

Unitil Energy Systems, Inc.
Rate Design Calculation
Individual Rate Design Calculations

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	Test Year 2015 Billing Units	Step 1 Adjustment Rates	Step 2 Adjustment Rates	Step 2 Adjustment Revenue May 1, 2018	Percent Change	Tax Adjusted Rates	Tax Adjusted Revenue May 1, 2018	Percent Change
Residential - D								
Test Year Consumers	785,306	\$15.24	\$16.12	\$12,661,259	5.79%	\$16.12	\$12,661,259	0.00%
All kWh	497,875,828	\$0.03566	\$0.03773	\$18,783,423	5.79%	\$0.03537	\$17,609,495	-6.25%
Total Design Revenue				\$31,444,681	5.79%		\$30,270,754	-3.73%
Small General Service - G2 kWh								
Test Year Consumers	5,238	\$17.27	\$18.27	\$95,717	5.79%	\$18.27	\$95,717	0.00%
Annual kWh	607,397	\$0.01440	\$0.01523	\$9,251	5.79%	\$0.00878	\$5,332	-42.36%
Total Design Revenue				\$104,968	5.79%		\$101,050	-3.73%
Small General Service - G2 QR WH /SH								
Test Year Consumers	3,454	\$9.14	\$9.67	\$33,411	5.79%	\$9.67	\$33,411	0.00%
Annual kWh	5,742,223	\$0.03149	\$0.03331	\$191,271	5.79%	\$0.03185	\$182,883	-4.39%
Total Design Revenue				\$224,682	5.79%		\$216,294	-3.73%
Small General Service - G2 Demand								
Test Year Consumers	123,180	\$27.43	\$29.02	\$3,574,789	5.79%	\$29.02	\$3,574,789	0.00%
Demand kW	1,348,556	\$10.35	\$10.95	\$14,770,315	5.79%	\$10.45	\$14,086,374	-4.63%
Annual kWh	347,811,789	\$0.00000	\$0.00000	\$0	0.00%	\$0.00000	\$0	0.00%
Total Design Revenue				\$18,345,104	5.79%		\$17,661,162	-3.73%
G2 Demand - kW Transformer Ownership Discount								
Test Year kW	50,269	(\$0.50)	(\$0.50)	-\$25,134		(\$0.50)	-\$25,134	
Total Design Revenue				-\$25,134	0.00%		-\$25,134	0.00%
Subtotal G2 Demand inc. Transformer Ownership Discount								
Total Design Revenue				\$18,319,969	5.80%		\$17,636,028	-3.73%
Large General Service - G1								
Test Year Consumers Secondary	1,497	\$152.40	\$161.23	\$241,357	5.79%	\$161.23	\$241,357	
Test Year Consumers Primary	381	\$81.28	\$85.99	\$32,761	5.79%	\$85.99	\$32,761	
Demand kVA	1,022,850	\$7.42	\$7.85	\$8,025,672	5.79%	\$7.55	\$7,723,570	
Annual kWh	353,924,392	\$0.00000	\$0.00000	\$0	0.00%	\$0.00000	\$0	
Total Design Revenue				\$8,299,790	5.79%		\$7,997,688	-3.64%
G1 - kVA Transformer Ownership Discount								
Test Year kVA	415,470	(\$0.50)	(\$0.50)	-\$207,735		(\$0.50)	-\$207,735	
Total Design Revenue				-\$207,735	0.00%		-\$207,735	0.00%
Subtotal G1 inc. Transformer Ownership Discount								
Total Design Revenue				\$8,092,055	5.95%		\$7,789,953	-3.73%

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	Test Year 2015 Billing Units	Step 1 Adjustment Rates	Step 2 Adjustment Rates	Step 2 Adjustment Revenue May 1, 2018	Percent Change	Tax Adjusted Rates	Tax Adjusted Revenue May 1, 2018	Percent Change
Outdoor Lighting - OL								
Delivery charge - Annual kWh	8,241,454	\$0.00000	\$0.00000	\$0		\$0.00000	\$0	
Fixture revenue								
100W Mercury Vapor Street	17,494	\$12.96	\$13.72	\$239,930		\$13.20	\$230,973	
175W Mercury Vapor Street	894	\$15.37	\$16.26	\$14,542		\$15.66	\$13,999	
250W Mercury Vapor Street	945	\$17.42	\$18.43	\$17,421		\$17.75	\$16,771	
400W Mercury Vapor Street	1,940	\$20.75	\$21.95	\$42,583		\$21.13	\$40,994	
1000W Mercury Vapor Street	24	\$41.19	\$43.57	\$1,046		\$41.95	\$1,007	
250W Mercury Vapor Flood	850	\$18.56	\$19.64	\$16,685		\$18.90	\$16,062	
400W Mercury Vapor Flood	1,403	\$22.21	\$23.50	\$32,971		\$22.62	\$31,740	
1000W Mercury Vapor Flood	272	\$36.80	\$38.93	\$10,596		\$37.48	\$10,200	
100W Mercury Vapor Power Bracket	4,860	\$13.09	\$13.84	\$67,285		\$13.33	\$64,773	
175W Mercury Vapor Power Bracket	715	\$14.52	\$15.36	\$10,983		\$14.79	\$10,573	
50W Sodium Vapor Street	41,383	\$13.20	\$13.96	\$577,798		\$13.44	\$556,227	
100W Sodium Vapor Street	1,182	\$14.85	\$15.71	\$18,573		\$15.13	\$17,879	
150W Sodium Vapor Street	4,221	\$14.92	\$15.78	\$66,607		\$15.19	\$64,121	
250W Sodium Vapor Street	13,250	\$18.68	\$19.77	\$261,901		\$19.03	\$252,123	
400W Sodium Vapor Street	3,106	\$23.55	\$24.91	\$77,397		\$23.98	\$74,508	
1000W Sodium Vapor Street	1,728	\$40.67	\$43.03	\$74,351		\$41.42	\$71,575	
150W Sodium Vapor Flood	2,796	\$17.19	\$18.19	\$50,845		\$17.51	\$48,947	
250W Sodium Vapor Flood	3,708	\$20.27	\$21.44	\$79,517		\$20.64	\$76,549	
400W Sodium Vapor Flood	4,724	\$23.02	\$24.36	\$115,051		\$23.45	\$110,756	
1000W Sodium Vapor Flood	2,789	\$41.03	\$43.40	\$121,051		\$41.78	\$116,532	
50W Sodium Vapor Power Bracket	1,304	\$12.21	\$12.92	\$16,852		\$12.44	\$16,222	
100W Sodium Vapor Power Bracket	777	\$13.71	\$14.50	\$11,264		\$13.96	\$10,844	
175W Metal Halide Street	19	\$19.44	\$20.56	\$389		\$19.79	\$374	
250W Metal Halide Street	0	\$21.13	\$22.36	\$0		\$21.52	\$0	
400W Metal Halide Street	0	\$21.92	\$23.18	\$0		\$22.32	\$0	
175W Metal Halide Flood	0	\$22.45	\$23.75	\$0		\$22.87	\$0	
250W Metal Halide Flood	0	\$24.24	\$25.65	\$0		\$24.69	\$0	
400W Metal Halide Flood	0	\$24.28	\$25.69	\$0		\$24.73	\$0	
1000W Metal Halide Flood	465	\$31.46	\$33.28	\$15,460		\$32.03	\$14,882	
175W Metal Halide Power Bracket	0	\$18.19	\$19.24	\$0		\$18.52	\$0	
250W Metal Halide Power Bracket	0	\$19.34	\$20.45	\$0		\$19.69	\$0	
400W Metal Halide Power Bracket	0	\$20.67	\$21.86	\$0		\$21.05	\$0	
42W 3600 K LED Area Light Fixture	0	\$12.85	\$13.59	\$0		\$13.08	\$0	
57W 5200K LED Area Light Fixture	0	\$12.89	\$13.64	\$0		\$13.13	\$0	
25W 3000K LED Cobra Head Fixture	0	\$12.80	\$13.54	\$0		\$13.03	\$0	
88W 8300K LED Cobra Head Fixture	0	\$12.98	\$13.73	\$0		\$13.22	\$0	
108W 11500K LED Cobra Head Fixture	0	\$13.04	\$13.80	\$0		\$13.28	\$0	
193W 21000K LED Cobra Head Fixture	0	\$13.29	\$14.06	\$0		\$13.54	\$0	
123W 12180K LED Flood Light Fixture	0	\$13.09	\$13.84	\$0		\$13.33	\$0	
194W 25700K LED Flood Light Fixture	0	\$13.30	\$14.07	\$0		\$13.54	\$0	
297W 38100K LED Flood Light Fixture	0	\$13.60	\$14.39	\$0		\$13.85	\$0	
Total Design Revenue				\$1,941,099	5.79%		\$1,868,631	-3.73%
Total Design Revenue			076	\$60,127,454			\$57,882,710	

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	Test Year 2015 Billing Units	Step 1 Adjustment Rates	Step 2 Adjustment Rates	Step 2 Adjustment Revenue May 1, 2018	Percent Change	Tax Adjusted Rates	Tax Adjusted Revenue May 1, 2018	Percent Change
Total Billed kWh	1,214,203,082							
Total Billed kW/kVA	2,371,406							
Step Adjustment \$ (does not include recoupment)				\$3,302,989				
Step Adjustment Percentage Change (not including transformer discounts)				5.79%				
Step Adjustment Percentage Change Total				5.81%				
Recoupment \$		\$1,411,065		-\$1,411,065				
Recoupment \$/kWh		\$0.00116		-\$0.00116				
Tax Adjustment \$							-\$2,244,744	
Tax Adjustment Percentage Change (not including customer charges and transformer discounts)							-5.13%	
Tax Adjustment Percentage Change Total							-3.73%	
Cumulative \$ Adjustments on May 1, 2018				\$1,891,924			-\$352,820	

Unitil Energy Systems, Inc.
Typical Bill Impacts - December 1, 2017 vs. May 1, 2018
Impacts do NOT include the Electricity Consumption Tax
Impact on D Rate Customers

<u>Average kWh</u>	<u>Total Bill Using Rates 12/1/2017</u>	<u>Total Bill Using Rates 5/1/2018</u>	<u>Total Difference</u>	<u>% Total Difference</u>
125	\$36.35	\$37.03	\$0.68	1.9%
150	\$40.58	\$41.21	\$0.64	1.6%
200	\$49.02	\$49.57	\$0.55	1.1%
250	\$57.47	\$57.94	\$0.47	0.8%
300	\$65.91	\$66.30	\$0.39	0.6%
350	\$74.36	\$74.66	\$0.30	0.4%
400	\$82.80	\$83.03	\$0.22	0.3%
450	\$91.25	\$91.39	\$0.14	0.2%
500	\$99.70	\$99.75	\$0.06	0.1%
525	\$103.92	\$103.93	\$0.02	0.0%
550	\$108.14	\$108.12	(\$0.03)	(0.0%)
575	\$112.36	\$112.30	(\$0.07)	(0.1%)
600	\$116.59	\$116.48	(\$0.11)	(0.1%)
625	\$120.81	\$120.66	(\$0.15)	(0.1%)
650	\$125.03	\$124.84	(\$0.19)	(0.2%)
675	\$129.25	\$129.02	(\$0.23)	(0.2%)
700	\$133.48	\$133.20	(\$0.27)	(0.2%)
725	\$137.70	\$137.39	(\$0.31)	(0.2%)
750	\$141.92	\$141.57	(\$0.36)	(0.3%)
775	\$146.15	\$145.75	(\$0.40)	(0.3%)
825	\$154.59	\$154.11	(\$0.48)	(0.3%)
925	\$171.48	\$170.84	(\$0.64)	(0.4%)
1,000	\$184.15	\$183.38	(\$0.77)	(0.4%)
1,250	\$226.38	\$225.20	(\$1.18)	(0.5%)
1,500	\$268.61	\$267.01	(\$1.59)	(0.6%)
2,000	\$353.06	\$350.64	(\$2.42)	(0.7%)
3,500	\$606.43	\$601.53	(\$4.89)	(0.8%)
5,000	\$859.79	\$852.42	(\$7.37)	(0.9%)

	<u>Rates - Effective December 1, 2017</u>	<u>Rates - Proposed May 1, 2018</u>	<u>Difference</u>
Customer Charge	\$15.24	\$16.12	\$0.88
Distribution Charge:	<u>kWh</u> \$0.03682	<u>kWh</u> \$0.03537	<u>kWh</u> (\$0.00145)
External Delivery Charge	\$0.02637	\$0.02637	\$0.00000
Stranded Cost Charge	(\$0.00057)	(\$0.00057)	\$0.00000
Storm Recovery Adjustment Factor	\$0.00139	\$0.00119	(\$0.00020)
System Benefits Charge	\$0.00456	\$0.00456	\$0.00000
Default Service Charge	<u>\$0.10034</u>	<u>\$0.10034</u>	<u>\$0.00000</u>
TOTAL	\$0.16891	\$0.16726	(\$0.00165)

Unitil Energy Systems, Inc.
Typical Bill Impacts - December 1, 2017 vs. May 1, 2018
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 12/1/2017	Total Bill Using Rates 5/1/2018	Total Difference	% Total Difference
20%	5	730	\$171.47	\$172.55	\$1.08	0.6%
20%	10	1,460	\$315.51	\$316.07	\$0.56	0.2%
20%	15	2,190	\$459.55	\$459.60	\$0.05	0.0%
20%	25	3,650	\$747.64	\$746.65	(\$0.99)	(0.1%)
20%	50	7,300	\$1,467.84	\$1,464.28	(\$3.56)	(0.2%)
20%	75	10,950	\$2,188.05	\$2,181.91	(\$6.14)	(0.3%)
20%	100	14,600	\$2,908.26	\$2,899.55	(\$8.71)	(0.3%)
20%	150	21,900	\$4,348.67	\$4,334.81	(\$13.86)	(0.3%)
36%	5	1,314	\$245.74	\$246.03	\$0.28	0.1%
36%	10	2,628	\$464.06	\$463.03	(\$1.03)	(0.2%)
36%	15	3,942	\$682.37	\$680.04	(\$2.34)	(0.3%)
36%	25	6,570	\$1,119.00	\$1,114.05	(\$4.96)	(0.4%)
36%	50	13,140	\$2,210.58	\$2,199.07	(\$11.50)	(0.5%)
36%	75	19,710	\$3,302.15	\$3,284.10	(\$18.05)	(0.5%)
36%	100	26,280	\$4,393.72	\$4,369.12	(\$24.60)	(0.6%)
36%	150	39,420	\$6,576.87	\$6,539.17	(\$37.69)	(0.6%)
50%	5	1,825	\$310.73	\$310.32	(\$0.41)	(0.1%)
50%	10	3,650	\$594.04	\$591.62	(\$2.42)	(0.4%)
50%	15	5,475	\$877.34	\$872.92	(\$4.42)	(0.5%)
50%	25	9,125	\$1,443.95	\$1,435.52	(\$8.43)	(0.6%)
50%	50	18,250	\$2,860.47	\$2,842.01	(\$18.45)	(0.6%)
50%	75	27,375	\$4,276.98	\$4,248.51	(\$28.47)	(0.7%)
50%	100	36,500	\$5,693.50	\$5,655.00	(\$38.50)	(0.7%)
50%	150	54,750	\$8,526.54	\$8,467.99	(\$58.54)	(0.7%)

	Rates - Effective December 1, 2017	Rates - Proposed May 1, 2018	Difference
Customer Charge	\$27.43	\$29.02	\$1.59
Distribution Charge	<u>All kW</u> \$10.35	<u>All kW</u> \$10.45	<u>All kW</u> \$0.10
Stranded Cost Charge	<u>(\$0.11)</u>	<u>(\$0.11)</u>	<u>\$0.00</u>
TOTAL	\$10.24	\$10.34	\$0.10
Distribution Charge	<u>kWh</u> \$0.00116	<u>kWh</u> \$0.00000	<u>kWh</u> (\$0.00116)
External Delivery Charge	\$0.02637	\$0.02637	\$0.00000
Stranded Cost Charge	(\$0.00011)	(\$0.00011)	\$0.00000
Storm Recovery Adj. Factor	\$0.00139	\$0.00119	(\$0.00020)
System Benefits Charge	\$0.00456	\$0.00456	\$0.00000
Default Service Charge	<u>\$0.09381</u>	<u>\$0.09381</u>	<u>\$0.00000</u>
TOTAL	\$0.12718	\$0.12582	(\$0.00136)

Unitil Energy Systems, Inc. Typical Bill Impacts - December 1, 2017 vs. May 1, 2018 Impacts do NOT include the Electricity Consumption Tax Impact on G2 kWh Meter Rate Customers				
Average Monthly kWh	Total Bill Using Rates 12/1/2017	Total Bill Using Rates 5/1/2018	Total Difference	% Total Difference
15	\$19.39	\$20.28	\$0.90	4.6%
75	\$27.85	\$28.33	\$0.48	1.7%
150	\$38.44	\$38.39	(\$0.04)	(0.1%)
250	\$52.55	\$51.81	(\$0.74)	(1.4%)
350	\$66.66	\$65.22	(\$1.44)	(2.2%)
450	\$80.77	\$78.63	(\$2.14)	(2.6%)
550	\$94.89	\$92.05	(\$2.84)	(3.0%)
650	\$109.00	\$105.46	(\$3.54)	(3.2%)
750	\$123.11	\$118.88	(\$4.23)	(3.4%)
900	\$144.28	\$139.00	(\$5.28)	(3.7%)
	Rates - Effective December 1, 2017	Rates - Proposed May 1, 2018	Difference	
kWh Meter Customer Charge	\$17.27	\$18.27	\$1.00	
	All kWh	All kWh	All kWh	
Distribution Charge	\$0.01556	\$0.00878	(\$0.00678)	
External Delivery Charge	\$0.02637	\$0.02637	\$0.00000	
Stranded Cost Charge	(\$0.00057)	(\$0.00057)	\$0.00000	
Storm Recovery Adjustment Factor	\$0.00139	\$0.00119	(\$0.00020)	
System Benefits Charge	\$0.00456	\$0.00456	\$0.00000	
Default Service Charge	<u>\$0.09381</u>	<u>\$0.09381</u>	<u>\$0.00000</u>	
TOTAL	\$0.14112	\$0.13414	(\$0.00698)	

Unitil Energy Systems, Inc.
Typical Bill Impacts - December 1, 2017 vs. May 1, 2018
Impacts do NOT include the Electricity Consumption Tax
Impact on G2 QRWH and SH Rate Customers

Average kWh	Total Bill Using Rates 12/1/2017	Total Bill Using Rates 5/1/2018	Total Difference	% Total Difference
100	\$24.96	\$25.39	\$0.43	1.7%
200	\$40.78	\$41.12	\$0.33	0.8%
300	\$56.60	\$56.84	\$0.23	0.4%
400	\$72.42	\$72.56	\$0.13	0.2%
500	\$88.25	\$88.28	\$0.03	0.0%
750	\$127.80	\$127.58	(\$0.22)	(0.2%)
1,000	\$167.35	\$166.88	(\$0.47)	(0.3%)
1,500	\$246.46	\$245.49	(\$0.97)	(0.4%)
2,000	\$325.56	\$324.09	(\$1.47)	(0.5%)
2,500	\$404.67	\$402.70	(\$1.97)	(0.5%)

	Rates - Effective December 1, 2017	Rates - Proposed May 1, 2018	Difference
Customer Charge	\$9.14	\$9.67	\$0.53
	<u>All kWh</u>	<u>All kWh</u>	<u>All kWh</u>
Distribution Charge	\$0.03265	\$0.03185	(\$0.00080)
External Delivery Charge	\$0.02637	\$0.02637	\$0.00000
Stranded Cost Charge	(\$0.00057)	(\$0.00057)	\$0.00000
Storm Recovery Adjustment Factor	\$0.00139	\$0.00119	(\$0.00020)
System Benefits Charge	\$0.00456	\$0.00456	\$0.00000
Default Service Charge	<u>\$0.09381</u>	<u>\$0.09381</u>	<u>\$0.00000</u>
TOTAL	\$0.15821	\$0.15721	(\$0.00100)

Unitil Energy Systems, Inc.
Typical Bill Impacts - December 1, 2017 vs. May 1, 2018
Impacts do NOT include the Electricity Consumption Tax
Impact on G1 Rate Customers

<u>Load Factor</u>	<u>Average Monthly kVa</u>	<u>Average Monthly kWh</u>	<u>Total Bill Using Rates 12/1/2017</u>	<u>Total Bill Using Rates 5/1/2018</u>	<u>Total Difference</u>	<u>% Total Difference</u>
25.0%	200	36,500	\$6,005.92	\$5,991.31	(\$14.61)	(0.2%)
25.0%	400	73,000	\$11,859.44	\$11,821.40	(\$38.04)	(0.3%)
25.0%	600	109,500	\$17,712.96	\$17,651.48	(\$61.48)	(0.3%)
25.0%	800	146,000	\$23,566.48	\$23,481.57	(\$84.91)	(0.4%)
25.0%	1,000	182,500	\$29,420.00	\$29,311.66	(\$108.34)	(0.4%)
25.0%	1,500	273,750	\$44,053.80	\$43,886.87	(\$166.93)	(0.4%)
25.0%	2,000	365,000	\$58,687.60	\$58,462.09	(\$225.51)	(0.4%)
25.0%	2,500	456,250	\$73,321.40	\$73,037.30	(\$284.10)	(0.4%)
25.0%	3,000	547,500	\$87,955.20	\$87,612.51	(\$342.69)	(0.4%)
40.0%	200	58,400	\$8,644.43	\$8,600.04	(\$44.39)	(0.5%)
40.0%	400	116,800	\$17,136.46	\$17,038.85	(\$97.61)	(0.6%)
40.0%	600	175,200	\$25,628.50	\$25,477.67	(\$150.83)	(0.6%)
40.0%	800	233,600	\$34,120.53	\$33,916.48	(\$204.05)	(0.6%)
40.0%	1,000	292,000	\$42,612.56	\$42,355.30	(\$257.26)	(0.6%)
40.0%	1,500	438,000	\$63,842.64	\$63,452.33	(\$390.31)	(0.6%)
40.0%	2,000	584,000	\$85,072.72	\$84,549.37	(\$523.35)	(0.6%)
40.0%	2,500	730,000	\$106,302.80	\$105,646.40	(\$656.40)	(0.6%)
40.0%	3,000	876,000	\$127,532.88	\$126,743.43	(\$789.45)	(0.6%)
57.0%	200	83,220	\$11,634.75	\$11,556.60	(\$78.15)	(0.7%)
57.0%	400	166,440	\$23,117.09	\$22,951.97	(\$165.12)	(0.7%)
57.0%	600	249,660	\$34,599.44	\$34,347.34	(\$252.09)	(0.7%)
57.0%	800	332,880	\$46,081.78	\$45,742.72	(\$339.07)	(0.7%)
57.0%	1,000	416,100	\$57,564.13	\$57,138.09	(\$426.04)	(0.7%)
57.0%	1,500	624,150	\$86,269.99	\$85,626.52	(\$643.47)	(0.7%)
57.0%	2,000	832,200	\$114,975.86	\$114,114.95	(\$860.91)	(0.7%)
57.0%	2,500	1,040,250	\$143,681.72	\$142,603.38	(\$1,078.34)	(0.8%)
57.0%	3,000	1,248,300	\$172,387.58	\$171,091.81	(\$1,295.77)	(0.8%)
71.0%	200	103,660	\$14,097.36	\$13,991.41	(\$105.94)	(0.8%)
71.0%	400	207,320	\$28,042.31	\$27,821.60	(\$220.72)	(0.8%)
71.0%	600	310,980	\$41,987.27	\$41,651.78	(\$335.49)	(0.8%)
71.0%	800	414,640	\$55,932.23	\$55,481.97	(\$450.26)	(0.8%)
71.0%	1,000	518,300	\$69,877.18	\$69,312.15	(\$565.03)	(0.8%)
71.0%	1,500	777,450	\$104,739.58	\$103,887.61	(\$851.96)	(0.8%)
71.0%	2,000	1,036,600	\$139,601.97	\$138,463.08	(\$1,138.89)	(0.8%)
71.0%	2,500	1,295,750	\$174,464.36	\$173,038.54	(\$1,425.82)	(0.8%)
71.0%	3,000	1,554,900	\$209,326.75	\$207,614.00	(\$1,712.75)	(0.8%)

	<u>Rates - Effective December 1, 2017</u>	<u>Rates - Proposed May 1, 2018</u>	<u>Difference</u>
Customer Charge	\$152.40	\$161.23	\$8.83
	<u>All kVA</u>	<u>All kVA</u>	<u>All kVA</u>
Distribution Charge	\$7.42	\$7.55	\$0.13
Stranded Cost Charge	(\$0.14)	(\$0.14)	\$0.00
TOTAL	\$7.28	\$7.41	\$0.13
	<u>All kWh</u>	<u>All kWh</u>	<u>All kWh</u>
Distribution Charge	\$0.00116	\$0.00000	(\$0.00116)
External Delivery Charge	\$0.02637	\$0.02637	\$0.00000
Stranded Cost Charge	(\$0.00014)	(\$0.00014)	\$0.00000
Storm Recovery Adjustment Factor	\$0.00139	\$0.00119	(\$0.00020)
System Benefits Charge	\$0.00456	\$0.00456	\$0.00000
Default Service Charge*	<u>\$0.08714</u>	<u>\$0.08714</u>	<u>\$0.00000</u>
TOTAL	\$0.12048	\$0.11912	(\$0.00136)

* Default Service Charge for the G1 class is determined monthly. For purposes of this comparison, the March 2018 rate is unchanged.

Unitil Energy Systems, Inc. Typical Bill Impacts - December 1, 2017 vs. May 1, 2018 Impacts do NOT include the Electricity Consumption Tax Impact on OL Rate Customers *								
	Nominal Watts	Lumens	Type	Average Monthly kWh	Total Bill Using Rates 12/1/2017	Total Bill Using Rates 5/1/2018	Total Difference	% Total Difference
<u>Mercury Vapor:</u>								
1	100	3,500	ST	43	\$18.41	\$18.59	\$0.18	1.0%
2	175	7,000	ST	71	\$24.37	\$24.56	\$0.19	0.8%
3	250	11,000	ST	100	\$30.09	\$30.28	\$0.19	0.6%
4	400	20,000	ST	157	\$40.65	\$40.81	\$0.17	0.4%
5	1,000	60,000	ST	372	\$88.33	\$88.58	\$0.25	0.3%
6	250	11,000	FL	100	\$31.23	\$31.44	\$0.21	0.7%
7	400	20,000	FL	157	\$42.11	\$42.30	\$0.20	0.5%
8	1,000	60,000	FL	380	\$84.95	\$85.11	\$0.16	0.2%
9	100	3,500	PB	48	\$19.17	\$19.34	\$0.17	0.9%
10	175	7,000	PB	71	\$23.52	\$23.69	\$0.17	0.7%
<u>High Pressure Sodium:</u>								
11	50	4,000	ST	23	\$16.11	\$16.32	\$0.21	1.3%
12	100	9,500	ST	48	\$20.93	\$21.14	\$0.21	1.0%
13	150	16,000	ST	65	\$23.16	\$23.34	\$0.18	0.8%
14	250	30,000	ST	102	\$31.61	\$31.82	\$0.21	0.7%
15	400	50,000	ST	161	\$43.95	\$44.17	\$0.22	0.5%
16	1,000	140,000	ST	380	\$88.82	\$89.06	\$0.23	0.3%
17	150	16,000	FL	65	\$25.43	\$25.66	\$0.23	0.9%
18	250	30,000	FL	102	\$33.20	\$33.43	\$0.23	0.7%
19	400	50,000	FL	161	\$43.42	\$43.63	\$0.21	0.5%
20	1,000	140,000	FL	380	\$89.18	\$89.42	\$0.24	0.3%
21	50	4,000	PB	23	\$15.12	\$15.32	\$0.20	1.3%
22	100	9,500	PB	48	\$19.79	\$19.98	\$0.18	0.9%
<u>Metal Halide:</u>								
23	175	8,800	ST	74	\$28.82	\$29.07	\$0.25	0.9%
24	250	13,500	ST	102	\$34.06	\$34.31	\$0.25	0.7%
25	400	23,500	ST	158	\$41.94	\$42.13	\$0.18	0.4%
26	175	8,800	FL	74	\$31.83	\$32.14	\$0.32	1.0%
27	250	13,500	FL	102	\$37.17	\$37.48	\$0.31	0.8%
28	400	23,500	FL	158	\$44.30	\$44.54	\$0.23	0.5%
29	1,000	86,000	FL	374	\$78.85	\$78.92	\$0.07	0.1%
30	175	8,800	PB	74	\$27.57	\$27.80	\$0.23	0.8%
31	250	13,500	PB	102	\$32.27	\$32.48	\$0.21	0.7%
32	400	23,500	PB	158	\$40.69	\$40.85	\$0.16	0.4%
Luminaire Charges For Year Round Service:								
Rates - Effective December 1, 2017								
		Mercury Vapor Rate/Mo.		Sodium Vapor Rate/Mo.		Metal Halide Rate/Mo.		
Customer Charge	\$0.00	1 \$12.96		11 \$13.20		23 \$19.44		
		2 \$15.37		12 \$14.85		24 \$21.13		
	<u>All kWh</u>	3 \$17.42		13 \$14.92		25 \$21.92		
Distribution Charge	\$0.00116	4 \$20.75		14 \$18.68		26 \$22.45		
External Delivery Charge	\$0.02637	5 \$41.19		15 \$23.55		27 \$24.24		
Stranded Cost Charge	(\$0.00057)	6 \$18.56		16 \$40.67		28 \$24.28		
Storm Recovery Adj. Factor	\$0.00139	7 \$22.21		17 \$17.19		29 \$31.46		
System Benefits Charge	\$0.00456	8 \$36.80		18 \$20.27		30 \$18.19		
Default Service Charge	<u>\$0.09381</u>	9 \$13.09		19 \$23.02		31 \$19.34		
		10 \$14.52		20 \$41.03		32 \$20.67		
TOTAL	\$0.12672			21 \$12.21				
				22 \$13.71				
Rates - Proposed May 1, 2018								
		Mercury Vapor Rate/Mo.		Sodium Vapor Rate/Mo.		Metal Halide Rate/Mo.		
Customer Charge	\$0.00	1 \$13.20		11 \$13.44		23 \$19.79		
		2 \$15.66		12 \$15.13		24 \$21.52		
	<u>All kWh</u>	3 \$17.75		13 \$15.19		25 \$22.32		
Distribution Charge	\$0.00000	4 \$21.13		14 \$19.03		26 \$22.87		
External Delivery Charge	\$0.02637	5 \$41.95		15 \$23.98		27 \$24.69		
Stranded Cost Charge	(\$0.00057)	6 \$18.90		16 \$41.42		28 \$24.73		
Storm Recovery Adj. Factor	\$0.00119	7 \$22.62		17 \$17.51		29 \$32.03		
System Benefits Charge	\$0.00456	8 \$37.48		18 \$20.64		30 \$18.52		
Default Service Charge	<u>\$0.09381</u>	9 \$13.33		19 \$23.45		31 \$19.69		
		10 \$14.79		20 \$41.78		32 \$21.05		
TOTAL	\$0.12536			21 \$12.44				
				22 \$13.96				
	Difference	Mercury Vapor-Difference		Sodium Vapor-Difference		Metal Halide-Difference		
Customer Charge	\$0.00	1 \$0.24		11 \$0.24		23 \$0.35		
		2 \$0.29		12 \$0.28		24 \$0.39		
	<u>All kWh</u>	3 \$0.33		13 \$0.27		25 \$0.40		
Distribution Charge	(\$0.00116)	4 \$0.38		14 \$0.35		26 \$0.42		
External Delivery Charge	\$0.00000	5 \$0.76		15 \$0.43		27 \$0.45		
Stranded Cost Charge	\$0.00000	6 \$0.34		16 \$0.75		28 \$0.45		
Storm Recovery Adj. Factor	(\$0.00020)	7 \$0.41		17 \$0.32		29 \$0.57		
System Benefits Charge	\$0.00000	8 \$0.68		18 \$0.37		30 \$0.33		
Default Service Charge	<u>\$0.00000</u>	9 \$0.24		19 \$0.43		31 \$0.35		
		10 \$0.27		20 \$0.75		32 \$0.38		
TOTAL	(\$0.00136)			21 \$0.23				
				22 \$0.25				

* Luminaire charges based on All-Night Service option.