## CALCULATION OF THE DEFAULT SERVICE CHARGE

| 4 | Non-G1 Class Default Service: <br> Reconciliation | $\frac{\text { Nov-08 }}{(\$ 18,526)}$ | $\frac{\text { Dec-08 }}{(\$ 21,333)}$ | $\frac{\text { Jan-09 }}{(\$ 22,489)}$ | $\underset{(\$ 19,089)}{\text { Feb-09 }}$ | $\frac{\text { Mar-09 }}{(\$ 20,672)}$ | $\frac{\text { Apr-09 }}{(\$ 17,412)}$ | $\frac{\text { Total }}{(\$ 119,521)}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| z | Fetal Costs | \$6,933,625 | \$8,391,504 | \$10,172,696 | \$8,796,282 | \$8,254,262 | \$6,367,465 | \$48,915,834 |
| 3 | Reconciliation plus Total Costs (L.1 + L. 2) | \$6,915,099 | \$8,370,171 | \$10,150,207 | \$8,777,194 | \$8,233,590 | \$6,350,053 | \$48,796,313 |
| 4 | kWh Purehases | 71,606,417 | 82,454,457 | 86,923,116 | 73,780,506 | 79,902,110 | 67,299,007 | 461,965,613 |
| 5 | Total, Before Losses (L. 3 / L. 4 ) | \$0.09657 | \$0.10151 | \$0.11677 | \$0.11896 | \$0.10305 | \$0.09436 | \$0.10563 |
| 6 | Losses | 6.40\% | 6.40\% | 6.40\% | 6.40\% | 6.40\% | 6.40\% | 6.40\% |
| 7 8 | Total Retail Rate Variable Default Service <br> Charge (L.5* (1+L.6)) <br> Total Retail Rate - Fixed Default Service Charge$(\mathrm{L} .5 *(1+\mathrm{L} .6))$ | \$0.10275 | \$0.10801 | \$0.12425 | \$0.12658 | \$0.10964 | \$0.10039 | \$0.11239 |
| 1 | Non-G1 Class Default Service: Reconciliation | $\frac{\text { May-09 }}{(\$ 1,360)}$ | $\frac{\text { Jun-09 }}{(\$ 1,271)}$ | $\frac{\text { Jul-09 }}{(\$ 1,298)}$ | $\frac{\text { Aug-09 }}{(\$ 1,569)}$ | $\frac{\text { Sep-09 }}{(\$ 1,695)}$ | $\frac{\text { Oct-09 }}{(\$ 1,485)}$ | $\xrightarrow[(\$ 8,679)]{\text { Total }}$ |
| 2 | Total Costs | \$5,259,082 | \$5,124,615 | \$5,536,308 | \$6,955,721 | \$6,681,888 | \$5,960,663 | \$35,518,278 |
| 3 | Reconciliation plus Total Costs (L.1 + L.2) | \$5,257,722 | \$5,123,344 | \$5,535,009 | \$6,954,153 | \$6,680,193 | \$5,959,178 | \$35,509,599 |
| 4 | kWh Purchases | 68,709,205 | 64,209,668 | 65,592,242 | 79,243,171 | 85,622,149 | 75,026,129 | 438,402,564 |
| 5 | Total, Before Losses (L. 3 / L.4) | \$0.07652 | \$0.07979 | \$0.08439 | \$0.08776 | \$0.07802 | \$0.07943 | \$0.08100 |
| 6 | Losses | 6.40\% | 6.40\% | 6.40\% | 6.40\% | 6.40\% | 6.40\% | 6.40\% |
| 7 | Total Retail Rate - Variable Default Service Charge (L. 5 * (1+L.6)) | \$0.08142 | \$0.08490 | \$0.08979 | \$0.09337 | \$0.08301 | \$0.08451 |  |
| 8 | Total Retail Rate - Fixed Default Service Charge $(\mathrm{L} .5 *(1+\mathrm{L} .6))$ |  |  |  |  |  |  | \$0.08618 |

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

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## CALCULATION OF THE DEFAULT SERVICE CHARGE

| G1 Class Default Service: | Feb-09 | Mar-09 | Apr-09 | Total |
| :---: | :---: | :---: | :---: | :---: |
| 4 Reconciliation | \$34,475 | \$35,336 | \$33,274 | \$103,085 |
| 2 Total Costs | \$790,193 | \$709,560 | \$661,068 | \$2,160,821 |
| 3 Reconciliation plus Total Costs (L.1 +L.2) | \$824,668 | \$744,897 | \$694,342 | \$2,263,906 |
| 4 kWh Purchases | 7,978,027 | 8,177,443 | 7,700,165 | 23,855,635 |
| 5 Total, Before Losses (L. 3/L.4) | \$0.10337 | \$0.09109 | \$0.09017 |  |
| 6 Losses | $4.591 \%$ | 4.591\% | $4.591 \%$ |  |
| Total Retail Rate - Variable Default Service 7 Charge (L. $5 *(1+\mathrm{L} .6))$ | \$0.10814 | \$0.09527 | \$0.09434 |  |
| G1 Class Default Service: | May-09 | Jun-09 | Jul-09 | Total |
| 1 Reconciliation | \$33,725 | \$33,977 | \$38,339 | \$106,040 |
| 2 Total Costs | \$487,556 | \$508,139 | \$638,608 | \$1,634,304 |
| 3 Reconciliation plus Total Costs (L.1 + L. 2 ) | \$521,281 | \$542,116 | \$676,947 | \$1,740,344 |
| 4 kWh Purchases | 7,802,386 | 7,860,745 | $\underline{8,869,945}$ | $\underline{24,533,076}$ |
| 5 Total, Before Losses (L. 3 / L.4) | \$0.06681 | \$0.06896 | \$0.07632 |  |
| 6 Losses | 4.591\% | 4.591\% | 4.591\% |  |
| Total Retail Rate - Variable Default Service 7 Charge (L. 5 * (1+L.6)) | \$0.06988 | \$0.07213 | \$0.07982 |  |

Authorized by NHPUC Order No. 24,921 in Case No. DE 08-015, dated December 12, 2008

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

## Non-G1 Class Default Service:

1 Reconciliation (1)
2 Total Costs (Page 5)
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 Default Service Charge (L. 5 * (1+L.6))
8 Total Retail Rate - Fixed Default Service Charge (L. $5^{*}$ (1+L.6))

| May-09 | Jun-09 | Jul-09 |  | Sep-09 | 09 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{\text { Estimated }}{(\$ 1,360)}$ | $\frac{\text { Estimated }}{(\$ 1,271)}$ | $\frac{\text { Estimated }}{(\$ 1,298)}$ | $\frac{\text { Estimated }}{(\$ 1,569)}$ | $\frac{\text { Estimated }}{(\$ 1,695)}$ | $\frac{\text { Estimated }}{(\$ 1,485)}$ | $\frac{\text { Total }}{(\$ 8,679)}$ |
| \$5,259,082 | \$5,124,615 | \$5,536,308 | \$6,955,721 | \$6,681,888 | \$5,960,663 | \$35,518,278 |
| \$5,257,722 | \$5,123,344 | \$5,535,009 | \$6,954,153 | \$6,680,193 | \$5,959,178 | \$35,509,599 |
| 68,709,205 | 64,209,668 | 65,592,242 | 79,243,171 | 85,622,149 | 75,026,129 | 438,402,564 |
| \$0.07652 | \$0.07979 | \$0.08439 | \$0.08776 | \$0.07802 | \$0.07943 | \$0.08100 |
| 6.40\% | 6.40\% | 6.40\% | 6.40\% | 6.40\% | 6.40\% | 6.40\% |
| \$0.08142 | \$0.08490 | \$0.08979 | \$0.09337 | \$0.08301 | \$0.08451 |  |
|  |  |  |  |  |  | \$0.08618 |

(1) Balance as of January 31, 2009 modified, as detailed below, to reflect that current rates (through April 30, 2009) include a credit for the overcollection as of January 31 , 2008 and to reflect accruals for RPS. Figure is then allocated between rate periods (May-October 2009 and November 2009-April 2010) and then to each month, May through October 2009, on equal per kWh basis.

January 31, 2009 actual balance - Schedule LSM-2, Page 2
(\$1,259,276)
less: Estimated remaining credit for January 31, 2008 reconciliation - Feb, Mar, Apr 2009

Estimated kWh Sales Feb-Apr 2009
Amount of reconciliation in current rate
Estimated amount of reconciliation to be credited Feb-Apr 2009
plus: Non-G1 Class RPS amounts included in rate filings, Jan 2008-Jan 2009
Total reconciliation for May 1, 2009-April 30, 2010
kWh purchases forecast May-October 2009
kWh purchases forecast November 2009-April 2010
Total
Reconciliation amount for May-October 2009
Reconciliation amount for November 2009-April 2010
Total

207,855,114
(\$0.00028)
$(\$ 58,199)$
\$1,183,543
(\$17,533)

| $438,402,564$ | $49.50 \%$ |
| :--- | :--- |
| $447,308,596$ | $50.50 \%$ |

$(\$ 8,679)$
$(\$ 8,854)$
(\$17,533)

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

Schedule LSM-2
Page 2 of 5

(1) Includes $\$ 4,333.35$ to adjust interest related to adjustment made to working capital (see page 3 ).

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

Calculation of Working Capital

|  | Calculation of Working Capital <br> Supplier Charges and GIS Support Payments |  |  |  |  |  | (g) | (h) | (i) | (j) | (k) | (I) | (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (a) | (b) | (c) | (d) | (e) | (f) |  |  |  |  |  |  |  |
|  | Total Non-G1 <br> Class DS Supplier Charges | GIS <br> Support Payments | $\begin{gathered} \text { Number of } \\ \text { Days of Lag / } \\ 365 \\ \hline \end{gathered}$ | Working Capital Requirement $((a+b) * c)$ | Prime Rate | Supply <br> Related <br> Working <br> Capital (d *e) | Renewable Energy Credits | Working Capital associated with <br> Renewable Energy Credits | Provision for Uncollected Accounts | Internal Company Administrative Costs | Legal Charges | Consulting <br> Outside <br> Service <br> Charges | $\begin{gathered} \text { Total Costs } \\ \begin{array}{c} (\text { sum } a+b+f \\ +g+h+i+j+ \\ k+l) \end{array} \end{gathered}$ |
| Feb-08 | \$7,634,820 | \$0 | 1.96\% | \$149,768 | 7.50\% | \$11,233 | \$0 | \$0 | \$19,385 | \$2,296 | \$0 | \$0 | \$7,667,733 |
| Mar-08 | \$6,790,980 | \$63 | 1.96\% | \$133,216 | 7.50\% | \$9,991 | \$0 | \$0 | \$24,754 | \$2,296 | \$0 | \$0 | \$6,828,085 |
| Apr-08 | \$5,258,012 | \$642 | 1.96\% | \$103,156 | 6.00\% | \$6,189 | \$0 | \$0 | \$30,049 | \$2,296 | \$0 | \$1,232 | \$5,298,420 |
| May-08 | \$5,514,976 | \$624 | 1.96\% | \$108,196 | 6.00\% | \$6,492 | \$0 | \$0 | \$11,298 | \$2,296 | \$0 | \$0 | \$5,535,686 |
| Jun-08 | \$6,735,294 | \$533 | 1.96\% | \$132,133 | 6.00\% | \$7,928 | \$0 | \$0 | \$60,589 | \$2,296 | \$0 | \$0 | \$6,806,640 |
| Jul-08 | \$8,808,180 | \$515 | 1.96\% | \$172,795 | 5.00\% | \$8,640 | \$0 | \$0 | \$37,658 | \$2,296 | \$206 | \$391 | \$8,857,886 |
| Aug-08 | \$7,977,076 | \$641 | 1.96\% | \$156,494 | 5.00\% | \$7,825 | \$0 | \$0 | \$41,861 | \$2,296 | \$0 | \$0 | \$8,029,699 |
| Sep-08 | \$6,390,204 | \$758 | 1.96\% | \$125,368 | 5.00\% | \$6,268 | \$0 | \$0 | \$12,579 | \$2,296 | \$0 | \$0 | \$6,412,105 |
| Oct-08 | \$6,231,185 | \$684 | 1.96\% | \$122,247 | 5.00\% | \$6,112 | \$0 | \$0 | \$5,299 | \$2,296 | \$0 | \$224 | \$6,245,799 |
| Nov-08 | \$6,704,693 | \$624 | 1.96\% | \$131,534 | 5.00\% | \$6,577 | \$0 | \$0 | \$19,241 | \$2,366 | \$0 | \$0 | \$6,733,499 |
| Dec-08 | \$7,238,208 | \$582 | 1.96\% | \$141,999 | 5.00\% | \$7,100 | \$0 | \$0 | \$19,426 | \$2,366 | \$0 | \$0 | \$7,267,682 |
| Jan-09 | \$9,938,462 | \$613 | 2.81\% | \$279,111 | 4.00\% | \$89,726 (1) | \$0 | \$0 | \$25,809 | \$2,366 | \$0 | \$0 | \$10,056,975 |
| Total | \$85,222,090 | \$6,281 |  |  |  | \$174,081 | \$0 | \$0 | \$307,948 | \$27,756 | \$206 | \$1,847 | \$85,740,210 |

(1) Includes $\$ 78,561.51$ to adjust supply related working capital for the period May 2007-December 2008 to use 10.25 days lag from the 2006 Lead/Lag Study.

Unitil Energy Systems, Inc.
Non-G1 Class Default Service Revenue

|  | (a) <br> Total Non-G1 Class Billed Default Service kWh (1) | (b) <br> Unbilled Factor <br> (2) | (c) <br> Non-G1 Class Unbilled kWh (a * b) | (d) $\begin{gathered} \text { Effective Fixed } \\ \text { DSC } \\ \hline \end{gathered}$ | (e) <br> Non-G1 Class Unbilled Default Service Revenue (c *d) | (f) <br> Reversal of prior month unbilled | (g) <br> Total Billed NonG1 Class Default Service Revenue <br> (1) | (h) <br> Total Revenue $(e+f+g)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Feb-08 | 72,165,177 | 54.15\% | 39,079,418 | \$0.09534 | \$3,725,832 | (\$4,192,289) | \$6,886,915 | \$6,420,458 |
| Mar-08 | 68,126,415 | 53.83\% | 36,670,847 | \$0.09534 | \$3,496,199 | (\$3,725,832) | \$6,500,534 | \$6,270,901 |
| Apr-08 | 63,018,193 | 48.83\% | 30,774,712 | \$0.09534 | \$2,934,061 | $(\$ 3,496,199)$ | \$6,003,540 | \$5,441,402 |
| May-08 | 59,179,105 | 58.75\% | 34,770,469 | \$0.10291 | \$3,578,229 | (\$2,934,061) | \$5,836,242 | \$6,480,410 |
| Jun-08 | 63,941,455 | 64.35\% | 41,149,252 | \$0.10291 | \$4,234,669 | (\$3,578,229) | \$6,577,071 | \$7,233,512 |
| Jul-08 | 76,628,016 | 62.84\% | 48,155,064 | \$0.10291 | \$4,955,638 | (\$4,234,669) | \$7,889,873 | \$8,610,841 |
| Aug-08 | 77,756,087 | 48.97\% | 38,078,967 | \$0.10291 | \$3,918,706 | (\$4,955,638) | \$8,016,999 | \$6,980,067 |
| Sep-08 | 72,714,928 | 54.12\% | 39,350,471 | \$0.10291 | \$4,049,557 | (\$3,918,706) | \$7,488,780 | \$7,619,630 |
| Oct-08 | 63,674,878 | 62.57\% | 39,838,528 | \$0.10291 | \$4,099,783 | $(\$ 4,049,557)$ | \$6,545,504 | \$6,595,730 |
| Nov-08 | 63,812,311 | 56.99\% | 36,367,508 | \$0.11239 | \$4,087,344 | (\$4,099,783) | \$6,829,900 | \$6,817,461 |
| Dec-08 | 66,577,762 | 54.76\% | 36,456,499 | \$0.11239 | \$4,097,346 | (\$4,087,344) | \$7,480,167 | \$7,490,168 |
| Jan-09 | 79,791,404 | 49.51\% | 39,504,274 | \$0.11239 | \$4,439,885 | (\$4,097,346) | \$8,976,112 | \$9,318,651 |
| Total | 827,385,732 |  |  |  | \$47,617,249 | (\$47,369,653) | \$85,031,637 | \$85,279,233 |

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

|  | $\begin{aligned} & \text { Billed } \\ & \text { kWh } \\ & \hline \end{aligned}$ | Direct Estimate of Unbilled kWh | Unbilled kWh / Billed kWh |
| :---: | :---: | :---: | :---: |
| Feb-08 | 75,581,799 | 40,929,612 | 54.15\% |
| Mar-08 | 71,241,739 | 38,347,752 | 53.83\% |
| Apr-08 | 66,137,308 | 32,297,921 | 48.83\% |
| May-08 | 62,227,498 | 36,561,541 | 58.75\% |
| Jun-08 | 67,304,951 | 43,313,815 | 64.35\% |
| Jul-08 | 78,892,677 | 49,578,236 | 62.84\% |
| Aug-08 | 79,347,604 | 38,858,370 | 48.97\% |
| Sep-08 | 74,199,007 | 40,153,597 | 54.12\% |
| Oct-08 | 65,077,553 | 40,716,119 | 62.57\% |
| Nov-08 | 65,066,388 | 37,082,223 | 56.99\% |
| Dec-08 | 68,540,515 | 37,531,259 | 54.76\% |
| Jan-09 | 82,095,096 | 40,644,819 | 49.51\% |

Unitil Energy Systems, Inc
Itemized Costs for Non-G1 Class Default Service Charge
Schedule LSM-2
Page 5 of 5

|  |  |  |  | Calculation of Working Capital |  |  |  | (h) | (i) | (j) | (k) | (1) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (a) | (b) | (c) | (d) | (e) | (f) | (g) |  |  |  |  |  |
|  | Total Non-G1 Class DS Supplier Charges (1) | GIS Support Payments | Renewable Energy Credits (2) | Number of Days of Lag 12.86 / 365 | Working Capital Requirement $\left((a+b+c)^{*} d\right)$ | Prime Rate | Supply <br> Related <br> Working Capital (e * f) | Provision for Uncollected Accounts | Internal Company Administrative Costs | Legal Charges | Consulting <br> Outside <br> Service <br> Charges | $\begin{gathered} \text { Total Costs } \\ (\text { sum } a+b+c \\ +g+h+i+j+ \\ k) \\ \hline \end{gathered}$ |
| May-09 | \$5,094,974 | \$593 | \$115,490 | 3.52\% | \$183,601 | 3.25\% | \$5,967 | \$39,692 | \$2,366 | \$0 | \$0 | \$5,259,082 |
| Jun-09 | \$4,964,213 | \$640 | \$107,927 | 3.52\% | \$178,729 | 3.25\% | \$5,809 | \$43,661 | \$2,366 | \$0 | \$0 | \$5,124,615 |
| Jul-09 | \$5,372,975 | \$776 | \$110,251 | 3.52\% | \$193,217 | 3.25\% | \$6,280 | \$43,661 | \$2,366 | \$0 | \$0 | \$5,536,308 |
| Aug-09 | \$6,767,833 | \$763 | \$133,196 | 3.52\% | \$243,170 | 3.25\% | \$7,903 | \$43,661 | \$2,366 | \$0 | \$0 | \$6,955,721 |
| Sep-09 | \$6,491,620 | \$663 | \$143,918 | 3.52\% | \$233,812 | 3.25\% | \$7,599 | \$35,723 | \$2,366 | \$0 | \$0 | \$6,681,888 |
| Oct-09 | \$5,796,984 | \$639 | \$126,108 | 3.52\% | \$208,710 | 3.25\% | \$6,783 | \$27,785 | \$2,366 | \$0 | \$0 | \$5,960,663 |
| Total | \$34,488,599 | \$4,073 | \$736,889 |  |  |  | \$40,340 | \$234,184 | \$14,193 | \$0 | \$0 | \$35,518,278 |

(1) Estimates based on monthly average wholesale rate times estimated monthly purchases.
(2) Schedule RSF-1, Confidential Attachment Tab A, stamped page 14.

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

|  | G1 Class Default Service: | $\begin{gathered} \text { May-09 } \\ \text { Estimated } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Jun-09 } \\ \text { Estimated } \end{gathered}$ | Jul-09 <br> Estimated | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Reconciliation (1) | \$33,725 | \$33,977 | \$38,339 | \$106,040 |
| 2 | Total Costs (Page 5) | \$487,556 | \$508,139 | \$638,608 | \$1,634,304 |
| 3 | Reconciliation plus Total Costs (L. $1+$ L.2) | \$521,281 | \$542,116 | \$676,947 | \$1,740,344 |
| 4 | kWh Purchases | 7,802,386 | 7,860,745 | 8,869,945 | $\underline{\text { 24,533,076 }}$ |
| 5 | Total, Before Losses (L. 3 / L.4) | \$0.06681 | \$0.06896 | \$0.07632 |  |
| 6 | Losses | 4.591\% | 4.591\% | 4.591\% |  |
| 7 | Total Retail Rate - Variable Default Service Charge (L.5 * (1+L.6)) | \$0.06988 | \$0.07213 | \$0.07982 |  |
| (1) Balance as of January 31, 2009 modified, as detailed below, to reflect that current rates (through April 30, 2009) include a charge for the undercollection as of January 31, 2008 and to reflect accruals for RPS. Figure is then allocated between rate periods (May-July 2009, August-October 2009, November 2009-January 2010, and February-April 2010) and then to each month, May through July 2009, on equal per kWh basis. |  |  |  |  |  |
|  | January 31, 2009 actual balance - Schedule LSM-3, Page 2 |  |  | \$409,839 |  |
| less: Estimated remaining charge for January 31, 2008 reconciliation - Feb, Mar, Apr 2009 |  |  |  |  |  |
| Estimated kWh Sales February-April 2009Amount of reconciliation in current rate |  |  |  | 22,809,173 |  |
|  |  |  |  | \$0.00452 |  |
|  |  |  |  | \$103,097 |  |
| plus: G1 Class RPS amounts included in rate filings, Jan 2008-Jan 2009 |  |  |  | \$124,864 |  |
| Total reconciliation for May 1, 2009-April 30, 2010 |  |  |  | \$431,605 |  |
| kWh purchases forecast May-July 2009 |  |  |  | 24,533,076 | 24.57\% |
| kWh purchases forecast August-October 2009 |  |  |  | 26,631,738 | 26.67\% |
| kWh purchases forecast November 2009-January 2010 |  |  |  | 24,576,220 | 24.61\% |
|  | kWh purchases forecast February-April 2010 |  |  | 24,113,472 | 24.15\% |
| Total |  |  |  | 99,854,506 |  |
| Reconciliation amount for May-July 2009 |  |  |  | \$106,040 |  |
| Reconciliation amount for August-October 2009 |  |  |  | \$115,111 |  |
| Reconciliation amount for November 2009-January 2010 |  |  |  | \$106,227 |  |
| Reconciliation amount for February-April 2010Total |  |  |  | \$104,227 |  |
|  |  |  |  | \$431,605 |  |

Unitil Energy Systems, Inc.
Reconciliation of G1 Class Default Service Charge Costs and Revenues

Schedule LSM-3
Page 2 of 5

(1) Includes $\$ 945.04$ to adjust interest related to adjustment made to working capital (see page 3).

## REDACTED

|  | Calculation of Working Capital Supplier Charges and GIS Support Payments |  |  |  |  |  | (g) | (h) | (i) | (j) | (k) | (I) | (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (a) | (b) | (c) | (d) | (e) | (f) |  |  |  |  |  |  |  |
|  | $\begin{gathered} \text { Total G1 Class } \\ \text { DS Supplier } \\ \text { Charges (1) } \\ \hline \end{gathered}$ | GIS <br> Support Payments | Number of Days of Lag / 365 | Working Capital Requirement $\left((a+b)^{*} c\right)$ | Prime Rate | Supply Related Working Capital (d*e) | Renewable Energy Credits (2) | Working Capital associated with Renewable Energy Credits | Provision for Uncollected Accounts | Internal <br> Company <br> Administrative Costs | Legal Charges | Consulting Outside Service Charges | $\begin{gathered} \text { Total Costs } \\ \begin{array}{c} \text { sum } \mathrm{a}+\mathrm{b}+ \\ \mathrm{f}+\mathrm{g}+\mathrm{h}+\mathrm{i}+ \\ \mathrm{j}+\mathrm{k}+\mathrm{l}) \end{array} \end{gathered}$ |
| Feb-08 | \$677,822 | \$0 | 3.18\% | \$21,560 | 7.50\% | \$1,617 | \$0 | \$0 | \$1,894 | \$3,459 | \$0 | \$0 | \$684,791 |
| Mar-08 | \$618,321 | \$6 | 3.18\% | \$19,668 | 7.50\% | \$1,475 | \$0 | \$0 | \$2,438 | \$3,459 | \$0 | \$0 | \$625,699 |
| Apr-08 | \$591,309 | \$68 | 3.18\% | \$18,811 | 6.00\% | \$1,129 | \$0 | \$0 | \$3,195 | \$3,459 | \$0 | \$131 | \$599,290 |
| May-08 | \$750,234 | \$74 | 3.18\% | \$23,866 | 6.00\% | \$1,432 | \$0 | \$0 | \$1,475 | \$3,459 | \$0 | \$0 | \$756,674 |
| Jun-08 | \$926,464 | \$65 | 3.18\% | \$29,471 | 6.00\% | \$1,768 | \$0 | \$0 | \$6,628 | \$3,459 | \$0 | \$0 | \$938,383 |
| Jul-08 | \$1,529,511 | \$90 | 3.18\% | \$48,654 | 5.00\% | \$2,433 | \$0 | \$0 | \$6,598 | \$3,459 | \$36 | \$68 | \$1,542,195 |
| Aug-08 | \$1,889,285 | \$105 | 3.18\% | \$60,098 | 5.00\% | \$3,005 | \$0 | \$0 | \$6,861 | \$3,459 | \$0 | \$0 | \$1,902,715 |
| Sep-08 | \$1,545,894 | \$118 | 3.18\% | \$49,176 | 5.00\% | \$2,459 | \$0 | \$0 | \$1,955 | \$3,459 | \$0 | \$0 | \$1,553,885 |
| Oct-08 | \$1,534,272 | \$113 | 3.18\% | \$48,806 | 5.00\% | \$2,440 | \$0 | \$0 | \$876 | \$3,459 | \$0 | \$37 | \$1,541,197 |
| Nov-08 | \$1,058,815 | \$93 | 3.18\% | \$33,682 | 5.00\% | \$1,684 | \$0 | \$0 | \$2,868 | \$3,537 | \$0 | \$0 | \$1,066,998 |
| Dec-08 | \$1,247,263 | \$91 | 3.18\% | \$39,676 | 5.00\% | \$1,984 | \$0 | \$0 | \$3,029 | \$3,537 | \$0 | \$0 | \$1,255,904 |
| Jan-09 | REDACTED | \$73 | 3.70\% | REDACTED | 4.00\% | REDACTED (1) | \$0 | \$0 | REDACTED | \$3,537 | \$0 | \$0 | \$1,248,118 |
| Total | REDACTED | \$897 |  |  |  | REDACTED | \$0 | \$0 | REDACTED | \$41,741 | \$36 | \$237 | \$13,715,850 |

(1) Includes $\$ 5,878.80$ to adjust supply related working capital for the period May 2007-December 2008 to use 10.25 days lag from the 2006 Lead/Lag Study.

Unitil Energy Systems, Inc.
G1 Class Default Service Revenue

|  | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total G1 Class <br> Billed Default <br> Service kWh (1) | Unbilled Factor (2) | G1 Class Unbilled kWh (a * b) | Effective DSC | G1 Class Unbilled Default Service Revenue (c * d) | Reversal of prior month unbilled | Total Billed G1 Class Default Service Revenue <br> (1) | Total Revenue $(e+f+g)$ |
| Feb-08 | 7,050,011 | 55.32\% | 3,900,268 | \$0.11714 | \$456,877 | (\$491,001) | \$852,444 | \$818,321 |
| Mar-08 | 6,709,751 | 54.39\% | 3,649,722 | \$0.10670 | \$389,425 | $(\$ 456,877)$ | \$750,302 | \$682,850 |
| Apr-08 | 6,699,928 | 53.56\% | 3,588,520 | \$0.10311 | \$370,012 | $(\$ 389,425)$ | \$703,991 | \$684,578 |
| May-08 | 7,041,711 | 60.39\% | 4,252,525 | \$0.11451 | \$486,957 | $(\$ 370,012)$ | \$762,887 | \$879,831 |
| Jun-08 | 7,779,451 | 63.79\% | 4,962,270 | \$0.11784 | \$584,754 | $(\$ 486,957)$ | \$902,799 | \$1,000,596 |
| Jul-08 | 13,424,977 | 58.68\% | 7,877,160 | \$0.13143 | \$1,035,295 | (\$584,754) | \$1,685,495 | \$2,136,036 |
| Aug-08 | 12,744,952 | 54.18\% | 6,904,925 | \$0.15896 | \$1,097,607 | (\$1,035,295) | \$1,870,871 | \$1,933,182 |
| Sep-08 | 11,303,266 | 58.21\% | 6,579,161 | \$0.14115 | \$928,649 | $(\$ 1,097,607)$ | \$1,688,530 | \$1,519,572 |
| Oct-08 | 10,524,844 | 59.06\% | 6,215,917 | \$0.14379 | \$893,787 | $(\$ 928,649)$ | \$1,501,100 | \$1,466,238 |
| Nov-08 | 9,512,204 | 52.33\% | 4,977,427 | \$0.09799 | \$487,738 | $(\$ 893,787)$ | \$1,122,759 | \$716,710 |
| Dec-08 | 10,381,808 | 53.28\% | 5,531,660 | \$0.10800 | \$597,419 | $(\$ 487,738)$ | \$1,072,653 | \$1,182,334 |
| Jan-09 | 9,567,025 | 47.58\% | 4,551,531 | \$0.12171 | \$553,967 | (\$597,419) | \$1,105,880 | \$1,062,427 |
| Total | 112,739,928 |  | 62,991,087 |  | \$7,882,487 | (\$7,819,521) | \$14,019,710 | \$14,082,676 |

(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 |
| :---: | :---: | :---: | :---: |
| Feb-08 | 31,442,045 | 17,394,639 | 55.32\% |
| Mar-08 | 29,579,987 | 16,089,827 | 54.39\% |
| Apr-08 | 30,107,711 | 16,125,865 | 53.56\% |
| May-08 | 30,286,522 | 18,290,187 | 60.39\% |
| Jun-08 | 32,423,587 | 20,682,000 | 63.79\% |
| Jul-08 | 34,018,778 | 19,960,656 | 58.68\% |
| Aug-08 | 33,381,894 | 18,085,549 | 54.18\% |
| Sep-08 | 32,950,781 | 19,179,279 | 58.21\% |
| Oct-08 | 30,881,864 | 18,238,667 | 59.06\% |
| Nov-08 | 28,828,771 | 15,085,159 | 52.33\% |
| Dec-08 | 27,413,069 | 14,606,297 | 53.28\% |
| Jan-09 | 28,641,717 | 13,626,354 | 47.58\% |


|  | (a) | (b) | (c) | Calculation of Working Capital |  |  |  | (h) |  | (j) | (k) | (I) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | (d) | (e) | (f) | (g) |  | (i) |  |  |  |
|  |  |  |  |  | Working |  | Supply |  | Internal |  |  | Total Costs |
|  | Total G1 Class | GIS | Renewable | Number of | Capital |  | Related | Provision for | Company |  | Consulting | (sum a + b + |
|  | DS Supplier | Support | Energy Credits | Days of Lag | Requirement | Prime | Working | Uncollected | Administrative | Legal | Outside Service | $\mathrm{c}+\mathrm{g}+\mathrm{h}+\mathrm{i}+$ |
|  | Charges (1) | Payments | (2) | 4.29 / 365 | $((a+b+c) * d)$ | Rate | Capital ( $\mathrm{e}^{*} \mathrm{f}$ ) | Accounts | Costs | Charges | Charges | j+k) |
| May-09 | REDACTED | \$66 | \$13,115 | 1.18\% | REDACTED | 3.25\% | REDACTED | REDACTED | \$3,537 | \$0 | \$0 | \$487,556 |
| Jun-09 | REDACTED | \$72 | \$13,213 | 1.18\% | REDACTED | 3.25\% | REDACTED | REDACTED | \$3,537 | \$0 | \$0 | \$508,139 |
| Jul-09 | REDACTED | \$77 | \$14,909 | 1.18\% | REDACTED | 3.25\% | REDACTED | REDACTED | \$3,537 | \$0 | \$0 | \$638,608 |
| Total | REDACTED | \$215 | \$41,236 |  |  |  | REDACTED | REDACTED | \$10,612 | \$0 | \$0 | \$1,634,304 |

(1) Estimates based on monthly wholesale rate times estimated monthly purchases.
(2) Schedule RSF-1, Confidential Attachment Tab A, stamped page 15.

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

Residential Rate D 500 kWh Bill

| Rate Components | 2/1/2009 | 5/1/2009 |  |  |  |  | \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Current Rate | As Revised | Difference | Current Bill* | As Revised Bill* | Difference | Difference <br> to Total Bill |
| Customer Charge | \$8.40 | \$8.40 | \$0.00 | \$8.40 | \$8.40 | \$0.00 | 0.0\% |
|  | \$/kWh | \$/kWh |  |  |  |  |  |
| Distribution Charge |  |  |  |  |  |  |  |
| First 250 kWh | \$0.01810 | \$0.01810 | \$0.00000 | \$4.53 | \$4.53 | \$0.00 | 0.0\% |
| Excess 250 kWh | \$0.02310 | \$0.02310 | \$0.00000 | \$5.78 | \$5.78 | \$0.00 | 0.0\% |
| External Delivery Charge | \$0.01524 | \$0.01524 | \$0.00000 | \$7.62 | \$7.62 | \$0.00 | 0.0\% |
| Stranded Cost Charge | \$0.00882 | \$0.00882 | \$0.00000 | \$4.41 | \$4.41 | \$0.00 | 0.0\% |
| System Benefits Charge | \$0.00330 | \$0.00330 | \$0.00000 | \$1.65 | \$1.65 | \$0.00 | 0.0\% |
| Default Service Charge | \$0.11239 | \$0.08618 | (\$0.02621) | \$56.20 | \$43.09 | (\$13.11) | -14.8\% |
| First 250 kWh | \$0.15785 | \$0.13164 | (\$0.02621) |  |  |  |  |
| Excess 250 kWh | \$0.16285 | \$0.13664 | (\$0.02621) |  |  |  |  |
| Total Bill |  |  |  | \$88.58 | \$75.47 | (\$13.11) | -14.8\% |

* Impacts do not include the Electricity Consumption Tax.

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

| Rate Components | $2 / 1 / 2009$ <br> Current Rate | 5/1/2009 |  |  | As Revised Bill* | Difference | \% Difference to Total Bill |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | As Revised | Difference | Current Bill* |  |  |  |
| Customer Charge | \$3.75 | \$3.75 | \$0.00 | \$3.75 | \$3.75 | \$0.00 | 0.0\% |
|  | \$/kWh | \$/kWh |  |  |  |  |  |
| Distribution Charge | \$0.02088 | \$0.02088 | \$0.00000 | \$41.76 | \$41.76 | \$0.00 | 0.0\% |
| External Delivery Charge | \$0.01524 | \$0.01524 | \$0.00000 | \$30.48 | \$30.48 | \$0.00 | 0.0\% |
| Stranded Cost Charge | \$0.00882 | \$0.00882 | \$0.00000 | \$17.64 | \$17.64 | \$0.00 | 0.0\% |
| System Benefits Charge | \$0.00330 | \$0.00330 | \$0.00000 | \$6.60 | \$6.60 | \$0.00 | 0.0\% |
| Default Service Charge | \$0.11239 | \$0.08618 | (\$0.02621) | \$224.78 | \$172.36 | (\$52.42) | -16.1\% |
| Total | \$0.16063 | \$0.13442 | (\$0.02621) | \$321.26 | \$268.84 | (\$52.42) | -16.1\% |
| Total Bill |  |  |  | \$325.01 | \$272.59 | (\$52.42) | -16.1\% |


| Rate Components | Regular General G2 kWh Meter 125 kWh Typical Bill |  |  |  | As Revised Bill* | Difference | \% Difference to Total Bill |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2 / 1 / 2009$ <br> Current Rate | $5 / 1 / 2009$ <br> As Revised | Difference | Current Bill* |  |  |  |
| Customer Charge | \$8.40 | \$8.40 | \$0.00 | \$8.40 | \$8.40 | \$0.00 | 0.0\% |
|  | \$/kWh | \$/kWh |  |  |  |  |  |
| Distribution Charge | \$0.02975 | \$0.02975 | \$0.00000 | \$3.72 | \$3.72 | \$0.00 | 0.0\% |
| External Delivery Charge | \$0.01524 | \$0.01524 | \$0.00000 | \$1.91 | \$1.91 | \$0.00 | 0.0\% |
| Stranded Cost Charge | \$0.00882 | \$0.00882 | \$0.00000 | \$1.10 | \$1.10 | \$0.00 | 0.0\% |
| System Benefits Charge | \$0.00330 | \$0.00330 | \$0.00000 | \$0.41 | \$0.41 | \$0.00 | 0.0\% |
| Default Service Charge | \$0.11239 | \$0.08618 | (\$0.02621) | \$14.05 | \$10.77 | (\$3.28) | -11.1\% |
| Total | \$0.16950 | \$0.14329 | (\$0.02621) | \$21.19 | \$17.91 | (\$3.28) | -11.1\% |
| Total Bill |  |  |  | \$29.59 | \$26.31 | (\$3.28) | -11.1\% |

* Impacts do not include the Electricity Consumption Tax.

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


| Rate Components | Large General - G1 550 kVa, 200,000 kWh Typical Bill |  |  |  | As Revised Bill* | Difference | \% Difference to Total Bill |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2/1/2009 <br> Current Rate | $5 / 1 / 2009$ <br> As Revised | Difference | Current Bill* |  |  |  |
| Customer Charge | \$108.86 | \$108.86 | \$0.00 | \$108.86 | \$108.86 | \$0.00 | 0.0\% |
|  | All kVa | All kVa |  |  |  |  |  |
| Distribution Charge | \$5.69 | \$5.69 | \$0.00 | \$3,129.50 | \$3,129.50 | \$0.00 | 0.0\% |
| Stranded Cost Charge | \$2.25 | \$2.25 | \$0.00 | \$1,237.50 | \$1,237.50 | \$0.00 | 0.0\% |
| Total | \$7.94 | \$7.94 | \$0.00 | \$4,367.00 | \$4,367.00 | \$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 | \$0.01524 | \$0.01524 | \$0.00000 | \$3,048.00 | \$3,048.00 | \$0.00 | 0.0\% |
| Stranded Cost Charge | \$0.00267 | \$0.00267 | \$0.00000 | \$534.00 | \$534.00 | \$0.00 | 0.0\% |
| System Benefits Charge | \$0.00330 | \$0.00330 | \$0.00000 | \$660.00 | \$660.00 | \$0.00 | 0.0\% |
| Default Service Charge | \$0.09923 | \$0.07394 | (\$0.02529) | \$19,846.00 | \$14,788.00 | (\$5,058.00) | -17.7\% |
| Total | \$0.12044 | \$0.09515 | (\$0.02529) | \$24,088.00 | \$19,030.00 | (\$5,058.00) | -17.7\% |
| Total Bill |  |  |  | \$28,563.86 | \$23,505.86 | (\$5,058.00) | -17.7\% |

* Impacts do not include the Electricity Consumption Tax.


## Unitil Energy Systems, Inc.

Typical Bill Impacts for Residential Rate Class based on Mean and Median Usage
Residential Rate D 662 kWh Bill - Mean Use*

| Rate Components | 2/1/2009 | 5/1/2009 |  | $\frac{\text { Current }}{\underline{B_{i l l}{ }^{\star k}}}$ | As Revised Bill** | Difference | $\%$ <br> Difference <br> to Total Bill |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | As Revised | Difference |  |  |  |  |
| Customer Charge | \$8.40 | \$8.40 | \$0.00 | \$8.40 | \$8.40 | \$0.00 | 0.0\% |
|  | \$/kWh | \$/kWh |  |  |  |  |  |
| Distribution Charge |  |  |  |  |  |  |  |
| First 250 kWh | \$0.01810 | \$0.01810 | \$0.00000 | \$4.53 | \$4.53 | \$0.00 | 0.0\% |
| Excess 250 kWh | \$0.02310 | \$0.02310 | \$0.00000 | \$9.52 | \$9.52 | \$0.00 | 0.0\% |
| External Delivery Charge | \$0.01524 | \$0.01524 | \$0.00000 | \$10.09 | \$10.09 | \$0.00 | 0.0\% |
| Stranded Cost Charge | \$0.00882 | \$0.00882 | \$0.00000 | \$5.84 | \$5.84 | \$0.00 | 0.0\% |
| System Benefits Charge | \$0.00330 | \$0.00330 | \$0.00000 | \$2.18 | \$2.18 | \$0.00 | 0.0\% |
| Default Service Charge | \$0.11239 | \$0.08618 | (\$0.02621) | \$74.40 | \$57.05 | (\$17.35) | -15.1\% |
| First 250 kWh | \$0.15785 | \$0.13164 | (\$0.02621) |  |  |  |  |
| Excess 250 kWh | \$0.16285 | \$0.13664 | (\$0.02621) |  |  |  |  |
| Total Bill |  |  |  | \$114.96 | \$97.61 | (\$17.35) | -15.1\% |

Residential Rate D 553 kWh Bill - Median Use*

| Rate Components | 2/1/2009 | 5/1/2009 |  |  |  | \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | As Revised | Difference | $\frac{\text { Current }}{\underline{\text { Bill** }}}$ | As Revised Bill** | Difference | Difference <br> to Total Bill |
| Customer Charge | \$8.40 | \$8.40 | \$0.00 | \$8.40 | \$8.40 | \$0.00 | 0.0\% |
|  | \$/kWh | \$/kWh |  |  |  |  |  |
| Distribution Charge |  |  |  |  |  |  |  |
| First 250 kWh | \$0.01810 | \$0.01810 | \$0.00000 | \$4.53 | \$4.53 | \$0.00 | 0.0\% |
| Excess 250 kWh | \$0.02310 | \$0.02310 | \$0.00000 | \$7.00 | \$7.00 | \$0.00 | 0.0\% |
| External Delivery Charge | \$0.01524 | \$0.01524 | \$0.00000 | \$8.43 | \$8.43 | \$0.00 | 0.0\% |
| Stranded Cost Charge | \$0.00882 | \$0.00882 | \$0.00000 | \$4.88 | \$4.88 | \$0.00 | 0.0\% |
| System Benefits Charge | \$0.00330 | \$0.00330 | \$0.00000 | \$1.82 | \$1.82 | \$0.00 | 0.0\% |
| Default Service Charge | \$0.11239 | \$0.08618 | (\$0.02621) | \$62.15 | \$47.66 | (\$14.49) | -14.9\% |
| First 250 kWh | \$0.15785 | \$0.13164 | (\$0.02621) |  |  |  |  |
| Excess 250 kWh | \$0.16285 | \$0.13664 | (\$0.02621) |  |  |  |  |
| Total Bill |  |  |  | \$97.21 | \$82.71 | (\$14.49) | -14.9\% |

[^0]Unitil Energy Systems, Inc.<br>Average Class Bill Impacts<br>Due to Proposed Rate Changes Effective May 1, 2009

| (A) | (B) | (C) | (D) | (E) | (F) | (G) | (H) | (I) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Annual | Annual | Proposed | Estimated Annual | Estimated Annual | Proposed | \% Change |
|  | Number of | kWh | kW / kVA | DSC | Revenue \$ Under | Revenue \$ Under | Net Change | DSC |
| Class of Service | Customers | Sales | Sales | Change \$ | Present Rates | Proposed Rates | Revenue \$ | Revenue |
| Residential | 738,543 | 486,378,217 | n/a | (\$12,747,973) | \$84,565,917 | \$71,817,944 | (\$12,747,973) | (15.1\%) |
| General Service | 125,046 | 354,008,286 | 1,298,686 | $(\$ 9,278,557)$ | \$60,083,501 | \$50,804,944 | $(\$ 9,278,557)$ | (15.4\%) |
| Large General Service | 1,822 | 364,679,187 | 996,528 | $(\$ 9,222,737)$ | \$51,863,606 | \$42,640,870 | $(\$ 9,222,737)$ | (17.8\%) |
| Outdoor Lighting | 117,884 | 9,206,974 | n/a | $(\$ 241,315)$ | \$2,523,471 | \$2,282,156 | $(\$ 241,315)$ | (9.6\%) |
| Total | 983,295 | 1,214,272,664 |  | $(\$ 31,490,582)$ | \$199,036,495 | \$167,545,914 | $(\$ 31,490,582)$ | (15.8\%) |

(B), (C), (D) Test year billing determinants in DE 05-178
(E) Difference in proposed rate and current rate, times the billing determinants shown in Column (C). The proposed and current DSC for the G1 class used in this analysis are based on the average of the DSC for each 3-month period.
(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)








[^0]:    * Based on billing period March 2008 through February 2009.
    ** Impacts do not include the Electricity Consumption Tax.

