

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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Billing Units	Settlement Rates per Attachment 3 of Settlement Filing	Settlement Design Revenue May 1, 2011	Step 1 Adjustment Rates May 1, 2011 (excludes rate case expense)	Step 1 Adjustment Revenue May 1, 2011 (excludes rate case expense)	Percent Increase	Final Step 1 Adjustment Rates May 1, 2011 (including rate case expense)	Final Step 1 Adjustment Revenue May 1, 2011 (including rate case expense)	Final Percent Increase
Residential - D									
Test Year Consumers	763,694	\$10.27	\$7,843,138	\$10.27	\$7,843,138		\$10.27	\$7,843,138	
First 250 kWh	172,809,013	\$0.02286	\$3,950,414	\$0.02709	\$4,680,902		\$0.02743	\$4,740,488	
Excess kWh	307,829,586	\$0.02786	\$8,576,132	\$0.03209	\$9,877,371		\$0.03243	\$9,983,513	
Total Design Revenue			\$20,369,684		\$22,401,411	9.97%		\$22,567,139	10.79%
Small General Service - G2 kWh									
Test Year Consumers	6,691	\$12.50	\$83,638	\$12.50	\$83,638		\$12.50	\$83,638	
Annual kWh	774,710	\$0.01918	\$14,859	\$0.02856	\$22,124		\$0.02890	\$22,391	
Total Design Revenue			\$98,497		\$105,762	7.38%		\$106,029	7.65%
Small General Service - G2 QR WH /SH									
Test Year Consumers	3,831	\$5.60	\$21,454	\$5.60	\$21,454		\$5.60	\$21,454	
Annual kWh	6,204,726	\$0.02537	\$157,414	\$0.02750	\$170,607		\$0.02784	\$172,747	
Total Design Revenue			\$178,868		\$192,062	7.38%		\$194,201	8.57%
Small General Service - G2 Demand									
Test Year Consumers	118,727	\$16.50	\$1,958,990	\$16.50	\$1,958,990		\$16.50	\$1,958,990	
Demand kW	1,301,458	\$8.48	\$11,036,365	\$9.22	\$11,993,466		\$9.22	\$11,993,466	
Annual kWh	333,296,033	\$0.00000	\$0	\$0.00000	\$0		\$0.00034	\$114,923	
Total Design Revenue			\$12,995,356		\$13,952,456	7.36%		\$14,067,379	8.25%
G2 Demand - kW Transformer Ownership Discount									
Test Year kW	50,700	(\$0.39)	-\$19,773	(\$0.39)	-\$19,773		(\$0.39)	-\$19,773	
Total Design Revenue			-\$19,773		-\$19,773	0.00%		-\$19,773	0.00%
Subtotal G2 Demand inc. Transformer Ownership Discount									
Total Design Revenue			\$12,975,582		\$13,932,683	7.38%		\$14,047,606	8.26%
Large General Service - G1									
Test Year Consumers Secondary	1,382	\$87.09	\$120,358	\$87.09	\$120,358		\$87.09	\$120,358	
Test Year Consumers Primary	432	\$51.61	\$22,296	\$51.61	\$22,296		\$51.61	\$22,296	
Demand kVA	989,158	\$5.81	\$5,747,007	\$6.24	\$6,169,565		\$6.24	\$6,169,565	
Annual kWh	347,650,754	\$0.00000	\$0	\$0.00000	\$0		\$0.00034	\$119,873	
Total Design Revenue			\$5,889,661		\$6,312,219	7.17%		\$6,432,092	9.21%
G1 - kVA Transformer Ownership Discount									
Test Year kVA	412,729	(\$0.39)	-\$160,964	(\$0.39)	-\$160,964		(\$0.39)	-\$160,964	
Total Design Revenue			-\$160,964		-\$160,964	0.00%		-\$160,964	0.00%
Subtotal G1 inc. Transformer Ownership Discount									
Total Design Revenue			\$5,728,696		\$6,151,254	7.38%		\$6,271,127	9.47%

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	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Settlement Rates per Attachment 3 of Settlement Filing	Settlement Design Revenue May 1, 2011	Step 1 Adjustment Rates May 1, 2011 (excludes rate case expense)	Step 1 Adjustment Revenue May 1, 2011 (excludes rate case expense)	Percent Increase	Final Step 1 Adjustment Rates May 1, 2011 (including rate case expense)	Final Step 1 Adjustment Revenue May 1, 2011 (including rate case expense)	Final Percent Increase
Outdoor Lighting - OL									
Delivery charge - Annual kWh	8,988,739	\$0.00000	\$0	\$0.00000	\$0		\$0.00034	\$3,099	
Fixture revenue									
100W Mercury Vapor Street	21,269	\$9.40	\$199,929	\$10.09	\$214,676		\$10.09	\$214,676	
175W Mercury Vapor Street	1,155	\$11.38	\$13,144	\$12.22	\$14,113		\$12.22	\$14,113	
250W Mercury Vapor Street	1,415	\$13.07	\$18,494	\$14.03	\$19,858		\$14.03	\$19,858	
400W Mercury Vapor Street	3,578	\$15.79	\$56,497	\$16.95	\$60,664		\$16.95	\$60,664	
1000W Mercury Vapor Street	60	\$32.56	\$1,954	\$34.96	\$2,098		\$34.96	\$2,098	
250W Mercury Vapor Flood	1,085	\$14.00	\$15,190	\$15.03	\$16,310		\$15.03	\$16,310	
400W Mercury Vapor Flood	2,344	\$16.99	\$39,825	\$18.24	\$42,762		\$18.24	\$42,762	
1000W Mercury Vapor Flood	783	\$28.95	\$22,668	\$31.09	\$24,340		\$31.09	\$24,340	
100W Mercury Vapor Power Bracket	6,406	\$9.50	\$60,857	\$10.20	\$65,346		\$10.20	\$65,346	
175W Mercury Vapor Power Bracket	1,072	\$10.67	\$11,438	\$11.46	\$12,282		\$11.46	\$12,282	
50W Sodium Vapor Street	37,978	\$9.59	\$364,209	\$10.30	\$391,074		\$10.30	\$391,074	
100W Sodium Vapor Street	1,067	\$10.95	\$11,684	\$11.76	\$12,545		\$11.76	\$12,545	
150W Sodium Vapor Street	4,510	\$11.00	\$49,610	\$11.81	\$53,269		\$11.81	\$53,269	
250W Sodium Vapor Street	11,866	\$14.10	\$167,311	\$15.14	\$179,652		\$15.14	\$179,652	
400W Sodium Vapor Street	3,084	\$18.09	\$55,790	\$19.42	\$59,905		\$19.42	\$59,905	
1000W Sodium Vapor Street	1,685	\$32.14	\$54,156	\$34.51	\$58,151		\$34.51	\$58,151	
150W Sodium Vapor Flood	2,834	\$12.87	\$36,474	\$13.82	\$39,164		\$13.82	\$39,164	
250W Sodium Vapor Flood	3,397	\$15.39	\$52,280	\$16.53	\$56,136		\$16.53	\$56,136	
400W Sodium Vapor Flood	4,910	\$17.66	\$86,711	\$18.96	\$93,107		\$18.96	\$93,107	
1000W Sodium Vapor Flood	3,519	\$32.43	\$114,121	\$34.82	\$122,539		\$34.82	\$122,539	
50W Sodium Vapor Power Bracket	1,153	\$8.79	\$10,135	\$9.44	\$10,882		\$9.44	\$10,882	
100W Sodium Vapor Power Bracket	649	\$10.01	\$6,496	\$10.75	\$6,976		\$10.75	\$6,976	
175W Metal Halide Street	0	\$14.73	\$0	\$15.82	\$0		\$15.82	\$0	
250W Metal Halide Street	0	\$16.13	\$0	\$17.32	\$0		\$17.32	\$0	
400W Metal Halide Street	0	\$16.77	\$0	\$18.01	\$0		\$18.01	\$0	
175W Metal Halide Flood	0	\$17.21	\$0	\$18.48	\$0		\$18.48	\$0	
250W Metal Halide Flood	0	\$18.68	\$0	\$20.06	\$0		\$20.06	\$0	
400W Metal Halide Flood	0	\$18.72	\$0	\$20.10	\$0		\$20.10	\$0	
175W Metal Halide Power Bracket	0	\$13.71	\$0	\$14.72	\$0		\$14.72	\$0	
250W Metal Halide Power Bracket	0	\$14.65	\$0	\$15.73	\$0		\$15.73	\$0	
400W Metal Halide Power Bracket	0	\$15.75	\$0	\$16.91	\$0		\$16.91	\$0	
Total Design Revenue			\$1,448,970		\$1,555,848	7.38%		\$1,558,947	7.59%
Total Design Revenue			\$40,800,297		\$44,339,019			\$44,745,050	
Total Billed kWh	1,177,553,561								
Total Billed kW/kVA	2,290,616								
Step Adjustment (including recoupment and rate case expense of \$406,031)					\$3,538,722			\$3,944,753	
Step Adjustment Percentage Increase					8.67%				
Residential Step Adjustment Percentage Increase over prior year (115% of overall)					9.97%				
Non-residential Step Adjustment Percentage Increase					7.38%				

	<u>Rate Class</u>		(1) Rate Case May 1, 2011 Distribution Charges	(2) Approved DER Step Adjustment	(3) Final May 1, 2011 Distribution Charges
1	D	Customer Charge	\$10.27	\$0.00	\$10.27
2					
3		First 250 kWh	\$0.02743	\$0.00007	\$0.02750
4		Excess 250 kWh	\$0.03243	\$0.00007	\$0.03250
5					
6	G2	Customer Charge	\$16.50	\$0.00	\$16.50
7					
8		All kW	\$9.22	\$0.02	\$9.24
9					
10		All kWh	\$0.00034	\$0.00000	\$0.00034
11					
12	G2 - kWh meter	Customer Charge	\$12.50	\$0.00	\$12.50
13					
14		All kWh	\$0.02890	\$0.00020	\$0.02910
15					
16	G2 - Quick Recovery Water Heat and/or Space Heat	Customer Charge	\$5.60	\$0.00	\$5.60
17					
18		All kWh	\$0.02784	\$0.00005	\$0.02789
19					
20	G1	Customer Charge Secondary	\$87.09	\$0.00	\$87.09
21		Customer Charge Primary	\$51.61	\$0.00	\$51.61
22		All kVA	\$6.24	\$0.01	\$6.25
23					
24		All kWh	\$0.00034	\$0.00000	\$0.00034
25	Transformer Ownership Credit	All kW (G2) or kVA (G1)	(\$0.39)	\$0.00	(\$0.39)
26					
27	OL	All kWh	\$0.00034	\$0.00000	\$0.00034
28		100W Mercury Vapor Street	\$10.09	\$0.02	\$10.11
29		175W Mercury Vapor Street	\$12.22	\$0.02	\$12.24
30		250W Mercury Vapor Street	\$14.03	\$0.02	\$14.05
31		400W Mercury Vapor Street	\$16.95	\$0.03	\$16.98
32		1000W Mercury Vapor Street	\$34.96	\$0.05	\$35.01
33		250W Mercury Vapor Flood	\$15.03	\$0.02	\$15.05
34		400W Mercury Vapor Flood	\$18.24	\$0.03	\$18.27
35		1000W Mercury Vapor Flood	\$31.09	\$0.05	\$31.14
36		100W Mercury Vapor Power Bracket	\$10.20	\$0.02	\$10.22
37		175W Mercury Vapor Power Bracket	\$11.46	\$0.02	\$11.48
38		50W Sodium Vapor Street	\$10.30	\$0.02	\$10.32
39		100W Sodium Vapor Street	\$11.76	\$0.02	\$11.78
40		150W Sodium Vapor Street	\$11.81	\$0.02	\$11.83
41		250W Sodium Vapor Street	\$15.14	\$0.02	\$15.16
42		400W Sodium Vapor Street	\$19.42	\$0.03	\$19.45
43		1000W Sodium Vapor Street	\$34.51	\$0.05	\$34.56
44		150W Sodium Vapor Flood	\$13.82	\$0.02	\$13.84
45		250W Sodium Vapor Flood	\$16.53	\$0.03	\$16.56
46		400W Sodium Vapor Flood	\$18.96	\$0.03	\$18.99
47		1000W Sodium Vapor Flood	\$34.82	\$0.05	\$34.87
48		50W Sodium Vapor Power Bracket	\$9.44	\$0.01	\$9.45
49		100W Sodium Vapor Power Bracket	\$10.75	\$0.02	\$10.77
50		175W Metal Halide Street	\$15.82	\$0.00	\$15.82
51		250W Metal Halide Street	\$17.32	\$0.00	\$17.32
52		400W Metal Halide Street	\$18.01	\$0.00	\$18.01
53		175W Metal Halide Flood	\$18.48	\$0.00	\$18.48
54		250W Metal Halide Flood	\$20.06	\$0.00	\$20.06
55		400W Metal Halide Flood	\$20.10	\$0.00	\$20.10
56		175W Metal Halide Power Bracket	\$14.72	\$0.00	\$14.72
57		250W Metal Halide Power Bracket	\$15.73	\$0.00	\$15.73
58		400W Metal Halide Power Bracket	\$16.91	\$0.00	\$16.91