True Up 2012: Tracking Estimate Corrections and True Up of 2002 – 2011 Savings and Generation

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Introduction

True Up is the annual refinement of reported savings for Energy Trust funded energy savings and renewable generation[1]. The 2012 True Up utilizes evaluation results as of June 30, 2012. In the True Up process, adjustments are made to past savings and generation based upon corrections to transaction errors, new data on measure performance, anticipated evaluation results (for years and programs where there is yet to be an evaluation completed), and evaluation results. Upon completion, True Up enables the best reporting of energy savings and generation for Energy Trust funded programs. The 2012 True Up updates reported savings and generation by Energy Trust for the program years from 2002 – 2011.

The purpose of the "True Up 2012" report is to summarize these adjustments to Energy Trust savings and generation. The three parts of this report discuss (1) definitions for evaluation results by which savings and generation are adjusted, (2) updates made to Energy Trust data by program, and (3) the difference between pre- True Up and post- True Up savings and generation estimates.

Summary

There are some significant adjustments in the 2012 True Up. Total electric savings for 2002 – 2011 have fallen approximately 2.1% from 301.2aMW to 294.8 aMW and gas savings have decreased by 3.9% from 23.2 million therms to 22.3 million therms for the same time period. For 2011, electric savings were up 1.0% from 46.9 aMW to 47.4 aMW and total gas savings declined by 10.6% from 5.4 million therms to 4.8 million therms compared with the values reported in Energy Trust's 2011 Annual Report.

The largest factors underlying the changes in electric savings are: (1) lower free ridership in the Existing Buildings program for 2010 and 2011, (2) an improved realization rate for the New Buildings Program in its 2009 Impact Evaluation, (3) corrections to free ridership estimates for Production Efficiency in 2008 and 2009, (4) decreased savings estimates from CFLs in the residential sector and Existing Multifamily program from 2003 to 2011, and (5) improved savings for NEEA for 2010 and 2011.

The largest factors underlying the changes in gas savings are (1) changes in gas weatherization savings from the 2009 impact analysis for existing homes, (2) changes to free ridership and installation rates of Energy Saver Kits and Living Wise Kits for the Existing Homes Program, (3) lower savings estimates from the 2011 Personal Energy Reports pilot, and (4) lower New Homes Gas Market Transformation savings. Changes to gas savings for the commercial and industrial program were minor and resulted mainly from small adjustments to program Net-to-Gross ratios.

The 2012 True Up incorporated significant adjustments in savings to the following programs:

[1] There are no changes to renewable generation in the 2012 True Up

1) Existing Buildings: 2008 – 2011
2) New Buildings: 2009 – 2011
3) Production Efficiency: 2009 – 2011
4) Existing Homes: 2003 – 2011
5) New Homes and Products: 2004 – 2011
6) Gas Market Transformation: 2009 – 2011
7) NEEA: 2010 – 2011

The annual changes to electric and gas savings are summarized by program in the Results section below. Additionally, there is a series of tables that represents overall changes by sector for each year. Lastly, results from True Up 2012 are shown for each funding utility within Energy Trust of Oregon's service territory[2].

Definitions

Working Savings/Generation: The estimate of anticipated results which are practical for data entry by program personnel while approving individual projects. These savings are based upon estimates of typical savings or generation for prescriptive measures, and site-specific engineering calculations for custom energy efficiency 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 made for free riders (FR) who are customers that would have installed the measures absent program influence or, spillover, which represents customers who are influenced by the program but did not take the incentive for an efficiency measure. These are issues that are addressed when developing reportable savings/generation.

Reportable Savings/Generation: The estimate of results that are used to report Energy Trust achievements. Several factors are applied to working numbers in order to arrive at reportable figures. Realization Rates (RR) are used to adjust the initial engineering estimate; a realization rate of 100% indicates that site savings were as expected, on average. Another adjustment is for market effects, also known as a Net-to-Gross (NTG) ratio. The NTG ratio adjusts for free riders and spillover. The final adjustment is for avoided line and transformer losses.

Reportable savings estimates also have 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. Additionally, adjustments may be based on results of Faster Feedback (FF). This is a short phone survey with a sample of recent program participants to assess satisfaction, understand customer decision making, and gather suggestions for program and process improvements. The survey is generally ten or fewer questions and is customized for each program or measure of interest. The goal of Fast Feedback is to get accurate answers to important questions within two months of program participation and to minimize the burden on survey respondents.

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

[2] NW Natural's Washington service territory is unaffected by True Up

1) *Corrections:* Occasionally, through Energy Trust's routine quality assurance processes, transaction errors are discovered in the database, which require corrections. Individual transaction errors (i.e. typos that affect savings) are usually adjusted immediately and generic transaction errors (i.e. wrong deemed savings value for a measure) are easily fixed once per year during 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 can be either lower or higher 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 reportable estimates. However, impact evaluations cannot be completed until well after programs finish a year's activity. This is due to the need to utilize post-installation energy use data. Based upon Board direction in the July, 2004 Strategic Work Session, staff is attempting to anticipate these effects in reportable savings for programs where there is not yet evaluation information available.
4) *Evaluation Results:* Once finalized, evaluations provide the most reliable representation of realized savings, and can replace the refined projections described above in (2) and (3). Evaluation results may change Energy Trust savings estimates for a single year or all prior years. This is dependent upon what other evaluations have already been performed for prior years and whether results seem applicable to prior years (e.g. similar measures, participants, and circumstances.)

Results

Existing Buildings

Evaluations of the Existing Buildings program for the 2009 program year were completed 2011[3]. The 2012 True Up incorporates the results of this assessment as evaluation factors for 2009. These results were also incorporated in a new anticipated evaluation factor for 2010 and 2011. Table 1 summarizes which evaluations have been applied to each program year. Tables 2A and 2B show in detail the various components of the 2008 – 2011 evaluation factors for gas and electric. Lastly, the old and new evaluation factors are shown in Table 3 along with the impact on each year.

In 2010, the Existing Multifamily program was moved to the commercial sector. While this program has had its own market effects analysis, new program impact evaluation has not been completed. Changes to this program's savings are based on free ridership estimates from Fast Feedback in 2010 and 2011. Total changes for multifamily are shown in Table 4.

[3] This evaluation was based on site visits and site metering.

Table 1: Existing Buildings Evaluations

Program	Year	Source	Type of Adjustment	Notes
BE	2003 - 2008	2003 - 2008 Evaluations	Evaluation Factor	Closed in Previous True Ups
BE	2009	2009 Evaluation	Evaluation Factor	Closed in this True Up
BE	2010 - 2011	2007 - 2009 Impact Evaluations 2009 - 2011 FR, FF Evaluations	Anticipated Evaluation Factor	RR Savings Weighted Average: 2007 - 2009 FR Savings Weighted Average: 2009 - 2011

Table 2A: 2008 - 2011 Existing Buildings Evaluation Factors - Electric

	Realization Rate	Net-to-Gross Ratio (Market Effects)			Combined Adjustment
Year	Engineering Adjustment	Free Riders	Participant Spillover	Non-Participant Spillover	Evaluation Factor
2008	99%	27%	1%	7%	80%
2009	85%	19%	1%	7%	76%
2010	92%	19%	1%	7%	82%
2011	92%	30%	1%	7%	72%

Table 2B: 2008 - 2011 Existing Buildings Evaluation Factors - Gas

	Realization Rate	Net-to-Gross Ratio (Market Effects)			Combined Adjustment
Year	Engineering Adjustment	Free Riders	Participant Spillover	Non-Participant Spillover	Evaluation Factor
2008	87%	26%	1%	7%	71%
2009	75%	19%	1%	7%	67%
2010	84%	11%	1%	7%	81%
2011	84%	27%	1%	7%	68%

Table 3: 2008 - 2011 Existing Buildings Evaluation Combined Adjustment

Year	Old Electric Factor	New Electric Factor	Change in Savings (aMW)	Old Factor Gas	New Factor Gas	Change in Savings (mTherms)
2008	69%	80%	0.62	60%	71%	0.12
2009	67%	76%	0.81	61%	67%	0.06
2010	88%	82%	(0.67)	84%	81%	(0.11)
2011		72%	0.28		68%	(0.05)
		Total	**1.04**		**Total**	**0.02**

Table 4a: 2010 - 2011 Existing Multifamily Electric Savings Adjustments

Year	Previous (aMW)	New (aMW)	Change (aMW)	% Change
2010	1.09	1.05	(0.04)	-4%
2011	1.50	1.57	0.07	5%

Table 4b: 2010 - 2011 Existing Multifamily Gas Savings Adjustments

Year	Previous (therms)	New (therms)	Change (therms)	% Change
2010	59,491	66,034	6,543	11%
2011	67,861	51,574	(16,287)	-24%

New Buildings

Evaluations of the New Buildings program for the 2009 program year were completed in 2011. The 2012 True Up incorporates the results of this assessment as evaluation factors for 2009 and as anticipated evaluation factors for 2010 and 2011 by averaging results from 2007, 2008, and 2009. Table 5 summarizes which evaluations have been applied to each program year. Tables 6a and 6b show in detail the various components of the 2009 – 2011 evaluations and anticipated evaluation factors for gas and electric. Lastly, the old and new evaluation factors are shown in Table 7 along with the impact on each year.

Table 5: New Buildings Evaluations

Program	Year	Source	Type of Adjustment	Notes
NBE	2003 - 2008	2003 - 2008 Evaluations	Evaluation Factor	Closed in Previous True Ups
NBE	2009	2009 Evaluation	Evaluation Factor	Closed in this True Up
NBE	2010 - 2011	2007 - 2009 Impact Evaluations 2009 - 2011 FR, FF Evaluations	Anticipated Evaluation Factor	RR Savings Weighted Average: 2007 - 2009 FR Savings Weighted Average: 2009 - 2011

Table 6A: 2008 - 2011 NBE Evaluation Factors - Electric

	Realization Rate	Net-to-Gross Ratio (Market Effects)			Combined Adjustment
Year	Engineering Adjustment	Free Riders	Participant Spillover	Non-Participant Spillover	Evaluation Factor
2009	97%	34%	1%	0%	65%
2010	92%	34%	1%	0%	62%
2011	92%	34%	1%	0%	62%

Table 6B: 2009 - 2011 NBE Evaluation Factors - Gas

	Realization Rate	Net-to-Gross Ratio (Market Effects)			Combined Adjustment
Year	Engineering Adjustment	Free Riders	Participant Spillover	Non-Participant Spillover	Evaluation Factor
2009	95%	32%	1%	0%	66%
2010	99%	32%	1%	0%	68%
2011	99%	32%	1%	0%	68%

Table 7: 2008 - 2011 New Buildings Evaluation Combined Adjustment

Year	Old Electric Factor	New Electric Factor	Change in Savings (aMW)	Old Factor Gas	New Factor Gas	Change in Savings (mTherms)
2008	58%	57%	(0.05)	60%	60%	0.00
2009	62%	65%	0.06	62%	67%	(0.04)
2010	52%	62%	0.26	53%	81%	0.15
2011	52%	62%	0.28	76%	68%	(0.04)
		Total	**0.55**		**Total**	**0.07**

Production Efficiency

Although there were no new impact evaluations completed for the Production Efficiency program in 2011, there were corrections to free ridership for 2008 and 2009 and updates to free ridership estimates for the 2010 and 2011 program years. Additionally, there were some smaller adjustments made to a suite of irrigation measures from 2008 through 2011 that had captured incorrect savings estimates within Fast Track. Table 8 summarizes the information used in the 2012 True Up to make adjustments to both evaluation and anticipated evaluation factors. Table 9a shows the realization rate, net-to-gross ratio, and combined evaluation factor adjustment for the electric savings measures and Table 9b shows the same information for the gas measures. Lastly, Table 10 provides a summary of the savings impacts for the Production Efficiency program resulting from the 2012 True Up.

Table 8: Production Efficiency Evaluations

Program	Year	Source	Type of Adjustment	Notes
PE	2003 - 2008	2003 - 2008 Evaluations	Evaluation Factor	Closed in Previous True Ups
PE	2009 - 2011	2006 - 2008 Impact Evaluations 2009 - 2011 FR, Fast Feedback Evaluations	Anticipated Evaluation Factor	RR Savings Weighted Average: 2006 - 2008 FR Savings Weighted Average: 2009 - 2011

Table 9A: 2008 - 2011 PE Evaluation Factors - Electric

	Realization Rate	Net-to-Gross Ratio (Market Effects)			Combined Adjustment
Year	Engineering Adjustment	Free Riders	Participant Spillover	Non-Participant Spillover	Evaluation Factor
2008	86%	25%	1%	0%	66%
2009	93%	21%	1%	0%	65%
2010	93%	15%	1%	0%	62%
2011	93%	14%	1%	0%	62%

Table 9B: 2009 - 2011 PE Evaluation Factors - Gas

	Realization Rate	Net-to-Gross Ratio (Market Effects)			Combined Adjustment
Year	Engineering Adjustment	Free Riders	Participant Spillover	Non-Participant Spillover	Evaluation Factor
2009	93%	21%	1%	0%	75%
2010	93%	4%	1%	0%	91%
2011	93%	20%	1%	0%	75%

Table 10: 2008 - 2011 Production Efficiency Evaluation Combined Adjustment

Year	Old Electric Factor	New Electric Factor	Change in Savings (aMW)	Old Factor Gas	New Factor Gas	Change in Savings (mTherms)
2008	74%	66%	(0.79)	74%	74%	0.00
2009	79%	75%	(0.47)	79%	75%	(0.01)
2010	89%	81%	(1.12)	96%	91%	(0.03)
2011	75%	81%	0.57	75%	75%	0.00
		Total	**(1.80)**		**Total**	**(0.04)**

Existing Homes

The 2012 True Up revised savings for the Existing Homes program for the years from 2003 through 2011. These revisions included a 20% adjustment to the program's electric savings. The main reason for this large decline in savings is due to an update of assumptions used for calculating the savings for compact fluorescent lamps (CFLs) that have been installed by the program going back to 2003.

According to the RTF timeline[4], savings for CFLs installed prior to 2010 should be calculated based on 2.3 average hours-of-use/day for interior and exterior residential single-family applications, and 2.49 average hours-of-use /day multi-family applications and savings for CFLs installed after 2010 should receive savings based on 1.9 hours-of-use[5]. A review of the existing savings data shows that kWh savings for Home Energy Review CFL installations were originally calculated based on the following hours-of-use assumptions:

[4] RTF website for more information; http://www.nwcouncil.org/energy/rtf/
[5] This includes both single family and multi-family residences

2003-2006: 4.1 hours-of-use
2007-2011: 2.7 hours-of-use

Additionally, the change in connected watts assumption associated with the originally assigned FastTrack measure savings for HER CFLs has been shown to be inconsistent in past reporting. To remedy this reporting inconsistency, two reliable and representative samples of HER CFL measures were identified. The first, from 2006, which was used to determine the average wattage change (weighted by savings) that actually occurred for HER CFLs installed from 2007-2009 (49.86W), and adjust those savings to correct for the original change in connected watts assumption of 74 watts. The second representative sample was from 2010-2011, and showed a weighted average wattage change of 48.49 Watts for CFLs installed during 2010, and 46.7 Watts for 2011 (74W previously also). These calculated wattage changes were implemented for the trued-up savings to reflect the reality that the majority of contractor installed CFLs were 60W->14W conversions, rather than the 100W-> 26W conversion that were assumed for the initially assigned FastTrack measure savings. During 2010 and 2011, 8.96 percent and 2.56 percent of HER installed CFLs were 100W--> 26W conversions, respectively[6].

In addition to updated information for CFLs, the following list represents the remainder of changes to electric savings in the 2012 True Up for the Existing Homes program:

- 2011 free ridership estimates from Fast Feedback
- Updated savings from the 2011 Personal Energy Reports sent to PGE customers
- Other, smaller reporting errors in the Fast Track database

Table 11a shows the summary of changes to electric savings measures within the Existing Homes program made during the 2012 True Up.

Table 11a: 2003 - 2011 Existing Homes Electric Savings Adjustments

Year	Previous aMW	New aMW	aMW Change	% Change
2003	1.06	0.89	(0.17)	-16%
2004	1.15	0.88	(0.27)	-24%
2005	1.36	1.06	(0.30)	-22%
2006	1.12	0.91	(0.22)	-19%
2007	1.57	1.34	(0.23)	-15%
2008	2.63	2.19	(0.44)	-17%
2009	2.94	2.60	(0.35)	-12%
2010	4.29	3.40	(0.89)	-21%
2011	6.70	4.96	(1.74)	-26%
Total	**22.82**	**18.22**	**(4.60)**	**-20%**

Similar to electric savings, the 2012 True Up also incorporated a large downward revision to gas savings of 16% from the time period covering 2008 to 2011. With the completion of the 2009 Existing Homes impact analysis, Planning was able to adjust reportable gas savings for that program year and to adjust the anticipated evaluation factors for 2010 and 2011. The update evaluation and anticipated evaluation factors for 2009 and 2010-11, respectively, were fell most largely upon the following gas weatherization

[6] 5,184-26W CFLs installed in 2010 and 2600-26W CFLs installed in 2011

measures: ceiling, floor, and wall insulation and air and duct sealing. These changes were reflected not only in the standard track program but also in the home performance program which had previously claimed modeled rather than prescriptive, deemed savings.

In addition to the adjustments made to gas weatherization measures from the 2009 impact analysis, the following list shows the additional adjustments made to gas savings measures within the Existing Homes program:

- 2011 free ridership estimates from Fast Feedback
- Updated free ridership and installation rate assumptions for low flow showerheads and faucet aerators in both Energy Saver and Living Wise kits
- The removal of gas savings from the Prescriptive Duct Sealing and Repair pilot[7]
- Updated savings from the 2011 Personal Energy Reports sent to PGE customers

Table 11b shows the summary of changes to gas savings measures within the Existing Homes program made during the 2012 True Up.

Table 11b: 2003 - 2011 Existing Homes Gas Savings Adjustments

Year	Previous Therms	New Therms	Therms Change	% Change
2008	851,085	860,121	9,037	1%
2009	1,089,390	988,224	(101,166)	-9%
2010	1,148,372	924,568	(223,804)	-19%
2011	1,671,033	1,208,077	(462,956)	-28%
Total	**4,759,879**	**3,980,990**	**(778,889)**	**-16%**

New Homes and Products

The 2012 True Up revised savings for the New Homes and Products program for the time period from 2004 through 2011. The 20% downward adjustment to electric savings during this time period was based upon the same CFL hours of use and change in connected wattage assumption updates that were discussed in the Existing Homes program, above. The main difference between the CFLs offered by these two programs is that the New Homes and Products program mainly offers buy-downs on CFLs at retail. More recently, this program has had substantial success within the specialty CFL market and has not offered retail vendors incentives for buy-downs of general twist CFLs in quite some time. However, the savings formulas used for these bulbs is quite similar to those that are direct installed and delivered via kits through the Existing Homes program. Thus, there is a similar downward revision in savings. Table 12 shows the annual adjustments to electric savings for the New Homes and Products program.

There were no additional adjustments to other electric or gas measures within the New Homes and Products program during the 2012 True Up.

[7] "Pilot experienced quality control problems, and was therefore not evaluated. Absent a reasonable estimate of savings, savings were removed from Energy Trust accounting through the True Up."

Table 12: 2003 - 2011 New Homes and Products Electric Savings Adjustments

Year	Previous aMW	New aMW	aMW Change	% Change
2004	0.34	0.28	(0.06)	-17%
2005	1.91	1.57	(0.33)	-17%
2006	3.21	2.69	(0.52)	-16%
2007	4.59	3.40	(1.18)	-26%
2008	5.66	4.21	(1.45)	-26%
2009	4.26	3.50	(0.76)	-18%
2010	5.38	4.37	(1.01)	-19%
2011	6.41	5.38	(1.04)	-16%
Total	**31.76**	**25.41**	**(6.35)**	**-20%**

Market Transformation Savings

In June of 2008, a code change in residential housing was introduced that required a significant increase in the energy efficiency of new homes built in Oregon. The new code mandated that any home built after June 2008 must have some combination of a more efficient heating system, duct work, lighting, windows, envelope, and water heating.

Previously, Energy Trust claimed these savings based upon a forecast of homes to be built in its service territory. In 2011, more information on the number of homes built in 2009 and 2010 and expected to be built in 2011 allowed for updating the gas market transformation savings. Table 13 provides a summary of the change in savings between the original forecast of homes to be built and the number of homes actually built within Energy Trust service territory. Savings to 2011 were left unchanged by True Up since the original estimates were updated mid-year.

Looking ahead, savings from the 2008 Oregon Residential Specialty Code (ORSC) and the 2011 ORSC will continue to be tracked and booked on an ongoing basis, in a manner similar to how the Northwest Energy Efficiency Alliance (NEEA) tracks the electric savings from new homes code changes.

Table 13: 2009 - 2011 Energy Trust Gas Market Transformation: New Homes Adjustments

Year	Previous Therms	New Therms	Therms Change	% Change
2009	229,349	177,976	(51,374)	-22%
2010	303,240	186,189	(117,051)	-39%
2011	178,274	178,274	0	0%
Total	**710,863**	**542,439**	**(168,424)**	**-24%**

Northwest Energy Efficiency Alliance (NEEA)

Energy Trust staff made updated the NEEA savings for 2010 and 2011 as part of the 2012 True Up. Energy Trust's share of savings from NEEA initiatives in 2010 increased by 2.67 aMW compared with the savings that were claimed in that year; these savings were not adjusted in last year's True Up. Updated savings estimates for 2010 included increases for the 80 Plus, Ductless Heat Pump, and Drive Power initiatives and declines for the Residential Lighting, Commercial Real Estate, and Building Operations initiatives. The increase in commercial and industrial sector savings in 2011 was due primarily to higher savings estimates for the Commercial Real Estate, 80 Plus/Energy Star 5.0 Commercial Desktops, and Drive Power initiatives for last year.

Table 14: 2010 - 2011 Northwest Energy Efficiency Alliance Updates

Year	Residential (aMW Change)	Commercial (aMW Change)	Industrial (aMW Change)	Total NEEA (aMW Change)
2010	2.23	(0.02)	0.45	2.67
2011	0.00	1.50	0.46	1.96
Total	**2.23**	**1.49**	**0.92**	**4.63**

Results Summary – 2012 True Up Impacts by Sector by Year

The following summary tables present the difference between the old reportable and new reportable savings and generation values resulting from the 2012 True Up of program activity. In the following table, an average megawatt means that loads are reduced by an average of one megawatt or 8760 MWh during each year of the measures' lives. Million annual therms reflects the annual therm savings of measures' lives in millions. In the summary, a change of 0% may not necessarily imply that there were no corrections, only that the corrections may not be significant enough to appear due to rounding.

Table 15: Summary for 2002 - 2011

Electric - Average Megawatts			
2002 - 2011	**Old Reportable**	**New Reportable**	**% Change**
Electric Efficiency	**301.2**	**294.8**	**-2.1%**
Residential	114.1	105.3	-7.7%
Commercial	89.1	92.3	3.6%
Industrial	98.0	97.1	-0.9%
Renewables	**104.5**	**104.5**	**0.0%**
Gas - Million Annual Therms			
2002 - 2011	**Old Reportable**	**New Reportable**	**% Change**
Gas Efficiency	**23.2**	**22.3**	**-3.9%**
Residential	11.8	10.9	-8.0%
Commercial	9.5	9.5	0.9%
Industrial	1.9	1.8	-2.1%

Table 15a: Summary for 2011

Electric - Average Megawatts					
2011	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Electric Efficiency	**46.9**	**47.4**	**1.0%**	**37.7**	126%
Residential	16.9	14.1	-16.4%	11.9	119%
Commercial	16.2	18.4	13.7%	13.9	132%
Industrial	13.8	14.8	7.5%	11.9	125%
Renewables	**1.5**	**1.5**	**0.0%**	**3.7**	40%
Gas - Million Annual Therms					
2011	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Gas Efficiency	**5.4**	**4.8**	**-10.6%**	**4.4**	110%
Residential	2.3	1.8	-20.1%	2.1	88%
Commercial	2.1	2.0	-5.2%	1.6	125%
Industrial	1.0	1.0	0.0%	0.7	140%

Table 15b: Summary for 2010

Electric - Average Megawatts					
2010	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Electric Efficiency	**45.6**	**44.8**	**-1.8%**	**33.7**	133%
Residential	12.2	12.5	2.7%	10.6	118%
Commercial	17.6	17.2	-2.6%	13.2	130%
Industrial	15.9	15.2	-4.2%	10.0	152%
Renewables	**3.3**	**3.3**	**0.0%**	**4.5**	73%
Gas - Million Annual Therms					
2010	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Gas Efficiency	**4.6**	**4.3**	**-6.9%**	**3.8**	112%
Residential	1.9	1.5	-18.4%	2.0	76%
Commercial	2.2	2.2	2.4%	1.2	185%
Industrial	0.6	0.6	-5.0%	0.7	86%

Table 15c: Summary for 2009

Electric - Average Megawatts					
2009	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Electric Efficiency	**28.0**	**27.3**	**-2.5%**	**31.2**	87%
Residential	10.4	9.3	-10.7%	9.5	98%
Commercial	9.3	10.2	9.3%	12.8	80%
Industrial	8.3	7.8	-5.6%	8.9	88%
Renewables	**2.6**	**2.6**	**0.0%**	**6.8**	39%
Gas - Million Annual Therms					
2009	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Gas Efficiency	**2.9**	**2.7**	**-5.0%**	**1.9**	144%
Residential	1.5	1.3	-10.2%	0.8	158%
Commercial	1.2	1.2	1.6%	1.0	121%
Industrial	0.2	0.2	-4.0%	0.1	271%

Table 15d: Summary for 2008

Electric - Average Megawatts					
2008	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Electric Efficiency	**30.8**	**28.7**	**-6.8%**	**21.7**	132%
Residential	15.6	13.7	-12.1%	9.0	153%
Commercial	7.7	8.3	7.4%	5.9	141%
Industrial	7.5	6.7	-10.5%	6.7	100%
Renewables	**33.3**	**33.3**	**0.0%**	9.5	351%
Gas - Million Annual Therms					
2008	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Gas Efficiency	**2.5**	**2.6**	**5.2%**	**2.0**	133%
Residential	1.5	1.5	0.6%	1.1	134%
Commercial	1.0	1.2	11.8%	0.9	132%
Industrial	0.0	0.0	0.0%	None	

Table 15e: Summary for 2007

Electric - Average Megawatts					
2007	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Electric Efficiency	**29.7**	**28.3**	**-4.8%**	**21.5**	131%
Residential	16.1	14.7	-8.8%	7.3	201%
Commercial	5.8	5.8	0.0%	4.6	127%
Industrial	7.8	7.8	0.0%	9.6	81%
Renewables	**46.9**	**46.9**	**0.0%**	**114.9**	41%
Gas - Million Annual Therms					
2007	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Gas Efficiency	**2.4**	**2.4**	**0.0%**	**1.7**	143%
Residential	1.3	1.3	0.0%	1.0	126%
Commercial	1.2	1.2	0.0%	0.7	166%
Industrial	0.0	0.0	0.0%	0.0	

Table 15f: Summary for 2006

Electric - Average Megawatts					
2006	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Electric Efficiency	**25.9**	**25.2**	**-2.8%**	**16.1**	156%
Residential	12.3	11.5	-6.0%	6.4	181%
Commercial	5.8	5.8	0.0%	3.7	157%
Industrial	7.8	7.8	0.0%	6.1	129%
Renewables	**2.0**	**2.0**	**0.0%**	**33.0**	6%
Gas - Million Annual Therms					
2006	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Gas Efficiency	**2.3**	**2.3**	**0.0%**	**2.6**	92%
Residential	1.0	1.0	0.0%	1.1	87%
Commercial	1.4	1.4	0.0%	1.4	95%

Table 15g: Summary for 2005

Electric - Average Megawatts					
2005	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Electric Efficiency	**36.8**	**36.1**	**-1.7%**	**32**	113%
Residential	9.0	8.4	-7.0%	6	140%
Commercial	7.6	7.6	0.0%	6	126%
Industrial	20.2	20.2	0.0%	20	101%
Renewables	**0.5**	**0.5**	**0.0%**	**27**	2%
Gas - Million Annual Therms					
2005	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Gas Efficiency	**1.4**	**1.4**	**0.0%**	**1.3**	107%
Residential	1.0	1.0	0.0%	0.9	106%
Commercial	0.4	0.4	0.0%	0.4	110%

Table 15h: Summary for 2004

Electric - Average Megawatts					
2004	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Electric Efficiency	**26.5**	**26.2**	**-1.2%**	**30**	87%
Residential	9.3	8.9	-3.6%	4	223%
Commercial	7.4	7.4	0.0%	6	123%
Industrial	9.8	9.8	0.0%	19	52%
Renewables	**0.1**	**0.1**	**0.0%**	**22**	0%
Gas - Million Annual Therms					
2004	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Gas Efficiency	**1.0**	**1.0**	**0.0%**	**2.3**	43%
Residential	0.9	0.9	0.0%	0.9	102%
Commercial	0.1	0.1	0.0%	1.4	5%

Table 15i: Summary for 2003

Electric - Average Megawatts					
2003	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Electric Efficiency	**16.0**	**15.8**	**-1.1%**	**33**	48%
Residential	6.7	6.5	-2.6%	8	81%
Commercial	5.8	5.8	0.0%	13	44%
Industrial	3.6	3.6	0.0%	13	27%
Renewables	**14.3**	**14.3**	**0.0%**	**18**	79%
Gas - Million Annual Therms					
2003	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Gas Efficiency	**0.6**	**0.6**	**0.0%**	**None**	
Residential	0.6	0.6	0.0%	None	
Commercial	0.0	0.0	0.0%	None	

Table 15j: Summary for 2002

Electric - Average Megawatts					
2002	**Old Reportable**	**New Reportable**	**% Change**	**Action Plan Conservative Goal**	**% of Goal Achieved**
Electric Efficiency	**15.0**	**15.0**	**0.0%**	**None**	
Residential	5.7	5.7	0.0%	None	
Commercial	5.9	5.9	0.0%	None	
Industrial	3.4	3.4	0.0%	None	
Renewables	**0.0**	**0.0**	**0.0%**	**None**	

Results Summary – 2012 True Up Results by Utility Provider

The following tables show the final, reportable annual savings result from True Up 2012 for each utility provider within Energy Trust service territory.

Portland General Electric

Table 16: Portland General Electric Savings (aMW) 2002 - 2011

PGE	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Residential	3.6	3.8	5.3	5.0	6.9	8.4	8.2	5.7	7.2	8.7
Commercial	4.0	4.0	4.2	5.2	4.1	3.8	5.6	7.1	9.5	10.7
Industrial	1.8	0.9	1.2	14.2	2.8	3.7	2.9	4.4	8.3	8.5
Total	**9.4**	**8.8**	**10.7**	**24.4**	**13.8**	**15.9**	**16.7**	**17.2**	**25.1**	**27.9**

Pacific Power (aMW)

Table 17: Pacific Power Savings (aMW) 2002 - 2011

PAC	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Residential	2.1	2.6	3.6	3.4	4.6	6.3	5.5	3.6	5.2	5.4
Commercial	1.9	1.7	3.1	2.4	1.7	2.1	2.7	3.1	7.6	7.7
Industrial	1.6	2.7	8.7	6.0	5.0	4.0	3.8	3.4	6.8	6.3
Total	**5.7**	**7.0**	**15.4**	**11.7**	**11.3**	**12.4**	**12.1**	**10.1**	**19.7**	**19.5**

NW Natural (Millions of Annual Therms)

Table 18: NW Natural Savings (millions of annual therms) 2003 - 2011

NW Natural	2003	2004	2005	2006	2007	2008	2009	2010	2011
Residential	0.61	0.92	0.95	0.95	1.13	1.34	1.20	1.44	1.73
Commercial	0.00	0.08	0.44	1.31	1.15	1.10	1.10	2.01	1.76
Industrial	0.00	0.00	0.00	0.00	0.00	0.01	0.18	0.53	0.95
Total	**0.61**	**1.00**	**1.39**	**2.26**	**2.28**	**2.45**	**2.48**	**3.98**	**4.43**

* Includes savings for both Firm and Interruptible customer and Residential Market Transformation
* Savings are for Oregon programs only

Cascade Natural Gas (Annual Therms)

Table 19: Cascade Natural Gas (annual therms)

CNG	2006	2007	2008	2009	2010	2011
Residential	23,186	129,477	121,388	134,899	73,420	107,431
Commercial	53,908	19,128	48,565	65,277	197,747	208,932
Industrial	0	0	0	46,462	47,436	87,009
Total	**77,094**	**148,605**	**169,953**	**246,637**	**318,603**	**403,373**