

CNG/WA09-08-01

August 10, 2009

Mr. Dave Danner Secretary and Executive Director Washington Utilities & Transportation Commission 1300 S. Evergreen Park Drive SW Olympia, WA 98504-9022

Dear Mr. Danner:

Cascade Natural Gas Corporation encloses for filing the following tariff sheet:

## Second Revision Sheet No. 302 Canceling First Revision Sheet No. 302

The purpose of this filing is to make the following updates and additions to the Commercial Conservation Incentive Program.

- Increasing the incentive for High Efficiency (90+) Boilers from \$2.00/kbtuh to \$4.00/kbtuh
- Moving the **500** kbtu minimum input standard to **300** kbtu in order to capture equally efficient smaller systems
- Creating a two-tiered prescribed insulation incentive
- Adding an \$80 incentive for steam traps
- Correcting tariff language for qualifying warm air furnaces to reference *only* the minimum **91%** AFUE standard

Exhibit 1 provides the cost effectiveness analysis and further explains the proposed modifications to the commercial program measures.

Any questions regarding this filing may be made to Allison Spector at 206-381-6834 or Kathie Barnard at 206-381-6824.

Sincer ce President

Regulatory & Gas Supply

Attachments

# Cascade Natural Gas Corporation Cost Effectiveness Analysis of Proposed Commercial Program Modifications

## TOTAL RESOURCE COST ANALYSIS

			M	IEASURE	NC	ON-ENERGY		DISC	]	ESTIMATED			TOTA	L	T	RC	BENEFIT
	ANNUAL THERM		INS	STALLED	1	BENEFITS	MEASURE	THERM		DELIVERY	Р	ROGRAM	RESOU	RCE	W/AI	DMIN	COST
DESCRIPTION	SAVINGS	UNITS		COST	(1	10% of cost)	LIFE	SAVINGS		& ADMIN		REBATE	COS	Г	& D	ELIV	RATIO
Attic Insulation (Tier 1)	0.31	sq. ft.	\$	1.35	\$	0.14	30	5	\$	0.00120	\$	0.50	\$ 0	231	\$ (	0.232	3.368
Attic Insulation (Tier 2)	0.32	sq. ft.	\$	1.80	\$	0.18	30	5	\$	0.00122	\$	0.65	\$ 0	303	\$ (	0.303	2.575
Roof Insulation (Tier 1)	0.35	sq. ft.	\$	1.83	\$	0.18	30	6	\$	0.00134	\$	0.60	\$ 0	280	\$ (	0.280	2.781
Roof Insulation (Tier 2)	0.36	sq. ft.	\$	2.40	\$	0.24	30	6	\$	0.00138	\$	0.80	\$ 0	357	\$ (	0.357	2.182
Wall Insulation (Tier 1)	0.16	sq. ft.	\$	1.50	\$	0.15	30	3	\$	0.00062	\$	0.30	\$ 0	498	\$ (	0.498	1.564
Wall Insulation (Tier 2)	0.19	sq. ft.	\$	1.70	\$	0.17	30	3	\$	0.00073	\$	0.40	\$ 0	478	\$ (	0.478	1.631
Hi-Eff Cond. Boiler w/ Elec. Ign	0.88	kBtu/hr	\$	8.89	\$	0.89	20	12	\$	0.00268	\$	4.00	\$ 0	679	\$ (	0.679	1.178
Steam Traps Line Size <2"	136.90	each	\$	315.00	\$	31.50	7	817	\$	0.18585	\$	80.00	\$ 0	347	\$ (	0.347	2.601

# UTILITY COST ANALYSIS

			N	MEASURE	N	NON-ENERGY		DISC	ESTIMATED						UC	BENEFIT
	ANNUAL THERM		IN	NSTALLED		BENEFITS	MEASURE	THERM	DELIVERY/	Р	ROGRAM	U	TILITY	W/.	ADMIN	COST
DESCRIPTION	SAVINGS	UNITS		COST		(10% of cost)	LIFE	SAVINGS	& ADMIN		REBATE		COST	&	DELIV	RATIO
Attic Insulation (Tier 1)	0.31	sq. ft.	\$	1.35	\$	0.14	30	5	\$ 0.00120	\$	0.50	\$	0.095	\$	0.095	8.184
Attic Insulation (Tier 2)	0.32	sq. ft.	\$	1.80	\$	0.18	30	5	\$ 0.00122	\$	0.65	\$	0.121	\$	0.122	6.417
Roof Insulation (Tier 1)	0.35	sq. ft.	\$	1.83	\$	0.18	30	6	\$ 0.00134	\$	0.60	\$	0.102	\$	0.102	7.634
Roof Insulation (Tier 2)	0.36	sq. ft.	\$	2.40	\$	0.24	30	6	\$ 0.00138	\$	0.80	\$	0.132	\$	0.133	5.890
Wall Insulation (Tier 1)	0.16	sq. ft.	\$	1.50	\$	0.15	30	3	\$ 0.00062	\$	0.30	\$	0.111	\$	0.111	7.040
Wall Insulation (Tier 2)	0.19	sq. ft.	\$	1.70	\$	0.17	30	3	\$ 0.00073	\$	0.40	\$	0.125	\$	0.125	6.237
Hi-Eff Cond. Boiler w/ Elec. Ign	0.88	kBtu/hr	\$	8.89	\$	0.89	20	12	\$ 0.00268	\$	4.00	\$	0.340	\$	0.340	2.357
Steam Traps Line Size <2"	136.90	each	\$	315.00	\$	31.50	7	817	\$ 0.18585	\$	80.00	\$	0.098	\$	0.098	9.218
Nominal interest rate (post tax cost of ca	.p.)		7.63	5%	1							<u></u>				

(post all cost of cup.)	1.00/0
inflation rate	3.32%
Long therm real discount rate	4.17%
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2009 Program Budget	\$626,000
2009 Therm Target	227,380
Estimated Program Cost Per Therm	\$2.75

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# Summary of Proposed Program Modifications to Cascade's Commercial Conservation Program

**High Efficiency (90+) Boilers:** Commercial customers and equipment suppliers have indicated that the current rebate of **\$2.00**/kbtu/hr is not adequate to achieve full saturation of High Efficiency Boilers in CNGC's Washington service territory. Given this feedback, the Company agreed that a more rigorous analysis was warranted and conducted a parametric analysis performed by the program's commercial engineer. Results of this examination indicated that a rebate level of **\$4.00**/kbtu/hr (commensurate with ETO's program offering) would encourage greater uptake while allowing the measure to remain cost effective. It was further determined that moving the **500** kbtu minimum input standard to **300** kbtu would allow the program to capture smaller systems that were equally efficient compared to the larger models currently allowed under the tariff. The parametric analysis performed in support of the incentive change incorporates the expansion of allowable system sizes. The minimum **90%** AFUE standard remains unchanged.

**Two Tiered Prescriptive Insulation Levels**: Results from the Commercial Custom Incentive Program indicate that many customers will pass over lower insulation levels in exchange for higher efficiencies when given the proper financial incentive. A two tiered prescribed insulation level has been proposed to encourage greater uptake of high R-value insulation in commercial buildings creating a greater opportunity for energy savings. Calculations to determine revised incentive levels and cost effectiveness were developed from a bin based calculation method with the Seattle Bin weather file used for the typical commercial type occupancy schedule and temperature balance points. The tiers and associated rebates are outlined as follows:

Measure	Minimum Requi	rements	Incentive					
	Tier 1	Tier 2	Tier 1	Tier 2				
Attic Insulation	Min R-30	Min R-45	.50/sq ft	.65/sq ft				
Room Insulation	Min R-21	Min R-30	.60/sq ft	.80/sq ft				
Wall Insulation	Min R-11	Min R-19	.30/sq ft	.40/sq ft				

**Steam Traps:** Malfunctioning steam traps are common energy wasters that can leak usable steam, thus increasing gas consumption. To address this common inefficiency, CNGC is proposing the addition of a prescriptive amount of **\$80** for steam traps fitted to steam boilers with a minimum rating of **300** kbtuh and steam pressures operating at **7** psig or greater. Steam trap line size must be <2" with minimum **25** psig Trap Design Pressure. This amount was determined by parametric analyses at minimum trap levels for varying system pressures. This measure will only be allowable in instances where the customer signs an agreement to have the trap regularly maintained and replaced every seven years.

#### Proposed Housekeeping Changes

**Warm Air Furnaces:** Current tariff language lists qualifying warm air furnaces as having to have "less than **225,000**" kbtu input. However, this is a misprint and should actually read **<225** kbtu input. The commercial engineer for the program has indicated that AFUE should be the most important factor in determining energy efficiency. Therefore, in order to avoid confusion on which furnaces qualify, the Company proposes that the input qualification be removed and the minimum **91%** AFUE standard remain.