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June 27, 2013

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

RE: Conservation Report for CY12

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 2012. This report includes documentation of the Company's CY12 therm savings achievements and program expenditures.

Any questions regarding this document should be directed to Allison Spector, Manager of Energy Efficiency and Community Outreach, at (360)-788-2356 or [allison.spector@cngc.com](mailto:allison.spector@cngc.com).

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Parvinen", with a long horizontal flourish extending to the right.

Michael Parvinen  
Director, Regulatory Affairs

Attachments

# Cascade Natural Gas Corporation Annual Conservation Achievement Report Calendar Year 2012

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## 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 therm savings target, along with its Commission Basis results of operations report". Since that time, the Company has 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2010, the Pilot Decoupling Mechanism and accompanying Conservation Plan, approved by the WUTC on October 1, 2007, are no longer in effect.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 1<sup>st</sup> of the following program year. In the event that 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 potential, as well as all additional details described in the Company's 2012 IRP Action Plan.

## Summary of 2012 Program Achievements

### *Residential and Commercial*

In Calendar Year 2012, Cascade Natural Gas Corporation has achieved a deemed therm savings of **155,992** in its **residential** program (52% of conservative target and 39% of stretch), and **359,003** (134% of conservative target, and just over 100% of stretch) in its **commercial** program.

This combined figure is 91% of the Company's conservative target <sup>1</sup> and 68% of the combined 2012 stretch therm savings target for the residential + commercial program sectors as outlined in the Company's most recently acknowledged Integrated Resources Plan.

It should be noted that although the commercial therm savings achievement was lower in 2012 than it was in 2011, participation levels actually *doubled* from the prior year, demonstrating that individual therm savings per customer can vary widely from project to project.

Due to lowered participation rates on the residential side of the Conservation Incentive Program, Cascade has moved forward with a series of adjustments for CY13 that will help increase interest and uptake in our incentive offerings. Changes serve a two-fold purpose: adapting to maximize available therm savings opportunities, and responding to the upcoming reductions to avoided costs that will need to be taken into consideration in CY13.

Program adjustments and strategies for 2013 include:

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<sup>1</sup> Conservative target is 75% of the Company's "Estimated Achievable Therm Savings" which is included as part of the Demand Side Management section of Cascade's Integrated Resources Plan.

- Strategic increases to program incentives where appropriate to drive greater participation;
- Removal of measures that remain inadequate from both a UCT and TRC perspective;
- Readjustment of program delivery staff and contractors, including the partial reallocation of staff in-house and the addition of EGIA to deliver affordable and innovative trade ally and market-driving services in order to streamline program expenditures and strategically redirect efforts in order to maximize impact.
- Reassessment of Company's conservation potential in the State of Washington to ensure current targets are realistic and take current technologies, codes, and gas costs into account. This will serve as a tool for appropriate target adjustments in the 2014 IRP planning cycle.

We will continue to adapt our programs in order to balance cost-effectiveness and participation outcomes and will confer with our Conservation Advisory Group as appropriate.

**Table A: 2012 Program Achievements**

<i>Totals</i>	<b>Residential</b>	<b>Energy Kits</b>	<b>Commercial</b>	<b>Total</b>
<b>Therms Achieved</b>	154,565	1,427	359,003	514,995
<b>Measures Installed</b>	623,945 <i>(including units of insulation)</i>	51	127	624,123
<b>Customers Served</b>	1,390	51	117	1,558
<b>Carbon Offset (CO2 avoided)</b>	1,792,954 lbs	16,553 lbs	4,164,434 lbs	5,973,941 lbs

**Table B: 2012 Residential/Commercial Programmatic Costs and Rebates (Rounded)**

<i>Total Costs</i>	<b>Residential</b>	<b>Commercial</b>
<b>Incentives Paid</b>	\$457,972	\$637,809
<b>Programmatic Costs</b>	\$637,329	\$747,483

*Low Income*

The Company's Low Income Conservation Program held onto a large portion of its therm achievements and number of customers served despite the ramp-down and exhaustion of the ARRA funds as noted in our 2011 Conservation Achievement Report. In 2012 the program achieved 21,824 therms saved with a total of 64 homes served. These achievements are further evidence of the Low Income Agencies dedication to utilizing these leveraged funds to serve as many homes as possible. A challenge in 2013 will be to continue this momentum in light of the reduction of available federal funding, primarily USDOE WAP funds, and the reduction in potential rebate funds available under the Company program caused by the reflection of our declining avoided costs in program payments.

The Company remains committed to this program and will continue to work closely with the Low-Income Agencies and advocates to determine ways to ensure Cascade customers in need of aid continue to receive essential weatherization services.

<i>Totals</i>	<b>Low Income</b>
<b>Therms Achieved</b>	21,824
<b>Measures Installed</b>	227
<b>Customers Served</b>	64
<b>Carbon Offset (Co2 Avoided)</b>	253,158 lbs

<i>Total Costs</i>	<b>Low Income</b>
<b>Incentives Paid</b>	\$233,162
<b>Programmatic Costs</b>	\$15,000

#### **Participation Summary**

A full breakdown of therm savings, total resource costs, and utility costs by all measures and programs for the 2012 program year can be found in Appendix A.

#### **Updates to CY11 Program Achievements**

Cascade was able to integrate final therm savings into the Company's 2011 report, and therefore achievement information has not changed since the report filed under UG 060256 on June 26, 2012.

CASCADE NATURAL GAS CORPORATION  
Program Participant Cost Effectiveness Estimate Summary

PROGRAM	MEASURE/ PARTICIPANTS	TOTAL ANNUAL THERM SAVINGS	TOTAL INSTALLED COSTS	NON-ENERGY BENEFITS (10% of cost)	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)	623,096	155,992	\$ 1,399,805.00	\$ 139,980.50	27.62	2,417,071	\$ 637,329.00	\$ 457,972.05	0.189	\$ 0.453	1.587	\$ 0.5212	\$ 0.7849	0.916
COMMERCIAL	127	359,003	\$ 1,789,239.75	\$ 178,922.98	16.91	4,190,879	\$ 747,483.39	\$ 637,809.00	0.152	\$ 0.331	2.107	\$ 0.384	\$ 0.563	1.238
<b>TOTAL</b>	<b>624,123</b>	<b>514,995</b>	<b>\$ 3,189,044.75</b>	<b>\$ 318,903.48</b>	<b>20.15</b>	<b>6,607,950</b>	<b>\$ 1,384,812.39</b>	<b>\$ 1,095,781.05</b>	<b>\$ 0.166</b>	<b>\$ 0.375</b>	<b>1.912</b>	<b>\$ 0.434</b>	<b>\$ 0.644</b>	<b>1.115</b>
<b>PROGRAM</b>	<b>MEASURE/ PARTICIPANTS</b>	<b>TOTAL ANNUAL THERM SAVINGS</b>	<b>TOTAL INSTALLED COSTS</b>	<b>NON-ENERGY BENEFITS (10% of cost)</b>	<b>WEIGHTED MEASURE LIFE</b>	<b>DISCOUNTED THERM SAVINGS</b>	<b>PROGRAM DELIVERY &amp; ADMIN</b>	<b>TOTAL PROGRAM REBATE</b>	<b>PROGRAM UTILITY COST</b>	<b>UC W/DELIVERY &amp; ADMIN</b>	<b>BENEFIT COST RATIO</b>	<b>PROGRAM TOTAL RESOURCE COST</b>	<b>TRC W/DELIVERY &amp; ADMIN</b>	<b>BENEFIT COST RATIO</b>
<b>LOW INCOME</b>	<b>227</b>	<b>21,824</b>	<b>\$ 358,952.00</b>	<b>\$ 35,895.20</b>	<b>26.00</b>	<b>343,337</b>	<b>\$ 15,000.00</b>	<b>\$ 233,162.00</b>	<b>0.679</b>	<b>\$ 0.723</b>	<b>0.963</b>	<b>\$ 0.941</b>	<b>\$ 0.984</b>	<b>0.707</b>

Nominal interest rate (post tax cost of cap) 7.63%  
 Inflation rate 3.32%  
 Long term real discount rate 4.17%

Please note that non energy benefits were calculated as a blanket 10% for CY12 achievements. However, the Company has since devised a more intuitive and focused approach for measuring non-energy value which will be applied to all measures qualified for rebate in CY 2013.

CONSUMER NATURAL GAS CORPORATION  
RESIDENTIAL Program Participant Cost Effectiveness

MEASURE	ZONE	EFFICIENCY RATING	PARTICIPANTS	MEASURES INSTALLED	ANNUAL THERM SAVINGS	TOTAL ANNUAL THERM SAVINGS	MEASURE INSTALLER COST	TOTAL INSTALLER COST	NONRECURRING COSTS (\$/unit)	MEASURE LIFE	DISCOUNTED THERM SAVINGS	PROGRAM DELIVERY & ADMIN.	FRAGMENT RATE	TOTAL REVENUES COST	UTILITY COST	NET WOLFRUMY A ADMIN.	BENEFIT COST RATIO	TOTAL RESOURCE COST	NET WOLFRUMY A ADMIN.	BENEFIT RATIO
Energy - Combined Home (DGP 1)	1	90% A2U1 Rating	26	26	95	2,471	1,000.00	26,000.00	2,400.00	30	41,843	13,010.00	330.00	9,100.00	9,100.00	0.217	0.439	1,030.00	0.336	0.860
Energy - Combined Home (DGP 2)	2	90% A2U1 Rating	71	71	126	9,436	1,000.00	71,000.00	2,500.00	30	166,695	35,000.00	790.00	282,500.00	282,500.00	0.264	0.465	1,690.00	0.422	0.900
Energy - Combined Home (DGP 3)	3	90% A2U1 Rating	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Energy - Floor-Cooled Home	1	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	221	275	1,700.00	17,000.00	1,700.00	30	5,011	3,900.00	750.00	750.00	750.00	0.159	0.313	1,602	0.306	0.704
Energy - Floor-Cooled Home	2	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	26	26	124	3,254	2,400.00	24,000.00	2,400.00	30	54,617	13,172.18	150.00	3,900.00	3,900.00	0.471	0.313	2,232	0.428	0.770
Energy - Floor-Cooled Home	3	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	26	26	114	1,700	2,400.00	24,000.00	2,400.00	30	55,975	13,199.64	150.00	3,200.00	3,200.00	0.471	0.313	2,177	0.428	0.691
Energy - Floor-Cooled Home	4	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	26	26	142	1,700	2,400.00	24,000.00	2,400.00	30	55,258	13,199.64	150.00	3,200.00	3,200.00	0.471	0.313	2,177	0.428	0.691
Energy - Floor-Cooled Home	5	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	160	1,200	1,200.00	12,000.00	1,200.00	20	17,377	4,276.49	400.00	2,000.00	2,000.00	0.145	0.279	1,448	0.284	0.791
Energy - Floor-Cooled Home	6	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	160	1,200	1,200.00	12,000.00	1,200.00	20	17,377	4,276.49	400.00	2,000.00	2,000.00	0.145	0.279	1,448	0.284	0.791
Energy - Floor-Cooled Home	7	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	14	14	234	2,340	1,700.00	17,000.00	1,700.00	20	39,361	12,011.65	150.00	3,600.00	3,600.00	0.442	0.285	1,317	0.409	0.705
Energy - Floor-Cooled Home	8	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	3	3	85	204	2,400.00	24,000.00	2,400.00	20	5,334	1,078.62	150.00	450.00	450.00	0.127	0.242	1,301	0.241	0.596
Energy - Floor-Cooled Home	9	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	2	2	77	185	4,800.00	48,000.00	4,800.00	20	5,134	1,078.62	150.00	750.00	750.00	0.146	0.242	1,324	0.241	0.604
Energy - Floor-Cooled Home	10	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	11	11	123	123	4,800.00	48,000.00	4,800.00	20	16,641	3,078.26	150.00	1,500.00	1,500.00	0.099	0.242	1,324	0.241	0.681
Energy - Floor-Cooled Home	11	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	12	12	65	2,800	16,000.00	160,000.00	16,000.00	18	23,971	8,408.19	150.00	4,800.00	4,800.00	0.145	0.312	1,381	0.324	0.790
Energy - Floor-Cooled Home	12	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	11	11	81	4,111	27,500.00	275,000.00	27,500.00	18	11,586	16,977.88	150.00	4,800.00	4,800.00	0.145	0.312	1,381	0.324	0.790
Energy - Floor-Cooled Home	13	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	409	409	41	31,329	317,300.00	3,173,000.00	317,300.00	18	113,654	171,334.34	150.00	4,800.00	4,800.00	0.145	0.312	1,381	0.324	0.790
Energy - Floor-Cooled Home	14	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	141	141	99	8,556	12,800.00	128,000.00	12,800.00	18	113,654	36,134.13	150.00	4,800.00	4,800.00	0.145	0.312	1,381	0.324	0.790
Energy - Floor-Cooled Home	15	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	80	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0
Energy - Floor-Cooled Home	16	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	80	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0
Energy - Floor-Cooled Home	17	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	80	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0
Energy - Floor-Cooled Home	18	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	80	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0
Energy - Floor-Cooled Home	19	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	12	12	156	156	1,200.00	12,000.00	1,200.00	12	1,168	677.96	27.00	300.00	300.00	0.207	0.247	1,098	0.245	0.606
Energy - Floor-Cooled Home	20	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	4	4	13	32	180.00	480.00	480.00	12	487	212.45	25.00	100.00	100.00	0.207	0.247	1,098	0.245	0.606
Energy - Floor-Cooled Home	21	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	12	684	283.37	25.00	100.00	100.00	0.207	0.247	1,098	0.245	0.606
Energy - Floor-Cooled Home	22	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	11,862-4	11,862-4	0,657	7,533	4,457.35	44,573.50	4,457.35	45	136,377	27,629.78	42.21	29,000.00	29,000.00	0.215	0.429	1,621	0.444	0.949
Energy - Floor-Cooled Home	23	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	1,865-5	1,865-5	0,665	4,666	4,240.15	42,401.50	4,240.15	45	98,128	19,870.13	42.21	18,700.00	18,700.00	0.191	0.393	1,751	0.391	0.904
Energy - Floor-Cooled Home	24	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	2,133-9	2,133-9	0,657	12,178	12,178.91	121,789.10	12,178.91	45	245,359	49,740.42	45.41	36,300.00	36,300.00	0.206	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	25	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	4,524-1	4,524-1	0,655	2,448	23,311.44	233,114.40	23,311.44	45	58,171	18,164.68	45.41	20,300.00	20,300.00	0.206	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	26	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	45	47,197	9,542.65	45.41	16,500.00	16,500.00	0.206	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	27	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	3,443-7	3,443-7	0,657	5,321	33,000.00	330,000.00	33,000.00	15	79,821	14,793.43	45.41	4,800.00	4,800.00	0.278	0.499	1,945	0.440	0.949
Energy - Floor-Cooled Home	28	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	18,166	18,166	0,676	1,591	11,999.90	119,999.00	11,999.90	15	27,242	5,408.71	45.41	2,500.00	2,500.00	0.261	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	29	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	30	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	31	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	32	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	33	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	34	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	35	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	36	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	37	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	38	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	39	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	40	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	41	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	42	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	43	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	44	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	45	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	46	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0.949
Energy - Floor-Cooled Home	47	Floored Top, Ceiling, Ductile Insulation, 90% A2U1 Rating	0	0	0	0	0	0	0	10	73,167	14,697.21	45.41	800.00	800.00	0.164	0.444	1,644	0.444	0



CASCADE NATURAL GAS CORPORATION  
 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
													UC W/DELIVERY & ADMIN	BENEFIT COST RATIO	
Attic/Ceiling Insulation	56	4,681	\$ 87,995	\$ 8,799	30	79,294	\$ 3,000	\$ 54,277	\$ 0.684	\$ 0.722	0.953	\$ 0.999	\$ 1.037	0.664	
Floor Insulation	53	5,697	\$ 109,284	\$ 10,928	30	96,512	\$ 3,000	\$ 66,790	\$ 0.692	\$ 0.723	0.952	\$ 1,019	\$ 1,050	0.655	
Wall Insulation	25	4,021	\$ 61,629	\$ 6,163	30	68,116	\$ 3,000	\$ 43,179	\$ 0.634	\$ 0.678	1.015	\$ 0.814	\$ 0.858	0.802	
Duct Insulation	32	3,207	\$ 59,422	\$ 5,942	20	42,940	\$ 3,000	\$ 28,716	\$ 0.669	\$ 0.739	0.951	\$ 0.826	\$ 0.896	0.768	
Air Infiltration Reduction	61	4,218	\$ 60,525	\$ 6,052	20	56,475	\$ 3,000	\$ 40,200	\$ 0.712	\$ 0.765	0.899	\$ 0.965	\$ 1.018	0.676	
<b>TOTAL PROGRAM</b>	<b>227</b>	<b>21,824</b>	<b>\$ 358,852</b>	<b>\$ 35,885</b>	<b>26.60</b>	<b>343,337</b>	<b>\$ 15,000</b>	<b>\$ 233,162</b>	<b>\$ 0.679</b>	<b>\$ 0.723</b>	<b>0.963</b>	<b>\$ 0.941</b>	<b>\$ 0.984</b>	<b>0.707</b>	

Nominal interest rate (post tax cost of cap.) 7.63%  
 Inflation rate 5.32%  
 Long term real discount rate 4.17%