



Stephen R. Hall
Director, Rates & Regulatory Affairs
O: 603-216-3523
E: Stephen.Hall@libertyutilities.com

NHPUC 1JUN'18AM11:16

May 31, 2018

Via Electronic and US Mail

Debra A. Howland, Executive Director
New Hampshire Public Utilities Commission
21 South Fruit Street, Suite 10
Concord, NH 03301-2429

**RE: DE 14-216; Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Core Energy Efficiency Programs – YE 2017**

Dear Ms. Howland:

On behalf of Liberty Utilities, I enclose for filing in the above-captioned docket an original and three copies of the calculation of the shareholder incentive report relating to the Company's energy efficiency programs for program year 2017. The Commission approved the 2017 programs in its Order No. 25,976 issued on December 23, 2016.

Thank you for your assistance with this matter. Please do not hesitate to call if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Stephen R. Hall".

Stephen R. Hall

Enclosures

cc: Service List

3737

NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

LIBERTY UTILITIES (GRANITE STATE ELECTRIC) CORP.

d/b/a

LIBERTY UTILITIES

CORE PROGRAMS - 2017 YEAR-END REPORT

N.H. P.U.C. Docket No. DE 14-216

May 31, 2018



THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

| | |
|---|----|
| Summary of 2017 Program Activity..... | 2 |
| Table 1a - Program Cost Effectiveness - 2017 Plan..... | 3 |
| Table 1b - Program Cost Effectiveness - 2017 Actual | 3 |
| Table 1c - Percent of Plan Program Cost Effectiveness Targets Achieved | 3 |
| Table 2a - Present Value Benefits - 2017 Plan..... | 4 |
| Table 2b - Present Value Benefits - 2017 Actual..... | 4 |
| Table 2c - Percent of Plan Present Value Benefits Achieved..... | 4 |
| Table 3a- Performance Incentive Calculation – 2017 Planned versus Actual..... | 5 |
| Table 3b - Achieved Benefit / Cost Ratio by Sector - 2017 Planned versus Actual..... | 6 |
| Table 3c - Actual Lifetime Energy Savings by Sector & Program 2017 Planned versus Actual..... | 7 |
| Table 4 - Program Expenditures by Category – 2017 Actual..... | 8 |
| Table 5 - Granite State Electric Company Energy Efficiency Revenue/Expense Balance..... | 9 |
| Table 6 - RGGI RFP – Retail & Large Business Energy Reduction Partners Program Performance Incentive Calculation – 2017..... | 10 |
| Table 7a - Lost Base Revenue – 2017 Forecast..... | 11 |
| Table 7b - Lost Base Revenue – 2017 Actual..... | 12 |

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

SUMMARY OF 2017 PROGRAM ACTIVITY

This report presents the results of Liberty Utilities (Granite State Electric) Corp.'s d/b/a Liberty Utilities ("Liberty Utilities" or "Company") residential and commercial & industrial energy efficiency programs for calendar year 2017.

Table 1a, Table 1b and Table 1c show the 2017 year-end performance for the commercial & industrial and residential programs and the annual goals and spending targets. Overall, the Company achieved 123% and 124% of its goals for annual and lifetime energy savings respectively. The Company achieved 158% and 188% of its goals for winter and summer demand savings. The Company achieved 110% of its planned participation while spending 93% of its planned budget in 2017. In addition, 90% of the annual, and 85% of the lifetime, total energy savings generated were for electricity.

Table 2a, Table 2b and Table 2c document the value created by the 2017 energy efficiency programs. Overall, efforts in 2017 created over \$9.1 million of value through achieved energy, demand and other resource savings.

Table 3a documents the Company's earned 2017 year-end performance incentive of \$143,767. As specified by the Commission, the performance incentive for 2017 has been documented using assumptions that are consistent with assumptions used to develop program-year goals. Table 3a summarizes the performance incentive calculation by component (commercial & industrial and residential). As specified by the Commission, results for all programs have been included in the performance incentive calculation.

Table 3b provides the actual Total Resource Cost (TRC) benefit/cost ratio for each program, by sector (commercial & industrial and residential), and for the entire portfolio of energy efficiency programs implemented in 2017. The overall benefit/cost ratio for energy efficiency efforts in 2017 for residential was 2.18 and for commercial & industrial was 2.56.

Table 3c documents the Company's savings by sector and program. Overall, the Company achieved 83,062 megawatt hours of lifetime energy savings.

Table 4 documents the Company's expenses by Program. Overall, the Company had a total of \$2,157,009 of expenses in 2017, including \$23,854 in ISO-NE FCM expenses.

Table 5 provides the 2017 year-end energy efficiency fund balance. The table reflects revenues collected in support of energy efficiency efforts, 2017 spending levels, and the 2017 incentive. Table 5 summarizes the 2017 year-end energy efficiency fund balances for both the residential and commercial & industrial sectors.

Table 6 documents the Company's earned 2017 year-end RGGI RFP – Retail & Large Business Energy Reduction Partners Program performance incentive of \$2,974.

Table 7a documents the Company's forecasted annualized kWh savings by month and the total lost base revenue calculation.

Table 7b documents the actual annualized kWh savings by month and the associated lost base revenue calculation. There was a total program actual annualized savings by month of 6,360,096 kWh and a total lost base revenue of \$95,119 for 2017.

Table 1a. Program Cost-Effectiveness - 2017 PLAN

| | Total Resource Benefit/Cost Ratio | Present Value | | | | Performance Incentive (\$000) | Annual MWh Savings | Lifetime MWh Savings | Winter kW Savings | Summer kW Savings | Number of Customers Served | Annual MMBTU Savings | Lifetime MMBTU Savings |
|---|-----------------------------------|-----------------|-----------------------|------------------------|---------------|-------------------------------|--------------------|----------------------|-------------------|-------------------|----------------------------|----------------------|------------------------|
| | | Benefit (\$000) | Utility Costs (\$000) | Customer Costs (\$000) | | | | | | | | | |
| Residential Programs | | | | | | | | | | | | | |
| ENERGY STAR Homes | 3.48 | \$ 496 | \$ 120 | \$ 22 | | 49 | 1,016 | 11 | 1 | 37 | 1,106 | 27,622 | |
| Home Performance with ENERGY STAR | 1.80 | \$ 587 | \$ 186 | \$ 141 | | 111 | 1,919 | 26 | 10 | 61 | 1,224 | 26,425 | |
| ENERGY STAR Products ¹ | 2.86 | \$ 789 | \$ 240 | \$ 36 | | 960 | 7,897 | 275 | 148 | 10,704 | 22 | 246 | |
| Home Energy Assistance | 1.16 | \$ 455 | \$ 392 | \$ - | | 42 | 530 | 5 | 5 | 42 | 967 | 21,427 | |
| ISO NE FCM - Residential | 0.00 | \$ - | \$ 9 | \$ - | | - | - | - | - | - | - | - | |
| Subtotal Residential | 1.94 | \$ 2,328 | \$ 946 | \$ 200 | \$ 52 | 1,162 | 11,363 | 318 | 163 | 10,844 | 3,319 | 75,720 | |
| Commercial & Industrial Programs | | | | | | | | | | | | | |
| Large Business | 2.43 | \$ 2,928 | \$ 703 | \$ 504 | | 2,378 | 34,391 | 169 | 250 | 44 | - | - | |
| Small Business | 1.97 | \$ 1,303 | \$ 445 | \$ 217 | | 1,259 | 16,697 | 60 | 107 | 512 | - | - | |
| C&I Education | 0.00 | \$ - | \$ 23 | \$ - | | - | - | - | - | - | - | - | |
| Municipal | 1.23 | \$ 415 | \$ 180 | \$ 157 | | 329 | 4,364 | 30 | 50 | 41 | - | - | |
| ISO NE FCM - C&I | 0.00 | \$ - | \$ 20 | \$ - | | - | - | - | - | - | - | - | |
| Subtotal Commercial & Industrial | 2.00 | \$ 4,647 | \$ 1,372 | \$ 878 | \$ 75 | 3,967 | 55,452 | 259 | 407 | 598 | - | - | |
| Total | 1.98 | \$ 6,975 | \$ 2,318 | \$ 1,078 | \$ 127 | 5,129 | 66,814 | 577 | 570 | 11,442 | 3,319 | 75,720 | |

Note 1: Plan includes 10,704 customers purchasing a total of 40,606 ENERGY STAR lighting products (estimated at 4/customer) and 553 ENERGY STAR appliances.

| | | | | | |
|-------------------------------|-----------|---------------|---------------------------------|------------|---------------|
| Annual kWh Savings | 5,128,578 | 84% kWh > 55% | Lifetime kWh Savings | 66,814,095 | 75% kWh > 55% |
| Annual MMBTU Savings (in kWh) | 972,850 | 16% | Lifetime MMBTU Savings (in kWh) | 22,192,381 | 25% |
| | 6,101,428 | 100% | | 89,006,475 | 100% |

Table 1b. Program Cost-Effectiveness - 2017 ACTUAL

| | Total Resource Benefit/Cost Ratio | Present Value | | | | Performance Incentive (\$000) | Annual MWh Savings | Lifetime MWh Savings | Winter kW Savings | Summer kW Savings | Number of Customers Served | Annual MMBTU Savings | Lifetime MMBTU Savings |
|---|-----------------------------------|-----------------|-----------------------|------------------------|---------------|-------------------------------|--------------------|----------------------|-------------------|-------------------|----------------------------|----------------------|------------------------|
| | | Benefit (\$000) | Utility Costs (\$000) | Customer Costs (\$000) | | | | | | | | | |
| Residential Programs | | | | | | | | | | | | | |
| ENERGY STAR Homes | 2.61 | \$ 168 | \$ 53 | \$ 11 | | 99 | 2,449 | 27 | 0 | 10 | 32 | 798 | |
| Home Performance with ENERGY STAR | 1.48 | \$ 368 | \$ 151 | \$ 98 | | 87 | 1,602 | 25 | 0 | 37 | 797 | 16,802 | |
| ENERGY STAR Products | 3.37 | \$ 961 | \$ 252 | \$ 33 | | 991 | 8,388 | 306 | 195 | 12,429 | 27 | 298 | |
| Home Energy Assistance | 2.00 | \$ 707 | \$ 353 | \$ - | | 66 | 969 | 23 | 48 | 48 | 1,345 | 27,755 | |
| ISO-NE FCM | 0.00 | \$ - | \$ 10 | \$ - | | - | - | - | - | - | - | - | |
| Subtotal Residential | 2.18 | \$ 2,204 | \$ 819 | \$ 142 | \$ 52 | 1,242 | 13,408 | 382 | 244 | 12,524 | 2,201 | 45,653 | |
| Commercial & Industrial Programs | | | | | | | | | | | | | |
| Large Business | 3.12 | \$ 4,540 | \$ 722 | \$ 731 | | 3,299 | 46,009 | 356 | 526 | 24 | - | - | |
| Small Business | 2.27 | \$ 2,003 | \$ 423 | \$ 457 | | 1,492 | 19,969 | 144 | 254 | 51 | - | - | |
| C&I Education | 0.00 | \$ - | \$ 17 | \$ - | | - | - | - | - | - | - | - | |
| Municipal | 1.58 | \$ 419 | \$ 162 | \$ 104 | | 265 | 3,677 | 27 | 47 | 9 | 117 | 2,920 | |
| ISO-NE FCM | 0.00 | \$ - | \$ 14 | \$ - | | - | - | - | - | - | - | - | |
| Subtotal Commercial & Industrial | 2.56 | \$ 6,962 | \$ 1,338 | \$ 1,292 | \$ 92 | 5,056 | 69,654 | 528 | 827 | 84 | 117 | 2,920 | |
| Total | 2.45 | \$ 9,166 | \$ 2,157 | \$ 1,434 | \$ 144 | 6,299 | 83,062 | 909 | 1,071 | 12,608 | 2,318 | 48,573 | |

| | | | | | |
|-------------------------------|------------------|---------------|---------------------------------|-------------------|---------------|
| Annual kWh Savings | 6,298,678 | 90% kWh > 55% | Lifetime kWh Savings | 83,062,223 | 85% kWh > 55% |
| Annual MMBTU Savings (in kWh) | 679,227 | 10% | Lifetime MMBTU Savings (in kWh) | 14,235,968 | 15% |
| Total Energy Savings | 6,977,904 | 100% | Total Energy Savings | 97,298,191 | 100% |

Table 1c. Percent of Plan Program Cost-Effectiveness Targets Achieved

| | Total Resource Benefit/Cost Ratio | Present Value | | | | Performance Incentive (\$000) | Annual MWh Savings | Lifetime MWh Savings | Winter kW Savings | Summer kW Savings | Number of Customers Served | Annual MMBTU Savings | Lifetime MMBTU Savings |
|---|-----------------------------------|-----------------|-----------------------|------------------------|-------------|-------------------------------|--------------------|----------------------|-------------------|-------------------|----------------------------|----------------------|------------------------|
| | | Benefit (\$000) | Utility Costs (\$000) | Customer Costs (\$000) | | | | | | | | | |
| Residential Programs | 112% | 95% | 87% | 71% | 100% | 107% | 118% | 120% | 149% | 115% | 66% | 60% | |
| Commercial & Industrial Programs | 128% | 150% | 98% | 147% | 122% | 127% | 126% | 204% | 203% | 14% | 0% | 0% | |
| Total | 124% | 131% | 93% | 133% | 113% | 123% | 124% | 158% | 188% | 110% | 70% | 64% | |

Table 2a. Present Value Benefits - 2017 PLAN

| | Total Benefits (\$000) | CAPACITY | | | | ENERGY | | | | Electric DRIPE | Gas Benefits | Gas DRIPE | Other Fuels Benefits | Non-Fuels Benefits |
|---|------------------------|-------------------|-------------------|--------------|--------------|----------------|-----------------|--------------|-----------------|----------------|--------------|------------|----------------------|--------------------|
| | | Summer Generation | Winter Generation | Transmission | Distribution | Winter Peak | Winter Off Peak | Summer Peak | Summer Off Peak | | | | | |
| Residential Programs | | | | | | | | | | | | | | |
| ENERGY STAR Homes | \$496 | \$2 | \$0 | \$0 | \$1 | \$20 | \$41 | \$1 | \$1 | \$1 | \$0 | \$0 | \$429 | \$1 |
| Home Performance w/Energy Star | \$587 | \$25 | \$0 | \$3 | \$11 | \$36 | \$71 | \$4 | \$5 | \$2 | \$0 | \$0 | \$431 | \$0 |
| ENERGY STAR Products | \$789 | \$197 | \$0 | \$22 | \$91 | \$129 | \$180 | \$58 | \$71 | \$18 | \$1 | \$0 | \$2 | \$19 |
| Home Energy Assistance | \$455 | \$9 | \$0 | \$1 | \$4 | \$9 | \$12 | \$4 | \$5 | \$1 | \$0 | \$0 | \$409 | \$0 |
| Subtotal Residential | \$2,328 | \$234 | \$0 | \$26 | \$107 | \$193 | \$304 | \$67 | \$82 | \$23 | \$1 | \$0 | \$1,271 | \$20 |
| Commercial & Industrial Programs | | | | | | | | | | | | | | |
| Large Business | \$2,928 | \$575 | \$0 | \$63 | \$253 | \$697 | \$634 | \$373 | \$285 | \$49 | \$0 | \$0 | \$0 | \$0 |
| Small Business | \$1,303 | \$219 | \$0 | \$24 | \$98 | \$245 | \$205 | \$269 | \$219 | \$24 | \$0 | \$0 | \$0 | \$0 |
| C&I Education | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Municipal | \$415 | \$102 | \$0 | \$11 | \$45 | \$94 | \$78 | \$45 | \$32 | \$7 | \$0 | \$0 | \$0 | \$0 |
| Subtotal Commercial & Industrial | \$4,647 | \$896 | \$0 | \$98 | \$396 | \$1,036 | \$916 | \$687 | \$537 | \$80 | \$0 | \$0 | \$0 | \$0 |
| Total | \$6,975 | \$1,130 | \$0 | \$124 | \$503 | \$1,229 | \$1,220 | \$754 | \$619 | \$103 | \$1 | \$0 | \$1,271 | \$20 |

Table 2b. Present Value Benefits - 2017 ACTUAL

| | Total Benefits (\$000) | CAPACITY | | | | ENERGY | | | | Electric DRIPE | Gas Benefits | Gas DRIPE | Other Fuels Benefits | Non-Fuels Benefits |
|---|------------------------|-------------------|-------------------|--------------|--------------|----------------|-----------------|--------------|-----------------|----------------|--------------|------------|----------------------|--------------------|
| | | Summer Generation | Winter Generation | Transmission | Distribution | Winter Peak | Winter Off Peak | Summer Peak | Summer Off Peak | | | | | |
| Residential Programs | | | | | | | | | | | | | | |
| ENERGY STAR Homes | \$168 | \$0 | \$0 | \$0 | \$0 | \$48 | \$104 | \$0 | \$0 | \$2 | \$0 | \$0 | \$12 | \$0 |
| Home Performance w/Energy Star | \$368 | \$0 | \$0 | \$0 | \$0 | \$30 | \$64 | \$1 | \$1 | \$2 | \$0 | \$0 | \$269 | \$0 |
| ENERGY STAR Products | \$961 | \$286 | \$0 | \$32 | \$131 | \$132 | \$187 | \$71 | \$76 | \$19 | \$1 | \$0 | \$2 | \$23 |
| Home Energy Assistance | \$707 | \$135 | \$0 | \$14 | \$59 | \$17 | \$24 | \$7 | \$9 | \$1 | \$40 | \$5 | \$397 | \$0 |
| Subtotal Residential | \$2,204 | \$422 | \$0 | \$47 | \$190 | \$227 | \$379 | \$79 | \$86 | \$25 | \$41 | \$6 | \$680 | \$23 |
| Commercial & Industrial Programs | | | | | | | | | | | | | | |
| Large Business | \$4,540 | \$1,174 | \$0 | \$128 | \$519 | \$979 | \$875 | \$457 | \$340 | \$68 | \$0 | \$0 | \$0 | \$0 |
| Small Business | \$2,003 | \$534 | \$0 | \$58 | \$237 | \$420 | \$359 | \$208 | \$157 | \$31 | \$0 | \$0 | \$0 | \$0 |
| C&I Education | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Municipal | \$419 | \$101 | \$0 | \$11 | \$45 | \$83 | \$62 | \$40 | \$26 | \$6 | \$0 | \$0 | \$45 | \$0 |
| Subtotal Commercial & Industrial | \$6,962 | \$1,809 | \$0 | \$197 | \$800 | \$1,482 | \$1,295 | \$705 | \$523 | \$104 | \$0 | \$0 | \$45 | \$0 |
| Total | \$9,166 | \$2,230 | \$0 | \$244 | \$990 | \$1,710 | \$1,674 | \$785 | \$609 | \$129 | \$41 | \$6 | \$725 | \$23 |

Table 2c. Percent of Plan Present Value Benefits Achieved

| | Total Benefits (\$000) | CAPACITY | | | | ENERGY | | | | Electric DRIPE | Gas Benefits | Gas DRIPE | Other Fuels Benefits | Non-Fuels Benefits |
|---|------------------------|-------------------|-------------------|--------------|--------------|-------------|-----------------|-------------|-----------------|----------------|--------------|-----------|----------------------|--------------------|
| | | Summer Generation | Winter Generation | Transmission | Distribution | Winter Peak | Winter Off Peak | Summer Peak | Summer Off Peak | | | | | |
| Residential Programs | 95% | 180% | 0% | 178% | 178% | 118% | 125% | 118% | 104% | 109% | 3486% | 2186% | 54% | 114% |
| Commercial & Industrial Programs | 150% | 202% | 0% | 202% | 202% | 143% | 141% | 103% | 98% | 130% | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| Total | 131% | 197% | 0% | 197% | 197% | 139% | 137% | 104% | 98% | 125% | 3486% | 2186% | 57% | 114% |

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
CORE Energy Efficiency Programs 2017 Year End Report
NHPUC Docket No. DE 14-216

Table 3a. Performance Incentive Calculation - 2017

| | <u>Planned</u> | <u>Actual</u> |
|---|-------------------|-------------------|
| Commercial & Industrial Incentive | | |
| 1. Benefit/Cost Ratio | 2.00 | 2.56 |
| 2. Threshold Benefit / Cost Ratio ¹ | 1.00 | 1.00 |
| 3. Lifetime kWh Savings | 55,451,541 | 69,654,449 |
| 4. Threshold Lifetime kWh Savings (65%) ² | 36,043,502 | 36,043,502 |
| 5. Budget | \$ 1,371,690 | \$ 1,337,522 |
| 6. Benefit / Cost Percentage of Budget | 2.75% | |
| 7. Lifetime kWh Percentage of Budget | 2.75% | |
| 8. Commercial & Industrial Incentive | \$ 75,443 | \$ 91,955 |
| 9. Cap (10%) | \$ 94,304 | \$ 94,304 |
| Residential Incentive | | |
| 10. Benefit / Cost Ratio | 1.94 | 2.18 |
| 11. Threshold Benefit / Cost Ratio ¹ | 1.00 | 1.00 |
| 12. Lifetime kWh Savings | 11,362,553 | 13,407,774 |
| 13. Threshold Lifetime kWh Savings (65%) ² | 7,385,660 | 7,385,660 |
| 14. Budget | \$ 946,314 | \$ 819,487 |
| 15. Benefit / Cost Percentage of Budget | 2.75% | |
| 16. Lifetime kWh Percentage of Budget | 2.75% | |
| 17. Residential Incentive | \$ 52,047 | \$ 51,812 |
| 18. Cap (10%) | \$ 65,059 | \$ 65,059 |
| 19. TOTAL INCENTIVE EARNED | \$ 127,490 | \$ 143,767 |

Notes

1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
2. Actual Lifetime kWh Savings for each sector must be greater than or equal to 65% of projected savings.

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
CORE Energy Efficiency Programs 2017 Year End Report
NHPUC Docket No. DE 14-216

Table 3b. Planned Versus Actual Benefit / Cost Ratio by Sector - 2017

| | <u>Planned</u> | <u>Actual</u> |
|---|----------------|---------------|
| Commercial & Industrial: | | |
| 1. Benefits (Value) From Eligible Programs | \$ 4,647 | \$ 6,962 |
| 2. Implementation Expenses | \$ 1,372 | \$ 1,338 |
| 3. Customer Contribution | \$ 878 | \$ 1,292 |
| 4. Performance Incentive | \$ 75 | \$ 92 |
| 5. Total Costs Including Performance Incentive | \$ 2,325 | \$ 2,721 |
| 6. Benefit/Cost Ratio - Commercial & Industrial Sector | 2.07 | 2.65 |
| 7. Benefit/Cost Ratio - Commercial & Industrial Sector including PI | 2.00 | 2.56 |
| Residential: | | |
| 8. Benefits (Value) From Eligible Programs | \$ 2,328 | \$ 2,204 |
| 9. Implementation Expenses | \$ 946 | \$ 819 |
| 10. Customer Contribution | \$ 200 | \$ 142 |
| 11. Performance Incentive | \$ 52 | \$ 52 |
| 12. Total Costs Including Performance Incentive | \$ 1,198 | \$ 1,013 |
| 13. Benefit/Cost Ratio - Residential Sector | 2.03 | 2.29 |
| 14. Benefit/Cost Ratio - Residential Sector including PI | 1.94 | 2.18 |

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
CORE Energy Efficiency Programs 2017 Year End Report
NHPUC Docket No. DE 14-216

Table 3c. Actual Lifetime Energy Savings by Sector and Program - 2017

| | Lifetime kWh Savings | |
|---|-----------------------------|----------------------|
| | <u>Planned</u> | <u>Actual</u> |
| Commercial & Industrial: | | |
| Large Business | 34,390,514 | 46,009,020 |
| Small Business | 16,697,063 | 19,968,729 |
| C&I Education | 0 | 0 |
| Municipal | 4,363,964 | 3,676,701 |
| Total Commercial & Industrial Included for Incentive Calculation | 55,451,541 | 69,654,449 |
| Residential: | | |
| ENERGY STAR Homes | 1,015,973 | 2,448,838 |
| NH Home Performance with ENERGY STAR | 1,919,084 | 1,601,760 |
| ENERGY STAR Products | 7,897,008 | 8,388,492 |
| Home Energy Assistance | 530,488 | 968,684 |
| Total Residential Included for Incentive Calculation | 11,362,553 | 13,407,774 |
| Total | 66,814,095 | 83,062,223 |

Table 4. Program Expenditures by Category - 2017 ACTUAL

| | Evaluation | External Administration | Internal Administration | Internal Implementation | Marketing | Rebates-Services | Total |
|---|-------------------|--------------------------------|--------------------------------|--------------------------------|------------------|-------------------------|---------------------|
| Residential Programs | | | | | | | |
| ENERGY STAR Homes | \$ 7,958 | \$ 219 | \$ 902 | \$ 12,597 | \$ 4,031 | \$ 27,652 | \$ 53,360 |
| Home Performance with ENERGY STAR | \$ 6,468 | \$ 338 | \$ 3,227 | \$ 11,971 | \$ 8,948 | \$ 119,569 | \$ 150,522 |
| ENERGY STAR Products | \$ 9,335 | \$ 438 | \$ 3,656 | \$ 45,632 | \$ 13,718 | \$ 179,582 | \$ 252,360 |
| Home Energy Assistance | \$ 13,421 | \$ 715 | \$ 4,750 | \$ 57,788 | \$ 10,163 | \$ 266,151 | \$ 352,987 |
| ISO-NE FCM | \$ 10,257 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 10,257 |
| Subtotal Residential | \$ 47,439 | \$ 1,709 | \$ 12,536 | \$ 127,989 | \$ 36,860 | \$ 592,954 | \$ 819,487 |
| Commercial & Industrial Programs | | | | | | | |
| C&I Education | \$ - | \$ - | \$ 575 | \$ - | \$ - | \$ 16,174 | \$ 16,748 |
| Large Business Energy Solutions | \$ 24,726 | \$ 1,281 | \$ 7,102 | \$ 118,409 | \$ 17,463 | \$ 553,372 | \$ 722,353 |
| Small Business Energy Solutions | \$ 24,272 | \$ 812 | \$ 4,451 | \$ 75,402 | \$ 11,390 | \$ 306,994 | \$ 423,319 |
| Municipal | \$ 9,611 | \$ 328 | \$ 1,338 | \$ 29,350 | \$ 4,471 | \$ 116,407 | \$ 161,505 |
| ISO-NE FCM | \$ 13,597 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 13,597 |
| Subtotal Commercial & Industrial | \$ 72,206 | \$ 2,421 | \$ 13,464 | \$ 223,161 | \$ 33,323 | \$ 992,946 | \$ 1,337,522 |
| Total | \$ 119,645 | \$ 4,130 | \$ 26,000 | \$ 351,149 | \$ 70,184 | \$ 1,585,900 | \$ 2,157,009 |

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
CORE Energy Efficiency Programs 2017 Year End Report
NHPUC Docket No. DE 14-216

Table 5. Revenue and Expense Balance

LIBERTY UTILITIES (GRANITE STATE ELECTRIC) CORP. D/B/A LIBERTY UTILITIES
CORE ENERGY EFFICIENCY PROGRAMS REVENUE/EXPENSE BALANCE

12 Months Actual 2017

| | | | 2017 |
|-----------------|------------------------------------|-----------------|----------------------------|
| 1 | Beginning Balance: 1/1/2017 | (Over) / Under | \$22,659.94 |
| Revenues | | | |
| 2 | System Benefits Charge | | \$1,761,646.52 |
| 3 | RGGI Funding | | \$215,199.21 |
| 4 | FCM Payments | | \$448,998.94 |
| 5 | Interest | | <u>\$15,295.28</u> |
| 6 | Total Revenues | Sum Lines 2 - 5 | \$2,441,139.95 |
| Expenses | | | |
| 7 | Program Expenses | | \$2,157,008.74 |
| 8 | Performance Incentive - 2017 | Table 3a | <u>\$143,766.70</u> |
| 9 | Total Expenses | Sum Lines 7 - 8 | \$2,300,775.44 |
| 10 | Ending Balance: 12/31/2017 | Lines 1 + 6 - 9 | <u><u>\$163,024.45</u></u> |

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
CORE Energy Efficiency Programs 2017 Year End Report
NHPUC Docket No. DE 14-216

**Table 6. RGGI RFP – Retail & Large Business Energy Reduction Partners
Program Performance Incentive Calculation - 2017**

| | |
|--|-------------------|
| Total RGGI Grant Expenses 2017 | \$39,653 |
| Percentage for PI calculation | 7.50% |
| TOTAL RGGI RFP INCENTIVE EARNED | \$2,973.94 |

Table 7a - Lost Base Revenue - 2017 Forecast

LIBERTY UTILITIES (GRANITE STATE ELECTRIC) CORP. d/b/a LIBERTY UTILITIES
 Estimated Monthly and Cumulative Savings (kWh) and Lost Base Revenue
 January 1, 2017 to December 31, 2017

| Line | Description | 12/31/2016 | Forecast | Forecast | Forecast | Forecast | Forecast | Forecast | Forecast | Forecast | Forecast | Forecast | Forecast | Forecast | Forecast | 2017 |
|------|---------------------------------------|------------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|----------|-----------|-----------|----------------|-------------|
| | | | Jan 2017 | Feb 2017 | Mar 2017 | Apr 2017 | May 2017 | June 2017 | Jul 2017 | Aug 2017 | Sep 2017 | Oct 2017 | Nov 2017 | Dec 2017 | Annual Savings | |
| | Col. A | Col. B | Col. C | Col. D | Col. E | Col. F | Col. G | Col. H | Col. I | Col. J | Col. K | Col. L | Col. M | Col. N | Col. O | |
| 1 | Residential Annualized Savings | | 38,734 | 38,734 | 38,734 | 77,469 | 77,469 | 77,469 | 77,469 | 77,469 | 77,469 | 193,672 | 193,672 | 193,672 | | 1,162,032 |
| 2 | C&I Annualized Savings | | 132,218 | 132,218 | 132,218 | 264,436 | 264,436 | 264,436 | 264,436 | 264,436 | 264,436 | 661,091 | 661,091 | 661,091 | | 3,966,546 |
| 3 | Total | | 170,953 | 170,953 | 170,953 | 341,905 | 341,905 | 341,905 | 341,905 | 341,905 | 341,905 | 854,763 | 854,763 | 854,763 | | 5,128,578 |
| | | | | | | | | | | | | | | | | Cumulative |
| | | | Jan 2017 | Feb 2017 | Mar 2017 | Apr 2017 | May 2017 | June 2017 | Jul 2017 | Aug 2017 | Sep 2017 | Oct 2017 | Nov 2017 | Dec 2017 | | LBR Savings |
| 4 | Monthly Residential Savings | | 3,228 | 3,228 | 3,228 | 6,456 | 6,456 | 6,456 | 6,456 | 6,456 | 6,456 | 16,139 | 16,139 | 16,139 | | |
| 5 | Cumulative Residential Savings | | 3,228 | 6,456 | 9,684 | 16,139 | 22,595 | 29,051 | 35,507 | 41,962 | 48,418 | 64,557 | 80,697 | 96,836 | | 455,129 |
| 6 | Average Residential Distribution Rate | | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | | |
| 7 | Lost Residential Revenue | | \$ 140 | \$ 281 | \$ 421 | \$ 702 | \$ 983 | \$ 1,264 | \$ 1,545 | \$ 1,826 | \$ 2,107 | \$ 2,810 | \$ 3,512 | \$ 4,214 | | \$ 19,807 |
| 8 | Monthly C&I Savings | | 11,018 | 11,018 | 11,018 | 22,036 | 22,036 | 22,036 | 22,036 | 22,036 | 22,036 | 55,091 | 55,091 | 55,091 | | |
| 9 | Cumulative C&I Savings | | 11,018 | 22,036 | 33,055 | 55,091 | 77,127 | 99,164 | 121,200 | 143,236 | 165,273 | 220,364 | 275,455 | 330,546 | | 1,553,564 |
| 10 | Average C&I Distribution Rate | | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | | |
| 11 | Lost C&I Revenue | | \$ 279 | \$ 559 | \$ 838 | \$ 1,397 | \$ 1,955 | \$ 2,514 | \$ 3,072 | \$ 3,631 | \$ 4,190 | \$ 5,586 | \$ 6,983 | \$ 8,379 | | \$ 39,383 |
| 12 | Total Lost Revenue | | \$ 420 | \$ 840 | \$ 1,259 | \$ 2,099 | \$ 2,939 | \$ 3,778 | \$ 4,618 | \$ 5,457 | \$ 6,297 | \$ 8,396 | \$ 10,495 | \$ 12,594 | | \$ 59,190 |

Line 1: Estimated Savings per 2017 Core Filing
 Line 2: Estimated Savings per 2017 Core Filing
 Line 3: Line 1 + Line 2
 Line 4: Line 1 / 12
 Line 5: Prior Month Line 5 + Current Month Line 4
 Line 6: GSE Avg Distribution Rates, Line 4, Col. D
 Line 7: Line 5 x Line 6
 Line 8: Line 2 / 12
 Line 9: Prior Month Line 9 + Current Month Line 8
 Line 10: GSE Avg Distribution Rates, Line 9, Col. D
 Line 11: Line 9 x Line 10
 Line 12: Line 7 + Line 11

Inputs

Savings Achieved by Quarter ¹

| | Q1 | Q2 | Q3 | Q4 |
|--|-----|-----|-----|-----|
| | 10% | 20% | 20% | 50% |

(1) Liberty 2015 Savings by Quarter

Table 7b - Lost Base Revenue - 2017 Actual

LIBERTY UTILITIES (GRANITE STATE ELECTRIC) CORP. d/b/a LIBERTY UTILITIES
 Actual Monthly and Cumulative Savings (kWh) and Lost Base Revenue
 January 1, 2017 to December 31, 2017

| Line | Description | 12/31/2016 | Actual Jan 2017 | Actual Feb 2017 | Actual Mar 2017 | Actual Apr 2017 | Actual May 2017 | Actual June 2017 | Actual Jul 2017 | Actual Aug 2017 | Actual Sep 2017 | Actual Oct 2017 | Actual Nov 2017 | Actual Dec 2017 | Cumulative LBR Savings |
|------|---------------------------------------|------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------------|
| | Col. A | Col. B | Col. C | Col. D | Col. E | Col. F | Col. G | Col. H | Col. I | Col. J | Col. K | Col. L | Col. M | Col. N | Col. O |
| 1 | Residential Annualized Savings | | 131,998 | 52,953 | 77,823 | 80,677 | 97,973 | 114,482 | 49,904 | 162,343 | 179,736 | 116,888 | 151,701 | 35,471 | 1,251,949 |
| 2 | C&I Annualized Savings | | 983,789 | 99,340 | 614,428 | 243,278 | 327,989 | 134,552 | 187,026 | 175,157 | 166,700 | 742,899 | 553,844 | 879,146 | 5,108,147 |
| 3 | Total | | 1,115,788 | 152,293 | 692,250 | 323,955 | 425,961 | 249,034 | 236,930 | 337,500 | 346,436 | 859,787 | 705,546 | 914,617 | 6,360,096 |
| 4 | Monthly Residential Savings | | 11,000 | 4,413 | 6,485 | 6,723 | 8,164 | 9,540 | 4,159 | 13,529 | 14,978 | 9,741 | 12,642 | 2,956 | |
| 5 | Cumulative Residential Savings | - | 11,000 | 15,413 | 21,898 | 28,621 | 36,785 | 46,325 | 50,484 | 64,013 | 78,991 | 88,731 | 101,373 | 104,329 | 647,963 |
| 6 | Average Residential Distribution Rate | | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | 0.04352 | |
| 7 | Lost Residential Revenue | | \$ 479 | \$ 671 | \$ 953 | \$ 1,246 | \$ 1,601 | \$ 2,016 | \$ 2,197 | \$ 2,786 | \$ 3,438 | \$ 3,862 | \$ 4,412 | \$ 4,540 | \$ 28,199 |
| 8 | Monthly C&I Savings | | 81,982 | 8,278 | 51,202 | 20,273 | 27,332 | 11,213 | 15,586 | 14,596 | 13,892 | 61,908 | 46,154 | 73,262 | |
| 9 | Cumulative C&I Savings | - | 81,982 | 90,261 | 141,463 | 161,736 | 189,069 | 200,281 | 215,867 | 230,463 | 244,355 | 306,263 | 352,417 | 425,679 | 2,639,836 |
| 10 | Average C&I Distribution Rate | | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | 0.02535 | |
| 11 | Lost C&I Revenue | | \$ 2,078 | \$ 2,288 | \$ 3,586 | \$ 4,100 | \$ 4,793 | \$ 5,077 | \$ 5,472 | \$ 5,842 | \$ 6,194 | \$ 7,764 | \$ 8,934 | \$ 10,791 | \$ 66,920 |
| 12 | Total Lost Revenue | | \$ 2,557 | \$ 2,959 | \$ 4,539 | \$ 5,346 | \$ 6,394 | \$ 7,093 | \$ 7,669 | \$ 8,628 | \$ 9,632 | \$ 11,625 | \$ 13,346 | \$ 15,331 | \$ 95,119 |

Line 1: Actual Annualized Residential Savings
 Line 2: Actual Annualized Commercial Savings
 Line 3: Line 1 + Line 2
 Line 4: Line 1 / 12
 Line 5: Prior Month Line 5 + Current Month Line 4
 Line 6: GSE Avg Distribution Rates, Line 4, Col. D
 Line 7: Line 5 x Line 6
 Line 8: Line 2 / 12
 Line 9: Prior Month Line 9 + Current Month Line 8
 Line 10: GSE Avg Distribution Rates, Line 9, Col. D
 Line 11: Line 9 x Line 10
 Line 12: Line 7 + Line 11