3.69	\$3.92	\$0.23	0.8%
External Delivery Charge	\$0.02131	\$0.02144	\$0.00013	\$2.45	\$2.47	\$0.01	0.1%
Stranded Cost Charge	\$0.00018	(\$0.00018)	(\$0.00036)	\$0.02	(\$0.02)	(\$0.04)	(0.2%)
Storm Recovery Adj.	\$0.00221	\$0.00221	\$0.00000	\$0.25	\$0.25	\$0.00	0.0%
System Benefits Charge	\$0.00330	\$0.00357	\$0.00027	\$0.38	\$0.41	\$0.03	0.1%
Default Service Charge	<u>\$0.05860</u>	<u>\$0.07556</u>	<u>\$0.01696</u>	<u>\$6.74</u>	<u>\$8.69</u>	<u>\$1.95</u>	<u>7.1%</u>
Total	\$0.11771	\$0.13670	\$0.01899	\$13.54	\$15.72	\$2.18	7.9%
Total Bill				\$27.48	\$29.66	\$2.18	7.9%

\* Impacts do not include the Electricity Consumption Tax.

