Energy Efficiency Program

Commercial Rebate Program

Program Overview

Description

The Commercial Rebate Program is a comprehensive program that offers rebates to Questar Gas GS commercial customers through a contracted program administrator, Nexant, Inc. (Nexant). Rebates are available for purchasing and installing qualifying gas-efficiency measures at separately metered commercial units. Qualifying measures include those that target cost-effective natural gas savings including retrofits of existing systems and first time installations. Rebates will be paid directly to participating customers.

Initial program measures include high-efficiency space and water-heating applications, high-efficiency clothes washers and gas dryers, programmable thermostats, high-efficiency gas unit heaters, gas infrared heaters, boiler controls and tune-ups, and low flow pre-rinse spray valves.

The program is designed to leverage the marketing access and existing delivery channels of local businesses, wholesalers and retailers. Primary program delivery functions have been contracted to Nexant. Questar Gas will support the program delivery by identifying customer installation opportunities and assisting customers with program requirements where applicable.

Where measures overlap with those offered under Rocky Mountain Power's "FinAnswer Express" program, efforts have been made to align eligibility requirements and key measure assumptions.

Objective

The Commercial Rebate Program is one of several initial energy-efficiency programs offered by Questar Gas. This program will seek to increase customer awareness of energy-efficient commercial technologies as well as achieving cost-effective natural gas savings.

Program Design

Program Measures

Table 1 lists the Commercial Rebate Program's energy-efficiency measures and the related size and eligibility requirements for each.

Table 1. Commercial Energy Efficiency Measures

Measure	Size Category	Minimum efficiency requirements
High-efficiency S*torage* Gas Water Heater	<=75,000 Btu/hr input	>=0.63 EF
	> 75,000 Btu/hr input	>=82% Efficiency
High-efficiency T*ankless G*as Water Heater	<200,000 Btu/hr input	>= 0.80 EF
High Efficiency Clothes Washer	Residential Clothes Washer Used in a Business.	Tier 2: MEF = 1.72-1.99
		Tier 3+: MEF= 2.0+
	Clothes Washer Used in a Laundromat	CEE Tier 1 or higher (1.42 MEF+, WF=9.5 or less)
Gas Clothes Dryer	All	Moisture Sensor Installed
Low Flow Pre-Rinse Spray Valve	-	1.6 GPM (retrofit only)
High Efficiency Gas Furnaces	<300,000 Btu/hr input	EnergyStar Furnace (90+ AFUE)
		CEE Tier II (92+ AFUE)
		CEE Tier III (94+ AFUE)
Boilers (hot water)	<300,000 Btu/hr input	AFUE>=85%
	>300,000 Btu/hr input	Thermal Efficiency >= 90%
Boilers (steam)	<300,000 Btu/hr input	AFUE>=85%
	>300,000 Btu/hr input	Thermal Efficiency >= 82%
Direct Contact Water Heater	All	Thermal Efficiency >90%
High Efficiency Unit Heater	<300,000 Btu/hr input	83% <=Thermal Efficiency < 90%
		Thermal Efficiency >= 90%
Infrared Heating System	-	Infrared Heating System
Programmable Thermostat	-	EnergyStar Thermostat (where not required by code)
Boiler Outside Air Reset Control	-	Boiler Outside Air Reset Control
Boiler Tune-up	-	Comply with boiler tune up program requirements

Program Incentives

Table 2 lists the Commercial Rebate Program's incentive levels and estimated incremental customer costs for each energy-efficiency measure. Incentive levels and incremental customer costs are shown by either unit or per connected-equipment input shown in terms of kBtu to allow for a more customized offering per customer application.

Table 2. Energy Efficiency Measure Incentives and Incremental Customer Costs

Measure	Size Category	Minimum efficiency requirements	Unit	Incentive ($/unit)	Incremental customer cost ($/unit)
High-efficiency S*torage* Gas Water Heater	<=75,000 Btu/hr input	>=0.63 EF	unit	$50.00	$100.00
	> 75,000 Btu/hr input	>=82% Efficiency	kBtu/hr Input	$2.00	$6.78
High-efficiency T*ankless* Gas Water Heater	<200,000 Btu/hr input	>= 0.80 EF	kBtu/hr Input	$2.00	$4.24
High Efficiency Clothes Washer	Residential Clothes Washer Used in a Business.	Tier 2: MEF = 1.72-1.99	unit	$50.00	$108.51
	Residential Clothes Washer Used in a Business.	Tier 3+: MEF= 2.0+	unit	$75.00	$131.70
	Clothes Washer Used in a Laundromat	CEE Tier 1 or higher (1.42 MEF+, WF=9.5 or less)	unit	$150.00	$300.00
Gas Clothes Dryer	All	Moisture Sensor Installed	unit	$30.00	$50.00
Low Flow Pre-Rinse Spray Valve	-	1.6 GPM (retrofit only)	unit	$25.00	$50.00
High Efficiency Gas Furnaces	<300,000 Btu/hr input	EnergyStar Furnace (90+ AFUE)	unit	$200.00	$675.00
		CEE Tier II (92+ AFUE)	unit	$300.00	$777.00
		CEE Tier III (94+ AFUE)	unit	$400.00	$876.00
Boilers (hot water)	<300,000 Btu/hr input	AFUE>=85%	kBtu/hr Input	$2.00	$5.08
	>300,000 Btu/hr input	Thermal Efficiency >= 90%	kBtu/hr Input	$3.25	$6.50
Boilers (steam)	<300,000 Btu/hr input	AFUE>=85%	kBtu/hr Input	$2.00	$5.08
	>300,000 Btu/hr input	Thermal Efficiency >= 82%	kBtu/hr Input	$2.00	$5.08
Direct Contact Water Heater	All	Thermal Efficiency >90%	kBtu/hr Input	$1.10	$2.17
High Efficiency Unit Heater	<300,000 Btu/hr input	83% <=Thermal Efficiency < 90%	kBtu/hr Input	$1.25	$2.50
		Thermal Efficiency >= 90%	kBtu/hr Input	$6.00	$12.00
Infrared Heating System	-	Infrared Heating System	kBtu/hr Input	$5.00	$11.43
Programmable Thermostat	-	EnergyStar Thermostat (where not required by	unit	$25.00	$68.47

Measure	Size Category	Minimum efficiency requirements	Unit	Incentive ($/unit)	Incremental customer cost ($/unit)
		code)			
Boiler Outside Air Reset Control	-	Boiler Outside Air Reset Control	unit	$250.00	$ 835
Boiler Tune-up	-	Comply with boiler tune up program requirements	unit	$300.00	$600.00

Projected Participants

Table 3 summarizes the Commercial Rebate Program's expected customer participation for each measure during the first year.

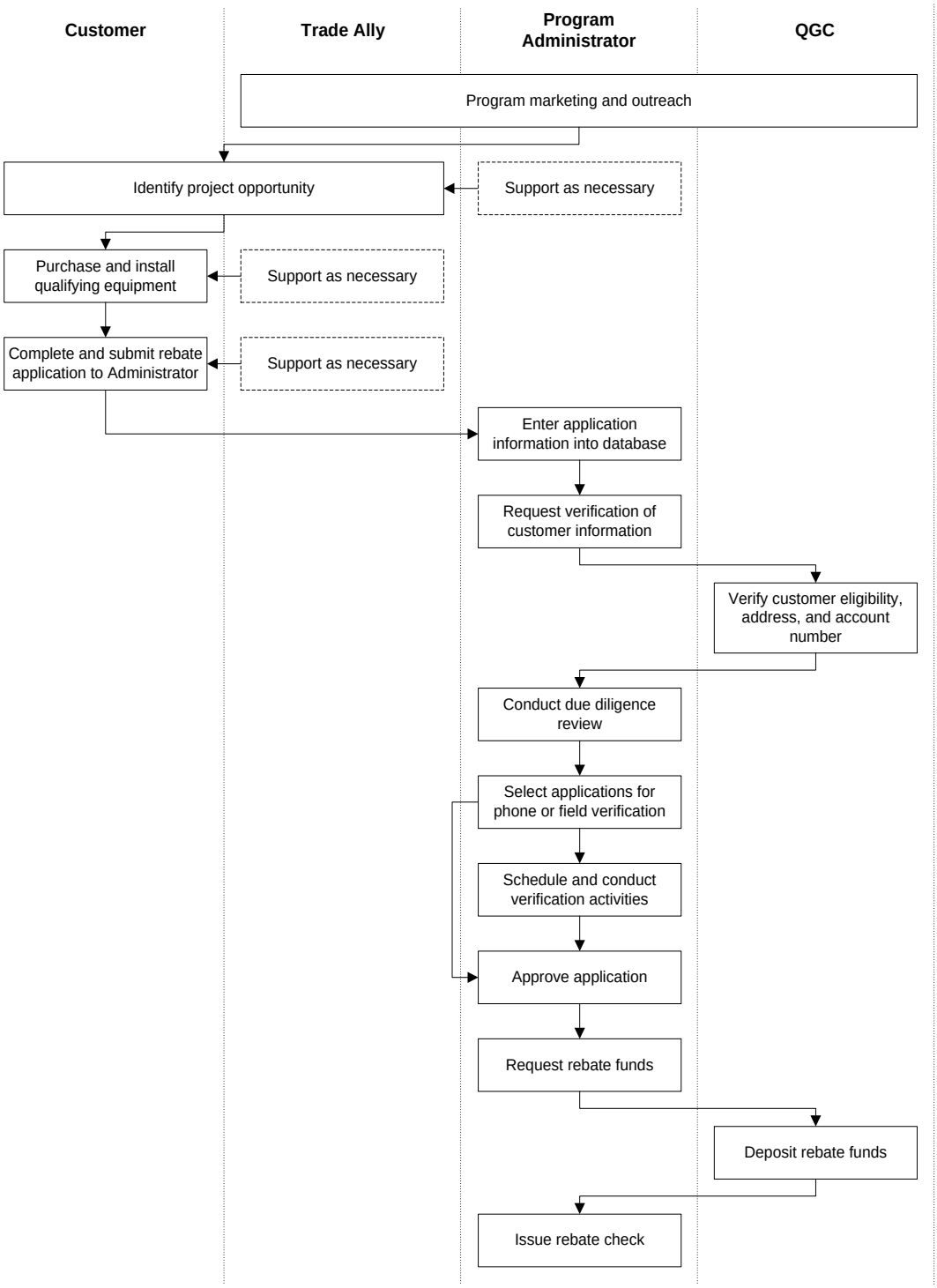
Table 3. Program Participants

Measure	Size Category	Minimum efficiency requirements	Participation 2006-2007
High-efficiency S*torage* Gas Water Heater	<=75,000 Btu/hr input	>=0.63 EF	25
	> 75,000 Btu/hr input	>=82% Efficiency	3
High-efficiency T*ankless* Gas Water Heater	<200,000 Btu/hr input	>= 0.80 EF	10
High Efficiency Clothes Washer	Residential Clothes Washer Used in a Business.	Tier 2: MEF = 1.72-1.99	19
	Residential Clothes Washer Used in a Business.	Tier 3+: MEF= 2.0+	9
	Clothes Washer Used in a Laundromat	CEE Tier 1 or higher (1.42 MEF+, WF=9.5 or less)	4
Gas Clothes Dryer	All	Moisture Sensor Installed	28
Low Flow Pre-Rinse Spray Valve	-	1.6 GPM (retrofit only)	100
High Efficiency Gas Furnaces	<300,000 Btu/hr input	EnergyStar Furnace (90+ AFUE)	46
		CEE Tier II (92+ AFUE)	12
		CEE Tier III (94+ AFUE)	12
Boilers (hot water)	<300,000 Btu/hr input	AFUE>=85%	14
		Thermal Efficiency >= 90%	2
Boilers (steam)	<300,000 Btu/hr input	AFUE>=85%	-
		Thermal Efficiency >= 82%	-
Direct Contact Water Heater	All	Thermal Efficiency >90%	1
High Efficiency Unit Heater	<300,000 Btu/hr input	83% <=Thermal Efficiency < 90%	6
		Thermal Efficiency >= 90%	6
Infrared Heating System	-	Infrared Heating System	6
Programmable Thermostat	-	EnergyStar Thermostat (where not required by code)	100
Boiler Outside Air Reset Control	-	Boiler Outside Air Reset Control	28
Boiler Tune Up	-	Comply with boiler tune up program requirements	56

Customer Application Process

Figure 1 illustrates the intended Commercial Rebate Program delivery process, showing the expected involvement and responsibilities of the customer, the trade allies, the program administrator, and Questar Gas.

Figure 1. Commercial Customer Application Process



Marketing & Promotion

Questar Gas will provide marketing and promotional support for the Commercial Rebate Program to encourage customer participation and help program cost effectiveness. Initial marketing strategies will include:

- On-line brochure and associated program information placed on Questar Gas' dedicated energy-efficiency website.
- Placement of point-of-purchase brochures and advertising with applicable appliance and equipment dealers and contractors.
- Education and awareness meetings with participating trade allies on program aspects.
- Notification in company newsletters and bill inserts (when applicable) of program information and availability.
- Referrals and customer awareness assistance from the Questar Gas Commercial and Industrial Account Management Department (where applicable).
- Cross-marketing with other Questar Gas energy-efficiency programs and activities, i.e. consumer and trade shows, special promotions, direct sales and rebate check inserts.
- Possibly some targeted direct mail advertising based on SIC code and/or business type.

In addition, as with all Questar Gas Demand Side Management (DSM) programs, market transformation education and awareness advertising will incorporate the Commercial Rebate Program into the overall energy-efficiency campaign advertisements and strategies.

Trade Ally Management

The trade allies represent a critical link to delivering an effective and successful program to the market. Retailers, salespersons and distributors become the face and the sales force of the Commercial Rebate program. The program will develop and maintain a strong trade ally network to help ensure high customer participation and a cost-effective program.

Trade Ally Identification & Recruitment

Nexant will implement the following process to identify, screen, and recruit trade ally participants.

Step 1. Identify vendors and contractors that serve the area and develop a targeted list of the most influential and active. Examples of sources that will be used to identify and populate the Trade Ally Network include:

- Questar Gas account executives, project managers, and consultants.
- Existing contacts with national and regional equipment distributors.
- Attendance at applicable customer meetings, trade shows, and professional associations.
- Local chamber of commerce offices.
- Telephone directory and web searches.

Step 2. Nexant will develop and hold targeted program overview sessions to describe the program, available opportunities and benefits and the participation process for potential Trade Ally members.

Qualification of Trade Ally Applicants

Interested vendors and contractors identified through the recruitment process will be required to complete and submit a trade ally application and participation agreement. In the review of applications received, Nexant will screen all applicants to maintain the integrity of the trade ally network. Examples of items that will be considered during the trade ally application evaluation process include, but are not limited to:

- Experience and qualifications of key individuals.
- Current licensing and status with respective State of Utah Department of Commerce offices or other governing bodies.
- Number and type of complaints on file with licensing agencies and other sources (e.g. Better Business Bureau).
- References.

All related information and findings from the trade ally application and agreement process will be summarized on an evaluation form and filed with the original application for future reference and reporting needs.

Alliance Participant Maintenance

Nexant will work closely with new trade allies to identify and support efforts to initiate projects and become comfortable with the process. Nexant will maintain an updated listing of all trade ally participants for distribution to interested customers, account representatives, customer service operators, as well as the general public. This list will also be a placed on the Questar Gas dedicated energy efficiency website.

Alliance Support and Project Facilitation

Nexant will develop and maintain the following functions to support trade ally participants and help meet program-savings goals:

- Dedicated program email addresses where trade allies can submit inquiries or request additional support and information.
- Dedicated toll free phone numbers to reach the program coordinator.
- Ensuring the availability of customer-oriented marketing materials and updating existing information and develop new pieces as necessary.
- Maintaining regular email and phone communication.
- Offering and conducting annual program training sessions.
- Holding regular face-to-face meetings with targeted trade ally participants.
- Providing assistance with determining customer eligibility, qualifying equipment, and available rebates.
- Supporting trade ally efforts to identify viable energy savings opportunities and estimate the potential energy and cost savings for the customer.
- Helping trade allies leverage the availability of other available rebates to further improve customer paybacks.
- Updating program materials as needed.

Projected Savings

Table 4 presents the Commercial Rebate Program deemed annual savings per measure and the estimated net total program savings (based on participation) for each measure. A net-to-gross ratio of 80% has been applied to the Net Total Savings values to account for "free ridership."

Table 4. Commercial Measure Savings Estimates (Dth/yr)

Measure	Size Category	Minimum Efficiency Requirement	Deemed Annual Savings (Dth/installation)	Net Total Savings (Annual Dth)
High-efficiency S*torage* Gas Water Heater	<=75,000 Btu/hr input	>=0.62 EF	2.70	54
	> 75,000 Btu/hr input	>=82% Efficiency	13.13	32
High-efficiency T*ankless* Gas Water Heater	<200,000 Btu/hr input	>= 0.80 EF	10.58	85
High Efficiency Clothes Washer	Residential Clothes Washer Used in a Business.	Tier 2: MEF = 1.72-1.99	1.58	24
		Tier 3+: MEF= 2.0+	2.04	15
	Clothes Washer Used in a Laundromat	CEE Tier 1 or higher (1.42 MEF+, WF=9.5 or less)	7.70	25
Gas Clothes Dryer	All	Moisture Sensor Installed	1.02	23
Low Flow Pre-Rinse Spray Valve	-	1.6 GPM (retrofit only)	33.60	2,688
High Efficiency Gas Furnaces	<300,000 Btu/hr input	EnergyStar Furnace (90+ AFUE)	14.2	523
		CEE Tier II (92+ AFUE)	16.20	156
		CEE Tier III (94+ AFUE)	18.10	174
Boilers (hot water)	<300,000 Btu/hr input	AFUE>=85%	17.96	201
	>300,000 Btu/hr input	Thermal Efficiency >= 90%	101.79	163
Boilers (steam)	<300,000 Btu/hr input	AFUE>=85%	17.96	-
	>300,000 Btu/hr input	Thermal Efficiency >= 82%	22.34	-
Direct Contact Water Heater	All	Thermal Efficiency >90%	1,603	1,282
High Efficiency Unit Heater	<300,000 Btu/hr input	83% <=Thermal Efficiency < 90%	12.14	58
		Thermal Efficiency >= 90%	37.32	179
Infrared Heating System	-	Infrared Heating System (retrofit only)	28.88	139
Programmable Thermostat	-	EnergyStar Thermostat	11.50	920
Boiler Outside Air Reset Control	-	Boiler Outside Air Reset Control	74.10	1,660
Boiler Tune Up	-	Comply with boiler tune up program requirements	48.86	2,189
			Total	**10,587**

Implementation

Please refer to Figure 1 *Commercial Customer Application Process* on Page 7 for information on the implementation procedures associated with the program.

The Commercial Rebate Program can be launched within 30 days following Public Service Commission approval with the availability of processes demonstrated in Figure 1, as well as initial trade ally contacts, marketing and advertising support and data tracking systems.

Administration

Figure 1 *Commercial Customer Application Process* illustrates the framework of the administration process for the Commercial Rebate Program. Under program administration activities, application processing will balance the need to ensure customer and measure eligibility, verification of DSM measure installation, and program administrative costs.

Due-diligence application review activities will include, at a minimum, verification of the following items:

- Customer account number.
- Installation address for submitted account number.
- Valid equipment installation date.
- Equipment eligibility.
- Equipment capacity and efficiency ratings, where applicable.
- Requested incentive amount.

Questar Gas will augment the application process quality control measures with random telephone and field inspections to ensure program integrity. These verification activities will serve to verify the following information:

- Installation address.
- Equipment make and manufacturer.
- Equipment model number.
- Equipment size.

The verification process will balance the need for randomness, the need to maintain a robust sample size, and the need to verify the compliance of multiple equipment installers. Nexant will target these additional quality assurance and quality control measures on approximately 5% of all submitted applications.

Program Measurement & Evaluation

Program Budget

Commercial Rebate Program Budget					
Development	**Marketing**	**Delivery**	**Incentives**	**Evaluation**	**Total**
$82,400	$32,160	$44,868	$76,486	$25,000	$260,914
31.6%	12.3%	17.2%	29.3%	9.6%	100.0%

Commercial Rebate Program Customer Savings			
Participants	**Annual Net Dth Savings**	**Net Avoided Gas Cost / Year**	**Simple Payback**
487	10,587	$85,042	3.07

Tracking & Measurement

All pertinent Commercial Rebate Program rebate information will be tracked in a database developed for the program. The database will provide a near-real time listing of current customer applications, customer information, equipment information, customer costs, savings, and rebates by technology.

Moreover, program related information will be tracked and available for reporting, including number of program participants and measure participation.

Cost Effectiveness

	Total Resource Cost		Participant Test		Utility Cost Test		Ratepayer Impact Measure Test	
MEASURE	NPV	B/C [1]	NPV	B/C [1]	NPV	B/C[1]	NPV	B/C [1]
High Efficiency Gas Water Heater - Commercial Tier 1	$6,226	2.0	$12,316	2.6	$8,597	3.2	$6,581	2.1
High Efficiency Gas Water Heater - Commercial Tier 2	$5,029	1.9	$8,877	2.3	$8,570	5.1	$6,857	2.8
High Efficiency Gas Water Heater - Commercial Tankless	$20,158	2.4	$35,149	3.0	$25,884	4.1	$20,386	2.5
Energy Star Horizontal Clothes Washer - Tier 2	-$1,262	0.8	$2,607	1.3	$1,659	1.4	$761	1.2
Energy Star Horizontal Clothes Washer - Tier 3	-$546	0.9	$2,430	1.5	$657	1.2	$78	1.0
Commercial Clothes Washer	$3,719	1.4	$10,505	2.0	$6,913	2.3	$4,952	1.7
Gas Clothes Dryer	$1,412	1.3	$5,617	1.9	$2,602	1.7	$1,611	1.4
Gas Unit Heater Non Condensing 83% <= TE < 90%	$8,598	1.8	$18,196	2.4	$12,561	2.9	$9,488	2.0
Gas Unit Heater Condensing TE => 90%	$8,203	1.2	$44,547	1.7	$27,226	1.9	$17,777	1.4
90% Plus AFUE Condensing Gas Furnace - Commercial	$189,867	2.0	$307,184	2.3	$308,089	5.4	$249,948	3.0
92% Plus AFUE Condensing Gas Furnace - Commercial	$54,101	2.0	$94,004	2.4	$82,284	4.1	$65,567	2.5
94% Plus AFUE Condensing Gas Furnace - Commercial	$59,895	2.0	$110,019	2.4	$86,254	3.5	$67,578	2.3
High Efficiency Boiler Hot Water Tier 1 AFUE >= 85%	$101,529	3.4	$148,017	3.8	$123,194	6.9	$100,995	3.3
High Efficiency Boiler Hot Water Tier 2 AFUE >= 90%	$125,062	5.0	$175,957	5.5	$136,808	8.0	$112,740	3.6
High Efficiency Boiler Steam Tier 1 AFUE >= 85%	$1,750	3.4	$2,554	3.8	$2,123	6.9	$1,740	3.3
High Efficiency Boiler Steam Tier 2 TE >= 82%	$886	1.4	$2,199	1.8	$2,006	2.8	$1,529	2.0
Direct Contact Water Heater	$547,774	9.2	$753,014	10.0	$572,214	14.5	$473,808	4.4
Programmable Thermostat – Commercial	$231,713	13.5	$299,316	13.9	$241,775	29.6	$203,124	5.3
Low Flow Pre-rinse Spray Valve	$298,573	23.1	$367,000	22.7	$303,642	36.9	$257,117	5.7
Boiler Reset Control	$1,044,859	8.5	$1,359,297	8.8	$1,132,222	22.7	$949,857	5.0
Infrared Heating System	$36,350	3.7	$53,121	4.1	$42,539	6.7	$34,818	3.3
Boiler Tune-up	$52,548	1.5	$105,906	1.7	$95,208	2.3	$73,420	1.8
Program Costs	-$434,676	0.0	$0	0.0	-$434,676	0.0	-$434,676	0.0
Totals	$2,361,768	2.8	$3,917,833	4.7	$2,788,351	4.2	$2,226,058	2.6

[1] Net Present Value of benefits divided by Net Present Value of Costs.

Program Evaluation

Questar Gas will perform a Commercial Rebate Program evaluation over the life of the program. An in-depth, independent evaluation will be conducted once the program as been operating for a period of time in which customer savings can be reasonably and accurately evaluated (year two or three).

A limited evaluation will be conducted following the one year program anniversary. The cost for this limited evaluation is included in the program budget as shown above in the program budget section. The limited evaluation will focus primarily on customer awareness of the program, adoption rates by customers, program process efficiency and customer satisfaction with the program. Results from evaluations will be used to refine the program and to increase the accuracy of future DSM modeling.