

Report by **SBW CONSULTING, INC.**

Report No. **1101**

FINAL REPORT

IMPACT EVALUATION OF EXISTING COMMERCIAL BUILDINGS PROGRAM

PROGRAM YEARS 2008-2009

Submitted to **ENERGY TRUST OF OREGON
851 SW SIXTH AVE, SUITE 1200
PORTLAND, OREGON 97204**

Submitted by **SBW CONSULTING, INC.
2820 Northup Way, Suite 230
Bellevue, WA 98004**

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ENERGY • WATER • EFFICIENCY

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EXECUTIVE SUMMARY

Introduction

Energy Trust of Oregon (ETO) began operating the existing commercial building retrofit program in early 2003. The program provides technical assistance and financial incentives to commercial and institutional customers who install qualifying efficiency improvements that save electricity or natural gas. It is open to all commercial customers who pay the public purpose charge. The program is market-driven and builds on existing market relationships, which is consistent with best practices among resource acquisition and market transformation efforts. It is administered by a third party Program Management Contractor for the ETO.

This evaluation assesses the gross impacts (annual electric and natural gas savings) of the commercial retrofit program for the 2008-2009 program years. It includes a review of the expected savings estimates prepared by the program and a re-estimation of realized annual savings for a representative sample of program participants. The realized savings were based on on-site data collection and a reapplication of the program algorithms under as-built and operated conditions. Results from the sampled cases were extrapolated to the entire program population for each program year.

Objectives

Specific objectives of this evaluation included the following:

- **Installation verification.** Verify through field inspection that the sampled measures were installed and operational. Also verify the hours of operation and other conditions that affected the expected savings from the program-installed measures;
- **Program measure-specific energy savings methods.** Critique energy savings algorithms used by the program to calculate savings for custom non-lighting measures;
- **Project-specific gross savings.** Calculate project-specific gross savings (kWh and therms) impacts for a sample of projects for the 2008 and 2009 program years using appropriate evaluation methods. Also calculate project-specific realization rates for kWh and therms. Calculate project-specific gross demand savings for each sampled project; however, the kW savings estimate is of secondary concern.
- **Program level gross savings.** Estimate an overall gross energy savings realization rate for the program and estimate program-level gross savings (kWh and therms) for the program years 2008-2009.
- **Program improvements.** Recommend changes in the gross savings calculation methods or other program processes that will enhance future realization rates and program cost effectiveness.

Program Accomplishments

Table E-1 summarizes the expected kWh and therm savings, as claimed by the ETO Commercial Existing Buildings Program in 2008-2009. In total, ETO completed nearly 12,000 measures at almost 3,500 sites during the two-year cycle, accounting for an expected 117 million kWh and 2.3 million therms in annual

energy savings. The table also compares the 2008-2009 claims with those from the previous 2006-2007 cycle, showing the significant increase in measures completed and savings achieved in the most recent cycle.

Table E-1: Expected Savings for 2008-09 Commercial Existing Buildings Program

| Program year | Number of sites | Number of measures | Expected program kWh savings | Expected program therm savings |
|----------------------------------|-----------------|--------------------|------------------------------|--------------------------------|
| <i>Previous evaluation cycle</i> | | | | |
| 2006 | 1,611 | 3,446 | 31,326,511 | 985,727 |
| 2007 | 1,463 | 3,667 | 26,531,894 | 526,998 |
| Total | 3,074 | 7,113 | 57,858,405 | 1,512,725 |
| <i>Current evaluation cycle</i> | | | | |
| 2008 | 1,506 | 3,839 | 42,397,819 | 1,180,882 |
| 2009 | 1,960 | 7,781 | 74,503,452 | 1,083,537 |
| Total | 3,466 | 11,620 | 116,901,271 | 2,264,419 |

The 2008-2009 totals include measures which were excluded from the present evaluation.

Methodology

This evaluation employed standard energy program impact evaluation methods to provide the best available estimate of the total program energy impacts. The evaluation was performed as a series of six tasks, which are described below.

Task 1: Kickoff Meeting - This task included the review of program data and the collection of information necessary to finalize the evaluation work plan. Information was collected through a kickoff meeting and a series of discussions with ETO relevant to the study methodology.

Task 2: Sample Design and Workplan - Using the information gathered in Task 1, the evaluation team prepared a workplan for the project. The workplan included a set of procedures for conducting all remaining aspects of the work. It also included a list of deliverables, project budget and schedule.

We analyzed the ETO program database to determine the distribution of sites by savings in each program year and then implemented the sample based upon sampling decisions made by ETO in Task 1. Two separate samples were selected for the 2008 and 2009 program years. For each year, one sample was selected from the list of sites that had non-zero electric savings and the other was selected from those sites with non-zero gas savings. A total of 116 cases were selected across the four selected samples.

We developed a project evaluation database that was used to assemble and perform quality control checks on all data needed to conduct the program-level impact evaluation. The database was created in Excel and was formulated to be consistent with all ETO data formatting and content requirements.

Task 3: Site Data Collection - This task included the collection of measure-specific information needed to support the analysis of gross realized savings from the program, as specified in the workplan. This task also included staff training and recruitment of the sampled sites. A site visit was performed for all sampled measures to collect measure performance data.

Task 4: Project-level Gross Savings Analysis - This task included the analysis of gross realized savings for the sampled measures, using the measure-specific data collection and analysis methods developed in Task 3. Gross realization rates were computed for each measure.

Task 5: Program-level Gross Savings Analysis - Program level gross results for the two-year period were estimated by extrapolating the gross savings (kWh and therms) from each measure, using methods specified in the workplan.

Task 6: Final Report - Draft and final version of the final report were prepared to document the methodology used and results obtained from the impact evaluation. The report also included conclusions and recommendations for improvements to the program in future years.

Study Findings

A separate engineering analysis of gross savings (kWh and therms) was performed for each measure designated for inspection using the measure-specific data that was collected during the site visits. Realization rates were computed for each sampled measure using the realized kWh/therm savings results and the annual savings estimated by the program as follows:

$$\text{Realization Rate} = \text{realized annual energy savings} / \text{expected annual energy savings}$$

The expected savings values were taken from the ETO tracking database. If the realized energy savings equaled the expected energy savings, then the realization rate equaled unity (1.0).

Figure E-1 below summarizes the realization rates for the 270 sampled and inspected measures, in the form of a distribution graph sorted from lowest to highest realization rates for electric and gas measures, as well as all measures combined. Measure realization rates ranged from a low of zero to a high of nearly three. This figure reveals that about half of these measures had realization rates at or very near one. About 9% of the measures yielded little or no savings: 5% had no savings, while another 4% realized less than half of their expected savings. These low savers were disproportionately gas measures, as only 7% of the electric measures fell into this group, while 20% of the gas measures did. A small number of measures (4%) had savings 50% or more than expected. Of the 12 measures that had no savings, the primary reasons were that the measures had not been installed (or were installed incorrectly) in the first place or were removed after installation, or that the facility was vacant at the time of inspection. Unusually high realization rates were typically caused by overly conservative estimates of expected savings by the program.

The results from the individual sample points were extrapolated to two-year (2008-09) program totals. Program extrapolations were made for gross realized savings in both two fuel groups (electric and gas) for each program year. For the 2008 program year, the program-level realization rates were estimated to be 0.99 and 0.87 for kWh and therms, respectively. For the 2009 program year, the realization rates were estimated to be 0.85 and 0.75 for kWh and therms, respectively. One thought is that the aggressive increases in program savings targets (for example, the electric savings goal for 2009 is over 75% higher than the preceding year), might have overstretched the program's delivery mechanisms, resulting in lower realization rates. While this is possible, we cannot state this with any certainty, since the predicted sampling margin of error of 14-15% exceeds the 12-14% differences.

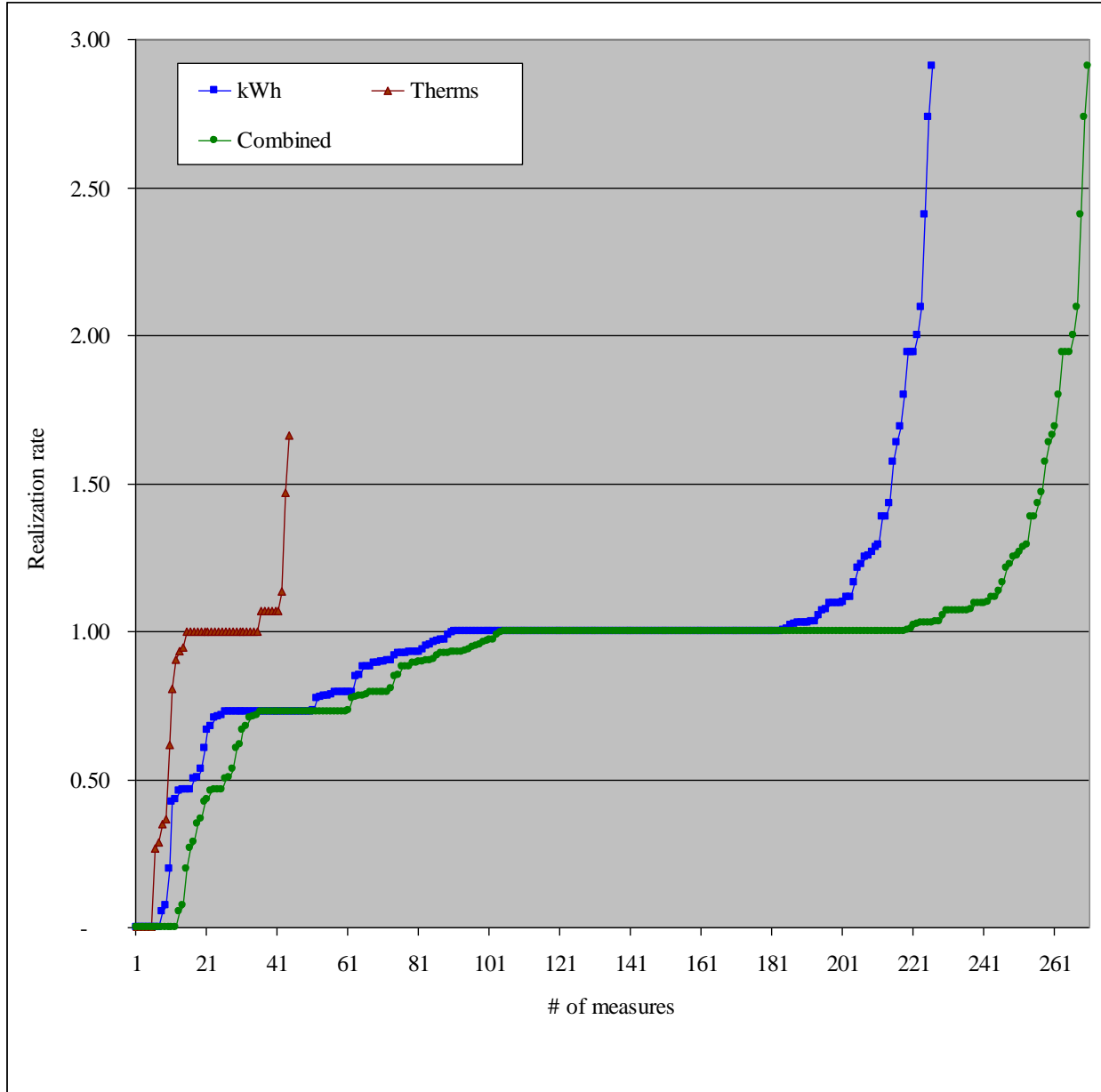


Figure E-1: Distribution of Measure Realization Rates.

Conclusions

From the results of the impact evaluation of gross realized savings for the 2008-09 program years, the following key conclusions were drawn.

1. **Installation Verification** – The evaluation verified through field inspection that 96 percent of the sampled and assessed measures were either fully or partly installed and operational. When they occurred, partial installations and variations from the expected measure operation accounted for much of the differences between expected and realized annual savings. Oftentimes, the timing and reasons for the discrepancies we encountered were unclear.
2. **Gross savings realized** – Significant gross energy savings were found for both fuel types in each program year. Unweighted measure-level results show a range in realization rates from zero to nearly three. Domain-level results for the electric and gas fuel types indicate that realized savings were less than expected savings for both fuel types in both program years. The electric realization rate was estimated to be 0.90 across the two program years. The therm realization rate was estimated to be 0.81 for the two-year period.
3. **Major reasons for differences between the expected and realized savings** – The realized and expected gross savings differed for a variety of reasons. In most cases the differences tended to reduce savings. The most common reasons for reduced savings were fewer installed devices and lower operating hours. We found no evidence that the latter factor was driven by the economic downturn in 2008-09.
4. **Algorithm review** – In many instances, custom algorithms could not be reviewed due to a lack of documentation. When they could be reviewed, the custom algorithms were generally found to be reasonable. Some general recommendations were made for reviewed algorithms where improvements were appropriate.

Recommendations

Findings from this evaluation led to the following recommendations:

1. **Feedback to ETO savings estimates.** The ETO estimates of expected savings have the disadvantage of having to predict the future performance of a measure before it is installed. The evaluation has the advantage of estimating realized savings for a measure under as-built and operated conditions. Because of these different perspectives, differences between expected and realized savings are unavoidable. The evaluation was able to gauge measure conditions at a single point in time, but further in-depth study of measures in the evaluation sample, where significant differences in the estimates were found, can improve the ability of the ETO to predict savings and/or ensure good performance for future measures. It is recommended that ETO carefully study these cases, such as by revisiting sites and speaking with customers and vendors to understand better the reasons why certain measures performed poorly. Information from such customer follow-up might lead to improved procedures for inspection, quality control, and training, which in turn may increase realization rates in future evaluations.
2. **Project documentation.** The value and cost-effectiveness of the evaluation was very dependent upon access to accurate and complete program documentation for each sampled project. The

documentation should have been provided to the evaluation in sufficient detail for an independent third party to be able to understand expected measure performance. It should have included the information and tools necessary to understand the algorithm that was used to calculate the expected savings, in an electronic format necessary to reproduce the savings estimate.

Adequate documentation was provided for most sampled projects. However, there were a significant number of cases where sufficient documentation was not provided. This was especially true for non-lighting projects where the expected savings were calculated with an hourly simulation or proprietary software. Compensating for this lack of documentation significantly increased the cost of the evaluation. It is recommended that ETO improve the completeness of the project documentation in future program years so that the evaluations can be supplied with the information and tools necessary to cost-effectively complete the evaluation scope specified by ETO. This includes items such as measure performance specifications, documentation of assumptions made and calibration methods used during the analysis of expected savings, and backup information related to the calculations made.

All spreadsheet calculation tools should be provided in Excel format (not pdf) so that the equations can be understood and the savings estimates can easily be reproduced. When hourly simulations tools are used, documentation should include the final as-built energy modeling files, in electronic format, that are needed to reproduce the expected savings analysis. It is also recommended that the use of proprietary software be minimized.

Perhaps the most expeditious way to provide program files to future evaluators would be to store all pertinent files for a given site in a well-documented electronic folder, which could be passed on in its entirety should that site be sampled in the evaluation.

- 3. Future evaluation approaches.** The scope of this evaluation favored a large sample size to minimize sampling error. The rigor level of the engineer analysis applied to each project was limited to a re-application of the algorithm used in the expected savings analysis. Site-specific data collection was specified for each sampled project; however, it did not allow for measurements to be made to support the evaluation analysis. The inability to modify the algorithm (when appropriate) and take measurements to support the evaluation analysis resulted in increased measurement error. ETO may want to re-examine the balance between sampling and measurement error for future evaluations of this sector.

One approach would be to move the balance towards decreased measurement error, at the expense of sample size. A better overall result will probably be achieved by a somewhat smaller sample coupled with engineering estimates that are improved by justifiable algorithm revisions and selected post-retrofit measurements of measure performance. Feedback to the program on algorithm improvements and insights on measure performance from the measurements will also help to improve the realization rates for future evaluations. The increased use of baseline measurements to support the expected savings analysis should also be considered, when justified.

Another approach would be to adopt a two-track evaluation strategy that added discrete verification activities to the existing impact quantification framework. Verification could involve

visiting sites and quickly assessing whether measures were installed and operational. Since this level of treatment is less expensive than impact quantification, more sites could be sampled within a given budget, potentially more measure failures could be observed, and thus more robust conclusions about program process improvements might be obtained.

A variant on either approach would be to divide the evaluation sample into specific domains that could better illuminate different programmatic elements. For instance, if different contractors manage the lighting and non-lighting projects, then perhaps the evaluation should select corresponding samples from each group. Similarly, if projects with small and large savings are processed differently, then the evaluation might select separate samples for two or groupings by savings size,

4. **Measure interactive effects.** The evaluation noted that the expected savings analysis did not adequately address interactive effects between measures for projects where the measures were interactive with each other. For interior lighting measures, the expected savings did not capture interactions with the HVAC system, when they were relevant. It is recommended that the expected savings methodologies be upgraded to capture interactive effects where they are significant. For cases where multiple interactive measures are analyzed with a simulation, it is recommended that a rolling baseline or other suitable approach be used to assess the interactive effects.
5. **Reporting of measures in the tracking database.** The evaluation noted that measures were not consistently reported in the ETO tracking database. In some cases all measures in a project were combined into a single database entry. In other cases, separate line items were provided for each measure in the project. It is recommended that the ETO database reporting procedures be updated to include more consistency in the way that measures are documented. For evaluation purposes, a more detailed reporting of the measures is preferred.



MEMO

Date: June 15, 2011
To: Board of Directors
From: Philipp Degens, Evaluation Manager
Spencer Moersfelder, Business Sector Manager
Subject: Staff response memo: 2008-2009 Existing Buildings Impact Evaluation

The EB Program has experienced significant increases in program activity. The number of sites served increased 30% from 2008 to 2009 with an 76% increase in electric savings and an slight decrease in gas savings. This impact evaluation indicates a possible deterioration in the savings realization rate from 2008 to 2009. This year to year change was not found to be statistically significant by the evaluation. However, the reduction is an indicator that warrants action by Energy Trust to increase realization rates in the midst of increasing project volume. Independent of the finalization of this report, Energy Trust was already taking actions to address potential erosion in realized savings including:

- Increasing site inspections for smaller projects to verify measure installations
- Hiring a commercial sector QA contractor to review projects in order to analyze the reliability of savings claims.

These steps are expected to address controllable causes for variance in the realization rates, such as catching discrepancies in installed quantities of measures and the inadequate efficiency specifications for installed measures before Energy Trust claims savings for these projects. Conversely, the program has little control over other project variables that influence savings realization, like participants removing equipment after installation and participants operating their facilities differently than what the program assumed to calculate savings.

The evaluation also indicates that there are issues associated with savings realization from building and equipment controls projects that result from controls that are not performing as expected because they are not performing their expected function. The program will research methods to remedy this situation including:

- Adding a commissioning requirement or written strategy for achieving savings as part of controls installation
- Offering training on controls to Energy trust Trade Allies
- Adding facility managers/building operator controls training requirement as part of installation
- Verifying control settings and operation during site verification

Energy Trust will also reassess its evaluation approach for the next impact evaluations. A sample design should be considered that will lead to more robust estimates of realization rates, both at a program and measure level.

1. INTRODUCTION

Energy Trust of Oregon (ETO) began operating the existing commercial building retrofit program in early 2003. The program provides technical assistance and financial incentives to commercial and institutional customers who install qualifying efficiency improvements that save electricity or natural gas. It is open to all commercial customers that pay the public purpose charge. The program is market-driven and builds on the existing market relationships, which is consistent with best practices among resource acquisition and market transformation efforts. It is administered by a third party Program Management Contractor for the ETO.

SBW Consulting, Inc. (SBW) conducted this evaluation to assess the gross impacts of the commercial retrofit program for the 2008-2009 program years. It included a review of the expected savings estimates prepared by the program and a re-estimation of realized annual savings for a representative sample of program participants. The realized savings were based on on-site data collection and a re-application of the program algorithms under as-built and operated conditions. Results from the sampled cases were extrapolated to the entire program population for each program year.

1.1. Goals and Objectives

The overall goal of this impact evaluation was to quantify the magnitude of energy savings (annual kWh and therms) captured by the commercial retrofit program through an assessment of a representative sample of efficiency projects that were implemented during the 2008 and 2009 program years.

Specific objectives include the following:

- **Installation verification.** Verify through field inspection that the sampled measures were installed and operational. Also verify the hours of operation and other conditions that affected the expected savings from the program-installed measures;
- **Program measure-specific energy savings methods.** Critique energy savings algorithms used by the program to calculate savings for custom non-lighting measures;
- **Project-specific gross savings.** Calculate project-specific gross savings (kWh and therms) impacts for a sample of projects for the 2008 and 2009 program years using appropriate evaluation methods. Also calculate project-specific realization rates for kWh and therms. Calculate project-specific gross demand savings for each sampled project; however, the kW savings estimate is of secondary concern.
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- **Program improvements.** Recommend changes in the gross savings calculation methods or other program processes that will enhance future realization rates and program cost effectiveness.

2. PROGRAM ACCOMPLISHMENTS

Table 1 summarizes the expected kWh and therm savings, as claimed by the ETO Commercial Existing Buildings Program in 2008-2009. In total, ETO completed nearly 12,000 measures at almost 3,500 sites during the two-year cycle, accounting for an expected 117 million kWh and 2.3 million therms in annual energy savings. The table also compares the 2008-2009 claims with those from the previous 2006-2007 cycle, showing the significant increase in measures completed and savings achieved in the most recent cycle.

Table 1: Expected Savings for 2008-09 Commercial Existing Buildings Program

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| Total | 3,074 | 7,113 | 57,858,405 | 1,512,725 |
| <i>Current evaluation cycle</i> | | | | |
| 2008 | 1,506 | 3,839 | 42,397,819 | 1,180,882 |
| 2009 | 1,960 | 7,781 | 74,503,452 | 1,083,537 |
| Total | 3,466 | 11,620 | 116,901,271 | 2,264,419 |

The 2008-2009 totals include measures which were excluded from the present evaluation.

Table 2 shows the breakdown of measures, by type, installed by the 2008 and 2009 programs separately and combined. Definitions of these measure types can be found in Appendix A. Efficient lighting fixtures were by far the most common measure type across the 2-year period. It accounted for more than half of the measure count and claimed electric savings for both program years. Across the 2-year period, food service equipment was the second most commonly installed measure type, but accounted for a relatively small percentage of both the electric and gas savings. HVAC measures were less commonly implemented (8 percent of measure count) but accounted for half of the two-year claimed therm savings. In general Custom measures were few in number, but accounted for significant portions of savings.

Table 3 provides a breakdown of sites by site building type, in a similar manner. The table shows that restaurants are the most common building type in the 2-year participant population, but they account for a relatively small fraction of both the electric and gas savings. Office and retail are other common building classifications. Both of these classifications represent a significant fraction of the electric savings. Offices also represent a large portion of the gas savings. Groceries account for a relatively small percentage of the installed measure count but contribute the greatest fraction (24 percent) of the 2-year claimed electric savings. Colleges/universities, schools, laundry/dry cleaners, and “other” facilities are major contributors to the gas savings.

Table 2: Expected Savings by Measure Type

| 2008 | | | | | | |
|-------------------|--------------|-------------|----------------------|-------------|-------------------------|-------------|
| Measure Type | Measures | | Expected program kWh | | Expected program therms | |
| | Count | Percent | Savings | Percent | Savings | Percent |
| Custom Controls | 26 | 1% | 5,880,204 | 14% | 138,697 | 12% |
| Custom Gas | 36 | 1% | - | 0% | 71,495 | 6% |
| Custom Other | 65 | 2% | 2,199,597 | 5% | 62,507 | 5% |
| Food Service | 579 | 15% | 1,595,849 | 4% | 122,215 | 10% |
| HVAC | 318 | 8% | 3,129,867 | 7% | 555,120 | 47% |
| Insulation | 31 | 1% | 41,925 | 0% | 144,802 | 12% |
| Lighting | 2,119 | 55% | 23,924,625 | 56% | - | 0% |
| Lighting Controls | 300 | 8% | 1,857,481 | 4% | - | 0% |
| Motors | 48 | 1% | 3,757,759 | 9% | 54,767 | 5% |
| Study | 291 | 8% | - | 0% | - | 0% |
| Water Heating | 26 | 1% | 10,512 | 0% | 31,279 | 3% |
| Total | 3,839 | 100% | 42,397,819 | 100% | 1,180,882 | 100% |

This table includes measures which were excluded from the present evaluation.

"Motors" category includes VFDs

| 2009 | | | | | | |
|-------------------|----------|---------|----------------------|---------|-------------------------|---------|
| Measure Type | Measures | | Expected program kWh | | Expected program therms | |
| | Count | Percent | Savings | Percent | Savings | Percent |
| Custom Controls | 83 | 1% | 5,381,448 | 7% | 126,719 | 12% |
| Custom Gas | 1 | 0% | - | 0% | 1,438 | 0% |
| Custom Other | 118 | 2% | 10,841,850 | 15% | 136,159 | 13% |
| Food Service | 533 | 7% | 2,967,046 | 4% | 68,820 | 6% |
| HVAC | 415 | 5% | 5,669,466 | 8% | 588,213 | 54% |
| Insulation | 111 | 1% | 786,721 | 1% | 121,408 | 11% |
| Lighting | 4,998 | 64% | 39,776,499 | 53% | - | 0% |
| Lighting Controls | 751 | 10% | 5,448,552 | 7% | - | 0% |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| 2009 | | | | | | |
|---------------|--------------|-------------|----------------------|-------------|-------------------------|-------------|
| Measure Type | Measures | | Expected program kWh | | Expected program therms | |
| | Count | Percent | Savings | Percent | Savings | Percent |
| Motors | 82 | 1% | 3,621,046 | 5% | 13,646 | 1% |
| Study | 648 | 8% | - | 0% | - | 0% |
| Water Heating | 41 | 1% | 10,824 | 0% | 27,135 | 3% |
| Total | 7,781 | 100% | 74,503,452 | 100% | 1,083,537 | 100% |

| COMBINED | | | | | | |
|-------------------|---------------|-------------|----------------------|-------------|-------------------------|-------------|
| Measure Type | Measures | | Expected program kWh | | Expected program therms | |
| | Count | Percent | Savings | Percent | Savings | Percent |
| Custom Controls | 109 | 1% | 11,261,652 | 10% | 265,416 | 12% |
| Custom Gas | 37 | 0% | - | 0% | 72,933 | 3% |
| Custom Other | 183 | 2% | 13,041,447 | 11% | 198,666 | 9% |
| Food Service | 1,112 | 10% | 4,562,895 | 4% | 191,035 | 8% |
| HVAC | 733 | 6% | 8,799,333 | 8% | 1,143,333 | 50% |
| Insulation | 142 | 1% | 828,646 | 1% | 266,210 | 12% |
| Lighting | 7,117 | 61% | 63,701,124 | 54% | - | 0% |
| Lighting Controls | 1,051 | 9% | 7,306,033 | 6% | - | 0% |
| Motors | 130 | 1% | 7,378,805 | 6% | 68,413 | 3% |
| Study | 939 | 8% | - | 0% | - | 0% |
| Water Heating | 67 | 1% | 21,336 | 0% | 58,414 | 3% |
| Total | 11,620 | 100% | 116,901,271 | 100% | 2,264,419 | 100% |

Table 3: Expected Savings by Building Type

| 2008 | | | | | | |
|-------------------------|-------|---------|----------------------|---------|-------------------------|---------|
| Building Type | Sites | | Expected program kWh | | Expected program therms | |
| | Count | Percent | Savings | Percent | Savings | Percent |
| Assembly | 14 | 0.9% | 333,170 | 0.8% | 12,344 | 1.0% |
| Auto Services | 40 | 2.7% | 266,275 | 0.6% | 1,783 | 0.2% |
| Automotive Repair/Sales | 9 | 0.6% | 79,772 | 0.2% | 433 | 0.0% |
| Church | 69 | 4.6% | 592,432 | 1.4% | 15,053 | 1.3% |
| College/University | 23 | 1.5% | 1,720,545 | 4.1% | 82,816 | 7.0% |
| Data Center | 2 | 0.1% | 412,343 | 1.0% | 45 | 0.0% |
| Grocery | 38 | 2.5% | 6,787,170 | 16.0% | 1,427 | 0.1% |
| Gym/Athletic Club | 1 | 0.1% | 5,010 | 0.0% | - | 0.0% |
| Hi Rise Residential | - | | - | | - | |
| Hospital | 19 | 1.3% | 1,216,428 | 2.9% | 16,756 | 1.4% |
| Institution/Government | 48 | 3.2% | 1,202,769 | 2.8% | 22,192 | 1.9% |
| Laundry/Dry Cleaners | 101 | 6.7% | - | 0.0% | 236,439 | 20.0% |
| Lodging/Hotel/Motel | 86 | 5.7% | 2,430,924 | 5.7% | 14,281 | 1.2% |
| Manufacturing | 10 | 0.7% | 439,731 | 1.0% | - | 0.0% |
| Office | 146 | 9.7% | 5,059,363 | 11.9% | 162,349 | 13.7% |
| Other | 165 | 11.0% | 4,085,228 | 9.6% | 319,721 | 27.1% |
| Other Health | 31 | 2.1% | 1,316,524 | 3.1% | 11,586 | 1.0% |
| Restaurant | 387 | 25.7% | 2,585,807 | 6.1% | 132,307 | 11.2% |
| Retail | 150 | 10.0% | 8,258,255 | 19.5% | 6,007 | 0.5% |
| Schools K-12 | 79 | 5.2% | 1,027,025 | 2.4% | 40,381 | 3.4% |
| Warehouse | 73 | 4.8% | 3,304,957 | 7.8% | 103,704 | 8.8% |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| 2008 | | | | | | |
|---------------|--------------|---------------|----------------------|---------------|-------------------------|---------------|
| Building Type | Sites | | Expected program kWh | | Expected program therms | |
| | Count | Percent | Savings | Percent | Savings | Percent |
| Unassigned | 15 | 1.0% | 1,274,091 | 3.0% | 1,258 | 0.1% |
| Total | 1,506 | 100.0% | 42,397,819 | 100.0% | 1,180,882 | 100.0% |

This table includes measures which were excluded from the present evaluation.

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| 2009 | | | | | | |
|-------------------------|-------|---------|----------------------|---------|-------------------------|---------|
| Building Type | Sites | | Expected program kWh | | Expected program therms | |
| | Count | Percent | Savings | Percent | Savings | Percent |
| Assembly | 38 | 1.9% | 1,187,002 | 1.6% | 17,754 | 1.6% |
| Auto Services | 57 | 2.9% | 755,467 | 1.0% | 2,483 | 0.2% |
| Automotive Repair/Sales | 1 | 0.1% | - | 0.0% | - | 0.0% |
| Church | 77 | 3.9% | 724,432 | 1.0% | 24,922 | 2.3% |
| College/University | 29 | 1.5% | 5,259,790 | 7.1% | 208,621 | 19.3% |
| Data Center | 4 | 0.2% | 458,564 | 0.6% | - | 0.0% |
| Grocery | 147 | 7.5% | 21,219,879 | 28.5% | 12,569 | 1.2% |
| Gym/Athletic Club | 8 | 0.4% | 817,197 | 1.1% | 1,128 | 0.1% |
| Hi Rise Residential | 2 | 0.1% | 155,183 | 0.2% | 302 | 0.0% |
| Hospital | 25 | 1.3% | 874,114 | 1.2% | 53,151 | 4.9% |
| Institution/Government | 217 | 11.1% | 2,577,181 | 3.5% | 77,384 | 7.1% |
| Laundry/Dry Cleaners | 69 | 3.5% | 78,109 | 0.1% | 139,000 | 12.8% |
| Lodging/Hotel/Motel | 103 | 5.3% | 3,843,901 | 5.2% | 56,666 | 5.2% |
| Manufacturing | 7 | 0.4% | 133,394 | 0.2% | 3,412 | 0.3% |
| Office | 321 | 16.4% | 12,763,131 | 17.1% | 81,452 | 7.5% |
| Other | 109 | 5.6% | 2,521,278 | 3.4% | 67,818 | 6.3% |
| Other Health | 46 | 2.3% | 725,125 | 1.0% | 15,788 | 1.5% |
| Restaurant | 309 | 15.8% | 1,393,053 | 1.9% | 55,687 | 5.1% |
| Retail | 170 | 8.7% | 10,993,532 | 14.8% | 26,670 | 2.5% |
| Schools K-12 | 104 | 5.3% | 2,578,260 | 3.5% | 201,407 | 18.6% |
| Warehouse | 116 | 5.9% | 5,444,335 | 7.3% | 36,881 | 3.4% |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| 2009 | | | | | | |
|---------------|--------------|---------------|----------------------|---------------|-------------------------|---------------|
| Building Type | Sites | | Expected program kWh | | Expected program therms | |
| | Count | Percent | Savings | Percent | Savings | Percent |
| Unassigned | 1 | 0.1% | 525 | 0.0% | 444 | 0.0% |
| Total | 1,960 | 100.0% | 74,503,452 | 100.0% | 1,083,537 | 100.0% |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| COMBINED | | | | | | |
|-------------------------|--------------|----------------|-----------------------------|----------------|--------------------------------|----------------|
| Building Type | Sites | | Expected program kWh | | Expected program therms | |
| | Count | Percent | Savings | Percent | Savings | Percent |
| Assembly | 52 | 1.5% | 1,520,172 | 1.3% | 30,098 | 1.3% |
| Auto Services | 97 | 2.8% | 1,021,742 | 0.9% | 4,266 | 0.2% |
| Automotive Repair/Sales | 10 | 0.3% | 79,772 | 0.1% | 433 | 0.0% |
| Church | 146 | 4.2% | 1,316,864 | 1.1% | 39,975 | 1.8% |
| College/University | 52 | 1.5% | 6,980,335 | 6.0% | 291,437 | 12.9% |
| Data Center | 6 | 0.2% | 870,907 | 0.7% | 45 | 0.0% |
| Grocery | 185 | 5.3% | 28,007,049 | 24.0% | 13,996 | 0.6% |
| Gym/Athletic Club | 9 | 0.3% | 822,207 | 0.7% | 1,128 | 0.0% |
| Hi Rise Residential | 2 | 0.1% | 155,183 | 0.1% | 302 | 0.0% |
| Hospital | 44 | 1.3% | 2,090,542 | 1.8% | 69,907 | 3.1% |
| Institution/Government | 265 | 7.6% | 3,779,950 | 3.2% | 99,576 | 4.4% |
| Laundry/Dry Cleaners | 170 | 4.9% | 78,109 | 0.1% | 375,439 | 16.6% |
| Lodging/Hotel/Motel | 189 | 5.5% | 6,274,825 | 5.4% | 70,947 | 3.1% |
| Manufacturing | 17 | 0.5% | 573,125 | 0.5% | 3,412 | 0.2% |
| Office | 467 | 13.5% | 17,822,494 | 15.2% | 243,801 | 10.8% |
| Other | 274 | 7.9% | 6,606,506 | 5.7% | 387,539 | 17.1% |
| Other Health | 77 | 2.2% | 2,041,649 | 1.7% | 27,374 | 1.2% |
| Restaurant | 696 | 20.1% | 3,978,860 | 3.4% | 187,993 | 8.3% |
| Retail | 320 | 9.2% | 19,251,787 | 16.5% | 32,677 | 1.4% |
| Schools K-12 | 183 | 5.3% | 3,605,285 | 3.1% | 241,788 | 10.7% |
| Warehouse | 189 | 5.5% | 8,749,292 | 7.5% | 140,585 | 6.2% |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| COMBINED | | | | | | |
|----------------------|--------------|----------------|-----------------------------|----------------|--------------------------------|----------------|
| Building Type | Sites | | Expected program kWh | | Expected program therms | |
| | Count | Percent | Savings | Percent | Savings | Percent |
| Unassigned | 16 | 0.5% | 1,274,616 | 1.1% | 1,702 | 0.1% |
| Total | 3,466 | 100.0% | 116,901,271 | 100.0% | 2,264,419 | 100.0% |

3. METHODOLOGY

This section describes the methodology that was used by the evaluation team to determine the gross energy impacts of the ETO commercial retrofit program for program years 2008-2009. This effort employed standard energy program evaluation methods to provide the best available estimate of the total program energy impacts. The evaluation was performed as a series of six tasks that are described below.

Task 1: Kickoff Meeting

The purpose of this task was to collect the information necessary to finalize the work plan. SBW completed the following activities:

1. **Prepared for Meeting.** To prepare for the kickoff meeting, SBW became familiar with the data available from the ETO. SBW received and reviewed an electronic copy of the program tracking database. In addition, SBW requested and reviewed examples of project files for both the electric and gas measures.
2. **Conducted Kickoff Meeting.** The evaluation team met with ETO evaluation and program staff to discuss a variety of topics relevant to the work plan and evaluation methodology. SBW incorporated agreements reached at these meetings into the workplan.

Task 2: Sample Design and Workplan

Sample Design

SBW analyzed the ETO program database to determine the distribution of sites by savings in each program year and then implemented the sample based upon sampling decisions made by ETO in Task 1. Two separate samples were selected for the 2008 and 2009 program years (four samples total). For each year, one sample was selected from the list of sites that had non-zero electric savings and the other was selected from those sites with non-zero gas savings. Some sites had both gas and electric savings so some sites were selected in both samples. For all four samples (electric and gas for 2008 and 2009), stratified sample designs were used in selecting sites. ETO's total program expected savings were used to form the strata boundaries. Boundaries for strata and the allocation of cases to each stratum were set to achieve the best possible sample precision for the selected sample size. Further details of the sample design can be found in Section 4.

Workplan

Using the information gathered in Task 1, SBW prepared a workplan for the project. The workplan included a set of procedures for conducting all remaining aspects of the work. As part of this process, SBW established and documented a fixed sample size for the 2008 and 2009 program years of 116 cases. The workplan also included a project schedule. The workplan was submitted to ETO in draft form for review and comment. A final workplan was prepared in response to ETO comments.

The savings analysis documented in the approved workplan assumed that realized savings would be estimated by re-applying the program algorithms, under as-built and as-operated conditions. This method was successfully used for most cases. However, it could not be used in some cases because a useable

version of the program algorithm could not be provided. In these cases, SBW worked with ETO to establish appropriate alternative methods for estimating savings that utilized available performance data and provided the best possible program-level realized savings estimate within the project budget.

SBW created a sample control list that was used to track each sampled project throughout the evaluation process. A complete copy of the ETO program database, plus the information assigned to the sampled projects in the sampling process, was uploaded to the SBW server and used to initialize the program evaluation database.

This task also included the development of the project evaluation database that was used to assemble and perform quality control checks on all data needed to conduct the program-level impact evaluation. The database was created in Excel and was formulated to be consistent with all ETO data formatting and content requirements. The database included data accumulated from standardized site workbooks (implemented in Excel) that the evaluation staff used to assemble the data needed for gross impact analysis and to prepare the analysis results. At the end of the evaluation, the entire database was provided to the ETO as an electronic record of work performed.

Task 3: Site Data Collection

The purpose of this task was to collect all of the information needed to support the analysis of gross realized savings for the sampled measures. This was accomplished through the following steps.

- **Copy Project Files.** ETO provided scanned copies of the project files for each selected project. When available for custom measures, ETO also provided electronic versions of the savings calculation spreadsheets, simulation input/outputs and other information that supported the program savings estimate.
- **Training.** The SBW project manager and senior engineers trained the evaluation team on the recruitment, data collection and data analysis procedures. Training on the gross procedures included classroom sessions that are followed by in-field mentoring, as necessary.
- **Sample Recruitment.** ETO sent a letter of introduction to the contact for each of the sampled sites prior to recruitment. This letter helped to establish for these customers the importance of this work and their role in performing the work. It also introduced SBW as the evaluation contractor.

The appropriate site contact was called to recruit the customer for the evaluation. The call confirmed that the customer was able to provide a person that was knowledgeable about the location of the measure(s) in the sampled project and provide access to the measure(s). If successful, SBW also determined the most appropriate contact for the site visit.

- **Review Program File.** Each site that was successfully recruited was assigned to a lead analyst, who was responsible for both data collection and analysis of gross savings. The lead analyst reviewed all relevant information in the project file and extracted data that was important to the evaluation. In general this included the performance specifications of each measure (baseline and as-built) and operating hours for the equipment that comprised the sampled measures.

For each sampled prescriptive measure, SBW examined the program application form and determined the measure performance information that was input to the program software that estimated expected savings. For each sampled custom measure, SBW reviewed the savings analysis that was performed by the program and determined the input parameters that were required to re-estimate savings using this algorithm. Based on the findings from this review, the analyst selected an appropriate measure-specific data collection methodology. For cases where documentation of the program algorithm could not be provided, SBW worked with ETO to establish an appropriate method for estimating realized savings and selected an appropriate measure-specific data collection methodology.

- **Schedule Site Visit.** The appropriate site contact was called to schedule a site visit and obtain whatever other information was needed to adequately plan for the site visit. SBW field staff worked with the site contact to be sure that tenants or other occupants were notified about the site visit so that the field staff could get appropriate access to all of the installed measures.
- **Data collection - prescriptive measures.** On-site data collection involved the collection of the measure performance information (baseline and as-built) that was needed to re-estimate savings using the prescriptive algorithm, as documented in the program file review discussed above. Data was collected through direct observation by field staff or interviews with the site contact or other site personnel. The information was documented for use in rerunning the prescriptive software. If the evaluation values were significantly different than the program values, then reasons for the differences were noted in the documentation.
- **Data collection - custom measures.** On-site data collection involved the collection of the measure performance information (baseline and as-built) that was needed to re-estimate savings using the program custom algorithm, as specified in the measure-specific data collection methodology formulated during the project file review described above. Data was collected through direct observation by field staff or interviews with the site contact or other site personnel. The information was documented for use in re-estimating gross savings using the custom algorithm, or other agreed-upon methods for cases where the program algorithm could not be applied. If the evaluation values were significantly different than the program values, then reasons for the differences were noted in the documentation.
- **Data collection - supplemental characteristics data.** In addition to the measure performance data required for the prescriptive and custom measures, SBW collected supplemental characteristics data to support future commercial sector analyses. The supplemental data included general building physical and operational characteristics data that could be collected easily while on-site. The supplemental data was collected through direct observation by field staff or interviews with the site contact or other site personnel. The supplemental data collection guide is provided in Appendix B. It provides a complete listing of the supplemental data that was collected at each sampled site, to the extent that it was relevant and easily available. It also provides the data collection form. The supplemental data was collected in a fashion that was as consistent as possible with the procedures used in the *Assessment of the Commercial Building Stock in the Pacific Northwest*.

Task 4: Project-level Gross Savings Analysis

The purpose of this task was to analyze gross realized savings for each measure in the sampled projects. This was accomplished through the following steps.

- **Review program algorithms.** The analysis task began with a review of program algorithms. This was limited to custom measures with customized engineering calculations. It did not include a review of the underlying algorithms behind prescriptive deemed savings values or standardized calculation software (e.g., standard lighting spreadsheet). SBW documented the results of each review, with particular attention paid to recommendations for improvements (if any) to the algorithms that would increase the accuracy of the gross savings estimates.
- **Re-estimation of measure-level gross savings with program algorithm.** For prescriptive measures, gross realized savings were estimated by applying the program algorithm. For custom measures, the program algorithm was applied for cases where it was supplied by ETO. For custom measures where the program algorithm could not be applied, an alternative algorithm was applied, as agreed to with ETO. The baseline and as-built inputs to the algorithms came from the field data collected under Task 5 above. To the extent possible, reasons for differences between the program and evaluation savings estimates were documented. Measure-level savings were summed to project totals. Average demand (kW) savings were also computed for each electric measure.

Task 5: Program-level Gross Savings Analysis

The purpose of this task was to extrapolate gross savings from the sampled projects to the program level for program years 2008 and 2009. This was accomplished through the following steps.

- A project-specific savings realization rate was computed for each sampled project. This was the ratio of realized savings for the project to the expected savings in the program database. This could be more or less than 1, depending on whether more or less savings than the program originally estimated were found.
- An appropriate sample weight was assigned to each project. The large savers selected with certainty were assigned a sample weight of 1. Other projects, selected at random, represented more than one project in the population and thus were assigned a weight greater than 1.
- The aggregate realization rates, by sampling stratum, were applied to all other projects in the respective stratum. In this manner, sample results were extrapolated to the populations for each program year, yielding evaluation estimates of total realized savings by year.
- A program-level savings realization rate was computed for the 2008 and 2009 samples by dividing the realized program savings by the ETO expected program savings estimate.

Task 6: Reporting and Recommendations

In this task the draft and final impact evaluation report was prepared, covering work completed for both program years. The report described the methodology used in the evaluation to produce estimates of project-level and program-level realized savings. The report also documented the findings, conclusions and recommendations. The draft report was submitted to ETO for review and comment. A final version of the report was prepared that resolved any issues raised by ETO.

4. SAMPLE DESIGN

Two separate samples were selected for the 2008 and 2009 program years (four samples total). For each year, one sample was selected from the list of applicable sites that had non-zero electric savings and the other was selected from those sites with non-zero gas savings. Some sites had both gas and electric savings so some sites were selected in both samples.

ETO excluded certain measures from this evaluation because they were being studied in other evaluations. These included icemakers, steam traps, and zero-loss drains, as well as the classifications of “Studies” and “Zero-savers.” These excluded measures generally accounted for very little or no savings, with steam traps being a notable exception, accounting for 20% of the overall expected gas savings. Over a third (39%) of the sites in the program cycles included one or more eliminated measures in the project scope. The excluded measures are summarized in Table 4 below.

Table 4: Measures Excluded from Evaluation

| 2008 | | | | | | |
|------------------|------------|--------------|----------------------|-------------|-------------------------|--------------|
| Measure Type | Measures | | Expected program kWh | | Expected program therms | |
| | Count | Percent | Savings | Percent | Savings | Percent |
| Icemakers | 97 | 2.5% | 292,026 | 0.7% | 0 | 0.0% |
| Steamtraps | 142 | 3.7% | 0 | 0.0% | 318,588 | 27.0% |
| Studies | 291 | 7.6% | 0 | 0.0% | 0 | 0.0% |
| Zero Loss Drains | 1 | 0.0% | 386 | 0.0% | 0 | 0.0% |
| Zero-savers | 10 | 0.3% | 0 | 0.0% | 0 | 0.0% |
| Total | 541 | 14.1% | 292,412 | 0.7% | 318,588 | 27.0% |

| 2009 | | | | | | |
|------------------|------------|--------------|----------------------|-------------|-------------------------|--------------|
| Measure Type | Measures | | Expected program kWh | | Expected program therms | |
| | Count | Percent | Savings | Percent | Savings | Percent |
| Icemakers | 79 | 1.0% | 76,115 | 0.1% | 0 | 0.0% |
| Steamtraps | 66 | 0.8% | 0 | 0.0% | 141,919 | 13.1% |
| Studies | 648 | 8.3% | 0 | 0.0% | 0 | 0.0% |
| Zero Loss Drains | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Zero-savers | 15 | 0.2% | 0 | 0.0% | 0 | 0.0% |
| Total | 808 | 10.4% | 76,115 | 0.1% | 141,919 | 13.1% |

| Combined | | | | | | |
|------------------|--------------|--------------|----------------------|-------------|-------------------------|--------------|
| Measure Type | Measures | | Expected program kWh | | Expected program therms | |
| | Count | Percent | Savings | Percent | Savings | Percent |
| Icemakers | 176 | 1.5% | 368,141 | 0.3% | 0 | 0 |
| Steamtraps | 208 | 1.8% | 0 | 0.0% | 460,507 | 20.3% |
| Studies | 939 | 8.1% | 0 | 0.0% | 0 | 0.0% |
| Zero Loss Drains | 1 | 0.0% | 386 | 0.0% | 0 | 0.0% |
| Zero-savers | 25 | 0.2% | 0 | 0.0% | 0 | 0.0% |
| Total | 1,349 | 11.6% | 368,527 | 0.3% | 460,507 | 20.3% |

After removing the excluded measures catalogued above, we divided the remaining population into the four sample frames by year and fuel type. A stratification design was developed for all four samples. It is summarized in the Table 5 below.

Table 5: Recruited Sample

| Sample frame (program year + fuel saved) | Strata | Strata lower bound (Site kWh/yr. or Therms/yr.) | Number of sites | Sample % of savings | Sampled cases | Sampling percentage | Estimated sampling error at 90% confidence level |
|--|------------|--|--------------------|---------------------------|------------------|------------------------|--|
| | | | | | | | |
| 2008 kWh | 9 | 235,842 | 32 | 40% | 32 | 100% | |
| | 3 | 90,321 | 77 | 26% | 2 | 3% | |
| | 2 | 26,620 | 196 | 22% | 3 | 2% | |
| | 1 | 617 | 563 | 12% | 3 | 1% | |
| | 8 | 0 | 11 | 0.01% | 0 | 0% | |
| | All | | | 879 | 100% | 40 | 5% |
| 2009 kWh | 9 | 429,357 | 34 | 41% | 34 | 100% | |
| | 3 | 140,470 | 81 | 24% | 4 | 5% | |
| | 2 | 35,482 | 231 | 22% | 3 | 1% | |
| | 1 | 950 | 829 | 13% | 4 | 0.5% | |
| | 8 | 0 | 90 | 0.1% | 0 | 0% | |
| | All | | | 1,265 | 100% | 45 | 4% |
| 2008 therms | 9 | 29,235 | 7 | 43% | 7 | 100% | |
| | 3 | 7,017 | 11 | 19% | 2 | 18% | |
| | 2 | 2,476 | 29 | 15% | 2 | 7% | |
| | 1 | 176 | 205 | 23% | 4 | 2% | |
| | 8 | 0 | 39 | 0.7% | 0 | 0% | |
| | All | | | 291 | 100% | 15 | 5% |
| 2009 therms | 9 | 19,712 | 8 | 42% | 8 | 100% | |
| | 3 | 7,201 | 21 | 25% | 2 | 10% | |

| Sample frame (program year + fuel saved) | Strata | Strata lower bound (Site kWh/yr. or Therms/yr.) | Number of sites | Sample % of savings | Sampled cases | Sampling percentage | Estimated sampling error at 90% confidence level |
|--|------------|--|--------------------|---------------------------|------------------|------------------------|--|
| | 2 | 1,920 | 45 | 18% | 2 | 4% | |
| | 1 | 75 | 229 | 15% | 4 | 1% | |
| | 8 | 0 | 22 | 0.1% | 0 | 0% | |
| | All | | 325 | 100% | 16 | 5% | 15% |
| Total | | | 2,760 | | 116 | 4% | |

Each portion of the table lists the characteristics of the strata in each design, including the number of sites in the population, the total savings, and the sample quota. The sample included 85 cases with electric measures and 31 cases with gas measures, for a total of 116 sampled cases. These were divided fairly evenly between the 2008 and 2009 program years. These cases were included in 106 sites, so 10 sites had both kWh and therm cases selected.

Many sites included measures with small expected savings. To improve the efficiency of the evaluation, a large number of measures were treated as “Pass-thru.” These measures were assigned a realization rate of 1, and were not analyzed in detail. The Pass-thru treatment was applied to 60% of electric measures at selected sites, accounting for 5.8% of expected savings at those sites. It was also applied to 6.4% of gas measures at selected sites, accounting for 0.6% of expected savings at those sites.

All four sample designs included a certainty stratum (shown in Table 5 as stratum 9). All sites in this stratum were selected for evaluation. In each design, these strata and these sites account for at least 40% of the total savings for each population. In addition, all designs had an excluded stratum (stratum 8). These contain sites with very small savings. Removing them from the sample improved the precision of the final results. Also shown in the table is the expected precision for an estimate of total savings from the sample design.

The fraction of the cases selected in each stratum determined how the final results were weighted. The weight assigned to a case in each stratum was the inverse of the case’s probability of selection. The probability that a particular case was selected equals the number of cases selected from the stratum divided by the number of total cases in the stratum. For the certainty stratum the weight was 1, since all of the selected sites were successfully recruited into the study.

Each sample was selected by randomly ordering sites within each stratum and then selecting in random order the first set of sites that equal the strata quota as shown in the table above. For most of the selected cases, the ETO database had more than one measure.

Table 6 shows the distribution of the program population and sampled sites across the building types treated by the program. The table shows, for the combined two-year period, that groceries and retail were the building types most frequently included in the sample. Nineteen sites were selected in both of these categories. Offices were also selected quite often with 13 sites in the sample.

Table 6: Sample by Building Type

| Building Type | 2008 | | | 2009 | | | Combined | | |
|-------------------------|-----------------|---------------|-----------------|-----------------|---------------|-----------------|-----------------|---------------|-----------------|
| | Number of sites | Sampled sites | Percent sampled | Number of sites | Sampled sites | Percent sampled | Number of sites | Sampled sites | Percent sampled |
| Assembly | 8 | 1 | 12.5% | 23 | 2 | 8.7% | 31 | 3 | 9.7% |
| Auto Services | 23 | - | | 39 | - | | 62 | - | |
| Automotive Repair/Sales | 6 | - | | - | - | | 6 | - | |
| Church | 43 | - | | 58 | - | | 101 | - | |
| College/University | 19 | 2 | 10.5% | 23 | 5 | 21.7% | 42 | 7 | 16.7% |
| Data Center | 2 | 1 | 50.0% | 1 | 1 | 100.0% | 3 | 2 | 66.7% |
| Grocery | 36 | 6 | 16.7% | 130 | 13 | 10.0% | 166 | 19 | 11.4% |
| Gym/Athletic Club | - | - | | 7 | - | | 7 | - | |
| Hi Rise Residential | - | - | | 2 | - | | 2 | - | |
| Hospital | 12 | 2 | 16.7% | 16 | 1 | 6.3% | 28 | 3 | 10.7% |
| Institution/Government | 34 | 1 | 2.9% | 62 | 2 | 3.2% | 96 | 3 | 3.1% |
| Laundry/Dry Cleaners | - | - | | 7 | - | | 7 | - | |
| Lodging/Hotel/Motel | 78 | 4 | 5.1% | 96 | 4 | 4.2% | 174 | 8 | 4.6% |
| Manufacturing | 9 | - | | 6 | - | | 15 | - | |
| Office | 80 | 5 | 6.3% | 228 | 8 | 3.5% | 308 | 13 | 4.2% |
| Other | 104 | 9 | 8.7% | 62 | 2 | 3.2% | 166 | 11 | 6.6% |
| Other Health | 25 | 2 | 8.0% | 32 | 1 | 3.1% | 57 | 3 | 5.3% |
| Restaurant | 336 | 3 | 0.9% | 272 | 4 | 1.5% | 608 | 7 | 1.2% |
| Retail | 127 | 9 | 7.1% | 152 | 10 | 6.6% | 279 | 19 | 6.8% |
| Schools K-12 | 74 | - | | 93 | 1 | 1.1% | 167 | 1 | 0.6% |
| Warehouse | 67 | 3 | 4.5% | 114 | 3 | 2.6% | 181 | 6 | 3.3% |
| Unassigned | 11 | 2 | 18.2% | 1 | - | | 12 | 2 | 16.7% |
| Total | 1,094 | 50 | 4.6% | 1,424 | 57 | 4.0% | 2,518 | 107 | 4.2% |

Does not count measures excluded from the evaluation

Some sites were selected in both years

The program database classified these measures according to standardized measure types, as shown in Table 7 below. The majority of sampled measures were lighting and lighting control, reflecting the preponderance of these measures in the portfolio. HVAC, motors, and custom measures were also well-represented in the sample.

Table 7: Sample by Measure Type

| Measure Type | 2008 | | | 2009 | | | Combined | | |
|-----------------|--------------------|---------------------------|-----------------|--------------------|---------------------------|-----------------|--------------------|---------------------------|-----------------|
| | Number of measures | Measures at sampled sites | Percent sampled | Number of measures | Measures at sampled sites | Percent sampled | Number of measures | Measures at sampled sites | Percent sampled |
| Custom Controls | 26 | 14 | 54% | 83 | 7 | 8% | 109 | 21 | 19% |
| Custom Gas | 36 | - | 0% | 1 | 0 | 0% | 37 | - | 0% |
| Custom Other | 65 | 7 | 11% | 116 | 36 | 31% | 181 | 43 | 24% |
| Food Service | 482 | 7 | 1% | 454 | 5 | 1% | 936 | 12 | 1% |
| HVAC | 176 | 15 | 9% | 349 | 38 | 11% | 525 | 53 | 10% |
| Insulation | 31 | 3 | 10% | 111 | 2 | 2% | 142 | 5 | 4% |

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| Measure Type | 2008 | | | 2009 | | | Combined | | |
|-------------------|--------------------|---------------------------|-----------------|--------------------|---------------------------|-----------------|--------------------|---------------------------|-----------------|
| | Number of measures | Measures at sampled sites | Percent sampled | Number of measures | Measures at sampled sites | Percent sampled | Number of measures | Measures at sampled sites | Percent sampled |
| Lighting | 2,112 | 131 | 6% | 4,984 | 232 | 5% | 7,096 | 363 | 5% |
| Lighting Controls | 297 | 36 | 12% | 751 | 40 | 5% | 1,048 | 76 | 7% |
| Motors | 48 | 12 | 25% | 82 | 24 | 29% | 130 | 36 | 28% |
| Water Heating | 26 | 3 | 12% | 41 | 1 | 2% | 67 | 4 | 6% |
| Total | 3,299 | 228 | 7% | 6,972 | 385 | 6% | 10,271 | 613 | 6% |

Does not count measures excluded from the evaluation

Includes "Pass-thru" measures

5. FINDINGS

This section presents and discusses the energy impact results for measures implemented by the commercial retrofit program during the 2008 and 2009 program years. It begins with a discussion of the sample disposition, then presents and analyzes evaluated kWh and therm savings and realization rates for the measures in the sample. Next, the section briefly discusses the results from the review of measure savings algorithms. The section ends with a presentation and discussion of evaluated savings results at the program level.

5.1. Sample Disposition

The evaluation team made considerable efforts to recruit each site, and complete data collection and analysis for each sampled measure. In the end, all sites in the primary sample were successfully recruited. All of the customers approached had a positive attitude towards participation and allowed site access to observe the measures.

5.2. Measure Realization Rates

A separate engineering analysis of gross savings (kWh and therms) was performed for each measure designated for inspection using the measure-specific data that was collected during the site visits. The savings were computed using the data collection and analysis methods described in Section 3 above. Realized average kW savings were computed by dividing the annual kWh savings by the number of annual hours that the measure was in operation.

At each sampled site, the evaluation analysts focused on the significant measures (270 measures across all sampled sites). Ones accounting for a negligible portion of the overall program savings were “passed through,” or assigned evaluation savings equal to expected savings. Of the electric measures, 40% (226 of 566) were inspected, and the rest were passed through. These latter measures were overwhelmingly (nearly 90%) small lighting measures. The 60% pass-through measures only accounted for 6% of the total expected electric savings. Of the gas measures, 94% (44 of 47) were inspected, and the rest were passed through. The 6% pass-through measures only accounted for 0.6% of the total expected gas savings.

Realization rates were computed for each sampled measure using the realized kWh/therm savings results and the annual savings estimated by the program as follows:

$$\text{Realization Rate} = \text{realized annual energy savings} / \text{expected annual energy savings}$$

The expected savings values were taken from the ETO tracking database. If the realized energy savings equaled the expected energy savings, then the realization rate equaled unity (1.0). kW realization rates were not computed because expected kW savings were not included in the ETO tracking database.

Figure 2 below summarizes the realization rates for the 270 sampled and inspected measures, in the form of a distribution graph sorted from lowest to highest realization rates for electric and gas measures, as well as all measures combined. Measure realization rates ranged from a low of zero to a high of nearly three. This figure reveals that about half of these measures had realization rates at or very near one. About 9% of the measures yielded little or no savings: 5% had no savings, while another 4% realized less than

half of their expected savings. These low savers were disproportionately gas measures, as only 7% of the electric measures fell into this group, while 20% of the gas measures did. A small number of measures (4%) had savings 50% or more than expected. Of the 12 measures that had no savings, the primary reasons were that the measures had not been installed (or were installed incorrectly) in the first place or were removed after installation, or that the facility was vacant at the time of inspection¹. Unusually high realization rates were typically caused by overly conservative estimates of expected savings by the program. Details of the realized annual gross savings and realization rate computed for each sampled measure can be found in Appendix C – Measure-level Evaluation Results.

¹ Assessing the true impact of vacancies is challenging, however, as vacant buildings may be reoccupied, yielding savings again, though these savings could be affected by future remodels.

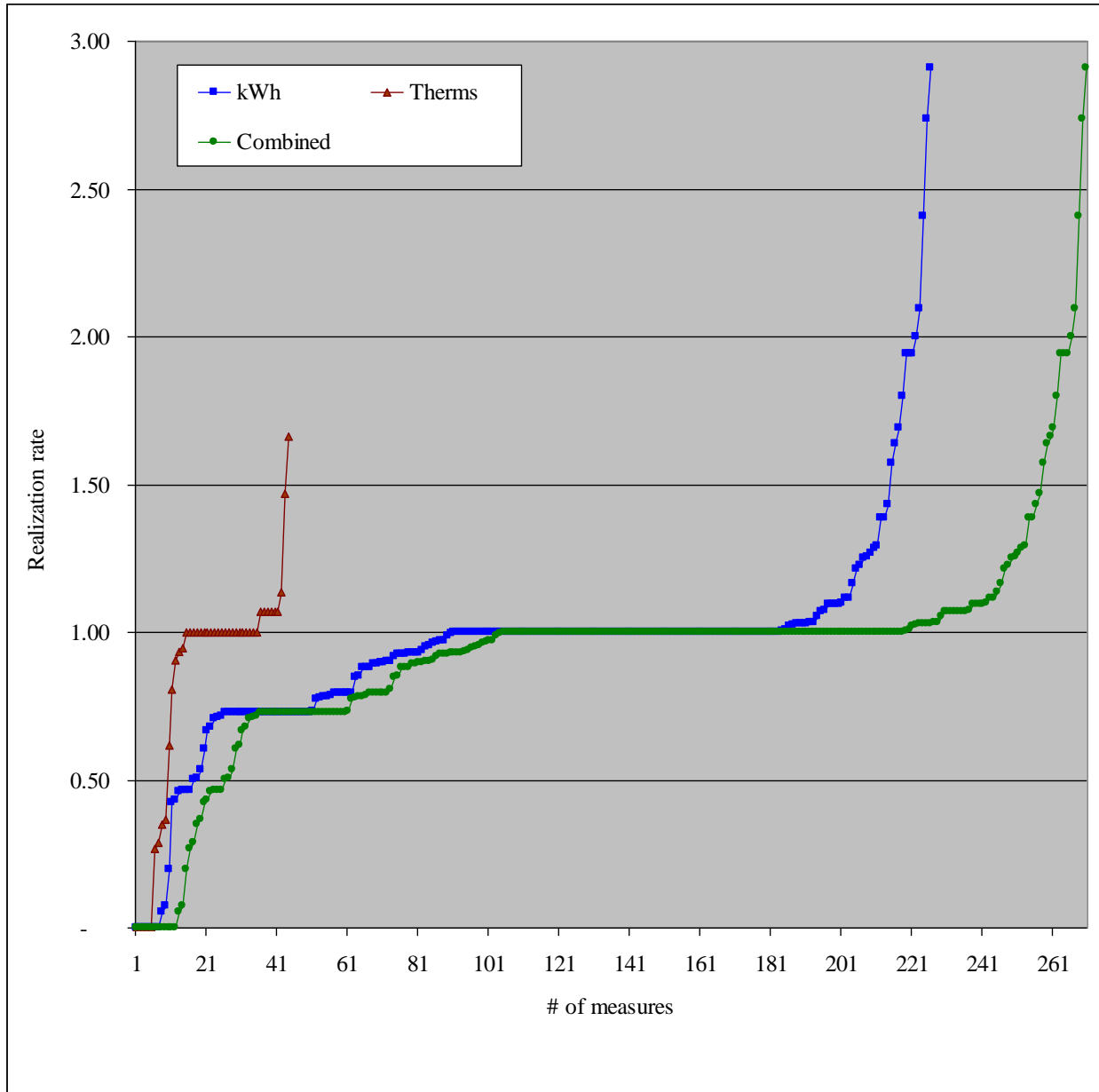


Figure 2: Distribution of Measure Realization Rates.

5.2.1. Measure Type Results

Table 8 shows the aggregated realization rates by measure type for the inspected sample. Note that these results are unweighted, and thus do not reflect portfolio-level results. They are provided here solely to provide insights into whether groups of measures are performing better, worse, or the same as expected. This table also provides corresponding realization rates from the most recent past evaluation, though any comparisons should take into account the fact that possible methodological differences between the two evaluations could explain some of the differences present.

Measure types with lower-than-average realization rates and more robust sample sizes include: Custom Controls (0.79), HVAC (0.73), and Lighting Controls (0.78). Examining the reasons for differences, as discussed in the next section, did not yield generalizable explanations for why these particular measure types underperformed. We also compared all lighting measures in aggregate against all non-lighting measures, and found negligible differences between the realization rates.

Table 8: Realization Rates by Measure Type

| Measure Type | Number of evaluated electric measures** | Number of evaluated gas measures** | 2008-09 Realization rates* | | 2006-07 Realization rates (for comparison) | |
|-------------------------|---|------------------------------------|----------------------------|-------------|--|-------------|
| | | | kWh | therms | kWh | therms |
| Custom Controls | 16 | 5 | 0.79 | 0.56 | - | - |
| Custom Gas | - | - | - | - | - | 0.97 |
| Custom Other | 32 | 6 | 0.99 | 0.89 | 0.98 | 1.00 |
| Food Service | 2 | 4 | 0.93 | 0.83 | 1.00 | 1.00 |
| HVAC | 24 | 21 | 0.73 | 1.07 | 1.00 | 1.00 |
| Insulation | - | 3 | - | 1.00 | - | 1.00 |
| Lighting | 111 | - | 0.94 | - | 0.98 | 1.00 |
| Lighting Controls | 22 | - | 0.78 | - | - | - |
| Motors | 19 | 1 | 0.99 | 0.37 | 0.98 | 1.00 |
| Water Heating | - | 4 | - | 0.97 | - | - |
| Subtotal - Lighting | 133 | - | 0.91 | - | 0.98 | - |
| Subtotal - Non Lighting | 93 | 44 | 0.89 | 0.92 | 0.99 | 0.97 |
| Total | 226 | 44 | 0.90 | 0.92 | 0.98 | 0.97 |

* Presented for information only. Measure-type results are not statistically valid

** Does not Include "Pass-thru" measures

5.2.2. Reasons for High/Low Values

One objective of the evaluation was to determine reasons actual savings for measures varied significantly from expected savings, resulting in particularly high or low realization rates. This information will assist ETO in formulating ways to improve program calculation methods and processes to enhance future realization rates and program cost effectiveness. During the evaluation analysis of realized savings, we noted key reasons for differences between the realized and expected energy savings. These reasons were categorized and documented in the individual site workbooks. The six categories we applied, along with illustrative examples, are listed below:

- **Count:** the number of measure-affected devices actually installed and operational was much higher/lower than expected, e.g., the program application documented 100 lighting fixtures being installed, but only 80 were found, since 20 had been removed as part of a remodel.
- **Control settings:** the controls for a measure-affected device are programmed differently than expected, e.g., a setback thermostat programmed to maintain a 70°F unoccupied temperature, rather than 65°F.
- **Equipment size:** the size of the measure-affected device (e.g, fixture wattage, chiller tonnage, nameplate capacity) is significantly different from the expected value.
- **Equipment efficiency:** the efficiency of the measure-affected device (e.g, a chiller) is significantly different from the expected value.
- **Operating hours:** the measure-affected equipment runs for a longer or shorter period than expected.
- **Other:** other reasons not captured in the previous categories.

In cases where more than one reason existed for differences, we also noted which reason was the primary one. The reasons we uncovered for the sampled measures are summarized in Table 9. Of the 270 measures we inspected, we identified 153 reasons for differences. Overwhelmingly, these differences tended to reduce savings. The most common reasons for reduced savings were lower operating hours and fewer installed devices. In addition, the “Other” category included situations such as measures not actually being installed, vacant buildings², inappropriate algorithms, or questionable algorithm inputs.

² The evaluation identified two vacant sites. Both were part of the 2009 therm sample. One was vacant because the customer went out of business. The other was vacant because of a major remodel. In both cases we did not inspect the measures because of the vacancy, so we do not know if the measure was successfully installed and achieving the expected savings. In both cases the sites could be re-occupied at some point in the future.

Since we did not do an inspection, we could not provide an accurate assessment of the vacancy impact. In a hypothetical scenario assuming a realization rate of 1.0 for all measures at the two vacant sites, though, the 2009 therm domain realization rate increased from 0.75 to 0.80. The overall two-year therm realization rate increased from 0.81 to 0.83.

Table 9: Frequency of Reasons for High/Low Realization Rates

| Sample/ Reason for difference | | Primary reason | Secondary reason | Increased savings | Reduced savings |
|----------------------------------|----------------------|----------------|------------------|-------------------|-----------------|
| N | | 109 | 44 | 41 | 112 |
| N as % of all inspected measures | | 40% | 16% | 15% | 41% |
| Reasons | Count | 20 | 17 | 5 | 32 |
| | Control settings | 11 | 4 | 5 | 10 |
| | Equipment size | 9 | 3 | 8 | 4 |
| | Equipment efficiency | 3 | 3 | 0 | 6 |
| | Operating hours | 34 | 12 | 7 | 39 |
| | Other | 32 | 5 | 16 | 21 |

Does not include "Pass-thru" measures

5.3. Review of Program Algorithms

The evaluation included a review of program algorithms for custom measures with customized engineering calculations. Excluded from this review were algorithms behind prescriptive deemed savings values or standardized calculation software. We documented the results of each custom algorithm review, and developed, when possible, recommendations for improvements that would increase the accuracy of the savings estimates.

The program population included a large number of refrigeration measures that a large regional supermarket chain implemented at many of its stores. We assessed how savings were calculated for these measures, and from our findings, developed two specific algorithm recommendations:

- **VFDs on refrigeration compressors and condensers:** Some program savings estimates were applied without regard to store differences such as equipment, load, or ambient temperatures. Given how the latter factors can vary considerably, such a “deemed” approach can lead to very inaccurate savings estimates. We recommend updating the algorithms to better account for specific conditions at each location.
- **Efficient refrigeration cases:** The program developed separate savings estimates for submeasures in this category, such as (a) efficient evaporator fan motors, (b) case lighting controls, and (c) case LED lighting retrofits: In these instances, the program algorithms did not account for compressor energy savings due to reduced refrigeration load. We recommend that the algorithms be updated to include compressor effects.

The custom measures review relied on a wide range of techniques to estimate savings, including bin analysis, hourly simulation (eQUEST/Trace 700), computational fluid dynamics (CFD) analysis, utility bill analysis, and proprietary vendor programs. In many cases, the program documentation we were able to obtain was insufficient to fully analyze the underlying algorithms in these analyses. We have, however, listed below some overarching recommendations regarding how custom savings is calculated.

- Fully document assumptions / inputs into spreadsheet and bin analyses.

- Ensure all necessary files for recreating outputs to hourly simulation models are preserved for full transparency.
- Account for interactive effects between measures. For projects with large HVAC measures, consider upgrading from bin analyses to hourly simulation models (e.g., eQUEST, Trace 700, or equivalent) when interactive effects between measures are likely to be significant. For instances where the evaluation team developed their own simulation models, we performed rolling baseline analyses to account for these interactions.
- Ensure that motor power factors are accounted for, not only for efficient AC motor measures, but for measures that affect AC motors (such as custom building controls).

Program algorithms for lighting measures were not formally included as part of this review. Nonetheless, evaluation analysts found that in general, the equations for calculating lighting savings were reasonable. Three possible refinements would be to: (1) include a utilization factor to account for burnt-out lights bulb, (2) allow users to override standard values with specific fixture wattages, if the latter were readily available and more accurate, and (3) incorporate factors to account for heating and cooling system interactions³. Since lighting heat-cool interactions were not part of the program algorithms, they were not included in the evaluation calculations, either. As a result, the evaluated lighting savings presented in this report are slightly overstated, though ETO may apply downstream corrections that mitigate or eliminate this effect.

5.4. Annual Program Energy Savings

The results from the individual sample points were extrapolated to two-year (2008-09) program totals using the methods described in Section 3. Program extrapolations were made for gross realized savings in both two fuel groups (electric and gas) for each program year. The results from the extrapolation within each of the four sample frames are shown in Table 10. Combining the sample frames yields the annual kWh and therm savings shown in Table 11. For the 2008 program year, these tables show program-level realization rates of 0.99 and 0.87 for kWh and therms, respectively. For the 2009 program year, the realization rates were estimated to be 0.85 and 0.75 for kWh and therms, respectively. It is noted that the 2009 realization rates for both fuel types are lower than the corresponding 2008 values. One thought is that the aggressive increases in program savings targets (for example, the electric savings goal for 2009 is over 75% higher than the preceding year), might have overstretched the program's delivery mechanisms, resulting in lower realization rates. While this is possible, we cannot state this with any certainty, since the predicted sampling margin of error of 14-15% exceeds the 12-14% differences.

Table 11 also compares the 2-year realization rates from this evaluation to the equivalent rates from the previous evaluation of this program. The comparison shows a similar kWh realization rate between 2008/09 and 2006/07. For therms, however, this evaluation shows 2-year realization rate of 0.81, which is

³ These factors might be generic, based on typical expected performance for a given building type and/or climatic region. The Regional Technical Forum (RTF) is currently developing enhanced sets of these factors.

significantly (19 percent) lower than the previous evaluation value of 1.0. This trend is found for both program years as well as the 2-year total. The reasons for these differences are not known.

Table 10: Evaluated Savings by Sampling Domain

| Sample frame (program year + fuel saved) | Strata | Strata lower bound (Site kWh/yr. or Therms/yr.) | Number of sites | Sampled cases | Strata weight | Sample expected savings | Sample evaluated savings | Weighted expected savings | Weighted evaluated savings | Realization rate |
|--|--------|--|--------------------|------------------|------------------|-------------------------------|--------------------------------|---------------------------------|----------------------------------|---------------------|
| 2008 kWh | 9 | 235,842 | 32 | 32 | 1.0 | 16,900,448 | 15,416,520 | 16,900,448 | 15,416,520 | |
| | 3 | 90,321 | 77 | 2 | 38.5 | 404,290 | 400,562 | 15,565,165 | 15,421,637 | |
| | 2 | 26,620 | 196 | 3 | 65.3 | 106,169 | 91,002 | 6,936,375 | 5,945,464 | |
| | 1 | 617 | 563 | 3 | 187.7 | 46,869 | 59,487 | 8,795,749 | 11,163,727 | |
| | 8 | 0 | 11 | 0 | 1.0 | 6,237 | 6,237 | 6,237 | 6,237 | |
| All | | | 879 | 40 | | | | 48,203,974 | 47,953,585 | 0.99 |
| 2009 kWh | 9 | 429,357 | 34 | 34 | 1.0 | 30,039,917 | 27,387,431.00 | 30,039,917 | 27,387,431 | |
| | 3 | 140,470 | 81 | 4 | 20.3 | 1,118,145 | 713,502.00 | 22,642,436 | 14,448,416 | |
| | 2 | 35,482 | 231 | 3 | 77.0 | 226,056 | 209,264.00 | 17,406,312 | 16,113,328 | |
| | 1 | 950 | 829 | 4 | 207.3 | 53,880 | 55,042.00 | 11,166,630 | 11,407,455 | |
| | 8 | 0 | 90 | 0 | 1.0 | 67,997 | 67,997 | 67,997 | 67,997 | |
| All | | | 1,265 | 45 | | | | 81,323,292 | 69,424,626 | 0.85 |
| 2008 therms | 9 | 29,235 | 7 | 7 | 1.0 | 366,926 | 297,920.62 | 366,926 | 297,921 | |
| | 3 | 7,017 | 11 | 2 | 5.5 | 30,936 | 30,936.00 | 170,148 | 170,148 | |
| | 2 | 2,476 | 29 | 2 | 14.5 | 10,011 | 7,516.00 | 145,160 | 108,982 | |
| | 1 | 176 | 205 | 4 | 51.3 | 4,888 | 4,482.00 | 250,510 | 229,703 | |
| | 8 | 0 | 39 | 0 | 1.0 | 6,000 | 6,000 | 6,000 | 6,000 | |
| All | | | 291 | 15 | | | | 938,743 | 812,753 | 0.87 |
| 2009 therms | 9 | 19,712 | 8 | 8 | 1.0 | 361,449 | 388,517.31 | 361,449 | 388,517 | |
| | 3 | 7,201 | 21 | 2 | 10.5 | 21,368 | 9,475.00 | 224,364 | 99,488 | |
| | 2 | 1,920 | 45 | 2 | 22.5 | 5,327 | 2,945.00 | 119,858 | 66,263 | |
| | 1 | 75 | 229 | 4 | 57.3 | 1,261 | 496.00 | 72,192 | 28,396 | |
| | 8 | 0 | 22 | 0 | 1.0 | 1,050 | 1,050 | 1,050 | 1,050 | |
| All | | | 325 | 16 | | | | 778,913 | 583,714 | 0.75 |

Table 11: Evaluated Savings by Program Year

| Program year | Number of sites | Expected program savings | | Realized savings (evaluated) | | Realization rates | |
|----------------------------------|-----------------|--------------------------|------------------|------------------------------|------------------|-------------------|-------------|
| | | kWh | therms | kWh | therms | kWh | therms |
| <i>Previous evaluation cycle</i> | | | | | | | |
| 2006 | 1,611 | 31,326,511 | 985,727 | 28,193,860 | 969,955 | 0.90 | 0.98 |
| 2007 | 1,463 | 26,531,894 | 526,998 | 24,966,512 | 540,700 | 0.94 | 1.03 |
| Total | 3,074 | 57,858,405 | 1,512,725 | 53,160,372 | 1,510,655 | 0.92 | 1.00 |
| <i>Current evaluation cycle</i> | | | | | | | |
| 2008 | 1,170 | 42,105,793 | 862,294 | 41,887,080 | 746,564 | 0.99 | 0.87 |
| 2009 | 1,590 | 74,426,951 | 941,618 | 63,537,310 | 705,644 | 0.85 | 0.75 |
| Total | 2,760 | 116,532,744 | 1,803,912 | 105,424,391 | 1,452,208 | 0.90 | 0.81 |

6. CONCLUSIONS AND RECOMMENDATIONS

From the results of the impact evaluation of gross realized savings for the 2008-09 program years, the following key conclusions were drawn.

1. **Installation Verification** – The evaluation verified through field inspection that 96 percent of the sampled and assessed measures were either fully or partly installed and operational. When they occurred, partial installations and variations from the expected measure operation accounted for much of the differences between expected and realized annual savings. Oftentimes, the timing and reasons for the discrepancies we encountered were unclear.
2. **Gross savings realized** – Significant gross energy savings were found for both fuel types in each program year. Unweighted measure-level results show a range in realization rates from zero to nearly three. Domain-level results for the electric and gas fuel types indicate that realized savings were less than expected savings for both fuel types in both program years. The electric realization rate was estimated to be 0.90 across the two program years. The therm realization rate was estimated to be 0.81 for the two-year period.
3. **Major reasons for differences between the expected and realized savings** – The realized and expected gross savings differed for a variety of reasons. In most cases the differences tended to reduce savings. The most common reasons for reduced savings were fewer installed devices and lower operating hours. We found no evidence that the latter factor was driven by the economic downturn in 2008-09.
4. **Algorithm review** – In many instances, custom algorithms could not be reviewed due to a lack of documentation. When they could be reviewed, the custom algorithms were generally found to be reasonable. Some general recommendations were made for reviewed algorithms where improvements were appropriate.

Findings from this evaluation led to the following recommendations:

1. **Feedback to ETO savings estimates.** The ETO estimates of expected savings have the disadvantage of having to predict the future performance of a measure before it is installed. The evaluation has the advantage of estimating realized savings for a measure under as-built and operated conditions. Because of these different perspectives, differences between expected and realized savings are unavoidable. The evaluation was able to gauge measure conditions at a single point in time, but further in-depth study of measures in the evaluation sample, where significant differences in the estimates were found, can improve the ability of the ETO to predict savings and/or ensure good performance for future measures. It is recommended that ETO carefully study these cases, such as by revisiting sites and speaking with customers and vendors to understand better the reasons why certain measures performed poorly. Information from such customer follow-up might lead to improved procedures for inspection, quality control, and training, which in turn may increase realization rates in future evaluations.
2. **Project documentation.** The value and cost-effectiveness of the evaluation was very dependent upon access to accurate and complete program documentation for each sampled project. The

documentation should have been provided to the evaluation in sufficient detail for an independent third party to be able to understand expected measure performance. It should have included the information and tools necessary to understand the algorithm that was used to calculate the expected savings, in an electronic format necessary to reproduce the savings estimate.

Adequate documentation was provided for most sampled projects. However, there were a significant number of cases where sufficient documentation was not provided. This was especially true for non-lighting projects where the expected savings were calculated with an hourly simulation or proprietary software. Compensating for this lack of documentation significantly increased the cost of the evaluation. It is recommended that ETO improve the completeness of the project documentation in future program years so that the evaluations can be supplied with the information and tools necessary to cost-effectively complete the evaluation scope specified by ETO. This includes items such as measure performance specifications, documentation of assumptions made and calibration methods used during the analysis of expected savings, and backup information related to the calculations made.

All spreadsheet calculation tools should be provided in Excel format (not pdf) so that the equations can be understood and the savings estimates can easily be reproduced. When hourly simulations tools are used, documentation should include the final as-built energy modeling files, in electronic format, that are needed to reproduce the expected savings analysis. It is also recommended that the use of proprietary software be minimized.

Perhaps the most expeditious way to provide program files to future evaluators would be to store all pertinent files for a given site in a well-documented electronic folder, which could be passed on in its entirety should that site be sampled in the evaluation.

- 3. Future evaluation approaches.** The scope of this evaluation favored a large sample size to minimize sampling error. The rigor level of the engineer analysis applied to each project was limited to a re-application of the algorithm used in the expected savings analysis. Site-specific data collection was specified for each sampled project; however, it did not allow for measurements to be made to support the evaluation analysis. The inability to modify the algorithm (when appropriate) and take measurements to support the evaluation analysis resulted in increased measurement error. ETO may want to re-examine the balance between sampling and measurement error for future evaluations of this sector.

One approach would be to move the balance towards decreased measurement error, at the expense of sample size. A better overall result will probably be achieved by a somewhat smaller sample coupled with engineering estimates that are improved by justifiable algorithm revisions and selected post-retrofit measurements of measure performance. Feedback to the program on algorithm improvements and insights on measure performance from the measurements will also help to improve the realization rates for future evaluations. The increased use of baseline measurements to support the expected savings analysis should also be considered, when justified.

Another approach would be to adopt a two-track evaluation strategy that added discrete verification activities to the existing impact quantification framework. Verification could involve

visiting sites and quickly assessing whether measures were installed and operational. Since this level of treatment is less expensive than impact quantification, more sites could be sampled within a given budget, potentially more measure failures could be observed, and thus more robust conclusions about program process improvements might be obtained.

A variant on either approach would be to divide the evaluation sample into specific domains that could better illuminate different programmatic elements. For instance, if different contractors manage the lighting and non-lighting projects, then perhaps the evaluation should select corresponding samples from each group. Similarly, if projects with small and large savings are processed differently, then the evaluation might select separate samples for two or groupings by savings size,

4. **Measure interactive effects.** The evaluation noted that the expected savings analysis did not adequately address interactive effects between measures for projects where the measures were interactive with each other. For interior lighting measures, the expected savings did not capture interactions with the HVAC system, when they were relevant. It is recommended that the expected savings methodologies be upgraded to capture interactive effects where they are significant. For cases where multiple interactive measures are analyzed with a simulation, it is recommended that a rolling baseline or other suitable approach be used to assess the interactive effects.
5. **Reporting of measures in the tracking database.** The evaluation noted that measures were not consistently reported in the ETO tracking database. In some cases all measures in a project were combined into a single database entry. In other cases, separate line items were provided for each measure in the project. It is recommended that the ETO database reporting procedures be updated to include more consistency in the way that measures are documented. For evaluation purposes, a more detailed reporting of the measures is preferred.

APPENDIX A – MEASURE TYPE MAPPING

The program tracking database contained 11,620 individual measures. Program administrators assigned each of these measures one of 45 entity codes (“ENTITYCODE”) (and a corresponding description of the code, “entitydesc”). For the evaluation, these entity codes were then grouped into 10 measure types to make the analysis results more easily discernable. How the measure types maps to entity codes is shown in Table 12. As best as could be determined, these measure types are very similar to those used in the previous impact evaluation, making it possible to compare results from the previous and current impact evaluations.

The 10 measures types are as follows:

- Custom Controls
- Custom Gas
- Custom Other
- Food Service
- HVAC
- Insulation
- Lighting
- Lighting Controls
- Motors
- Water Heating

Table 12. Entity Codes and Measure Types

| ENTITYCODE | entitydesc | Count | Measure Type |
|-----------------|---------------------------------|-------|-------------------|
| BOILER | Boiler | 50 | HVAC |
| CEILINGINSULATE | Ceiling insulation | 108 | Insulation |
| CONTROLS | Controls | 13 | Custom Controls |
| COVER | Night covers | 4 | Custom Other |
| CUSTOMBOILER | Custom boiler | 12 | HVAC |
| CUSTOMBUILDCON | Custom buidling controls | 58 | Custom Controls |
| CUSTOMCHILL | Custom chiller | 17 | HVAC |
| CUSTOMDATCENT | Custom data center | 1 | Custom Other |
| CUSTOMDUCT | Custom ducts | 4 | HVAC |
| CUSTOMECON | Custom economizer | 12 | HVAC |
| CUSTOMEMS | Custom energy management system | 36 | Custom Controls |
| CUSTOMERDELAMP | Custom delamping | 9 | Lighting |
| CUSTOMFRIDGE | Custom refrigerator | 7 | Food Service |
| CUSTOMGAS | Custom gas measure | 37 | Custom Gas |
| CUSTOMHEATREC | Custom heat recovery | 9 | Custom Other |
| CUSTOMHVAC | Custom HVAC | 18 | HVAC |
| CUSTOMLIGHT | Custom lighting | 647 | Lighting |
| CUSTOMLIGHTCON | Custom lighting control | 48 | Lighting controls |
| CUSTOMMOTOR | Custom motor | 13 | Motors |
| CUSTOMOTHER | Custom other measure | 133 | Custom Other |
| CUSTOMTSTAT | Custom thermostat | 2 | Custom Controls |
| CUSTOMVAV | Custom VAV | 5 | HVAC |
| CUSTOMVENT | Custom ventilation | 4 | HVAC |
| CUSTOMVFD | Custom VFD | 3 | Motors |
| CUSTOMVFDS | Custom VFD | 52 | Motors |
| DHW | Domestic hot water measures | 23 | Water Heating |
| FOODEQUIP | Food equipment | 442 | Food Service |
| FREEZER | Freezer | 187 | Food Service |
| FRIDGE | Refrigerator | 300 | Food Service |
| GASFURNACE | Gas furnace | 34 | HVAC |
| GASUNITHEAT | Gas unit heater | 3 | HVAC |
| HEATPUMP | Heat pump | 228 | HVAC |
| HVAC | HVAC | 114 | HVAC |
| ICEMAKER | Icemaker | 176 | Food Service |
| IRRIGATE | Irrigation | 1 | Custom Other |
| LIGHTCONTROL | Lighting controls | 1003 | Lighting controls |
| LIGHTING | Lighting | 6461 | Lighting |

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| ENTITYCODE | entitydesc | Count | Measure Type |
|-------------------|-----------------------|--------------|---------------------|
| MOTOR | Motors | 62 | Motors |
| RADIANTHEAT | Radiant heating | 24 | HVAC |
| STEAMTRAP | Steam traps | 208 | HVAC |
| STUDY | Study | 939 | Study |
| TANKDHW | Tanked water heater | 23 | Water Heating |
| TANKLESS | Tankless water heater | 21 | Water Heating |
| VIRTUALIZATION | Virtualization | 35 | Custom Other |
| WALLINSULATE | Wall insulation | 34 | Insulation |

APPENDIX B – SUPPLEMENTAL DATA COLLECTION GUIDE

Supplemental data is defined as information not directly related to the impact evaluation but that is expected to be of value to future data analyses of commercial building characteristics data. Data collection for all sampled sites included the compilation of the supplemental data elements listed below, if they were relevant. The supplemental data was documented in a dedicated sheet in the site workbook. The supplemental data was collected before or after the site inspection through direct observation and/or an interview with facility staff.

The following supplemental data was collected for each sampled site:

- **Floor area of affected building** – The gross floor area in square feet of the building(s) in which the measures were installed. Exclude parking structure floor area.
- **Floor area of parking structure** – Gross floor area in square feet of the parking structure either directly affected by measures or attached to the building affected by the measures
- **Building type: Primary, Secondary, Tertiary** – List in order of greatest floor area to least floor area, respectively, the building use type in which the measures were installed. If a building type is less than 20% of total gross floor area, do not include. Select use types from the “Description” column in Table 13. Building Type Descriptions.
- **Weekly business hours** – List the hours that the facility is normally open for business. Do not include uses such as security office or night call center that only occupy a small fraction of the gross floor area.
- **Seasonal variation in weekly business hours** – List any seasonal variations in the weekly business hours that occur during the normal business year.
- **Single building site or multiple building site** – Identify whether the customer’s site in which the measures were installed is comprised of a single building or multiple buildings. The measures may have been installed in only one building at a site identified as a multiple building site.
- **Ownership structure** – Identify the customer owning the facility as either private ownership, non profit ownership or government ownership
- **Owner occupied or leased space** – Identify whether the building(s) affected by the measures is predominately owner occupied or space leased to non-owner tenants.
- **Predominate year of construction** – Identify the predominate original year of construction of the measure affected building(s)
- **Year of major renovation** - If any major renovation or addition (affecting more than 50% of floor area) has been completed, identify the year of occurrence
- **Percent of floor area heated** - Excluding parking structures, estimate the percent of the gross floor area (in the measure-affected building(s)) that is heated

- **Percent of floor area cooled** – Excluding parking structures, estimate the percent of the gross floor area (in the measure-affected building(s)) that is cooled
- **Hours per week heated to occupied setpoint** – The hours per week that the heated space (in the measure-affected building(s)) is maintained at the occupied setpoint. If multiple occupancy schedules are used, report the hours affecting the predominant floor area.
- **Hours per week cooled to occupied setpoint**– The hours per week that the cooled space (in the measure-affected building(s)) is maintained at the occupied setpoint. If multiple occupancy schedules are used, report the hours affecting the predominant floor area.
- **HVAC constant volume, VAV, or no forced air** – Identify whether the predominant air handling systems are (in the measure-affected building(s)) constant airflow volume, variable air volume or that there is no forced air system, such as radiant heat only.
- **Heating system fuel type and components: Primary, Secondary, Tertiary** – For the measure-affected buildings, identify which of the following components/fuel type are predominant as primary, secondary and tertiary heating systems by floor area served from largest to smallest, respectively. Do not include systems that serve less than 20% of the gross floor area.
 - Boiler – Gas, Electric, Purchased Steam, Other _____
 - Duct or package unit heating coils – Steam, Hot water, Electric
 - Water source heat pump
 - Air source heat pump
 - Unit heater
 - Heat recovery, Specify _____
- **Cooling system fuel type and components: Primary, Secondary, Tertiary** – For the measure-affected buildings, identify which of the following components/fuel type are predominant as primary, secondary and tertiary cooling systems by floor area served from largest to smallest, respectively. Do not include systems that serve less than 20% of the gross floor area.
 - Chiller – Gas, Electric
 - DX
 - Evaporative
- **EMCS** – Identify if there is an energy management and control system for the majority of the HVAC equipment in the measure-affected building(s).

Table 13. Building Type Descriptions

| Building Type | Description |
|---------------------------------------|---|
| Education | preschool or daycare |
| Education | elementary, middle or high school |
| Education | college or university |
| Food Sales | grocery store or food market |
| Food Sales | gas station with a convenience store |
| Food Sales | convenience store |
| Food Service | restaurant, bar, fast food chain, or cafeteria |
| Health Care (Inpatient) | hospital or other inpatient health care |
| Health Care (Inpatient) | mental health institution |
| Health Care (Inpatient) | inpatient rehabilitation |
| Health Care (Outpatient) | doctor's or dentist's office (see previous column) |
| Health Care (Outpatient) | clinic or other outpatient health care building |
| Health Care (Outpatient) | outpatient rehabilitation |
| Health Care (Outpatient) | veterinarian's office |
| Lodging | hotel |
| Lodging | motel, inn, or resort |
| Lodging | retirement home |
| Lodging | shelter, orphanage, or children's home |
| Lodging | convent or monastery |
| Lodging | dormitory, fraternity, or sorority |
| Lodging | nursing home, assisted living, or other residential care building |
| Lodging | half-way house |
| Mercantile (Retail Other Than Mall) | car dealership or showroom |
| Mercantile (Retail Other Than Mall) | alcoholic beverage store |
| Mercantile (Retail Other Than Mall) | store that rents items such as videos, equipment, or vehicles |
| Mercantile (Retail Other Than Mall) | freestanding store such as a department, furniture, clothing, hardware, drugstore, or bookstore |
| Mercantile (Retail Other Than Mall) | Warehouse club or super center (e.g. retail and grocery store) |
| Mercantile (Enclosed and Strip Malls) | enclosed mall |
| Mercantile (Enclosed and Strip Malls) | strip shopping center |
| Office | bank or other financial institution |
| Office | doctor's or dentist's office (see previous column) |
| Office | government office |
| Office | administrative or professional office |
| Office | research and development building |
| Public Assembly | theater, cinema, sports arena, casino, or night club |
| Public Assembly | gymnasium, health club, bowling alley, or other recreational sports facility |

Table 13. (continued). Building type descriptions

| Building Type | Description |
|-------------------------|---|
| Public Assembly | social meeting center, meeting hall, or convention center |
| Public Assembly | library or museum |
| Public Assembly | transportation terminal |
| Public Assembly | funeral home |
| Public Assembly | broadcasting studio |
| Public Order and Safety | jail, reformatory, or penitentiary |
| Public Order and Safety | courthouse or probation office |
| Public Order and Safety | fire or police station |
| Religious Worship | Religious Worship |
| Service | auto service or auto repair shop |
| Service | beauty parlor or barber shop |
| Service | car wash |
| Service | copy center |
| Service | dry cleaner or laundromat |
| Service | gas station |
| Service | kennel |
| Service | photo processing shop |
| Service | post office or postal center |
| Service | repair shop |
| Service | other |
| Warehouse and Storage | refrigerated warehouse |
| Warehouse and Storage | non-refrigerated warehouse |
| Warehouse and Storage | Self/ministorage |
| Other | airplane hangar |
| Other | crematorium |
| Other | laboratory |
| Other | agricultural |
| Other | manufacturing or industrial |
| Other | Datacenter |
| Other | Parking structure/garage |
| Other | Other |
| Mixed use Residential | Mixed use residential |
| infrastructure | Electric utility (substation, generation plant, T&D) |
| infrastructure | Natural Gas (pipeline, T&D) |
| infrastructure | Transportation (tunnel, roadway etc.) |
| infrastructure | Other (radio/cell tower) |
| Vacant | No subcategories collected, but a question was asked to determine whether the building was completely vacant. |

OET Supplemental Data Collection Form - OET site ID: _____

- **Floor area of affected building** – The gross floor area in square feet of the building(s) in which the measures were installed. Exclude parking structure floor area. _____ sq. ft.
- **Floor area of parking structure** – Gross floor area in square feet of the parking structure either directly affected by measures or attached to the building affected by the measures. _____ sq. ft.
- **Building type** – List top three building use types, if greater than 20% of gross floor area. Select use types from the “Description” column in Table A1 Building type descriptions.
 - Primary use: _____
 - Secondary use: _____
 - Tertiary use: _____
- **Weekly business hours** – List the hours that the facility is normally open for business. Do not include uses such as security office or night call center that only occupy a small fraction of the gross floor area.

- **Seasonal variations in weekly business hours** – List any seasonal variations in weekly business hours that occur during a normal business year.

- **Single building site or Multiple building site** – Circle whether the customer’s site in which the measures were installed is comprised of a single building or multiple buildings. The measures may have been installed in only one building at a site identified as a multiple building site.
- **Ownership structure** – Circle the customer owning the facility as either **Private ownership, Non Profit ownership or Government ownership**
- **Owner occupied or Leased space** – Circle whether the building(s) affected by the measures is predominately owner occupied or space leased to non-owner tenants.
- **Predominate year of construction** – Identify the predominate original year of construction of the measure affected building(s)

- **Year of major renovation** - If any major renovation or addition (affecting more than 50% of floor area) has been completed, identify the year of occurrence. _____
- **Percent of floor area heated** - Excluding parking structures, estimate the percent of the gross floor area (in the measure-affected building(s)) that is heated. _____ %
- **Percent of floor area cooled** – Excluding parking structures, estimate the percent of the gross floor area (in the measure-affected building(s)) that is cooled. _____ %
- **Hours per week heated to occupied setpoint** – The hours per week that the heated space (in the measure-affected building(s)) is maintained at the occupied setpoint. If multiple occupancy schedules are used, report the hours affecting the predominant floor area.
_____ Hours / week
- **Hours per week cooled to occupied setpoint**– The hours per week that the cooled space (in the measure-affected building(s)) is maintained at the occupied setpoint. If multiple occupancy schedules are used, report the hours affecting the predominant floor area.
_____ Hours / week

- **HVAC constant volume , VAV or No forced air**– Circle whether the predominant air handling systems are (in the measure-affected building(s)) constant airflow volume, variable air volume, or no forced air system such as radiant only.
- **Check Primary heating system fuel type and components:**
 - Boiler / Gas Electric Purchased steam Other _____
 - Duct or package unit heating coils / Steam Hot water Electric)
 - Duct or packaged unit furnace / Gas Other_____)
 - Water source heat pump
 - Air source heat pump
 - Unit heater
 - Heat recovery, specify_____
- **Check Primary cooling system components:**
 - Chiller / Gas Electric
 - DX
 - Evaporative
- **Check Secondary heating system fuel type and components:**
 - Boiler / Gas Electric Purchased steam Other _____
 - Duct or package unit heating coils / Steam Hot water Electric)
 - Duct or packaged unit furnace / Gas Other_____)
 - Water source heat pump
 - Air source heat pump
 - Unit heater
 - Heat recovery, specify_____
- **Check Secondary cooling system components:**
 - Chiller / Gas Electric
 - DX
 - Evaporative
- **Check Tertiary heating system fuel type and components:**
 - Boiler / Gas Electric Purchased steam Other _____
 - Duct or package unit heating coils / Steam Hot water Electric)
 - Duct or packaged unit furnace / Gas Other_____)
 - Water source heat pump
 - Air source heat pump
 - Unit heater
 - Heat recovery, specify_____
- **Check Tertiary cooling system components:**
 - Chiller / Gas Electric
 - DX
 - Evaporative
- **EMCS** – Identify if there is an energy management and control system for the majority of the HVAC equipment in the measure-affected building(s). (circle one) **Yes No**

APPENDIX C - MEASURE-LEVEL EVALUATION RESULTS

This appendix provides a listing of important results for each of the measures at the sampled sites. This includes sampling and identifying information developed for the evaluation, original information provided in the program database, and final evaluation results.

The parameters summarized in the tables in this appendix are shown below. The first set of tables provides the Program Information and Evaluation Sampling parameters; the second set provides the Evaluation Results and Reasons for Differences parameters (with identifying variables and expected savings repeated for the sake of convenience).

| Parameter | Description |
|----------------------------|---|
| Program Information | |
| Site ID | A unique identifier assigned by ETO to each site in the program database. |
| PROJECTID | A unique identifier assigned by ETO to each project in the program database. For confidentiality reasons, the names of the sites associated with each project were not included. |
| MEASUREID | A unique identifier assigned by ETO to each measure in the program database. |
| CITY | City where site is located. |
| BU1 | Building code. |
| Entitydesc | ETO-assigned description of the code for classifying the measure (the associated ENTITYCODE variable is not shown). |
| MEASURECODE | ETO-assigned detailed code classifying measure. |
| MEASUREDESC | Description associated with MEASURECODE. |
| WORKING_KWH | Expected annual kWh savings for the measure. |
| WORKING_THERMS | Expected annual therm savings for the measure. |
| Evaluation Sampling | |
| Sample frame | One of the four groupings of the population of program sites and measures for the evaluation (kWh or therms, 2008 or 2009). Each formed the basis for drawing a stratified random sample of sites. |
| Strata | The sampling stratum assigned to the sampled site (and all measures at that site) |
| Case weight | The sampling weight calculated for each site. This weight was used in the calculated of domain-level results. |
| Measure type | Each ETO Entity Code/Description was assigned to one of 10 measure types for this evaluation: Custom Controls / Gas / Other; Food Service, HVAC, Insulation, Lighting, Lighting Controls, Motors, or Water Heating. |
| Eval Treatment | Each measure was designated "Inspect", meaning it was significant enough |

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| Parameter | Description |
|--------------------------------|--|
| | to warrant onsite inspection and downstream analysis, or “Pass-through”, meaning the measure savings were so small that the expected savings were adopted by the evaluation because it was not worth the effort to examine them more closely. |
| Evaluation Results | |
| kWh realization rate | The ratio of evaluated kWh savings to the respective program savings. |
| therm realization rate | The ratio of evaluated therm savings to the respective program savings. |
| kWh/year savings | The annual kWh savings estimated in the evaluation. |
| Average kW savings | The average annual kW savings estimated in the evaluation. |
| therms/year savings | The annual therm savings estimated in the evaluation. |
| Reasons for Differences | |
| | The flags below detail reasons for differences between the program and evaluation annual energy savings estimates. For each measure, the significant (i.e., affect savings by >5%) reasons for differences are flagged with either an “I” (indicating the reason increased the evaluated savings compared to the utility savings estimate), or an “R” (meaning the reason reduced evaluated savings). In addition, the primary reason for each case is noted with a “P.” |
| Count | Number of measure-affected devices actually installed and operational was much higher/lower than expected. |
| Control settings | Controls for a measure-affected device are programmed differently than expected. |
| Equipment size | Size of the measure-affected device is significantly different from the expected value. |
| Equipment efficiency | Efficiency of the measure-affected device is significantly different from the expected value. |
| Operating hours | Measure-affected equipment runs for a longer or shorter period than expected. |
| Other | Other reasons not captured in the previous categories. |

Measure-level Evaluation Results

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|-----------|--------|------------|-------------|---|-------------|----------------|---------------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00000114750 | P00000196028 | M00000374745 | Portland | Retail | Lighting | BE44T811 | 4', 4 lamp T8 (high performance, BF>1.01) | 10,274 | - | kWh2008 | 1 | Lighting | Inspect |
| S00000114750 | P00000196028 | M00000374746 | Portland | Retail | Lighting | BE44T811 | 4', 4 lamp T8 (high performance, BF>1.01) | 2,583 | - | kWh2008 | 1 | Lighting | Inspect |
| S00000114750 | P00000196028 | M00000374747 | Portland | Retail | Lighting | BE4T51FIX | T5HO4-lamp fixture | 5,069 | - | kWh2008 | 1 | Lighting | Inspect |
| S00000114750 | P00000196028 | M00000374748 | Portland | Retail | Lighting | BE3T51FIX | T5HO3-lamp fixture | 2,105 | - | kWh2008 | 1 | Lighting | Inspect |
| S00000115021 | P00000227169 | M00000395423 | Sutherlin | Other | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 8,388 | - | kWh2008 | 1 | Lighting | Inspect |
| S00000115021 | P00000227169 | M00000395424 | Sutherlin | Other | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 2,333 | - | kWh2008 | 1 | Lighting | Inspect |
| S00000115021 | P00000227169 | M00000395425 | Sutherlin | Other | Lighting | BENEXITLED | New Exit Sign, LED | 972 | - | kWh2008 | 1 | Lighting | Inspect |
| S00000115021 | P00000227169 | M00000395427 | Sutherlin | Other | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 1,201 | - | kWh2008 | 1 | Lighting | Inspect |
| S00000115021 | P00000227169 | M00000395426 | Sutherlin | Other | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 172 | - | kWh2008 | 1 | Lighting | PassThru |

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| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|-----------|------------|----------------------|---------------|--|-------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00000115021 | P00000227169 | M00000395428 | Sutherlin | Other | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 221 | - | kWh2008 | 1 | Lighting | PassThru |
| S00000115021 | P00000227169 | M00000395429 | Sutherlin | Other | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 133 | - | kWh2008 | 1 | Lighting | PassThru |
| S00000115021 | P00000227169 | M00000395430 | Sutherlin | Other | Lighting | BE1PC | One-piece screw-in CFL | 221 | - | kWh2008 | 1 | Lighting | PassThru |
| S00000115021 | P00000227169 | M00000395431 | Sutherlin | Other | Lighting | BEHWCFL5099EB | Hard-wired CFL, 50-99 Watt, electronic ballast | 348 | - | kWh2008 | 1 | Lighting | PassThru |
| S00000115024 | P00000217286 | M00000430767 | Tigard | Retail | Lighting | BE1PC | One-piece screw-in CFL | 3,388 | - | kWh2008 | 1 | Lighting | Inspect |
| S00000115024 | P00000217286 | M00000430768 | Tigard | Retail | Lighting | BE1PC | One-piece screw-in CFL | 2,003 | - | kWh2008 | 1 | Lighting | Inspect |
| S00000115024 | P00000217286 | M00000430769 | Tigard | Retail | Lighting | BE41T885 | 4', 1 lamp T8 (high performance, BF<0.85) | 2,521 | - | kWh2008 | 1 | Lighting | Inspect |
| S00000115024 | P00000217286 | M00000430770 | Tigard | Retail | Lighting | BE1PC | One-piece screw-in CFL | 2,685 | - | kWh2008 | 1 | Lighting | Inspect |
| S00000115024 | P00000230931 | M00000377419 | Tigard | Retail | HVAC | BEHVAC7P5T | 7.5 ton HVAC | 1,085 | - | kWh2008 | 1 | HVAC | Inspect |
| S00000115024 | P00000230931 | M00000377420 | Tigard | Retail | HVAC | BEHVAC10T | 10 ton HVAC | 1,167 | - | kWh2008 | 1 | HVAC | Inspect |
| S00000115060 | P00000211156 | M00000384680 | Portland | Restaurant | Custom other measure | BECUSTOTH | Custom Other | 30,334 | - | kWh2008 | 2 | Custom Other | Inspect |

| Program Information | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|--------------|---------------------|----------------------|-------------|---|---------------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00000115090 | P00000211156 | M00000384701 | Portland | Restaurant | Custom other measure | BECUSTOTH | Custom Other | 45,501 | - | kWh2008 | 2 | Custom Other | Inspect |
| S00000115139 | P00000211156 | M00000384708 | Portland | Restaurant | Custom other measure | BECUSTOTH | Custom Other | 30,334 | - | kWh2008 | 2 | Custom Other | Inspect |
| S00000115246 | P00000209825 | M00000374600 | Clackamas | Grocery | Custom VFD | BECUSTVFD | Custom VFDs | 184,903 | - | kWh2008 | 3 | Motors | Inspect |
| S00000115387 | P00000209835 | M00000379818 | Wood Village | Retail | Custom VFD | BECUSTVFD | Custom VFDs | 184,903 | - | kWh2008 | 3 | Motors | Inspect |
| S00000115387 | P00000249085 | M00000408992 | Wood Village | Retail | Motors | BEMOTREF | ECM Motor for Refrigeration Systems | 34,484 | - | kWh2008 | 3 | Motors | Inspect |
| S00000115005 | P00000196163 | M00000404557 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 12,576 | - | kWh2008 | 9 | Lighting | Inspect |
| S00000115005 | P00000196163 | M00000404558 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 38,140 | - | kWh2008 | 9 | Lighting | Inspect |
| S00000115005 | P00000196163 | M00000404559 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 45,326 | - | kWh2008 | 9 | Lighting | Inspect |
| S00000115005 | P00000196163 | M00000404560 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 34,686 | - | kWh2008 | 9 | Lighting | Inspect |
| S00000115005 | P00000196163 | M00000404561 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 24,684 | - | kWh2008 | 9 | Lighting | Inspect |
| S00000115005 | P00000196163 | M00000404562 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 19,844 | - | kWh2008 | 9 | Lighting | Inspect |
| S00000115005 | P00000196163 | M00000404567 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 33,434 | - | kWh2008 | 9 | Lighting | Inspect |
| S00000115005 | P00000196163 | M00000404563 | Portland | Lodging/Hotel/Motel | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 11,312 | - | kWh2008 | 9 | Lighting | PassThru |

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| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|-----------|---------------------|------------|-------------|---|-------------|----------------|---------------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00000115005 | P00000196163 | M00000404564 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 1,700 | - | kWh2008 | 9 | Lighting | PassThru |
| S00000115005 | P00000196163 | M00000404565 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 4,620 | - | kWh2008 | 9 | Lighting | PassThru |
| S00000115005 | P00000196163 | M00000404566 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 1,460 | - | kWh2008 | 9 | Lighting | PassThru |
| S00000115005 | P00000196163 | M00000404568 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 2,040 | - | kWh2008 | 9 | Lighting | PassThru |
| S00000115005 | P00000196163 | M00000404569 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 1,640 | - | kWh2008 | 9 | Lighting | PassThru |
| S00000115005 | P00000196163 | M00000404570 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 4,380 | - | kWh2008 | 9 | Lighting | PassThru |
| S00000115236 | P00000223614 | M00000394769 | Beaverton | Retail | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 568,392 | - | kWh2008 | 9 | Lighting | Inspect |
| S00000115236 | P00000223614 | M00000394770 | Beaverton | Retail | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 23,716 | - | kWh2008 | 9 | Lighting | PassThru |
| S00000115503 | P00000223616 | M00000392130 | Newberg | Grocery | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 460,052 | - | kWh2008 | 9 | Lighting | Inspect |
| S00000115503 | P00000223616 | M00000392131 | Newberg | Grocery | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 20,236 | - | kWh2008 | 9 | Lighting | PassThru |
| S00000115793 | P00000184986 | M00000363184 | Tigard | Warehouse | Lighting | BE43T8100 | 4', 3 lamp T8 (high performance, 0.85<BF<1.0) | 18,733 | - | kWh2008 | 9 | Lighting | Inspect |

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|--------|-----------|-------------------|-------------|---|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00000115793 | P00000184986 | M00000363185 | Tigard | Warehouse | Lighting | BE43T8100 | 4', 3 lamp T8 (high performance, 0.85<BF<1.0) | 18,228 | - | kWh2008 | 9 | Lighting | Inspect |
| S00000115793 | P00000184986 | M00000363188 | Tigard | Warehouse | Lighting | BE4T51FIX | T5HO4-lamp fixture | 189,460 | - | kWh2008 | 9 | Lighting | Inspect |
| S00000115793 | P00000184986 | M00000363193 | Tigard | Warehouse | Lighting controls | BE0CCFIXMT | Fixture Mounted Occupancy Sensor | 53,174 | - | kWh2008 | 9 | Lighting controls | Inspect |
| S00000115793 | P00000184986 | M00000363186 | Tigard | Warehouse | Lighting | BE43T8100 | 4', 3 lamp T8 (high performance, 0.85<BF<1.0) | 11,898 | - | kWh2008 | 9 | Lighting | PassThru |
| S00000115793 | P00000184986 | M00000363187 | Tigard | Warehouse | Lighting | BE22T878 | 2', 2 lamp T8 U Bent (BF <.78) | 488 | - | kWh2008 | 9 | Lighting | PassThru |
| S00000115793 | P00000184986 | M00000363189 | Tigard | Warehouse | Lighting | BE4T51FIX | T5HO4-lamp fixture | 11,078 | - | kWh2008 | 9 | Lighting | PassThru |
| S00000115793 | P00000184986 | M00000363190 | Tigard | Warehouse | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 2,471 | - | kWh2008 | 9 | Lighting | PassThru |
| S00000115793 | P00000184986 | M00000363191 | Tigard | Warehouse | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 1,318 | - | kWh2008 | 9 | Lighting | PassThru |
| S00000115793 | P00000184986 | M00000363192 | Tigard | Warehouse | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 329 | - | kWh2008 | 9 | Lighting | PassThru |

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| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|--------------|---------------------|------------|-------------|---|-------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00000115829 | P00000223612 | M00000392127 | Happy Valley | Grocery | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 489,885 | - | kWh2008 | 9 | Lighting | Inspect |
| S00000115829 | P00000223612 | M00000392128 | Happy Valley | Grocery | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 86,358 | - | kWh2008 | 9 | Lighting | Inspect |
| S00000115829 | P00000223612 | M00000392129 | Happy Valley | Grocery | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 33,821 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001118555 | P00000184981 | M00000353358 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 64,645 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001118555 | P00000184981 | M00000353362 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 37,340 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001118555 | P00000184981 | M00000353364 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 216,818 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001118555 | P00000184981 | M00000353365 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 87,366 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001118555 | P00000184981 | M00000353355 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 19,622 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001118555 | P00000184981 | M00000353356 | Portland | Lodging/Hotel/Motel | Lighting | BEREXITLED | Retrofit Exit Kit, LED | 16,206 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001118555 | P00000184981 | M00000353357 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 12,614 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001118555 | P00000184981 | M00000353359 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 4,292 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001118555 | P00000184981 | M00000353360 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 19,761 | - | kWh2008 | 9 | Lighting | PassThru |

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|----------|---------------------|----------------|---------------|---|-------------|----------------|---------------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001118555 | P00000184981 | M00000353361 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 15,085 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001118555 | P00000184981 | M00000353363 | Portland | Lodging/Hotel/Motel | Lighting | BE1PC | One-piece screw-in CFL | 8,800 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001158961 | P00000224663 | M00000405058 | Portland | Other | Custom chiller | BECUSTCHILLER | Custom Chillers | 240,000 | - | kWh2008 | 9 | HVAC | Inspect |
| S00001158961 | P00000224663 | M00000405059 | Portland | Other | Custom VFD | BECUSTVFDPUMP | Custom VFD Pump | 58,000 | - | kWh2008 | 9 | Motors | Inspect |
| S00001160689 | P00000143229 | M00000352235 | Portland | Grocery | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 632,031 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001160689 | P00000143229 | M00000352255 | Portland | Grocery | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 101,657 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001160689 | P00000143229 | M00000352225 | Portland | Grocery | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 211 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352226 | Portland | Grocery | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 211 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352227 | Portland | Grocery | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 645 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352228 | Portland | Grocery | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 2,929 | - | kWh2008 | 9 | Lighting | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|----------|---------|-------------------|-------------|--|---------------------|----------------|-------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001160689 | P00000143229 | M00000352229 | Portland | Grocery | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 6,589 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352230 | Portland | Grocery | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 4,393 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352231 | Portland | Grocery | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 2,929 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352232 | Portland | Grocery | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 2,196 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352233 | Portland | Grocery | Lighting | BE41T810 | 4', 1 lamp T8 (high performance, 0.85<BF<1.0) | 4,604 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352236 | Portland | Grocery | Custom lighting | BECUSTLIGHT | Custom Lighting | 1,042 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352237 | Portland | Grocery | Lighting | BE4T51FIX | T5HO4-lamp fixture | 1,408 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352238 | Portland | Grocery | Lighting | BE4T51FIX | T5HO4-lamp fixture | 13,123 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352239 | Portland | Grocery | Lighting controls | BEOCC90 | Occupancy Sensor, wall mount, 90+ watts connected load | 74 | - | kWh2008 | 9 | Lighting controls | PassThru |

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|----------|---------|-------------------|-------------|--|-------------|----------------|-------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001160689 | P00000143229 | M00000352240 | Portland | Grocery | Lighting controls | BEOCC90 | Occupancy Sensor, wall mount, 90+ watts connected load | 149 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001160689 | P00000143229 | M00000352241 | Portland | Grocery | Lighting controls | BEOCC180 | Occupancy Sensor, ceiling mount, 180+ watts connected load | 74 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001160689 | P00000143229 | M00000352253 | Portland | Grocery | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 11,131 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352256 | Portland | Grocery | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 267 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352257 | Portland | Grocery | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 534 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352258 | Portland | Grocery | Lighting | BE46T810 | 4', 6 lamp T8 (high performance, 0.85<BF<1.0) | 403 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352259 | Portland | Grocery | Custom lighting | BECUSTLIGHT | Custom Lighting | 10,076 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352260 | Portland | Grocery | Custom lighting | BECUSTLIGHT | Custom Lighting | 5,386 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352261 | Portland | Grocery | Custom lighting | BECUSTLIGHT | Custom Lighting | 5,758 | - | kWh2008 | 9 | Lighting | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|----------|---------|-------------------|-------------|--|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001160689 | P00000143229 | M00000352262 | Portland | Grocery | Custom lighting | BECUSTLIGHT | Custom Lighting | 2,085 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352272 | Portland | Grocery | Lighting | BE4T51FIX | T5HO4-lamp fixture | 2,817 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352273 | Portland | Grocery | Lighting | BE4T51FIX | T5HO4-lamp fixture | 30,620 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160689 | P00000143229 | M00000352276 | Portland | Grocery | Lighting controls | BEOCC90 | Occupancy Sensor, wall mount, 90+ watts connected load | 824 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001160689 | P00000143229 | M00000352277 | Portland | Grocery | Lighting controls | BEOCC90 | Occupancy Sensor, wall mount, 90+ watts connected load | 1,007 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001160689 | P00000143229 | M00000352278 | Portland | Grocery | Lighting controls | BEOCC90 | Occupancy Sensor, wall mount, 90+ watts connected load | 915 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001160689 | P00000143229 | M00000352279 | Portland | Grocery | Lighting controls | BEOCC90 | Occupancy Sensor, wall mount, 90+ watts connected load | 458 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001160689 | P00000143229 | M00000352280 | Portland | Grocery | Lighting controls | BEOCC90 | Occupancy Sensor, wall mount, 90+ watts connected load | 366 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001160689 | P00000143229 | M00000352281 | Portland | Grocery | Lighting controls | BEOCC90 | Occupancy Sensor, wall mount, 90+ watts connected load | 1,415 | - | kWh2008 | 9 | Lighting controls | PassThru |

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|----------|-------------|--------------------------|------------------|--|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001160689 | P00000143229 | M00000352282 | Portland | Grocery | Lighting controls | BEOCC90 | Occupancy Sensor, wall mount, 90+ watts connected load | 92 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001160689 | P00000143229 | M00000352283 | Portland | Grocery | Lighting controls | BEOCC90 | Occupancy Sensor, wall mount, 90+ watts connected load | 354 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001160689 | P00000143229 | M00000352284 | Portland | Grocery | Lighting controls | BEOCC180 | Occupancy Sensor, ceiling mount, 180+ watts connected load | 4,576 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001160689 | P00000143229 | M00000352285 | Portland | Grocery | Lighting controls | BEOCC180 | Occupancy Sensor, ceiling mount, 180+ watts connected load | 915 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001160727 | P00000195988 | M00000351244 | Portland | Grocery | Custom lighting | BECUSTLIGHT | Custom Lighting | 852,135 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001160727 | P00000192673 | M00000351217 | Portland | Grocery | Custom lighting | BECUSTLIGHT | Custom Lighting | 41,573 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001160727 | P00000192673 | M00000351218 | Portland | Grocery | Custom lighting control | BECUSTLIGHTCON T | Custom Lighting Control | 16,739 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001184018 | P00000066264 | M00000425577 | Tualatin | Hospital | Custom building controls | BECUSTCONT | Custom Building Controls | 294,956 | - | kWh2008 | 9 | Custom Controls | Inspect |
| S00001226155 | P00000093727 | M00000408511 | Portland | Data Center | Custom VAV | BECUSTVAVSYS | Custom VAV System | 96,800 | - | kWh2008 | 9 | HVAC | Inspect |
| S00001226155 | P00000093727 | M00000408515 | Portland | Data Center | Custom ducts | BECUSTDUCTFILT | Custom Ducting/Filters | 75,713 | - | kWh2008 | 9 | HVAC | Inspect |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|----------|--------------|--------------------------|---------------|---|-------------|----------------|---------------------|--------|-----------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001226155 | P00000093727 | M00000408518 | Portland | Data Center | Custom building controls | BECUSTCONT | Custom Building Controls | 106,115 | - | kWh2008 | 9 | Custom Controls | Inspect |
| S00001226155 | P00000093727 | M00000408521 | Portland | Data Center | Custom chiller | BECUSTCHILLER | Custom Chillers | 24,528 | - | kWh2008 | 9 | HVAC | Inspect |
| S00001234814 | P00000100027 | M00000327292 | Portland | Other Health | Custom building controls | BECUSTCONT | Custom Building Controls | 503,250 | - | kWh2008 | 9 | Custom Controls | Inspect |
| S00001269533 | P00000118129 | M00000341524 | Portland | Other | Custom VFD | BECUSTVFD | Custom VFDs | 105,019 | - | kWh2008 | 9 | Motors | Inspect |
| S00001269533 | P00000118129 | M00000341525 | Portland | Other | Custom building controls | BECUSTCONT | Custom Building Controls | 684,778 | - | kWh2008 | 9 | Custom Controls | Inspect |
| S00001271300 | P00000188598 | M00000355972 | Salem | Grocery | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 85,037 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001271300 | P00000188598 | M00000355983 | Salem | Grocery | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 489,745 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001271300 | P00000209827 | M00000382720 | Salem | Grocery | Custom VFD | BECUSTVFD | Custom VFDs | 184,903 | - | kWh2008 | 9 | Motors | Inspect |
| S00001271300 | P00000188598 | M00000355971 | Salem | Grocery | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 1,191 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001271300 | P00000188598 | M00000355973 | Salem | Grocery | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 31,096 | - | kWh2008 | 9 | Lighting | PassThru |

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|-------|---------|-----------------|-------------|---|-------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001271300 | P00000188598 | M00000355974 | Salem | Grocery | Custom lighting | BECUSTLIGHT | Custom Lighting | 37,316 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001271300 | P00000188598 | M00000355975 | Salem | Grocery | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 23,125 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001271300 | P00000188598 | M00000355976 | Salem | Grocery | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 9,671 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001271300 | P00000188598 | M00000355977 | Salem | Grocery | Lighting | BE44T811 | 4', 4 lamp T8 (high performance, BF>1.01) | 692 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001271300 | P00000188598 | M00000355978 | Salem | Grocery | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 8,094 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001271300 | P00000188598 | M00000355979 | Salem | Grocery | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 2,313 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001271300 | P00000188598 | M00000355980 | Salem | Grocery | Lighting | BE43T885 | 4', 3 lamp T8 (high performance, BF<0.85) | 26,927 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001271300 | P00000188598 | M00000355981 | Salem | Grocery | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 4,170 | - | kWh2008 | 9 | Lighting | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|-------|---------|-------------------|-------------|--|-------------|----------------|-------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001271300 | P00000188598 | M00000355982 | Salem | Grocery | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 3,574 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001271300 | P00000188598 | M00000355984 | Salem | Grocery | Lighting | BENEXITLED | New Exit Sign, LED | 9,724 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001271300 | P00000188598 | M00000355985 | Salem | Grocery | Lighting | BE41T885 | 4', 1 lamp T8 (high performance, BF<0.85) | 41,695 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001271300 | P00000188598 | M00000355986 | Salem | Grocery | Lighting | BE46T810 | 4', 6 lamp T8 (high performance, 0.85<BF<1.0) | 39,286 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001271300 | P00000188598 | M00000355987 | Salem | Grocery | Lighting | BE1PC | One-piece screw-in CFL | 7,288 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001271300 | P00000188598 | M00000355988 | Salem | Grocery | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 5,825 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001271300 | P00000188598 | M00000355989 | Salem | Grocery | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 5,781 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001271300 | P00000188598 | M00000355990 | Salem | Grocery | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 416 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001271300 | P00000188598 | M00000355991 | Salem | Grocery | Lighting controls | BEOCC90 | Occupancy Sensor, wall mount, 90+ watts connected load | 8,357 | - | kWh2008 | 9 | Lighting controls | PassThru |

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|-------------|------------------------|--------------------------|---------------|--|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001271300 | P00000188598 | M00000355992 | Salem | Grocery | Lighting controls | BEOCC90 | Occupancy Sensor, wall mount, 90+ watts connected load | 1,470 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001299033 | P00000177520 | M00000343143 | Clackamas | | Lighting | BE4T51FIX | T5HO4-lamp fixture | 300,653 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001300315 | P00000191069 | M00000351243 | Clackamas | | Lighting | BE4T51FIX | T5HO4-lamp fixture | 217,408 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001300315 | P00000191069 | M00000351962 | Clackamas | | Lighting controls | BEOCC180 | Occupancy Sensor, ceiling mount, 180+ watts connected load | 261,801 | - | kWh2008 | 9 | Lighting controls | Inspect |
| S00001319567 | P00000151204 | M00000363134 | Portland | Institution/Government | Custom chiller | BECUSTCHILLER | Custom Chillers | 325,529 | - | kWh2008 | 9 | HVAC | Inspect |
| S00001328262 | P00000160752 | M00000416667 | Portland | Office | Custom building controls | BECUSTCONT | Custom Building Controls | 1,519,670 | - | kWh2008 | 9 | Custom Controls | Inspect |
| S00001330216 | P00000182063 | M00000384831 | Wilsonville | Assembly | Custom lighting | BECUSTLIGHT | Custom Lighting | 61,879 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001330216 | P00000182063 | M00000384833 | Wilsonville | Assembly | Custom lighting | BECUSTLIGHT | Custom Lighting | (15,454) | - | kWh2008 | 9 | Lighting | Inspect |
| S00001330216 | P00000182063 | M00000384836 | Wilsonville | Assembly | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 15,335 | - | kWh2008 | 9 | Lighting controls | Inspect |
| S00001330216 | P00000182063 | M00000384838 | Wilsonville | Assembly | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 17,154 | - | kWh2008 | 9 | Lighting controls | Inspect |
| S00001330216 | P00000182063 | M00000384839 | Wilsonville | Assembly | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 92,462 | - | kWh2008 | 9 | Lighting controls | Inspect |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|-------------|----------|-------------------|-------------|---|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001330216 | P00000182063 | M00000384840 | Wilsonville | Assembly | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 50,093 | - | kWh2008 | 9 | Lighting controls | Inspect |
| S00001330216 | P00000182063 | M00000384841 | Wilsonville | Assembly | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 28,397 | - | kWh2008 | 9 | Lighting controls | Inspect |
| S00001330216 | P00000225507 | M00000369962 | Wilsonville | Assembly | Foor equipment | NCCONVOVEN | Direct-Fired Convection Oven | - | - | kWh2008 | 9 | Food Service | NoClaim |
| S00001330216 | P00000182063 | M00000384826 | Wilsonville | Assembly | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 4,866 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001330216 | P00000182063 | M00000384827 | Wilsonville | Assembly | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 1,043 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001330216 | P00000182063 | M00000384828 | Wilsonville | Assembly | Custom lighting | BECUSTLIGHT | Custom Lighting | (4,173) | - | kWh2008 | 9 | Lighting | PassThru |
| S00001330216 | P00000182063 | M00000384829 | Wilsonville | Assembly | Custom lighting | BECUSTLIGHT | Custom Lighting | (3,245) | - | kWh2008 | 9 | Lighting | PassThru |
| S00001330216 | P00000182063 | M00000384830 | Wilsonville | Assembly | Custom lighting | BECUSTLIGHT | Custom Lighting | (3,709) | - | kWh2008 | 9 | Lighting | PassThru |
| S00001330216 | P00000182063 | M00000384832 | Wilsonville | Assembly | Custom lighting | BECUSTLIGHT | Custom Lighting | (9,736) | - | kWh2008 | 9 | Lighting | PassThru |
| S00001330216 | P00000182063 | M00000384837 | Wilsonville | Assembly | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 11,927 | - | kWh2008 | 9 | Lighting controls | PassThru |

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|-------------|--------------------|--------------------------|---------------|--|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001330216 | P00000182063 | M00000384842 | Wilsonville | Assembly | Lighting controls | BEOCC180 | Occupancy Sensor, ceiling mount, 180+ watts connected load | 1,530 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001330216 | P00000182063 | M00000384843 | Wilsonville | Assembly | Lighting controls | BEOCC90 | Occupancy Sensor, wall mount, 90+ watts connected load | 2,671 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001330216 | P00000225507 | M00000369963 | Wilsonville | Assembly | Foor equipment | BEHOTCAB | Electric Hot Food Cabinet | 6,701 | - | kWh2008 | 9 | Food Service | PassThru |
| S00001330216 | P00000225507 | M00000369964 | Wilsonville | Assembly | Freezer | BEFREEZER48 | Freezer (48 ft^3) | 1,378 | - | kWh2008 | 9 | Food Service | PassThru |
| S00001330216 | P00000225507 | M00000369965 | Wilsonville | Assembly | Refrigerator | BEREFRIG48 | Refrigerator (48 ft^3) | 950 | - | kWh2008 | 9 | Food Service | PassThru |
| S00001332078 | P00000167718 | M00000394669 | Beaverton | College/University | Custom building controls | BECUSTCONT | Custom Building Controls | 356,804 | - | kWh2008 | 9 | Custom Controls | Inspect |
| S00001332078 | P00000167718 | M00000394673 | Beaverton | College/University | Custom building controls | BECUSTCONT | Custom Building Controls | 273,692 | 8,150 | kWh2008 | 9 | Custom Controls | Inspect |
| S00001332078 | P00000217588 | M00000418837 | Beaverton | College/University | Custom VFD | BECUSTVFD | Custom VFDs | 106,683 | 46,473 | kWh2008 | 9 | Motors | Inspect |
| S00001332078 | P00000167718 | M00000394670 | Beaverton | College/University | Custom heat recovery | BECUSTHEATREC | Custom Heat Recovery | 6,432 | 19,198 | kWh2008 | 9 | Custom Other | PassThru |
| S00001332078 | P00000167718 | M00000394672 | Beaverton | College/University | Motors | BEMOTOR30HP | 30 HP Motor | 3,331 | - | kWh2008 | 9 | Motors | PassThru |
| S00001332078 | P00000167718 | M00000398202 | Beaverton | College/University | Motors | BEMOTOR40HP | 40 HP Motor | 4,653 | - | kWh2008 | 9 | Motors | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|-----------|--------|--------------------------|--------------|---|-------------|----------------|---------------------|--------|-----------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001337547 | P00000173874 | M00000347763 | Corvallis | Other | Custom building controls | BECUSTCONT | Custom Building Controls | 253,140 | - | kWh2008 | 9 | Custom Controls | Inspect |
| S00001337547 | P00000173874 | M00000347764 | Corvallis | Other | Custom VFD | BECUSTVFD | Custom VFDs | 145,250 | - | kWh2008 | 9 | Motors | Inspect |
| S00001337547 | P00000173874 | M00000347765 | Corvallis | Other | Custom ventilation | BECUSTDEMCON | Custom Demand Control Ventilation | 38,100 | - | kWh2008 | 9 | HVAC | Inspect |
| S00001346781 | P00000184248 | M00000369993 | Medford | Retail | Custom HVAC | BECUSTHVAC | Custom HVAC | 480,977 | - | kWh2008 | 9 | HVAC | Inspect |
| S00001350135 | P00000187886 | M00000388989 | Portland | Office | Custom building controls | BECUSTCONT | Custom Building Controls | 241,900 | - | kWh2008 | 9 | Custom Controls | Inspect |
| S00001350163 | P00000187918 | M00000422581 | Portland | Office | Custom VFD | BECUSTVFD | Custom VFDs | 19,039 | - | kWh2008 | 9 | Motors | Inspect |
| S00001350163 | P00000187918 | M00000422582 | Portland | Office | Custom other measure | BECUSTOTH | Custom Other | 260,715 | - | kWh2008 | 9 | Custom Other | Inspect |
| S00001352064 | P00000184994 | M00000358974 | Beaverton | Office | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 80,621 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001352064 | P00000191049 | M00000359150 | Beaverton | Office | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 93,368 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001352064 | P00000205782 | M00000359148 | Beaverton | Office | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 126,369 | - | kWh2008 | 9 | Lighting | Inspect |

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|-------------|-----------|--------------------------|-------------|--|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001353182 | P00000190072 | M00000416461 | Newberg | Hospital | Custom building controls | BECUSTCONT | Custom Building Controls | 334,800 | - | kWh2008 | 9 | Custom Controls | Inspect |
| S00001374415 | P00000177533 | M00000353100 | Wilsonville | Warehouse | Lighting | BE4T51FIX | T5HO4-lamp fixture | 115,769 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001374415 | P00000177533 | M00000353101 | Wilsonville | Warehouse | Lighting | BE6T51FIX | T5HO6-lamp fixture | 87,933 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001374415 | P00000177533 | M00000353104 | Wilsonville | Warehouse | Lighting | BE4T51FIX | T5HO4-lamp fixture | 64,339 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001374415 | P00000177533 | M00000353105 | Wilsonville | Warehouse | Lighting | BE4T51FIX | T5HO4-lamp fixture | 106,629 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001374415 | P00000177533 | M00000353106 | Wilsonville | Warehouse | Lighting | BE4T51FIX | T5HO4-lamp fixture | 158,956 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001374415 | P00000177533 | M00000353110 | Wilsonville | Warehouse | Lighting controls | BEOCC180 | Occupancy Sensor, ceiling mount, 180+ watts connected load | 66,138 | - | kWh2008 | 9 | Lighting controls | Inspect |
| S00001374415 | P00000177533 | M00000353114 | Wilsonville | Warehouse | Lighting controls | BEOCC180 | Occupancy Sensor, ceiling mount, 180+ watts connected load | 65,950 | - | kWh2008 | 9 | Lighting controls | Inspect |
| S00001374415 | P00000177533 | M00000353102 | Wilsonville | Warehouse | Lighting | BE4T51FIX | T5HO4-lamp fixture | (28,103) | - | kWh2008 | 9 | Lighting | PassThru |
| S00001374415 | P00000177533 | M00000353103 | Wilsonville | Warehouse | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 35,934 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001374415 | P00000177533 | M00000353107 | Wilsonville | Warehouse | Lighting | BE6T51FIX | T5HO6-lamp fixture | 28,264 | - | kWh2008 | 9 | Lighting | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|-------------|-----------|-------------------|-------------|--|-------------|----------------|-------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001374415 | P00000177533 | M00000353108 | Wilsonville | Warehouse | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 11,978 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001374415 | P00000177533 | M00000353109 | Wilsonville | Warehouse | Lighting controls | BEOCC180 | Occupancy Sensor, ceiling mount, 180+ watts connected load | 29,835 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001374415 | P00000177533 | M00000353111 | Wilsonville | Warehouse | Lighting controls | BEOCC180 | Occupancy Sensor, ceiling mount, 180+ watts connected load | 18,450 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001374415 | P00000177533 | M00000353112 | Wilsonville | Warehouse | Lighting controls | BEOCC180 | Occupancy Sensor, ceiling mount, 180+ watts connected load | 26,694 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001374415 | P00000177533 | M00000353113 | Wilsonville | Warehouse | Lighting controls | BEOCC180 | Occupancy Sensor, ceiling mount, 180+ watts connected load | 27,479 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001374415 | P00000177533 | M00000353115 | Wilsonville | Warehouse | Lighting controls | BEOCC180 | Occupancy Sensor, ceiling mount, 180+ watts connected load | 21,259 | - | kWh2008 | 9 | Lighting controls | PassThru |
| S00001388950 | P00000205780 | M00000384762 | Portland | Other | Lighting | BE1T51FIX | T5HO1-lamp fixture | 203,501 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001388950 | P00000205780 | M00000384763 | Portland | Other | Lighting | BE1T51FIX | T5HO1-lamp fixture | 113,173 | - | kWh2008 | 9 | Lighting | Inspect |

| Program Information | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|--------------|------------------------|------------|-------------|---|---------------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001388950 | P00000205780 | M00000384765 | Portland | Other | Lighting | BE1T51FIX | T5HO1-lamp fixture | 50,551 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001388950 | P00000205780 | M00000384764 | Portland | Other | Lighting | BE1T51FIX | T5HO1-lamp fixture | 289 | - | kWh2008 | 9 | Lighting | PassThru |
| S00001395250 | P00000224274 | M00000395697 | Salem | Retail | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 620,382 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001395253 | P00000224270 | M00000395810 | Hillsboro | Retail | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 586,009 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001395254 | P00000224273 | M00000395807 | Wood Village | Retail | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 336,029 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001395256 | P00000224272 | M00000395757 | Portland | Retail | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 732,412 | - | kWh2008 | 9 | Lighting | Inspect |
| S00001408857 | P00000239855 | M00000449246 | Salem | Institution/Government | Lighting | BE46T810 | 4', 6 lamp T8 (high performance, 0.85<BF<1.0) | 10,214 | - | kWh2009 | 1 | Lighting | Inspect |
| S00001408857 | P00000239855 | M00000449247 | Salem | Institution/Government | Lighting | BE46T810 | 4', 6 lamp T8 (high performance, 0.85<BF<1.0) | 6,064 | - | kWh2009 | 1 | Lighting | Inspect |
| S00001408857 | P00000239855 | M00000449248 | Salem | Institution/Government | Lighting | BE46T810 | 4', 6 lamp T8 (high performance, 0.85<BF<1.0) | 3,139 | - | kWh2009 | 1 | Lighting | Inspect |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|-----------|------------------------|-----------------|-------------|---|---------------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001408857 | P00000239855 | M00000449249 | Salem | Institution/Government | Lighting | BE46T810 | 4', 6 lamp T8 (high performance, 0.85<BF<1.0) | 3,139 | - | kWh2009 | 1 | Lighting | Inspect |
| S00001408857 | P00000239855 | M00000449250 | Salem | Institution/Government | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 4,065 | - | kWh2009 | 1 | Lighting | Inspect |
| S00001408857 | P00000239855 | M00000449251 | Salem | Institution/Government | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 346 | - | kWh2009 | 1 | Lighting | PassThru |
| S00001408904 | P00000239910 | M00000448657 | Hillsboro | Restaurant | Custom lighting | BECUSTLIGHT | Custom Lighting | 8,889 | - | kWh2009 | 1 | Lighting | Inspect |
| S00001408908 | P00000239911 | M00000448660 | Hillsboro | Restaurant | Custom lighting | BECUSTLIGHT | Custom Lighting | 9,629 | - | kWh2009 | 1 | Lighting | Inspect |
| S00001408912 | P00000239908 | M00000448659 | Clackamas | Restaurant | Custom lighting | BECUSTLIGHT | Custom Lighting | 8,395 | - | kWh2009 | 1 | Lighting | Inspect |
| S00001407065 | P00000265625 | M00000455005 | Clackamas | Lodging/Hotel/Motel | Heat pump | BEPHEATPUMP | PT Heat Pump | 15,000 | - | kWh2009 | 2 | HVAC | Inspect |
| S00001407065 | P00000273030 | M00000469030 | Clackamas | Lodging/Hotel/Motel | Heat pump | BEPHEATPUMP | PT Heat Pump | 15,000 | - | kWh2009 | 2 | HVAC | Inspect |
| S00001407065 | P00000273031 | M00000469066 | Clackamas | Lodging/Hotel/Motel | Heat pump | BEPHEATPUMP | PT Heat Pump | 15,000 | - | kWh2009 | 2 | HVAC | Inspect |
| S00001407065 | P00000301036 | M00000517582 | Clackamas | Lodging/Hotel/Motel | Heat pump | BEPHEATPUMP | PT Heat Pump | 10,000 | - | kWh2009 | 2 | HVAC | Inspect |
| S00001407065 | P00000301037 | M00000517624 | Clackamas | Lodging/Hotel/Motel | Heat pump | BEPHEATPUMP | PT Heat Pump | 15,000 | - | kWh2009 | 2 | HVAC | Inspect |
| S00001407065 | P00000301039 | M00000517719 | Clackamas | Lodging/Hotel/Motel | Heat pump | BEPHEATPUMP | PT Heat Pump | 10,000 | - | kWh2009 | 2 | HVAC | Inspect |

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|-----------|---------|-------------------|-------------|---|-------------|----------------|-------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001408942 | P00000224829 | M00000448959 | Hillsboro | Retail | Lighting | BE44T811 | 4', 4 lamp T8 (high performance, BF>1.01) | 54,437 | - | kWh2009 | 2 | Lighting | Inspect |
| S00001408942 | P00000224829 | M00000448960 | Hillsboro | Retail | Lighting | BE44T811 | 4', 4 lamp T8 (high performance, BF>1.01) | 19,280 | - | kWh2009 | 2 | Lighting | Inspect |
| S00001408942 | P00000224829 | M00000448961 | Hillsboro | Retail | Lighting | BE43T811 | 4', 3 lamp T8 (high performance, BF>1.01) | 13,284 | - | kWh2009 | 2 | Lighting | Inspect |
| S00001408942 | P00000224829 | M00000448962 | Hillsboro | Retail | Lighting | BE42T811 | 4', 2 lamp T8 (high performance, BF>1.01) | 7,750 | - | kWh2009 | 2 | Lighting | Inspect |
| S00001408942 | P00000224829 | M00000448966 | Hillsboro | Retail | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 5,177 | - | kWh2009 | 2 | Lighting controls | Inspect |
| S00001408942 | P00000224829 | M00000448963 | Hillsboro | Retail | Custom lighting | BECUSTLIGHT | Custom Lighting | 1,559 | - | kWh2009 | 2 | Lighting | PassThru |
| S00001408942 | P00000224829 | M00000448964 | Hillsboro | Retail | Custom lighting | BECUSTLIGHT | Custom Lighting | 1,449 | - | kWh2009 | 2 | Lighting | PassThru |
| S00001408955 | P00000227441 | M00000448636 | Warrenton | Grocery | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 40,992 | - | kWh2009 | 2 | Lighting | Inspect |
| S00001408955 | P00000227441 | M00000448635 | Warrenton | Grocery | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 2,128 | - | kWh2009 | 2 | Lighting | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|----------|--------------|-------------------|-------------|---|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001394155 | P00000227178 | M00000466937 | Portland | Retail | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 370,959 | - | kWh2009 | 3 | Lighting | Inspect |
| S00001394155 | P00000227178 | M00000466938 | Portland | Retail | Custom lighting | BECUSTLIGHT | Custom Lighting | 22,609 | - | kWh2009 | 3 | Lighting | Inspect |
| S00001394155 | P00000227178 | M00000466939 | Portland | Retail | Custom lighting | BECUSTLIGHT | Custom Lighting | 20,097 | - | kWh2009 | 3 | Lighting | PassThru |
| S00001405511 | P00000290782 | M00000553745 | Portland | Other Health | Lighting | BE4T51FIX | T5HO4-lamp fixture | 137,873 | - | kWh2009 | 3 | Lighting | Inspect |
| S00001405511 | P00000290782 | M00000553747 | Portland | Other Health | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 32,547 | - | kWh2009 | 3 | Lighting controls | Inspect |
| S00001405511 | P00000290782 | M00000553746 | Portland | Other Health | Lighting | BE4T51FIX | T5HO4-lamp fixture | 600 | - | kWh2009 | 3 | Lighting | PassThru |
| S00001405511 | P00000290782 | M00000553748 | Portland | Other Health | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 1,845 | - | kWh2009 | 3 | Lighting controls | PassThru |
| S00001405511 | P00000290782 | M00000553749 | Portland | Other Health | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 205 | - | kWh2009 | 3 | Lighting controls | PassThru |
| S00001405511 | P00000290782 | M00000553750 | Portland | Other Health | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 2,050 | - | kWh2009 | 3 | Lighting controls | PassThru |
| S00001405511 | P00000290782 | M00000553751 | Portland | Other Health | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 615 | - | kWh2009 | 3 | Lighting controls | PassThru |
| S00001405511 | P00000290782 | M00000553752 | Portland | Other Health | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 1,285 | - | kWh2009 | 3 | Lighting controls | PassThru |

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|-----------|---------------------|----------------------|---------------|---|-------------|----------------|-------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001405511 | P00000290782 | M00000553753 | Portland | Other Health | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 615 | - | kWh2009 | 3 | Lighting controls | PassThru |
| S00001408947 | P00000239864 | M00000448637 | Medford | Retail | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 228,842 | - | kWh2009 | 3 | Lighting | Inspect |
| S00001408947 | P00000239864 | M00000448638 | Medford | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 5,231 | - | kWh2009 | 3 | Lighting | PassThru |
| S00001408947 | P00000239864 | M00000448639 | Medford | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 1,046 | - | kWh2009 | 3 | Lighting | PassThru |
| S00001408947 | P00000239864 | M00000448640 | Medford | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 8,146 | - | kWh2009 | 3 | Lighting | PassThru |
| S00001408947 | P00000239864 | M00000448641 | Medford | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 678 | - | kWh2009 | 3 | Lighting | PassThru |
| S00001408947 | P00000239864 | M00000448642 | Medford | Retail | Lighting | BENEXITLED | New Exit Sign, LED | 972 | - | kWh2009 | 3 | Lighting | PassThru |
| S00001421415 | P00000262247 | M00000582612 | Portland | Lodging/Hotel/Motel | Custom other measure | BECUSTOTH | Custom Other | 281,930 | - | kWh2009 | 3 | Custom Other | Inspect |
| S00000115085 | P00000254590 | M00000594520 | Beaverton | Grocery | Custom refrigerator | BEREFCASECUST | Grocer Refrigeration Case - Custom | 584,108 | - | kWh2009 | 9 | Food Service | Inspect |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|-----------|---------|-------------------------|---------------------|---|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00000115085 | P00000254590 | M00000594521 | Beaverton | Grocery | Custom VFD | BECUSTVFD | Custom VFDs | 326,799 | - | kWh2009 | 9 | Motors | Inspect |
| S00000115085 | P00000254590 | M00000594523 | Beaverton | Grocery | Custom lighting control | BECUSTLIGHTCON T | Custom Lighting Control | 593,601 | - | kWh2009 | 9 | Lighting controls | Inspect |
| S00000115085 | P00000254590 | M00000594524 | Beaverton | Grocery | Custom other measure | BECUSTOTH | Custom Other | 269,986 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00000115085 | P00000254590 | M00000594525 | Beaverton | Grocery | Custom motor | BECUSTMOT | Custom Motors | 17,316 | - | kWh2009 | 9 | Motors | PassThru |
| S00000115156 | P00000240943 | M00000554186 | Medford | Grocery | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 610,248 | - | kWh2009 | 9 | Lighting | Inspect |
| S00000115156 | P00000303919 | M00000602555 | Medford | Grocery | Lighting | LEDCLRETT8LO18 H | LED Case Lighting (Retrofit): T8-LED, Low Temp, 18 hr day | 44,719 | - | kWh2009 | 9 | Lighting | Inspect |
| S00000115156 | P00000240943 | M00000554187 | Medford | Grocery | Lighting | BENEXITLED | New Exit Sign, LED | 2,383 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115156 | P00000263817 | M00000482713 | Medford | Grocery | Motors | BEMOTREF | ECM Motor for Refrigeration Systems | 27,028 | - | kWh2009 | 9 | Motors | PassThru |
| S00000115156 | P00000303919 | M00000602554 | Medford | Grocery | Lighting | LEDCLRETT8LO18 H | LED Case Lighting (Retrofit): T8-LED, Low Temp, 18 hr day | 34,051 | - | kWh2009 | 9 | Lighting | PassThru |

| Program Information | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|-----------|---------------------|-------------------------|---------------------|---|---------------------|----------------|-------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00000115156 | P00000303919 | M00000602556 | Medford | Grocery | Lighting | LEDCLRETT8MD18 H | LED Case Lighting (Retrofit): T8-LED, Med Temp, 18 hr day | 3,866 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115194 | P00000220090 | M00000464759 | Portland | Lodging/Hotel/Motel | Custom VFD | BECUSTVFD | Custom VFDs | 106,100 | - | kWh2009 | 9 | Motors | Inspect |
| S00000115194 | P00000277352 | M00000607005 | Portland | Lodging/Hotel/Motel | Custom other measure | BECUSTOTH | Custom Other | 207,600 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00000115194 | P00000277352 | M00000607006 | Portland | Lodging/Hotel/Motel | Custom other measure | BECUSTOTH | Custom Other | 289,600 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00000115194 | P00000277352 | M00000607007 | Portland | Lodging/Hotel/Motel | Custom other measure | BECUSTOTH | Custom Other | 102,700 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00000115194 | P00000277352 | M00000607013 | Portland | Lodging/Hotel/Motel | Custom other measure | BECUSTOTH | Custom Other | 360,300 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00000115194 | P00000290798 | M00000594535 | Portland | Lodging/Hotel/Motel | Custom lighting | BECUSTLIGHT | Custom Lighting | 69,095 | - | kWh2009 | 9 | Lighting | Inspect |
| S00000115377 | P00000240871 | M00000488158 | Hillsboro | Grocery | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 549,550 | - | kWh2009 | 9 | Lighting | Inspect |
| S00000115390 | P00000254638 | M00000582645 | Hillsboro | Grocery | Custom other measure | BECUSTOTH | Custom Other | 524,279 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00000115390 | P00000254638 | M00000582647 | Hillsboro | Grocery | Custom lighting control | BECUSTLIGHTCON T | Custom Lighting Control | 434,016 | - | kWh2009 | 9 | Lighting controls | Inspect |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|-----------|---------|-----------------|-----------------|---|-------------|----------------|---------------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00000115390 | P00000254638 | M00000582648 | Hillsboro | Grocery | Custom lighting | BECUSTLIGHT | Custom Lighting | 1,064,297 | - | kWh2009 | 9 | Lighting | Inspect |
| S00000115390 | P00000254638 | M00000582646 | Hillsboro | Grocery | Custom motor | BECUSTMOT | Custom Motors | 6,505 | - | kWh2009 | 9 | Motors | PassThru |
| S00000115691 | P00000239816 | M00000491199 | Bend | Retail | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 587,236 | - | kWh2009 | 9 | Lighting | Inspect |
| S00000115691 | P00000303921 | M00000597390 | Bend | Retail | Lighting | LEDCLRETT8LO18H | LED Case Lighting (Retrofit): T8-LED, Low Temp, 18 hr day | 50,869 | - | kWh2009 | 9 | Lighting | Inspect |
| S00000115691 | P00000239816 | M00000491200 | Bend | Retail | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 4,336 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491201 | Bend | Retail | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 4,336 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491202 | Bend | Retail | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 5,203 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491203 | Bend | Retail | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 1,734 | - | kWh2009 | 9 | Lighting | PassThru |

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|------|--------|------------|-------------|---|-------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00000115691 | P00000239816 | M00000491204 | Bend | Retail | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 3,469 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491205 | Bend | Retail | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 3,469 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491206 | Bend | Retail | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 15,609 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491207 | Bend | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 670 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491208 | Bend | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 10,498 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491209 | Bend | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 1,787 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491210 | Bend | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 670 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491211 | Bend | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 1,117 | - | kWh2009 | 9 | Lighting | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|------|--------|-------------------|-------------|---|---------------------|----------------|-------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00000115691 | P00000239816 | M00000491212 | Bend | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 4,021 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491213 | Bend | Retail | Lighting | BENEXITLED | New Exit Sign, LED | 1,945 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491214 | Bend | Retail | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 565 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491215 | Bend | Retail | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 1,734 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491216 | Bend | Retail | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 1,883 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491217 | Bend | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 893 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491218 | Bend | Retail | Lighting | BE41T810 | 4', 1 lamp T8 (high performance, 0.85<BF<1.0) | 1,774 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491219 | Bend | Retail | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 4,336 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115691 | P00000239816 | M00000491220 | Bend | Retail | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 780 | - | kWh2009 | 9 | Lighting controls | PassThru |

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|------|--------|-------------------|-----------------|---|-------------|----------------|-------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00000115691 | P00000239816 | M00000491221 | Bend | Retail | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 780 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00000115691 | P00000239816 | M00000491222 | Bend | Retail | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 312 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00000115691 | P00000239816 | M00000491223 | Bend | Retail | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 468 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00000115691 | P00000239816 | M00000491224 | Bend | Retail | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 624 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00000115691 | P00000239816 | M00000491225 | Bend | Retail | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 936 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00000115691 | P00000239816 | M00000491226 | Bend | Retail | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 312 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00000115691 | P00000239816 | M00000491227 | Bend | Retail | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 780 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00000115691 | P00000264101 | M00000484550 | Bend | Retail | Motors | BEMOTREF | ECM Motor for Refrigeration Systems | 19,572 | - | kWh2009 | 9 | Motors | PassThru |
| S00000115691 | P00000303921 | M00000597389 | Bend | Retail | Lighting | LEDCLRETT8LO18H | LED Case Lighting (Retrofit): T8-LED, Low Temp, 18 hr day | 38,568 | - | kWh2009 | 9 | Lighting | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|----------|-------------|-------------------------|-----------------|---|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00000115691 | P00000303921 | M00000597391 | Bend | Retail | Lighting | LEDCLRETT8MD18H | LED Case Lighting (Retrofit): T8-LED, Med Temp, 18 hr day | 3,544 | - | kWh2009 | 9 | Lighting | PassThru |
| S00000115768 | P00000254578 | M00000592570 | Portland | Grocery | Custom refrigerator | BEREFCASECUST | Grocer Refrigeration Case - Custom | 577,358 | - | kWh2009 | 9 | Food Service | Inspect |
| S00000115768 | P00000254578 | M00000592571 | Portland | Grocery | Custom VFD | BECUSTVFD | Custom VFDs | 271,778 | - | kWh2009 | 9 | Motors | Inspect |
| S00000115768 | P00000254578 | M00000592572 | Portland | Grocery | Custom lighting control | BECUSTLIGHTCONT | Custom Lighting Control | 310,176 | - | kWh2009 | 9 | Lighting controls | Inspect |
| S00000115768 | P00000254578 | M00000592573 | Portland | Grocery | Custom heat recovery | BECUSTHEATREC | Custom Heat Recovery | 6,219 | - | kWh2009 | 9 | Custom Other | PassThru |
| S00000115768 | P00000254578 | M00000592574 | Portland | Grocery | Custom motor | BECUSTMOT | Custom Motors | 11,958 | - | kWh2009 | 9 | Motors | PassThru |
| S00000115832 | P00000009544 | M00000454823 | Portland | Data Center | Custom chiller | BECUSTCHILLER | Custom Chillers | 117,956 | - | kWh2009 | 9 | HVAC | Inspect |
| S00000115832 | P00000276115 | M00000529672 | Portland | Data Center | Custom data center | BECUSTDCNTR | Custom Data Center | 340,608 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001151821 | P00000037420 | M00000595131 | Portland | Office | Custom VAV | BECUSTVAVSYS | Custom VAV System | 459,934 | - | kWh2009 | 9 | HVAC | 0 |
| S00001160665 | P00000240942 | M00000520599 | Sandy | Retail | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 444,874 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001160665 | P00000240942 | M00000520600 | Sandy | Retail | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 207,270 | - | kWh2009 | 9 | Lighting | Inspect |

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|----------|--------|-------------------------|---------------------|---|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001160665 | P00000303889 | M00000593754 | Sandy | Retail | Custom lighting control | BECUSTLIGHTCON T | Custom Lighting Control | 53,026 | - | kWh2009 | 9 | Lighting controls | Inspect |
| S00001160665 | P00000264105 | M00000491609 | Sandy | Retail | Motors | BEMOTREF | ECM Motor for Refrigeration Systems | 14,912 | - | kWh2009 | 9 | Motors | PassThru |
| S00001160665 | P00000303889 | M00000593752 | Sandy | Retail | Lighting | LEDCLRETT8LO18 H | LED Case Lighting (Retrofit): T8-LED, Low Temp, 18 hr day | 12,560 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001160665 | P00000303889 | M00000593753 | Sandy | Retail | Lighting | LEDCLRETT8MD18 H | LED Case Lighting (Retrofit): T8-LED, Med Temp, 18 hr day | 10,578 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001160665 | P00000324367 | M00000566261 | Sandy | Retail | Motors | BEMOTREF | ECM Motor for Refrigeration Systems | 12,582 | - | kWh2009 | 9 | Motors | PassThru |
| S00001160679 | P00000254618 | M00000580762 | Portland | Office | Custom other measure | BECUSTOTH | Custom Other | 639,625 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001160679 | P00000254618 | M00000580763 | Portland | Office | Custom VFD | BECUSTVFD | Custom VFDs | 42,389 | - | kWh2009 | 9 | Motors | Inspect |
| S00001160679 | P00000227185 | M00000554170 | Portland | Office | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 12,559 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00001160679 | P00000227185 | M00000554171 | Portland | Office | Custom lighting | BECUSTLIGHT | Custom Lighting | 29,870 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001160679 | P00000254618 | M00000580761 | Portland | Office | Custom motor | BECUSTMOT | Custom Motors | 5,388 | - | kWh2009 | 9 | Motors | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|-------------|--------------------|--------------------------|---------------------|--------------------------|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001160687 | P00000254605 | M00000582211 | Gresham | Grocery | Custom other measure | BECUSTOTH | Custom Other | 617,799 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001160687 | P00000254605 | M00000582213 | Gresham | Grocery | Custom other measure | BECUSTOTH | Custom Other | 51,172 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001160687 | P00000254605 | M00000582212 | Gresham | Grocery | Custom motor | BECUSTMOT | Custom Motors | 5,388 | - | kWh2009 | 9 | Motors | PassThru |
| S00001160729 | P00000254629 | M00000582649 | Oregon City | Grocery | Custom other measure | BECUSTOTH | Custom Other | 524,279 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001160729 | P00000254629 | M00000582650 | Oregon City | Grocery | Custom lighting | BECUSTLIGHT | Custom Lighting | 1,093,671 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001160729 | P00000254629 | M00000582651 | Oregon City | Grocery | Custom lighting control | BECUSTLIGHTCON T | Custom Lighting Control | 475,554 | - | kWh2009 | 9 | Lighting controls | Inspect |
| S00001160729 | P00000254629 | M00000582652 | Oregon City | Grocery | Custom motor | BECUSTMOT | Custom Motors | 6,990 | - | kWh2009 | 9 | Motors | PassThru |
| S00001200963 | P00000199345 | M00000488098 | Portland | Office | Custom chiller | BECUSTCHILLER | Custom Chillers | 527,000 | - | kWh2009 | 9 | HVAC | Inspect |
| S00001220004 | P00000255673 | M00000558407 | Portland | College/University | Custom VAV | BECUSTVAVSYS | Custom VAV System | 505,219 | - | kWh2009 | 9 | HVAC | Inspect |
| S00001220004 | P00000255673 | M00000558408 | Portland | College/University | Custom chiller | BECUSTCHILLER | Custom Chillers | 238,884 | - | kWh2009 | 9 | HVAC | Inspect |
| S00001220004 | P00000255673 | M00000558409 | Portland | College/University | Custom building controls | BECUSTCONT | Custom Building Controls | 154,133 | - | kWh2009 | 9 | Custom Controls | Inspect |
| S00001220004 | P00000255673 | M00000558410 | Portland | College/University | Custom other measure | BECUSTOTH | Custom Other | 195,364 | - | kWh2009 | 9 | Custom Other | Inspect |

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|-----------|--------------------|----------------------|-------------|---|-------------|----------------|---------------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001220004 | P00000255673 | M00000558412 | Portland | College/University | Custom other measure | BECUSTOTH | Custom Other | 251,343 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001239388 | P00000276086 | M00000589167 | Beaverton | Grocery | Custom other measure | BECUSTOTH | Custom Other | 101,246 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001239388 | P00000276086 | M00000589168 | Beaverton | Grocery | Custom other measure | BECUSTOTH | Custom Other | 154,056 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001239388 | P00000276086 | M00000589169 | Beaverton | Grocery | Custom VFD | BECUSTVFD | Custom VFDs | 370,899 | - | kWh2009 | 9 | Motors | Inspect |
| S00001239388 | P00000276086 | M00000589170 | Beaverton | Grocery | Custom VFD | BECUSTVFD | Custom VFDs | 98,679 | - | kWh2009 | 9 | Motors | Inspect |
| S00001255857 | P00000239859 | M00000485715 | Woodburn | Warehouse | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 84,384 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001255857 | P00000239859 | M00000485716 | Woodburn | Warehouse | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 181,743 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001255857 | P00000239859 | M00000485717 | Woodburn | Warehouse | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 266,123 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001255857 | P00000239859 | M00000485718 | Woodburn | Warehouse | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 92,597 | - | kWh2009 | 9 | Lighting | Inspect |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|----------|-----------|-------------------|-------------|---|---------------------|----------------|-------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001255857 | P00000239859 | M00000485719 | Woodburn | Warehouse | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 58,417 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001255857 | P00000239859 | M00000485721 | Woodburn | Warehouse | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 226,101 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001255857 | P00000239859 | M00000485720 | Woodburn | Warehouse | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 38,945 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001255857 | P00000239859 | M00000485722 | Woodburn | Warehouse | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 12,561 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001255857 | P00000239859 | M00000485723 | Woodburn | Warehouse | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 6,281 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001255857 | P00000239859 | M00000485724 | Woodburn | Warehouse | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 18,961 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00001255857 | P00000239859 | M00000485725 | Woodburn | Warehouse | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 40,837 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00001255857 | P00000239859 | M00000485726 | Woodburn | Warehouse | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 18,960 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00001255857 | P00000239859 | M00000485727 | Woodburn | Warehouse | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 13,126 | - | kWh2009 | 9 | Lighting controls | PassThru |

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|----------|-----------|-------------------------|---------------------|----------------------------------|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001255857 | P00000239859 | M00000485728 | Woodburn | Warehouse | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 8,751 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00001264431 | P00000115378 | M00000468798 | Portland | Other | Custom chiller | BECUSTCHILLER | Custom Chillers | 493,887 | - | kWh2009 | 9 | HVAC | Inspect |
| S00001283461 | P00000127985 | M00000582003 | Portland | Grocery | Custom other measure | BECUSTOTH | Custom Other | 626,686 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001283461 | P00000127985 | M00000582006 | Portland | Grocery | Custom other measure | BECUSTOTH | Custom Other | 241,116 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001283461 | P00000127985 | M00000582007 | Portland | Grocery | Custom other measure | BECUSTOTH | Custom Other | 326,113 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001283461 | P00000127985 | M00000582009 | Portland | Grocery | Custom lighting | BECUSTLIGHT | Custom Lighting | 763,118 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001283461 | P00000127985 | M00000582010 | Portland | Grocery | Custom lighting control | BECUSTLIGHTCON T | Custom Lighting Control | 248,716 | - | kWh2009 | 9 | Lighting controls | Inspect |
| S00001283461 | P00000127985 | M00000582004 | Portland | Grocery | Custom motor | BECUSTMOT | Custom Motors | 14,487 | - | kWh2009 | 9 | Motors | PassThru |
| S00001283461 | P00000127985 | M00000582005 | Portland | Grocery | Custom lighting control | BECUSTLIGHTCON T | Custom Lighting Control | 38,221 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00001283461 | P00000127985 | M00000582008 | Portland | Grocery | Custom heat recovery | BECUSTHEATREC | Custom Heat Recovery | 4,144 | - | kWh2009 | 9 | Custom Other | PassThru |
| S00001321002 | P00000218824 | M00000585619 | Portland | Office | Custom lighting control | BECUSTLIGHTCON T | Custom Lighting Control | 380,432 | - | kWh2009 | 9 | Lighting controls | Inspect |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|-----------|--------------------|--------------------------|---------------------|---|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001321002 | P00000218824 | M00000585620 | Portland | Office | Custom lighting control | BECUSTLIGHTCON T | Custom Lighting Control | 87,360 | - | kWh2009 | 9 | Lighting controls | Inspect |
| S00001321002 | P00000218824 | M00000585621 | Portland | Office | Custom lighting control | BECUSTLIGHTCON T | Custom Lighting Control | 664,925 | - | kWh2009 | 9 | Lighting controls | Inspect |
| S00001343439 | P00000180547 | M00000493712 | Beaverton | Office | Custom building controls | BECUSTCONT | Custom Building Controls | 422,400 | - | kWh2009 | 9 | Custom Controls | Inspect |
| S00001343439 | P00000180547 | M00000493713 | Beaverton | Office | Custom VFD | BECUSTVFD | Custom VFDs | 48,100 | - | kWh2009 | 9 | Motors | Inspect |
| S00001352077 | P00000283962 | M00000589323 | Portland | College/University | Custom other measure | BECUSTOTH | Custom Other | 40,470 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001352077 | P00000283962 | M00000589324 | Portland | College/University | Custom chiller | BECUSTCHILLER | Custom Chillers | 39,430 | - | kWh2009 | 9 | HVAC | Inspect |
| S00001352077 | P00000283962 | M00000589325 | Portland | College/University | Custom other measure | BECUSTOTH | Custom Other | 206,843 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001352077 | P00000283962 | M00000589327 | Portland | College/University | Custom other measure | BECUSTOTH | Custom Other | 344,290 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001352077 | P00000299011 | M00000587542 | Portland | College/University | Custom building controls | BECUSTCONT | Custom Building Controls | 51,485 | - | kWh2009 | 9 | Custom Controls | Inspect |
| S00001353065 | P00000240949 | M00000506283 | Salem | Grocery | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 505,862 | - | kWh2009 | 9 | Lighting | Inspect |

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|---------|--------------------|----------------------|---------------------|---|-------------|----------------|---------------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001353065 | P00000303905 | M00000592516 | Salem | Grocery | Lighting | LEDCLRETT8LO18 H | LED Case Lighting (Retrofit): T8-LED, Low Temp, 18 hr day | 79,847 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001353065 | P00000264058 | M00000484897 | Salem | Grocery | Motors | BEMOTREF | ECM Motor for Refrigeration Systems | 21,902 | - | kWh2009 | 9 | Motors | PassThru |
| S00001369095 | P00000263131 | M00000575954 | Gresham | College/University | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 152,936 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001369095 | P00000263131 | M00000576227 | Gresham | College/University | Custom other measure | BECUSTOTH | Custom Other | 540,023 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001369095 | P00000263131 | M00000582604 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 133,748 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001369095 | P00000263131 | M00000570967 | Gresham | College/University | Ceiling insulation | BEGROOF | Roof Insulation | 17,375 | - | kWh2009 | 9 | Insulation | PassThru |
| S00001369095 | P00000263131 | M00000575910 | Gresham | College/University | Lighting | BEPSMH750 | Pulse Start Metal Halide, 750 watts | 17,366 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575911 | Gresham | College/University | Lighting | BE4T51FIX | T5HO4-lamp fixture | 54,190 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575912 | Gresham | College/University | Lighting | BE4T51FIX | T5HO4-lamp fixture | 18,063 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575913 | Gresham | College/University | Lighting | BE6T51FIX | T5HO6-lamp fixture | 51,813 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575914 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 78,402 | - | kWh2009 | 9 | Lighting | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|---------|--------------------|-----------------|---------------|--|-------------|----------------|---------------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001369095 | P00000263131 | M00000575915 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 1,423 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575916 | Gresham | College/University | Lighting | BEHWCFL27 | Hard-wired CFL magnetic, up to 26 watts | 1,964 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575917 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 25,106 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575918 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 3,288 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575919 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 2,690 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575920 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 7,580 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575921 | Gresham | College/University | Lighting | BEHWCFL2749EB | Hard-wired CFL, 27-49 Watt, electronic ballast | 13,087 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575922 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 2,882 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575923 | Gresham | College/University | Lighting | BEHWCFL27 | Hard-wired CFL magnetic, up to 26 watts | 9,986 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575924 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 384 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575925 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 24,948 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575926 | Gresham | College/University | Lighting | BE2T51FIX | T5HO2-lamp fixture | 6,950 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575927 | Gresham | College/University | Lighting | BEHWCFL2749EB | Hard-wired CFL, 27-49 Watt, electronic ballast | 5,046 | - | kWh2009 | 9 | Lighting | PassThru |

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|---------|--------------------|------------|---------------|--|-------------|----------------|---------------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001369095 | P00000263131 | M00000575928 | Gresham | College/University | Lighting | BEHWCFL5099EB | Hard-wired CFL, 50-99 Watt, electronic ballast | 7,113 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575929 | Gresham | College/University | Lighting | BE21T8LAMP | 2', 1 lamp T8 | 384 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575930 | Gresham | College/University | Lighting | BEPSMH200 | Pulse Start Metal Halide, 200 watts | 337 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575931 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 36,546 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575932 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 42,942 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575933 | Gresham | College/University | Lighting | BENEXITLED | New Exit Sign, LED | 19,062 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575934 | Gresham | College/University | Lighting | BENEXITLED | New Exit Sign, LED | 473 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575935 | Gresham | College/University | Lighting | BE41T810 | 4', 1 lamp T8 (high performance, 0.85<BF<1.0) | 3,829 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575936 | Gresham | College/University | Lighting | BE41T885 | 4', 1 lamp T8 (high performance, BF<0.85) | 2,904 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575937 | Gresham | College/University | Lighting | BE41T885 | 4', 1 lamp T8 (high performance, BF<0.85) | 576 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575938 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 15,693 | - | kWh2009 | 9 | Lighting | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|---------|--------------------|-----------------|---------------|--|-------------|----------------|---------------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001369095 | P00000263131 | M00000575939 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 10,590 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575940 | Gresham | College/University | Lighting | BEHWCFL2749EB | Hard-wired CFL, 27-49 Watt, electronic ballast | 158 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575941 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 1,729 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575942 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 4,516 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575943 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 961 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575944 | Gresham | College/University | Lighting | BEHWCFL27 | Hard-wired CFL magnetic, up to 26 watts | 619 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575945 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 11,387 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575946 | Gresham | College/University | Lighting | BEHWCFL5099EB | Hard-wired CFL, 50-99 Watt, electronic ballast | 1,253 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575947 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 3,146 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575948 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 33,618 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575949 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 3,288 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575950 | Gresham | College/University | Lighting | BE21T8LAMP | 2', 1 lamp T8 | 114 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575951 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 4,228 | - | kWh2009 | 9 | Lighting | PassThru |

| Program Information | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|---------|--------------------|-----------------|-------------|---|---------------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001369095 | P00000263131 | M00000575952 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 214 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575953 | Gresham | College/University | Lighting | BE41T810 | 4', 1 lamp T8 (high performance, 0.85<BF<1.0) | 35,657 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575955 | Gresham | College/University | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 2,477 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575956 | Gresham | College/University | Lighting | BE41T810 | 4', 1 lamp T8 (high performance, 0.85<BF<1.0) | 306 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575957 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 2,512 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575958 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 2,135 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575959 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 306 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575960 | Gresham | College/University | Lighting | BE42T811 | 4', 2 lamp T8 (high performance, BF>1.01) | 1,149 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575961 | Gresham | College/University | Lighting | BE42T811 | 4', 2 lamp T8 (high performance, BF>1.01) | 523 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575962 | Gresham | College/University | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 1,270 | - | kWh2009 | 9 | Lighting | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|---------|--------------------|-----------------|-------------|---|---------------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001369095 | P00000263131 | M00000575963 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 1,996 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575964 | Gresham | College/University | Lighting | BE41T885 | 4', 1 lamp T8 (high performance, BF<0.85) | 15,693 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575965 | Gresham | College/University | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 13,793 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575966 | Gresham | College/University | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 43,920 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575967 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 342 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575968 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 2,363 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575969 | Gresham | College/University | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 406 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575970 | Gresham | College/University | Lighting | BE42T811 | 4', 2 lamp T8 (high performance, BF>1.01) | 1,487 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575971 | Gresham | College/University | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 32,048 | - | kWh2009 | 9 | Lighting | PassThru |

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|---------|--------------------|-----------------|-------------|---|-------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001369095 | P00000263131 | M00000575972 | Gresham | College/University | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 26,376 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575973 | Gresham | College/University | Lighting | BE44T885 | 4', 4 lamp T8 (high performance, BF<0.85) | 21,853 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575974 | Gresham | College/University | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 9,818 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575975 | Gresham | College/University | Lighting | BE42T811 | 4', 2 lamp T8 (high performance, BF>1.01) | 498 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575976 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 455 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575977 | Gresham | College/University | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 7,630 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575978 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 2,342 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575979 | Gresham | College/University | Lighting | BE1PC | One-piece screw-in CFL | 925 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575980 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 302 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575981 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 15,031 | - | kWh2009 | 9 | Lighting | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|---------|--------------------|----------------------|----------------|--|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001369095 | P00000263131 | M00000575983 | Gresham | College/University | Lighting | BE44T811 | 4', 4 lamp T8 (high performance, BF>1.01) | 20,465 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575984 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 10,391 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000575985 | Gresham | College/University | Custom lighting | BECUSTLIGHT | Custom Lighting | 2,402 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001369095 | P00000263131 | M00000576178 | Gresham | College/University | Lighting controls | BEOCC90 | Occupancy Sensor, wall mount, 90+ watts connected load | 246 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00001369095 | P00000263131 | M00000576228 | Gresham | College/University | Custom other measure | BECUSTOTH | Custom Other | 43,093 | - | kWh2009 | 9 | Custom Other | PassThru |
| S00001369095 | P00000263131 | M00000576732 | Gresham | College/University | Heat pump | BEHPAIRSC2T | Heat Pump, Air-to-Air, 2 Ton | 539 | - | kWh2009 | 9 | HVAC | PassThru |
| S00001369095 | P00000263131 | M00000576733 | Gresham | College/University | Heat pump | BEHPAIRSC3T | Heat Pump, Air-to-Air, 3 Ton | 3,232 | - | kWh2009 | 9 | HVAC | PassThru |
| S00001369095 | P00000263131 | M00000576734 | Gresham | College/University | Heat pump | BEHPAIRSC4T | Heat Pump, Air-to-Air, 4 Ton | 2,154 | - | kWh2009 | 9 | HVAC | PassThru |
| S00001369095 | P00000263131 | M00000576735 | Gresham | College/University | Heat pump | BEHPAIRSC5T | Heat Pump, Air-to-Air, 5 Ton | 1,346 | - | kWh2009 | 9 | HVAC | PassThru |
| S00001369095 | P00000263131 | M00000576736 | Gresham | College/University | Heat pump | BEHPAIRSC10T | Heat Pump, Air-to-Air, 10 Ton | 1,614 | - | kWh2009 | 9 | HVAC | PassThru |
| S00001369095 | P00000263131 | M00000576737 | Gresham | College/University | Heat pump | BEHPAIRSC12P5T | Heat Pump, Air-to-Air, 12.5 Ton | 1,577 | - | kWh2009 | 9 | HVAC | PassThru |
| S00001369095 | P00000263131 | M00000592529 | Gresham | College/University | Custom other measure | BECUSTOTH | Custom Other | 42,455 | - | kWh2009 | 9 | Custom Other | PassThru |

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|----------|------------------------|--------------------------|-------------|----------------------------------|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001375877 | P00000217950 | M00000560031 | Dallas | Institution/Government | Custom building controls | BECUSTCONT | Custom Building Controls | 271,013 | - | kWh2009 | 9 | Custom Controls | Inspect |
| S00001375877 | P00000217950 | M00000560032 | Dallas | Institution/Government | Custom other measure | BECUSTOTH | Custom Other | 24,435 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001375877 | P00000217950 | M00000579878 | Dallas | Institution/Government | Custom other measure | BECUSTOTH | Custom Other | 83,496 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001375877 | P00000267413 | M00000573020 | Dallas | Institution/Government | Lighting | BE4T51FIX | T5HO4-lamp fixture | 34,288 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001375877 | P00000267413 | M00000573019 | Dallas | Institution/Government | Lighting | BE4T51FIX | T5HO4-lamp fixture | 13,456 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001375877 | P00000267413 | M00000573021 | Dallas | Institution/Government | Lighting | BE4T51FIX | T5HO4-lamp fixture | 5,966 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001386771 | P00000286169 | M00000582615 | Portland | Office | Custom other measure | BECUSTOTH | Custom Other | 519,520 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001407494 | P00000257943 | M00000593654 | Portland | Assembly | Custom VFD | BECUSTVFD | Custom VFDs | 254,600 | - | kWh2009 | 9 | Motors | Inspect |
| S00001407494 | P00000290719 | M00000537692 | Portland | Assembly | Custom lighting | BECUSTLIGHT | Custom Lighting | 169,505 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001407494 | P00000290719 | M00000537693 | Portland | Assembly | Custom lighting | BECUSTLIGHT | Custom Lighting | 60,887 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001407494 | P00000290719 | M00000537694 | Portland | Assembly | Custom lighting | BECUSTLIGHT | Custom Lighting | 92,510 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001407494 | P00000290719 | M00000537696 | Portland | Assembly | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 49,706 | - | kWh2009 | 9 | Lighting controls | Inspect |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|----------|----------|-------------------------|------------------|---|-------------|----------------|---------------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001407494 | P00000290719 | M00000537695 | Portland | Assembly | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 29,209 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00001407494 | P00000290719 | M00000537697 | Portland | Assembly | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 18,705 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00001407494 | P00000298638 | M00000512808 | Portland | Assembly | Foor equipment | BEHOTCAB | Electric Hot Food Cabinet | 6,701 | - | kWh2009 | 9 | Food Service | PassThru |
| S00001407494 | P00000308252 | M00000586290 | Portland | Assembly | Lighting | BEPSMH750 | Pulse Start Metal Halide, 750 watts | 10,687 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001407494 | P00000308252 | M00000586291 | Portland | Assembly | Custom lighting control | BECUSTLIGHTCON T | Custom Lighting Control | 13,577 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00001407494 | P00000319669 | M00000552126 | Portland | Assembly | Foor equipment | BEHOTCAB | Electric Hot Food Cabinet | 33,505 | - | kWh2009 | 9 | Food Service | PassThru |
| S00001423692 | P00000239825 | M00000455272 | Portland | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 52,131 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001423692 | P00000239825 | M00000455275 | Portland | Retail | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 22,998 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001423692 | P00000239825 | M00000455277 | Portland | Retail | Lighting | BE43T8100 | 4', 3 lamp T8 (high performance, 0.85<BF<1.0) | 220,896 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001423692 | P00000239825 | M00000455279 | Portland | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 44,760 | - | kWh2009 | 9 | Lighting | Inspect |

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|----------|--------|------------|-------------|---|-------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001423692 | P00000239825 | M00000455282 | Portland | Retail | Lighting | BE41T810 | 4', 1 lamp T8 (high performance, 0.85<BF<1.0) | 22,998 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001423692 | P00000239825 | M00000455273 | Portland | Retail | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 2,559 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001423692 | P00000239825 | M00000455274 | Portland | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 571 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001423692 | P00000239825 | M00000455276 | Portland | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 428 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001423692 | P00000239825 | M00000455278 | Portland | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 428 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001423692 | P00000239825 | M00000455280 | Portland | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 285 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001423692 | P00000239825 | M00000455281 | Portland | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 15,998 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001423692 | P00000239825 | M00000455283 | Portland | Retail | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 1,977 | - | kWh2009 | 9 | Lighting | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|----------|--------|------------|-------------|---|-------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001423692 | P00000239825 | M00000455284 | Portland | Retail | Lighting | BE41T810 | 4', 1 lamp T8 (high performance, 0.85<BF<1.0) | 3,315 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001423692 | P00000239825 | M00000455285 | Portland | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 1,396 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001423692 | P00000239825 | M00000455286 | Portland | Retail | Lighting | BE41T810 | 4', 1 lamp T8 (high performance, 0.85<BF<1.0) | 730 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001423692 | P00000239825 | M00000455287 | Portland | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 2,665 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001423692 | P00000239825 | M00000455288 | Portland | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 10,971 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001423692 | P00000239825 | M00000455292 | Portland | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 4,187 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001423692 | P00000239825 | M00000455293 | Portland | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 9,728 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001423692 | P00000239825 | M00000455294 | Portland | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 10,336 | - | kWh2009 | 9 | Lighting | PassThru |

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|----------|---------|--------------------------|------------------|--|-------------|----------------|---------------------|--------|-----------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001431519 | P00000275774 | M00000602824 | Roseburg | Grocery | Lighting | LEDCLRETT12MD18H | LED Case Lighting (Retrofit): T12-LED, Med Temp, 18 hr day | 155,809 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001431519 | P00000275774 | M00000602825 | Roseburg | Grocery | Lighting | LEDCLRETT12LO18H | LED Case Lighting (Retrofit): T12-LED, Low Temp, 18 hr day | 395,740 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001431519 | P00000275774 | M00000602822 | Roseburg | Grocery | Lighting | LEDCLRETT12LO18H | LED Case Lighting (Retrofit): T12-LED, Low Temp, 18 hr day | 8,371 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001431519 | P00000275774 | M00000602823 | Roseburg | Grocery | Lighting | LEDCLRETT8LO18H | LED Case Lighting (Retrofit): T8-LED, Low Temp, 18 hr day | 10,258 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001434037 | P00000239852 | M00000483121 | Portland | Retail | Lighting | BE46T811 | 4', 6 lamp T8 (high performance, BF>1.01) | 634,338 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001436450 | P00000281746 | M00000587991 | Portland | Grocery | Custom motor | BECUSTMOT | Custom Motors | 121,507 | - | kWh2009 | 9 | Motors | Inspect |
| S00001436450 | P00000281746 | M00000587992 | Portland | Grocery | Custom other measure | BECUSTOTH | Custom Other | 37,688 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001436450 | P00000281746 | M00000587993 | Portland | Grocery | Custom building controls | BECUSTCONT | Custom Building Controls | 285,629 | - | kWh2009 | 9 | Custom Controls | Inspect |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|----------|---------|-----------------|-------------|---|-------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001436450 | P00000281746 | M00000587994 | Portland | Grocery | Custom lighting | BECUSTLIGHT | Custom Lighting | 184,981 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001441605 | P00000227463 | M00000493807 | Gresham | Retail | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 34,926 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001441605 | P00000227463 | M00000493828 | Gresham | Retail | Lighting | BE43T8100 | 4', 3 lamp T8 (high performance, 0.85<BF<1.0) | 234,156 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001441605 | P00000227463 | M00000493830 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 24,574 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001441605 | P00000227463 | M00000493791 | Gresham | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 20,353 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493792 | Gresham | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 1,427 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493793 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 1,745 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493794 | Gresham | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 9,813 | - | kWh2009 | 9 | Lighting | PassThru |

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|---------|--------|------------|-------------|---|-------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001441605 | P00000227463 | M00000493795 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 174 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493796 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 2,443 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493797 | Gresham | Retail | Lighting | BE41T810 | 4', 1 lamp T8 (high performance, 0.85<BF<1.0) | 2,411 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493798 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 1,396 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493799 | Gresham | Retail | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 740 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493800 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 1,047 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493801 | Gresham | Retail | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 14,433 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493802 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 3,140 | - | kWh2009 | 9 | Lighting | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|---------|--------|------------|-------------|---|-------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001441605 | P00000227463 | M00000493803 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 2,792 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493804 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 2,823 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493805 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 698 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493806 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 3,764 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493808 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 719 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493809 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 2,353 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493810 | Gresham | Retail | Lighting | BE41T810 | 4', 1 lamp T8 (high performance, 0.85<BF<1.0) | 365 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493811 | Gresham | Retail | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 9,770 | - | kWh2009 | 9 | Lighting | PassThru |

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|---------|--------|------------|-------------|---|-------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001441605 | P00000227463 | M00000493812 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 8,808 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493813 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 1,047 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493814 | Gresham | Retail | Lighting | BE41T810 | 4', 1 lamp T8 (high performance, 0.85<BF<1.0) | 243 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493815 | Gresham | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 2,221 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493816 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 15,528 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493817 | Gresham | Retail | Lighting | BE41T810 | 4', 1 lamp T8 (high performance, 0.85<BF<1.0) | 608 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493818 | Gresham | Retail | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 370 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493819 | Gresham | Retail | Lighting | BE42T8100 | 4', 2 lamp T8 (high performance, 0.85<BF<1.0) | 9,411 | - | kWh2009 | 9 | Lighting | PassThru |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|---------|--------|------------|-------------|---|-------------|----------------|-------------|--------|--------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001441605 | P00000227463 | M00000493820 | Gresham | Retail | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 6,662 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493821 | Gresham | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 3,331 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493822 | Gresham | Retail | Lighting | BE41T810 | 4', 1 lamp T8 (high performance, 0.85<BF<1.0) | 603 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493823 | Gresham | Retail | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 3,965 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493824 | Gresham | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 539 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493825 | Gresham | Retail | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 6,979 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493826 | Gresham | Retail | Lighting | BE44T810 | 4', 4 lamp T8 (high performance, 0.85<BF<1.0) | 3,648 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493827 | Gresham | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 180 | - | kWh2009 | 9 | Lighting | PassThru |

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|-----------|-----------|-------------------------|---------------------|---|-------------|----------------|-------------|--------|-------------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001441605 | P00000227463 | M00000493829 | Gresham | Retail | Lighting | BE42T885 | 4', 2 lamp T8 (high performance, BF<0.85) | 1,079 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493831 | Gresham | Retail | Lighting | BE41T810 | 4', 1 lamp T8 (high performance, 0.85<BF<1.0) | 2,802 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001441605 | P00000227463 | M00000493832 | Gresham | Retail | Lighting | BENEXITLED | New Exit Sign, LED | 1,945 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001460146 | P00000290513 | M00000573022 | Clackamas | Warehouse | Custom lighting | BECUSTLIGHT | Custom Lighting | 43,557 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001460146 | P00000290513 | M00000573023 | Clackamas | Warehouse | Lighting | BE44T811 | 4', 4 lamp T8 (high performance, BF>1.01) | 335,059 | - | kWh2009 | 9 | Lighting | Inspect |
| S00001460146 | P00000290513 | M00000573026 | Clackamas | Warehouse | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 33,597 | - | kWh2009 | 9 | Lighting controls | Inspect |
| S00001460146 | P00000290513 | M00000573024 | Clackamas | Warehouse | Custom lighting | BECUSTLIGHT | Custom Lighting | 7,778 | - | kWh2009 | 9 | Lighting | PassThru |
| S00001460146 | P00000290513 | M00000573025 | Clackamas | Warehouse | Custom lighting control | BECUSTLIGHTCON T | Custom Lighting Control | 14,585 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00001460146 | P00000290513 | M00000573027 | Clackamas | Warehouse | Lighting controls | BEOCCFIXMT | Fixture Mounted Occupancy Sensor | 2,604 | - | kWh2009 | 9 | Lighting controls | PassThru |
| S00001478834 | P00000045808 | M00000596383 | Portland | Office | Custom VFD | BECUSTVFD | Custom VFDs | 57,198 | - | kWh2009 | 9 | Motors | Inspect |
| S00001478834 | P00000045808 | M00000596385 | Portland | Office | Custom VAV | BECUSTVAVSYS | Custom VAV System | 148,521 | - | kWh2009 | 9 | HVAC | Inspect |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|----------|---------------------|-----------------------------|---------------|--|-------------|----------------|---------------------|--------|-----------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001478834 | P00000045808 | M00000596386 | Portland | Office | Custom building controls | BECUSTCONT | Custom Building Controls | 165,452 | - | kWh2009 | 9 | Custom Controls | Inspect |
| S00001478834 | P00000045808 | M00000596387 | Portland | Office | Custom other measure | BECUSTOTH | Custom Other | 234,458 | - | kWh2009 | 9 | Custom Other | Inspect |
| S00001478834 | P00000045808 | M00000596388 | Portland | Office | Custom economizer | BECUSTECON | Custom Economizers | 148,160 | - | kWh2009 | 9 | HVAC | Inspect |
| S00001478834 | P00000045808 | M00000596384 | Portland | Office | Custom VFD | BECUSTVFD | Custom VFDs | 16,361 | - | kWh2009 | 9 | Motors | PassThru |
| S00001478834 | P00000045808 | M00000596389 | Portland | Office | Custom VFD | BECUSTVFD | Custom VFDs | 9,161 | - | kWh2009 | 9 | Motors | PassThru |
| S00000115005 | P00000219720 | M00000363830 | Portland | Lodging/Hotel/Motel | Domestic hot water measures | BESHWDGAS | Showerhead Gas | - | 2,100 | Therms2008 | 1 | Water Heating | Inspect |
| S00000115194 | P00000249683 | M00000416052 | Portland | Lodging/Hotel/Motel | Foor equipment | NCCONVOVEN | Direct-Fired Convection Oven | - | 564 | Therms2008 | 1 | Food Service | Inspect |
| S00000115498 | P00000208280 | M00000338809 | Portland | Lodging/Hotel/Motel | Foor equipment | NCCONVOVEN | Direct-Fired Convection Oven | - | 1,128 | Therms2008 | 1 | Food Service | Inspect |
| S00001116739 | P00000239517 | M00000391643 | Salem | College/University | Foor equipment | NCIRGASFRY | Infrared Gas Fryer | - | 1,096 | Therms2008 | 1 | Food Service | Inspect |
| S00000115323 | P00000215601 | M00000421934 | Portland | Other Health | Boiler | NCWAFBOIL | High Efficiency Condensing Boiler with Electronic Ignition | - | 3,500 | Therms2008 | 2 | HVAC | Inspect |
| S00001282293 | P00000127249 | M00000377658 | Portland | Other | Custom boiler | BECUSTGASBOIL | Custom Gas Boiler | - | 6,511 | Therms2008 | 2 | HVAC | Inspect |

| Program Information | | | | | | | Evaluation Sampling | | | | | | |
|---------------------|--------------|--------------|-----------|--------------------|--------------------------|---------------|--|-------------|----------------|-------------|--------|-----------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001172141 | P00000047430 | M00000429453 | Astoria | Other | Tankless water heater | NCWHEL | Domestic Tankless/Instantaneous Water Heater with Electronic Ignit | - | 1,297 | Therms2008 | 3 | Water Heating | Inspect |
| S00001172141 | P00000047430 | M00000429454 | Astoria | Other | Tanked water heater | NCDHWCOND | Condensing Tank | - | 13,184 | Therms2008 | 3 | Water Heating | Inspect |
| S00001184018 | P00000066264 | M00000425577 | Tualatin | Hospital | Custom building controls | BECUSTCONT | Custom Building Controls | - | 9,803 | Therms2008 | 3 | Custom Controls | Inspect |
| S00001184018 | P00000066264 | M00000425579 | Tualatin | Hospital | Custom heat recovery | BECUSTHEATREC | Custom Heat Recovery | - | 6,652 | Therms2008 | 3 | Custom Other | Inspect |
| S00001158961 | P00000224663 | M00000405058 | Portland | Other | Custom chiller | BECUSTCHILLER | Custom Chillers | - | 29,359 | Therms2008 | 9 | HVAC | Inspect |
| S00001320688 | P00000202506 | M00000405641 | Portland | Office | Custom boiler | BECUSTGASBOIL | Custom Gas Boiler | - | 22,685 | Therms2008 | 9 | HVAC | Inspect |
| S00001320688 | P00000202506 | M00000405642 | Portland | Office | Custom building controls | BECUSTCONT | Custom Building Controls | - | 23,883 | Therms2008 | 9 | Custom Controls | Inspect |
| S00001328262 | P00000160752 | M00000416667 | Portland | Office | Custom building controls | BECUSTCONT | Custom Building Controls | - | 51,195 | Therms2008 | 9 | Custom Controls | Inspect |
| S00001332078 | P00000167718 | M00000394670 | Beaverton | College/University | Custom heat recovery | BECUSTHEATREC | Custom Heat Recovery | - | 19,198 | Therms2008 | 9 | Custom Other | Inspect |
| S00001332078 | P00000167718 | M00000394673 | Beaverton | College/University | Custom building controls | BECUSTCONT | Custom Building Controls | - | 8,150 | Therms2008 | 9 | Custom Controls | Inspect |
| S00001332078 | P00000217588 | M00000418837 | Beaverton | College/University | Custom VFD | BECUSTVFD | Custom VFDs | - | 46,473 | Therms2008 | 9 | Motors | Inspect |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|-----------|---------------------|-----------------------------|---------------|---|-------------|----------------|---------------------|--------|---------------|----------------|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001353241 | P00000191344 | M00000344115 | Albany | Other | Radiant heating | NCRADHEAT | Direct-fired Radiant Heating | - | 30,081 | Therms2008 | 9 | HVAC | Inspect |
| S00001353241 | P00000191344 | M00000344116 | Albany | Other | Ceiling insulation | BEGATTIC | Attic Insulation | - | 21,066 | Therms2008 | 9 | Insulation | Inspect |
| S00001353241 | P00000191344 | M00000344117 | Albany | Other | Wall insulation | BEGWALL | Wall Insulation | - | 12,000 | Therms2008 | 9 | Insulation | Inspect |
| S00001380800 | P00000223401 | M00000369381 | Woodburn | Warehouse | Ceiling insulation | BEGROOF | Roof Insulation | - | 73,601 | Therms2008 | 9 | Insulation | Inspect |
| S00001391361 | P00000097822 | M00000386228 | Jefferson | Other | Custom boiler | BECUSTGASBOIL | Custom Gas Boiler | - | 29,235 | Therms2008 | 9 | HVAC | Inspect |
| S00001405807 | P00000255346 | M00000604035 | Pendleton | Office | Gas furnace | NCWAFCON | High Efficiency Condensing Furnace <225,000 kBtuh | - | 132 | Therms2009 | 1 | HVAC | Inspect |
| S00001406062 | P00000255658 | M00000488224 | Gresham | Restaurant | Foor equipment | NCCONVOVEN | Direct-Fired Convection Oven | - | 564 | Therms2009 | 1 | Food Service | Inspect |
| S00001408173 | P00000261058 | M00000448392 | Portland | Lodging/Hotel/Motel | Domestic hot water measures | BESHWDGAS | Showerhead Gas | - | 385 | Therms2009 | 1 | Water Heating | Inspect |
| S00001408580 | P00000258985 | M00000452598 | Portland | Retail | Gas furnace | NCWAFCON | High Efficiency Condensing Furnace <225,000 kBtuh | - | 180 | Therms2009 | 1 | HVAC | Inspect |
| S00001406001 | P00000255573 | M00000476656 | Bend | Warehouse | Radiant heating | NCRADHEAT | Direct-fired Radiant Heating | - | 2,945 | Therms2009 | 2 | HVAC | Inspect |
| S00001406191 | P00000277028 | M00000482151 | Portland | Assembly | Radiant heating | NCRADHEAT | Direct-fired Radiant Heating | - | 1,299 | Therms2009 | 2 | HVAC | Inspect |
| S00001406191 | P00000277028 | M00000482152 | Portland | Assembly | Radiant heating | NCRADHEAT | Direct-fired Radiant Heating | - | 1,083 | Therms2009 | 2 | HVAC | Inspect |

| Program Information | | | | | | | | | | Evaluation Sampling | | | |
|---------------------|--------------|--------------|----------|---------------------|--------------------------|---------------|---|-------------|----------------|---------------------|--------|-----------------|----------------|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment |
| S00001390069 | P00000234944 | M00000580697 | Portland | Retail | Custom boiler | BECUSTGASBOIL | Custom Gas Boiler | - | 9,475 | Therms2009 | 3 | HVAC | Inspect |
| S00001421415 | P00000262247 | M00000582612 | Portland | Lodging/Hotel/Motel | Custom other measure | BECUSTOTH | Custom Other | - | 11,893 | Therms2009 | 3 | Custom Other | Inspect |
| S00001116739 | P00000286033 | M00000585493 | Salem | College/University | Boiler | GFBOIL2500 | Gas-fired Condensing Boiler > 2500 kbtuh 0.9 EC | - | 19,530 | Therms2009 | 9 | HVAC | Inspect |
| S00001116739 | P00000286033 | M00000585494 | Salem | College/University | Gas unit heater | NCHVACUNCON | High Efficiency Condensing Unit Heater | - | 182 | Therms2009 | 9 | HVAC | PassThru |
| S00001350731 | P00000188593 | M00000552774 | Salem | College/University | Custom boiler | BECUSTGASBOIL | Custom Gas Boiler | - | 39,467 | Therms2009 | 9 | HVAC | Inspect |
| S00001352077 | P00000283962 | M00000589323 | Portland | College/University | Custom other measure | BECUSTOTH | Custom Other | - | 6,255 | Therms2009 | 9 | Custom Other | Inspect |
| S00001352077 | P00000283962 | M00000589325 | Portland | College/University | Custom other measure | BECUSTOTH | Custom Other | - | 11,480 | Therms2009 | 9 | Custom Other | Inspect |
| S00001352077 | P00000283962 | M00000589326 | Portland | College/University | Custom building controls | BECUSTCONT | Custom Building Controls | - | 17,560 | Therms2009 | 9 | Custom Controls | Inspect |
| S00001369095 | P00000263131 | M00000576227 | Gresham | College/University | Custom other measure | BECUSTOTH | Custom Other | - | 43,782 | Therms2009 | 9 | Custom Other | Inspect |
| S00001369095 | P00000263131 | M00000592528 | Gresham | College/University | Custom HVAC | BECUSTHVAC | Custom HVAC | - | 49,468 | Therms2009 | 9 | HVAC | Inspect |
| S00001435645 | P00000242204 | M00000482211 | Newberg | Hospital | Custom boiler | BECUSTGASBOIL | Custom Gas Boiler | - | 36,530 | Therms2009 | 9 | HVAC | Inspect |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program information | | | Evaluation results | | | | | | | Reasons for differences* | | | | | | |
|---------------------|--------------|--------------|--------------------|----------------|---------------------|-----------------------|-------------|------------|---------------|--------------------------|-----------------|-------------|-------------------|--------------|--------------|--|
| SiteID | ProjectID | MeasureID | Working_kWh | Working_Therms | kWh_RealizationRate | Therm_RealizationRate | kWh_Savings | kW_Savings | Therm_Savings | Reason_Count | Reason_Controls | Reason_Size | Reason_Efficiency | Reason_Hours | Reason_Other | |
| S00000114750 | P00000196028 | M00000374745 | 10,274 | - | 1.57 | - | 16,165 | 3.7 | - | - | - | - | - | - | - | |
| S00000114750 | P00000196028 | M00000374746 | 2,583 | - | 1.25 | - | 3,237 | 0.7 | - | IP | - | - | - | - | - | |
| S00000114750 | P00000196028 | M00000374747 | 5,069 | - | 2.41 | - | 12,194 | 2.8 | - | I | - | IP | - | - | - | |
| S00000114750 | P00000196028 | M00000374748 | 2,105 | - | 0.50 | - | 1,053 | 0.2 | - | RP | - | - | - | - | - | |
| S00000115021 | P00000227169 | M00000395423 | 8,388 | - | 1.00 | - | 8,388 | 3.3 | - | - | - | - | - | - | - | |
| S00000115021 | P00000227169 | M00000395424 | 2,333 | - | 1.00 | - | 2,333 | 0.9 | - | - | - | - | - | - | - | |
| S00000115021 | P00000227169 | M00000395425 | 972 | - | 1.00 | - | 972 | 0.1 | - | - | - | - | - | - | - | |
| S00000115021 | P00000227169 | M00000395427 | 1,201 | - | 1.00 | - | 1,201 | 0.9 | - | - | - | - | - | - | - | |
| S00000115021 | P00000227169 | M00000395426 | 172 | - | - | - | - | - | - | - | - | - | - | - | - | |
| S00000115021 | P00000227169 | M00000395428 | 221 | - | - | - | - | - | - | - | - | - | - | - | - | |
| S00000115021 | P00000227169 | M00000395429 | 133 | - | - | - | - | - | - | - | - | - | - | - | - | |
| S00000115021 | P00000227169 | M00000395430 | 221 | - | - | - | - | - | - | - | - | - | - | - | - | |
| S00000115021 | P00000227169 | M00000395431 | 348 | - | - | - | - | - | - | - | - | - | - | - | - | |
| S00000115024 | P00000217286 | M00000430767 | 3,388 | - | 1.00 | - | 3,388 | 0.7 | - | - | - | - | - | - | - | |
| S00000115024 | P00000217286 | M00000430768 | 2,003 | - | 1.00 | - | 2,003 | 0.4 | - | - | - | - | - | - | - | |
| S00000115024 | P00000217286 | M00000430769 | 2,521 | - | 1.00 | - | 2,521 | 0.5 | - | - | - | - | - | - | - | |
| S00000115024 | P00000217286 | M00000430770 | 2,685 | - | 1.00 | - | 2,685 | 0.5 | - | - | - | - | - | - | - | |
| S00000115024 | P00000230931 | M00000377419 | 1,085 | - | 1.00 | - | 1,085 | - | - | - | - | - | - | - | - | |
| S00000115024 | P00000230931 | M00000377420 | 1,167 | - | 1.00 | - | 1,167 | - | - | - | - | - | - | - | - | |
| S00000115060 | P00000211156 | M00000384680 | 30,334 | - | 1.00 | - | 30,334 | 5.2 | - | - | - | - | - | - | - | |
| S00000115090 | P00000211156 | M00000384701 | 45,501 | - | 0.67 | - | 30,334 | 5.2 | - | - | - | RP | - | - | - | |
| S00000115139 | P00000211156 | M00000384708 | 30,334 | - | 1.00 | - | 30,334 | 5.2 | - | - | - | - | - | - | - | |
| S00000115246 | P00000209825 | M00000374600 | 184,903 | - | 1.00 | - | 184,903 | 21.1 | - | - | - | - | - | - | - | |
| S00000115387 | P00000209835 | M00000379818 | 184,903 | - | 1.00 | - | 184,903 | 21.1 | - | - | - | - | - | - | - | |

| Program Information | | | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|---------|-----|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|----|--|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00000115387 | P00000249085 | M00000408992 | 34,484 | - | 0.89 | - | 30,756 | 3.5 | - | RP | - | - | - | - | |
| S00000115005 | P00000196163 | M00000404557 | 12,576 | - | 1.00 | - | 12,576 | 12.6 | - | - | - | - | - | - | |
| S00000115005 | P00000196163 | M00000404558 | 38,140 | - | 1.27 | - | 48,400 | 48.4 | - | IP | - | I | - | - | |
| S00000115005 | P00000196163 | M00000404559 | 45,326 | - | 1.02 | - | 46,374 | 46.4 | - | - | - | IP | - | - | |
| S00000115005 | P00000196163 | M00000404560 | 34,686 | - | 1.00 | - | 34,686 | 34.7 | - | - | - | - | - | - | |
| S00000115005 | P00000196163 | M00000404561 | 24,684 | - | 1.00 | - | 24,684 | 24.7 | - | - | - | - | - | - | |
| S00000115005 | P00000196163 | M00000404562 | 19,844 | - | 1.00 | - | 19,844 | 19.8 | - | - | - | - | - | - | |
| S00000115005 | P00000196163 | M00000404567 | 33,434 | - | 0.93 | - | 31,144 | 31.1 | - | - | - | RP | - | - | |
| S00000115005 | P00000196163 | M00000404563 | 11,312 | - | 1.00 | - | 11,312 | 11.3 | - | - | - | - | - | - | |
| S00000115005 | P00000196163 | M00000404564 | 1,700 | - | 1.00 | - | 1,700 | 1.7 | - | - | - | - | - | - | |
| S00000115005 | P00000196163 | M00000404565 | 4,620 | - | 1.00 | - | 4,620 | 4.6 | - | - | - | - | - | - | |
| S00000115005 | P00000196163 | M00000404566 | 1,460 | - | 1.00 | - | 1,460 | 1.5 | - | - | - | - | - | - | |
| S00000115005 | P00000196163 | M00000404568 | 2,040 | - | 1.00 | - | 2,040 | 2.0 | - | - | - | - | - | - | |
| S00000115005 | P00000196163 | M00000404569 | 1,640 | - | 1.00 | - | 1,640 | 1.6 | - | - | - | - | - | - | |
| S00000115005 | P00000196163 | M00000404570 | 4,380 | - | 1.00 | - | 4,380 | 4.4 | - | - | - | - | - | - | |
| S00000115236 | P00000223614 | M00000394769 | 568,392 | - | 1.03 | - | 584,213 | 86.5 | - | - | - | - | - | IP | |
| S00000115236 | P00000223614 | M00000394770 | 23,716 | - | - | - | - | - | - | - | - | - | - | - | |
| S00000115503 | P00000223616 | M00000392130 | 460,052 | - | 1.00 | - | 460,052 | 52.5 | - | - | - | - | - | - | |
| S00000115503 | P00000223616 | M00000392131 | 20,236 | - | - | - | - | - | - | - | - | - | - | - | |
| S00000115793 | P00000184986 | M00000363184 | 18,733 | - | 1.00 | - | 18,733 | 3.1 | - | - | - | - | - | - | |
| S00000115793 | P00000184986 | M00000363185 | 18,228 | - | 1.00 | - | 18,228 | 3.0 | - | - | - | - | - | - | |
| S00000115793 | P00000184986 | M00000363188 | 189,460 | - | 1.00 | - | 189,460 | 31.1 | - | - | - | - | - | - | |
| S00000115793 | P00000184986 | M00000363193 | 53,174 | - | 2.00 | - | 106,348 | - | - | - | - | - | - | - | |
| S00000115793 | P00000184986 | M00000363186 | 11,898 | - | - | - | - | - | - | - | - | - | - | - | |
| S00000115793 | P00000184986 | M00000363187 | 488 | - | - | - | - | - | - | - | - | - | - | - | |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|---------|-----|------------|-------------|-------------|-------------|----------------|-------------|---------------------|--------------|----------------|--|--|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00000115793 | P00000184986 | M00000363189 | 11,078 | - | - | - | - | - | - | - | - | - | - | | |
| S00000115793 | P00000184986 | M00000363190 | 2,471 | - | - | - | - | - | - | - | - | - | - | | |
| S00000115793 | P00000184986 | M00000363191 | 1,318 | - | - | - | - | - | - | - | - | - | - | | |
| S00000115793 | P00000184986 | M00000363192 | 329 | - | - | - | - | - | - | - | - | - | - | | |
| S00000115829 | P00000223612 | M00000392127 | 489,885 | - | 1.00 | - | 489,885 | 74.6 | - | - | - | - | - | | |
| S00000115829 | P00000223612 | M00000392128 | 86,358 | - | 1.00 | - | 86,358 | 13.1 | - | - | - | - | - | | |
| S00000115829 | P00000223612 | M00000392129 | 33,821 | - | 1.00 | - | 33,821 | 5.1 | - | - | - | - | - | | |
| S00001118555 | P00000184981 | M00000353358 | 64,645 | - | 1.00 | - | 64,645 | 7.4 | - | - | - | - | - | | |
| S00001118555 | P00000184981 | M00000353362 | 37,340 | - | - | - | - | - | RP | - | - | - | - | | |
| S00001118555 | P00000184981 | M00000353364 | 216,818 | - | 1.03 | - | 222,774 | 63.3 | - | - | - | - | - | | |
| S00001118555 | P00000184981 | M00000353365 | 87,366 | - | 1.02 | - | 89,048 | 15.2 | - | - | - | - | - | | |
| S00001118555 | P00000184981 | M00000353355 | 19,622 | - | - | - | - | - | - | - | - | - | - | | |
| S00001118555 | P00000184981 | M00000353356 | 16,206 | - | - | - | - | - | - | - | - | - | - | | |
| S00001118555 | P00000184981 | M00000353357 | 12,614 | - | - | - | - | - | - | - | - | - | - | | |
| S00001118555 | P00000184981 | M00000353359 | 4,292 | - | - | - | - | - | - | - | - | - | - | | |
| S00001118555 | P00000184981 | M00000353360 | 19,761 | - | - | - | - | - | - | - | - | - | - | | |
| S00001118555 | P00000184981 | M00000353361 | 15,085 | - | - | - | - | - | - | - | - | - | - | | |
| S00001118555 | P00000184981 | M00000353363 | 8,800 | - | - | - | - | - | - | - | - | - | - | | |
| S00001158961 | P00000224663 | M00000405058 | 240,000 | - | 1.09 | - | 262,671 | 30.0 | - | - | IP | I | - | | |
| S00001158961 | P00000224663 | M00000405059 | 58,000 | - | 1.09 | - | 63,479 | 7.2 | - | - | I | IP | - | | |
| S00001160689 | P00000143229 | M00000352235 | 632,031 | - | 0.79 | - | 496,592 | 73.5 | - | - | - | - | - | | |
| S00001160689 | P00000143229 | M00000352255 | 101,657 | - | 0.20 | - | 19,893 | 3.0 | - | - | - | - | - | | |
| S00001160689 | P00000143229 | M00000352225 | 211 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160689 | P00000143229 | M00000352226 | 211 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160689 | P00000143229 | M00000352227 | 645 | - | - | - | - | - | - | - | - | - | - | | |

| Program Information | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|--------|-----|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|--|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | |
| S00001160689 | P00000143229 | M00000352228 | 2,929 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352229 | 6,589 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352230 | 4,393 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352231 | 2,929 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352232 | 2,196 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352233 | 4,604 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352236 | 1,042 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352237 | 1,408 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352238 | 13,123 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352239 | 74 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352240 | 149 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352241 | 74 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352253 | 11,131 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352256 | 267 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352257 | 534 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352258 | 403 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352259 | 10,076 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352260 | 5,386 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352261 | 5,758 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352262 | 2,085 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352272 | 2,817 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352273 | 30,620 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352276 | 824 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352277 | 1,007 | - | - | - | - | - | - | - | - | - | - | |
| S00001160689 | P00000143229 | M00000352278 | 915 | - | - | - | - | - | - | - | - | - | - | |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|---------|-----|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|--|--|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00001160689 | P00000143229 | M00000352279 | 458 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160689 | P00000143229 | M00000352280 | 366 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160689 | P00000143229 | M00000352281 | 1,415 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160689 | P00000143229 | M00000352282 | 92 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160689 | P00000143229 | M00000352283 | 354 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160689 | P00000143229 | M00000352284 | 4,576 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160689 | P00000143229 | M00000352285 | 915 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160727 | P00000195988 | M00000351244 | 852,135 | - | 0.77 | - | 657,638 | 75.1 | - | RP | - | - | - | | |
| S00001160727 | P00000192673 | M00000351217 | 41,573 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160727 | P00000192673 | M00000351218 | 16,739 | - | - | - | - | - | - | - | - | - | - | | |
| S00001184018 | P00000066264 | M00000425577 | 294,956 | - | 0.73 | - | 215,318 | - | - | - | - | - | - | | |
| S00001226155 | P00000093727 | M00000408511 | 96,800 | - | 0.73 | - | 70,664 | - | - | - | - | - | - | | |
| S00001226155 | P00000093727 | M00000408515 | 75,713 | - | 0.73 | - | 55,270 | - | - | - | - | - | - | | |
| S00001226155 | P00000093727 | M00000408518 | 106,115 | - | 0.73 | - | 77,464 | - | - | - | - | - | - | | |
| S00001226155 | P00000093727 | M00000408521 | 24,528 | - | 0.73 | - | 17,905 | - | - | - | - | - | - | | |
| S00001234814 | P00000100027 | M00000327292 | 503,250 | - | 0.73 | - | 367,372 | - | - | - | - | - | - | | |
| S00001269533 | P00000118129 | M00000341524 | 105,019 | - | 2.74 | - | 287,401 | 32.8 | - | - | - | - | IP | | |
| S00001269533 | P00000118129 | M00000341525 | 684,778 | - | 0.99 | - | 680,647 | 77.7 | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355972 | 85,037 | - | 1.00 | - | 85,037 | 9.7 | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355983 | 489,745 | - | 1.00 | - | 489,745 | 55.9 | - | - | - | - | - | | |
| S00001271300 | P00000209827 | M00000382720 | 184,903 | - | 1.00 | - | 184,903 | 21.1 | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355971 | 1,191 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355973 | 31,096 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355974 | 37,316 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355975 | 23,125 | - | - | - | - | - | - | - | - | - | - | | |

| Program Information | | | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|-----------|-----|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|--|--|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00001271300 | P00000188598 | M00000355976 | 9,671 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355977 | 692 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355978 | 8,094 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355979 | 2,313 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355980 | 26,927 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355981 | 4,170 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355982 | 3,574 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355984 | 9,724 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355985 | 41,695 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355986 | 39,286 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355987 | 7,288 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355988 | 5,825 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355989 | 5,781 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355990 | 416 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355991 | 8,357 | - | - | - | - | - | - | - | - | - | - | | |
| S00001271300 | P00000188598 | M00000355992 | 1,470 | - | - | - | - | - | - | - | - | - | - | | |
| S00001299033 | P00000177520 | M00000343143 | 300,653 | - | 1.43 | - | 430,224 | 49.1 | - | - | IP | - | - | | |
| S00001300315 | P00000191069 | M00000351243 | 217,408 | - | 1.00 | - | 217,408 | 33.1 | - | - | - | - | - | | |
| S00001300315 | P00000191069 | M00000351962 | 261,801 | - | 1.00 | - | 261,801 | 30.7 | - | - | - | - | - | | |
| S00001319567 | P00000151204 | M00000363134 | 325,529 | - | - | - | - | - | - | - | - | - | RP | | |
| S00001328262 | P00000160752 | M00000416667 | 1,519,670 | - | 0.90 | - | 1,363,863 | 113.8 | - | - | RP | - | R | | |
| S00001330216 | P00000182063 | M00000384831 | 61,879 | - | 0.97 | - | 60,125 | 8.0 | - | - | - | - | RP | | |
| S00001330216 | P00000182063 | M00000384833 | (15,454) | - | 0.97 | - | (15,016) | (2.0) | - | - | - | - | RP | | |
| S00001330216 | P00000182063 | M00000384836 | 15,335 | - | 1.94 | - | 29,800 | - | - | - | - | - | R | | |
| S00001330216 | P00000182063 | M00000384838 | 17,154 | - | 1.94 | - | 33,336 | - | - | - | - | - | R | | |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|---------|--------|------------|-------------|-------------|-------------|----------------|-------------|---------------------|--------------|----------------|---|--|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00001330216 | P00000182063 | M00000384839 | 92,462 | - | 1.39 | - | 128,344 | - | - | - | - | - | R | - | |
| S00001330216 | P00000182063 | M00000384840 | 50,093 | - | 1.39 | - | 69,533 | - | - | - | - | - | R | - | |
| S00001330216 | P00000182063 | M00000384841 | 28,397 | - | 1.94 | - | 55,185 | - | - | - | - | - | R | - | |
| S00001330216 | P00000225507 | M00000369962 | - | - | - | - | - | - | - | - | - | - | - | - | |
| S00001330216 | P00000182063 | M00000384826 | 4,866 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001330216 | P00000182063 | M00000384827 | 1,043 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001330216 | P00000182063 | M00000384828 | (4,173) | - | - | - | - | - | - | - | - | - | - | - | |
| S00001330216 | P00000182063 | M00000384829 | (3,245) | - | - | - | - | - | - | - | - | - | - | - | |
| S00001330216 | P00000182063 | M00000384830 | (3,709) | - | - | - | - | - | - | - | - | - | - | - | |
| S00001330216 | P00000182063 | M00000384832 | (9,736) | - | - | - | - | - | - | - | - | - | - | - | |
| S00001330216 | P00000182063 | M00000384837 | 11,927 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001330216 | P00000182063 | M00000384842 | 1,530 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001330216 | P00000182063 | M00000384843 | 2,671 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001330216 | P00000225507 | M00000369963 | 6,701 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001330216 | P00000225507 | M00000369964 | 1,378 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001330216 | P00000225507 | M00000369965 | 950 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001332078 | P00000167718 | M00000394669 | 356,804 | - | 0.78 | - | 278,318 | - | - | - | - | - | RP | - | |
| S00001332078 | P00000167718 | M00000394673 | 273,692 | 8,150 | 0.73 | - | 199,795 | - | 8,721 | - | - | - | - | - | |
| S00001332078 | P00000217588 | M00000418837 | 106,683 | 46,473 | 0.73 | - | 77,879 | - | 49,726 | - | - | - | - | - | |
| S00001332078 | P00000167718 | M00000394670 | 6,432 | 19,198 | - | - | - | - | - | - | - | - | - | - | |
| S00001332078 | P00000167718 | M00000394672 | 3,331 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001332078 | P00000167718 | M00000398202 | 4,653 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001337547 | P00000173874 | M00000347763 | 253,140 | - | 0.73 | - | 184,792 | - | - | - | - | - | - | - | |
| S00001337547 | P00000173874 | M00000347764 | 145,250 | - | 0.73 | - | 106,032 | - | - | - | - | - | - | - | |
| S00001337547 | P00000173874 | M00000347765 | 38,100 | - | 0.73 | - | 27,813 | - | - | - | - | - | - | - | |

| Program Information | | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|----------|-----|------------|-------------|-------------|-------------|----------------|-------------|---------------------|--------------|----------------|--|--|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00001346781 | P00000184248 | M00000369993 | 480,977 | - | 0.73 | - | 351,113 | - | - | - | - | - | - | | |
| S00001350135 | P00000187886 | M00000388989 | 241,900 | - | 0.96 | - | 232,768 | 26.6 | - | - | RP | - | - | | |
| S00001350163 | P00000187918 | M00000422581 | 19,039 | - | 1.00 | - | 19,039 | - | - | - | - | - | - | | |
| S00001350163 | P00000187918 | M00000422582 | 260,715 | - | 1.00 | - | 260,715 | - | - | - | - | - | - | | |
| S00001352064 | P00000184994 | M00000358974 | 80,621 | - | 0.90 | - | 72,685 | 23.3 | - | I | - | - | RP | | |
| S00001352064 | P00000191049 | M00000359150 | 93,368 | - | 0.72 | - | 66,769 | 21.4 | - | R | - | - | RP | | |
| S00001352064 | P00000205782 | M00000359148 | 126,369 | - | 0.46 | - | 58,180 | 18.7 | - | R | - | - | RP | | |
| S00001353182 | P00000190072 | M00000416461 | 334,800 | - | 0.47 | - | 156,369 | 17.9 | - | - | RP | - | R | | |
| S00001374415 | P00000177533 | M00000353100 | 115,769 | - | 1.00 | - | 115,768 | 17.3 | - | - | - | - | - | | |
| S00001374415 | P00000177533 | M00000353101 | 87,933 | - | 1.00 | - | 87,933 | 13.1 | - | - | - | - | - | | |
| S00001374415 | P00000177533 | M00000353104 | 64,339 | - | 1.00 | - | 64,339 | 9.6 | - | - | - | - | - | | |
| S00001374415 | P00000177533 | M00000353105 | 106,629 | - | 1.00 | - | 106,629 | 15.9 | - | - | - | - | - | | |
| S00001374415 | P00000177533 | M00000353106 | 158,956 | - | 1.00 | - | 158,956 | 23.7 | - | - | - | - | - | | |
| S00001374415 | P00000177533 | M00000353110 | 66,138 | - | 1.00 | - | 66,138 | 9.9 | - | - | - | - | - | | |
| S00001374415 | P00000177533 | M00000353114 | 65,950 | - | 1.00 | - | 65,950 | 9.8 | - | - | - | - | - | | |
| S00001374415 | P00000177533 | M00000353102 | (28,103) | - | - | - | - | - | - | - | - | - | - | | |
| S00001374415 | P00000177533 | M00000353103 | 35,934 | - | - | - | - | - | - | - | - | - | - | | |
| S00001374415 | P00000177533 | M00000353107 | 28,264 | - | - | - | - | - | - | - | - | - | - | | |
| S00001374415 | P00000177533 | M00000353108 | 11,978 | - | - | - | - | - | - | - | - | - | - | | |
| S00001374415 | P00000177533 | M00000353109 | 29,835 | - | - | - | - | - | - | - | - | - | - | | |
| S00001374415 | P00000177533 | M00000353111 | 18,450 | - | - | - | - | - | - | - | - | - | - | | |
| S00001374415 | P00000177533 | M00000353112 | 26,694 | - | - | - | - | - | - | - | - | - | - | | |
| S00001374415 | P00000177533 | M00000353113 | 27,479 | - | - | - | - | - | - | - | - | - | - | | |
| S00001374415 | P00000177533 | M00000353115 | 21,259 | - | - | - | - | - | - | - | - | - | - | | |
| S00001388950 | P00000205780 | M00000384762 | 203,501 | - | 0.88 | - | 179,123 | 20.4 | - | RP | - | - | - | | |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|---------|-----|------------|-------------|-------------|-------------|----------------|-------------|---------------------|--------------|----------------|--|--|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00001388950 | P00000205780 | M00000384763 | 113,173 | - | 0.88 | - | 99,771 | 11.4 | - | RP | - | - | - | | |
| S00001388950 | P00000205780 | M00000384765 | 50,551 | - | 0.90 | - | 45,322 | 5.2 | - | RP | - | - | - | | |
| S00001388950 | P00000205780 | M00000384764 | 289 | - | - | - | - | - | - | - | - | - | - | | |
| S00001395250 | P00000224274 | M00000395697 | 620,382 | - | 1.00 | - | 620,382 | 91.5 | - | - | - | - | - | | |
| S00001395253 | P00000224270 | M00000395810 | 586,009 | - | 0.95 | - | 558,963 | 86.5 | - | - | - | - | RP | | |
| S00001395254 | P00000224273 | M00000395807 | 336,029 | - | 1.00 | - | 336,029 | 49.6 | - | - | - | - | - | | |
| S00001395256 | P00000224272 | M00000395757 | 732,412 | - | 1.00 | - | 732,412 | 108.1 | - | - | - | - | - | | |
| S00001408857 | P00000239855 | M00000449246 | 10,214 | - | 1.00 | - | 10,214 | 1.3 | - | - | - | - | - | | |
| S00001408857 | P00000239855 | M00000449247 | 6,064 | - | 1.00 | - | 6,064 | 2.3 | - | - | - | - | - | | |
| S00001408857 | P00000239855 | M00000449248 | 3,139 | - | 1.00 | - | 3,139 | 0.6 | - | - | - | - | - | | |
| S00001408857 | P00000239855 | M00000449249 | 3,139 | - | 1.00 | - | 3,139 | 0.6 | - | - | - | - | - | | |
| S00001408857 | P00000239855 | M00000449250 | 4,065 | - | 1.29 | - | 5,227 | 0.6 | - | - | - | IP | - | | |
| S00001408857 | P00000239855 | M00000449251 | 346 | - | - | - | - | - | - | - | - | - | - | | |
| S00001408904 | P00000239910 | M00000448657 | 8,889 | - | 1.00 | - | 8,889 | 1.6 | - | - | - | - | - | | |
| S00001408908 | P00000239911 | M00000448660 | 9,629 | - | 1.00 | - | 9,629 | 1.8 | - | - | - | - | - | | |
| S00001408912 | P00000239908 | M00000448659 | 8,395 | - | 1.00 | - | 8,395 | 1.5 | - | - | - | - | - | | |
| S00001407065 | P00000265625 | M00000455005 | 15,000 | - | 1.00 | - | 15,000 | 1.7 | - | - | - | - | - | | |
| S00001407065 | P00000273030 | M00000469030 | 15,000 | - | 1.00 | - | 15,000 | 1.7 | - | - | - | - | - | | |
| S00001407065 | P00000273031 | M00000469066 | 15,000 | - | 1.00 | - | 15,000 | 1.7 | - | - | - | - | - | | |
| S00001407065 | P00000301036 | M00000517582 | 10,000 | - | 1.00 | - | 10,000 | 1.1 | - | - | - | - | - | | |
| S00001407065 | P00000301037 | M00000517624 | 15,000 | - | 1.00 | - | 15,000 | 1.7 | - | - | - | - | - | | |
| S00001407065 | P00000301039 | M00000517719 | 10,000 | - | 1.00 | - | 10,000 | 1.1 | - | - | - | - | - | | |
| S00001408942 | P00000224829 | M00000448959 | 54,437 | - | 0.79 | - | 43,193 | 9.7 | - | R | - | - | RP | | |
| S00001408942 | P00000224829 | M00000448960 | 19,280 | - | 0.79 | - | 15,298 | 3.5 | - | R | - | - | RP | | |
| S00001408942 | P00000224829 | M00000448961 | 13,284 | - | 0.79 | - | 10,540 | 2.4 | - | R | - | - | RP | | |

| Program Information | | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|---------|-----|------------|-------------|-------------|-------------|----------------|-------------|---------------------|--------------|----------------|----|--|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00001408942 | P00000224829 | M00000448962 | 7,750 | - | 0.79 | - | 6,149 | 1.4 | - | R | - | - | RP | - | |
| S00001408942 | P00000224829 | M00000448966 | 5,177 | - | 1.64 | - | 8,483 | - | - | R | - | - | RP | IP | |
| S00001408942 | P00000224829 | M00000448963 | 1,559 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001408942 | P00000224829 | M00000448964 | 1,449 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001408955 | P00000227441 | M00000448636 | 40,992 | - | 0.99 | - | 40,465 | 4.6 | - | RP | - | - | - | - | |
| S00001408955 | P00000227441 | M00000448635 | 2,128 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001394155 | P00000227178 | M00000466937 | 370,959 | - | 0.71 | - | 263,202 | 41.2 | - | R | - | - | RP | - | |
| S00001394155 | P00000227178 | M00000466938 | 22,609 | - | 0.61 | - | 13,718 | 3.1 | - | - | - | - | RP | - | |
| S00001394155 | P00000227178 | M00000466939 | 20,097 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001405511 | P00000290782 | M00000553745 | 137,873 | - | 0.92 | - | 126,384 | 18.8 | - | - | - | - | RP | - | |
| S00001405511 | P00000290782 | M00000553747 | 32,547 | - | 1.17 | - | 37,971 | - | - | - | - | - | R | IP | |
| S00001405511 | P00000290782 | M00000553746 | 600 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001405511 | P00000290782 | M00000553748 | 1,845 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001405511 | P00000290782 | M00000553749 | 205 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001405511 | P00000290782 | M00000553750 | 2,050 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001405511 | P00000290782 | M00000553751 | 615 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001405511 | P00000290782 | M00000553752 | 1,285 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001405511 | P00000290782 | M00000553753 | 615 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001408947 | P00000239864 | M00000448637 | 228,842 | - | 1.00 | - | 228,842 | 45.9 | - | - | - | - | - | - | |
| S00001408947 | P00000239864 | M00000448638 | 5,231 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001408947 | P00000239864 | M00000448639 | 1,046 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001408947 | P00000239864 | M00000448640 | 8,146 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001408947 | P00000239864 | M00000448641 | 678 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001408947 | P00000239864 | M00000448642 | 972 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001421415 | P00000262247 | M00000582612 | 281,930 | - | - | - | - | - | - | R | - | - | - | RP | |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|-----------|-----|------------|-------------|-------------|-------------|----------------|-------------|---------------------|--------------|----------------|----|--|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00000115085 | P00000254590 | M00000594520 | 584,108 | - | 0.92 | - | 539,896 | 61.6 | - | R | - | - | R | RP | |
| S00000115085 | P00000254590 | M00000594521 | 326,799 | - | 1.01 | - | 328,833 | 37.5 | - | - | - | - | - | IP | |
| S00000115085 | P00000254590 | M00000594523 | 593,601 | - | 0.47 | - | 276,207 | 40.9 | - | - | - | - | RP | - | |
| S00000115085 | P00000254590 | M00000594524 | 269,986 | - | 1.00 | - | 269,986 | 30.8 | - | - | - | - | - | - | |
| S00000115085 | P00000254590 | M00000594525 | 17,316 | - | - | - | - | - | - | - | - | - | - | - | |
| S00000115156 | P00000240943 | M00000554186 | 610,248 | - | 1.00 | - | 610,248 | - | - | - | - | - | - | - | |
| S00000115156 | P00000303919 | M00000602555 | 44,719 | - | 1.09 | - | 48,911 | 7.7 | - | - | - | - | IP | - | |
| S00000115156 | P00000240943 | M00000554187 | 2,383 | - | - | - | - | - | - | - | - | - | - | - | |
| S00000115156 | P00000263817 | M00000482713 | 27,028 | - | - | - | - | - | - | - | - | - | - | - | |
| S00000115156 | P00000303919 | M00000602554 | 34,051 | - | - | - | - | - | - | - | - | - | - | - | |
| S00000115156 | P00000303919 | M00000602556 | 3,866 | - | - | - | - | - | - | - | - | - | - | - | |
| S00000115194 | P00000220090 | M00000464759 | 106,100 | - | 0.79 | - | 84,144 | 9.6 | - | - | - | - | RP | - | |
| S00000115194 | P00000277352 | M00000607005 | 207,600 | - | 0.05 | - | 10,861 | 3.8 | - | - | - | - | RP | - | |
| S00000115194 | P00000277352 | M00000607006 | 289,600 | - | 1.69 | - | 490,305 | 35.0 | - | - | - | - | - | IP | |
| S00000115194 | P00000277352 | M00000607007 | 102,700 | - | - | - | - | - | - | - | - | - | - | RP | |
| S00000115194 | P00000277352 | M00000607013 | 360,300 | - | 2.91 | - | 1,048,114 | 120.0 | - | - | - | - | - | IP | |
| S00000115194 | P00000290798 | M00000594535 | 69,095 | - | 1.00 | - | 69,095 | 8.0 | - | - | - | - | - | - | |
| S00000115377 | P00000240871 | M00000488158 | 549,550 | - | 1.03 | - | 564,847 | 83.7 | - | - | - | - | IP | - | |
| S00000115390 | P00000254638 | M00000582645 | 524,279 | - | 1.05 | - | 551,713 | 63.0 | - | - | - | - | - | - | |
| S00000115390 | P00000254638 | M00000582647 | 434,016 | - | 0.43 | - | 188,086 | 27.9 | - | - | - | - | RP | - | |
| S00000115390 | P00000254638 | M00000582648 | 1,064,297 | - | 0.85 | - | 902,825 | 117.8 | - | R | - | - | RP | - | |
| S00000115390 | P00000254638 | M00000582646 | 6,505 | - | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491199 | 587,236 | - | 0.93 | - | 543,270 | 82.7 | - | RP | - | - | - | - | |
| S00000115691 | P00000303921 | M00000597390 | 50,869 | - | 1.10 | - | 55,866 | 14.6 | - | I | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491200 | 4,336 | - | - | - | - | - | - | - | - | - | - | - | |

| Program Information | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|--------|-----|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|--|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | |
| S00000115691 | P00000239816 | M00000491201 | 4,336 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491202 | 5,203 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491203 | 1,734 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491204 | 3,469 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491205 | 3,469 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491206 | 15,609 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491207 | 670 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491208 | 10,498 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491209 | 1,787 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491210 | 670 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491211 | 1,117 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491212 | 4,021 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491213 | 1,945 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491214 | 565 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491215 | 1,734 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491216 | 1,883 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491217 | 893 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491218 | 1,774 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491219 | 4,336 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491220 | 780 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491221 | 780 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491222 | 312 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491223 | 468 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491224 | 624 | - | - | - | - | - | - | - | - | - | - | |
| S00000115691 | P00000239816 | M00000491225 | 936 | - | - | - | - | - | - | - | - | - | - | |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|---------|-----|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|--|--|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00000115691 | P00000239816 | M00000491226 | 312 | - | - | - | - | - | - | - | - | - | - | | |
| S00000115691 | P00000239816 | M00000491227 | 780 | - | - | - | - | - | - | - | - | - | - | | |
| S00000115691 | P00000264101 | M00000484550 | 19,572 | - | - | - | - | - | - | - | - | - | - | | |
| S00000115691 | P00000303921 | M00000597389 | 38,568 | - | - | - | - | - | - | - | - | - | - | | |
| S00000115691 | P00000303921 | M00000597391 | 3,544 | - | - | - | - | - | - | - | - | - | - | | |
| S00000115768 | P00000254578 | M00000592570 | 577,358 | - | 0.93 | - | 534,645 | 61.0 | - | R | - | RP | R | | |
| S00000115768 | P00000254578 | M00000592571 | 271,778 | - | 1.29 | - | 350,978 | 40.1 | - | - | - | - | IP | | |
| S00000115768 | P00000254578 | M00000592572 | 310,176 | - | 0.47 | - | 144,327 | 21.4 | - | - | - | - | RP | | |
| S00000115768 | P00000254578 | M00000592573 | 6,219 | - | - | - | - | - | - | - | - | - | - | | |
| S00000115768 | P00000254578 | M00000592574 | 11,958 | - | - | - | - | - | - | - | - | - | - | | |
| S00000115832 | P00000009544 | M00000454823 | 117,956 | - | - | - | - | - | - | - | - | - | RP | | |
| S00000115832 | P00000276115 | M00000529672 | 340,608 | - | 1.25 | - | 425,760 | 48.6 | - | - | IP | - | - | | |
| S00001151821 | P00000037420 | M00000595131 | 459,934 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160665 | P00000240942 | M00000520599 | 444,874 | - | 1.00 | - | 444,874 | 71.7 | - | - | - | - | - | | |
| S00001160665 | P00000240942 | M00000520600 | 207,270 | - | 1.00 | - | 207,270 | 23.7 | - | - | - | - | - | | |
| S00001160665 | P00000303889 | M00000593754 | 53,026 | - | 1.09 | - | 57,997 | 9.9 | - | - | - | - | IP | | |
| S00001160665 | P00000264105 | M00000491609 | 14,912 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160665 | P00000303889 | M00000593752 | 12,560 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160665 | P00000303889 | M00000593753 | 10,578 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160665 | P00000324367 | M00000566261 | 12,582 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160679 | P00000254618 | M00000580762 | 639,625 | - | 0.85 | - | 546,128 | 62.3 | - | R | - | RP | R | | |
| S00001160679 | P00000254618 | M00000580763 | 42,389 | - | 1.00 | - | 42,389 | 4.8 | - | - | - | - | - | | |
| S00001160679 | P00000227185 | M00000554170 | 12,559 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160679 | P00000227185 | M00000554171 | 29,870 | - | - | - | - | - | - | - | - | - | - | | |
| S00001160679 | P00000254618 | M00000580761 | 5,388 | - | - | - | - | - | - | - | - | - | - | | |

| Program Information | | | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|-----------|-----|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|----|----|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00001160687 | P00000254605 | M00000582211 | 617,799 | - | 0.89 | - | 552,081 | 63.0 | - | R | - | R | R | RP | |
| S00001160687 | P00000254605 | M00000582213 | 51,172 | - | 1.00 | - | 51,172 | 5.8 | - | - | - | - | - | - | |
| S00001160687 | P00000254605 | M00000582212 | 5,388 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001160729 | P00000254629 | M00000582649 | 524,279 | - | 1.03 | - | 542,002 | 61.9 | - | - | - | IP | R | I | - |
| S00001160729 | P00000254629 | M00000582650 | 1,093,671 | - | 0.94 | - | 1,027,485 | 156.4 | - | - | - | - | - | RP | - |
| S00001160729 | P00000254629 | M00000582651 | 475,554 | - | 0.51 | - | 241,273 | 36.7 | - | - | - | - | - | RP | - |
| S00001160729 | P00000254629 | M00000582652 | 6,990 | - | - | - | - | - | - | - | - | - | - | - | - |
| S00001200963 | P00000199345 | M00000488098 | 527,000 | - | 0.78 | - | 410,637 | 125.3 | - | - | - | - | - | RP | - |
| S00001220004 | P00000255673 | M00000558407 | 505,219 | - | 1.07 | - | 540,140 | 68.6 | - | - | - | - | - | - | IP |
| S00001220004 | P00000255673 | M00000558408 | 238,884 | - | 1.23 | - | 292,710 | 27.8 | - | - | - | - | - | - | IP |
| S00001220004 | P00000255673 | M00000558409 | 154,133 | - | 1.12 | - | 171,998 | 21.3 | - | - | IP | - | - | - | - |
| S00001220004 | P00000255673 | M00000558410 | 195,364 | - | 0.43 | - | 83,167 | 10.8 | - | - | - | - | - | - | RP |
| S00001220004 | P00000255673 | M00000558412 | 251,343 | - | 1.00 | - | 251,343 | - | - | - | - | - | - | - | - |
| S00001239388 | P00000276086 | M00000589167 | 101,246 | - | 1.00 | - | 101,246 | 11.6 | - | - | - | - | - | - | - |
| S00001239388 | P00000276086 | M00000589168 | 154,056 | - | 1.00 | - | 154,056 | 17.6 | - | - | - | - | - | - | - |
| S00001239388 | P00000276086 | M00000589169 | 370,899 | - | 1.00 | - | 370,899 | 42.3 | - | - | - | - | - | - | - |
| S00001239388 | P00000276086 | M00000589170 | 98,679 | - | 0.93 | - | 91,907 | 10.5 | - | - | - | - | - | RP | - |
| S00001255857 | P00000239859 | M00000485715 | 84,384 | - | 1.00 | - | 84,384 | 9.6 | - | - | - | - | - | - | - |
| S00001255857 | P00000239859 | M00000485716 | 181,743 | - | 1.00 | - | 181,743 | 20.8 | - | - | - | - | - | - | - |
| S00001255857 | P00000239859 | M00000485717 | 266,123 | - | 1.00 | - | 266,123 | 30.4 | - | - | - | - | - | - | - |
| S00001255857 | P00000239859 | M00000485718 | 92,597 | - | 1.00 | - | 92,597 | 10.6 | - | - | - | - | - | - | - |
| S00001255857 | P00000239859 | M00000485719 | 58,417 | - | 1.00 | - | 58,417 | 6.7 | - | - | - | - | - | - | - |
| S00001255857 | P00000239859 | M00000485721 | 226,101 | - | 1.00 | - | 226,101 | 25.8 | - | - | - | - | - | - | - |
| S00001255857 | P00000239859 | M00000485720 | 38,945 | - | - | - | - | - | - | - | - | - | - | - | - |
| S00001255857 | P00000239859 | M00000485722 | 12,561 | - | - | - | - | - | - | - | - | - | - | - | - |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|---------|-----|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|----|--|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00001255857 | P00000239859 | M00000485723 | 6,281 | - | - | - | - | - | - | - | - | - | - | | |
| S00001255857 | P00000239859 | M00000485724 | 18,961 | - | - | - | - | - | - | - | - | - | - | | |
| S00001255857 | P00000239859 | M00000485725 | 40,837 | - | - | - | - | - | - | - | - | - | - | | |
| S00001255857 | P00000239859 | M00000485726 | 18,960 | - | - | - | - | - | - | - | - | - | - | | |
| S00001255857 | P00000239859 | M00000485727 | 13,126 | - | - | - | - | - | - | - | - | - | - | | |
| S00001255857 | P00000239859 | M00000485728 | 8,751 | - | - | - | - | - | - | - | - | - | - | | |
| S00001264431 | P00000115378 | M00000468798 | 493,887 | - | 0.73 | - | 360,538 | - | - | - | - | - | - | | |
| S00001283461 | P00000127985 | M00000582003 | 626,686 | - | 1.03 | - | 647,298 | 73.9 | - | - | - | R | R | IP | |
| S00001283461 | P00000127985 | M00000582006 | 241,116 | - | 1.11 | - | 268,544 | 30.7 | - | - | - | - | - | IP | |
| S00001283461 | P00000127985 | M00000582007 | 326,113 | - | 1.00 | - | 326,113 | 37.2 | - | - | - | - | - | - | |
| S00001283461 | P00000127985 | M00000582009 | 763,118 | - | 0.68 | - | 518,721 | 67.7 | - | - | R | - | RP | - | |
| S00001283461 | P00000127985 | M00000582010 | 248,716 | - | 0.54 | - | 133,499 | 19.8 | - | - | - | - | RP | - | |
| S00001283461 | P00000127985 | M00000582004 | 14,487 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001283461 | P00000127985 | M00000582005 | 38,221 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001283461 | P00000127985 | M00000582008 | 4,144 | - | - | - | - | - | - | - | - | - | - | - | |
| S00001321002 | P00000218824 | M00000585619 | 380,432 | - | 0.93 | - | 353,434 | 85.0 | - | RP | - | - | - | - | |
| S00001321002 | P00000218824 | M00000585620 | 87,360 | - | 1.80 | - | 157,248 | 43.2 | - | R | IP | - | - | - | |
| S00001321002 | P00000218824 | M00000585621 | 664,925 | - | 0.93 | - | 617,294 | 86.0 | - | RP | - | - | - | - | |
| S00001343439 | P00000180547 | M00000493712 | 422,400 | - | 0.73 | - | 308,352 | - | - | - | - | - | - | - | |
| S00001343439 | P00000180547 | M00000493713 | 48,100 | - | 0.73 | - | 35,113 | - | - | - | - | - | - | - | |
| S00001352077 | P00000283962 | M00000589323 | 40,470 | - | 0.73 | - | 29,543 | - | - | - | - | - | - | - | |
| S00001352077 | P00000283962 | M00000589324 | 39,430 | - | 0.73 | - | 28,784 | - | - | - | - | - | - | - | |
| S00001352077 | P00000283962 | M00000589325 | 206,843 | - | 0.73 | - | 150,995 | - | - | - | - | - | - | - | |
| S00001352077 | P00000283962 | M00000589327 | 344,290 | - | 0.73 | - | 251,332 | - | - | - | - | - | - | - | |
| S00001352077 | P00000299011 | M00000587542 | 51,485 | - | 0.73 | - | 37,584 | - | - | - | - | - | - | - | |

| Program Information | | | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|---------|-----|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|--|--|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00001353065 | P00000240949 | M00000506283 | 505,862 | - | 1.00 | - | 505,862 | 57.7 | - | - | - | - | - | | |
| S00001353065 | P00000303905 | M00000592516 | 79,847 | - | 1.08 | - | 85,888 | 9.8 | - | - | R | - | IP | | |
| S00001353065 | P00000264058 | M00000484897 | 21,902 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575954 | 152,936 | - | 0.78 | - | 119,335 | 44.2 | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000576227 | 540,023 | - | 1.00 | - | 540,023 | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000582604 | 133,748 | - | 1.00 | - | 133,748 | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000570967 | 17,375 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575910 | 17,366 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575911 | 54,190 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575912 | 18,063 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575913 | 51,813 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575914 | 78,402 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575915 | 1,423 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575916 | 1,964 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575917 | 25,106 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575918 | 3,288 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575919 | 2,690 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575920 | 7,580 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575921 | 13,087 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575922 | 2,882 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575923 | 9,986 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575924 | 384 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575925 | 24,948 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575926 | 6,950 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575927 | 5,046 | - | - | - | - | - | - | - | - | - | - | | |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|--------|-----|------------|-------------|-------------|-------------|----------------|-------------|---------------------|--------------|----------------|--|--|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00001369095 | P00000263131 | M00000575928 | 7,113 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575929 | 384 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575930 | 337 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575931 | 36,546 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575932 | 42,942 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575933 | 19,062 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575934 | 473 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575935 | 3,829 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575936 | 2,904 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575937 | 576 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575938 | 15,693 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575939 | 10,590 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575940 | 158 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575941 | 1,729 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575942 | 4,516 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575943 | 961 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575944 | 619 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575945 | 11,387 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575946 | 1,253 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575947 | 3,146 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575948 | 33,618 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575949 | 3,288 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575950 | 114 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575951 | 4,228 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575952 | 214 | - | - | - | - | - | - | - | - | - | - | | |

| Program Information | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|--------|-----|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|--|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | |
| S00001369095 | P00000263131 | M00000575953 | 35,657 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575955 | 2,477 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575956 | 306 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575957 | 2,512 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575958 | 2,135 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575959 | 306 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575960 | 1,149 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575961 | 523 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575962 | 1,270 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575963 | 1,996 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575964 | 15,693 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575965 | 13,793 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575966 | 43,920 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575967 | 342 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575968 | 2,363 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575969 | 406 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575970 | 1,487 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575971 | 32,048 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575972 | 26,376 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575973 | 21,853 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575974 | 9,818 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575975 | 498 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575976 | 455 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575977 | 7,630 | - | - | - | - | - | - | - | - | - | - | |
| S00001369095 | P00000263131 | M00000575978 | 2,342 | - | - | - | - | - | - | - | - | - | - | |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|---------|-----|------------|-------------|-------------|-------------|----------------|-------------|---------------------|--------------|----------------|--|--|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00001369095 | P00000263131 | M00000575979 | 925 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575980 | 302 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575981 | 15,031 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575983 | 20,465 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575984 | 10,391 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000575985 | 2,402 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000576178 | 246 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000576228 | 43,093 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000576732 | 539 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000576733 | 3,232 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000576734 | 2,154 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000576735 | 1,346 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000576736 | 1,614 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000576737 | 1,577 | - | - | - | - | - | - | - | - | - | - | | |
| S00001369095 | P00000263131 | M00000592529 | 42,455 | - | - | - | - | - | - | - | - | - | - | | |
| S00001375877 | P00000217950 | M00000560031 | 271,013 | - | 0.73 | - | 197,839 | - | - | - | - | - | - | | |
| S00001375877 | P00000217950 | M00000560032 | 24,435 | - | 0.73 | - | 17,838 | - | - | - | - | - | - | | |
| S00001375877 | P00000217950 | M00000579878 | 83,496 | - | 0.73 | - | 60,952 | - | - | - | - | - | - | | |
| S00001375877 | P00000267413 | M00000573020 | 34,288 | - | 1.00 | - | 34,288 | 7.1 | - | - | - | - | - | | |
| S00001375877 | P00000267413 | M00000573019 | 13,456 | - | - | - | - | - | - | - | - | - | - | | |
| S00001375877 | P00000267413 | M00000573021 | 5,966 | - | - | - | - | - | - | - | - | - | - | | |
| S00001386771 | P00000286169 | M00000582615 | 519,520 | - | 0.73 | - | 379,250 | - | - | - | - | - | - | | |
| S00001407494 | P00000257943 | M00000593654 | 254,600 | - | 0.07 | - | 18,836 | 17.8 | - | - | - | - | RP R | | |
| S00001407494 | P00000290719 | M00000537692 | 169,505 | - | 1.00 | - | 169,505 | - | - | - | - | - | - | | |
| S00001407494 | P00000290719 | M00000537693 | 60,887 | - | 1.00 | - | 60,887 | - | - | - | - | - | - | | |

| Program Information | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|---------|-----|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|--|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | |
| S00001407494 | P00000290719 | M00000537694 | 92,510 | - | 1.00 | - | 92,510 | - | - | - | - | - | - | |
| S00001407494 | P00000290719 | M00000537696 | 49,706 | - | 1.00 | - | 49,706 | - | - | - | - | - | - | |
| S00001407494 | P00000290719 | M00000537695 | 29,209 | - | - | - | - | - | - | - | - | - | - | |
| S00001407494 | P00000290719 | M00000537697 | 18,705 | - | - | - | - | - | - | - | - | - | - | |
| S00001407494 | P00000298638 | M00000512808 | 6,701 | - | - | - | - | - | - | - | - | - | - | |
| S00001407494 | P00000308252 | M00000586290 | 10,687 | - | - | - | - | - | - | - | - | - | - | |
| S00001407494 | P00000308252 | M00000586291 | 13,577 | - | - | - | - | - | - | - | - | - | - | |
| S00001407494 | P00000319669 | M00000552126 | 33,505 | - | - | - | - | - | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455272 | 52,131 | - | 1.00 | - | 52,130 | 9.9 | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455275 | 22,998 | - | 0.73 | - | 16,813 | 3.2 | - | RP | - | - | - | |
| S00001423692 | P00000239825 | M00000455277 | 220,896 | - | 1.00 | - | 220,896 | 41.8 | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455279 | 44,760 | - | 1.00 | - | 44,760 | 8.5 | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455282 | 22,998 | - | 1.00 | - | 22,998 | 4.3 | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455273 | 2,559 | - | 1.00 | - | 2,559 | 0.5 | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455274 | 571 | - | 1.00 | - | 571 | 0.1 | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455276 | 428 | - | 1.00 | - | 428 | 0.1 | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455278 | 428 | - | 1.00 | - | 428 | 0.1 | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455280 | 285 | - | 1.00 | - | 285 | 0.1 | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455281 | 15,998 | - | 1.00 | - | 15,998 | 3.0 | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455283 | 1,977 | - | 1.00 | - | 1,977 | 0.4 | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455284 | 3,315 | - | 1.00 | - | 3,315 | 0.6 | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455285 | 1,396 | - | 1.00 | - | 1,396 | 0.3 | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455286 | 730 | - | 1.00 | - | 730 | 0.1 | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455287 | 2,665 | - | 1.00 | - | 2,665 | 0.5 | - | - | - | - | - | |
| S00001423692 | P00000239825 | M00000455288 | 10,971 | - | 1.00 | - | 10,971 | 2.1 | - | - | - | - | - | |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | | | |
|---------------------|--------------|--------------|---------|-----|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|--|--|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | | |
| S00001423692 | P00000239825 | M00000455292 | 4,187 | - | 1.00 | - | 4,187 | 0.8 | - | - | - | - | - | | |
| S00001423692 | P00000239825 | M00000455293 | 9,728 | - | 1.00 | - | 9,728 | 1.8 | - | - | - | - | - | | |
| S00001423692 | P00000239825 | M00000455294 | 10,336 | - | 1.00 | - | 10,336 | 2.0 | - | - | - | - | - | | |
| S00001431519 | P00000275774 | M00000602824 | 155,809 | - | 0.95 | - | 148,045 | 25.4 | - | RP | - | - | - | | |
| S00001431519 | P00000275774 | M00000602825 | 395,740 | - | 1.00 | - | 397,332 | 45.4 | - | RP | - | - | - | | |
| S00001431519 | P00000275774 | M00000602822 | 8,371 | - | - | - | - | - | - | - | - | - | - | | |
| S00001431519 | P00000275774 | M00000602823 | 10,258 | - | - | - | - | - | - | - | - | - | - | | |
| S00001434037 | P00000239852 | M00000483121 | 634,338 | - | 1.03 | - | 651,994 | 96.6 | - | - | - | - | IP | | |
| S00001436450 | P00000281746 | M00000587991 | 121,507 | - | 1.00 | - | 121,507 | 13.9 | - | - | - | - | - | | |
| S00001436450 | P00000281746 | M00000587992 | 37,688 | - | 1.00 | - | 37,688 | 4.3 | - | - | - | - | - | | |
| S00001436450 | P00000281746 | M00000587993 | 285,629 | - | 0.71 | - | 203,936 | 23.3 | - | - | RP | - | - | | |
| S00001436450 | P00000281746 | M00000587994 | 184,981 | - | 0.88 | - | 163,234 | 22.5 | - | - | - | - | RP | | |
| S00001441605 | P00000227463 | M00000493807 | 34,926 | - | 0.90 | - | 31,542 | 6.0 | - | - | - | - | - | | |
| S00001441605 | P00000227463 | M00000493828 | 234,156 | - | 0.97 | - | 226,317 | 44.3 | - | - | - | - | - | | |
| S00001441605 | P00000227463 | M00000493830 | 24,574 | - | 1.00 | - | 24,538 | 4.8 | - | - | - | - | - | | |
| S00001441605 | P00000227463 | M00000493791 | 20,353 | - | - | - | - | - | - | - | - | - | - | | |
| S00001441605 | P00000227463 | M00000493792 | 1,427 | - | - | - | - | - | - | - | - | - | - | | |
| S00001441605 | P00000227463 | M00000493793 | 1,745 | - | - | - | - | - | - | - | - | - | - | | |
| S00001441605 | P00000227463 | M00000493794 | 9,813 | - | - | - | - | - | - | - | - | - | - | | |
| S00001441605 | P00000227463 | M00000493795 | 174 | - | - | - | - | - | - | - | - | - | - | | |
| S00001441605 | P00000227463 | M00000493796 | 2,443 | - | - | - | - | - | - | - | - | - | - | | |
| S00001441605 | P00000227463 | M00000493797 | 2,411 | - | - | - | - | - | - | - | - | - | - | | |
| S00001441605 | P00000227463 | M00000493798 | 1,396 | - | - | - | - | - | - | - | - | - | - | | |
| S00001441605 | P00000227463 | M00000493799 | 740 | - | - | - | - | - | - | - | - | - | - | | |
| S00001441605 | P00000227463 | M00000493800 | 1,047 | - | - | - | - | - | - | - | - | - | - | | |

| Program Information | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|--------|-----|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|--|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | |
| S00001441605 | P00000227463 | M00000493801 | 14,433 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493802 | 3,140 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493803 | 2,792 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493804 | 2,823 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493805 | 698 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493806 | 3,764 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493808 | 719 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493809 | 2,353 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493810 | 365 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493811 | 9,770 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493812 | 8,808 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493813 | 1,047 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493814 | 243 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493815 | 2,221 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493816 | 15,528 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493817 | 608 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493818 | 370 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493819 | 9,411 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493820 | 6,662 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493821 | 3,331 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493822 | 603 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493823 | 3,965 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493824 | 539 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493825 | 6,979 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493826 | 3,648 | - | - | - | - | - | - | - | - | - | - | |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|---------|--------|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|--|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | |
| S00001441605 | P00000227463 | M00000493827 | 180 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493829 | 1,079 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493831 | 2,802 | - | - | - | - | - | - | - | - | - | - | |
| S00001441605 | P00000227463 | M00000493832 | 1,945 | - | - | - | - | - | - | - | - | - | - | |
| S00001460146 | P00000290513 | M00000573022 | 43,557 | - | 1.00 | - | 43,557 | 6.2 | - | - | - | - | - | |
| S00001460146 | P00000290513 | M00000573023 | 335,059 | - | 1.00 | - | 335,059 | 47.6 | - | - | - | - | - | |
| S00001460146 | P00000290513 | M00000573026 | 33,597 | - | 1.00 | - | 33,597 | - | - | - | - | - | - | |
| S00001460146 | P00000290513 | M00000573024 | 7,778 | - | - | - | - | - | - | - | - | - | - | |
| S00001460146 | P00000290513 | M00000573025 | 14,585 | - | - | - | - | - | - | - | - | - | - | |
| S00001460146 | P00000290513 | M00000573027 | 2,604 | - | - | - | - | - | - | - | - | - | - | |
| S00001478834 | P00000045808 | M00000596383 | 57,198 | - | 2.10 | - | 119,868 | (0.5) | - | - | - | - | IP | |
| S00001478834 | P00000045808 | M00000596385 | 148,521 | - | - | - | - | - | - | - | - | - | RP | |
| S00001478834 | P00000045808 | M00000596386 | 165,452 | - | - | - | - | - | - | RP | - | - | - | |
| S00001478834 | P00000045808 | M00000596387 | 234,458 | - | 1.21 | - | 284,214 | 49.3 | - | - | - | - | IP | |
| S00001478834 | P00000045808 | M00000596388 | 148,160 | - | 0.79 | - | 117,462 | (16.0) | - | - | - | - | RP | |
| S00001478834 | P00000045808 | M00000596384 | 16,361 | - | - | - | - | - | - | - | - | - | - | |
| S00001478834 | P00000045808 | M00000596389 | 9,161 | - | - | - | - | - | - | - | - | - | - | |
| S00000115005 | P00000219720 | M00000363830 | - | 2,100 | - | 0.81 | - | 1,694 | RP | - | - | - | - | |
| S00000115194 | P00000249683 | M00000416052 | - | 564 | - | 1.00 | - | 564 | - | - | - | - | - | |
| S00000115498 | P00000208280 | M00000338809 | - | 1,128 | - | 1.00 | - | 1,128 | - | - | - | - | - | |
| S00001116739 | P00000239517 | M00000391643 | - | 1,096 | - | 1.00 | - | 1,096 | - | - | - | - | - | |
| S00000115323 | P00000215601 | M00000421934 | - | 3,500 | - | 1.00 | - | 3,500 | - | - | - | - | - | |
| S00001282293 | P00000127249 | M00000377658 | - | 6,511 | - | 0.62 | - | 4,016 | - | - | - | - | RP | |
| S00001172141 | P00000047430 | M00000429453 | - | 1,297 | - | 1.00 | - | 1,297 | - | - | - | - | - | |
| S00001172141 | P00000047430 | M00000429454 | - | 13,184 | - | 1.00 | - | 13,184 | - | - | - | - | - | |

| Program Information | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|------|--------|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|--|
| SiteID | ProjectID | MeasureID | City | BU1 | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | |
| S00001184018 | P00000066264 | M00000425577 | - | 9,803 | - | 1.00 | - | 9,803 | - | - | - | - | - | |
| S00001184018 | P00000066264 | M00000425579 | - | 6,652 | - | 1.00 | - | 6,652 | - | - | - | - | - | |
| S00001158961 | P00000224663 | M00000405058 | - | 29,359 | - | 0.90 | - | 26,562 | - | RP | - | - | - | |
| S00001320688 | P00000202506 | M00000405641 | - | 22,685 | - | 1.66 | - | 37,680 | - | - | - | - | IP | |
| S00001320688 | P00000202506 | M00000405642 | - | 23,883 | - | 0.29 | - | 6,842 | - | - | - | - | RP | |
| S00001328262 | P00000160752 | M00000416667 | - | 51,195 | - | 0.35 | - | 17,898 | - | RP | - | - | R | |
| S00001332078 | P00000167718 | M00000394670 | - | 19,198 | - | 1.00 | - | 19,198 | - | - | - | - | - | |
| S00001332078 | P00000167718 | M00000394673 | - | 8,150 | - | 1.07 | - | 8,721 | - | - | - | - | - | |
| S00001332078 | P00000217588 | M00000418837 | - | 46,473 | - | 0.37 | - | 16,985 | - | - | - | RP | - | |
| S00001353241 | P00000191344 | M00000344115 | - | 30,081 | - | 0.94 | - | 28,133 | - | - | RP | - | - | |
| S00001353241 | P00000191344 | M00000344116 | - | 21,066 | - | 1.00 | - | 21,066 | - | - | - | - | - | |
| S00001353241 | P00000191344 | M00000344117 | - | 12,000 | - | 1.00 | - | 12,000 | - | - | - | - | - | |
| S00001380800 | P00000223401 | M00000369381 | - | 73,601 | - | 1.00 | - | 73,601 | - | - | - | - | - | |
| S00001391361 | P00000097822 | M00000386228 | - | 29,235 | - | 1.00 | - | 29,235 | - | - | - | - | - | |
| S00001405807 | P00000255346 | M00000604035 | - | 132 | - | 1.00 | - | 132 | - | - | - | - | - | |
| S00001406062 | P00000255658 | M00000488224 | - | 564 | - | - | - | - | - | - | - | - | RP | |
| S00001408173 | P00000261058 | M00000448392 | - | 385 | - | 0.95 | - | 364 | RP | - | - | - | - | |
| S00001408580 | P00000258985 | M00000452598 | - | 180 | - | - | - | - | - | - | - | - | RP | |
| S00001406001 | P00000255573 | M00000476656 | - | 2,945 | - | 1.00 | - | 2,945 | - | - | - | - | - | |
| S00001406191 | P00000277028 | M00000482151 | - | 1,299 | - | - | - | - | RP | - | - | - | RP | |
| S00001406191 | P00000277028 | M00000482152 | - | 1,083 | - | - | - | - | RP | - | - | - | - | |
| S00001390069 | P00000234944 | M00000580697 | - | 9,475 | - | 1.00 | - | 9,475 | - | - | - | - | - | |
| S00001421415 | P00000262247 | M00000582612 | - | 11,893 | - | - | - | - | - | R | - | - | RP | |
| S00001116739 | P00000286033 | M00000585493 | - | 19,530 | - | 1.00 | - | 19,530 | - | - | - | - | - | |
| S00001116739 | P00000286033 | M00000585494 | - | 182 | - | - | - | - | - | - | - | - | - | |

Impact Evaluation of Existing Commercial Buildings Program (2008-2009)

| Program Information | | | | | | | | | | Evaluation Sampling | | | | |
|---------------------|--------------|--------------|------|--------|------------|-------------|-------------|-------------|----------------|---------------------|--------|--------------|----------------|---|
| SiteID | ProjectID | MeasureID | City | BUI | EntityDesc | MeasureCode | MeasureDesc | Working_kWh | Working_Therms | SampleFrame | Strata | Measure Type | Eval_Treatment | |
| S00001350731 | P00000188593 | M00000552774 | - | 39,467 | - | 1.47 | - | - | 57,983 | - | - | - | - | I |
| S00001352077 | P00000283962 | M00000589323 | - | 6,255 | - | 1.07 | - | - | 6,693 | - | - | - | - | - |
| S00001352077 | P00000283962 | M00000589325 | - | 11,480 | - | 1.07 | - | - | 12,284 | - | - | - | - | - |
| S00001352077 | P00000283962 | M00000589326 | - | 17,560 | - | 1.07 | - | - | 18,789 | - | - | - | - | - |
| S00001369095 | P00000263131 | M00000576227 | - | 43,782 | - | 1.00 | - | - | 43,782 | - | - | - | - | - |
| S00001369095 | P00000263131 | M00000592528 | - | 49,468 | - | 1.00 | - | - | 49,468 | - | - | - | - | - |
| S00001435645 | P00000242204 | M00000482211 | - | 36,530 | - | 1.00 | - | - | 36,530 | - | - | - | - | - |