Non-G1 Class Default Service

|  |  | Dec-15 | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Power Supply Charge |  |  |  |  |  |  |  |
|  |  | As shown on Schedule LSM-2, Page 1 |  |  |  |  |  |  |
|  | Residential Class |  |  |  |  |  |  |  |
| 1 | Reconciliation | (\$22,771) | $(\$ 23,994)$ | $(\$ 22,645)$ | (\$20,346) | $(\$ 18,419)$ | $(\$ 17,130)$ | (\$125,304) |
| 2 | Total Costs | \$3,480,619 | \$4,594,771 | \$4,285,670 | \$3,015,924 | \$2,088,170 | \$1,620,290 | \$19,085,444 |
| 3 | Reconciliation plus Total Costs (L. $1+$ L.2) | \$3,457,848 | \$4,570,777 | \$4,263,024 | \$2,995,578 | \$2,069,751 | \$1,603,160 | \$18,960,140 |
| 4 | kWh Purchases | 41,166,605 | 43,378,451 | 40,940,235 | 36,783,642 | 33,298,924 | 30,968,524 | 226,536,380 |
| 5 | Total, Before Losses (L. 3 / L.4) | \$0.08400 | \$0.10537 | \$0.10413 | \$0.08144 | \$0.06216 | \$0.05177 | \$0.08370 |
| 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)) | \$0.08937 | \$0.11211 | \$0.11079 | \$0.08665 | \$0.06613 | \$0.05508 |  |
| 8 | Total Retail Rate - Residential Fixed Power Supply Charge (L. 5 * (1+L.6)) |  |  |  |  |  |  | \$0.08905 |
|  | G2 and OL Class |  |  |  |  |  |  |  |
| 9 | Reconciliation | $(\$ 8,933)$ | $(\$ 9,194)$ | $(\$ 9,186)$ | $(\$ 9,169)$ | $(\$ 8,602)$ | $(\$ 8,287)$ | (\$53,370) |
| 10 | Total Costs | \$1,367,153 | \$1,743,727 | \$1,713,255 | \$1,337,392 | \$952,131 | \$763,851 | \$7,877,509 |
| 11 | Reconciliation plus Total Costs (L. 9 + L.10) | \$1,358,220 | \$1,734,533 | \$1,704,069 | \$1,328,223 | \$943,529 | \$755,564 | \$7,824,139 |
| 12 | kWh Purchases | 16,152,651 | 16,623,879 | 16,609,176 | 16,578,365 | 15,552,653 | 14,983,185 | 96,499,908 |
| 13 | Total, Before Losses (L. 11 / L.12) | \$0.08409 | \$0.10434 | \$0.10260 | \$0.08012 | \$0.06067 | \$0.05043 | \$0.08108 |
| 14 | Losses | 6.40\% | 6.40\% | 6.40\% | 6.40\% | 6.40\% | 6.40\% | 6.40\% |
| Total Retail Rate - G2 and OL Variable Power Supply Charge (L. 13 * |  |  |  |  |  |  |  |  |
| 16 | Total Retail Rate - G2 and OL Fixed Power Supply Charge (L.13 * (1+L.14)) |  |  |  |  |  |  | \$0.08627 |


|  | Renewable Portfolio Standard (RPS) Charge | As shown on Schedule LSM-3, Page 1 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17 | Reconciliation | $(\$ 90,817)$ | $(\$ 95,068)$ | $(\$ 91,182)$ | $(\$ 84,547)$ | $(\$ 77,401)$ | $(\$ 72,806)$ | $(\$ 511,822)$ |
| 18 | Total Costs | \$194,365 | \$417,212 | \$400,160 | \$371,049 | \$339,688 | \$319,525 | \$2,042,000 |
| 19 | Reconciliation plus Total Costs (L. 17 + L. 18) | \$103,548 | \$322,144 | \$308,978 | \$286,502 | \$262,287 | \$246,719 | \$1,530,178 |
| 20 | kWh Purchases | 57,319,256 | 60,002,329 | 57,549,411 | 53,362,007 | 48,851,576 | 45,951,709 | 323,036,288 |
| 21 | Total, Before Losses (L. 19 / L.20) | \$0.00181 | \$0.00537 | \$0.00537 | \$0.00537 | \$0.00537 | \$0.00537 | \$0.00474 |
| 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)) | \$0.00192 | \$0.00571 | \$0.00571 | \$0.00571 | \$0.00571 | \$0.00571 |  |
|  | Total Retail Rate - Fixed RPS Charge (L. 21 * (1+L.22)) |  |  |  |  |  |  | \$0.00504 |


| TOTAL DEFAULT SERVICE CHARGE |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25 | Total Retail Rate - Residential Variable Default Service Charge (L. 7 + L. 23) | \$0.09129 | \$0.11782 | \$0.11650 | \$0.09236 | \$0.07184 | \$0.06079 |  |
| 26 | Total Retail Rate - Residential Fixed Default Service Charge (L.8+L.24) |  |  |  |  |  |  | \$0.09409 |
| 27 | Total Retail Rate - G2 and OL Variable Default Service Charge (L. 15 + L. 23) | \$0.09139 | \$0.11673 | \$0.11487 | \$0.09096 | \$0.07026 | \$0.05936 |  |
| 28 | Total Retail Rate - G2 and OL Fixed Default Service Charge (L.16+L.24) |  |  |  |  |  |  | \$0.09131 |


| Non-G1 Class Default Service: |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Jen-15 | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Total |
| Power Supply Charge |  |  |  |  |  |  |  |  |
| Residential Class |  |  |  |  |  |  |  |  |
| 4 | Reconciliation | (\$18,864) | (\$22,600) | (\$23,102) | $(\$ 17,510)$ | (\$16,730) | (\$17,886) | (\$116,693) |
| $z$ | Total Costs | \$2,407,818 | \$3,212,457 | \$2,930,915 | \$2,085,067 | \$2,062,232 | \$2,933,915 | \$15,632,402 |
| 3 | Reconciliation plus Total Costs (L. $1+\mathrm{L} .2$ ) | \$2,388,954 | \$3,189,856 | \$2,907,812 | \$2,067,556 | \$2,045,502 | \$2,916,029 | \$15,515,709 |
| 4 | kWh Purchases | 39,812,701 | 47,698,841 | 48,758,244 | 36,955,383 | 35,309,306 | 37,749,093 | 246,283,568 |
| 5 | Total, Before Losses (L. $3 / \mathrm{L} .4$ ) | \$0.06000 | \$0.06687 | \$0.05964 | \$0.05595 | \$0.05793 | \$0.07725 | \$0.06300 |
| 6 | Losses | 6.40\% | $6.40 \%$ | $\underline{6.40 \%}$ | 6.40\% | 6.40\% | $\underline{6.40 \%}$ | $\underline{6.40 \%}$ |
| 7 | Total Retail Rate - Residential Variable Power Supply Charge (L.5* ( $1+\mathrm{L} .6$ ) ) | \$0.06385 | \$0.07115 | \$0.06345 | \$0.05953 | \$0.06164 | \$0.08219 |  |
| 8 | Total Retail Rate - Residential Fixed Power Supply Charge (L.5* (1+よ.6) |  |  |  |  |  |  | \$0.06703 |
| G2 and OL Class |  |  |  |  |  |  |  |  |
| 9 | Reconciliation | $(\$ 9,261)$ | $(\$ 11,431)$ | $(\$ 11,298)$ | $(\$ 9,897)$ | $(\$ 8,395)$ | $(\$ 8,371)$ | $(\$ 58,653)$ |
| 10 | Total Costs | \$1,164,171 | \$1,654,291 | \$1,455,151 | \$1,217,293 | \$1,045,863 | \$1,403,207 | \$7,939,975 |
| 41 | Reconciliation plus Total Costs (L.9+L.10) | \$1,154,910 | \$1,642,860 | \$1,443,853 | \$1,207,396 | \$1,037,468 | \$1,394,836 | \$7,881,322 |
| 12 | kWh Purchases | 19,543,351 | 24,122,501 | $\underline{23,842,757}$ | 20,886,551 | 17,716,054 | 17,665,628 | 123,776,842 |
| 13 | Fotal, Before Losses (L. $11 / \mathrm{L} .12)$ | \$0.05909 | \$0.06810 | \$0.06056 | \$0.05784 | \$0.05856 | \$0.07896 | \$0.06367 |
| 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 * $(1+\mathrm{L} .14))$ | \$0.06288 | \$0.07246 | \$0.06443 | \$0.06151 | \$0.06231 | \$0.08401 |  |
| 16 | Fotal Petail Rate-Gz and OL Fixed Power Supply Charge (L.13* $(1+$ L. 14$))$ |  |  |  |  |  |  | \$0.06775 |


| Renewable Portfolio Standard (RPS) Charge |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17 | Reconciliation | $(\$ 80,565)$ | $(\$ 97,484)$ | $(\$ 98,543)$ | $(\$ 78,510)$ | (\$71,972) | $(\$ 75,215)$ | $(\$ 502,289)$ |
| 18 | Total Costs | \$202,007 | \$244,432 | \$247,084 | \$196,859 | \$180,463 | \$188,592 | \$1,259,437 |
| 19 | Reconciliation plus Total Costs (L. $17+\mathrm{L} .18$ ) | \$121,442 | \$146,948 | \$148,542 | \$118,349 | \$108,490 | \$113,377 | \$757,148 |
| 20 | kWh Purchases | 59,356,052 | 71,821,342 | 72,601,001 | 57,841,934 | 53,025,360 | 55,414,724 | 370,060,410 |
| 21 | Total, Before Losses (L.19 / L. 20) | \$0.00205 | \$0.00205 | \$0.00205 | \$0.00205 | \$0.00205 | \$0.00205 | \$0.00205 |
| 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)) | \$0.00218 | \$0.00218 | \$0.00218 | \$0.00218 | \$0.00218 | \$0.00218 |  |
| 24 | Total Retail Rate-Fixed RPS Charge (L. $21 * *(1+\mathrm{L} .22)$ ) |  |  |  |  |  |  | \$0.00218 |

## TOTAL DEFAULT SERVIGE GHARGE

Total Retail Rate - Residential Variable Default Service-
25 Charge (L. 7 + L. 23)
26 Charge (L.8+L.24)

Total Retail Rate - G2 and OL Variable Default Service
27 Gharge (L. $15+\mathbf{L} .23$ )
Total Retail Rate - G2 and OL Fixed Default Service-
8 Charge(L.16+L.24)
\$0.06993
$\$ 0.06921$
$\mathbf{\$ 0 . 0 6 5 0 6} \boldsymbol{\$ 0 . 0 7 4 6 4} \mathbf{\$ 0 . 0 6 6 6 1} \boldsymbol{\$ 0 . 0 6 3 6 9} \mathbf{\$ 0 . 0 6 4 4 9} \mathbf{\$ 0 . 0 8 6 1 9}$

| G1 Class Default Service: |  | Smel 15 | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Total | As shown on Schedule LSM-4, Page 1 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Dec-15 |  |  |  |  |  |  | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Total |
| Power Supply Charge |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | Reconciliation |  |  |  |  |  |  |  | (\$238,690) |  |  |  |  |  |  | (\$217,072) |
| 2 | Total Costs excl. wholesale supplier charge |  |  |  |  |  |  | \$20,265 |  |  |  |  |  |  | \$21,966 |
| 3 | Reconciliation plus Total Costs excl. wholesale supplier charge (L. $1+$ L. 2 ) |  |  |  |  |  |  | (\$218,425) |  |  |  |  |  |  | $(\$ 195,105)$ |
| 4 | kWh Purchases |  |  |  |  |  |  | 46,592,069 |  |  |  |  |  |  | 20,996,111 |
| 5 | Total, Before Losses (L.3 / L.4) |  |  |  |  |  |  | (\$0.00469) |  |  |  |  |  |  | (\$0.00929) |
| 6 | Losses |  |  |  |  |  |  | 4.591\% |  |  |  |  |  |  | 4.591\% |
| 7 | Power Supply Charge excl. wholesale supplier charge (L. 5 * (1+L.6)) (2) | (\$0.00490) | (\$0.00490) | (\$0.00490) | (\$0.00490) | (\$0.00490) | (\$0.00490) | (\$0.00490) | (\$0.00972) | (\$0.00972) | (\$0.00972) | (\$0.00972) | (\$0.00972) | (\$0.00972) | (\$0.00972) |
| 8 a 8 b | Wholesale Supplier Charge Losses | MARKET 4.591\% | MARKET 4.591\% | MARKET 4.591\% | MARKET 4.591\% | MARKET 4.591\% | MARKET 4.591\% |  | $\begin{gathered} \text { MARKET } \\ 4.591 \% \end{gathered}$ | $\begin{gathered} \text { MARKET } \\ 4.591 \% \end{gathered}$ | $\begin{aligned} & \text { MARKET } \\ & 4591 \% \end{aligned}$ | MARKET <br> 4.591\% | MARKET <br> 4.591\% | MARKET <br> 4.591\% |  |
| 8 | Retail Rate - Wholesale Supplier Charge (L.8a * (1+L.8b)) | MARKET | MARKET | MARKET | MARKET | MARKET | MARKET |  | MARKET | MARKET | MARKET | MARKET | MARKET | MARKET |  |
| 9 | Total Retail Rate - Power Supply Charge (L. 7 + L. 8) | MARKET | MARKET | MARKET | MARKET | MARKET | MARKET |  | MARKET | MARKET | MARKET | MARKET | MARKET | MARKET |  |
|  | Renewable Portfolio Standard (RPS) Charge |  |  |  |  |  |  |  |  |  | As shown on | Schedule LS | SM-5, Page 1 |  |  |
| 10 | Reconciliation | (\$7,634) | (\$7,614) | (\$8,347) | (\$7,895) | (\$6,178) | (\$7,007) | (\$44,675) | (\$6,910) | $(\$ 6,630)$ | (\$6,718) | (\$7,010) | (\$6,565) | (\$6,799) | $(\$ 40,632)$ |
| 11 | Total Costs | \$27,567 | \$27,494 | \$30,142 | \$28,509 | \$22,310 | \$25,301 | \$161,324 | \$12,319 | \$24,237 | \$24,558 | \$25,625 | \$23,999 | \$24,856 | \$135,593 |
| 12 | Reconciliation plus Total Costs (L.10+ L.11) | \$19,933 | \$19,880 | \$21,795 | \$20,614 | \$16,132 | \$18,294 | \$116,648 | \$5,409 | \$17,607 | \$17,840 | \$18,615 | \$17,434 | \$18,057 | \$94,961 |
| 13 | kWh Purchases | 7,961,674 | 7,940,598 | 8,705,486 | 8,233,654 | 6,443,461 | 7,307,196 | 46,592,069 | 3,570,608 | 3,426,028 | 3,471,343 | 3,622,174 | 3,392,414 | 3,513,544 | 20,996,111 |
| 14 | Total, Before Losses (L. 12 / L.13) | \$0.00250 | \$0.00250 | \$0.00250 | \$0.00250 | \$0.00250 | \$0.00250 |  | \$0.00151 | \$0.00514 | \$0.00514 | \$0.00514 | \$0.00514 | \$0.00514 |  |
| 15 | Losses | 4.591\% | 4.591\% | 4.591\% | 4.591\% | 4.591\% | 4.591\% |  | 4.591\% | 4.591\% | 4.591\% | 4.591\% | 4.591\% | 4.591\% |  |
| 16 | Total Retail Rate - RPS Charge (L. 14 * (1+L.15)) | \$0.00262 | \$0.00262 | \$0.00262 | \$0.00262 | \$0.00262 | \$0.00262 |  | \$0.00158 | \$0.00538 | \$0.00538 | \$0.00538 | \$0.00538 | \$0.00538 |  |

## total default service charge

17 Total Retail Rate - Default Service Charge (L. 9 + L.16)

MARKET MARKET MARKET MARKET MARKET MARKET
MARKET MARKET MARKET MARKET MARKET MARKET

Authorized by NHPUC Order No. 25,777 in Case No. DE 15-079, dated April 10, 2015

## ELECTRIC ASSISTANCE PROGRAM DISCOUNTS


 from the Company would receive these discounts plus the appropriate discount applicable to default service supply.
(2) Discount calculated using Non-G1 class (Residential) Fixed Default Service Rate multiplied by the appropriate discount. These figures exclude delivery
(3) Discount calculated using Non-G1 class (Residential) Variable Default Service Rate, for the applicable month, multiplied by the appropriate discount. These figures exclude delivery.
(4) Tier 1 was eliminated by Order No. 25,200 in DE 10-192 dated March 4, 2011.
(5) Discounts effective May 1, 2014 and in effect for 24 months in accordance with Order No. 25-643 in DE 14-078. UES received a waiver to implement these on May 1, 2014.

Authorized by NHPUC Order No. 25,799 in Case No. DE 15-244, dated July 23, 2015

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

```
Reconciliation (1)
Total Costs (Page 2)
Reconciliation plus Total Costs (L.1 + L.2)
kWh Purchases
Total, Before Losses (L.3 / L.4)
Losses
Total Retail Rate - Residential Variable Power Supply Charge (L.5 * (1+L.6))
```

Total Retail Rate - Residential Fixed Power Supply Charge (L. $5^{*}(1+\mathrm{L} .6)$ )
$\frac{\text { G2 and OL Class }}{\text { Reconciliation (1) }}$
0 Total Costs (Page 2)
11 Reconciliation plus Total Costs (L. $9+\mathrm{L} .10)$
12 kWh Purchases
13 Total, Before Losses (L. 11 / L. 12 )
4 Losses
Tolal Retail Rate - G2 and OL Variable Power Supply Charge (L. $13 *(1+\mathrm{L} .14))$
6 Total Retail Rate - G2 and OL Fixed Power Supply Charge (L.13 * (1+L.14))
Dec-15
Estimated

Estimated
(\$22,771)
.
$\$ 3,457,8$
$41,166,605$

| $\$ 0.08400$ | $\$ 0.10537$ | $\$ 0.10413$ | $\$ 0.08144$ | $\$ 0.06216$ | $\$ 0.05177$ | $\$ 0.08370$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

6.40\%
$\$ 0.08937$

(\$23,994)
Feb-16 Mar-16
Estimated

| $\$ 4,594,771$ | $\$ 4,285,670$ | $\$ 3,015,924$ | $\underline{\$ 2,088,170}$ | $\underline{\$ 1,620,290}$ | $\underline{\$ 19,085,444}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\$ 4,570,777$ | $\$ 4,263,024$ | $\$ 2,995,578$ | $\$ 2,069,751$ | $\$ 1,603,160$ | $\$ 18,960,140$ |
| $\underline{43,378,451}$ | $\underline{40,940,235}$ | $\underline{36,783,642}$ | $\underline{33,298,924}$ | $\underline{30,968,524}$ | $\underline{226,536,380}$ |


$\$ 0.08905$

| $(\$ 8,933)$ | $(\$ 9,194)$ | $(\$ 9,186)$ | $(\$ 9,169)$ | $(\$ 8,602)$ | $(\$ 8,287)$ | $(\$ 53,370)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\underline{\$ 1,367,153}$ | $\underline{\$ 1,743,727}$ | $\underline{\$ 1,713,255}$ | $\underline{\$ 1,337,392}$ | $\underline{\$ 952,131}$ | $\underline{\$ 763,851}$ | $\underline{\$ 7,877,509}$ |
| $\$ 1,358,220$ | $\$ 1,734,533$ | $\$ 1,704,069$ | $\$ 1,328,223$ | $\$ 943,529$ | $\$ 755,564$ | $\$ 7,824,139$ |
| $\underline{16,152,651}$ | $\underline{16,623,879}$ | $\underline{16,609,176}$ | $\underline{16,578,365}$ | $\underline{15,552,653}$ | $\underline{14,983,185}$ | $\underline{96,499,908}$ |
| $\$ 0.08409$ | $\$ 0.10434$ | $\$ 0.10260$ | $\$ 0.08012$ | $\$ 0.06067$ | $\$ 0.05043$ | $\$ 0.08108$ |
| $\underline{6.40 \%}$ | $\underline{6.40 \%}$ | $\underline{6.40 \%}$ | $\underline{6.40 \%}$ | $\underline{6.40 \%}$ | $\underline{6.40 \%}$ | $\underline{6.40 \%}$ |
| $\$ 0.08947$ | $\$ 0.11102$ | $\$ 0.10916$ | $\$ 0.08525$ | $\$ 0.06455$ | $\$ 0.05365$ |  |
|  |  |  |  |  |  | $\$ 0.08627$ |

(1) As filed in DE 15-079 (April 2015). Power Supply Charge balance as of February 28, 2015, as adjusted, allocated between rate periods (June-November 2015 and December 2015-May 2016) and rate classes (Residential and G2/OL), and then to each month, December 2015 through May 2016, on equal per kWh basis.

## Rate period: June-November 2015 <br> Rate period: December 2015-May 2016

Total

Reconciliation
per period
$\stackrel{\text { per period }}{(\$ 175,346)}$
(\$178,674)
$(\$ 354,020)$
$(\$ 354,020)$

|  | Reconciliation <br> per period <br> $(\$ 175,346)$ |
| :---: | :---: | :---: |
|  | $(\$ 358,674)$ |

Dec 2015-May 2016
Reconciliation
by class
$\frac{\text { by class }}{(\$ 125,304)}$
G2 and OL class
Total

|  | Calculation of Working Capital <br> Supplier Charges and GIS Support Payments |  |  |  |  |  | (g) | (h) | (i) | () | (k) | (1) | (m) | (n) | (0) | (p) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (a) | (b) | (c) | (d) | (e) | (f) |  |  |  |  |  |  |  |  |  |  |
|  | Non-G1 Class (Residential) DS Supplier Charges (1) | Non-G1 Class (G2 and OL) DS Supplier Charges (1) | GIS Support Payments | $\begin{gathered} \text { Number of } \\ \text { Days of Lag / } \\ 365(2) \\ \hline \end{gathered}$ | Working Capital Requirement $((a+b+c) * d)$ | Prime Rate | Supply Related Working Capital $\qquad$ <br> ( ${ }^{*}$ f) | Provision for Uncollected Accounts | $\begin{gathered} \text { Internal } \\ \text { Company } \\ \text { Administrative } \\ \text { Costs } \end{gathered}$ | 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 $+g+h+i+j+k$ <br> $+1)$ | $\begin{aligned} & \text { Total All Costs } \\ & \begin{array}{l} \text { (sum col. } m+n \\ +0) \end{array} \\ & \hline \end{aligned}$ |
| Dec-15 |  |  | \$473 | 6.50\% |  | 3.25\% |  |  | \$2,464 | \$0 | \$0 | \$782 |  |  |  | \$4,847,772 |
| Jan-16 |  |  | \$580 | 6.50\% |  | 3.25\% |  |  | \$2,464 | \$0 | \$0 | \$782 |  |  |  | \$6,338,498 |
| Feb-16 |  |  | \$607 | 6.50\% |  | 3.25\% |  |  | \$2,464 | \$0 | \$0 | \$782 |  |  |  | \$5,998,925 |
| Mar-16 |  |  | \$582 | 6.50\% |  | 3.25\% |  |  | \$2,464 | \$0 | \$0 | \$782 |  |  |  | \$4,353,316 |
| Apr-16 |  |  | \$540 | 6.50\% |  | 3.25\% |  |  | \$2,464 | \$0 | \$0 | \$782 |  |  |  | \$3,040,301 |
| May-16 |  |  | \$494 | 6.50\% |  | 3.25\% |  |  | \$2,464 | \$0 | \$0 | \$782 |  |  |  | \$2,384,141 |
| Total |  |  | \$3,275 |  |  |  |  |  | \$14,783 | \$0 | \$0 | \$4,690 |  |  |  | \$26,962,953 |

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


(1) Estimates based on monthly average wholesale rate times estimated monthly purchases.
(2) Number of days lag equals 23.71 . Calculated using revenue lag of 55.15 days less cost lead of 31.44 days. Revenue lag per Schedule BC-1, Page 4 of 23 and cost lead per Schedule BC-1, Page 22 of 23 , DE $15-079$ filed April 3 , 2015.
(3) Remaining Costs (column o) allocated between the Residential Class and the G2 and Outdoor Lighting Class based on estimated monthly kWh purchases, as shown below:

|  | Estimated kWh Purchases- Residential Class | Estimated kWh Purchases - G2 and OL Class | Total Non-G1 Class kWh Purchases | Residential Class kWh Purchases / Total Non-G1 Class kWh Purchases | G 2 and OL Class kWh Purchases / Total Non-G1 Class kWh Purchases |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dec-15 | 41,166,605 | 16,152,651 | 57,319,256 | 71.8\% | 28.2\% |
| Jan-16 | 43,378,451 | 16,623,879 | 60,002,329 | 72.3\% | 27.7\% |
| Feb-16 | 40,940,235 | 16,609,176 | 57,549,411 | 71.1\% | 28.9\% |
| Mar-16 | 36,783,642 | 16,578,365 | 53,362,007 | 68.9\% | 31.1\% |
| Apr-16 | 33,298,924 | 15,552,653 | 48,851,576 | 68.2\% | 31.8\% |
| May-16 | 30,968,524 | 14,983,185 | 45,951,709 | 67.4\% | 32.6\% |
| Total | 226,536,380 | 96,499,908 | 323,036,288 |  |  |

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

```
1 Reconciliation (1)
2 Total Costs (Page 2)
3 Reconciliation plus Total Costs (L.1 + L.2)
4 kWh Purchases
5 Total, Before Losses (L.3 / L.4)
Losses
7 Total Retail Rate - Variable RPS Charge (L.5 * (1+L.6))
8 Total Retail Rate - Fixed RPS Charge (L.5 * (1+L.6))
```

| Dec-15 <br> Estimated | Jan-16 <br> Estimated | Feb-16 <br> Estimated | Mar-16 <br> Estimated | Apr-16 <br> Estimated | May-16 <br> Estimated | $\underline{(\$ 0,817)}$$\underline{(\$ 95,068)}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $(\$ 91,182)$ | $\underline{(\$ 84,547)}$ | $\underline{(\$ 77,401)}$ | $\underline{(\$ 72,806)}$ | $(\$ 511,822)$ |  |  |

(1) As filed in DE 15-079 (April 2015). Renewable Portfolio Standard Charge balance as of February 28, 2015, as adjusted, allocated between rate periods (June-November 2015 and December 2015-May 2016) and then to each month on equal per kWh basis.

| Reconciliation amount for June-November 2015 | $(\$ 502,289)$ |
| :--- | ---: |
| Reconciliation amount for December 2015-May 2016 | $\underline{(\$ 511,822)}$ |
| Total | $(\$ 1,014,111)$ |

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

Schedule LSM-3
Page 2 of 2

000182
Calculation of Working Capital
(a)

| Calculation of Working Capital |  |  |  | (f) |
| :---: | :---: | :---: | :---: | :---: |
| (b) | (c) | (d) | (e) |  |
| Number of | Working |  |  |  |
|  | Capital |  |  | Total Costs (sum a + e) |
| $\begin{gathered} \text { Days of Lag / } \\ 365(2) \\ \hline \end{gathered}$ | Requirement ( $\mathrm{a}^{*} \mathrm{~b}$ ) | Prime Rate | Supply Related Working Capital (c * d) |  |
|  |  |  |  |  |
| (87.62\%) | (\$175,293) | 3.25\% | $(\$ 5,697)$ | \$194,365 |
| (87.62\%) | (\$376,273) | 3.25\% | $(\$ 12,229)$ | \$417,212 |
| (87.62\%) | $(\$ 360,894)$ | 3.25\% | $(\$ 11,729)$ | \$400,160 |
| (87.62\%) | $(\$ 334,639)$ | 3.25\% | $(\$ 10,876)$ | \$371,049 |
| (87.62\%) | $(\$ 306,356)$ | 3.25\% | $(\$ 9,957)$ | \$339,688 |
| (87.62\%) | (\$288,172) | 3.25\% | $(\$ 9,366)$ | \$319,525 |
|  | (\$1,841,626) |  | $(\$ 59,853)$ | \$2,042,000 |

(1) Schedule TMB-4.
(2) Number of days lag equals (319.81). Calculated using revenue lag of 55.15 days less cost lead of 374.96 days. Revenue lag per Schedule BC-1, Page 4 of 23 and cost lead per Schedule BC-1, Page 22 of 23, DE 15-079 filed April 3, 2015.

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

| Total <br> Dec15-May16 |
| :---: |
| $(\$ 217,072)$ |
| $\underline{\$ 21,966}$ |
| $(\$ 195,105)$ |
| $\underline{20,996,111}$ |
| $(\$ 0.00929)$ |
| $\underline{4.591 \%}$ |
| $(\$ 0.00972)$ |

(1) As filed in DE 15-079 (April 2015). Power Supply Charge balance as of February 28, 2015, as adjusted, allocated between rate periods (JuneNovember 2015 and December 2015-May 2016) and then to each month on equal per kWh basis.

```
Reconciliation amount for June-November 2015
Reconciliation amount for December 2015-May }201
Total
($238,690)
($217,072)
($455,762)
```

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

|  |  | Calculation of Working Capital er Charges and GIS Support Payments |  |  |  |  |  | (g) | (h) | (i) | (j) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (a) | (b) | (c) | (d) | (e) | (f) |  |  |  |  | (k) | (1) |
|  |  | Total G1 Class DS Supplier Charges (1) | GIS <br> Support Payments | Number of Days of Lag / 365 (2) | Working Capital Requirement (3) | Prime Rate | Supply Related Working Capital $\left(d^{*} e\right)$ | Provision for Uncollected Accounts | Internal Company Administrative Costs | Legal Charges | Consulting Outside Service Charges | Default Service Portion of the annual PUC Assessment | $\begin{gathered} \text { Total Costs } \\ (\text { sum } a+b+f+ \\ g+h+i+j+k) \end{gathered}$ |
|  | Dec-15 |  | \$35 | (2.53\%) | $(\$ 6,433)$ | 3.25\% | (\$209) | \$0 | \$3,772 | \$0 | \$0 | \$52 | \$3,650 |
|  | Jan-16 |  | \$36 | (2.53\%) | $(\$ 7,719)$ | 3.25\% | (\$251) | \$0 | \$3,772 | \$0 | \$0 | \$52 | \$3,609 |
|  | Feb-16 |  | \$35 | (2.53\%) | $(\$ 7,715)$ | 3.25\% | (\$251) | \$0 | \$3,772 | \$0 | \$0 | \$52 | \$3,607 |
|  | Mar-16 |  | \$35 | (2.53\%) | $(\$ 6,299)$ | 3.25\% | (\$205) | \$0 | \$3,772 | \$0 | \$0 | \$52 | \$3,654 |
| O | Apr-16 |  | \$37 | (2.53\%) | $(\$ 4,479)$ | 3.25\% | (\$146) | \$0 | \$3,772 | \$0 | \$0 | \$52 | \$3,714 |
| $\stackrel{\sim}{\circ}$ | May-16 |  | \$34 | (2.53\%) | $(\$ 3,835)$ | 3.25\% | (\$125) | \$0 | \$3,772 | \$0 | \$0 | \$52 | \$3,733 |
|  | Total |  | \$212 |  |  |  | $(\$ 1,186)$ | \$0 | \$22,630 | \$0 | \$0 | \$310 | \$21,966 |

(1) DS Supplier Charges to be determined at the end of each month.
 filed April 3, 2015.


 month.

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

Schedule LSM-5
Page 1 of 2

| 1 | Reconciliation (1) |
| :--- | :--- |
| 2 | Total Costs (Page 2) |
| 3 | Reconciliation plus Total Costs (L.1 + L.2) |
| 4 | kWh Purchases |
| $\stackrel{\text { ® }}{\circ}$ | Total, Before Losses (L.3 / L.4) |
| $\stackrel{\circ}{\circ}$ |  |
| 6 | Losses |
| 7 | Total Retail Rate - Variable RPS Charge (L.5 * (1+L.6)) |


| Dec-15 <br> Estimated | Jan-16 <br> Estimated | Feb-16 <br> Estimated | Mar-16 <br> Estimated | Apr-16 <br> Estimated | May-16 <br> Estimated | $\underline{\text { Total }}$ <br> $\underline{(\$ 6,630)}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\underline{(\$ 6,718)}$ | $\underline{(\$ 7,010)}$ | $\underline{(\$ 6,565)}$ | $\underline{(\$ 6,799)}$ | $(\$ 40,632)$ |  |  |

(1) As filed in DE 15-079 (April 2015). Renewable Portfolio Standard Charge balance as of February 28, 2015, as adjusted, allocated between rate periods (June-November 2015 and December 2015-May 2016) and then to each month on equal per kWh basis.
Reconciliation amount for June-November 2015
Reconciliation amount for December 2015-May 2016
Total
(\$44,675)
(\$40,632)
$(\$ 85,307)$

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

|  |  | (a) | Calculation of Working Capital |  |  |  | (f)Total Costs (sum |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  | (b) <br> Number of Days of Lag / 365 (2) | (c) <br> Working Capital Requirement (a*b) | (d) | (e) <br> Supply Related Working Capital (c *d) |  |
| 8 | Dec-15 |  | \$12,684 | (88.59\%) | $(\$ 11,237)$ | 3.25\% | (\$365) | \$12,319 |
| $\stackrel{\stackrel{\rightharpoonup}{\circ}}{ }$ | Jan-16 | \$24,956 | (88.59\%) | $(\$ 22,109)$ | 3.25\% | (\$719) | \$24,237 |
|  | Feb-16 | \$25,286 | (88.59\%) | $(\$ 22,401)$ | 3.25\% | (\$728) | \$24,558 |
|  | Mar-16 | \$26,384 | (88.59\%) | $(\$ 23,374)$ | 3.25\% | (\$760) | \$25,625 |
|  | Apr-16 | \$24,711 | (88.59\%) | $(\$ 21,892)$ | 3.25\% | (\$711) | \$23,999 |
|  | May-16 | \$25,593 | (88.59\%) | $(\$ 22,673)$ | 3.25\% | (\$737) | \$24,856 |
|  | Total | \$139,613 |  |  |  | (\$4,020) | \$135,593 |

(1) Schedule TMB-4.
(2) Number of days lag equals (323.36). Calculated using revenue lag of 40.41 days less cost lead of 363.77 days. Revenue lag per Schedule BC-

1, Page 4 of 23 and cost lead per Schedule BC-1, Page 20 of 23, DE 15-079 filed April 3, 2015.


Notes:

1) See Schedule LSM-6, Page 2 of 2.
2) Based on Unitil Service Corp. overhead rate of $108.33 \%{ }^{0}$ (28147 average rate).

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

| Department | Full Time Equivalent (1) | Annualized Base Labor | Open Positions | Open <br> Positions (2) | Total Positions | Total Salaries | Avg Hrly Labor Cost (3) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (a) | (b) | (c) | (d) | (e) | (b) $+(\mathrm{d})=(\mathrm{f})$ | $(\mathrm{c})+(\mathrm{e})=(\mathrm{g})$ | $(\mathrm{g}) \div(\mathrm{f}) \div 2080=(\mathrm{h})$ |
| Energy Contracts | 8.00 | \$741,975 | 1.0 | \$70,203 | 9.00 | \$812,178 | \$43.39 |
| Regulatory / Legal | 10.00 | \$1,102,452 | 0.0 | \$0 | 10.00 | \$1,102,452 | \$53.00 |
| Accounts Payable | 5.00 | \$250,301 | 0.0 | \$0 | 5.00 | \$250,301 | \$24.07 |
| General Accounting | 18.80 (4) | \$1,711,616 | 0.0 | \$0 | 18.80 | \$1,711,616 | \$43.77 |
| Finance | 5.00 | \$461,023 | 0.0 | \$0 | 5.00 | \$461,023 | \$44.33 |
| Communications | 7.00 | \$738,089 | 0.0 | \$0 | 7.00 | \$738,089 | \$50.69 |
| Business Services | 24.00 | \$2,142,739 | 0.0 | \$0 | 24.00 | \$2,142,739 | \$42.92 |
| Information Systems | 21.00 | \$1,850,493 | 0.0 | \$0 | 21.00 | \$1,850,493 | \$42.36 |
| Customer Service | 65.00 | \$3,237,863 | 2.0 | \$78,616 | 67.00 | \$3,316,479 | \$23.80 |

(1) Annualized salaries of active employees as of September 1, 2015.
(2) Salary range midpoint of open positions as of September 1, 2015.
(3) Total Salaries $\div$ Total Positions $\div$ ( 40 hours/wk * 52 weeks/yr).
(4) Includes one part-time employee.

|  | Unitil Energy Systems, Inc. <br> Typical Bill Impacts by Rate Component <br> Residential Rate D 646 kWh Bill |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 10/1/2015 | 12/1/2015 |  |  |  |  | \% |
|  | Rate Components | Current Rate | As Revised | Difference | Current Bill* | As Revised Bill* | Difference | Difference to Total Bill |
|  | Customer Charge | \$10.27 | \$10.27 | \$0.00 | \$10.27 | \$10.27 | \$0.00 | 0.0\% |
|  |  | \$/kWh | \$/kWh |  |  |  |  |  |
|  | Distribution Charge |  |  |  |  |  |  |  |
|  | First 250 kWh | \$0.03404 | \$0.03404 | \$0.00000 | \$8.51 | \$8.51 | \$0.00 | 0.0\% |
|  | Excess 250 kWh | \$0.03904 | \$0.03904 | \$0.00000 | \$15.46 | \$15.46 | \$0.00 | 0.0\% |
|  | External Delivery Charge | \$0.02131 | \$0.02131 | \$0.00000 | \$13.77 | \$13.77 | \$0.00 | 0.0\% |
|  | Stranded Cost Charge | \$0.00018 | \$0.00018 | \$0.00000 | \$0.12 | \$0.12 | \$0.00 | 0.0\% |
|  | Storm Recovery Adj. | \$0.00221 | \$0.00221 | \$0.00000 | \$1.43 | \$1.43 | \$0.00 | 0.0\% |
|  | System Benefits Charge | \$0.00330 | \$0.00330 | \$0.00000 | \$2.13 | \$2.13 | \$0.00 | 0.0\% |
|  | Default Service Charge | \$0.06921 | \$0.09409 | \$0.02488 | \$44.71 | \$60.78 | \$16.07 | 16.7\% |
| O | First 250 kWh | \$0.13025 | \$0.15513 | \$0.02488 |  |  |  |  |
| $\stackrel{\rightharpoonup}{\circ}$ | Excess 250 kWh | \$0.13525 | \$0.16013 | \$0.02488 |  |  |  |  |
|  | Total Bill |  |  |  | \$96.39 | \$112.46 | \$16.07 | 16.7\% |



[^0]
## Unitil Energy Systems, Inc.

Typical Bill Impacts by Rate Component


| Rate Components | Regular General G2 kWh Meter 125 kWh Typical Bill |  |  |  | As Revised Bill* | Difference | ```% Difference to Total Bill``` |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 10/1/2015 | 12/1/2015 |  |  |  |  |  |
|  | Current Rate | As Revised | Difference | Current Bill* |  |  |  |
| Customer Charge | \$13.94 | \$13.94 | \$0.00 | \$13.94 | \$13.94 | \$0.00 | 0.0\% |
|  | \$/kWh | \$/kWh |  |  |  |  |  |
| Distribution Charge | \$0.03211 | \$0.03211 | \$0.00000 | \$4.01 | \$4.01 | \$0.00 | 0.0\% |
| External Delivery Charge | \$0.02131 | \$0.02131 | \$0.00000 | \$2.66 | \$2.66 | \$0.00 | 0.0\% |
| Stranded Cost Charge | \$0.00018 | \$0.00018 | \$0.00000 | \$0.02 | \$0.02 | \$0.00 | 0.0\% |
| Storm Recovery Adj. | \$0.00221 | \$0.00221 | \$0.00000 | \$0.28 | \$0.28 | \$0.00 | 0.0\% |
| System Benefits Charge | \$0.00330 | \$0.00330 | \$0.00000 | \$0.41 | \$0.41 | \$0.00 | 0.0\% |
| Default Service Charge | \$0.06993 | \$0.09131 | \$0.02138 | \$8.74 | \$11.41 | \$2.67 | 8.9\% |
| Total | \$0.12904 | \$0.15042 | \$0.02138 | \$16.13 | \$18.80 | \$2.67 | 8.9\% |
| Total Bill |  |  |  | \$30.07 | \$32.74 | \$2.67 | 8.9\% |

[^1]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*


Residential Rate D 534 kWh Bill - Median Use*


* Based on billing period March 2014 through February 2015.
** Comparison isolates the impact of changes to the Default Service Rate only. Impacts do not include the Electricity Consumption Tax.

Unitil Energy Systems, Inc.
Average Class Bill Impacts
Due to Proposed Default Service Rate Changes Effective December 1, 2015*

| (A) | (B) | (C) | (D) | (E) | (F) | (G) | (H) | (1) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual Number | Annual | Annual | Proposed | Estimated Annual | Estimated Annual | Proposed | \% Change |
|  | of Customers (luminaires | kWh | kW / kVA | DSC | Revenue \$ Under | Revenue \$ Under | Net Change | DSC |
| Class of Service | for Outdoor Lighting) | Sales | Sales | Change \$ | Present Rates | Proposed Rates | Revenue \$ | Revenue |
| Residential | 763,694 | 480,638,599 | n/a | \$11,958,288 | \$71,985,463 | \$83,943,751 | \$11,958,288 | 16.6\% |
| General Service | 129,249 | 340,275,469 | 1,301,458 | \$7,275,090 | \$48,905,081 | \$56,180,171 | \$7,275,090 | 14.9\% |
| Q⿵utdoor Lighting | 115,819 | 8,988,739 | n/a | \$192,179 | \$2,609,735 | \$2,801,914 | \$192,179 | 7.4\% |
| Total | 1,008,762 | 829,902,807 |  | \$19,425,557 | \$123,500,279 | \$142,925,836 | \$19,425,557 | 15.7\% |

(B), (C), (D) Test year billing determinants in DE 10-055.
(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)

* Comparison isolates the impact of changes to the Default Service Rate only.


| Unitil Energy Systems, Inc. <br> Typical Bill Impacts - October 1, 2015 versus December 1, 2015* Impacts do NOT include the Electricity Consumption Tax Impact on G2 Rate Customers |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Average | Average | Total Bill | Total Bill |  | \% |
| Load Monthly | Monthly | Using Rates | Using Rates | Total | Total |
| Factor kW | kWh | 10/1/2015 | 12/1/2015 | Difference | Difference |
| 20\% 5 | 730 | \$140.82 | \$156.42 | \$15.61 | 11.1\% |
| 20\% 10 | 1,460 | \$263.22 | \$294.44 | \$31.21 | 11.9\% |
| 20\% 15 | 2,190 | \$385.63 | \$432.45 | \$46.82 | 12.1\% |
| 20\% 25 | 3,650 | \$630.44 | \$708.48 | \$78.04 | 12.4\% |
| 20\% 50 | 7,300 | \$1,242.48 | \$1,398.55 | \$156.07 | 12.6\% |
| 20\% 75 | 10,950 | \$1,854.51 | \$2,088.62 | \$234.11 | 12.6\% |
| 20\% 100 | 14,600 | \$2,466.54 | \$2,778.69 | \$312.15 | 12.7\% |
| 20\% 150 | 21,900 | \$3,690.61 | \$4,158.83 | \$468.22 | 12.7\% |
| 36\% 5 | 1,314 | \$197.34 | \$225.44 | \$28.09 | 14.2\% |
| 36\% 10 | 2,628 | \$376.27 | \$432.46 | \$56.19 | 14.9\% |
| 36\% 15 | 3,942 | \$555.21 | \$639.49 | \$84.28 | 15.2\% |
| 36\% 25 | 6,570 | \$913.07 | \$1,053.54 | \$140.47 | 15.4\% |
| 36\% 50 | 13,140 | \$1,807.73 | \$2,088.66 | \$280.93 | 15.5\% |
| 36\% 75 | 19,710 | \$2,702.39 | \$3,123.79 | \$421.40 | 15.6\% |
| 36\% 100 | 26,280 | \$3,597.05 | \$4,158.92 | \$561.87 | 15.6\% |
| 36\% 150 | 39,420 | \$5,386.37 | \$6,229.17 | \$842.80 | 15.6\% |
| 50\% 5 | 1,825 | \$246.80 | \$285.82 | \$39.02 | 15.8\% |
| 50\% 10 | 3,650 | \$475.19 | \$553.23 | \$78.04 | 16.4\% |
| 50\% 15 | 5,475 | \$703.59 | \$820.64 | \$117.06 | 16.6\% |
| 50\% 25 | 9,125 | \$1,160.37 | \$1,355.46 | \$195.09 | 16.8\% |
| 50\% 50 | 18,250 | \$2,302.33 | \$2,692.51 | \$390.19 | 16.9\% |
| 50\% 75 | 27,375 | \$3,444.29 | \$4,029.56 | \$585.28 | 17.0\% |
| 50\% 100 | 36,500 | \$4,586.25 | \$5,366.62 | \$780.37 | 17.0\% |
| 50\% 150 | 54,750 | \$6,870.16 | \$8,040.72 | \$1,170.56 | 17.0\% |
|  | Rates - Effective October 1, 2015 | Rates - Proposed December 1, 2015 | Difference |  |  |
| Customer Charge | \$18.41 | \$18.41 | \$0.00 |  |  |
|  | All kW | All kW | All kW |  |  |
| Distribution Charge | \$10.31 | \$10.31 | \$0.00 |  |  |
| Stranded Cost Charge | \$0.04 | \$0.04 | \$0.00 |  |  |
| TOTAL | \$10.35 | \$10.35 | \$0.00 |  |  |
|  | kWh | kWh | kWh |  |  |
| Distribution Charge | \$0.00000 | \$0.00000 | \$0.00000 |  |  |
| External Delivery Charge | \$0.02131 | \$0.02131 | \$0.00000 |  |  |
| Stranded Cost Charge | \$0.00004 | \$0.00004 | \$0.00000 |  |  |
| Storm Recovery Adj. Factor | \$0.00221 | \$0.00221 | \$0.00000 |  |  |
| System Benefits Charge | \$0.00330 | \$0.00330 | \$0.00000 |  |  |
| Default Service Charge | \$0.06993 | \$0.09131 | \$0.02138 |  |  |
| TOTAL | \$0.09679 | \$0.11817 | \$0.02138 |  |  |
| * Comparison isolates the impact of changes to the Default Service Rate only. |  |  |  |  |  |




| Unitil Energy Systems, Inc. <br> Typical Bill Impacts - October 1, 2015 versus December 1, 2015* Impacts do NOT include the Electricity Consumption Tax Impact on OL Rate Customers ** |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Nominal Watts | Lumens | Type | Average Monthly kWh | Total Bill Using Rates 10/1/2015 | Total Bill Using Rates 12/1/2015 | Total Difference | \% <br> Total Difference |
| Mercury Vapor: |  |  |  |  |  |  |  |  |
| 1 | 100 | 3,500 | ST | 40 | \$15.16 | \$16.01 | \$0.86 | 5.6\% |
| 2 | 175 | 7,000 | ST | 67 | \$20.14 | \$21.58 | \$1.43 | 7.1\% |
| 3 | 250 | 11,000 | ST | 95 | \$24.88 | \$26.91 | \$2.03 | 8.2\% |
| 4 | 400 | 20,000 | ST | 154 | \$33.87 | \$37.16 | \$3.29 | 9.7\% |
| 5 | 1,000 | 60,000 | ST | 388 | \$76.67 | \$84.96 | \$8.30 | 10.8\% |
| 6 | 250 | 11,000 | FL | 95 | \$26.00 | \$28.03 | \$2.03 | 7.8\% |
| 7 | 400 | 20,000 | FL | 154 | \$35.31 | \$38.60 | \$3.29 | 9.3\% |
| 8 | 1,000 | 60,000 | FL | 388 | \$72.35 | \$80.64 | \$8.30 | 11.5\% |
| - | 100 | 3,500 | PB | 40 | \$15.28 | \$16.13 | \$0.86 | 5.6\% |
| 10 | 175 | 7,000 | PB | 67 | \$19.30 | \$20.74 | \$1.43 | 7.4\% |
| High Pressure Sodium: |  |  |  |  |  |  |  |  |
| 11 | 50 | 4,000 | ST | 21 | \$13.55 | \$13.99 | \$0.45 | 3.3\% |
| 12 | 100 | 9,500 | ST | 43 | \$17.31 | \$18.23 | \$0.92 | 5.3\% |
| 13 | 150 | 16,000 | ST | 60 | \$19.02 | \$20.30 | \$1.28 | 6.7\% |
| 14 | 250 | 30,000 | ST | 101 | \$26.70 | \$28.86 | \$2.16 | 8.1\% |
| 15 | 400 | 50,000 | ST | 161 | \$37.31 | \$40.75 | \$3.44 | 9.2\% |
| 16 | 1,000 | 140,000 | ST | 398 | \$77.13 | \$85.64 | \$8.51 | 11.0\% |
| 17 | 150 | 16,000 | FL | 60 | \$21.26 | \$22.54 | \$1.28 | 6.0\% |
| 18 | 250 | 30,000 | FL | 101 | \$28.26 | \$30.42 | \$2.16 | 7.6\% |
| 19 | 400 | 50,000 | FL | 161 | \$36.79 | \$40.23 | \$3.44 | 9.4\% |
| 20 | 1,000 | 140,000 | FL | 398 | \$77.48 | \$85.99 | \$8.51 | 11.0\% |
| 21 | 50 | 4,000 | PB | 21 | \$12.58 | \$13.02 | \$0.45 | 3.6\% |
| 22 | 100 | 95,000 | PB | 43 | \$16.18 | \$17.10 | \$0.92 | 5.7\% |
| Metal Halide: |  |  |  |  |  |  |  |  |
| 23 | 175 | 8,800 | ST | 66 | \$24.05 | \$25.46 | \$1.41 | 5.9\% |
| 24 | 250 | 13,500 | ST | 92 | \$28.24 | \$30.20 | \$1.97 | 7.0\% |
| 25 | 400 | 23,500 | ST | 148 | \$34.44 | \$37.60 | \$3.16 | 9.2\% |
| 26 | 175 | 8,800 | FL | 66 | \$27.02 | \$28.43 | \$1.41 | 5.2\% |
| 27 | 250 | 13,500 | FL | 92 | \$31.30 | \$33.26 | \$1.97 | 6.3\% |
| 28 | 400 | 23,500 | FL | 148 | \$36.77 | \$39.93 | \$3.16 | 8.6\% |
| 29 | 175 | 8,800 | PB | 66 | \$22.82 | \$24.23 | \$1.41 | 6.2\% |
| 30 | 250 | 13,500 | PB | 92 | \$26.47 | \$28.43 | \$1.97 | 7.4\% |
| 31 | 400 | 23,500 | PB | 148 | \$33.21 | \$36.37 | \$3.16 | 9.5\% |
| Luminaire Charges For Year Round Service: |  |  |  |  |  |  |  |  |
| Rates - Effective October 1, 2015 |  |  |  |  |  |  |  |  |
|  |  | Mercury Vapor Rate/Mo. |  | Sodium Vapor Rate/Mo. |  | Metal Halide Rate/Mo. |  |  |
| Customer Charge | \$0.00 |  | \$11.28 | 11 | \$11.51 | 23 | \$17.65 |  |
|  |  |  | \$13.65 | 12 | \$13.14 | 24 | \$19.32 |  |
|  | All kWh |  | \$15.67 | 13 | \$13.20 | 25 | \$20.09 |  |
| Distribution Charge | \$0.00000 |  | \$18.94 | 14 | \$16.91 | 26 | \$20.62 |  |
| External Delivery Charge | \$0.02131 |  | \$39.06 | 15 | \$21.70 | 27 | \$22.38 |  |
| Stranded Cost Charge | \$0.00018 |  | \$16.79 | 16 | \$38.55 | 28 | \$22.42 |  |
| Storm Recovery Adj. Factor | \$0.00221 |  | \$20.38 | 17 | \$15.44 | 29 | \$16.42 |  |
| System Benefits Charge | \$0.00330 |  | \$34.74 | 18 | \$18.47 | 30 | \$17.55 |  |
| Default Service Charge | \$0.06993 |  | \$11.40 | 19 | \$21.18 | 31 | \$18.86 |  |
|  |  |  | \$12.81 | 20 | \$38.90 |  |  |  |
| TOTAL | \$0.09693 |  |  | 21 | \$10.54 |  |  |  |
|  |  |  |  | 22 | \$12.01 |  |  |  |
| Rates - Proposed December 1, 2015 |  |  |  |  |  |  |  |  |
|  |  | Mercury Vap | e/Mo. | Sodium Vapo | Rate/Mo. | Metal Halide | ate/Mo. |  |
| Customer Charge | \$0.00 |  | \$11.28 | 11 | \$11.51 | 23 | \$17.65 |  |
|  |  |  | \$13.65 | 12 | \$13.14 | 24 | \$19.32 |  |
|  | All kWh |  | \$15.67 | 13 | \$13.20 | 25 | \$20.09 |  |
| Distribution Charge | \$0.00000 |  | \$18.94 | 14 | \$16.91 | 26 | \$20.62 |  |
| External Delivery Charge | \$0.02131 |  | \$39.06 | 15 | \$21.70 | 27 | \$22.38 |  |
| Stranded Cost Charge | \$0.00018 |  | \$16.79 | 16 | \$38.55 | 28 | \$22.42 |  |
| Storm Recovery Adj. Factor | \$0.00221 |  | \$20.38 | 17 | \$15.44 | 29 | \$16.42 |  |
| System Benefits Charge | \$0.00330 |  | \$34.74 | 18 | \$18.47 | 30 | \$17.55 |  |
| Default Service Charge | \$0.09131 |  | \$11.40 | 19 | \$21.18 | 31 | \$18.86 |  |
|  |  |  | \$12.81 | 20 | \$38.90 |  |  |  |
| TOTAL | \$0.11831 |  |  | 21 | \$10.54 |  |  |  |
|  |  |  |  | 22 | \$12.01 |  |  |  |
|  | Difference | Mercury V | ifference | Sodium V | por-Difference | Metal Ha | de-Difference |  |
| Customer Charge | \$0.00 |  | \$0.00 | 11 | \$0.00 | 23 | \$0.00 |  |
|  |  |  | \$0.00 | 12 | \$0.00 | 24 | \$0.00 |  |
|  | All kWh |  | \$0.00 | 13 | \$0.00 | 25 | \$0.00 |  |
| Distribution Charge | \$0.00000 |  | \$0.00 | 14 | \$0.00 | 26 | \$0.00 |  |
| External Delivery Charge | \$0.00000 |  | \$0.00 | 15 | \$0.00 | 27 | \$0.00 |  |
| Stranded Cost Charge | \$0.00000 |  | \$0.00 | 16 | \$0.00 | 28 | \$0.00 |  |
| Storm Recovery Adj. Factor | \$0.00000 |  | \$0.00 | 17 | \$0.00 | 29 | \$0.00 |  |
| System Benefits Charge | \$0.00000 |  | \$0.00 | 18 | \$0.00 | 30 | \$0.00 |  |
| Default Service Charge | \$0.02138 |  | \$0.00 | 19 | \$0.00 | 31 | \$0.00 |  |
|  |  |  | \$0.00 | 20 | \$0.00 |  |  |  |
| TOTAL | \$0.02138 |  |  | 21 | \$0.00 |  |  |  |
|  |  |  |  | 22 | \$0.00 |  |  |  |
| * Comparison isolates the impact of changes to the Default Service Rate only. <br> * Luminaire charges based on All-Night Service option. |  |  |  | 00197 |  |  |  |  |

Unitil Energy Systems, Inc.
Typical Bill Impacts by Rate Component
Residential Rate D 646 kWh Bill

| Rate Components | Rates in effect 12/1/2014 | Rates proposed for effect 12/1/2015 | Difference | $\begin{gathered} \text { Bill under } \\ 12 / 1 / 2014 \\ \text { rates } \\ \hline \end{gathered}$ | Bill under proposed $12 / 1 / 2015$ rates | \$ Difference | \% Difference <br> to Total Bill |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Customer Charge | \$10.27 | \$10.27 | \$0.00 | \$10.27 | \$10.27 | \$0.00 | 0.0\% |
|  | \$/kWh | \$/kWh |  |  |  |  |  |
| Distribution Charge |  |  |  |  |  |  |  |
| First 250 kWh | \$0.03404 | \$0.03404 | \$0.00000 | \$8.51 | \$8.51 | \$0.00 | 0.0\% |
| Excess 250 kWh | \$0.03904 | \$0.03904 | \$0.00000 | \$15.46 | \$15.46 | \$0.00 | 0.0\% |
| External Delivery Charge | \$0.01852 | \$0.02131 | \$0.00279 | \$11.96 | \$13.77 | \$1.80 | 1.2\% |
| Stranded Cost Charge | \$0.00018 | \$0.00018 | \$0.00000 | \$0.12 | \$0.12 | \$0.00 | 0.0\% |
| Storm Recovery Adj. | \$0.00221 | \$0.00221 | \$0.00000 | \$1.43 | \$1.43 | \$0.00 | 0.0\% |
| System Benefits Charge | \$0.00330 | \$0.00330 | \$0.00000 | \$2.13 | \$2.13 | \$0.00 | 0.0\% |
| Default Service Charge | \$0.15544 | \$0.09409 | (\$0.06135) | \$100.41 | \$60.78 | (\$39.63) | (26.4\%) |
| First 250 kWh | \$0.21369 | \$0.15513 | (\$0.05856) |  |  |  |  |
| Excess 250 kWh | \$0.21869 | \$0.16013 | (\$0.05856) |  |  |  |  |
| Total Bill |  |  |  | \$150.29 | \$112.46 | (\$37.83) | (25.2\%) |


| Regular General G2 Demand, 11 kW, 2,800 kWh Typical Bill |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rate Components | Rates in effect $12 / 1 / 2014$ | Rates proposed for effect 12/1/2015 | Difference | $\begin{gathered} \text { Bill under } \\ 12 / 1 / 2014 \\ \text { rates } \\ \hline \end{gathered}$ | Bill under proposed $12 / 1 / 2015$ rates | \$ Difference | \% Difference to Total Bill |
| Customer Charge | \$18.41 | \$18.41 | \$0.00 | \$18.41 | \$18.41 | \$0.00 | 0.0\% |
|  | All kW | All kW |  |  |  |  |  |
| Distribution Charge | \$10.31 | \$10.31 | \$0.00 | \$113.41 | \$113.41 | \$0.00 | 0.0\% |
| Stranded Cost Charge | \$0.04 | \$0.04 | \$0.00 | \$0.44 | \$0.44 | \$0.00 | 0.0\% |
| Total | \$10.35 | \$10.35 | \$0.00 | \$113.85 | \$113.85 | \$0.00 | 0.0\% |
|  | \$/kWh | \$/kWh |  |  |  |  |  |
| Distribution Charge | \$0.00000 | \$0.00000 | \$0.00000 | \$0.00 | \$0.00 | \$0.00 | 0.0\% |
| External Delivery Charge | \$0.01852 | \$0.02131 | \$0.00279 | \$51.86 | \$59.67 | \$7.81 | 1.2\% |
| Stranded Cost Charge | \$0.00004 | \$0.00004 | \$0.00000 | \$0.11 | \$0.11 | \$0.00 | 0.0\% |
| Storm Recovery Adj. | \$0.00221 | \$0.00221 | \$0.00000 | \$6.19 | \$6.19 | \$0.00 | 0.0\% |
| System Benefits Charge | \$0.00330 | \$0.00330 | \$0.00000 | \$9.24 | \$9.24 | \$0.00 | 0.0\% |
| Default Service Charge | \$0.15265 | \$0.09131 | (\$0.06134) | \$427.42 | \$255.67 | (\$171.75) | (27.4\%) |
| Total | \$0.17672 | \$0.11817 | (\$0.05855) | \$494.82 | \$330.88 | (\$163.94) | (26.1\%) |
| Total Bill |  |  |  | \$627.08 | \$463.14 | (\$163.94) | (26.1\%) |

## Typical Bill Impacts by Rate Component

| Rate Components | Rates in effect <br> $12 / 1 / 2014$ | Rates proposed for effect 12/1/2015 | Difference | $\begin{gathered} \text { Bill under } \\ 12 / 1 / 2014 \\ \text { rates } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Bill under } \\ \text { proposed } \\ 12 / 1 / 2015 \text { rates } \\ \hline \end{gathered}$ | \$ Difference | \% Difference <br> to Total Bill |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Customer Charge | \$6.25 | \$6.25 | \$0.00 | \$6.25 | \$6.25 | \$0.00 | 0.0\% |
|  | \$/kWh | \$/kWh |  |  |  |  |  |
| Distribution Charge | \$0.03073 | \$0.03073 | \$0.00000 | \$49.78 | \$49.78 | \$0.00 | 0.0\% |
| External Delivery Charge | \$0.01852 | \$0.02131 | \$0.00279 | \$30.00 | \$34.52 | \$4.52 | 1.3\% |
| Stranded Cost Charge | \$0.00018 | \$0.00018 | \$0.00000 | \$0.29 | \$0.29 | \$0.00 | 0.0\% |
| Storm Recovery Adj. | \$0.00221 | \$0.00221 | \$0.00000 | \$3.58 | \$3.58 | \$0.00 | 0.0\% |
| System Benefits Charge | \$0.00330 | \$0.00330 | \$0.00000 | \$5.35 | \$5.35 | \$0.00 | 0.0\% |
| Default Service Charge | \$0.15265 | \$0.09131 | (\$0.06134) | \$247.29 | \$147.92 | (\$99.37) | (29.0\%) |
| Total | \$0.20759 | \$0.14904 | (\$0.05855) | \$336.30 | \$241.44 | (\$94.85) | (27.7\%) |
| Total Bill |  |  |  | \$342.55 | \$247.69 | (\$94.85) | (27.7\%) |


|  | Regular Ge | neral G2 kWh | eter 125 kW | ypical Bill |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rate Components | Rates in effect 12/1/2014 | Rates proposed for effect 12/1/2015 | Difference | $\begin{gathered} \text { Bill under } \\ \text { 12/1/2014 } \\ \text { rates } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Bill under } \\ \text { proposed } \\ 12 / 1 / 2015 \text { rates } \\ \hline \end{gathered}$ | \$ Difference | \% Difference <br> to Total Bill |
| Customer Charge | \$13.94 | \$13.94 | \$0.00 | \$13.94 | \$13.94 | \$0.00 | 0.0\% |
|  | \$/kWh | \$/kWh |  |  |  |  |  |
| Distribution Charge | \$0.03211 | \$0.03211 | \$0.00000 | \$4.01 | \$4.01 | \$0.00 | 0.0\% |
| External Delivery Charge | \$0.01852 | \$0.02131 | \$0.00279 | \$2.32 | \$2.66 | \$0.35 | 0.9\% |
| Stranded Cost Charge | \$0.00018 | \$0.00018 | \$0.00000 | \$0.02 | \$0.02 | \$0.00 | 0.0\% |
| Storm Recovery Adj. | \$0.00221 | \$0.00221 | \$0.00000 | \$0.28 | \$0.28 | \$0.00 | 0.0\% |
| System Benefits Charge | \$0.00330 | \$0.00330 | \$0.00000 | \$0.41 | \$0.41 | \$0.00 | 0.0\% |
| Default Service Charge | \$0.15265 | \$0.09131 | (\$0.06134) | \$19.08 | \$11.41 | (\$7.67) | (19.1\%) |
| Total | \$0.20897 | \$0.15042 | (\$0.05855) | \$26.12 | \$18.80 | (\$7.32) | (18.3\%) |
| Total Bill |  |  |  | \$40.06 | \$32.74 | (\$7.32) | (18.3\%) |


[^0]:    * Comparison isolates the impact of changes to the Default Service Rate only. Impacts do not include the Electricity Consumption Tax.

[^1]:    * Comparison isolates the impact of changes to the Default Service Rate only. Impacts do not include the Electricity Consumption Tax.

