

Staff Recommended Performance Incentives Methodology

Savings Component:

| | First Iteration | | | Second Iteration (Incl. Perf. Incent.) Second Iteration (adj. for circularity) | | |
|--|------------------|------------------|------------------|---|------------------|------------------|
| | Residential | C&I | Total | Residential | C&I | Total |
| Budget Spending (Utility only, excl PI) Per 8-01-10 Filing | \$ 1,054,237 | \$ 1,074,486 | \$ 2,128,723 | \$ 1,054,237 | \$ 1,074,486 | \$ 2,128,723 |
| Actual Lifetime Savings (kWh) | 25,141,176 | 46,015,224 | 71,156,400 | 25,141,176 | 46,015,224 | 71,156,400 |
| Planned Lifetime Savings (kWh) | 23,213,127 | 54,146,000 | 77,359,127 | 23,213,127 | 54,146,000 | 77,359,127 |
| Ratio Actual vs. Planned | 1.08 | 0.85 | | 1.08 | 0.85 | |
| Baseline Percent | 4.00% | 4.00% | | 4.00% | 4.00% | |
| Actual Performance Incentive Percent | 4.33% | 3.40% | | 4.33% | 3.40% | |
| Ratio Actual vs. Planned | 1.08 | 0.85 | | 1.08 | 0.85 | |
| If Ratio < 65% Planned, then zero; otherwise Act. % | 4.33% | 3.40% | | 4.33% | 3.40% | |
| Calculated Savings Component | \$ 45,672 | \$ 36,525 | \$ 82,197 | \$ 45,672 | \$ 36,525 | \$ 82,197 |

B/C Component:

| | | | | | | |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Budget Spending | \$ 1,054,237 | \$ 1,074,486 | \$ 2,128,723 | \$ 1,054,237 | \$ 1,074,486 | \$ 2,128,723 |
| <u>Planned B/C Component:</u> | | | | | | |
| Total Planned Benefits | \$ 3,270,800 | \$ 4,349,200 | \$ 7,620,000 | \$ 3,270,800 | \$ 4,349,200 | \$ 7,620,000 |
| Planned Program Cost (excl. Performance Incentives) | \$ 1,054,237 | \$ 1,074,486 | | \$ 1,054,237 | \$ 1,074,486 | |
| Planned Participant Cost | \$ 318,200 | \$ 788,100 | | \$ 318,200 | \$ 788,100 | |
| Utility and Partic. Cost | \$ 1,372,437 | \$ 1,862,586 | \$ 3,235,023 | \$ 1,372,437 | \$ 1,862,586 | \$ 3,235,023 |
| Planned Performance Incentives: | | | | | | |
| Savings Component | \$ - | \$ - | | \$ 42,169 | \$ 42,979 | |
| B/C Component | \$ - | \$ - | | \$ 42,169 | \$ 42,979 | |
| Total | \$ - | \$ - | \$ - | \$ 84,339 | \$ 85,959 | \$ 170,301 |
| Total Planned Costs | \$ 1,372,437 | \$ 1,862,586 | \$ 3,235,023 | \$ 1,456,776 | \$ 1,948,545 | \$ 3,405,321 |
| Planned B/C Ratio | 2.2 | 2.2 | | 2.2 | 2.2 | |
| <u>Actual B/C Component:</u> | | | | | | |
| Actual Benefits | \$ 3,375,214 | \$ 3,616,206 | | \$ 3,375,214 | \$ 3,616,206 | |
| Actual Program Cost (excl. Performance Incentive) | \$ 857,591 | \$ 1,061,701 | \$ 1,919,292 | \$ 857,591 | \$ 1,061,701 | \$ 1,919,292 |
| Actual Participant Cost | \$ 549,378 | \$ 782,187 | | \$ 549,378 | \$ 782,187 | |
| Utility and Participant Cost | \$ 1,406,969 | \$ 1,843,888 | | \$ 1,406,969 | \$ 1,843,888 | |
| Actual Performance Incentives: | | | | | | |
| Savings Component | \$ - | \$ - | | \$ 45,672 | \$ 36,525 | |
| B/C Component | \$ - | \$ - | | \$ 45,982 | \$ 38,314 | |
| Total | \$ - | \$ - | \$ - | \$ 91,655 | \$ 74,839 | |
| Actual Total Costs | \$ 1,406,969 | \$ 1,843,888 | \$ 3,250,856 | \$ 1,498,623 | \$ 1,918,727 | \$ 3,417,350 |
| Actual B/C Ratio | 2.4 | 2.0 | | 2.3 | 1.9 | |
| If Actual B/C Ratio < 1.0, then zero; otherwise act. B/C Ratio | 2.4 | 2.0 | | 2.3 | 1.9 | |
| Ratio Actual vs. Planned B/C Ratio | 109% | 89% | | 100% | 84% | |
| Baseline Percent | 4.00% | 4.00% | | 4.00% | 4.00% | |
| Actual B/C Performance Incentive Percent (0 if < 1.0) | 4.4% | 3.57% | | 4.01% | 3.38% | |
| B/C Performance Incentive Based on Actual Spending | \$ 45,982.49 | \$ 38,313.93 | \$ 84,296.42 | \$ 42,300.54 | \$ 36,291.23 | \$ 78,591.77 |
| Total Calculated Performance Incentive | \$ 91,655 | \$ 74,839 | \$ 166,494 | \$ 87,972.56 | \$ 72,817 | \$ 160,789 |

**Unitil Energy System, Inc.
Energy Efficiency Program Cost-Effectiveness - 2011 Actual**

| | Total Resource Benefit/Cost Ratio | Net Present Value | | | Lifetime MWh Savings | Number of Cust. Served |
|---------------------------------------|--|--------------------|--|------------------------------|----------------------------|------------------------------|
| | | Benefit (\$000) | Utility Costs ⁽¹⁾ (\$000) | Customer Costs (\$000) | | |
| Res Non-Low Income Programs | | | | | | |
| ENERGY STAR® Homes | 2.1 | 695.0 | 179.2 | 159.74 | 1,121 | 59 |
| Home Energy Solutions (Electric) | 0.3 | 48.2 | 100.5 | 76.52 | 648 | 19 |
| ENERGY STAR® Lighting | 2.1 | 571.3 | 173.9 | 115.11 | 7,508 | 52,024 ⁽²⁾ |
| ENERGY STAR® Appliances | 1.4 | 487.7 | 156.1 | 198.02 | 3,909 | 2,385 ⁽²⁾ |
| Other (4) | - | n/a | 7.9 | n/a | n/a | n/a |
| ISO-Related Expenses Res Non-LI | - | n/a | 3.6 | n/a | n/a | n/a |
| Subtotal Residential | 1.5 | \$ 1,802.2 | \$ 621.31 | 549.38 | 13,186 | |
| Residential Low Income Program | | | | | | |
| Home Energy Assistance Program | 2.6 | 799.4 | 312.2 | - | 11,955 ⁽³⁾ | 62 |
| ISO-Related Expenses Res LI | - | n/a | 1.1 | n/a | n/a | n/a |
| Subtotal Residential LI | 2.6 | \$ 799.4 | \$ 313.32 | - | 11,955 | 62 |
| Commercial/Industrial Programs | | | | | | |
| C&I Lost Opportunity | 1.3 | 258.0 | 177.9 | 17.29 | 3,080 | 8 |
| Large C&I Retrofit | 2.6 | 2,379.3 | 540.4 | 376.22 | 29,883 | 24 |
| Small C&I Retrofit | 1.3 | 1,049.8 | 414.9 | 388.67 | 12,002 | 51 |
| Other (4) | - | n/a | 8.311 | n/a | n/a | n/a |
| ISO-Related Expenses C&I | - | n/a | 5.5 | n/a | n/a | n/a |
| Subtotal C&I | 1.9 | \$ 3,687.2 | \$ 1,146.95 | 782.19 | 44,965 | |
| Home Energy Solutions (Pilot) | 5.2 | \$ 773.7 | \$ 148.2 | \$ 34.7 | - | 26 |
| Total | 1.8 | \$ 6,288.7 | \$ 2,081.6 | 1,331.56 | 70,106 | |

Notes:

(1) Utility Costs include direct program costs plus Shareholder Incentive

(2) Target number of products purchased.

(3) The Home Energy Assistance (HEA) program is offered as a fuel-blind program. Estimated lifetime non-electric savings have been converted into kWh as follows to establish UES' HEA program savings

$$[33675.85 \text{ MMBtu} \div 0.003413] \div 1,000 = \text{Lifetime MWh.}$$

(4) Includes costs related to the Company's web-based Home Energy Suite® and Commercial Energy Suite® in addition to educational activities.

**Unitil Energy Systems, Inc.
 2011 Earned Shareholder Incentive Calculation**

| Programs | Planned | Actual |
|---|-------------------|-------------------|
| Residential Programs | | |
| 1. Benefit/Cost Ratio (BC_{PRE} , BC_{ACT}) | 2.2 | 2.3 |
| 2. Threshold B/C Ratio (1) | 1.00 | |
| 3. Lifetime kWh Savings (kWh_{PRE} , kWh_{ACT}) | 23,213,127 | 25,141,176 |
| 4. Threshold Lifetime kWh Savings (65%) (2) | 15,088,533 | |
| 5. Budget | \$1,138,576 | |
| 6. Less Shareholder Incentive (SHI_{PRE}) | <u>\$84,339</u> | |
| 7. Total Budget ($Budget_{TOT}$) excluding SHI (4) | \$1,054,237 | \$857,591 |
| 8. Benefit/Cost Percentage of Budget | 4.0% | |
| 9. Lifetime kWh Percentage of Budget | 4.0% | |
| 10. Sector Incentive (3) | \$84,339 | \$87,973 |
| 11. Sector Incentive Cap (12%) | \$126,508 | |
| Commercial & Industrial Programs | | |
| 12. Benefit/Cost Ratio (BC_{PRE} , BC_{ACT}) | 2.2 | 1.9 |
| 13. Threshold B/C Ratio (1) | 1.00 | |
| 14. Lifetime kWh Savings (kWh_{PRE} , kWh_{ACT}) | 54,146,000 | 46,015,224 |
| 15. Threshold Lifetime kWh Savings (65%) (2) | 35,194,900 | |
| 16. Total Budget (includes SHI) | \$1,160,445 | |
| 17. Less Shareholder Incentive (SHI_{PRE}) | <u>\$85,959</u> | |
| 18. Total Budget ($Budget_{TOT}$) excluding SHI | \$1,074,486 | \$1,061,701 |
| 19. Benefit/Cost Percentage of Budget | 4.0% | |
| 20. Lifetime kWh Percentage of Budget | 4.0% | |
| 21. Sector Incentive (3) | \$85,959 | \$72,817 |
| 22. Sector Incentive Cap (12%) | \$128,938 | |
| Total Earned Shareholder Incentive | \$170,298 | \$160,789 |

Notes:

- The Actual Benefit/Cost Ratio for each sector must be greater than or equal to 1.0.
- Actual Lifetime kWh savings for each sector must be greater than or equal to 65% of projected savings.
- Shareholder Incentive_{ACT} = $[4\% \times Budget_{TOT}] \times [(BC_{ACT} \div BC_{PRE}) + (kWh_{ACT} \div kWh_{PRE})]$
- Excludes HPwES Pilot (i.e.: the non-electric portion).

**Unitil Energy Systems, Inc.
 Planned vs. Actual Benefit / Cost Ratio by Sector**

| Programs | Planned | Actual |
|--|-----------------|-----------------|
| Residential Programs | | |
| 1. Program Benefits | \$3,270,800 | \$3,375,214 |
| 2. Direct Program Costs (excl SHI) | \$1,054,237 | \$857,591 |
| 3. Customer Contribution | \$318,214 | \$584,039 |
| 4. Shareholder Incentive | <u>\$84,339</u> | <u>\$87,973</u> |
| 5. Total Costs | \$1,456,790 | \$1,441,630 |
| 6. Residential - Total Resource Cost Test | 2.2 | 2.3 |
| Commercial & Industrial | | |
| 7. Program Benefits | \$4,349,200 | \$3,616,206 |
| 8. Direct Program Costs (excl SHI) | \$1,074,486 | \$1,061,701 |
| 9. Customer Contribution | \$788,046 | \$782,187 |
| 10. Shareholder Incentive | <u>\$85,959</u> | <u>\$72,817</u> |
| 11. Total Costs | \$1,948,491 | \$1,916,704 |
| 12. C&I - Total Resource Cost Test | 2.2 | 1.9 |

**Unitil Energy Systems, Inc.
 Lifetime Energy Savings by Sector and Program**

| Programs | Planned Lifetime kWh | Actual Lifetime kWh |
|--|---------------------------------|--------------------------------|
| Residential Programs | | |
| 1. Home Performance w/ Energy Star | 496,000 (1) | 648,343 (1) |
| 2. Home Energy Assistance | 8,863,127 (2) | 11,955,231 (2) |
| 3. ENERGY STAR® Lighting | 9,019,000 | 7,508,333 |
| 4. ENERGY STAR® Appliances | 3,433,000 | 3,908,693 |
| 5. ENERGY STAR® Homes | 1,402,000 | 1,120,576 |
| 6. Total Residential | 23,213,127 | 25,141,176 |
| Commercial & Industrial | | |
| 7. Large Business New Construction | 8,431,000 | 3,080,022 |
| 8. Large Business Retrofit | 31,108,000 | 29,882,834 |
| 9. Small Business Solutions | 14,607,000 | 13,052,368 |
| 10. Total Commercial & Industrial | 54,146,000 | 46,015,224 |

Notes:

1. Pursuant to Order 24,974, Docket No. DE 08-120, only the projected and achieved electric lifetime savings are included in the performance incentive calculation for the Home Performance with Energy Star Pilot.
2. The Home Energy Assistance Program is offered to eligible low-income residential participants on a fuel-blind basis. Lifetime savings include electric kWh savings (1,424,312 lifetime kWh) plus non-electric MMBtu savings converted to kWh ($67,364 \text{ MMBtu} \div 0.003413 = 21,161,800$ Lifetime kWh).