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June 30, 2015

Steven V. King
Executive Director and Secretary
Washington Utilities & Transportation Commission
P.O. Box 47250
Olympia, WA 98504-7250

RE: Conservation Report for CY14

Dear Mr. King:

As an informational filing following the expiration of the Decoupling Mechanism and Annual Reporting requirement associated with **Docket UG-060256 Order 06**, Cascade Natural Gas Corporation hereby submits an Annual Conservation Achievement Report for Calendar Year 2014. This report includes documentation of the Company's CY14 therm savings achievements and program expenditures.

Any questions regarding this document should be directed to Monica Cowlishaw, Manager of Energy Efficiency and Community Outreach, at (360)-788-2357 or monica.cowlishaw@cngc.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Parvinen".

Michael Parvinen
Director, Regulatory Affairs

Attachments

Cascade Natural Gas Corporation

Annual Conservation Achievement Report

Calendar Year 2014

Background

On October 1, 2007 the Washington Utilities and Transportation Commission (WUTC) approved an addendum to Cascade Natural Gas's Conservation Alliance Plan (CAP) and associated Decoupling Pilot, which was developed in compliance with the Commission's Order 06 in Docket UG-060256. As part of this addendum, the Company agreed to submit "an annual report to the Commission on the achievement of the Calendar Year (CY) therm savings target, along with its Commission Basis results of operations report". Since that time, the Company submitted an annual report no later than March 31 of each year, to report prior years' conservation achievements and associated CAP deferrals. As of October 1, 2010, the Pilot Decoupling Mechanism and accompanying Conservation Plan, approved by the WUTC on October 1, 2007, are no longer in effect. Per its commitment in the 2010 Annual Conservation Report, the Company has voluntarily continued this reporting with the WUTC, submitting its conservation achievements by July 1st of the following program year. In the event the reporting format or timing needs to be adjusted, the Company will notify Commission Staff prior to filing.

All other planning associated with the Company's Conservation Programs can be found within the Demand Side Management (DSM) section of our Integrated Resource Plan (IRP), the traditional vehicle for such planning. The IRP includes a full assessment of the Company's DSM/Conservation potential, a description/summary of targets and measures to achieve these potentials, as well as all additional details described in the Company's IRP Action Plan. After the 2014 IRP is released the Company will transition to a separate Conservation Plan for its conservation planning purposes. The first iteration of this plan will be released in the end of Calendar Year 2015 as a reiteration of the data contained in the 2014 IRP. Future DSM sections of the IRP will contain a brief synopsis of the Company's Conservation Programs with the planning mechanism transitioning to the standalone Conservation Plan.

Please Note: Program achievements for 2014 have been assessed based on a long term discount rate of 4.17%. This is the standard that has consistently been used by Cascade for the purposes of program reporting. As occurred last year, this year's report includes discrete non-energy benefits in an attempt to approach the value of energy efficiency measures in a more nuanced manner for our residential programs. After performing a non-energy benefits analysis for the Company's Commercial programs the Company has further integrated this approach for the commercial sector in the 2014 report as opposed to a simple 10% across-the-board adder (as is still in place for the Low Income program). These non-energy benefits traditionally have the greatest impact on the Total Resource Cost Test. For the purposes of program valuation and the continuation of robust, multi-faceted energy conservation programs, Cascade continues to utilize the Utility Cost/Program Administrator Cost test as is allowed under UG-121207 in accordance with guidance from our Conservation Advisory Group.

Summary of 2014 Program Achievements

Residential and Commercial

In Calendar Year 2014, Cascade Natural Gas Corporation has achieved a deemed therm savings of **167,234** in its **residential** program. This is 74% of the Company's projected aggressive savings goal of 226,382 therms and a decrease of approximately 16,000 therms from the previous

year as reflected for Calendar Year 2013 program savings and accomplishments which have been updated at the end of this report.

Cascade achieved a deemed therm savings of **465,176** in its **commercial** program. This is 137% of the Company's projected savings (339,768 for CY 2014) and an increase of approximately 177,000 therms above the level from the prior year.

On a portfolio level the projected savings total between Residential, Commercial and Low Income for Calendar Year 2014 was 588,650 therms. While the Residential program did not meet the projected savings goal the portfolio as a whole exceeded the combined goal with **632,410** therms achieved. The program's total portfolio also proved cost effective under the Utility Cost Test and the Total Resource Cost Test. The later achievement can be attributed to the Commercial/Industrial program's success in relation to its leveled cost per therm and the program therm savings exceeding the annual goal. This level of achievement is a-typical considering the current cost of gas and it should be noted fluctuates greatly from year to year.

As holds true from past years, programmatic achievements in the Commercial and Industrial sectors are dependent upon a few critical deep therm-savings projects. The Company's conservation team has become adept at identifying key Commercial and Industrial project opportunities and aggressively aiding customers in reducing their energy consumption by pursuing conservation projects in partnership with local energy services companies and the Cascade Natural Gas Conservation Incentive Program (CIP). The Company assists customers with capitalizing on other programs' offerings as available. At some point it is out of the program's hands and ultimately up to the customer as to whether or not he/she will move forward with a project. It is also common for commercial and industrial projects to stretch beyond the program year in which they were initiated. In such cases, the Company ends up building a queue, or pipeline of projects with deep energy savings potential in future years.

As was forecasted in last year's report, the 2014 program year yielded significantly higher savings in the C&I sector than in 2013 with several major projects concluding. These savings were achieved in addition to standard prescriptive projects throughout the course of the year. It is important to recognize the number and impact generated by custom conservation projects are variable from year to year, meaning the numbers achieved in following years will vary in an ebb and flow pattern. The Company remains committed to pursuing all possible opportunities for deeper energy savings throughout our service area and will continue to solicit projects from customers to drive rebate participation for reducing natural gas consumption.

Table A: 2014 Program Achievements

Totals	Residential	Energy Kits (Residential)	Commercial	Energy Kits (Commercial)	Total
Therms Achieved	160,061	7,173	464,916	260	632,410
Measures Installed	563,561 <i>(includes units of insulation)</i>	249	207	5	564,022
Customers Served	1675	249	92	2	2018
Carbon Offset (CO² avoided)	1,863,094 lbs	83,493 lbs	5,411,576 lbs	3,026 lbs	7,361,189 lbs

Table B: 2014 Residential/Commercial Programmatic Costs and Rebates

Total Costs	Residential	Commercial
Incentives Paid	\$489,060.40	\$544,569.00
Programmatic Costs	\$335,394.11	\$736,781.03
EM&V/Nexant Study		\$14,679.07

Costs associated with the Nexant study have been separated out from Programmatic Costs for the purposes of assessing program cost-effectiveness for CY 2014. A second calculation in Appendix A can be viewed to assess cost-effectiveness of the program with the remainder of the Nexant study expenses that occurred in 2014 included in the summary portfolio calculations.

Low Income

The Company's Low Income Conservation Program experienced a further decline in therm achievements and number of customers served as compared to the accomplishments noted in our 2013 Conservation Achievement Report. In 2014 the program achieved **7,338** therms saved with a total of 21 homes served. This unanticipated decline is the direct result of the CAP agencies required adherence to increasingly stringent United States Department of Energy Weatherization Assistance Program (USDOE WAP) household prioritization rules which results in natural gas-heated homes being left off of agency weatherization waiting lists in the absence of other prioritization elements such as the elderly, and households with young children or disabled individuals. The Company's challenge for 2015 will be to help maintain program momentum in light of the reduction of available federal funding, primarily USDOE WAP funds, and the CAP agencies reliance upon USDOE WAP household prioritization rules which are tilted in favor of non-natural gas heated homes. Cascade remains a supporter of the Low Income Weatherization Assistance Program and will be examining alternative models to allow greater flexibility in program funding moving forward. These changes will likely be based from the CNGC Conservation Achievement Tariff, a Company pilot currently operating in the State of Oregon. The CAT was designed in consultation with low income agencies and advocates to bridge the gap between what can be funded under traditional energy efficiency cost-effectiveness parameters and the total installed and administrative costs of weatherization work performed.

Table C: 2014 Low Income Programmatic Achievements

Totals	Low Income
Therms Achieved	7,338
Measures Installed	66
Customers Served	21
Carbon Offset (CO² Avoided)	85,414 lbs

Table D: 2014 Low Income Programmatic Costs

Total Costs	Low Income
Incentives Paid	\$54,374
Programmatic Costs	\$15,000

Potential Assessment Update for Residential and Commercial Programs

In 2013/14 Cascade hired Nexant to perform a comprehensive reassessment of its conservation program potential in the state of Washington. The primary goal of the study was to develop a comprehensive assessment of technical and achievable potential for natural gas energy efficiency within Cascade's Washington service territory for customers on Rate Schedules 503, 504, 505, 511, 570 & 577. The Nexant study performed in 2013/14 also integrated a detailed evaluation and measure savings review of Cascade's conservation portfolio. The study did not address program potential directly, but Nexant did provide the Company with a comprehensive potential calculation tool—the TEAPOT (Technical, Economic, Achievable Potential) model through which portfolios and targets can be developed by the Company and narrowed down to programmatically viable portfolios. Portfolios are then screened against the Company's cost-effectiveness calculation and program planning tools.

Key objectives of this study included:

- Providing credible and transparent estimations of the technical and achievable energy efficiency potential by year over the next 21 years (2014-2034) within Cascade's Washington service territory;
- Assessing and validating therm savings associated with the key measures that qualified for, and received, a conservation incentive in the 2012 program year, and applying findings to determine realistic therm savings potential in Cascade's Washington service area;
- Providing a user friendly, executable dynamic model to support the potential assessment and allow for testing of sensitivity of all model inputs and assumptions;
- Developing a final report including summary data tables and graphs reporting incremental and cumulative potential by year from 2014 through 2034.

A thorough review of Cascade's past evaluated therm savings associated with its DSM programs provided critical feedback to Cascade's DSM team and helped provide important baseline savings and participation data to inform our conservation efforts moving forward. As a result of the potential study, and Cascade's assessment of current program offerings, the Company filed for a revised residential and commercial portfolio in September of 2014 to the WUTC to continue to grow its conservation portfolio and to move towards more aggressive equipment standards (namely for water heaters and furnaces). In line with our potential study Cascade also adjusted select deemed savings and measure lives to correlate with the Nexant recommendations for rebate eligible measures installed during the 2014 program year.

Our programs will continually be evaluated and updated as necessary in order to balance cost-effectiveness, participation outcomes and updated building codes. The Company will also continue to confer with our Conservation Advisory Group as appropriate.

Participation Summary

A full breakdown of therm savings, utility costs and total resource costs by all measures and programs for the 2014 program year can be found in Appendix A.

Updates to CY13 Program Achievements

Cascade has included a true-up of the Company's previous year's report to capture outlying measures and customer applications from the residential program. These additional measures were installed in CY 2013 with application processing completing in 2014. The Company elected to capture all savings associated with installs from the 2013 calendar year to allow customers time to follow-up on their pending application inquiries as well as acclimate the new residential program delivery vendor to the Cascade program. The Company has made the adjustments to its claimed therm savings in the residential sector for Calendar Year 2013 to include the additional achieved savings as well as remove a payment of \$33,025.93 that was miss-categorized as an administrative expense to the portfolio. The additional measures added to the report can be viewed in Appendix B and are represented by the highlighted lines in the Participants and Measures installed columns.

Table E: 2013 Residential/Commercial Therm Savings True-up

Totals	Residential	Energy Kits	Commercial	Total
Therms Achieved	178,441	4,911	288,079	471,431
Measures Installed	703,840 <i>(including units of insulation)</i>	195	149	704,184
Customers Served	1884	195	118	2197
Carbon Offset (CO² avoided)	2,077,035 lbs	57,164 lbs	3,353,211 lbs	5,487,410 lbs

Appendix B provides the updated therm savings, total resource costs and utility costs by measure for the residential program (the only program to require an update) for calendar year 2013. It also provides a summary for the full portfolio both including and excluding the Nexant Potential Study costs in the cost-effectiveness calculations.

CASCADE NATURAL GAS CORPORATION

2014 Program Participant Cost Effectiveness Estimate Summary *excluding* Nexant Study Expenses

PROGRAM	UNITS	TOTAL ANNUAL THERM SAVINGS	TOTAL INCREMENTAL COSTS	NON-ENERGY BENEFITS	WEIGHTED MEASURE LIFE	DISCOUNTED THERM SAVINGS	PROGRAM DELIVERY & ADMIN	TOTAL PROGRAM REBATE	PROGRAM UTILITY COST	UC W/DELIVERY & ADMIN	BENEFIT COST RATIO		PROGRAM TOTAL RESOURCE COST	TRC W/DELIVERY & ADMIN	BENEFIT COST RATIO
PROGRAM	MEASURES	TOTAL ANNUAL THERM SAVINGS	TOTAL INCREMENTAL COSTS	NON-ENERGY BENEFITS	WEIGHTED MEASURE LIFE	DISCOUNTED THERM SAVINGS	PROGRAM DELIVERY & ADMIN	TOTAL PROGRAM REBATE	PROGRAM UTILITY COST	UC W/DELIVERY & ADMIN	BENEFIT COST RATIO		PROGRAM TOTAL RESOURCE COST	TRC W/DELIVERY & ADMIN	BENEFIT COST RATIO
RESIDENTIAL (includes units of insulation)	563,810	167,234	\$ 1,720,497.15	\$ 757,568.70	23.92	2,365,307	\$ 335,394.11	\$ 489,060.40	\$ 0.21	\$ 0.349	1.335		\$ 0.407	\$ 0.549	0.737
COMMERCIAL	212	465,176	\$ 1,445,956.61	\$ 834,924.60	15.43	5,098,851	\$ 736,781.03	\$ 544,569.00	\$ 0.11	\$ 0.251	1.895		\$ 0.120	\$ 0.264	1.601
TOTAL	564,022	632,410	\$ 3,166,453.76	\$ 1,592,493.30	17.68	7,464,158	\$ 1,072,175.14	\$ 1,048,308.47	\$ 0.140	\$ 0.284	1.667		\$ 0.211	\$ 0.355	1.188
LOW INCOME	66	7,338	\$ 126,484.03	\$ 12,648.00	26.50	115,172	\$ 15,000.00	\$ 54,374.07	\$ 0.472	\$ 0.602	0.746		\$ 0.988	\$ 1.119	0.342

Nominal interest rate (post tax cost of cap.) 8.76%
Inflation rate 2.00%
Long term real discount rate 4.17%
EM&V/Nexant Potential Assessment Study \$14,679.07

As noted in our CY13 report, the Company has devised a more intuitive and focused approach for measuring non-energy benefits, as opposed to past methods where they were calculated as a blanket 10% for yearly achievements. This approach has been applied to CY14 for the residential and commercial/industrial programs. The ten percent Non-Energy Benefit calculation is still in use for the Company's Low Income CIP.

2014 Program Participant Cost Effectiveness Estimate Summary *including* Nexant Study Expenses

PROGRAM	UNITS	TOTAL ANNUAL THERM SAVINGS	TOTAL INCREMENTAL COSTS	NON-ENERGY BENEFITS	WEIGHTED MEASURE LIFE	DISCOUNTED THERM SAVINGS	PROGRAM DELIVERY & ADMIN	TOTAL PROGRAM REBATE	PROGRAM UTILITY COST	UC W/DELIVERY & ADMIN	BENEFIT COST RATIO		PROGRAM TOTAL RESOURCE COST	TRC W/DELIVERY & ADMIN	BENEFIT COST RATIO
PROGRAM	MEASURES	TOTAL ANNUAL THERM SAVINGS	TOTAL INCREMENTAL COSTS	NON-ENERGY BENEFITS	WEIGHTED MEASURE LIFE	DISCOUNTED THERM SAVINGS	PROGRAM DELIVERY & ADMIN	TOTAL PROGRAM REBATE	PROGRAM UTILITY COST	UC W/DELIVERY & ADMIN	BENEFIT COST RATIO		PROGRAM TOTAL RESOURCE COST	TRC W/DELIVERY & ADMIN	BENEFIT COST RATIO
RESIDENTIAL (includes units of insulation)	563,810	167,234	\$ 1,720,497.15	\$ 757,568.70	23.92	2,365,307	\$ 335,394.11	\$ 489,060.40	\$ 0.21	\$ 0.349	1.335		\$ 0.407	\$ 0.549	0.737
COMMERCIAL	212	465,176	\$ 1,445,956.61	\$ 834,924.60	15.43	5,098,851	\$ 736,781.03	\$ 544,569.00	\$ 0.11	\$ 0.251	1.895		\$ 0.120	\$ 0.264	1.601
TOTAL	564,022	632,410	\$ 3,166,453.76	\$ 1,592,493.30	17.68	7,464,158	\$ 1,086,854.21	\$ 1,048,308.47	\$ 0.140	\$ 0.286	1.656		\$ 0.211	\$ 0.356	1.181
LOW INCOME	66	7,338	\$ 126,484.03	\$ 12,648.00	26.50	115,172	\$ 15,000.00	\$ 54,374.07	\$ 0.472	\$ 0.602	0.746		\$ 0.988	\$ 1.119	0.342

CASCADE NATIONAL GAS CORPORATION
RESIDENTIAL Program Participant Cost Effectiveness

MEASURE	ZONE	EFFICIENCY RATING	PARTICIPANTS	MEASURES INSTALLED	ANNUAL THERM SAVINGS	TOTAL ANNUAL THERM SAVINGS	MEASURE INCREMENTAL COST	SOCIAL/THERM NEBS	PARTICIPANT Y NEBS	TOTAL INCREMENTAL COST WITH NEBS	MEASUR E LIFE	TBC DISCOUNTED THERM SAVINGS	UCT DISCOUNTED THERM SAVINGS	PROGRAM DELIVERY & ADMIN	PROGRAM REBATE	TOTAL REBATES COST	UTILITY COST	UC WDELIVERY	LOADED UTILITY BENEFIT TO COST RATIO	TOTAL RESOURCE COST	INC WDELIVERY	LOADED SOCIAL BENEFIT TO COST RATIO
Energy * Certified Home (BOP 1) OLD	1	HERS 75	0	0	206	0	\$ 1,142.00	\$ 502.66	\$ 534.07	\$ -	30	0	0	\$ 550.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
Energy * Certified Home (BOP 1) OLD	2	HERS 75	0	0	206	0	\$ 1,142.00	\$ 488.02	\$ 529.25	\$ -	30	0	0	\$ 550.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
Energy * Certified Home (BOP 1) OLD	3	HERS 75	21	21	4,347	0	\$ 1,142.00	\$ 505.10	\$ 534.88	\$ 21,900.00	2,142.39	30	73,641	\$ 8,718.06	\$ 11,550.00	\$ 0.157	\$ 0.275	1.587	\$ 0.029	\$ 0.147	2.522	
Energy * Certified Home (BOP 1) (Incentive Increase effective 09/02/2014)	1	HERS 75	0	0	206	0	\$ 1,142.00	\$ 502.66	\$ 534.07	\$ -	30	0	0	\$ 600.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
Energy * Certified Home (BOP 1) (Incentive Increase effective 09/02/2014)	2	HERS 75	0	0	206	0	\$ 1,142.00	\$ 488.02	\$ 529.25	\$ -	30	0	0	\$ 600.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
Energy * Certified Home (BOP 1) (Incentive Increase effective 09/02/2014)	3	HERS 75	17	17	3,319	0	\$ 1,142.00	\$ 505.10	\$ 534.88	\$ 19,414.00	1,744.31	30	59,614	\$ 7,057.48	\$ 10,200.00	\$ 0.171	\$ 0.269	1.569	\$ 0.029	\$ 0.147	2.522	
Energy * Plus Certified Home (Discounted 09/02/2014)	1	Federal Tax Credit Eligible	0	0	235	0	\$ 3,700.00	\$ 573.43	\$ 813.21	\$ -	30	0	0	\$ 750.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
Energy * Plus Certified Home (Discounted 09/02/2014)	2	Federal Tax Credit Eligible	0	0	221	0	\$ 3,700.00	\$ 539.27	\$ 801.94	\$ -	30	0	0	\$ 750.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
Energy * Plus Certified Home (Discounted 09/02/2014)	3	Federal Tax Credit Eligible	0	0	206	0	\$ 3,700.00	\$ 505.10	\$ 802.85	\$ -	30	0	0	\$ 750.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
Bull Green Certified Home	1	Bull Green Certified	0	0	209	0	\$ 1,142.00	\$ 509.98	\$ 536.49	\$ -	30	0	0	\$ 600.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
Bull Green Certified Home	2	Bull Green Certified	0	0	203	0	\$ 1,142.00	\$ 499.34	\$ 531.56	\$ -	30	0	0	\$ 600.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
Bull Green Certified Home	3	Bull Green Certified	0	0	210	0	\$ 1,142.00	\$ 512.42	\$ 537.29	\$ -	30	0	0	\$ 600.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
95% AFIE Gas Furn Upgrade 1* OLD	1	95% AFIE Rating	0	0	111	0	\$ 1,024.00	\$ 213.50	\$ 355.53	\$ -	18	0	0	\$ 200.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
95% AFIE Gas Furn Upgrade 1* OLD	2	95% AFIE Rating	0	0	110	0	\$ 1,024.00	\$ 211.57	\$ 354.93	\$ -	18	0	0	\$ 200.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
95% AFIE Gas Furn Upgrade 1* OLD	3	95% AFIE Rating	21	21	2,331	0	\$ 1,024.00	\$ 213.50	\$ 355.53	\$ 21,500.00	9,554.53	18	29,105	\$ 4,674.90	\$ 4,200.00	\$ 0.144	\$ 0.305	1.510	\$ 0.128	\$ 0.489	0.837	
95% AFIE Gas Furn Upgrade 1* (Incentive Increase effective 09/02/2014)	1	95% AFIE Rating	1	1	111	0	\$ 1,024.00	\$ 213.50	\$ 355.53	\$ 1,024.00	454.98	18	1,386	\$ 222.61	\$ 250.00	\$ 0.180	\$ 0.341	1.350	\$ 0.128	\$ 0.489	0.837	
95% AFIE Gas Furn Upgrade 1* (Incentive Increase effective 09/02/2014)	2	95% AFIE Rating	0	0	110	0	\$ 1,024.00	\$ 211.57	\$ 354.93	\$ -	18	0	0	\$ 250.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
95% AFIE Gas Furn Upgrade 1* (Incentive Increase effective 09/02/2014)	3	95% AFIE Rating	17	17	1,887	0	\$ 1,024.00	\$ 213.50	\$ 355.53	\$ 17,400.00	7,742.42	18	23,561	\$ 3,784.44	\$ 4,250.00	\$ 0.100	\$ 0.341	1.350	\$ 0.128	\$ 0.489	0.837	
99% Furnace & PTCS Duct Sealing (Discounted 09/02/2014)	1	99% AFIE Rating	3	3	122	366	\$ 1,250.00	\$ 247.42	\$ 202.58	\$ 3,700.00	2,400.00	20	4,900	\$ 734.03	\$ 400.00	\$ 0.245	\$ 0.395	1.145	\$ 0.449	\$ 0.640	0.626	
99% Furnace & PTCS Duct Sealing (Discounted 09/02/2014)	2	99% AFIE Rating	2	2	112	224	\$ 1,250.00	\$ 227.14	\$ 196.22	\$ 2,500.00	1,653.28	20	2,999	\$ 449.24	\$ 400.00	\$ 0.267	\$ 0.417	1.085	\$ 0.511	\$ 0.701	0.573	
99% Furnace & PTCS Duct Sealing (Discounted 09/02/2014)	3	99% AFIE Rating	4	4	143	572	\$ 1,250.00	\$ 290.01	\$ 215.94	\$ 5,000.00	2,976.23	20	7,658	\$ 1,147.17	\$ 400.00	\$ 0.209	\$ 0.359	1.260	\$ 0.389	\$ 0.538	0.746	
99% AFIE Gas Furnace (New Construction) (Discounted 09/02/2014)	1	99% AFIE Rating	0	0	65	0	\$ 500.00	\$ 125.02	\$ 88.55	\$ -	18	0	0	\$ 150.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
99% AFIE Gas Furnace (New Construction) (Discounted 09/02/2014)	2	99% AFIE Rating	0	0	61	0	\$ 500.00	\$ 117.33	\$ 86.18	\$ -	18	0	0	\$ 150.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
99% AFIE Gas Furnace (New Construction) (Discounted 09/02/2014)	3	99% AFIE Rating	0	0	81	0	\$ 500.00	\$ 155.79	\$ 98.04	\$ -	18	0	0	\$ 150.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
99% AFIE Gas Furnace (Existing) (Discounted 09/02/2014)	1	99% AFIE Rating	5	5	81	405	\$ 800.00	\$ 155.79	\$ 128.04	\$ 4,000.00	2,580.82	18	5,057	\$ 812.24	\$ 150.00	\$ 0.148	\$ 0.369	1.491	\$ 0.510	\$ 0.671	0.630	
99% AFIE Gas Furnace (Existing) (Discounted 09/02/2014)	2	99% AFIE Rating	3	3	225	506	\$ 800.00	\$ 144.25	\$ 124.48	\$ 2,800.00	1,809	20	2,999	\$ 812.24	\$ 150.00	\$ 0.169	\$ 0.322	1.456	\$ 0.567	\$ 0.728	0.562	
99% AFIE Gas Furnace (Existing) (Discounted 09/02/2014)	3	99% AFIE Rating	6	6	594	1,000	\$ 800.00	\$ 196.22	\$ 138.50	\$ 4,800.00	3,187.77	18	5,057	\$ 812.24	\$ 150.00	\$ 0.131	\$ 0.322	1.456	\$ 0.567	\$ 0.728	0.562	
99% AFIE Gas Furnace (New & Existing)	1	99% AFIE Rating	506	506	111	166	\$ 1,250.00	\$ 164.46	\$ 355.53	\$ 5,014.00	3,216.64	18	70,298	\$ 112,642.15	\$ 240.00	\$ 0.130	\$ 0.341	1.536	\$ 0.128	\$ 0.489	0.837	
99% AFIE Gas Furnace (New & Existing)	2	99% AFIE Rating	116	116	126	176	\$ 1,250.00	\$ 211.57	\$ 354.93	\$ 118,750.00	60,061.11	18	159,323	\$ 25,590.62	\$ 200.00	\$ 0.130	\$ 0.343	1.344	\$ 0.128	\$ 0.489	0.829	
99% AFIE Gas Furnace (New & Existing)	3	99% AFIE Rating	260	264	111	2904	\$ 1,250.00	\$ 213.50	\$ 355.53	\$ 203,000.00	120,114.08	18	365,894	\$ 58,770.18	\$ 250.00	\$ 0.180	\$ 0.341	1.350	\$ 0.128	\$ 0.489	0.837	
80% AFIE Heat OLD	1	80% AFIE Rating	0	0	81	405	\$ 800.00	\$ 155.79	\$ 128.04	\$ 4,000.00	2,580.82	18	5,057	\$ 812.24	\$ 150.00	\$ 0.148	\$ 0.369	1.491	\$ 0.510	\$ 0.671	0.630	
80% AFIE Heat OLD	2	80% AFIE Rating	0	0	81	405	\$ 800.00	\$ 144.25	\$ 124.48	\$ 2,800.00	1,809	20	2,999	\$ 812.24	\$ 150.00	\$ 0.169	\$ 0.322	1.456	\$ 0.567	\$ 0.728	0.562	
80% AFIE Heat OLD	3	80% AFIE Rating	0	0	81	405	\$ 800.00	\$ 196.22	\$ 138.50	\$ 4,800.00	3,187.77	18	5,057	\$ 812.24	\$ 150.00	\$ 0.131	\$ 0.322	1.456	\$ 0.567	\$ 0.728	0.562	
80% AFIE Heat OLD	1	80% AFIE Rating	8	8	56	448	\$ 1,250.00	\$ 113.57	\$ 279.93	\$ 3,500.00	202.49	20	6,758	\$ 6,748	\$ 1,000.79	\$ 0.267	\$ 0.417	1.085	\$ 0.6043	\$ 0.193	2.081	
80% AFIE Heat OLD	2	80% AFIE Rating	9	10	56	340	\$ 1,250.00	\$ 125.02	\$ 279.93	\$ 3,500.00	324.24	20	7,658	\$ 7,649	\$ 1,121.20	\$ 0.267	\$ 0.417	1.085	\$ 0.6043	\$ 0.193	2.081	
80% AFIE Heat OLD	3	80% AFIE Rating	3	3	168	245	\$ 1,250.00	\$ 113.57	\$ 279.93	\$ 3,500.00	97.50	20	2,249	\$ 2,249	\$ 336.93	\$ 0.267	\$ 0.417	1.085	\$ 0.6043	\$ 0.193	2.081	
70% FE Heat OLD	1	70% FE Rating	8	8	56	448	\$ 1,250.00	\$ 113.57	\$ 279.93	\$ 3,500.00	202.49	20	6,758	\$ 6,748	\$ 1,000.79	\$ 0.267	\$ 0.417	1.085	\$ 0.6043	\$ 0.193	2.081	
70% FE Heat OLD	2	70% FE Rating	7	7	56	340	\$ 1,250.00	\$ 125.02	\$ 279.93	\$ 3,500.00	324.24	20	7,658	\$ 7,649	\$ 1,121.20	\$ 0.267	\$ 0.417	1.085	\$ 0.6043	\$ 0.193	2.081	
70% FE Heat OLD	3	70% FE Rating	3	3	168	245	\$ 1,250.00	\$ 113.57	\$ 279.93	\$ 3,500.00	97.50	20	2,249	\$ 2,249	\$ 336.93	\$ 0.267	\$ 0.417	1.085	\$ 0.6043	\$ 0.193	2.081	
70% FE Heat (Incentive decreased effective 09/02/2014)	1	70% FE Rating	9	9	56	448	\$ 1,250.00	\$ 113.57	\$ 279.93	\$ 3,500.00	202.49	20	6,758	\$ 6,748	\$ 1,000.79	\$ 0.267	\$ 0.417	1.085	\$ 0.6043	\$ 0.193	2.081	
70% FE Heat (Incentive decreased effective 09/02/2014)	2	70% FE Rating	8	8	56	340	\$ 1,250.00	\$ 125.02	\$ 279.93	\$ 3,500.00	324.24	20	7,658	\$ 7,649	\$ 1,121.20	\$ 0.267	\$ 0.417	1.085	\$ 0.6043	\$ 0.193	2.081	
70% FE Heat (Incentive decreased effective 09/02/2014)	3	70% FE Rating	3	3	168	245	\$ 1,250.00	\$ 113.57	\$ 279.93	\$ 3,500.00	97.50	20	2,249	\$ 2,249	\$ 336.93	\$ 0.267	\$ 0.417	1.085	\$ 0.6043	\$ 0.193	2.081	
High Efficiency Entryway Door	1	Door U-Factor <0.21 Energy Star Door	0	0	13	0	\$ 200.00	\$ 29.32	\$ 295.45	\$ -	25	0	0	\$ 50.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
High Efficiency Entryway Door	2	Door U-Factor <0.21 Energy Star Door	0	0	13	0	\$ 200.00	\$ 29.32	\$ 295.45	\$ -	25	0	0	\$ 50.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
High Efficiency Entryway Door	3	Door U-Factor <0.21 Energy Star Door	5	6	78	197	\$ 200.00	\$ 29.32	\$ 295.45	\$ 1,200.00	(533.81)	25	1,197	\$ 156.43	\$ 50.00	\$ 0.251	\$ 0.381	1.162	\$ (0.446)	\$ 0.315	1.222	
Residential Air Sealing	1	Comprehensive shell air sealing / infiltration control to achieve CTM of 1250	0	0	75	0	\$ 1,250.00	\$ 120.59	\$ 258.42	\$ -	13	0	0	\$ 100.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
Residential Air Sealing	2	Comprehensive shell air sealing / infiltration control to achieve CTM of 1250	0	0	75	0	\$ 1,250.00	\$ 115.11	\$ 256.54	\$ -	13	0	0	\$ 100.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
Residential Air Sealing	3	Comprehensive shell air sealing / infiltration control to achieve CTM of 1250	0	0	75	0	\$ 1,250.00	\$ 136.81	\$ 256.54	\$ -	13	0	0	\$ 100.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	
Ceiling Insulation	1	Equal to or Greater than R-30 plus cellophane	111	116	3,062	6,095	\$ 0.67	\$ 0.17	\$ 0.19	\$ 3,500.25	4,607.01	45	13,250	\$ 13,487.97	\$ 0.30	\$ 0.261	\$ 0.319	\$ 2,146	\$ 0.29			

CASCADE NATURAL GAS CORPORATION
2014 LOW INCOME Program Participant Cost Effectiveness Estimates
TOTAL IN FIRST YEAR by MEASURE

MEASURE	PARTICIPANTS	TOTAL ANNUAL THERM SAVINGS	MEASURE INSTALLED COST	NON-ENERGY BENEFITS (10% of cost)	MEASURE LIFE	DISCOUNTED THERM SAVINGS	PROGRAM DELIVERY & ADMIN	PROGRAM REBATE	UTILITY COST	UC W/DELIVERY & ADMIN	BENEFIT COST RATIO		TOTAL RESOURCE COST	TRC W/DELIVERY & ADMIN	BENEFIT COST RATIO
Attic/Ceiling Insulation	15	1,501	\$ 28,426.99	\$ 2,843	30	25,435	\$ 3,069.13	\$ 12,146.27	\$ 0.478	\$ 0.598	0.73		\$ 1.006	\$ 1.127	0.330
Floor Insulation	14	2,076	\$ 40,573.58	\$ 4,057	30	35,176	\$ 4,244.63	\$ 16,798.41	\$ 0.478	\$ 0.598	0.73		\$ 1.038	\$ 1.159	0.321
Wall Insulation	6	1,188	\$ 22,937.54	\$ 2,294	30	20,129	\$ 2,428.88	\$ 9,612.46	\$ 0.478	\$ 0.598	0.73		\$ 1.026	\$ 1.146	0.324
Duct Insulation	10	1,375	\$ 15,395.15	\$ 1,540	20	18,409	\$ 2,810.76	\$ 8,456.25	\$ 0.459	\$ 0.612	0.74		\$ 0.753	\$ 0.905	0.444
Air Infiltration Reduction	21	1,197	\$ 19,150.77	\$ 1,915	20	16,024	\$ 2,446.60	\$ 7,360.69	\$ 0.459	\$ 0.612	0.74		\$ 1.076	\$ 1.228	0.327
TOTAL PROGRAM	66	7,338	\$ 126,484.03	\$ 12,648	26.50	115,172	\$ 15,000	\$ 54,374.07	\$ 0.472	\$ 0.602	0.746		\$ 0.988	\$ 1.119	0.342

Nominal interest rate (post tax cost of cap.) 8.76%
Inflation rate 2.00%
Long term real discount rate 4.17%

Program Year:
2013
True-up

CASCADE NATURAL GAS CORPORATION

Program Participant Cost Effectiveness Estimate Summary **excluding** Nexant Study Expenses

PROGRAM	MEASURES	TOTAL ANNUAL THERM SAVINGS	TOTAL INCREMENTAL COSTS	NON-ENERGY BENEFITS	WEIGHTED MEASURE LIFE	DISCOUNTED THERM SAVINGS	PROGRAM DELIVERY & ADMIN	TOTAL PROGRAM REBATE	PROGRAM UTILITY COST	UC W/DELIVERY & ADMIN	BENEFIT COST RATIO		PROGRAM TOTAL RESOURCE COST	TRC W/DELIVERY & ADMIN	BENEFIT COST RATIO
RESIDENTIAL (includes units of insulation)	703,840	183,352	\$ 1,802,871.20	\$ 728,156.07	26.13	2,736,807	\$ 466,318.04	\$ 581,134.41	\$ 0.21	\$ 0.383	1.318		\$ 0.393	\$ 0.563	0.896
COMMERCIAL	149	288,079	\$ 1,382,610.17	\$ 138,261.02	16.94	3,339,161	\$ 711,229.41	\$ 467,772.00	\$ 0.14	\$ 0.353	1.295		\$ 0.373	\$ 0.586	0.781
TOTAL	703,989	471,431	\$ 3,185,481.37	\$ 866,417.09	20.51	6,075,968	\$ 1,177,547.45	\$ 1,048,906.41	\$ 0.17	\$ 0.366	1.306		\$ 0.382	\$ 0.575	0.832

PROGRAM	MEASURES	TOTAL ANNUAL THERM SAVINGS	TOTAL INCREMENTAL COSTS	NON-ENERGY BENEFITS	WEIGHTED MEASURE LIFE	DISCOUNTED THERM SAVINGS	PROGRAM DELIVERY & ADMIN	TOTAL PROGRAM REBATE	PROGRAM UTILITY COST	UC W/DELIVERY & ADMIN	BENEFIT COST RATIO		PROGRAM TOTAL RESOURCE COST	TRC W/DELIVERY & ADMIN	BENEFIT COST RATIO
LOW INCOME	144	14,960	\$ 223,537.00	\$ 22,354.00	26.49	234,768	\$ 35,819.00	\$ 140,718.00	\$ 0.60	\$ 0.752	0.638		\$ 0.857	\$ 1.010	0.475

Nominal interest rate (post tax cost of cap.) 7.63%
Inflation rate 3.32%
Long term real discount rate 4.17%
EM&V/Nexant Potential Assessment Study \$103,140.93

As noted in our CY12 report, the Company devised a more intuitive and focused approach for measuring non-energy benefits, as opposed to previous methods where they were calculated as a blanket 10% for yearly achievements. This approach was applied to the CY13 residential program. In CY 2014 the company performed a non-energy benefits analysis on the commercial/industrial side and will use this same method in CY 2014 reports, however for this year it still utilized the 10% Non-Energy Benefits for the Commercial CIP.

Program Year:
2013
True-up

Program Participant Cost Effectiveness Estimate Summary **including** Nexant Study Expenses

PROGRAM	MEASURES	TOTAL ANNUAL THERM SAVINGS	TOTAL INCREMENTAL COSTS	NON-ENERGY BENEFITS	WEIGHTED MEASURE LIFE	DISCOUNTED THERM SAVINGS	PROGRAM DELIVERY & ADMIN	TOTAL PROGRAM REBATE	PROGRAM UTILITY COST	UC W/DELIVERY & ADMIN	BENEFIT COST RATIO		PROGRAM TOTAL RESOURCE COST	TRC W/DELIVERY & ADMIN	BENEFIT COST RATIO
RESIDENTIAL (includes units of insulation)	703,840	183,352	\$ 1,802,871.20	\$ 728,156.07	26.13	2,736,807	\$ 466,318.04	\$ 581,134.41	\$ 0.21	\$ 0.383	1.318		\$ 0.393	\$ 0.563	0.896
COMMERCIAL	149	288,079	\$ 1,382,610.17	\$ 138,261.02	16.94	3,339,161	\$ 711,229.41	\$ 467,772.00	\$ 0.14	\$ 0.353	1.295		\$ 0.373	\$ 0.586	0.781
TOTAL	703,989	471,431	\$ 3,185,481.37	\$ 866,417.09	20.51	6,075,968	\$ 1,280,688.38	\$ 1,048,906.41	\$ 0.17	\$ 0.383	1.249		\$ 0.382	\$ 0.592	0.808

Program Year:
2013
True-up

CASCADE NATURAL GAS CORPORATION
RESIDENTIAL Program Participant Cost Effectiveness

MEASURE	ZONE	EFFICIENCY RATING	PARTICIPANTS	MEASURES INSTALLED	ANNUAL THERM SAVINGS	TOTAL ANNUAL THERM SAVINGS	MEASURE INCREMENTAL COST	SOCIETAL NEBS	PARTICIPANT NEBS	TOTAL INCREMENTAL COST	TOTAL NET INCREMENTAL COST WITH NEBS	MEASURE LIFE	TRC DISCOUNTED THERM SAVINGS	UCT DISCOUNTED THERM SAVINGS	PROGRAM DELIVERY & ADMIN	PROGRAM REBATE	TOTAL REBATES COST	UTILITY COST	UC W/DELIVERY	LOADED UTILITY BENEFIT TO COST RATIO	TOTAL RESOURCE		TRC W/DELIVERY	LOADED SOCIETAL BENEFIT TO COST RATIO		
																					& ADMIN	COST	& ADMIN			
Energy * Certified Home (BOP 1) (Discontinue May 10, 2013 tariff)	1	90% AFUE Rating	0	0	102	0	\$ 1,000.00	\$ 248.89	\$ 436.19	\$ -	\$ -	30	0	0	\$ 350.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Energy * Certified Home (BOP 1) (Discontinue May 10, 2013 tariff)	2	90% AFUE Rating	0	0	95	0	\$ 1,000.00	\$ 231.81	\$ 430.55	\$ -	\$ -	30	0	0	\$ 350.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Energy * Certified Home (BOP 1) (Discontinue May 10, 2013 tariff)	3	90% AFUE Rating	17	17	126	2,142	\$ 1,000.00	\$ 307.45	\$ 455.50	\$ 17,000.00	\$ 4,029.79	30	36,287	\$ 5,447.74	\$ 350.00	\$ 5,950.00	\$ 0.164	\$ 0.314	1.524	\$ 0.111	\$ 0.261	1.832	\$ -	\$ -	\$ -	\$ -
Energy * Certified Home (BOP 1) Post May 10, 2013	1	92% AFUE Rating	0	0	125	0	\$ 1,600.00	\$ 305.01	\$ 514.69	\$ -	\$ -	30	0	0	\$ 550.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Energy * Certified Home (BOP 1) Post May 10, 2013	2	92% AFUE Rating	0	0	115	0	\$ 1,600.00	\$ 280.61	\$ 506.65	\$ -	\$ -	30	0	0	\$ 550.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Energy * Certified Home (BOP 1) Post May 10, 2013	3	92% AFUE Rating	31	33	152	5,016	\$ 1,600.00	\$ 370.90	\$ 536.42	\$ 52,800.00	\$ 22,858.50	30	84,974	\$ 84,974	\$ 550.00	\$ 18,150.00	\$ 0.214	\$ 0.364	1.316	\$ 0.269	\$ 0.419	1.142	\$ -	\$ -	\$ -	\$ -
Energy * Plus Certified Home	1	Federal Tax Credit Eligible	0	0	235	0	\$ 3,700.00	\$ 573.43	\$ 813.21	\$ -	\$ -	30	0	0	\$ 750.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Energy * Plus Certified Home	2	Federal Tax Credit Eligible	0	0	221	0	\$ 3,700.00	\$ 539.27	\$ 801.94	\$ -	\$ -	30	0	0	\$ 750.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Energy * Plus Certified Home	3	Federal Tax Credit Eligible	3	3	296	888	\$ 3,700.00	\$ 722.27	\$ 862.29	\$ 11,100.00	\$ 6,346.30	30	15,043	\$ 2,258.45	\$ 750.00	\$ 2,250.00	\$ 0.150	\$ 0.300	1.597	\$ 0.422	\$ 0.572	0.837	\$ -	\$ -	\$ -	\$ -
95% AFUE Gas Furn Upgrade E* (Pre May 10, 213 tariff)	1	95% AFUE Rating	3	3	124	372	\$ 1,000.00	\$ 302.57	\$ 199.78	\$ 3,000.00	\$ 1,492.94	30	6,302	\$ 946.11	\$ 150.00	\$ 450.00	\$ 0.071	\$ 0.222	2.160	\$ 0.237	\$ 0.387	1.236	\$ -	\$ -	\$ -	\$ -
95% AFUE Gas Furn Upgrade E* (Pre May 10, 213 tariff)	2	95% AFUE Rating	1	1	118	2,840	\$ 1,000.00	\$ 287.93	\$ 194.95	\$ 1,000.00	\$ 517.11	30	1,999	\$ 300.11	\$ 150.00	\$ 150.00	\$ 0.075	\$ 0.225	2.125	\$ 0.259	\$ 0.409	1.171	\$ -	\$ -	\$ -	\$ -
95% AFUE Gas Furn Upgrade E* (Pre May 10, 213 tariff)	3	95% AFUE Rating	20	20	142	2,840	\$ 1,000.00	\$ 346.50	\$ 214.26	\$ 20,000.00	\$ 8,784.79	30	48,111	\$ 7,222.96	\$ 150.00	\$ 3,000.00	\$ 0.062	\$ 0.212	2.252	\$ 0.183	\$ 0.333	1.438	\$ -	\$ -	\$ -	\$ -
95% AFUE Gas Furn Upgrade E* Post May 10, 213 tariff	1	95% AFUE Rating	0	0	124	0	\$ 900.00	\$ 302.57	\$ 443.89	\$ -	\$ -	30	0	0	\$ 200.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
95% AFUE Gas Furn Upgrade E* Post May 10, 213 tariff	2	95% AFUE Rating	0	0	118	4,828	\$ 900.00	\$ 346.50	\$ 458.37	\$ 30,600.00	\$ 3,234.42	30	81,789	\$ 12,279.04	\$ 200.00	\$ 6,800.00	\$ 0.083	\$ 0.233	2.052	\$ 0.040	\$ 0.190	2.523	\$ -	\$ -	\$ -	\$ -
90% Furnace & PTCS Duct Sealing	1	90% AFUE Rating	3	3	122	366	\$ 1,250.00	\$ 247.42	\$ 202.58	\$ 3,750.00	\$ 2,400.00	20	4,900	\$ 930.85	\$ 400.00	\$ 1,200.00	\$ 0.245	\$ 0.435	1.059	\$ 0.490	\$ 0.680	0.678	\$ -	\$ -	\$ -	\$ -
90% Furnace & PTCS Duct Sealing	2	90% AFUE Rating	8	8	112	896	\$ 1,250.00	\$ 227.14	\$ 196.22	\$ 10,000.00	\$ 6,613.11	20	11,996	\$ 532.00	\$ 400.00	\$ 3,200.00	\$ 0.267	\$ 0.457	1.008	\$ 0.551	\$ 0.741	0.621	\$ -	\$ -	\$ -	\$ -
90% Furnace & PTCS Duct Sealing	3	90% AFUE Rating	6	6	143	858	\$ 1,250.00	\$ 290.01	\$ 215.94	\$ 7,500.00	\$ 4,464.34	20	11,487	\$ 2,182.15	\$ 400.00	\$ 2,400.00	\$ 0.209	\$ 0.399	1.155	\$ 0.389	\$ 0.579	0.796	\$ -	\$ -	\$ -	\$ -
PTCS Duct Sealing (discontinue May 10, 2013)	1	PTCS Certified Duct Sealing	1	1	88	88	\$ 800.00	\$ 178.46	\$ 135.96	\$ 800.00	\$ 485.57	20	1,178	\$ 223.81	\$ 150.00	\$ 150.00	\$ 0.127	\$ 0.317	1.452	\$ 0.412	\$ 0.602	0.765	\$ -	\$ -	\$ -	\$ -
PTCS Duct Sealing (discontinue May 10, 2013)	2	PTCS Certified Duct Sealing	3	3	77	231	\$ 800.00	\$ 156.16	\$ 124.88	\$ 2,400.00	\$ 1,544.63	20	3,093	\$ 585.70	\$ 150.00	\$ 450.00	\$ 0.146	\$ 0.335	1.373	\$ 0.499	\$ 0.689	0.668	\$ -	\$ -	\$ -	\$ -
PTCS Duct Sealing (discontinue May 10, 2013)	3	PTCS Certified Duct Sealing	4	4	113	452	\$ 800.00	\$ 229.17	\$ 151.86	\$ 5,200.00	\$ 1,675.90	20	6,051	\$ 1,149.57	\$ 150.00	\$ 600.00	\$ 0.099	\$ 0.289	1.593	\$ 0.277	\$ 0.467	0.986	\$ -	\$ -	\$ -	\$ -
90% AFUE New Gas Furnace (New)	1	90% AFUE Rating	19	19	65	1,235	\$ 500.00	\$ 125.02	\$ 88.55	\$ 9,500.00	\$ 5,442.14	18	15,420	\$ 3,140.97	\$ 150.00	\$ 2,850.00	\$ 0.185	\$ 0.389	1.185	\$ 0.353	\$ 0.557	0.827	\$ -	\$ -	\$ -	\$ -
90% AFUE New Gas Furnace (New)	2	90% AFUE Rating	7	7	61	3,525	\$ 500.00	\$ 142.23	\$ 86.18	\$ 3,500.00	\$ 2,075.46	18	5,332	\$ 1,085.99	\$ 150.00	\$ 1,050.00	\$ 0.197	\$ 0.401	1.150	\$ 0.389	\$ 0.593	0.777	\$ -	\$ -	\$ -	\$ -
90% AFUE New Gas Furnace (New)	3	90% AFUE Rating	22	22	81	1,782	\$ 500.00	\$ 155.79	\$ 98.04	\$ 11,000.00	\$ 5,415.62	18	22,250	\$ 4,532.16	\$ 150.00	\$ 3,300.00	\$ 0.148	\$ 0.352	1.308	\$ 0.243	\$ 0.447	1.030	\$ -	\$ -	\$ -	\$ -
90% AFUE New Gas Furnace (Existing)	1	90% AFUE Rating	141	141	81	11,421	\$ 800.00	\$ 155.79	\$ 128.04	\$ 112,800.00	\$ 72,770.20	18	142,604	\$ 29,046.99	\$ 150.00	\$ 21,150.00	\$ 0.148	\$ 0.352	1.308	\$ 0.510	\$ 0.714	0.645	\$ -	\$ -	\$ -	\$ -
90% AFUE New Gas Furnace (Existing)	2	90% AFUE Rating	47	47	75	3,525	\$ 800.00</td																			