

# True Up 2008: Tracking Estimate Corrections and True Up of 2002-2007 Savings and Generation

October 2, 2008

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## Introduction

This report presents the 2008 adjustments to reports of Energy Trust-funded energy savings and renewable energy generation for the calendar years 2002-2007. The True Up analysis, which occurs annually, reports the best available current energy savings and generation figures for Energy Trust-funded programs.

This report summarizes **what Energy Trust knows as of January 31, 2008, about 2002-2007 savings.** Energy Trust staff are still evaluating 2002 through 2007 savings for some programs, and it is expected that there will be further refinements to 2002-2007 next year.<sup>1</sup>

## Summary

The 2008 True Up resulted in a 1.5% increase in electric savings, to 159.4 average megawatts, and 2.1% increase in natural gas savings to 6.7 million annual therms. This resulted in modestly significant changes to the Business Energy Solutions Existing Buildings, Business Energy Solutions New Buildings, and Business Energy Solutions Production Efficiency programs. Changes were less than in prior years for two reasons: first, Energy Trust already adjusted performance numbers in a prior True Up; and second, the impact evaluations for some programs (Home Energy Solutions – Existing Homes and Multifamily Home Energy Savings) will be completed in 2008, and so are not incorporated in this True Up.

## Background

**Working Savings/Generation** are the estimates of savings that are practical for data entry by program personnel as they are approving individual projects. These savings are based on estimates of the typical savings or generation for prescriptive measures, and are based on site-specific engineering calculations for custom measures. Prior years' True Up adjustments may be incorporated into estimates of working savings and generation for prescriptive measures, but transmission and distribution line loss savings are not included. In addition, there are no adjustments for free riders (customers who would have installed the measures without the program) or spillover (customers who are influenced by the program but did not take the incentive). These issues are addressed in developing reportable savings.

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<sup>1</sup> Savings for most programs are evaluated and finalized through 2005. However, the Energy Trust is still working to evaluate the multifamily retrofit program starting in 2003. This has awaited improved procedures to access and link utility bills with individual apartment units, one of the most difficult tasks in evaluation. Additionally, NEEA savings are subject to five year retrospective reviews, which are useful in looking at programs that attempt to change markets. Such a review is scheduled for 2008 and may look as far back as 2002.

**Reportable Savings/Generation** are the estimates of savings that will be used for public reporting of Energy Trust results. This includes transmission and delivery loss savings, market effects (free riders and spillover), True Up adjustments (as described below), and any other corrections required to the original working values. These values are updated annually based on new information described through the “True Up” process.

The **True Up** adjusts Working Savings/Generation estimates in different programs for different reasons. These fall into the following categories:

1. *Corrections.* Occasionally, through the Energy Trust’s routine quality assurance processes, transaction errors are discovered in the database, which require corrections. Individual transaction errors (e.g. typos that affect savings) are usually corrected immediately, and generic transaction errors (e.g. wrong deemed savings value for a measure) are easiest to fix once per year during the True Up.
2. *New Data.* Projections are updated based upon improved measure simulations and new data on measure performance.
3. *Anticipated Evaluation Results.* Experience shows that evaluated estimates of savings and generation are often lower than reportable estimates. Reportable estimates are often based on typical savings for prescriptive measures or “as installed” engineering analysis for custom measures. Impact evaluation uses energy use data and/or improved data on post-installation operation to improve on reportable estimates. However, impact evaluations cannot be completed until well after programs finish a year’s activity, because of the need to utilize post-installation energy use data. Based on Board direction in the July, 2004 retreat, staff is attempting to anticipate these effects in reporting savings for programs where there is not yet an evaluation available. These adjustments are based on the results of evaluations for the same program in prior years, where available. For programs that have no prior evaluation, results for similar programs elsewhere are used.
4. *Evaluations.* When finalized, evaluations provide the most reliable representation of realized savings, and can replace the refined projections based on #2 and #3. Evaluation results may change Energy Trust savings estimates for a single year or all prior years. It depends on what other evaluations have already been performed for prior years and whether results seem applicable to prior years (similar measures, participants, and circumstances).
5. *Un-Served Utility.* This is a routine, end-of year adjustment which is of modest impact. Some measures in Fast Track claim savings, but documentation was not yet adequate to support the savings, or could not be claimed by the Trust. This proved to be a problem especially for some savings which are in service utilities where Energy Trust activities are not funded. For example, this occurs when a measure saves gas and electricity, and the gas utility is an Energy Trust funder (e.g., Northwest Natural) and the electric utility is not an Energy Trust funder (e.g., Columbia PUD). The Energy Trust would only claim the electric savings in this case if Columbia PUD was not claiming the savings. In some cases this was simply a question of clarifying documentation in time for the True Up. The Energy Trust may claim these savings if the documentation is shown to be in order.

## Results

Across the years 2002-2007, the 2008 True Up resulted in a 1.5% increase in electric savings to 159.4 Average Megawatts, and 2.1% increase in natural gas savings to 6.7 million annual therms. Adjustments to 2007 were incorporated in the 2007 annual report, so this summary does not modify the 2007 reported

results, only prior years. In 2008, the True Up incorporated modestly significant changes to the following programs:

1. New Evaluation Results
  - a. Business Energy Solutions – Existing Buildings
  - b. Business Energy Solutions – New Buildings
  - c. Business Energy Solutions – Production Efficiency
  - d. Home Energy Solutions – Existing Homes and Multifamily
2. New Data
  - a. Home Energy Solutions
  - b. Multifamily Home Energy Solutions
3. Corrections

None resulted in significant changes.

Overall, changes were less than in prior years because the Energy Trust had performed evaluations for many programs by the prior True Up. The first impact evaluation for Multifamily Home Energy Solutions and the second impact for the Home Energy Solutions – Existing Homes will be completed in 2008, so these programs did not yet impact this True Up.

To summarize, for 2007 electric savings for all programs combined, there were net changes of .10% increase due to corrections and un-served utilities, .12% increase due to new data, 3.9% increase due to anticipated evaluation factors, and no change due to evaluations<sup>2</sup>. There were no changes to the Transmission and Distribution line-loss estimates in the 2008 True Up. For 2007 gas savings for all programs combined, there were net changes of .12% increase due to corrections and un-served utilities, .90% increase due to new data, 1.6% increase due to anticipated evaluation factors, and no change due to evaluations<sup>3</sup>.

Table 10 summarizes the revisions for the years 2002-2007 by sector. Tables' I I A-F shows the revisions to each sector by year. Appendix A provides revisions by program and year. Discussion of changes follows immediately below.

## New evaluation results

### Business Energy Solutions – Existing Buildings Evaluation

Evaluations of 2004 and 2005 were completed for this program in 2007<sup>4</sup>. The results of the 2008 True Up incorporate the results of these evaluations as evaluation factors for 2004-5 and anticipated evaluation factors for 2006-8<sup>5</sup>. The evaluation factors<sup>6</sup> from the 2004 and 2005 evaluations were each applied to their respective years. The savings weighted average of the 2004 and 2005 BE evaluations were then used as the anticipated evaluation factor for the years 2006-2008. Table I summarizes which evaluations have been applied to each program year. Tables 2A and 2B show in detail the various components of the 2004 and 2005 evaluations for gas and electric. Finally, the old and new evaluation factors are shown in the Table 3 along with the impact on each year.

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<sup>2</sup> Evaluations were completed for prior years and used to modify the 2007 anticipated evaluation factor.

<sup>3</sup> Evaluations were completed for prior years and used to modify the 2007 anticipated evaluation factor.

<sup>4</sup> These evaluations were based on site visits and site metering.

<sup>5</sup> 2003 was adjusted with the results of the 2003 evaluation in the 2007 True Up.

<sup>6</sup> The evaluation factor consists of an engineering factor and market effects factor. The market effects factor is made up of free riders and spillover.

**Table I: BE Evaluations**

Program	Year	Source	Type of adjustment	Notes
BE	2003	2003 Evaluation	Evaluation factor	Finalized in 2007 True Up
BE	2004	2004 Evaluation	Evaluation factor	
BE	2005	2005 evaluation	Evaluation factor	
BE	2006	2004 and 2005 evaluations	Anticipated Eval factor	Energy Trust will use the average of the 2004 and 2005 evaluations as the anticipated evaluation factor for all years not yet evaluated for gas end electric.
BE	2007	2004 and 2005 evaluations	Anticipated Eval factor	
BE	2008	2004 and 2005 evaluations	Anticipated Eval factor	

**Table 2A: 2004 and 2005 BE Evaluation Factors - Electric**

<b>Electric</b>					
Program	Realization Rate	Net-To-Gross-Ratio (market effects)			RPT ADJ Factor
Business Energy Solutions - Existing Buildings	Engineering adjustment	Free-riders	Participant spillover	Non-Participant Spillover	Evaluation Factor
2004 EV	99%	84%	1%	4%	87%
2005 EV	104%	80%	1%	4%	88%
Average					<b>87%</b>

**Table 2B: 2004 and 2005 BE Evaluation Factors - Gas**

<b>Gas</b>					
Program	Realization Rate	Net-To-Gross-Ratio (market effects)			RPT ADJ Factor
Business Energy Solutions - Existing Buildings	Engineering adjustment	Free-riders	Participant spillover	Non-Participant Spillover	Evaluation Factor
2004 EV	96%	65%	1%	4%	65%
2005 EV	75%	95%	1%	4%	75%
Average					<b>74%</b>

**Table 3: 2004 and 2005 BE Evaluation Impacts**

Program	Year	Old Eval Factor - Electric	New Eval Factor - Electric	Annual Change (kWh) Saved	Old Value-gas	New Eval Factor-Gas	Annual Change (therms) Saved
BE	2003	0.83	0.83	NC	0.67	0.67	NC
BE	2004	0.83	0.87	1,708,861	0.67	0.65	(1,719)
BE	2005	0.83	0.88	2,496,946	0.67	0.75	34,392
BE	2006	0.83	0.87	1,452,406	0.67	0.74	69,536
BE	2007	0.83	0.87	1,169,352	0.67	0.74	36,553
BE	2008	N/A	0.87	NC	N/A	0.74	NC
<b>Total</b>				<b>6,827,565</b>	<b>Total</b>		<b>138,762</b>

**Business Energy Solutions – New Buildings**

Evaluations of 2004 and 2005 were completed for this program in 2007. The results of the 2008 True Up incorporate the results of these evaluations into program years 2004 – 2008. The evaluation factors from the 2004 and 2005 evaluations were each applied to their respective years. The savings weighted average of the 2004 and 2005 BE evaluations were then used as the anticipated electric evaluation factor for the years 2006-2008. Due to the limited amount of activity in the gas program in these years, Energy Trust will not change the anticipated gas evaluation for 2006-2008; this factor will remain at .70. Table 4 summarizes which evaluations have been applied to each program year. Tables 5A and 5B show in detail the various components of the 2004 and 2005 evaluations for gas and electric that makes up the evaluation factor. Finally, the old and new evaluation factors are shown in Table 6 along with the impact on each year.

**Table 4: NBE Evaluations**

Program	Year	Source	Type of adjustment	Notes
NBE	2004	2004 Evaluation	Evaluation factor	This program started in 2004
NBE	2005	2005 Evaluation	Evaluation factor	
NBE	2006	2004 and 2005 evaluations	Anticipated Eval factor	The average of the 2004 and 2005 evaluations for the anticipated electric evaluation factor is used. Due to the limited amount of activity in the gas program during these years we will not adjust the anticipated gas evaluation factor based on the 2004 and 2005 evaluations.
NBE	2007	2004 and 2005 evaluations	Anticipated Eval factor	
NBE	2008	2004 and 2005 evaluations	Anticipated Eval factor	

**Table 5A: 2004 and 2005 NBE Evaluation Factors - Electric**

Electric					
Program	Realization Rate	Net-To-Gross-Ratio			RPT ADJ F
NBE	Engineering adjustment	Free-riders	Participant spillover	Non-Participant Spillover	Evaluation Factor
2004	108%	69%	5%	4%	81%
2005	104%	69%	5%	4%	78%
Average					<b>79%</b>

**Table 5B: 2004 and 2005 NBE Evaluation Factors - Gas**

Gas					
Program	Realization Rate	Net-To-Gross-Ratio			RPT ADJ F
NBE	Engineering adjustment	Free-riders	Participant spillover	Non-Participant Spillover	Evaluation Factor
2004	101%	69%	5%	4%	78%
2005	42%	69%	5%	4%	33%
Average					<b>46%</b>

**Table 6: 2004 and 2005 NBE Evaluation Impacts**

Program	Year	Old Eval Factor - Electric	New Eval Factor - Electric	Annual Change (kWh) Saved	Old Value-gas	New Eval Factor - Gas	Annual Change (therms) Saved
NBE	2004	0.7	0.81	83,275	0.7	0.78	2,676
NBE	2005	0.7	0.78	736,481	0.7	0.33	(46,329)
NBE	2006	0.7	0.79	2,257,669	0.7	0.70	NC
NBE	2007	0.7	0.79	2,581,032	0.7	0.70	NC
NBE	2008	N/A	0.79	NC	N/A	0.74	NC
		<b>Total</b>		<b>5,658,457</b>	<b>Total</b>		<b>43,653</b>

**Business Energy Solutions – Production Efficiency**

An evaluation of the years 2003-2005 was completed for this program in 2007. In addition, a draft of the 2006 evaluation was available at the time of the 2008 True Up. The 2008 True Up incorporates the results of both these evaluations into program years 2003–2008.

Energy Trust applied the results of the 2003-2005 evaluation to program years 2003-2005. This evaluation did not separate out results by year; 2003-2005 were evaluated together. However, mega and non-mega projects were evaluated separately<sup>7</sup>. Energy Trust included the results of the mega projects in the evaluation factors that were used for 2003-2005.

At the time of the 2007 True Up, a draft of the 2006 evaluation was available. In an effort to use the best available information, planning and evaluation staff decided to apply the results of the draft 2006 evaluation to the 2006 True Up. In addition, these draft results were also used as the anticipated evaluation factor for 2007 and 2008. Energy Trust staff believed that program activity and design in 2006 were more reflective of the last few years of program activity<sup>8</sup>.

Table 7 summarizes which evaluations have been applied to each program year. Table 8A and 8B show in detail the various components of the 2003-2005 and 2006 evaluations, respectively. Finally, the old and new evaluation factors are shown in the Table 9 along with the impact on each year.

<sup>7</sup> Mega Projects are very large projects which receive particular attention in evaluations

<sup>8</sup> 2003-2005 were startup years where the program offered higher incentives and screening was less comprehensive.

**Table 7: PE Evaluations**

Program	Year	Source	Type of adjustment	Notes
PE	2003	2003-2005 PE Evaluation	Evaluation factor	For each year, Energy Trust used the average of all projects types (mega and non-mega) and all years as the evaluation factor.
PE	2004	2003-2005 PE Evaluation	Evaluation factor	
PE	2005	2003-2005 PE Evaluation	Evaluation factor	
PE	2006	2006 PE Evaluation	Evaluation factor	This evaluation was a draft at the time of the 2007 True Up.
PE	2007	2006 PE Evaluation*	Anticipated Eval factor	
PE	2008	2006 PE Evaluation*	Anticipated Eval factor	PE will use the BE Gas anticipated Evaluation factor for 2008.

**Table 8A: 2003-2005 PE Evaluation Factors - Electric**

2003-2005 PE Evaluation						
	Realization Rate	Net-To-Gross-Ratio (market effects)				RPT Multiplier for FT
Project type	Engineering adjustment	Free riders	Participant spillover	Program Spillover	Non-Participant Spillover	Evaluation Factor
Mega Projects	92.3%	0.0%	0.0%	0.0%	0%	<b>0.92</b>
Non-Mega Projects	93.4%	17.9%	1.0%	1.0%	0.0%	<b>0.79</b>
Total All Projects	92.8%	8.2%	1.0%	1.0%		<b>0.87</b>

**Table 8B: 2006 PE Evaluation Factors - Electric**

Draft 2006 PE evaluation						
	Realization Rate	Net-To-Gross-Ratio (market effects)				RPT Multiplier for FT
Project type	Engineering adjustment	Free riders	Participant spillover	Program Spillover	Non-Participant Spillover	Evaluation Factor
Total All Projects	101.6%	8.0%	1.0%	1.0%	0%	<b>96%</b>

**Table 9: 2003-2005 and draft 2006 Draft PE Evaluation Impacts**

Program	Year	Old Eval Factor - Electric	New Eval Factor- Electric	Annual Change (kWh) Saved	Old Eval Factor -gas	New Eval Factor- Gas	Annual Change (therms) Saved
PE	2003	0.9	0.87	-11965	N/A	N/A	NC
PE	2004	0.9	0.87	(2,571,115)	N/A	N/A	NC
PE	2005	0.9	0.87	(5,391,252)	N/A	N/A	NC
PE	2006	0.9	0.96	4,120,423	N/A	N/A	NC
PE	2007	0.9	0.96	8,185,209	N/A	N/A	NC
PE	2008	N/A	0.96	NC	N/A	0.74	NC

**Total 4,331,330**

### Home Energy Solutions – Existing Homes Evaluation

No changes were made to this program in the 2008 True Up. The draft evaluation of this program for the years 2005-06 came in later than expected and the results were not robust enough to use at the time of the True Up.

### New Data

#### Northwest Energy Efficiency Alliance (NEEA)

Since 2005, NEEA made several enhancements to improve the consistency and reliability of their tracking systems, completed several evaluations, and began a long-term monitoring process that periodically reports on specific programs. These enhancements have significantly improved both the historical assessment of energy savings and the projection of expected savings. NEEA is making greater efforts to accurately measure net market effects, including consideration of baseline activity (energy savings that would occur in the absence of NEEA programs) and the impacts of utility incentive programs.

For 2007, Energy Trust made changes to methods to estimate current and future year impacts to align better with NEEA's projection of program impacts. The impacts reported for 2006 and 2007 reflect this improved methodology, but precede NEEA's final reporting on their annual savings, which happens after the True Up process is completed. Therefore, reconciliation of NEEA final savings will occur in the following year (e.g., 2006 and 2007 savings will be reconciled in the 2009 True Up).

#### Rounding of Transmission and Distribution Line Loss Savings Estimates

No changes were made to transmission and distribution line loss savings in this True Up. Line loss estimates remain at 10% for residential and commercial programs and 6% for industrial programs.

### Results Summary – 2008 True Up Impacts by Sector by Year

In the following tables, the difference between “old reportable” and “new reportable” is the updates provided in the 2008 True Up from prior reportable estimates. In the following tables, Annual kWh and Annual Therms indicate that the measure saves or generates one kWh or therm for each year of its life. An Average Megawatt means that loads are reduced by an average of one Megawatt during each year of the measure's life. In the summary table, zero change may not mean there were no corrections, only that the corrections may not be significant enough to show due to rounding.

**TABLE 10: SUMMARY FOR 2002 - 2007**

	Old Reportable	New Reportable	% Change
<b>Electric- Average Megawatts</b>			
<b>Elec. Efficiency</b>	<b>157.4</b>	<b>159.4</b>	<b>1.54%</b>
Residential	56.5	56.6	0.13%
Commercial	38.9	40.4	3.70%
Industrial	61.9	62.4	0.80%
<b>Renewables</b>	<b>63.8</b>	<b>63.8</b>	<b>0.00%</b>
<b>Gas- Million Annual Therms</b>			
<b>Gas Efficiency</b>	<b>6.6</b>	<b>6.7</b>	<b>2.13%</b>
Residential	3.7	3.7	1.22%
Commercial	2.9	3.0	3.29%



**TABLE IIA: 2007 SUMMARY**

	Old Reportable	New Reportable	% Change	Action Plan Conservative Goal	% of Goal Achieved
<b>Electric- Average Megawatts</b>					
<b>Elec. Efficiency</b>	<b>33.78</b>	<b>35.23</b>	<b>4.31%</b>	<b>24.60</b>	<b>143%</b>
Residential	12.74	12.81	0.50%	8.90	144%
Commercial	5.69	6.14	8.03%	4.60	134%
Industrial	15.35	16.28	6.09%	11.10	147%
<b>Renewables</b>	<b>46.93</b>	<b>46.93</b>	<b>0.00%</b>	<b>114.9</b>	<b>41%</b>
<b>Gas- Million Annual Therms</b>					
<b>Gas Efficiency</b>	<b>2.19</b>	<b>2.25</b>	<b>2.74%</b>	<b>2.419</b>	<b>93%</b>
Residential	1.085	1.108	2.15%	1.45	77%
Commercial	1.100	1.137	3.32%	0.97	117%

**TABLE IIB: 2006 SUMMARY**

	Old Reportable	New Reportable	% Change	Action Plan Conservative Goal	% of Goal Achieved
<b>Electric- Average Megawatts</b>					
<b>Elec. Efficiency</b>	<b>25.49</b>	<b>26.38</b>	<b>3.50%</b>	<b>16.15</b>	<b>163%</b>
Residential	10.00	10.01	0.11%	6.38	157%
Commercial	6.57	6.98	6.27%	3.68	190%
Industrial	8.93	9.40	5.27%	6.09	154%
<b>Renewables</b>	<b>1.99</b>	<b>1.99</b>	<b>0.00%</b>	<b>32.98</b>	<b>6%</b>
<b>Gas- Million Annual Therms</b>					
<b>Gas Efficiency</b>	<b>2.29</b>	<b>2.39</b>	<b>3.96%</b>	<b>2.557</b>	<b>93%</b>
Residential	1.030	1.051	2.07%	1.124	94%
Commercial	1.265	1.334	5.50%	1.433	93%

**TABLE IIC: 2005 SUMMARY**

	Old Reportable	New Reportable	% Change	Action Plan Conservative Goal	% of Goal Achieved
<b>Electric- Average Megawatts</b>					
<b>Elec. Efficiency</b>	<b>40.04</b>	<b>39.79</b>	<b>-0.61%</b>	<b>32</b>	<b>124%</b>
Residential	11.64	11.64	0.01%	5.6	208%
Commercial	7.87	8.24	4.69%	6	137%
Industrial	20.54	19.92	-3.00%	20.2	99%
<b>Renewables</b>	<b>0.46</b>	<b>0.46</b>	<b>0.00%</b>	<b>26.6</b>	<b>2%</b>
<b>Gas- Million Annual Therms</b>					
<b>Gas Efficiency</b>	<b>1.31</b>	<b>1.29</b>	<b>-0.87%</b>	<b>1.3</b>	<b>100%</b>
Residential	0.86	0.86	0.06%	0.9	95%
Commercial	0.45	0.44	-2.65%	0.4	110%

**TABLE I ID: 2004 SUMMARY**

	Old Reportable	New Reportable	% Change	Action Plan Projection	% of Goal Achieved
<b>Electric- Average Megawatts</b>					
<b>Elec. Efficiency</b>	<b>27</b>	<b>26.91</b>	<b>-0.33%</b>	<b>30</b>	<b>90%</b>
Residential	9.69	9.69	0.00%	4	242%
Commercial	7.18	7.38	2.85%	6.4	115%
Industrial	10.13	9.83	-2.90%	19	52%
<b>Renewables</b>	<b>0.09</b>	<b>0.09</b>	<b>0.00%</b>	<b>22</b>	<b>0.40%</b>
<b>Gas- Million Annual Therms</b>					
<b>Gas Efficiency</b>	<b>0.66</b>	<b>0.66</b>	<b>0.15%</b>	<b>2.3</b>	<b>29%</b>
Residential	0.58	0.58	0.00%	0.9	65%
Commercial	0.07	0.08	1.28%	1.4	5%

**TABLE I IE: 2003 SUMMARY**

	Old Reportable	New Reportable	% Change	Action Plan Projection	% of Goal Achieved
<b>Electric- Average Megawatts</b>					
<b>Elec. Efficiency</b>	<b>16.06</b>	<b>16.06</b>	<b>-0.01%</b>	<b>33</b>	<b>49%</b>
Residential	6.73	6.73	0.00%	7.5	90%
Commercial	5.76	5.76	0.00%	13	44%
Industrial	3.57	3.57	-0.04%	13	27%
<b>Renewables</b>	<b>14.29</b>	<b>14.29</b>	<b>0.00%</b>	<b>18</b>	<b>79%</b>
<b>Gas- Million Annual Therms</b>					
<b>Gas Efficiency</b>	<b>0.15</b>	<b>0.15</b>	<b>0.00%</b>	<b>None</b>	
Residential	0.15	0.15	0.00%	None	
Commercial	0.0024	0.0024	0.00%	None	

**TABLE I IF: 2002 SUMMARY**

	Old Reportable	New Reportable	% Change	Action Plan Projection
<b>Electric- Average Megawatts</b>				
<b>Elec. Efficiency</b>	<b>15.04</b>	<b>15.04</b>	<b>0.00%</b>	<b>None</b>
Residential	5.72	5.72	0.00%	None
Commercial	5.89	5.89	0.00%	None
Industrial	3.43	3.43	0.00%	None
<b>Renewables</b>	<b>0.002</b>	<b>0.002</b>	<b>0.00%</b>	<b>None</b>

**2002**

		<u>Unadjusted</u> <u>Savings/Generation</u> <u>(annual kWh)</u>	<u>Adjusted</u> <u>Savings/</u> <u>Generation</u> <u>(annual kWh)</u>	<u>Change</u> <u>(annual kWh)</u>	<u>Change</u> <u>(%)</u>	<u>Unadjusted</u> <u>Savings/</u> <u>Generation</u> <u>(annual therm)</u>	<u>Adjusted</u> <u>Savings/</u> <u>Generation</u> <u>(annual therm)</u>	<u>Change</u> <u>(annual</u> <u>therm)</u>	<u>Change</u> <u>(%)</u>
<b>Efficiency</b>									
<b>Commercial</b>									
GLED	Green LED Traffic Lights Pilot Program	1,631,982	1,631,982	0	0.00%	0	0	0	0.00%
NCI	NEEA Commercial Market Transformation	6,676,750	6,676,750	0	0.00%	0	0	0	0.00%
REST	Restaurant Pilot Program	33,000	33,000	0	0.00%	0	0	0	0.00%
UTE	Utility Transition - Commercial Existing	39,238,169	39,238,166	-3	0.00%	0	0	0	0.00%
UTN	Utility Transition - Commercial New	3,997,452	3,997,452	0	0.00%	0	0	0	0.00%
	Commercial	51,577,353	51,577,350	-3	0.00%	0	0	0	0.00%
<b>Industrial</b>									
NIP	NEEA Industrial Market Transformation	4,304,670	4,304,670	0	0.00%	0	0	0	0.00%
UTI	Utility Transition - Industrial Process	25,759,290	25,759,290	0	0.00%	0	0	0	0.00%
	Industrial	30,063,960	30,063,960	0	0.00%	0	0	0	0.00%
<b>Residential</b>									
MOB	Mobile Home Duct Sealing Pilot Program	561,836	561,834	-2	0.00%	0	0	0	0.00%
NR	NEEA Residential Market Transformation	41,635,950	41,635,950	0	0.00%	0	0	0	0.00%
UTR	Utility Transition - Residential	7,903,091	7,903,091	0	0.00%	0	0	0	0.00%
	Residential	50,100,877	50,100,875	-2	0.00%	0	0	0	0.00%
	Efficiency	131,742,190	131,742,185	-5	0.00%	0	0	0	0.00%
<b>Renewables</b>									
OP	Open Solicitation	21,500	21,500	0	0.00%	0	0	0	0.00%
	Renewables	21,500	21,500	0	0.00%	0	0	0	0.00%
	Renewables	21,500	21,500	0	0.00%	0	0	0	0.00%
	2,002 kWh	131,763,690	131,763,685	-5	0.00%	0	0	0	0.00%
	aMW	15.04	15.04	0.00	0.00%				

**2003**

		<u>Adjusted</u> <u>Savings/</u> <u>Generation</u> <u>(annual kWh)</u>	<u>Change</u> <u>(annual kWh)</u>	<u>Change</u> <u>(%)</u>	<u>Unadjusted</u> <u>Savings/</u> <u>Generation</u> <u>(annual therm)</u>	<u>Adjusted</u> <u>Savings/</u> <u>Generation</u> <u>(annual therm)</u>	<u>Change</u> <u>(annual</u> <u>therm)</u>	<u>Change</u> <u>(%)</u>	
<b>Efficiency</b>									
<b>Commercial</b>									
BE	Existing Buildings	9,190,338	9,190,336	-2	0.00%	2,423	2,423	0	0.00%
BTO	Operations and Maintenance	0	0	0	0.00%	0	0	0	0.00%
GLED	Green LED Traffic Lights Pilot Program	75,115	75,115	0	0.00%	0	0	0	0.00%
LED	LED Traffic Signal Program	933,381	933,381	0	0.00%	0	0	0	0.00%
NCI	NEEA Commercial Market Transformation	9,303,024	9,303,024	0	0.00%	0	0	0	0.00%
REST	Restaurant Pilot Program	264,001	264,000	-1	0.00%	0	0	0	0.00%
SELP	Small Scale Energy Loan Pilot Program	242,839	242,838	-1	0.00%	0	0	0	0.00%
UTE	Utility Transition - Commercial Existing	24,317,618	24,317,616	-2	0.00%	0	0	0	0.00%
UTN	Utility Transition - Commercial New	6,115,770	6,115,768	-2	0.00%	0	0	0	0.00%
	Commercial	50,442,086	50,442,078	-8	0.00%	2,423	2,423	0	0.00%
<b>Industrial</b>									
NIP	NEEA Industrial Market Transformation	816,948	816,948	0	0.00%	0	0	0	0.00%
PEF	Production Efficiency	398,842	386,877	-11,965	-3.00%	0	0	0	0.00%
UTI	Utility Transition - Industrial Process	30,096,038	30,096,039	1	0.00%	0	0	0	0.00%
	Industrial	31,311,828	31,299,864	-11,964	-0.04%	0	0	0	0.00%
<b>Residential</b>									
DYS	Double Your Savings	1,214,205	1,214,206	1	0.00%	13,593	13,593	0	0.00%
HES	Existing Single Family	4,057,568	4,057,567	-1	0.00%	134,810	134,810	0	0.00%
MHS	Existing Multifamily	2,587,839	2,587,839	0	0.00%	0	0	0	0.00%
MOB	Mobile Home Duct Sealing Pilot Program	19,751	19,750	-1	-0.01%	0	0	0	0.00%
NR	NEEA Residential Market Transformation	49,004,520	49,004,520	0	0.00%	0	0	0	0.00%
UTR	Utility Transition - Residential	2,085,397	2,085,396	-1	0.00%	0	0	0	0.00%
	Residential	58,969,280	58,969,278	-2	0.00%	148,403	148,403	0	0.00%
	Efficiency	140,723,194	140,711,220	-11,974	-0.01%	150,826	150,826	0	0.00%
<b>Renewables</b>									
OP	Open Solicitation	124,777	124,777	0	0.00%	0	0	0	0.00%
REN	Utility Scale	124,830,000	124,830,000	0	0.00%	0	0	0	0.00%
SLE	Solar Electric (Photovoltaic)	251,294	251,294	0	0.00%	0	0	0	0.00%
	Renewables	125,206,071	125,206,071	0	0.00%	0	0	0	0.00%
	Renewables	125,206,071	125,206,071	0	0.00%	0	0	0	0.00%
	2,003 kWh	265,929,265	265,917,291	-11,974	0.00%	150,826	150,826	0	0.00%
	aMW	30.36	30.36	0.00	0.00%				

		2004							
		<u>Unadjusted</u>	<u>Adjusted</u>	<u>Change</u>	<u>Change</u>	<u>Unadjusted</u>	<u>Adjusted</u>	<u>Change</u>	<u>Change</u>
		<u>Savings/Generation</u>	<u>Savings/</u>	<u>(annual kWh)</u>	<u>(%)</u>	<u>Savings/</u>	<u>Savings/</u>	<u>(annual</u>	<u>(%)</u>
		<u>(annual kWh)</u>	<u>Generation</u>			<u>Generation</u>	<u>Generation</u>	<u>therm)</u>	<u>(therm)</u>
			<u>(annual kWh)</u>			<u>(annual therm)</u>	<u>(annual therm)</u>		
<b>Efficiency</b>									
<b>Commercial</b>									
BE	Existing Buildings	34,264,475	35,973,336	1,708,861	4.99%	46,683	44,964	-1,719	-3.68%
BTO	Operations and Maintenance	1,136,674	1,136,674	0	0.00%	0	0	0	0.00%
LED	LED Traffic Signal Program	2,943,875	2,943,875	0	0.00%	0	0	0	0.00%
NBE	New Buildings	520,457	603,732	83,275	16.00%	22,296	24,972	2,676	12.00%
NCI	NEEA Commercial Market Transformation	10,019,136	10,019,136	0	0.00%	0	0	0	0.00%
SLWC	Solar Water Heating - Commercial	19,635	19,635	0	0.00%	5,777	5,777	0	0.00%
UTE	Utility Transition - Commercial Existing	11,608,324	11,608,322	-2	0.00%	0	0	0	0.00%
UTN	Utility Transition - Commercial New	2,363,550	2,363,549	-1	0.00%	0	0	0	0.00%
	Commercial	62,876,126	64,668,259	1,792,133	2.85%	74,756	75,713	956	1.28%
<b>Industrial</b>									
NIP	NEEA Industrial Market Transformation	720,996	720,996	0	0.00%	0	0	0	0.00%
PEF	Production Efficiency	85,627,125	83,056,009	-2,571,116	-3.00%	0	0	0	0.00%
UTI	Utility Transition - Industrial Process	2,358,808	2,358,808	0	0.00%	0	0	0	0.00%
	Industrial	88,706,929	86,135,813	-2,571,116	-2.90%	0	0	0	0.00%
<b>Residential</b>									
EHP	Products	2,971,433	2,971,431	-2	0.00%	27,963	27,963	0	0.00%
ENH	New Homes	5,378	5,378	0	0.00%	2,230	2,230	0	0.00%
HES	Existing Single Family	4,646,922	4,646,922	0	0.00%	523,348	523,348	0	0.00%
MHS	Existing Multifamily	8,776,472	8,776,466	-6	0.00%	23,269	23,269	0	0.00%
NR	NEEA Residential Market Transformation	68,097,180	68,097,180	0	0.00%	0	0	0	0.00%
SHO	SHOW	19,402	19,401	-1	-0.01%	0	0	0	0.00%
SLWR	Solar Water Heating - Residential	52,738	52,737	-1	0.00%	5,223	5,223	0	0.00%
UTR	Utility Transition - Residential	329,319	329,318	-1	0.00%	0	0	0	0.00%
	Residential	84,898,844	84,898,833	-11	0.00%	582,033	582,033	0	0.00%
	Efficiency	236,481,899	235,702,905	-778,994	-0.33%	656,790	657,746	956	0.15%
<b>Renewables</b>									
OP	Open Solicitation	266,960	266,960	0	0.00%	0	0	0	0.00%
SLE	Solar Electric (Photovoltaic)	518,681	518,677	-4	0.00%	0	0	0	0.00%
	Renewables	785,641	785,637	-4	0.00%	0	0	0	0.00%
	Renewables	785,641	785,637	-4	0.00%	0	0	0	0.00%
	2,004 kWh	237,267,540	236,488,542	-778,998	-0.33%	656,790	657,746	956	0.15%
	aMW	27.09	27.00	-0.09	-0.33%				

**2005**

		<u>Unadjusted</u> <u>Savings/Generation</u> <u>(annual kWh)</u>	<u>Adjusted</u> <u>Savings/</u> <u>Generation</u> <u>(annual kWh)</u>	<u>Change</u> <u>(annual kWh)</u>	<u>Change</u> <u>(%)</u>	<u>Unadjusted</u> <u>Savings/</u> <u>Generation</u> <u>(annual therm)</u>	<u>Adjusted</u> <u>Savings/</u> <u>Generation</u> <u>(annual therm)</u>	<u>Change</u> <u>(annual</u> <u>therm)</u>	<u>Change</u> <u>(%)</u>
<b>Efficiency</b>									
<b>Commercial</b>									
BE	Existing Buildings	50,092,262	52,589,208	2,496,946	4.98%	366,453	400,845	34,392	9.39%
BTO	Operations and Maintenance	723,338	723,338	0	0.00%	0	0	0	0.00%
LED	LED Traffic Signal Program	2,821,605	2,821,605	0	0.00%	0	0	0	0.00%
NBE	New Buildings	6,567,849	7,304,329	736,480	11.21%	80,078	33,749	-46,329	-57.85%
NCI	NEEA Commercial Market Transformation	8,669,414	8,669,411	-3	0.00%	0	0	0	0.00%
SLWC	Solar Water Heating - Commercial	35,189	35,189	0	0.00%	3,874	3,874	0	0.00%
	Commercial	68,909,657	72,143,080	3,233,423	4.69%	450,405	438,469	-11,936	-2.65%
<b>Industrial</b>									
IR	Irrigation	0	0	0	0.00%	0	0	0	0.00%
NIP	NEEA Industrial Market Transformation	257,795	257,795	0	0.00%	0	0	0	0.00%
PEF	Production Efficiency	179,646,588	174,255,336	-5,391,252	-3.00%	0	0	0	0.00%
	Industrial	179,904,383	174,513,131	-5,391,252	-3.00%	0	0	0	0.00%
<b>Residential</b>									
EHP	Products	15,649,218	15,650,504	1,286	0.01%	108,834	108,859	25	0.02%
EMH	New Manufactured Homes	35,841	35,841	0	0.00%	0	0	0	0.00%
ENH	New Homes	1,016,264	1,014,586	-1,678	-0.17%	92,076	91,990	-86	-0.09%
HES	Existing Single Family	3,533,985	3,546,403	12,418	0.35%	572,828	573,442	614	0.11%
MHS	Existing Multifamily	14,149,228	14,149,224	-4	0.00%	66,572	66,572	0	0.00%
NR	NEEA Residential Market Transformation	67,213,910	67,213,910	0	0.00%	0	0	0	0.00%
SHO	SHOW	185,313	185,310	-3	0.00%	0	0	0	0.00%
SLWR	Solar Water Heating - Residential	146,618	146,615	-3	0.00%	14,810	14,810	0	0.00%
	Residential	101,930,377	101,942,393	12,016	0.01%	855,120	855,672	553	0.06%
	Efficiency	350,744,417	348,598,604	-2,145,813	-0.61%	1,305,525	1,294,141	-11,383	-0.87%
<b>Renewables</b>									
BIO	Biopower	3,556,300	3,556,300	0	0.00%	0	0	0	0.00%
OP	Open Solicitation	12,746	12,746	0	0.00%	0	0	0	0.00%
SLE	Solar Electric (Photovoltaic)	484,247	484,246	-1	0.00%	0	0	0	0.00%
SMW	Wind	0	0	0	0.00%	0	0	0	0.00%
	Renewables	4,053,293	4,053,292	-1	0.00%	0	0	0	0.00%
	Renewables	4,053,293	4,053,292	-1	0.00%	0	0	0	0.00%
	2,005 kWh	354,797,710	352,651,896	-2,145,814	-0.60%	1,305,525	1,294,141	-11,383	-0.87%
	aMW	40.50	40.26	-0.24	-0.60%				

		2006							
		<u>Unadjusted</u>	<u>Adjusted</u>	<u>Change</u>	<u>Change</u>	<u>Unadjusted</u>	<u>Adjusted</u>	<u>Change</u>	<u>Change</u>
		<u>Savings/Generation</u>	<u>Savings/</u>	<u>(annual kWh)</u>	<u>(%)</u>	<u>Savings/</u>	<u>Savings/</u>	<u>(annual</u>	<u>(%)</u>
		<u>(annual kWh)</u>	<u>Generation</u>			<u>Generation</u>	<u>Generation</u>	<u>therm)</u>	
			<u>(annual kWh)</u>			<u>(annual therm)</u>	<u>(annual therm)</u>		
<b>Efficiency</b>									
<b>Commercial</b>									
BE	Existing Buildings	28,640,762	30,094,264	1,453,502	5.07%	615,526	685,062	69,536	11.30%
BTO	Operations and Maintenance	1,642,624	1,642,624	0	0.00%	40,179	40,179	0	0.00%
NBE	New Buildings	17,474,640	19,624,341	2,149,701	12.30%	604,742	604,742	0	0.00%
NCI	NEEA Commercial Market Transformation	9,753,471	9,753,468	-3	0.00%	0	0	0	0.00%
SELP	Small Scale Energy Loan Pilot Program	-1	0	1	-100.00%		0		
SLB	Existing Buildings Solar WH	0	0	0	0.00%	4,190	4,190	0	0.00%
SLWC	Solar Water Heating - Commercial	-1	0	1	-100.00%		0		
	Commercial	57,511,495	61,114,697	3,603,202	6.27%	1,264,636	1,334,172	69,536	5.50%
<b>Industrial</b>									
IR	Irrigation	53,710	53,710	0	0.00%	0	0	0	0.00%
NIP	NEEA Industrial Market Transformation	9,466,283	9,466,283	0	0.00%	0	0	0	0.00%
PEF	Production Efficiency	68,673,423	72,793,848	4,120,425	6.00%	0	0	0	0.00%
	Industrial	78,193,416	82,313,841	4,120,425	5.27%	0	0	0	0.00%
<b>Residential</b>									
EHP	Products	23,778,873	23,781,599	2,726	0.01%	152,427	152,499	72	0.05%
EMH	New Manufactured Homes	1,165,381	1,166,176	795	0.07%	3,277	3,277	0	0.00%
ENH	New Homes	3,201,767	3,200,116	-1,651	-0.05%	233,417	233,222	-195	-0.08%
HES	Existing Single Family	5,571,580	5,960,461	388,881	6.98%	560,676	585,090	24,413	4.35%
HPF	Existing Single Family Home Performance with ES	7,494	7,494	0	0.00%	2,596	2,596	0	0.00%
MHS	Existing Multifamily	8,850,488	8,551,943	-298,545	-3.37%	50,797	47,807	-2,990	-5.89%
NR	NEEA Residential Market Transformation	44,543,636	44,543,636	0	0.00%	0	0	0	0.00%
SHO	SHOW	243,406	243,405	-1	0.00%	0	0	0	0.00%
SLF	New Homes Solar WH	0	0	0	0.00%	322	322	0	0.00%
SLH	Existing Homes Solar WH	229,790	229,785	-5	0.00%	26,448	26,448	0	0.00%
SLWR	Solar Water Heating - Residential	34	34	0	0.00%	0	0	0	0.00%
	Residential	87,592,449	87,684,649	92,200	0.11%	1,029,959	1,051,260	21,301	2.07%
	Efficiency	223,297,360	231,113,187	7,815,827	3.50%	2,294,595	2,385,432	90,837	3.96%
<b>Renewables</b>									
BIO	Biopower	16,714,080	16,714,080	0	0.00%	0	0	0	0.00%
OP	Open Solicitation	49,641	49,641	0	0.00%	0	0	0	0.00%
SLE	Solar Electric (Photovoltaic)	700,220	700,219	-1	0.00%	0	0	0	0.00%
SMW	Wind	0	0	0	0.00%	0	0	0	0.00%
	Renewables	17,463,941	17,463,940	-1	0.00%	0	0	0	0.00%
	Renewables	17,463,941	17,463,940	-1	0.00%	0	0	0	0.00%
	2,006 kWh	240,761,301	248,577,127	7,815,826	3.25%	2,294,595	2,385,432	90,837	3.96%
	aMW	27.48	28.38	0.89	3.25%				

		2007							
		<u>Unadjusted</u> <u>Savings/Generation</u> <u>(annual kWh)</u>	<u>Adjusted</u> <u>Savings/</u> <u>Generation</u> <u>(annual kWh)</u>	<u>Change</u> <u>(annual kWh)</u>	<u>Change</u> <u>(%)</u>	<u>Unadjusted</u> <u>Savings/</u> <u>Generation</u> <u>(annual therm)</u>	<u>Adjusted</u> <u>Savings/</u> <u>Generation</u> <u>(annual therm)</u>	<u>Change</u> <u>(annual therm)</u>	<u>Change</u> <u>(%)</u>
<b>Efficiency</b>									
<b>Commercial</b>									
BE	Existing Buildings	24,165,381	25,477,161	1,311,780	5.43%	349,868	386,421	36,553	10.45%
BTO	Operations and Maintenance	2,995,144	2,995,144	0	0.00%	207,604	207,604	0	0.00%
NBE	New Buildings	19,966,792	22,655,792	2,689,000	13.47%	537,601	537,601	0	0.00%
NCI	NEEA Commercial Market Transformation	2,642,763	2,642,763	0	0.00%	0	0	0	0.00%
REST	Restaurant Pilot Program	0	0	0	0.00%	0	0	0	0.00%
SELP	Small Scale Energy Loan Pilot Program	0	0	0	0.00%	0	0	0	0.00%
SLB	Existing Buildings Solar WH	58,073	58,073	0	0.00%	4,806	4,806	0	0.00%
SLN	New Buildings Solar WH	0	0	0	0.00%	519	519	0	0.00%
SLWC	Solar Water Heating - Commercial	0	0	0	0.00%	0	0	0	0.00%
UTE	Utility Transition - Commercial Existing	0	0	0	0.00%	0	0	0	0.00%
UTN	Utility Transition - Commercial New	0	0	0	0.00%	0	0	0	0.00%
	Commercial	49,828,153	53,828,933	4,000,780	8.03%	1,100,398	1,136,951	36,553	3.32%
<b>Industrial</b>									
IR	Irrigation	214,060	214,060	0	0.00%	0	0	0	0.00%
NIP	NEEA Industrial Market Transformation	11,431,747	11,431,747	0	0.00%	0	0	0	0.00%
PEF	Production Efficiency	122,778,289	130,963,498	8,185,209	6.67%	2,809	3,102	293	10.45%
UTI	Utility Transition - Industrial Process	0	0	0	0.00%	0	0	0	0.00%
	Industrial	134,424,096	142,609,305	8,185,209	6.09%	2,809	3,102	293	10.45%
<b>Residential</b>									
DYS	Double Your Savings	0	0	0	0.00%	0	0	0	0.00%
EHP	Products	37,737,914	38,044,407	306,493	0.81%	53,850	53,799	-50	-0.09%
EMH	New Manufactured Homes	682,894	682,894	0	0.00%	4,901	4,901	0	0.00%
ENH	New Homes	1,344,302	1,345,042	740	0.06%	277,622	277,731	109	0.04%
HES	Existing Single Family	9,946,651	10,214,829	268,178	2.70%	672,403	696,487	24,084	3.58%
HPF	Existing Single Family Home Performance with ES	26,133	26,134	1	0.00%	15,367	15,239	-129	-0.84%
LIR	Low Income Refrigerator Pilot	250,774	250,774	0	0.00%	0	0	0	0.00%
MHS	Existing Multifamily	7,554,017	7,601,088	47,071	0.62%	29,681	29,165	-517	-1.74%
MOB	Mobile Home Duct Sealing Pilot Program	0	0	0	0.00%	0	0	0	0.00%
NEX	Home Energy Analyzer (NEXUS)	0	0	0	0.00%	0	0	0	0.00%
NR	NEEA Residential Market Transformation	52,785,439	52,785,439	0	0.00%	0	0	0	0.00%
SHO	SHOW	355,595	355,595	0	0.00%	0	0	0	0.00%
SLF	New Homes Solar WH	98,837	98,837	0	0.00%	156	156	0	0.00%
SLH	Existing Homes Solar WH	283,786	283,786	0	0.00%	30,031	30,031	0	0.00%
SLWR	Solar Water Heating - Residential	0	0	0	0.00%	0	0	0	0.00%
UTR	Utility Transition - Residential	0	0	0	0.00%	0	0	0	0.00%
XMH	Existing Manufactured Homes	574,334	514,147	-60,187	-10.48%	874	665	-208	-23.84%
	Residential	111,640,676	112,202,972	562,296	0.50%	1,084,886	1,108,175	23,289	2.15%
	Efficiency	295,892,925	308,641,210	12,748,285	4.31%	2,188,092	2,248,228	60,136	2.75%
<b>Renewables</b>									
BIO	Biopower	0	0	0	0.00%	0	0	0	0.00%
OP	Open Solicitation	49,500	49,500	0	0.00%	0	0	0	0.00%
REN	Utility Scale	409,741,992	409,741,992	0	0.00%	0	0	0	0.00%
SLE	Solar Electric (Photovoltaic)	1,289,234	1,289,233	-1	0.00%	0	0	0	0.00%
SMW	Wind	0	0	0	0.00%	0	0	0	0.00%
	Renewables	411,080,726	411,080,725	-1	0.00%	0	0	0	0.00%
	Renewables	411,080,726	411,080,725	-1	0.00%	0	0	0	0.00%
	2,007 kWh	706,973,651	719,721,935	12,748,284	1.80%	2,188,092	2,248,228	60,136	2.75%
	aMW	80.70	82.16	1.46	1.80%				