

**CALCULATION OF THE DEFAULT SERVICE CHARGE**

<b>Non-G1 Class Default Service:</b>		<b>Jun-19</b>	<b>Jul-19</b>	<b>Aug-19</b>	<b>Sep-19</b>	<b>Oct-19</b>	<b>Nov-19</b>	<b>Total</b>
<b>Power Supply Charge</b>								
		As shown on Schedule LSM-2, Page 1						
<b>Residential Class</b>								
1	Reconciliation	(\$47,414)	(\$65,454)	(\$70,611)	(\$54,852)	(\$55,562)	(\$49,737)	(\$343,630)
2	Total Costs	\$2,408,295	\$3,496,382	\$3,128,904	\$2,581,527	\$2,614,687	\$2,697,146	\$16,926,942
3	Reconciliation plus Total Costs (L.1 + L.2)	\$2,360,881	\$3,430,928	\$3,058,293	\$2,526,675	\$2,559,125	\$2,647,409	\$16,583,311
4	kWh Purchases	<u>31,509,144</u>	<u>43,498,146</u>	<u>46,925,177</u>	<u>36,452,359</u>	<u>36,923,994</u>	<u>33,053,245</u>	<u>228,362,066</u>
5	Total, Before Losses (L.3 / L.4)	\$0.07493	\$0.07888	\$0.06517	\$0.06931	\$0.06931	\$0.08010	\$0.07262
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))	\$0.07972	\$0.08392	\$0.06934	\$0.07375	\$0.07374	\$0.08522	
8	Total Retail Rate - Residential Fixed Power Supply Charge (L.5 * (1+L.6))							\$0.07727
<b>G2 and OL Class</b>								
9	Reconciliation	(\$22,834)	(\$28,390)	(\$30,217)	(\$24,723)	(\$27,194)	(\$22,619)	(\$155,978)
10	Total Costs	\$989,505	\$1,445,851	\$1,296,935	\$1,084,490	\$904,382	\$1,141,148	\$6,862,312
11	Reconciliation plus Total Costs (L.9 + L.10)	\$966,671	\$1,417,461	\$1,266,718	\$1,059,767	\$877,188	\$1,118,529	\$6,706,334
12	kWh Purchases	<u>15,171,431</u>	<u>18,863,021</u>	<u>20,076,830</u>	<u>16,426,885</u>	<u>18,068,617</u>	<u>15,028,943</u>	<u>103,635,726</u>
13	Total, Before Losses (L.11 / L.12)	\$0.06372	\$0.07514	\$0.06309	\$0.06451	\$0.04855	\$0.07442	\$0.06471
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))	\$0.06779	\$0.07995	\$0.06713	\$0.06864	\$0.05165	\$0.07919	
16	Total Retail Rate - G2 and OL Fixed Power Supply Charge (L.13 * (1+L.14))							\$0.06885

<b>Renewable Portfolio Standard (RPS) Charge</b>		As shown on Schedule LSM-3, Page 1						
17	Reconciliation	(\$145,933)	(\$194,953)	(\$209,462)	(\$165,311)	(\$171,918)	(\$150,314)	(\$1,037,891)
18	Total Costs	<u>\$140,077</u>	<u>\$187,128</u>	<u>\$201,054</u>	<u>\$158,676</u>	<u>\$165,020</u>	<u>\$144,282</u>	<u>\$996,238</u>
19	Reconciliation plus Total Costs (L.17 + L.18)	(\$5,855)	(\$7,825)	(\$8,408)	(\$6,634)	(\$6,897)	(\$6,032)	(\$41,653)
20	kWh Purchases	<u>46,680,575</u>	<u>62,361,168</u>	<u>67,002,007</u>	<u>52,879,245</u>	<u>54,992,611</u>	<u>48,082,188</u>	<u>331,997,793</u>
21	Total, Before Losses (L.19 / L.20)	(\$0.00013)	(\$0.00013)	(\$0.00013)	(\$0.00013)	(\$0.00013)	(\$0.00013)	(\$0.00013)
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))	(\$0.00013)	(\$0.00013)	(\$0.00013)	(\$0.00013)	(\$0.00013)	(\$0.00013)	
24	Total Retail Rate - Fixed RPS Charge (L.21 * (1+L.22))							(\$0.00013)

<b>TOTAL DEFAULT SERVICE CHARGE</b>								
25	<b>Total Retail Rate - Residential Variable Default Service Charge (L.7 + L.23)</b>	<b>\$0.07959</b>	<b>\$0.08379</b>	<b>\$0.06921</b>	<b>\$0.07362</b>	<b>\$0.07361</b>	<b>\$0.08509</b>	
26	<b>Total Retail Rate - Residential Fixed Default Service Charge (L.8+L.24)</b>							<b>\$0.07714</b>
27	<b>Total Retail Rate - G2 and OL Variable Default Service Charge (L.15 + L.23)</b>	<b>\$0.06766</b>	<b>\$0.07982</b>	<b>\$0.06700</b>	<b>\$0.06851</b>	<b>\$0.05152</b>	<b>\$0.07906</b>	
28	<b>Total Retail Rate - G2 and OL Fixed Default Service Charge (L.16+L.24)</b>							<b>\$0.06872</b>

Authorized by NHPUC Order No. in Case No. DE 19-049, dated

## CALCULATION OF THE DEFAULT SERVICE CHARGE

Non-G1 Class Default Service:		Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Total
<b>Power Supply Charge</b>								
<b>Residential Class</b>								
1	Reconciliation	(\$31,890)	(\$37,903)	(\$33,564)	(\$29,800)	(\$27,344)	(\$24,822)	(\$185,323)
2	Total Costs	\$5,222,880	\$5,962,587	\$4,836,675	\$4,309,997	\$2,610,072	\$2,974,149	\$25,916,359
3	Reconciliation plus Total Costs (L.1 + L.2)	\$5,190,990	\$5,924,684	\$4,803,111	\$4,280,197	\$2,582,728	\$2,949,327	\$25,731,037
4	kWh Purchases	40,588,549	48,242,083	42,718,930	37,928,196	34,802,731	31,593,044	235,873,533
5	Total, Before Losses (L.3 / L.4)	\$0.12789	\$0.12281	\$0.11244	\$0.11285	\$0.07421	\$0.09335	\$0.10909
6	Losses	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%
7	Total Retail Rate - Residential Variable Power Supply Charge (L.5 * (1+L.6))	\$0.13608	\$0.13067	\$0.11963	\$0.12007	\$0.07896	\$0.09933	
8	Total Retail Rate - Residential Fixed Power Supply Charge (L.5 * (1+L.6))							\$0.11607
<b>G2 and OL Class</b>								
9	Reconciliation	(\$12,812)	(\$14,509)	(\$13,402)	(\$12,601)	(\$12,541)	(\$12,092)	(\$77,957)
10	Total Costs	\$1,660,574	\$2,362,678	\$2,194,672	\$1,438,979	\$1,177,171	\$1,051,800	\$9,885,875
11	Reconciliation plus Total Costs (L.9 + L.10)	\$1,647,762	\$2,348,169	\$2,181,270	\$1,426,378	\$1,164,630	\$1,039,708	\$9,807,917
12	kWh Purchases	16,309,132	18,470,369	17,060,456	16,041,115	15,964,633	15,393,091	99,238,796
13	Total, Before Losses (L.11 / L.12)	\$0.10103	\$0.12713	\$0.12786	\$0.08892	\$0.07295	\$0.06754	\$0.09883
14	Losses	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%
15	Total Retail Rate - G2 and OL Variable Power Supply Charge (L.13 * (1+L.14))	\$0.10750	\$0.13527	\$0.13604	\$0.09461	\$0.07762	\$0.07187	
16	Total Retail Rate - G2 and OL Fixed Power Supply Charge (L.13 * (1+L.14))							\$0.10516
<b>Renewable Portfolio Standard (RPS) Charge</b>								
17	Reconciliation	(\$139,400)	(\$163,446)	(\$146,460)	(\$132,225)	(\$124,380)	(\$115,116)	(\$821,028)
18	Total Costs	\$164,629	\$219,531	\$196,717	\$177,599	\$167,064	\$154,623	\$1,080,163
19	Reconciliation plus Total Costs (L.17 + L.18)	\$25,229	\$56,085	\$50,257	\$45,374	\$42,684	\$39,506	\$259,135
20	kWh Purchases	56,897,681	66,712,453	59,779,387	53,969,311	50,767,363	46,986,135	335,112,329
21	Total, Before Losses (L.19 / L.20)	\$0.00044	\$0.00084	\$0.00084	\$0.00084	\$0.00084	\$0.00084	\$0.00077
22	Losses	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%
23	Total Retail Rate - Variable RPS Charge (L.21 * (1+L.22))	\$0.00047	\$0.00089	\$0.00089	\$0.00089	\$0.00089	\$0.00089	
24	Total Retail Rate - Fixed RPS Charge (L.21 * (1+L.22))							\$0.00082
<b>TOTAL DEFAULT SERVICE CHARGE</b>								
25	Total Retail Rate - Residential Variable Default Service Charge (L.7 + L.23)	\$0.13655	\$0.13156	\$0.12052	\$0.12096	\$0.07985	\$0.10022	
26	Total Retail Rate - Residential Fixed Default Service Charge (L.8+L.24)							\$0.11689
27	Total Retail Rate - G2 and OL Variable Default Service Charge (L.15 + L.23)	\$0.10797	\$0.13616	\$0.13693	\$0.09550	\$0.07851	\$0.07276	
28	Total Retail Rate - G2 and OL Fixed Default Service Charge (L.16+L.24)							\$0.10598

Authorized by NHPUC Order No. 26,180 in Case No. DE 18-035, dated October 5, 2018

## CALCULATION OF THE DEFAULT SERVICE CHARGE

## G1 Class Default Service:

	<u>Jun-19</u>	<u>Jul-19</u>	<u>Aug-19</u>	<u>Sep-19</u>	<u>Oct-19</u>	<u>Nov-19</u>	<u>Total</u>
	As shown on Schedule LSM-4, Page 1						
<b>Power Supply Charge</b>							
1 Reconciliation							(\$1,576)
2 Total Costs excl. wholesale supplier charge							<u>\$24,908</u>
3 Reconciliation plus Total Costs excl. wholesale supplier charge (L.1 + L.2)							\$23,332
4 kWh Purchases							<u>23,008,856</u>
5 Total, Before Losses (L.3 / L.4)							\$0.00101
6 Losses							<u>4.591%</u>
7 Power Supply Charge excl. wholesale supplier charge (L.5 * (1+L.6)) (2)	\$0.00106	\$0.00106	\$0.00106	\$0.00106	\$0.00106	\$0.00106	\$0.00106
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						
10 Reconciliation	(\$12,099)	(\$13,876)	(\$13,174)	(\$12,515)	(\$12,622)	(\$10,922)	(\$75,208)
11 Total Costs	<u>\$11,283</u>	<u>\$12,940</u>	<u>\$12,286</u>	<u>\$11,671</u>	<u>\$11,771</u>	<u>\$10,186</u>	<u>\$70,138</u>
12 Reconciliation plus Total Costs (L.10+ L.11)	(\$816)	(\$936)	(\$888)	(\$844)	(\$851)	(\$736)	(\$5,071)
13 kWh Purchases	<u>3,701,568</u>	<u>4,245,116</u>	<u>4,030,393</u>	<u>3,828,806</u>	<u>3,861,455</u>	<u>3,341,517</u>	23,008,856
14 Total, Before Losses (L.12 / L.13)	(\$0.00022)	(\$0.00022)	(\$0.00022)	(\$0.00022)	(\$0.00022)	(\$0.00022)	
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))	(\$0.00023)	(\$0.00023)	(\$0.00023)	(\$0.00023)	(\$0.00023)	(\$0.00023)	
<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 19-049, dated

## CALCULATION OF THE DEFAULT SERVICE CHARGE

**G1 Class Default Service:**

	<u>Dec-18</u>	<u>Jan-19</u>	<u>Feb-19</u>	<u>Mar-19</u>	<u>Apr-19</u>	<u>May-19</u>	<u>Total</u>
<b><i>Power Supply Charge</i></b>							
1 Reconciliation							\$18,084
2 Total Costs excl. wholesale supplier charge							<u>\$30,930</u>
3 Reconciliation plus Total Costs excl. wholesale supplier charge (L.1 + L.2)							\$49,015
4 kWh Purchases							<u>20,692,676</u>
5 Total, Before Losses (L.3 / L.4)							\$0.00237
6 Losses							<u>4.591%</u>
7 Power Supply Charge excl. wholesale supplier charge (L.5 * (1+L.6)) (2)	\$0.00248	\$0.00248	\$0.00248	\$0.00248	\$0.00248	\$0.00248	\$0.00248
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	(\$7,175)	(\$7,101)	(\$6,763)	(\$6,786)	(\$6,543)	(\$6,626)	(\$40,995)
11 Total Costs	<u>\$10,653</u>	<u>\$11,990</u>	<u>\$11,420</u>	<u>\$11,459</u>	<u>\$11,048</u>	<u>\$11,188</u>	<u>\$67,757</u>
12 Reconciliation plus Total Costs (L.10+ L.11)	\$3,477	\$4,889	\$4,656	\$4,672	\$4,505	\$4,562	\$26,762
13 kWh Purchases	<u>3,621,892</u>	<u>3,584,257</u>	<u>3,413,843</u>	<u>3,425,473</u>	<u>3,302,634</u>	<u>3,344,576</u>	20,692,676
14 Total, Before Losses (L.12 / L.13)	\$0.00096	\$0.00136	\$0.00136	\$0.00136	\$0.00136	\$0.00136	
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))	\$0.00100	\$0.00143	\$0.00143	\$0.00143	\$0.00143	\$0.00143	
<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. 26,180 in Case No. DE-18-035, dated October 5, 2018

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

Schedule LSM-2  
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	<u>Jun-19</u> <u>Estimated</u>	<u>Jul-19</u> <u>Estimated</u>	<u>Aug-19</u> <u>Estimated</u>	<u>Sep-19</u> <u>Estimated</u>	<u>Oct-19</u> <u>Estimated</u>	<u>Nov-19</u> <u>Estimated</u>	<u>Total</u>
<b><u>Residential Class</u></b>							
1 Reconciliation (1)	(\$47,414)	(\$65,454)	(\$70,611)	(\$54,852)	(\$55,562)	(\$49,737)	(\$343,630)
2 Total Costs (Page 5)	<u>\$2,408,295</u>	<u>\$3,496,382</u>	<u>\$3,128,904</u>	<u>\$2,581,527</u>	<u>\$2,614,687</u>	<u>\$2,697,146</u>	<u>\$16,926,942</u>
3 Reconciliation plus Total Costs (L.1 + L.2)	\$2,360,881	\$3,430,928	\$3,058,293	\$2,526,675	\$2,559,125	\$2,647,409	\$16,583,311
4 kWh Purchases	<u>31,509,144</u>	<u>43,498,146</u>	<u>46,925,177</u>	<u>36,452,359</u>	<u>36,923,994</u>	<u>33,053,245</u>	<u>228,362,066</u>
5 Total, Before Losses (L.3 / L.4)	\$0.07493	\$0.07888	\$0.06517	\$0.06931	\$0.06931	\$0.08010	\$0.07262
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))	\$0.07972	\$0.08392	\$0.06934	\$0.07375	\$0.07374	\$0.08522	
8 Total Retail Rate - Residential Fixed Power Supply Charge (L.5 * (1+L.6))							\$0.07727
<b><u>G2 and OL Class</u></b>							
9 Reconciliation (1)	(\$22,834)	(\$28,390)	(\$30,217)	(\$24,723)	(\$27,194)	(\$22,619)	(\$155,978)
10 Total Costs (Page 5)	<u>\$989,505</u>	<u>\$1,445,851</u>	<u>\$1,296,935</u>	<u>\$1,084,490</u>	<u>\$904,382</u>	<u>\$1,141,148</u>	<u>\$6,862,312</u>
11 Reconciliation plus Total Costs (L.9 + L.10)	\$966,671	\$1,417,461	\$1,266,718	\$1,059,767	\$877,188	\$1,118,529	\$6,706,334
12 kWh Purchases	<u>15,171,431</u>	<u>18,863,021</u>	<u>20,076,830</u>	<u>16,426,885</u>	<u>18,068,617</u>	<u>15,028,943</u>	<u>103,635,726</u>
13 Total, Before Losses (L.11 / L.12)	\$0.06372	\$0.07514	\$0.06309	\$0.06451	\$0.04855	\$0.07442	\$0.06471
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))	\$0.06779	\$0.07995	\$0.06713	\$0.06864	\$0.05165	\$0.07919	
16 Total Retail Rate - G2 and OL Fixed Power Supply Charge (L.13 * (1+L.14))							\$0.06885

(1) Balance as of February 28, 2019 modified, as detailed below, to include the reconciliation of estimated costs and revenues for March, April and May 2019. Figure is then allocated between rate periods (June-November 2019 and December 2019-May 2020) and rate classes (Residential and G2/OL), and then to each month, June through November 2019, on equal per kWh basis.

a February 28, 2019 balance - Schedule LSM-2, Page 2	\$939,866
b less: Estimated remaining prior period reconciliation - Mar, Apr, May 2019:	
c Estimated costs - Mar, Apr, May 2019 as filed in DE 18-035	\$13,562,168
d Estimated revenue-Mar, Apr, May 2019	<u>\$15,500,850</u>
e line c - line d	(\$1,938,682)
f Reconciliation for June 1, 2019-May 31, 2020 (line a + line e)	(\$998,816)

	Non-G1 total <u>kWh purchases</u>	<u>% per period</u>	Reconciliation <u>per period</u>
g Rate period: June-November 2019	331,997,793	50.02%	(\$499,608)
h Rate period: December 2019-May 2020	<u>331,748,784</u>	49.98%	<u>(\$499,208)</u>
i Total	663,746,577		(\$998,816)

	Jun-Nov 2019 <u>kWh purchases</u>	<u>% by class</u>	Jun-Nov 2019 Reconciliation <u>by class</u>
j Residential class	228,362,066	68.78%	(\$343,630)
k G2 and OL class	<u>103,635,726</u>	31.22%	<u>(\$155,978)</u>
l Total	331,997,793		(\$499,608)

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

Schedule LSM-2  
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	(a) Beginning Balance	(b) Total Costs (Page 3)	(c) Total Revenue (Page 4)	(d) Ending Balance Before Interest (a + b - c)	(e) Average Monthly Balance ((a+d) / 2)	(f) Interest Rate	(g) Number of Days / Month	(h) Computed Interest	(i) Ending Balance with Interest (d + h)
Mar-18	\$1,490,731	\$4,319,314	\$4,764,244	\$1,045,801	\$1,268,266	4.25%	31	\$4,569	\$1,050,369.69
Apr-18	\$1,050,370	\$3,168,093	\$4,048,270	\$170,193	\$610,281	4.50%	30	\$2,257	\$172,449.93
May-18	\$172,450	\$3,000,531	\$4,004,374	(\$831,393)	(\$329,472)	4.50%	31	(\$1,259)	(\$832,652)
Jun-18	(\$832,652)	\$3,806,949	\$3,827,765	(\$853,468)	(\$843,060)	4.50%	30	(\$3,118)	(\$856,586)
Jul-18	(\$856,586)	\$4,889,594	\$5,340,901	(\$1,307,894)	(\$1,082,240)	4.75%	31	(\$4,366)	(\$1,312,260)
Aug-18	(\$1,312,260)	\$4,754,604	\$4,899,870	(\$1,457,525)	(\$1,384,892)	4.75%	31	(\$5,587)	(\$1,463,112)
Sep-18	(\$1,463,112)	\$4,176,412	\$4,217,981	(\$1,504,681)	(\$1,483,897)	4.75%	30	(\$5,793)	(\$1,510,475)
Oct-18	(\$1,510,475)	\$3,781,605	\$3,466,512	(\$1,195,382)	(\$1,352,928)	5.00%	31	(\$5,745)	(\$1,201,127)
Nov-18	(\$1,201,127)	\$4,205,566	\$3,849,602	(\$845,162)	(\$1,023,145)	5.00%	30	(\$4,205)	(\$849,367)
Dec-18	(\$849,367)	\$7,347,515	\$6,638,989	(\$140,841)	(\$495,104)	5.00%	31	(\$2,102)	(\$142,943)
Jan-19	(\$142,943)	\$7,780,574	\$7,143,597	\$494,033	\$175,545	5.25%	31	\$783	\$494,816
Feb-19	\$494,816	<u>\$6,384,498</u>	<u>\$5,942,331</u>	\$936,983	\$715,899	5.25%	28	<u>\$2,883</u>	\$939,866
Total		\$57,615,256	\$58,144,437					(\$21,684)	

00214

00215

	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-18	\$4,302,875	\$387	7.27%	\$313,018	4.58%	\$14,336	(\$912)	\$2,790	(\$952)	\$0	\$789	\$4,319,314
Apr-18	\$3,051,011	\$314	7.27%	\$221,953	4.75%	\$10,543	\$102,648	\$2,790	\$0	\$0	\$787	\$3,168,093
May-18	\$2,976,444	\$369	7.27%	\$216,533	4.75%	\$10,285	\$9,381	\$2,790	\$529	\$0	\$733	\$3,000,531
Jun-18	\$3,712,957	\$281	7.18%	\$266,641	4.89%	\$13,039	\$77,137	\$2,790	\$0	\$0	\$746	\$3,806,949
Jul-18	\$4,805,676	\$303	7.18%	\$345,109	5.00%	\$17,255	\$62,789	\$2,790	\$0	\$0	\$781	\$4,889,594
Aug-18	\$4,692,684	\$758	7.18%	\$337,028	5.00%	\$16,851	\$40,736	\$2,790	\$0	\$0	\$786	\$4,754,604
Sep-18	\$4,145,069	\$430	7.18%	\$297,681	5.03%	\$14,973	\$12,363	\$2,790	\$0	\$0	\$786	\$4,176,412
Oct-18	\$3,679,210	\$432	7.18%	\$264,229	5.25%	\$13,872	\$84,193	\$2,790	\$332	\$0	\$777	\$3,781,605
Nov-18	\$4,156,967	\$413	7.18%	\$298,534	5.25%	\$15,673	\$28,419	\$2,790	\$521	\$0	\$784	\$4,205,566
Dec-18	\$7,230,936	\$312	7.18%	\$519,263	5.35%	\$27,781	\$84,735	\$2,961	\$0	\$0	\$791	\$7,347,515
Jan-19	\$7,690,820	\$345	7.18%	\$552,289	5.50%	\$30,376	\$55,281	\$2,961	\$0	\$0	\$790	\$7,780,574
Feb-19	<u>\$6,314,335</u>	<u>\$452</u>	7.18%	\$453,454	5.50%	<u>\$24,940</u>	<u>\$41,022</u>	<u>\$2,961</u>	<u>\$0</u>	<u>\$0</u>	<u>\$788</u>	<u>\$6,384,498</u>
Total	\$56,758,983	\$4,797				\$209,925	\$597,792	\$33,993	\$430	\$0	\$9,337	\$57,615,256

(1) For the months March-May 2018, 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.

For the months June 2018-February 2019, number of days lag equals 26.21. Calculated using revenue lag of 64.11 days less cost lead of 37.90 days. Revenue lag per Schedule DTN-1, Page 4 of 23 and cost lead per Schedule DTN-1, Page 22 of 23, DE 18-035 filed April 6, 2018.

	(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-18	35,032,736	49.0%	17,150,148	\$0.09612	\$1,648,472	14,606,069	49.0%	7,150,348	\$0.08959	\$640,600	(\$2,225,897)	\$4,701,069	\$4,764,244
Apr-18	32,284,752	47.2%	15,239,398	\$0.09612	\$1,464,811	13,809,110	47.2%	6,518,325	\$0.08959	\$583,977	(\$2,289,072)	\$4,288,554	\$4,048,270
May-18	29,208,802	50.3%	14,679,308	\$0.09612	\$1,410,975	14,345,693	50.3%	7,209,636	\$0.08959	\$645,911	(\$2,048,788)	\$3,996,276	\$4,004,374
Jun-18	32,908,337	47.5%	15,628,983	\$0.08067	\$1,260,790	15,747,520	47.5%	7,478,887	\$0.07206	\$538,929	(\$2,056,886)	\$4,084,933	\$3,827,765
Jul-18	41,032,931	57.1%	23,420,241	\$0.08067	\$1,889,311	17,274,015	57.1%	9,859,437	\$0.07206	\$710,471	(\$1,799,719)	\$4,540,838	\$5,340,901
Aug-18	47,925,531	43.4%	20,811,399	\$0.08067	\$1,678,856	19,065,299	43.4%	8,279,001	\$0.07206	\$596,585	(\$2,599,782)	\$5,224,211	\$4,899,870
Sep-18	41,118,973	42.5%	17,477,885	\$0.08067	\$1,409,941	17,253,753	42.5%	7,333,819	\$0.07206	\$528,475	(\$2,275,440)	\$4,555,006	\$4,217,981
Oct-18	31,079,971	51.3%	15,955,331	\$0.08067	\$1,287,117	14,683,599	51.3%	7,538,028	\$0.07206	\$543,190	(\$1,938,416)	\$3,574,622	\$3,466,512
Nov-18	32,182,968	56.6%	18,226,825	\$0.08067	\$1,470,358	14,108,187	56.6%	7,990,172	\$0.07206	\$575,772	(\$1,830,307)	\$3,633,779	\$3,849,602
Dec-18	40,169,268	49.0%	19,693,126	\$0.11607	\$2,285,781	17,049,261	49.0%	8,358,460	\$0.10516	\$878,976	(\$2,046,130)	\$5,520,362	\$6,638,989
Jan-19	43,145,496	51.0%	22,003,751	\$0.11607	\$2,553,975	16,704,832	51.0%	8,519,289	\$0.10516	\$895,888	(\$3,164,757)	\$6,858,490	\$7,143,597
Feb-19	<u>39,637,517</u>	46.1%	18,292,062	\$0.11607	<u>\$2,123,160</u>	<u>16,698,220</u>	46.1%	7,705,954	\$0.10516	<u>\$810,358</u>	<u>(\$3,449,864)</u>	<u>\$6,458,677</u>	<u>\$5,942,331</u>
Total	445,727,282				\$20,483,546	191,345,558				\$7,949,132	(\$27,725,057)	\$57,436,816	\$58,144,437

00216

(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-18	68,879,256	33,719,588	49.0%
Apr-18	64,217,279	30,312,535	47.2%
May-18	60,863,278	30,587,725	50.3%
Jun-18	68,002,641	32,296,136	47.5%
Jul-18	78,898,307	45,032,546	57.1%
Aug-18	90,022,732	39,091,877	43.4%
Sep-18	78,785,456	33,488,266	42.5%
Oct-18	63,358,386	32,525,899	51.3%
Nov-18	62,957,572	35,656,024	56.6%
Dec-18	76,154,243	37,334,887	49.0%
Jan-19	79,099,974	40,340,158	51.0%
Feb-19	74,824,924	34,530,472	46.1%

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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)
Jun-19		\$426	7.49%		5.50%			\$2,961	\$0	\$0	\$778				\$3,397,800
Jul-19		\$423	7.49%		5.50%			\$2,961	\$0	\$0	\$778				\$4,942,233
Aug-19		\$565	7.49%		5.50%			\$2,961	\$0	\$0	\$778				\$4,425,839
Sep-19		\$607	7.49%		5.50%			\$2,961	\$0	\$0	\$778				\$3,666,017
Oct-19		\$479	7.49%		5.50%			\$2,961	\$0	\$0	\$778				\$3,519,069
Nov-19		\$498	7.49%		5.50%			\$2,961	\$0	\$0	\$778				\$3,838,294
Total		\$2,998						\$17,767	\$0	\$0	\$4,670				\$23,789,254

00217

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)
Jun-19		\$2,408,295			\$989,505
Jul-19		\$3,496,382			\$1,445,851
Aug-19		\$3,128,904			\$1,296,935
Sep-19		\$2,581,527			\$1,084,490
Oct-19		\$2,614,687			\$904,382
Nov-19		\$2,697,146			\$1,141,148
Total		\$16,926,942			\$6,862,312

- Estimates based on monthly average wholesale rate times estimated monthly purchases.
- Number of days lag equals 27.35. Calculated using revenue lag of 63.94 days less cost lead of 36.59 days. Revenue lag per Schedule DTN-1, Page 4 of 23 and cost lead per Schedule DTN-1, Page 22 of 23, DE 19-049 filed April 5, 2019.
- 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	
Jun-19	31,509,144	15,171,431	46,680,575	67.5%	32.5%
Jul-19	43,498,146	18,863,021	62,361,168	69.8%	30.2%
Aug-19	46,925,177	20,076,830	67,002,007	70.0%	30.0%
Sep-19	36,452,359	16,426,885	52,879,245	68.9%	31.1%
Oct-19	36,923,994	18,068,617	54,992,611	67.1%	32.9%
Nov-19	33,053,245	15,028,943	48,082,188	68.7%	31.3%
Total	228,362,066	103,635,726	331,997,793		

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

	<u>Jun-19</u> <u>Estimated</u>	<u>Jul-19</u> <u>Estimated</u>	<u>Aug-19</u> <u>Estimated</u>	<u>Sep-19</u> <u>Estimated</u>	<u>Oct-19</u> <u>Estimated</u>	<u>Nov-19</u> <u>Estimated</u>	<u>Total</u>
1 Reconciliation (1)	(\$145,933)	(\$194,953)	(\$209,462)	(\$165,311)	(\$171,918)	(\$150,314)	(\$1,037,891)
2 Total Costs (Page 5)	\$140,077	\$187,128	\$201,054	\$158,676	\$165,020	\$144,282	\$996,238
3 Reconciliation plus Total Costs (L.1 + L.2)	(\$5,855)	(\$7,825)	(\$8,408)	(\$6,634)	(\$6,897)	(\$6,032)	(\$41,653)
4 kWh Purchases	46,680,575	62,361,168	67,002,007	52,879,245	54,992,611	48,082,188	331,997,793
5 Total, Before Losses (L.3 / L.4)	(\$0.00013)	(\$0.00013)	(\$0.00013)	(\$0.00013)	(\$0.00013)	(\$0.00013)	(\$0.00013)
6 Losses	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%
7 Total Retail Rate - Variable RPS Charge (L.5 * (1+L.6))	(\$0.00013)	(\$0.00013)	(\$0.00013)	(\$0.00013)	(\$0.00013)	(\$0.00013)	
8 Total Retail Rate - Fixed RPS Charge (L.5 * (1+L.6))							(\$0.00013)

(1) Balance as of February 28, 2019 modified, as detailed below, to reflect that current rates include a reconciliation through May 31, 2019. Figure is then allocated between rate periods (June-November 2019 and December 2019-May 2020) and then to each month, June through November 2019, on equal per kWh basis.

a	February 28, 2019 actual balance - Schedule LSM-3, Page 2	(\$2,447,129)
b	less: Estimated remaining prior period reconciliation - Mar, Apr, May 2019:	
c	Estimated kWh Sales Mar-May 2019	142,596,625
d	Amount of reconciliation in current RPS Charge	(\$0.00261)
e	Estimated amount of reconciliation - Mar-May 2019	(\$372,177)
f	Total reconciliation for June 1, 2019-May 31, 2020 (line a - line e)	(\$2,074,951)

	Non-G1 total kWh purchases	% per period	Reconciliation per period
g	Rate period: June-November 2019	50.02%	(\$1,037,891)
h	Rate period: December 2019-May 2020	49.98%	(\$1,037,061)
i	Total		(\$2,074,951)

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

Schedule LSM-3  
 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-18	(\$1,877,721)	\$259,968	\$212,622	(\$1,830,376)	(\$1,854,048)	4.25%	31	(\$6,692)	(\$1,837,068)
Apr-18	(\$1,837,068)	\$274,755	\$183,958	(\$1,746,271)	(\$1,791,669)	4.50%	30	(\$6,627)	(\$1,752,898)
May-18	(\$1,752,898)	\$274,755	\$184,470	(\$1,662,613)	(\$1,707,755)	4.50%	31	(\$6,527)	(\$1,669,140)
Jun-18	(\$1,669,140)	(\$225,582)	\$85,514	(\$1,980,236)	(\$1,824,688)	4.50%	30	(\$6,749)	(\$1,986,985)
Jul-18	(\$1,986,985)	\$232,718	\$117,143	(\$1,871,410)	(\$1,929,197)	4.75%	31	(\$7,783)	(\$1,879,192)
Aug-18	(\$1,879,192)	\$232,718	\$107,359	(\$1,753,833)	(\$1,816,513)	4.75%	31	(\$7,328)	(\$1,761,161)
Sep-18	(\$1,761,161)	\$285,454	\$92,494	(\$1,568,202)	(\$1,664,681)	4.75%	30	(\$6,499)	(\$1,574,701)
Oct-18	(\$1,574,701)	(\$321,339)	\$76,018	(\$1,972,058)	(\$1,773,379)	5.00%	31	(\$16,525) (1)	(\$1,988,583)
Nov-18	(\$1,988,583)	\$238,184	\$83,800	(\$1,834,199)	(\$1,911,391)	5.00%	30	(\$7,855)	(\$1,842,054)
Dec-18	(\$1,842,054)	(\$779,076)	\$49,358	(\$2,670,488)	(\$2,256,271)	5.00%	31	(\$9,581)	(\$2,680,069)
Jan-19	(\$2,680,069)	\$152,964	\$50,410	(\$2,577,515)	(\$2,628,792)	5.25%	31	(\$11,722)	(\$2,589,237)
Feb-19	(\$2,589,237)	<u>\$195,092</u>	<u>\$42,862</u>	(\$2,437,007)	(\$2,513,122)	5.25%	28	<u>(\$10,121)</u>	(\$2,447,129)
Total		\$820,610	\$1,286,008					(\$104,009)	

(1) Includes (\$8,994) to related to correction to June 2018 costs and working capital.

00220

	(a)	<i>Calculation of Working Capital</i>				(f)
		(b)	(c)	(d)	(e)	
	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-18	\$269,736	(79.07%)	(\$213,268)	4.58%	(\$9,768)	\$259,968
Apr-18	\$285,476	(79.07%)	(\$225,714)	4.75%	(\$10,721)	\$274,755
May-18	\$285,476	(79.07%)	(\$225,714)	4.75%	(\$10,721)	\$274,755
Jun-18	(\$232,982)	(64.96%)	\$151,336	4.89%	\$7,400	(\$225,582)
Jul-18	\$240,530	(64.96%)	(\$156,239)	5.00%	(\$7,812)	\$232,718
Aug-18	\$240,530	(64.96%)	(\$156,239)	5.00%	(\$7,812)	\$232,718
Sep-18	\$295,095	(64.96%)	(\$191,683)	5.03%	(\$9,642)	\$285,454
Oct-18	(\$331,286)	(64.96%)	\$215,190	5.25%	\$9,946 (2)	(\$321,339)
Nov-18	\$246,593	(64.96%)	(\$160,177)	5.25%	(\$8,409)	\$238,184
Dec-18	(\$807,124)	(64.96%)	\$524,277	5.35%	\$28,049	(\$779,076)
Jan-19	\$158,631	(64.96%)	(\$103,041)	5.50%	(\$5,667)	\$152,964
Feb-19	<u>\$202,320</u>	(64.96%)	(\$131,419)	5.50%	(\$7,228)	\$195,092
Total	\$852,995				(\$32,385)	\$820,610

(1) For the months March-May 2018, 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.

For the months June 2018-February 2019, number of days lag equals (237.09). Calculated using revenue lag of 64.11 days less cost lead of 301.20 days. Revenue lag per Schedule DTN-1, Page 4 of 23 and cost lead per Schedule DTN-1, Page 22 of 23, DE 18-035 filed April 6, 2018.

(2) Includes (\$1,351.33) to correct working capital for entry made in June 2018.

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

	(a) Total Non-G1 Class Billed Default Service kWh (1)	(b) Unbilled Factor (2)	(c) Non-G1 Class Unbilled kWh (a * b)	(d) Effective Fixed RPS Charge	(e) Non-G1 Class Unbilled RPS Charge Revenue (c * d)	(f) Reversal of prior month unbilled	(g) Total Billed Non- G1 Class RPS Charge Revenue (1)	(h) Total Revenue (e + f + g)
Mar-18	49,638,805	49.0%	24,300,495	\$0.00422	\$102,548	(\$99,576)	\$209,650	\$212,622
Apr-18	46,093,862	47.2%	21,757,723	\$0.00422	\$91,818	(\$102,548)	\$194,688	\$183,958
May-18	43,554,495	50.3%	21,888,944	\$0.00422	\$92,371	(\$91,818)	\$183,916	\$184,470
Jun-18	48,655,857	47.5%	23,107,870	\$0.00171	\$39,514	(\$92,371)	\$138,371	\$85,514
Jul-18	58,306,946	57.1%	33,279,678	\$0.00171	\$56,908	(\$39,514)	\$99,749	\$117,143
Aug-18	66,990,830	43.4%	29,090,400	\$0.00171	\$49,745	(\$56,908)	\$114,522	\$107,359
Sep-18	58,372,726	42.5%	24,811,703	\$0.00171	\$42,428	(\$49,745)	\$99,811	\$92,494
Oct-18	45,763,570	51.3%	23,493,358	\$0.00171	\$40,174	(\$42,428)	\$78,272	\$76,018
Nov-18	46,291,155	56.6%	26,216,998	\$0.00171	\$44,831	(\$40,174)	\$79,143	\$83,800
Dec-18	57,218,529	49.0%	28,051,586	\$0.00082	\$23,002	(\$44,831)	\$71,187	\$49,358
Jan-19	59,850,328	51.0%	30,523,040	\$0.00082	\$25,029	(\$23,002)	\$48,383	\$50,410
Feb-19	<u>56,335,737</u>	46.1%	25,998,016	\$0.00082	<u>\$21,318</u>	<u>(\$25,029)</u>	<u>\$46,573</u>	<u>\$42,862</u>
Total	637,072,840				\$629,687	(\$707,944)	\$1,364,266	\$1,286,008

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(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-18	68,879,256	33,719,588	49.0%
Apr-18	64,217,279	30,312,535	47.2%
May-18	60,863,278	30,587,725	50.3%
Jun-18	68,002,641	32,296,136	47.5%
Jul-18	78,898,307	45,032,546	57.1%
Aug-18	90,022,732	39,091,877	43.4%
Sep-18	78,785,456	33,488,266	42.5%
Oct-18	63,358,386	32,525,899	51.3%
Nov-18	62,957,572	35,656,024	56.6%
Dec-18	76,154,243	37,334,887	49.0%
Jan-19	79,099,974	40,340,158	51.0%
Feb-19	74,824,924	34,530,472	46.1%

*Calculation of Working Capital*

	(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-19	\$145,799	(71.35%)	(\$104,033)	5.50%	(\$5,722)	\$140,077
Jul-19	\$194,772	(71.35%)	(\$138,976)	5.50%	(\$7,644)	\$187,128
Aug-19	\$209,266	(71.35%)	(\$149,319)	5.50%	(\$8,213)	\$201,054
Sep-19	\$165,158	(71.35%)	(\$117,846)	5.50%	(\$6,482)	\$158,676
Oct-19	\$171,761	(71.35%)	(\$122,557)	5.50%	(\$6,741)	\$165,020
Nov-19	<u>\$150,175</u>	(71.35%)	(\$107,155)	5.50%	<u>(\$5,894)</u>	<u>\$144,282</u>
Total	\$1,036,932				(\$40,694)	\$996,238

(1) Schedule JMP-4.

(2) Number of days lag equals (260.44). Calculated using revenue lag of 63.94 days less cost lead of 324.38 days. Revenue lag per Schedule DTN-1, Page 4 of 23 and cost lead per Schedule DTN-1, Page 22 of 23, DE 19-049 filed April 5, 2019.

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

	<b>Total Jun19-Nov19</b>	
1 Reconciliation (1)	(\$1,576)	
2 Total Costs excl. wholesale supplier charge (Page 5)	<u>\$24,908</u>	
3 Reconciliation plus Total Costs excl. wholesale supplier charge (L.1 + L.2)	\$23,332	
4 kWh Purchases	<u>23,008,856</u>	
5 Total, Before Losses (L.3 / L.4)	\$0.00101	
6 Losses	<u>4.591%</u>	
7 Power Supply Charge excl. wholesale supplier charge (L.5 * (1+L.6)) (2)	\$0.00106	
(1) Balance as of February 28, 2019 modified, as detailed below, to reflect that current rates include a reconciliation through May 31, 2019 and to incorporate the difference between the estimated supplier cost and revenue in March 2019. Figure is then allocated between rate periods (June-November 2019 and December 2019-May 2020) and then to each month, June through November 2019, on equal per kWh basis.		
a February 28, 2019 actual balance - Schedule LSM-4, Page 2		(\$6,857)
b less: Estimated remaining prior period reconciliation - Mar, Apr, May 2019:		
c Estimated kWh Sales March-May 2019		9,630,545
d Amount of reconciliation in current rate		<u>\$0.00091</u>
e Estimated amount of reconciliation to be credited March-May 2019		\$8,764
f plus: Estimated difference between the estimated supplier cost and revenue in March 2019		\$12,642
g Total reconciliation for June 1, 2019-May 31, 2020 (line a - line e + line f)		(\$2,978)
h kWh purchases forecast June-November 2019		23,008,856 52.93%
i kWh purchases forecast December 2019-May 2020		<u>20,464,644</u> 47.07%
j Total		43,473,500
k Reconciliation amount for June-November 2019	(line g * line h%)	(\$1,576)
l Reconciliation amount for December 2019-May 2020	(line g * line i%)	<u>(\$1,402)</u>
m Total	(line k + line l)	(\$2,978)

(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

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	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	Beginning	Total Costs	Total Revenue	Ending	Average	Interest Rate	Number of	Computed	Ending
	Balance	(Page 3)	(Page 4)	Balance	Monthly		Days / Month	Interest	Balance with
				Before	Balance				Interest (d + h)
				Interest	((a+d) / 2)				
				(a + b - c)					
Mar-18	(\$116,661)	\$191,957	\$163,278	(\$87,981)	(\$102,321)	4.25%	31	(\$370)	(\$88,351)
Apr-18	(\$88,351)	\$200,937	\$205,145	(\$92,560)	(\$90,456)	4.50%	30	(\$335)	(\$92,895)
May-18	(\$92,895)	\$212,445	\$681,408	(\$561,857)	(\$327,376)	4.50%	31	(\$1,251)	(\$563,108)
Jun-18	(\$563,108)	\$264,116	\$307,982	(\$606,975)	(\$585,041)	4.50%	30	(\$2,164)	(\$609,138)
Jul-18	(\$609,138)	\$204,046	\$233,695	(\$638,787)	(\$623,963)	4.75%	31	(\$2,517)	(\$641,304)
Aug-18	(\$641,304)	\$402,664	\$309,259	(\$547,900)	(\$594,602)	4.75%	31	(\$2,399)	(\$550,298)
Sep-18	(\$550,298)	\$411,400	\$287,361	(\$426,259)	(\$488,279)	4.75%	30	(\$1,906)	(\$428,165)
Oct-18	(\$428,165)	\$466,203	\$312,757	(\$274,718)	(\$351,442)	5.00%	31	(\$1,492)	(\$276,211)
Nov-18	(\$276,211)	\$464,032	\$234,080	(\$46,259)	(\$161,235)	5.00%	30	(\$663)	(\$46,922)
Dec-18	(\$46,922)	\$387,990	\$285,918	\$55,151	\$4,115	5.00%	31	\$17	\$55,168
Jan-19	\$55,168	\$295,537	\$312,443	\$38,263	\$46,716	5.25%	31	\$208	\$38,471
Feb-19	\$38,471	\$260,268	\$305,659	(\$6,920)	\$15,776	5.25%	28	\$64	(\$6,857)
Total		\$3,761,595	\$3,638,983					(\$12,808)	

(1) Includes correction of (\$0.58).

## Redacted

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

Schedule LSM-4  
Page 3 of 5

*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	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)
00227		\$22	0.35%		4.58%			\$4,290	(\$57)	\$0	\$44	\$191,957
		\$19	0.35%		4.75%			\$4,290	\$0	\$0	\$47	\$200,937
		\$51	0.35%		4.75%			\$4,290	\$73	\$0	\$101	\$212,445
		\$33	3.47%		4.89%			\$4,290	\$0	\$0	\$87	\$264,116
		\$20	3.47%		5.00%			\$4,290	\$0	\$0	\$52	\$204,046
		\$46	3.47%		5.00%			\$4,290	\$0	\$0	\$48	\$402,664
		\$26	3.47%		5.03%			\$4,290	\$0	\$0	\$47	\$411,400
		\$32	3.47%		5.25%			\$4,290	\$24	\$0	\$57	\$466,203
		\$26	3.47%		5.25%			\$4,290	\$33	\$0	\$50	\$464,032
		\$17	3.47%		5.35%			\$4,590	\$0	\$0	\$43	\$387,990
		\$19	3.47%		5.50%			\$4,590	\$0	\$0	\$43	\$295,537
		\$26	3.47%		5.50%			\$4,590	\$0	\$0	\$45	\$260,268
		\$335						\$52,380	\$73	\$0	\$663	\$3,761,595

(1) For the months March-May 2018, 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.

For the months June 2018-February 2019, number of days lag equals 12.67. Calculated using revenue lag of 46.32 days less cost lead of 33.65 days. Revenue lag per Schedule DTN-1, Page 4 of 23 and cost lead per Schedule DTN-1, Page 20 of 23, DE 18-035 filed April 6, 2018.

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

	(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-18	2,783,971	48.0%	1,335,348	\$0.08511	\$113,651	(\$283,463)	\$333,089	\$163,278
Apr-18	2,731,542	51.8%	1,415,367	\$0.07357	\$104,129	(\$113,651)	\$214,668	\$205,145
May-18	5,976,741	50.3%	3,003,698	\$0.09268	\$278,383	(\$104,129)	\$507,153	\$681,408
Jun-18	5,684,494	41.7%	2,373,059	\$0.06516	\$154,629	(\$278,383)	\$431,736	\$307,982
Jul-18	3,886,851	51.0%	1,981,032	\$0.06664	\$132,016	(\$154,629)	\$256,307	\$233,695
Aug-18	4,058,548	48.9%	1,984,579	\$0.07627	\$151,364	(\$132,016)	\$289,911	\$309,259
Sep-18	3,515,701	53.7%	1,886,889	\$0.08376	\$158,046	(\$151,364)	\$280,679	\$287,361
Oct-18	3,338,482	51.3%	1,713,856	\$0.09816	\$168,232	(\$158,046)	\$302,570	\$312,757
Nov-18	2,943,944	52.0%	1,532,258	\$0.08522	\$130,579	(\$168,232)	\$271,733	\$234,080
Dec-18	3,074,918	49.2%	1,513,829	\$0.09363	\$141,740	(\$130,579)	\$274,757	\$285,918
Jan-19	3,260,630	47.7%	1,554,866	\$0.09539	\$148,319	(\$141,740)	\$305,864	\$312,443
Feb-19	<u>3,230,036</u>	47.3%	1,528,047	\$0.09613	<u>\$146,891</u>	<u>(\$148,319)</u>	<u>\$307,086</u>	<u>\$305,659</u>
Total	44,485,858				\$1,827,978	(\$1,964,550)	\$3,775,555	\$3,638,983

(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-18	27,664,061	13,269,232	48.0%
Apr-18	26,745,474	13,858,352	51.8%
May-18	28,919,282	14,533,805	50.3%
Jun-18	31,345,592	13,085,588	41.7%
Jul-18	31,298,456	15,952,047	51.0%
Aug-18	33,810,990	16,533,152	48.9%
Sep-18	31,095,868	16,689,264	53.7%
Oct-18	29,080,302	14,928,773	51.3%
Nov-18	25,745,662	13,400,046	52.0%
Dec-18	26,844,281	13,215,844	49.2%
Jan-19	26,979,309	12,865,368	47.7%
Feb-19	26,620,046	12,593,260	47.3%

*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-19	\$30	(4.84%)	(\$9,323)	5.50%	(\$513)	\$0	\$4,590	\$0	\$0	\$55	\$4,163
Jul-19	\$34	(4.84%)	(\$11,877)	5.50%	(\$653)	\$0	\$4,590	\$0	\$0	\$55	\$4,026
Aug-19	\$38	(4.84%)	(\$9,430)	5.50%	(\$519)	\$0	\$4,590	\$0	\$0	\$55	\$4,165
Sep-19	\$37	(4.84%)	(\$9,348)	5.50%	(\$514)	\$0	\$4,590	\$0	\$0	\$55	\$4,168
Oct-19	\$35	(4.84%)	(\$8,301)	5.50%	(\$457)	\$0	\$4,590	\$0	\$0	\$55	\$4,223
Nov-19	<u>\$35</u>	(4.84%)	(\$9,397)	5.50%	<u>(\$517)</u>	<u>\$0</u>	<u>\$4,590</u>	<u>\$0</u>	<u>\$0</u>	<u>\$55</u>	<u>\$4,164</u>
Total	\$208				(\$3,172)	\$0	\$27,543	\$0	\$0	\$330	\$24,908

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

(2) Number of days lag equals (17.66). Calculated using revenue lag of 39.90 days less cost lead of 57.56 days. Revenue lag per Schedule DTN-1, Page 4 of 23 and cost lead per Schedule DTN-1, Page 20 of 23, DE 19-049 filed April 5, 2019.

(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.

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

	<u>Jun-19</u> <u>Estimated</u>	<u>Jul-19</u> <u>Estimated</u>	<u>Aug-19</u> <u>Estimated</u>	<u>Sep-19</u> <u>Estimated</u>	<u>Oct-19</u> <u>Estimated</u>	<u>Nov-19</u> <u>Estimated</u>	<u>Total</u>
1 Reconciliation (1)	(\$12,099)	(\$13,876)	(\$13,174)	(\$12,515)	(\$12,622)	(\$10,922)	(\$75,208)
2 Total Costs (Page 5)	\$11,283	\$12,940	\$12,286	\$11,671	\$11,771	\$10,186	\$70,138
3 Reconciliation plus Total Costs (L.1 + L.2)	(\$816)	(\$936)	(\$888)	(\$844)	(\$851)	(\$736)	(\$5,071)
4 kWh Purchases	3,701,568	4,245,116	4,030,393	3,828,806	3,861,455	3,341,517	23,008,856
5 Total, Before Losses (L.3 / L.4)	(\$0.00022)	(\$0.00022)	(\$0.00022)	(\$0.00022)	(\$0.00022)	(\$0.00022)	
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))	(\$0.00023)	(\$0.00023)	(\$0.00023)	(\$0.00023)	(\$0.00023)	(\$0.00023)	

(1) Balance as of February 28, 2019 modified, as detailed below, to reflect that current rates include a reconciliation through May 31, 2019. Figure is then allocated between rate periods (June-November 2019 and December 2019-May 2020) and then to each month, June through November 2019, on equal per kWh basis.

a February 28, 2019 actual balance - Schedule LSM-5, Page 2 (\$162,046)

b less: Estimated remaining prior period reconciliation - Mar, Apr, May 2019:

c Estimated kWh Sales Mar-May 2019 9,640,275

d Amount of reconciliation in current rate (\$0.00207)

e Estimated amount of reconciliation - Mar-May 2019 (\$19,955)

f Total reconciliation for June 1, 2019-May 31, 2020 (line a - Line e) (\$142,090)

g kWh purchases forecast June-November 2019 23,008,856 52.93%

h kWh purchases forecast December 2019-May 2020 20,464,644 47.07%

i Total 43,473,500

j Reconciliation amount for June-November 2019 (line f \* line g%) (\$75,208)

k Reconciliation amount for December 2019-May 2020 (line f \* line h%) (\$66,882)

l Total (line j + line k) (\$142,090)

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-18	(\$119,702)	\$16,859	\$4,982	(\$107,825)	(\$113,763)	4.25%	31	(\$411)	(\$108,236)
Apr-18	(\$108,236)	\$17,816	\$5,708	(\$96,127)	(\$102,181)	4.50%	30	(\$378)	(\$96,505)
May-18	(\$96,505)	\$17,816	\$15,357	(\$94,046)	(\$95,275)	4.50%	31	(\$364)	(\$94,410)
Jun-18	(\$94,410)	(\$609,851)	\$9,152	(\$713,412)	(\$403,911)	4.50%	30	(\$1,494)	(\$714,906)
Jul-18	(\$714,906)	\$15,101	\$6,430	(\$706,236)	(\$710,571)	4.75%	31	(\$2,867)	(\$709,103)
Aug-18	(\$709,103)	\$15,101	\$7,474	(\$701,476)	(\$705,289)	4.75%	31	(\$2,845)	(\$704,321)
Sep-18	(\$704,321)	\$5,946	\$6,289	(\$704,664)	(\$704,493)	4.75%	30	(\$2,750)	(\$707,415)
Oct-18	(\$707,415)	\$572,964	\$5,824	(\$140,275)	(\$423,845)	5.00%	31	\$7,184 (1)	(\$133,091)
Nov-18	(\$133,091)	\$14,059	\$5,083	(\$124,114)	(\$128,603)	5.00%	30	(\$529)	(\$124,643)
Dec-18	(\$124,643)	(\$45,986)	\$3,093	(\$173,721)	(\$149,182)	5.00%	31	(\$634)	(\$174,355)
Jan-19	(\$174,355)	\$11,515	\$4,715	(\$167,554)	(\$170,954)	5.25%	31	(\$762)	(\$168,316)
Feb-19	(\$168,316)	<u>\$11,515</u>	<u>\$4,581</u>	(\$161,382)	(\$164,849)	5.25%	28	<u>(\$664)</u>	(\$162,046)
Total		\$42,856	\$78,687					(\$6,513)	

(1) Includes \$8,984 to related to correction to June 2018 costs and working capital.

00232

	(a)	Calculation of Working Capital				(f)
		(b)	(c)	(d)	(e)	
	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-18	\$17,523	(82.74%)	(\$14,499)	4.58%	(\$664)	\$16,859
Apr-18	\$18,545	(82.74%)	(\$15,345)	4.75%	(\$729)	\$17,816
May-18	\$18,545	(82.74%)	(\$15,345)	4.75%	(\$729)	\$17,816
Jun-18	(\$630,555)	(67.15%)	\$423,387	4.89%	\$20,704	(\$609,851)
Jul-18	\$15,626	(67.15%)	(\$10,492)	5.00%	(\$525)	\$15,101
Aug-18	\$15,626	(67.15%)	(\$10,492)	5.00%	(\$525)	\$15,101
Sep-18	\$6,154	(67.15%)	(\$4,132)	5.03%	(\$208)	\$5,946
Oct-18	\$592,452	(67.15%)	(\$397,803)	5.25%	(\$19,488)	\$572,964
Nov-18	\$14,573	(67.15%)	(\$9,785)	5.25%	(\$514)	\$14,059
Dec-18	(\$47,699)	(67.15%)	\$32,028	5.35%	\$1,713	(\$45,986)
Jan-19	\$11,957	(67.15%)	(\$8,028)	5.50%	(\$442)	\$11,515
Feb-19	<u>\$11,957</u>	(67.15%)	(\$8,028)	5.50%	<u>(\$442)</u>	<u>\$11,515</u>
Total	\$44,703				(\$1,846)	\$42,856

(1) For the months March-May 2018, 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.

For the months June 2018-February 2019, number of days lag equals (245.08). Calculated using revenue lag of 46.32 days less cost lead of 291.40 days. Revenue lag per Schedule DTN-1, Page 4 of 23 and cost lead per Schedule DTN-1, Page 20 of 23, DE 18-035 filed April 6, 2018.

(2) Includes \$1,396.87 to correct working capital for entry made in June 2018.

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

	(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-18	2,783,971	48.0%	1,335,348	\$0.00203	\$2,711	(\$3,380)	\$5,651	\$4,982
Apr-18	2,731,542	51.8%	1,415,367	\$0.00203	\$2,873	(\$2,711)	\$5,545	\$5,708
May-18	5,976,741	50.3%	3,003,698	\$0.00203	\$6,098	(\$2,873)	\$12,133	\$15,357
Jun-18	5,684,494	41.7%	2,373,059	\$0.00184	\$4,366	(\$6,098)	\$10,883	\$9,152
Jul-18	3,886,851	51.0%	1,981,032	\$0.00184	\$3,645	(\$4,366)	\$7,152	\$6,430
Aug-18	4,058,548	48.9%	1,984,579	\$0.00184	\$3,652	(\$3,645)	\$7,468	\$7,474
Sep-18	3,515,701	53.7%	1,886,889	\$0.00184	\$3,472	(\$3,652)	\$6,469	\$6,289
Oct-18	3,338,482	51.3%	1,713,856	\$0.00184	\$3,153	(\$3,472)	\$6,143	\$5,824
Nov-18	2,943,944	52.0%	1,532,258	\$0.00184	\$2,819	(\$3,153)	\$5,417	\$5,083
Dec-18	3,074,918	49.2%	1,513,829	\$0.00100	\$1,514	(\$2,819)	\$4,398	\$3,093
Jan-19	3,260,630	47.7%	1,554,866	\$0.00143	\$2,223	(\$1,514)	\$4,005	\$4,715
Feb-19	3,230,036	47.3%	1,528,047	\$0.00143	\$2,185	(\$2,223)	\$4,619	\$4,581
Total	44,485,858				\$38,712	(\$39,907)		\$78,687

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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-18	27,664,061	13,269,232	48.0%
Apr-18	26,745,474	13,858,352	51.8%
May-18	28,919,282	14,533,805	50.3%
Jun-18	31,345,592	13,085,588	41.7%
Jul-18	31,298,456	15,952,047	51.0%
Aug-18	33,810,990	16,533,152	48.9%
Sep-18	31,095,868	16,689,264	53.7%
Oct-18	29,080,302	14,928,773	51.3%
Nov-18	25,745,662	13,400,046	52.0%
Dec-18	26,844,281	13,215,844	49.2%
Jan-19	26,979,309	12,865,368	47.7%
Feb-19	26,620,046	12,593,260	47.3%

	(a)	<i>Calculation of Working Capital</i>				(f)
	Renewable Energy Credits (1)	(b) Number of Days of Lag / 365 (2)	(c) Working Capital Requirement (a*b)	(d) Prime Rate	(e) Supply Related Working Capital (c * d)	Total Costs (sum a + e)
Jun-19	\$11,766	(74.58%)	(\$8,775)	5.50%	(\$483)	\$11,283
Jul-19	\$13,494	(74.58%)	(\$10,063)	5.50%	(\$553)	\$12,940
Aug-19	\$12,811	(74.58%)	(\$9,554)	5.50%	(\$525)	\$12,286
Sep-19	\$12,171	(74.58%)	(\$9,076)	5.50%	(\$499)	\$11,671
Oct-19	\$12,274	(74.58%)	(\$9,154)	5.50%	(\$503)	\$11,771
Nov-19	<u>\$10,622</u>	(74.58%)	(\$7,921)	5.50%	<u>(\$436)</u>	<u>\$10,186</u>
Total	\$73,137				(\$3,000)	\$70,138

(1) Schedule JMP-4.

(2) Number of days lag equals (272.20). Calculated using revenue lag of 39.90 days less cost lead of 312.10 days. Revenue lag per Schedule DTN-1, Page 4 of 23 and cost lead per Schedule DTN-1, Page 20 of 23, DE 19-049 filed April 5, 2019.

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

**Residential Rate D 650 kWh Bill**

Rate Components	4/1/2019	6/1/2019	Difference	Current Bill	As Revised Bill	Difference	%
	<u>Current Rate</u>	<u>As Revised</u>					<u>Difference to Total Bill</u>
Customer Charge	\$16.12	\$16.12	\$0.00	\$16.12	\$16.12	\$0.00	0.0%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.03537	\$0.03537	\$0.00000	\$22.99	\$22.99	\$0.00	0.0%
External Delivery Charge	\$0.02389	\$0.02389	\$0.00000	\$15.53	\$15.53	\$0.00	0.0%
Stranded Cost Charge	(\$0.00101)	(\$0.00101)	\$0.00000	(\$0.66)	(\$0.66)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00133	\$0.00133	\$0.00000	\$0.86	\$0.86	\$0.00	0.0%
System Benefits Charge	\$0.00576	\$0.00576	\$0.00000	\$3.74	\$3.74	\$0.00	0.0%
Default Service Charge	<u>\$0.11689</u>	<u>\$0.07714</u>	<u>(\$0.03975)</u>	<u>\$75.98</u>	<u>\$50.14</u>	<u>(\$25.84)</u>	<u>(19.2%)</u>
Total kWh Charges	\$0.18223	\$0.14248	(\$0.03975)				
Total Bill				\$134.57	\$108.73	(\$25.84)	(19.2%)

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

Rate Components	4/1/2019	6/1/2019	Difference	Current Bill	As Revised Bill	Difference	%
	<u>Current Rate</u>	<u>As Revised</u>					<u>Difference to Total Bill</u>
Customer Charge	\$29.02	\$29.02	\$0.00	\$29.02	\$29.02	\$0.00	0.0%
	<b><u>All kW</u></b>	<b><u>All kW</u></b>					
Distribution Charge	\$10.45	\$10.45	\$0.00	\$114.95	\$114.95	\$0.00	0.0%
Stranded Cost Charge	<u>(\$0.21)</u>	<u>(\$0.21)</u>	<u>\$0.00</u>	<u>(\$2.31)</u>	<u>(\$2.31)</u>	<u>\$0.00</u>	<u>0.0%</u>
Total kW Charges	\$10.24	\$10.24	\$0.00	\$112.64	\$112.64	\$0.00	0.0%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.00000	\$0.00000	\$0.00000	\$0.00	\$0.00	\$0.00	0.0%
External Delivery Charge	\$0.02389	\$0.02389	\$0.00000	\$66.89	\$66.89	\$0.00	0.0%
Stranded Cost Charge	(\$0.00021)	(\$0.00021)	\$0.00000	(\$0.59)	(\$0.59)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00133	\$0.00133	\$0.00000	\$3.72	\$3.72	\$0.00	0.0%
System Benefits Charge	\$0.00576	\$0.00576	\$0.00000	\$16.13	\$16.13	\$0.00	0.0%
Default Service Charge	<u>\$0.10598</u>	<u>\$0.06872</u>	<u>(\$0.03726)</u>	<u>\$296.74</u>	<u>\$192.42</u>	<u>(\$104.33)</u>	<u>(19.9%)</u>
Total kWh Charges	\$0.13675	\$0.09949	(\$0.03726)	\$382.90	\$278.57	(\$104.33)	(19.9%)
Total Bill				\$524.56	\$420.23	(\$104.33)	(19.9%)

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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>							
	4/1/2019	6/1/2019					%
<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	\$9.67	\$9.67	\$0.00	\$9.67	\$9.67	\$0.00	0.0%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.03185	\$0.03185	\$0.00000	\$52.87	\$52.87	\$0.00	0.0%
External Delivery Charge	\$0.02389	\$0.02389	\$0.00000	\$39.66	\$39.66	\$0.00	0.0%
Stranded Cost Charge	(\$0.00101)	(\$0.00101)	\$0.00000	(\$1.68)	(\$1.68)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00133	\$0.00133	\$0.00000	\$2.21	\$2.21	\$0.00	0.0%
System Benefits Charge	\$0.00576	\$0.00576	\$0.00000	\$9.56	\$9.56	\$0.00	0.0%
Default Service Charge	<u>\$0.10598</u>	<u>\$0.06872</u>	<u>(\$0.03726)</u>	<u>\$175.93</u>	<u>\$114.08</u>	<u>(\$61.85)</u>	<u>(21.5%)</u>
Total kWh Charges	\$0.16780	\$0.13054	(\$0.03726)	\$278.55	\$216.70	(\$61.85)	(21.5%)
<b>Total Bill</b>				<b>\$288.22</b>	<b>\$226.37</b>	<b>(\$61.85)</b>	<b>(21.5%)</b>

<b><u>Regular General G2 kWh Meter 115 kWh Typical Bill</u></b>							
	4/1/2019	6/1/2019					%
<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	\$18.27	\$18.27	\$0.00	\$18.27	\$18.27	\$0.00	0.0%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.00878	\$0.00878	\$0.00000	\$1.01	\$1.01	\$0.00	0.0%
External Delivery Charge	\$0.02389	\$0.02389	\$0.00000	\$2.75	\$2.75	\$0.00	0.0%
Stranded Cost Charge	(\$0.00101)	(\$0.00101)	\$0.00000	(\$0.12)	(\$0.12)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00133	\$0.00133	\$0.00000	\$0.15	\$0.15	\$0.00	0.0%
System Benefits Charge	\$0.00576	\$0.00576	\$0.00000	\$0.66	\$0.66	\$0.00	0.0%
Default Service Charge	<u>\$0.10598</u>	<u>\$0.06872</u>	<u>(\$0.03726)</u>	<u>\$12.19</u>	<u>\$7.90</u>	<u>(\$4.28)</u>	<u>(12.3%)</u>
Total kWh Charges	\$0.14473	\$0.10747	(\$0.03726)	\$16.64	\$12.36	(\$4.28)	(12.3%)
<b>Total Bill</b>				<b>\$34.91</b>	<b>\$30.63</b>	<b>(\$4.28)</b>	<b>(12.3%)</b>

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

**Residential Rate D 646 kWh Bill - Mean Use\***

	4/1/2019	6/1/2019					%
<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	\$16.12	\$16.12	\$0.00	\$16.12	\$16.12	\$0.00	0.0%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.03537	\$0.03537	\$0.00000	\$22.85	\$22.85	\$0.00	0.0%
External Delivery Charge	\$0.02389	\$0.02389	\$0.00000	\$15.43	\$15.43	\$0.00	0.0%
Stranded Cost Charge	(\$0.00101)	(\$0.00101)	\$0.00000	(\$0.65)	(\$0.65)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00133	\$0.00133	\$0.00000	\$0.86	\$0.86	\$0.00	0.0%
System Benefits Charge	\$0.00576	\$0.00576	\$0.00000	\$3.72	\$3.72	\$0.00	0.0%
Default Service Charge	<u>\$0.11689</u>	<u>\$0.07714</u>	<u>(\$0.03975)</u>	<u>\$75.51</u>	<u>\$49.83</u>	<u>(\$25.68)</u>	<u>(19.2%)</u>
Total kWh Charges	\$0.18223	\$0.14248	(\$0.03975)				
<b>Total Bill</b>				\$133.84	\$108.16	(\$25.68)	(19.2%)

**Residential Rate D 524 kWh Bill - Median Use\***

	4/1/2019	6/1/2019					%
<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	\$16.12	\$16.12	\$0.00	\$16.12	\$16.12	\$0.00	0.0%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.03537	\$0.03537	\$0.00000	\$18.53	\$18.53	\$0.00	0.0%
External Delivery Charge	\$0.02389	\$0.02389	\$0.00000	\$12.52	\$12.52	\$0.00	0.0%
Stranded Cost Charge	(\$0.00101)	(\$0.00101)	\$0.00000	(\$0.53)	(\$0.53)	\$0.00	0.0%
Storm Recovery Adj.	\$0.00133	\$0.00133	\$0.00000	\$0.70	\$0.70	\$0.00	0.0%
System Benefits Charge	\$0.00576	\$0.00576	\$0.00000	\$3.02	\$3.02	\$0.00	0.0%
Default Service Charge	<u>\$0.11689</u>	<u>\$0.07714</u>	<u>(\$0.03975)</u>	<u>\$61.25</u>	<u>\$40.42</u>	<u>(\$20.83)</u>	<u>(18.7%)</u>
Total kWh Charges	\$0.18223	\$0.14248	(\$0.03975)				
<b>Total Bill</b>				\$111.61	\$90.78	(\$20.83)	(18.7%)

\* Based on billing period January through December 2018.

Unitil Energy Systems, Inc.  
Average Class Bill Impacts  
Due to Proposed Default Service Rate Changes Effective June 1, 2019

(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	(\$19,790,564)	\$103,387,049	\$83,596,485	(\$19,790,564)	(19.1%)
General Service	131,872	354,161,409	1,348,556	(\$13,196,054)	\$66,102,581	\$52,906,527	(\$13,196,054)	(20.0%)
Outdoor Lighting	110,850	8,241,454	n/a	(\$307,077)	\$2,983,906	\$2,676,830	(\$307,077)	(10.3%)
Total	1,028,028	860,278,690		(\$33,293,695)	\$172,473,536	\$139,179,841	(\$33,293,695)	(19.3%)

(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 - April 1, 2019 vs. June 1, 2019**  
**Due to Changes in the Default Service Charge**  
**Impact on D Rate Customers**

<u>Average kWh</u>	<u>Total Bill Using Rates 4/1/2019</u>	<u>Total Bill Using Rates 6/1/2019</u>	<u>Total Difference</u>	<u>% Total Difference</u>
125	\$38.90	\$33.93	(\$4.97)	(12.8%)
150	\$43.45	\$37.49	(\$5.96)	(13.7%)
200	\$52.57	\$44.62	(\$7.95)	(15.1%)
250	\$61.68	\$51.74	(\$9.94)	(16.1%)
300	\$70.79	\$58.86	(\$11.93)	(16.8%)
350	\$79.90	\$65.99	(\$13.91)	(17.4%)
400	\$89.01	\$73.11	(\$15.90)	(17.9%)
450	\$98.12	\$80.24	(\$17.89)	(18.2%)
500	\$107.24	\$87.36	(\$19.88)	(18.5%)
525	\$111.79	\$90.92	(\$20.87)	(18.7%)
550	\$116.35	\$94.48	(\$21.86)	(18.8%)
575	\$120.90	\$98.05	(\$22.86)	(18.9%)
600	\$125.46	\$101.61	(\$23.85)	(19.0%)
625	\$130.01	\$105.17	(\$24.84)	(19.1%)
650	\$134.57	\$108.73	(\$25.84)	(19.2%)
675	\$139.13	\$112.29	(\$26.83)	(19.3%)
700	\$143.68	\$115.86	(\$27.83)	(19.4%)
725	\$148.24	\$119.42	(\$28.82)	(19.4%)
750	\$152.79	\$122.98	(\$29.81)	(19.5%)
775	\$157.35	\$126.54	(\$30.81)	(19.6%)
825	\$166.46	\$133.67	(\$32.79)	(19.7%)
925	\$184.68	\$147.91	(\$36.77)	(19.9%)
1,000	\$198.35	\$158.60	(\$39.75)	(20.0%)
1,250	\$243.91	\$194.22	(\$49.69)	(20.4%)
1,500	\$289.47	\$229.84	(\$59.63)	(20.6%)
2,000	\$380.58	\$301.08	(\$79.50)	(20.9%)
3,500	\$653.93	\$514.80	(\$139.13)	(21.3%)
5,000	\$927.27	\$728.52	(\$198.75)	(21.4%)

	<u>Rates - Effective April 1, 2019</u>	<u>Rates - Proposed June 1, 2019</u>	<u>Difference</u>
Customer Charge	\$16.12	\$16.12	\$0.00
Distribution Charge:	<u>kWh</u> \$0.03537	<u>kWh</u> \$0.03537	<u>kWh</u> \$0.00000
External Delivery Charge	\$0.02389	\$0.02389	\$0.00000
Stranded Cost Charge	(\$0.00101)	(\$0.00101)	\$0.00000
Storm Recovery Adjustment Factor	\$0.00133	\$0.00133	\$0.00000
System Benefits Charge	\$0.00576	\$0.00576	\$0.00000
Default Service Charge	<u>\$0.11689</u>	<u>\$0.07714</u>	<u>(\$0.03975)</u>
<b>TOTAL</b>	<b>\$0.18223</b>	<b>\$0.14248</b>	<b>(\$0.03975)</b>

**Unitil Energy Systems, Inc.**  
**Typical Bill Impacts - April 1, 2019 vs. June 1, 2019**  
**Due to Changes in the Default Service Charge**  
**Impact on G2 Rate Customers**

<b>Load Factor</b>	<b>Average Monthly kW</b>	<b>Average Monthly kWh</b>	<b>Total Bill Using Rates 4/1/2019</b>	<b>Total Bill Using Rates 6/1/2019</b>	<b>Total Difference</b>	<b>% Total Difference</b>
20%	5	730	\$180.05	\$152.85	(\$27.20)	(15.1%)
20%	10	1,460	\$331.08	\$276.68	(\$54.40)	(16.4%)
20%	15	2,190	\$482.10	\$400.50	(\$81.60)	(16.9%)
20%	25	3,650	\$784.16	\$648.16	(\$136.00)	(17.3%)
20%	50	7,300	\$1,539.30	\$1,267.30	(\$272.00)	(17.7%)
20%	75	10,950	\$2,294.43	\$1,886.44	(\$408.00)	(17.8%)
20%	100	14,600	\$3,049.57	\$2,505.57	(\$544.00)	(17.8%)
20%	150	21,900	\$4,559.85	\$3,743.85	(\$815.99)	(17.9%)
36%	5	1,314	\$259.91	\$210.95	(\$48.96)	(18.8%)
36%	10	2,628	\$490.80	\$392.88	(\$97.92)	(20.0%)
36%	15	3,942	\$721.69	\$574.81	(\$146.88)	(20.4%)
36%	25	6,570	\$1,183.47	\$938.67	(\$244.80)	(20.7%)
36%	50	13,140	\$2,337.92	\$1,848.32	(\$489.60)	(20.9%)
36%	75	19,710	\$3,492.36	\$2,757.97	(\$734.39)	(21.0%)
36%	100	26,280	\$4,646.81	\$3,667.62	(\$979.19)	(21.1%)
36%	150	39,420	\$6,955.71	\$5,486.92	(\$1,468.79)	(21.1%)
50%	5	1,825	\$329.79	\$261.79	(\$68.00)	(20.6%)
50%	10	3,650	\$630.56	\$494.56	(\$136.00)	(21.6%)
50%	15	5,475	\$931.33	\$727.33	(\$204.00)	(21.9%)
50%	25	9,125	\$1,532.86	\$1,192.87	(\$340.00)	(22.2%)
50%	50	18,250	\$3,036.71	\$2,356.71	(\$680.00)	(22.4%)
50%	75	27,375	\$4,540.55	\$3,520.56	(\$1,019.99)	(22.5%)
50%	100	36,500	\$6,044.40	\$4,684.41	(\$1,359.99)	(22.5%)
50%	150	54,750	\$9,052.08	\$7,012.10	(\$2,039.99)	(22.5%)
		<b>Rates - Effective</b>	<b>Rates - Proposed</b>	<b>Difference</b>		
		<b>April 1, 2019</b>	<b>June 1, 2019</b>			
Customer Charge		<b>\$29.02</b>	<b>\$29.02</b>	<b>\$0.00</b>		
		<b>All kW</b>	<b>All kW</b>	<b>All kW</b>		
Distribution Charge		\$10.45	\$10.45	\$0.00		
Stranded Cost Charge		(\$0.21)	(\$0.21)	\$0.00		
<b>TOTAL</b>		<b>\$10.24</b>	<b>\$10.24</b>	<b>\$0.00</b>		
		<b>kWh</b>	<b>kWh</b>	<b>kWh</b>		
Distribution Charge		\$0.00000	\$0.00000	\$0.00000		
External Delivery Charge		\$0.02389	\$0.02389	\$0.00000		
Stranded Cost Charge		(\$0.00021)	(\$0.00021)	\$0.00000		
Storm Recovery Adj. Factor		\$0.00133	\$0.00133	\$0.00000		
System Benefits Charge		\$0.00576	\$0.00576	\$0.00000		
Default Service Charge		<u>\$0.10598</u>	<u>\$0.06872</u>	<u>(\$0.03726)</u>		
<b>TOTAL</b>		<b>\$0.13675</b>	<b>\$0.09949</b>	<b>(\$0.03726)</b>		

<b>Unitil Energy Systems, Inc.</b> <b>Typical Bill Impacts - April 1, 2019 vs. June 1, 2019</b> <b>Due to Changes in the Default Service Charge</b> <b>Impact on G2 kWh Meter Rate Customers</b>				
Average Monthly kWh	Total Bill Using Rates 4/1/2019	Total Bill Using Rates 6/1/2019	Total Difference	% Total Difference
15	\$20.44	\$19.88	(\$0.56)	(2.7%)
75	\$29.12	\$26.33	(\$2.79)	(9.6%)
150	\$39.98	\$34.39	(\$5.59)	(14.0%)
250	\$54.45	\$45.14	(\$9.32)	(17.1%)
350	\$68.93	\$55.88	(\$13.04)	(18.9%)
450	\$83.40	\$66.63	(\$16.77)	(20.1%)
550	\$97.87	\$77.38	(\$20.49)	(20.9%)
650	\$112.34	\$88.13	(\$24.22)	(21.6%)
750	\$126.82	\$98.87	(\$27.95)	(22.0%)
900	\$148.53	\$114.99	(\$33.53)	(22.6%)
<b>Rates - Effective</b> <b>Rates - Proposed</b> <b>Difference</b> <u>April 1, 2019</u> <u>June 1, 2019</u>				
kWh Meter Customer Charge	<b>\$18.27</b>	<b>\$18.27</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	\$0.00878	\$0.00878	\$0.00000	
External Delivery Charge	\$0.02389	\$0.02389	\$0.00000	
Stranded Cost Charge	(\$0.00101)	(\$0.00101)	\$0.00000	
Storm Recovery Adjustment Factor	\$0.00133	\$0.00133	\$0.00000	
System Benefits Charge	\$0.00576	\$0.00576	\$0.00000	
Default Service Charge	<u>\$0.10598</u>	<u>\$0.06872</u>	<u>(\$0.03726)</u>	
<b>TOTAL</b>	<b>\$0.14473</b>	<b>\$0.10747</b>	<b>(\$0.03726)</b>	

**Unitil Energy Systems, Inc.**  
**Typical Bill Impacts - April 1, 2019 vs. June 1, 2019**  
**Due to Changes in the Default Service Charge**  
**Impact on G2 QRWH and SH Rate Customers**

<u>Average kWh</u>	<u>Total Bill Using Rates 4/1/2019</u>	<u>Total Bill Using Rates 6/1/2019</u>	<u>Total Difference</u>	<u>% Total Difference</u>
100	\$26.45	\$22.72	(\$3.73)	(14.1%)
200	\$43.23	\$35.78	(\$7.45)	(17.2%)
300	\$60.01	\$48.83	(\$11.18)	(18.6%)
400	\$76.79	\$61.89	(\$14.90)	(19.4%)
500	\$93.57	\$74.94	(\$18.63)	(19.9%)
750	\$135.52	\$107.58	(\$27.95)	(20.6%)
1,000	\$177.47	\$140.21	(\$37.26)	(21.0%)
1,500	\$261.37	\$205.48	(\$55.89)	(21.4%)
2,000	\$345.27	\$270.75	(\$74.52)	(21.6%)
2,500	\$429.17	\$336.02	(\$93.15)	(21.7%)

	<u>Rates - Effective April 1, 2019</u>	<u>Rates - Proposed June 1, 2019</u>	<u>Difference</u>
Customer Charge	<b>\$9.67</b>	<b>\$9.67</b>	<b>\$0.00</b>
	<u>All kWh</u>	<u>All kWh</u>	<u>All kWh</u>
Distribution Charge	\$0.03185	\$0.03185	\$0.00000
External Delivery Charge	\$0.02389	\$0.02389	\$0.00000
Stranded Cost Charge	(\$0.00101)	(\$0.00101)	\$0.00000
Storm Recovery Adjustment Factor	\$0.00133	\$0.00133	\$0.00000
System Benefits Charge	\$0.00576	\$0.00576	\$0.00000
Default Service Charge	<u>\$0.10598</u>	<u>\$0.06872</u>	<u>(\$0.03726)</u>
<b>TOTAL</b>	<b>\$0.16780</b>	<b>\$0.13054</b>	<b>(\$0.03726)</b>

Unitil Energy Systems, Inc. Typical Bill Impacts - April 1, 2019 vs. June 1, 2019 Due to Changes in the Default Service Charge Impact on OL Rate Customers *								
	Nominal Watts	Lumens	Type	Average Monthly kWh	Total Bill Using Rates 4/1/2019	Total Bill Using Rates 6/1/2019	Total Difference	% Total Difference
<u>Mercury Vapor:</u>								
1	100	3,500	ST	43	\$19.05	\$17.44	(\$1.60)	-8.4%
2	175	7,000	ST	71	\$25.31	\$22.67	(\$2.65)	-10.5%
3	250	11,000	ST	100	\$31.35	\$27.62	(\$3.73)	-11.9%
4	400	20,000	ST	157	\$42.47	\$36.62	(\$5.85)	-13.8%
5	1,000	60,000	ST	372	\$92.52	\$78.66	(\$13.86)	-15.0%
6	250	11,000	FL	100	\$32.50	\$28.77	(\$3.73)	-11.5%
7	400	20,000	FL	157	\$43.96	\$38.11	(\$5.85)	-13.3%
8	1,000	60,000	FL	380	\$89.14	\$74.98	(\$14.16)	-15.9%
9	100	3,500	PB	48	\$19.86	\$18.07	(\$1.79)	-9.0%
10	175	7,000	PB	71	\$24.44	\$21.80	(\$2.65)	-10.8%
<u>High Pressure Sodium:</u>								
11	50	4,000	ST	23	\$16.57	\$15.71	(\$0.86)	-5.2%
12	100	9,500	ST	48	\$21.66	\$19.87	(\$1.79)	-8.3%
13	150	16,000	ST	65	\$24.03	\$21.60	(\$2.42)	-10.1%
14	250	30,000	ST	102	\$32.90	\$29.10	(\$3.80)	-11.6%
15	400	50,000	ST	161	\$45.87	\$39.87	(\$6.00)	-13.1%
16	1,000	140,000	ST	380	\$93.08	\$78.92	(\$14.16)	-15.2%
17	150	16,000	FL	65	\$26.35	\$23.92	(\$2.42)	-9.2%
18	250	30,000	FL	102	\$34.51	\$30.71	(\$3.80)	-11.0%
19	400	50,000	FL	161	\$45.34	\$39.34	(\$6.00)	-13.2%
20	1,000	140,000	FL	380	\$93.44	\$79.28	(\$14.16)	-15.2%
21	50	4,000	PB	23	\$15.57	\$14.71	(\$0.86)	-5.5%
22	100	9,500	PB	48	\$20.49	\$18.70	(\$1.79)	-8.7%
<u>Metal Halide:</u>								
23	175	8,800	ST	74	\$29.85	\$27.09	(\$2.76)	-9.2%
24	250	13,500	ST	102	\$35.39	\$31.59	(\$3.80)	-10.7%
25	400	23,500	ST	158	\$43.80	\$37.91	(\$5.89)	-13.4%
26	175	8,800	FL	74	\$32.93	\$30.17	(\$2.76)	-8.4%
27	250	13,500	FL	102	\$38.56	\$34.76	(\$3.80)	-9.9%
28	400	23,500	FL	158	\$46.21	\$40.32	(\$5.89)	-12.7%
29	1,000	86,000	FL	374	\$82.88	\$68.94	(\$13.94)	-16.8%
30	175	8,800	PB	74	\$28.58	\$25.82	(\$2.76)	-9.6%
31	250	13,500	PB	102	\$33.56	\$29.76	(\$3.80)	-11.3%
32	400	23,500	PB	158	\$42.53	\$36.64	(\$5.89)	-13.8%
<u>Light Emitting Diode:</u>								
33	42	3,600	AL	15	\$15.12	\$14.56	(\$0.56)	-3.7%
34	57	5,200	AL	20	\$15.85	\$15.10	(\$0.75)	-4.7%
35	25	3,000	CH	9	\$14.25	\$13.92	(\$0.34)	-2.4%
36	88	8,300	CH	30	\$17.30	\$16.18	(\$1.12)	-6.5%
37	108	11,500	CH	37	\$18.31	\$16.93	(\$1.38)	-7.5%
38	193	21,000	CH	67	\$22.65	\$20.15	(\$2.50)	-11.0%
39	123	12,180	FL	43	\$19.18	\$17.57	(\$1.60)	-8.4%
40	194	25,700	FL	67	\$22.65	\$20.15	(\$2.50)	-11.0%
41	297	38,100	FL	103	\$27.85	\$24.02	(\$3.84)	-13.8%
<b>Luminaire Charges For Year Round Service:</b>								
<b>Rates - Effective April 1, 2019</b>								
		<u>Mercury Vapor Rate/Mo.</u>		<u>Sodium Vapor Rate/Mo.</u>		<u>Metal Halide Rate/Mo.</u>		<u>LED Rate/Mo.</u>
Customer Charge	\$0.00	1	\$13.20	11	\$13.44	23	\$19.79	33 \$13.08
		2	\$15.66	12	\$15.13	24	\$21.52	34 \$13.13
	<u>All kWh</u>	3	\$17.75	13	\$15.19	25	\$22.32	35 \$13.03
Distribution Charge	\$0.00000	4	\$21.13	14	\$19.03	26	\$22.87	36 \$13.22
External Delivery Charge	\$0.02389	5	\$41.95	15	\$23.98	27	\$24.69	37 \$13.28
Stranded Cost Charge	(\$0.00101)	6	\$18.90	16	\$41.42	28	\$24.73	38 \$13.54
Storm Recovery Adj. Factor	\$0.00133	7	\$22.62	17	\$17.51	29	\$32.03	39 \$13.33
System Benefits Charge	\$0.00576	8	\$37.48	18	\$20.64	30	\$18.52	40 \$13.54
Default Service Charge	\$0.10598	9	\$13.33	19	\$23.45	31	\$19.69	41 \$13.85
<b>TOTAL</b>	<b>\$0.13595</b>	10	\$14.79	20	\$41.78	32	\$21.05	
		21	\$12.44	22	\$13.96			
<b>Rates - Proposed June 1, 2019</b>								
		<u>Mercury Vapor Rate/Mo.</u>		<u>Sodium Vapor Rate/Mo.</u>		<u>Metal Halide Rate/Mo.</u>		<u>LED Rate/Mo.</u>
Customer Charge	\$0.00	1	\$13.20	11	\$13.44	23	\$19.79	33 \$13.08
		2	\$15.66	12	\$15.13	24	\$21.52	34 \$13.13
	<u>All kWh</u>	3	\$17.75	13	\$15.19	25	\$22.32	35 \$13.03
Distribution Charge	\$0.00000	4	\$21.13	14	\$19.03	26	\$22.87	36 \$13.22
External Delivery Charge	\$0.02389	5	\$41.95	15	\$23.98	27	\$24.69	37 \$13.28
Stranded Cost Charge	(\$0.00101)	6	\$18.90	16	\$41.42	28	\$24.73	38 \$13.54
Storm Recovery Adj. Factor	\$0.00133	7	\$22.62	17	\$17.51	29	\$32.03	39 \$13.33
System Benefits Charge	\$0.00576	8	\$37.48	18	\$20.64	30	\$18.52	40 \$13.54
Default Service Charge	\$0.06872	9	\$13.33	19	\$23.45	31	\$19.69	41 \$13.85
<b>TOTAL</b>	<b>\$0.09869</b>	10	\$14.79	20	\$41.78	32	\$21.05	
		21	\$12.44	22	\$13.96			
<b>Difference</b>								
		<u>Mercury Vapor Rate/Mo.</u>		<u>Sodium Vapor Rate/Mo.</u>		<u>Metal Halide Rate/Mo.</u>		<u>LED Rate/Mo.</u>
Customer Charge	\$0.00	1	\$0.00	11	\$0.00	23	\$0.00	33 \$0.00
		2	\$0.00	12	\$0.00	24	\$0.00	34 \$0.00
	<u>All kWh</u>	3	\$0.00	13	\$0.00	25	\$0.00	35 \$0.00
Distribution Charge	\$0.00000	4	\$0.00	14	\$0.00	26	\$0.00	36 \$0.00
External Delivery Charge	\$0.00000	5	\$0.00	15	\$0.00	27	\$0.00	37 \$0.00
Stranded Cost Charge	\$0.00000	6	\$0.00	16	\$0.00	28	\$0.00	38 \$0.00
Storm Recovery Adj. Factor	\$0.00000	7	\$0.00	17	\$0.00	29	\$0.00	39 \$0.00
System Benefits Charge	\$0.00000	8	\$0.00	18	\$0.00	30	\$0.00	40 \$0.00
Default Service Charge	(\$0.03726)	9	\$0.00	19	\$0.00	31	\$0.00	41 \$0.00
<b>TOTAL</b>	<b>(\$0.03726)</b>	10	\$0.00	20	\$0.00	32	\$0.00	
		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**

	6/1/2018	6/1/2019*					%
<u>Rate Components</u>	<u>Prior 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	\$16.12	\$16.12	\$0.00	\$16.12	\$16.12	\$0.00	0.0%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.03537	\$0.03537	\$0.00000	\$22.99	\$22.99	\$0.00	0.0%
External Delivery Charge	\$0.02637	\$0.02389	(\$0.00248)	\$17.14	\$15.53	(\$1.61)	(1.4%)
Stranded Cost Charge	(\$0.00057)	(\$0.00101)	(\$0.00044)	(\$0.37)	(\$0.66)	(\$0.29)	(0.3%)
Storm Recovery Adj.	\$0.00133	\$0.00133	\$0.00000	\$0.86	\$0.86	\$0.00	0.0%
System Benefits Charge	\$0.00456	\$0.00576	\$0.00120	\$2.96	\$3.74	\$0.78	0.7%
Default Service Charge	<u>\$0.08238</u>	<u>\$0.07714</u>	<u>(\$0.00524)</u>	<u>\$53.55</u>	<u>\$50.14</u>	<u>(\$3.41)</u>	<u>(3.0%)</u>
Total kWh Charges	\$0.14944	\$0.14248	(\$0.00696)				
Total Bill				\$113.26	\$108.73	(\$4.52)	(4.0%)

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

	6/1/2018	6/1/2019*					%
<u>Rate Components</u>	<u>Prior 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	\$29.02	\$29.02	\$0.00	\$29.02	\$29.02	\$0.00	0.0%
	<b><u>All kW</u></b>	<b><u>All kW</u></b>					
Distribution Charge	\$10.45	\$10.45	\$0.00	\$114.95	\$114.95	\$0.00	0.0%
Stranded Cost Charge	<u>(\$0.11)</u>	<u>(\$0.21)</u>	<u>(\$0.10)</u>	<u>(\$1.21)</u>	<u>(\$2.31)</u>	<u>(\$1.10)</u>	<u>(0.3%)</u>
Total kW Charges	\$10.34	\$10.24	(\$0.10)	\$113.74	\$112.64	(\$1.10)	(0.3%)
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.00000	\$0.00000	\$0.00000	\$0.00	\$0.00	\$0.00	0.0%
External Delivery Charge	\$0.02637	\$0.02389	(\$0.00248)	\$73.84	\$66.89	(\$6.94)	(1.6%)
Stranded Cost Charge	(\$0.00011)	(\$0.00021)	(\$0.00010)	(\$0.31)	(\$0.59)	(\$0.28)	(0.1%)
Storm Recovery Adj.	\$0.00133	\$0.00133	\$0.00000	\$3.72	\$3.72	\$0.00	0.0%
System Benefits Charge	\$0.00456	\$0.00576	\$0.00120	\$12.77	\$16.13	\$3.36	0.8%
Default Service Charge	<u>\$0.07377</u>	<u>\$0.06872</u>	<u>(\$0.00505)</u>	<u>\$206.56</u>	<u>\$192.42</u>	<u>(\$14.14)</u>	<u>(3.2%)</u>
Total kWh Charges	\$0.10592	\$0.09949	(\$0.00643)	\$296.58	\$278.57	(\$18.00)	(4.1%)
Total Bill				\$439.34	\$420.23	(\$19.10)	(4.3%)

\* Rates do not reflect changes pending in DE 19-043.

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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>							
<u>Rate Components</u>	<u>6/1/2018 Prior Rate</u>	<u>6/1/2019* 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	\$9.67	\$9.67	\$0.00	\$9.67	\$9.67	\$0.00	0.0%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.03185	\$0.03185	\$0.00000	\$52.87	\$52.87	\$0.00	0.0%
External Delivery Charge	\$0.02637	\$0.02389	(\$0.00248)	\$43.77	\$39.66	(\$4.12)	(1.7%)
Stranded Cost Charge	(\$0.00057)	(\$0.00101)	(\$0.00044)	(\$0.95)	(\$1.68)	(\$0.73)	(0.3%)
Storm Recovery Adj.	\$0.00133	\$0.00133	\$0.00000	\$2.21	\$2.21	\$0.00	0.0%
System Benefits Charge	\$0.00456	\$0.00576	\$0.00120	\$7.57	\$9.56	\$1.99	0.8%
Default Service Charge	<u>\$0.07377</u>	<u>\$0.06872</u>	<u>(\$0.00505)</u>	<u>\$122.46</u>	<u>\$114.08</u>	<u>(\$8.38)</u>	<u>(3.5%)</u>
Total kWh Charges	\$0.13731	\$0.13054	(\$0.00677)	\$227.93	\$216.70	(\$11.24)	(4.7%)
<b>Total Bill</b>				<b>\$237.60</b>	<b>\$226.37</b>	<b>(\$11.24)</b>	<b>(4.7%)</b>

<b><u>Regular General G2 kWh Meter 115 kWh Typical Bill</u></b>							
<u>Rate Components</u>	<u>6/1/2018 Prior Rate</u>	<u>6/1/2019* 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	\$18.27	\$18.27	\$0.00	\$18.27	\$18.27	\$0.00	0.0%
	<b><u>\$/kWh</u></b>	<b><u>\$/kWh</u></b>					
Distribution Charge	\$0.00878	\$0.00878	\$0.00000	\$1.01	\$1.01	\$0.00	0.0%
External Delivery Charge	\$0.02637	\$0.02389	(\$0.00248)	\$3.03	\$2.75	(\$0.29)	(0.9%)
Stranded Cost Charge	(\$0.00057)	(\$0.00101)	(\$0.00044)	(\$0.07)	(\$0.12)	(\$0.05)	(0.2%)
Storm Recovery Adj.	\$0.00133	\$0.00133	\$0.00000	\$0.15	\$0.15	\$0.00	0.0%
System Benefits Charge	\$0.00456	\$0.00576	\$0.00120	\$0.52	\$0.66	\$0.14	0.4%
Default Service Charge	<u>\$0.07377</u>	<u>\$0.06872</u>	<u>(\$0.00505)</u>	<u>\$8.48</u>	<u>\$7.90</u>	<u>(\$0.58)</u>	<u>(1.8%)</u>
Total kWh Charges	\$0.11424	\$0.10747	(\$0.00677)	\$13.14	\$12.36	(\$0.78)	(2.5%)
<b>Total Bill</b>				<b>\$31.41</b>	<b>\$30.63</b>	<b>(\$0.78)</b>	<b>(2.5%)</b>

\* Rates do not reflect changes pending in DE 19-043.

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