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January 3, 2014

Via Hand Delivery

Rosemary Chiavetta, Secretary
PA Public Utility Commission
PO Box 3265
Harrisburg, PA 17105-3265

Re: Pennsylvania Public Utility Commission v. Philadelphia Gas Works,
Docket Nos. R-2009-2139884; P-2009-2097639

Dear Secretary Chiavetta:

In accordance with Paragraph 24 of the Joint Petition For Settlement of the above proceeding, which was approved by the Commission by Order entered July 29, 2010, enclosed for filing please find the original of Philadelphia Gas Works' ("PGW") FY 2013 Demand Side Management ("DSM") Program Annual Report. Copies are being served in accordance with the attached Certificate of Service.

Please contact me if you have any questions

Very truly yours,



Daniel Clearfield

DC/lww
Enclosure

cc: Cert. of Service w/enc.

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Demand Side Management Program Annual Report

FY 2013 Results

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January 2nd, 2014

Prepared by Philadelphia Gas Works (PGW) with assistance from Green Energy Economics Group, Inc. (GEEG)

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1. Overview

1.1. Introduction

This report presents and discusses the results from PGW's implementation of its Demand Side Management (DSM) portfolio of energy-efficiency programs in Fiscal Year 2013 ("FY 2013").¹

PGW's DSM portfolio was approved by the Pennsylvania Public Utility Commission ("PUC") by order entered on July 29, 2010.² PGW committed to filing annual implementation plans four months prior to the start of the next program year to report on the progress of the program's implementation to date and to describe the operation plans and budget for the subsequent year. *In the first Implementation Plan, filed for the FY 2011 program year, PGW also proposed to prepare and file an annual report four months after a program year ends. This Report is the third such Annual Fiscal Year Report.*

This report provides quantitative tables and qualitative discussions of portfolio operations and outcomes for all six DSM programs that had launched by the end of FY 2013:

- Enhanced-Low Income Retrofit Program (ELIRP);
- Residential Heating Efficiency Rebate Program (RHER);
- Commercial and Industrial Retrofit Program (CIRI);
- Commercial and Industrial Equipment Rebates Program (CIER);
- High Efficiency Construction Incentives Program (HECI); and
- Comprehensive Residential Retrofit Incentives program (CRRI).

1.2. Summary of Results

In FY 2013, PGW managed five programs and launched the remaining market-rate residential retrofit program in the DSM portfolio. PGW spent \$9.7 million on DSM programming, approximately 81 percent of the FY 2013 budget filed by PGW in its FY 2013 Implementation Plan. PGW achieved estimated first year gas savings of over 89 Billion Btus ("BBtus") and 1,933 BBtus over the lifetime of the measures installed. From program inception in January, 2011 through the end of FY 2013, overall DSM activities have resulted in projected \$3 million in net resource benefits and a benefit-cost-ratio ("BCR") of 1.17 under the Total Resource Cost ("TRC") cost-effectiveness test.

Although the full DSM portfolio was cost-effective through FY 2013, gas savings fell short of the annual goal for FY 2013. The primary factors contributing to this shortfall were under-subscription in the equipment rebate programs; postponed launch of the CRRI program; and long lead times for commercial and industrial projects. These and other program results are discussed in greater detail in the remaining sections of this report.

¹ September 1, 2012 through August 31, 2013

² The DSM program was originally branded as "EnergySense" in FY 2011 for customer marketing purposes. The DSM conservation program is now referred to as conservation under EnergySense to reflect the fact that the EnergySense brand now covers additional PGW customer programming beyond DSM. Only approved DSM program activities are funded through the DSM surcharge.

TABLE 1. DSM COSTS AND BUDGETS BY PROGRAM³

Program	FY 2013		
	Actual	Goal	Percent
Enhanced Low Income Retrofit	\$7,538,828	\$7,704,110	98%
Residential Heating Equipment Rebates	\$611,057	\$1,775,476	34%
Comprehensive Residential Retrofit Incentives	\$280,176	\$566,197	49%
High Efficiency Construction Incentives (Residential)	\$86,785	\$192,414	45%
Residential Total	\$8,516,846	\$10,238,197	83%
Commercial and Industrial Retrofit Incentives	\$233,363	\$502,390	46%
Commercial and Industrial Equipment Rebates	\$133,998	\$408,158	33%
High Efficiency Construction Incentives (Nonresidential)	\$-	\$-	
Non-residential Total	\$367,361	\$910,548	40%
Portfolio-wide Administrative Costs	\$817,836	\$808,000	101%
UTILITY TOTAL	\$9,702,042	\$11,956,745	81%
Participant Costs	\$606,118	\$1,920,122	32%
PORTFOLIO TOTAL	\$10,308,160	\$13,876,867	74%

TABLE 2. DSM COSTS AND BUDGETS BY CATEGORY

Category	FY 2013		
	Actual	Goal	Percent
Customer Incentives/Measure Installation Costs	\$6,699,295	\$8,981,247	75%
Administration and Management	\$694,063	\$664,000	105%
Marketing and Business Development	\$127,901	\$633,286	20%
Contractor Costs	\$2,079,214	\$1,494,833	139%
Inspection and Verification	\$46,944	\$102,196	46%
On-site Technical Assessment	\$-	\$-	
Evaluation	\$54,625	\$81,182	67%
UTILITY TOTAL	\$9,702,042	\$11,956,744	81%
Participant Costs	\$606,118	\$1,920,122	32%
PORTFOLIO TOTAL	\$10,308,160	\$13,876,866	74%

³ All PGW Efficiency Cost Recovery Surcharge collections are shown in Appendix A. FY 2013 over-collections will be refunded to the appropriate customer classes in FY 2014.

TABLE 3. PORTFOLIO-WIDE INCREMENTAL FIRST YEAR GAS SAVINGS (MMBTUS)

Program	FY 2013		
	Actual	Goal	Percent
Enhanced Low Income Retrofit	68,694.1	69,834.3	98%
Residential Heating Equipment Rebates	12,837.2	36,262.5	35%
Comprehensive Residential Retrofit Incentives	29.9	4,681.8	1%
High Efficiency Construction Incentives (Residential)	655.1	3,265.3	20%
Residential Total	82,216.3	114,043.9	72%
Commercial and Industrial Retrofit Incentives	3,026.0	19,275.9	16%
Commercial and Industrial Equipment Rebates	4,047.5	21,255.5	19%
High Efficiency Construction Incentives (Nonresidential)	-	-	
Non-residential Total	7,073.5	40,531.4	17%
Portfolio-wide Costs	-	-	
PORTFOLIO TOTAL	89,289.8	154,575.4	58%

TABLE 4. PORTFOLIO-WIDE INCREMENTAL LIFETIME GAS SAVINGS (MMBTUS)

Program	FY 2013		
	Actual	Goal	Percent
Enhanced Low Income Retrofit	1,466,875.9	1,466,520.0	100%
Residential Heating Equipment Rebates	301,008.3	805,930.9	37%
Comprehensive Residential Retrofit Incentives	607.6	98,318.3	1%
High Efficiency Construction Incentives (Residential)	12,663.4	65,306.4	19%
Residential Total	1,781,155.0	2,436,075.7	73%
Commercial and Industrial Retrofit Incentives	51,194.3	289,139.1	18%
Commercial and Industrial Equipment Rebates	100,392.7	248,299.2	40%
High Efficiency Construction Incentives (Nonresidential)	-	-	
Non-residential Total	151,587.0	537,438.3	28%
Portfolio-wide Costs	-	-	
PORTFOLIO TOTAL	1,932,742.0	2,973,514.0	65%

TABLE 5. NON-GAS BENEFITS

Program	FY 2013		
	Actual	Goal	Percent
First Year Electric Energy Savings Installed (kWh)	824,313.9	405,969.8	203%
Lifetime Electric Energy Savings Installed (kWh)	19,389,882.0	8,376,032.1	231%
Summer Peak Demand Savings Installed (kW)	273.5	299.4	91%
First Year Water Savings Installed (million gallons)	4.3		
Lifetime Water Savings Installed (million gallons)	45.4		

TABLE 6. TOTAL RESOURCE COST TEST RESULTS FROM INCEPTION (2009\$)

Program	Inception through FY 2013			
	PV of Benefits	PV of Costs	PV of Net Benefits	BCR
Enhanced Low Income Retrofit	\$17,406,869	\$14,313,273	\$3,093,596	1.22
Residential Heating Equipment Rebates	\$2,717,250	\$1,555,954	\$1,161,296	1.75
Comprehensive Residential Retrofit Incentives	\$-	\$-	\$-	
High Efficiency Construction Incentives (Residential)	\$88,413	\$92,900	\$(4,486)	0.95
Residential Total	\$20,212,532	\$15,962,126	\$4,250,406	1.27
Commercial and Industrial Retrofit Incentives	\$426,877	\$286,630	\$140,246	1.49
Commercial and Industrial Equipment Rebates	\$500,867	\$147,872	\$352,995	3.39
High Efficiency Construction Incentives (Nonresidential)	\$-	\$-	\$-	
Non-residential Total	\$927,744	\$434,502	\$493,242	2.14
Portfolio-wide Costs	\$-	\$1,728,241	\$(1,728,241)	-
PORTFOLIO TOTAL	\$21,140,276	\$18,124,870	\$3,015,406	1.17

2. Enhanced Low-Income Retrofit Program

The Enhanced Low-Income Retrofit Program seeks to obtain cost-effective energy savings for low-income customers who participate in PGW's Customer Responsibility Program (CRP). A secondary goal of the program is to reduce the overall long-term cost of CRP as paid by all firm customers. The program seeks to achieve these goals and make customers' homes more energy efficient and comfortable by:

- Repairing or replacing older and less efficient heating systems.
- Providing comprehensive weatherization services.
- Educating customers on ways to reduce their energy use along with basic health and safety information.
- Raising awareness of energy conservation and encouraging the incorporation of energy saving behavior.
- Targeting high-use customers to maximize impact and increase cost-effectiveness.
- Streamlining the delivery mechanism through the use of implementation contractors.

2.1. Overview

In FY 2013 the ELIRP program demonstrated continued cost-effectiveness and production performance improvements, building on the already successful results of FY2012. The three PGW ELIRP CSPs again achieved targeted annual production levels for the year and continued to identify opportunities for additional implementation efficiencies. These efforts led to improved overall program performance. ELIRP's strong inspections and mentoring process has also benefitted the program, resulting in more comprehensive jobs and quality work, as evidenced by high inspection scores.

2.2. Discussion of Results

TABLE 7. ELIRP RESULTS FOR FY 2013

	FY 2013		
	Actual	Goal	Percent
PARTICIPATION			
Open Cases	-		
Closed Cases	2,310	2,172	106%
Total Cases	2,310		
COSTS (Nominal)			
Non-Incentive Spending	\$ 1,663,168	\$ 1,709,116	97%
Administration and Management	\$ -		
Marketing and Business Development	\$ -		
Contractor Costs	\$ 1,605,311		
Inspection and Verification	\$ 34,131		
On-site Technical Assessment	\$ -		
Evaluation	\$ 23,726		
Measure Installation	\$ 5,874,928	\$ 5,932,930	99%
Total Program Spending	\$ 7,538,096	\$ 7,642,046	99%
Participant Costs	\$ -	\$ -	
Total Cost	\$ 7,538,096	\$ 7,642,046	99%
SAVINGS			
First Year MMBtus	68,694	69,834	98%
Lifetime MMBtus	1,466,876	1,466,520	100%
First Year kWh	688,788		
Lifetime kWh	16,670,992		

2.2.1. Program Costs

PGW spent slightly over \$7.5 million on all ELIRP activities in FY 2013, 99 percent of its planned budget.

2.2.2. Measures

The majority of installations include air sealing and/or insulation in the basement and attic. Since program inception, approximately 40 percent of homes received a heating system tune-up or a new furnace or boiler. In homes where comprehensive treatment was inappropriate due to pre-existing health, safety, or structural issues the CSPs were still able

to install basic measures, such as a programmable thermostat, pipe insulation, or a carbon monoxide detector, as was feasible.⁴

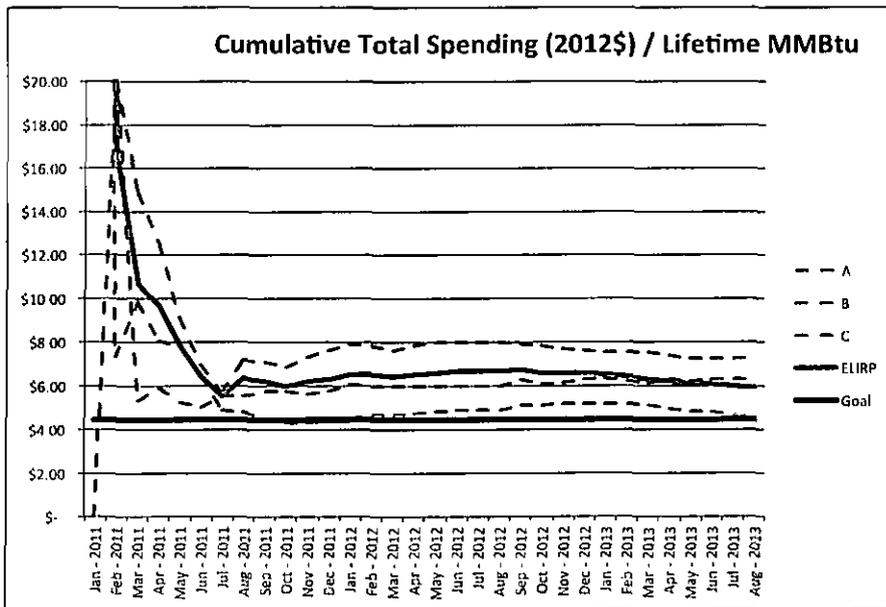
2.2.3. Cost-Effectiveness

TABLE 8. COST-EFFECTIVENESS RESULTS FOR ELIRP (INCEPTION THROUGH FY 2013)

PRESENT VALUE (2009\$)	Actual
Benefits	\$17,406,869
Costs	\$14,313,273
Net Benefits	\$3,093,596
BCR	1.22

In FY 2013, PGW achieved increased ELIRP programmatic cost-effectiveness, in terms of PV TRC Net Benefits and TRC Benefit-to-Cost-Ratio (BCR), as shown in the table above and Figure 2 below. While all CSPs are not achieving cost per MMBtu goals, the trend overall is positive. As the program is now at full production levels, overall cost-effectiveness can be summarized by the average dollar spent to save a single lifetime MMBtu. As shown in Figure 1 below, cumulative total spending per lifetime MMBtu is higher than initially projected. The three dotted-lines marked A through C represent individual CSP performance, the solid blue line represents overall program performance.

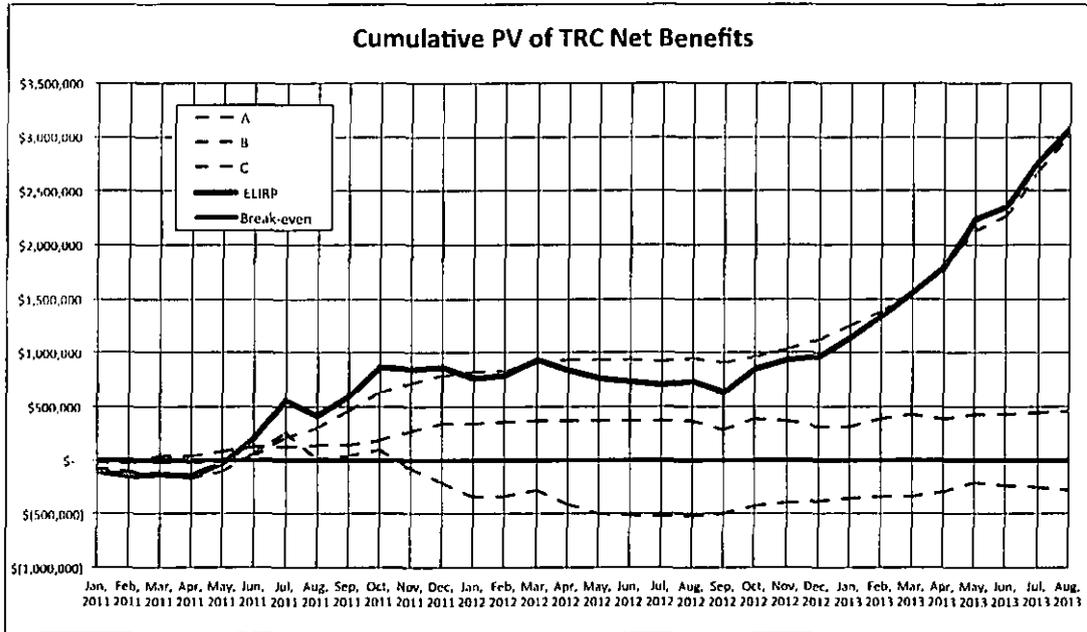
FIGURE 1. CUMULATIVE TOTAL SPENDING (2012\$)/LIFETIME MMBTU



⁴ As set forth in text below in Section 2.3.4, PGW has continued to seek external, non-ratepayer funding to remediate these conditions, in order to increase the cost-effectiveness of the weatherization funds and the impact of the program overall.

The program is clearly cost-effective, and demonstrating a trend of continued improvement. However, opportunities still remain to further increase program cost-effectiveness. Higher than anticipated CSP overhead costs and lower than expected CSP in-home weatherization performance present such opportunities for improvement. CSP evaluations and funding reallocations will continue to assist PGW in improving ELIRP performance in both the short and long-terms, as discussed in section 2.3.3 below.

FIGURE 2. CUMULATIVE TRC NET BENEFITS FOR ELIRP (INCEPTION THROUGH FY 2013)



2.2.4. Variance

The individual explanations for the variances are discussed in detail below along with strategies PGW has for addressing them.

2.2.4.1. Rejection Rates

High rejection rates have hindered ELIRP effectiveness. Rejections first occur when CSPs are unable to contact and engage customers to initiate the scheduling process. CSPs initially reject cases if they receive no response after calling a customer twice and sending a letter. This pattern is typical of similar programs researched, in which participants do not volunteer, but are selected without prior notice. Customers rejected due to the CSP's inability to make contact will be placed back in future ELIRP assignments so long as they continue to meet the primary program eligibility criteria.

Customer refusals account for an increasing percentage of overall rejections. Given the goals of the ELIRP as PGW's Low Income Usage Reduction Program (LIURP) and established precedents, PGW has developed a detailed customer refusal policy based on statewide best practices. Customers are provided several notifications of their agreement to accept weatherization services as part of their enrollment in PGW's Customer Assistance Program

(CAP), as consistent with PGW's Universal Service and Energy Conservation Plan and ELIRP policies. Customers who refuse to accept these services are given several warnings of their potential removal from CAP for non-compliance. PGW has required CSPs to report data on customer refusals. No customers have been removed from CAP to date, but PGW has begun initial steps to implement removals under this program in FY2014.

Finally, substantial health, safety, and structural issues continue to lead to case rejections, and likely always will for this customer group. PGW is continuing attempts to identify third-party funding opportunities to address these pre-treatments issues, allowing ELIRP work to proceed on cost-effective weatherization activities.

2.2.4.2. Contractor Performance

The CSP under-performance issue is primarily attributed to focusing on ineffective activities and not pursuing all available in-home cost-effective gas savings opportunities. PGW provides CSPs with a list of eligible measures, a Contractor Tool containing savings calculations and cost-effectiveness thresholds, customer pre-usage information, and overall performance goals. Each CSP then determines how to achieve the deepest, cost-effective savings in every home entered. PGW also provides CSPs with comparison data to demonstrate how CSP costs, achieved savings, and measure installation rates compare to other contractors. This has helped the CSPs examine their practices and realize opportunities for improvement. Through ongoing inspections and mentoring, along with funding allocations to the better performers, PGW expects to see continued incremental improvement in contractor performance.

The presence of asbestos in homes has caused challenges for contractors and the program. PGW relies on BPI protocols and contractor discretion to determine when a blower door test can and cannot be performed, and PGW understands the contractors' caution in this regard. While this is a byproduct of Philadelphia's housing stock, the inability to perform a blower door test prevents the contractor from performing the full diagnostic audit and identifying all savings opportunities. PGW is addressing this issue through additional mentoring to identify unsafe situations and best practices for air sealing when blower door tests cannot be performed.

TABLE 9. SUMMARY OF BARRIERS AND SOLUTIONS FOR ELIRP

Barrier to Success	Strategy to Overcome Barrier
High Rejection Rates	<p>Seek out third-party funding opportunities to address the pre-treatment issues currently preventing ELIRP weatherization.</p> <p>Notification and enforcement of PGW's Low Income Usage Reduction Program customer non-compliance policy.</p>
Contractor Performance	<p>Ongoing CSP mentoring.</p> <p><i>Performance evaluation and funding reallocations to shift funding to better performing CSPs as demonstrated by the FY 2012 and FY 2013 funding reallocations. The next evaluation and funding reallocation is scheduled for late Winter 2014.</i></p>

2.3. FY 2013 Program Activities

As the ELIRP program was fully ramped up by FY 2013, much of the year was dedicated to program analyses to identify further opportunities for improvement.

2.3.1. Quality Assurance

PGW continued performing and monitoring third-party quality assurance (QA) inspections of ELIRP homes, along with mentoring sessions for the CSP staff on specific issues.

Recurring quality issues with one of the program CSPs were identified earlier in the year, which led to an immediate doubling of inspection rates for that CSP until the issues were resolved. The following table shows the number of on-site inspections and hours of mentoring performed by PGW's third-party inspector for all CSPs. Overall, PGW inspected 11.3 percent of closed jobs. QA continues to an important aspect of ELIRP. In addition to ensuring that work is performed properly and safely, PGW has asked the QA inspector to put additional emphasis on identifying missed weatherization opportunities.

PGW's QA inspector is also taking an increased role to ensure that customers have a positive experience in the program. PGW is in the process of revising the interview questions the inspector asks the customer to gauge their satisfaction and learn if the contractor communicated the work and schedule properly.

TABLE 10. ELIRP AUDITS AND ON-SITE MENTORING (FY 2013)

Fiscal Year	Inspections	Hours of Mentoring
2011	44	22.5
2012	140	28.5
2013	131	23
Inception to Date	315	74

2.3.2. Data Analysis

Once the ELIRP database had been developed to provide, accept, store, and track all program activity data, PGW began developing a variety of queries and reports to validate data integrity. These efforts resulted in scrubbing existing data to ensure accuracy and in the development of additional data controls to prevent similar data issues going forward.

The range of data now available for the ELIRP program activities has also allowed PGW to perform additional analyses to focus on specific program developments. These analyses are providing a better understanding of the program activities, and opportunities for improvement to achieve even greater savings and cost-effectiveness levels.

2.3.3. CSP Evaluations

Two additional CSP performance evaluation and funding reallocation cycles were performed in FY 2013; the first at the mid-year point in February resulted in an additional \$1,000,000 being assigned to the two highest performing CSPs. No money was taken away from any CSPs during this mid-year evaluation.

The August, 2013 evaluation resulted in a redistribution of \$589,110 to set new funding allocations for the 2014 program year.

PGW has determined that this approach of reserving funds to award mid-year to high performers is optimal, as opposed to taking away funds from CSPs and redistributing. PGW may still reduce CSP funding mid-year for poor performance in the future, but prefers to avoid it unless necessary. These sudden changes mid-year can impact CSP ramp-up/ramp-down levels and negatively impact cost-effectiveness.

PGW expects to continue the semi-annual evaluations and reallocations to motivate CSPs to continue improving performance. Through five cycles, PGW has found this process to be effective, as CSPs who have had funding levels reduced for poor performance have shown improvement. PGW will also explore further opportunities to refine this evaluation model to make it even more successful.

2.3.4. Partnerships

2.3.4.1. PA CareerLink

PGW has continued its partnership with PA CareerLink Philadelphia to connect local unemployed workers with weatherization training programs and then onto employment with the PGW CSPs. To date, the CSPs have hired 30 full-time, entry-level weatherization technicians.

2.3.4.2. Philadelphia Department of Public Health

PGW has also continued the partnership with the Philadelphia Department of Public Health (PDPH) Green & Healthy Homes and Lead Poison Prevention Programs. In this initiative, PGW and PDPH attempt to identify homes that are eligible for both programs to coordinate services and achieve significant synergies as a result. To date, five homes have participated *in both programs. Coordination still remains a challenge due to a lack of staff capacity, scheduling and different program guidelines.* PGW and PDPH have taken steps to improve this process and coordination through better data sharing and an approach that is led by the schedulers and technicians in the home that know the cases best and are in touch with the homeowner, rather than program administrators.

2.3.4.3. Other Agencies

PGW also continued to pursue partnerships with other agencies and programs to potentially obtain third-party funding streams to address the pre-existing structural issues that inflate rejection rates and prevent comprehensive ELIRP weatherization work.

2.3.5. CY 2011 Impact Evaluation

PGW is currently awaiting a third-party evaluation on the ELIRP 2011 Calendar Year activity. PGW anticipates sharing results of the evaluation in its FY 2015 Implementation Plan filing.

3. Residential Heating Efficiency Rebate Program

The Residential Heating Equipment Rebates program (RHER) offers prescriptive rebates on premium efficiency heating equipment to increase the penetration of these technologies in the homes of PGW's customers. The program has the following objectives:

- Promote the selection of premium efficiency furnaces and boilers at the time of purchase of residentially-sized gas heating equipment.
- Increase consumers' awareness of the breadth of energy efficiency opportunities in their homes.
- Strengthen PGW's relationship with customers as a partner in energy efficiency.
- Encourage market actors throughout the supply chain to provide and promote high efficiency options.
- Align incentives with other programs.
- Aid in market transformation towards highest-efficiency options.

3.1. Overview

RHER launched in April 2011, and is open to any PGW customer who purchases residential-sized heating equipment (generally 300,000 Btu or less).⁵ Customers who use a licensed contractor to install the eligible, premium efficiency equipment will receive rebates to offset most of the incremental cost of the higher efficiency equipment. The following table shows the rebates offered through RHER.

TABLE 11. RHER REBATES OFFERED IN FY 2013

Measure	Rebate
Natural Gas Furnace w/ AFUE ≥ 94% Purchased before 2/16/2012	\$250
Natural Gas Furnace w/ AFUE ≥ 94% Purchased after 2/17/2012	\$500
Natural Gas Boiler w/ AFUE ≥ 94% Purchased before 2/16/2012	\$1,000
Natural Gas Boiler w/ AFUE ≥ 94% Purchased after 2/17/2012	\$2,000
Programmable Thermostat (must accompany furnace or boiler rebate)	\$30

⁵ All Customers upon whom the DSM Efficiency Costs Surcharge will be levied are eligible to participate in EnergySense Conservation programs.

3.2. Discussion of Results

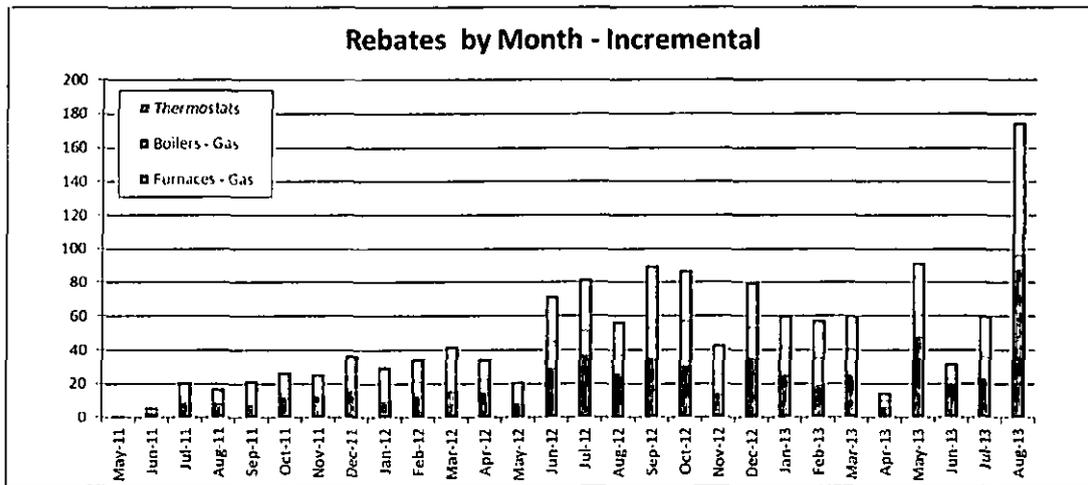
While the RHER program continues to under-perform against targeted program participation levels, an ongoing improvement trend continued throughout FY 2013. Specific variance causes and PGW responses are addressed in the Variance section below. The program is clearly cost-effective, as demonstrated by the program's Benefit-Cost-Ratio of 1.74. Program participation levels are increasing as additional communication and outreach activities have begun generating increased market awareness, as demonstrated in Figure 3 below. There remains room for program improvement, given the 35 percent program spending rate against budgeted goals. However it is worth noting that PGW's rebate activity increased by 73 percent, from 309 completed applications in FY2012 to 535 in FY2013.

PGW spent 34 percent of its budget and achieved 38 percent of the projected annual savings. As described in further detail below, PGW invested heavily in raising program participation through extensive marketing and by doubling incentives. This investment resulted in a steady increase in monthly program participation.

TABLE 12. RHER RESULTS FOR FY 2013

	FY 2013		
	Actual	Goal	Percent
PARTICIPATION			
Rejected Applications	137		
Completed Applications	535	1,280	42%
Total Applications	672		
COSTS (Nominal)			
Non-Incentive Spending	\$ 78,562	\$ 149,364	53%
Administration and Management	\$ -		
Marketing and Business Development	\$ 6,648		
Contractor Costs	\$ 42,402		
Inspection and Verification	\$ 1,133		
On-site Technical Assessment	\$ -		
Evaluation	\$ 30,899		
Customer Incentives	\$ 532,495	\$ 1,626,112	33%
Total Program Spending	\$ 611,057	\$ 1,775,476	34%
Participant Costs	\$ 441,009		
Total Costs	\$ 1,052,066		
SAVINGS			
First Year MMBtus	13,752	36,263	38%
Lifetime MMBtus	301,008	805,931	38%
First Year kWh	81,200		
Lifetime kWh	1,624,000		
Measures			
Furnaces	362		
Boilers	173		
Programmable Thermostats	306		

FIGURE 3. REBATE ACTIVITY SINCE INCEPTION



3.2.1. Program Costs

In FY 2013, PGW spent \$611,057 on RHER, approximately 34 percent of its planned budget. Together, fixed costs for contractor charges, on-site verifications, and program-specific marketing amounted to \$42,402. Costs for customer incentives totaled \$532,495. Costs assigned to the third-party evaluation were \$30,899. Beginning in FY 2013, PGW assigned more marketing costs to the portfolio and rather than the RHER program specifically, as more work was done to promote other programs and the portfolio as a whole. The difference between budgeted and actual costs is discussed further in the “Variance” section 3.2.4 below.

3.2.2. Measures

In FY 2013, PGW provided 173 boiler rebates and 362 furnace rebates. PGW also provided 306 thermostat rebates, which are only available with the purchase of a premium-efficiency furnace or boiler. The high participation rates for the additional thermostat rebates continued (57 percent of valid applications) in FY 2013.

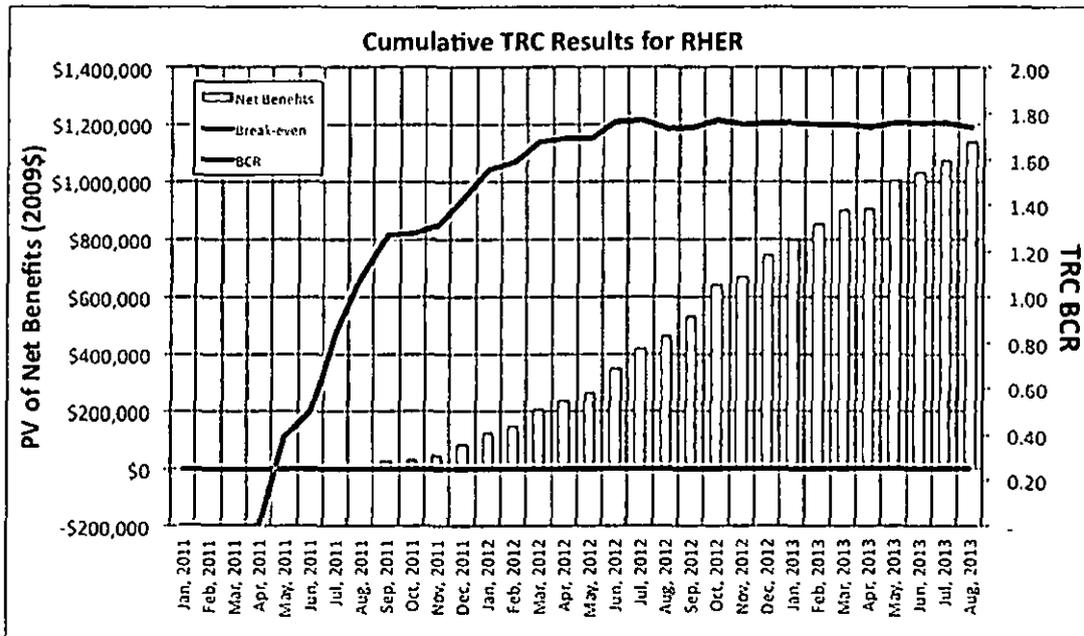
3.2.3. Cost-Effectiveness

Table 1313 and Figure 4 show the TRC results for RHER.

TABLE 13. COST-EFFECTIVENESS RESULTS FOR RHER (INCEPTION THROUGH FY 2013)

PRESENT VALUE (2009\$)	Actual
Benefits	\$2,717,250
Costs	\$1,555,954
Net Benefits	\$1,161,296
BCR	1.75

FIGURE 4. CUMULATIVE TRC NET BENEFITS FOR RHER (INCEPTION THROUGH FY 2013)



3.2.4. Variance

The RHER program’s activity levels continued trending upwards, based on an ongoing increase in market awareness and participation resulting from marketing efforts to date. However, PGW did not meet program targets for FY 2013 due to under-subscription. PGW has identified three primary issues contributing to under-performance to date, which provide opportunities for future improvement.

3.2.4.1. Communications and Marketing

RHER activity trending to date demonstrates a gradual but steady increase in program participation. PGW has undertaken additional marketing activities to increase program participation. In early program years, marketing efforts primarily focused on HVAC contractors to ensure they were aware of the program and communicated its benefits to their customers. This approach continues to be an ongoing priority, as PGW has continued hosting HVAC contractor educational events and contracted an Outreach Vendor to provide tabling events at HVAC equipment suppliers. PGW has also increased its marketing to customers through:

- Tabling sessions at community events;
- Outreach to neighborhood centers and district offices;
- Mass market ad-buys; and
- A revamped EnergySense website.

As all EnergySense programs are live, PGW is able to market the whole portfolio. The launch of the CRR (Home Rebates) program resulted in an increased marketing push and greater brand awareness for residential customers. There was also a spillover effect from the

commercial and industrial programs, as some builders and developers that were initially interested in CIRI or HECI purchased high efficiency equipment through the RHER program.

Surveys of contractors and rebate applicants in spring 2013 helped illustrate marketing needs. The survey showed that outreach to contractors through supply houses was an effective approach since many customers learned about rebates through their contractor. More customer outreach and market awareness still needs to occur so that customers know to ask for a high efficiency heater, regardless of whether their contractor is already aware of the program.

3.2.4.2. Rejection Rates

In FY 2013, the RHER program experienced a rejection rate of 20%. However, roughly 33% of claims submitted were rejected upon the first review, requiring the customer to submit additional information. In FY 2013, PGW continued to improve its protocols with the rebate processor to limit persistent rejections, including:

1. Providing additional clarity on the rebate application and website listing the program requirements and items required for submission
2. Relaxing requirements for AHRI certificates, and allowing the rebate processor to look up product eligibility based on the model number listed in the contractor's invoice
3. Identifying and taking action to resolve rejected rebates that had minor issues preventing approval, such as scenarios where:
 - a. A customer applies for a thermostat rebate with their heater rebate, but the thermostat isn't listed on the invoice.
 - b. Customer name or account number do not match because of a typo, or if the customer applied for the rebate under a spouse's name or LLC.
4. Sending monthly newsletters to contractors on our Trade Ally list with tips and reminders on how to submit rebates.

TABLE 14. SUMMARY OF BARRIERS AND SOLUTIONS FOR RHER

Barrier to Success	Strategy to Overcome Barrier
Incremental Cost Economics	Increased rebates
Customer under-subscription	Increase marketing
Application rejection rates	Allow call representatives to manually look up AHRI information if missing from the application rather than rejecting. Improve communications with customers and contractors.
Confusion for Large Customers	Provide additional consulting on eligible products and allow large customers to deal directly with PGW contact instead of rebate processor. Provide letters of funding commitment when requested. Create spreadsheet applications to streamline application process.

PGW experienced a 70 percent increase in processed rebates compared to FY 2012 activity. PGW expects these trends to continue upwards towards the projected goals as the increased marketing and outreach activities continue. PGW also expects an increased percentage of rebates to be paid to developers and landlords of multi-family buildings.

3.2.4.3. AHRI Down-rating

On November 19, 2012, AHRI announced that one of the allowed methods for testing and rating efficiency standards for modulating condensing residential boilers was being eliminated since it did not accurately account for heat-up and cool down times. Under this rule, boilers that had been rated above 94% AFUE using the eliminated method were automatically down-rated to 90% AFUE until they could be retested and recertified. PGW provided a grace period for customers who purchased one of the down-rated boilers that had been previously, allowing these customers to apply for a rebate if their unit was installed before December 31, 2012. PGW also communicated this information to its trade ally network to ensure customer awareness of the rule change.

The AHRI down-rating negatively affected participation, as several boiler models became ineligible. Some manufacturers and suppliers who were engaged in the program lessened their interest since their units didn't qualify. Contractors who preferred certain models had to adjust as well.

3.3. FY 2013 Program Activities

FY 2013 RHER activities focused on ongoing and increased efforts in order to raise program participation. Full FY 2013 developments are detailed below.

3.3.1. Maintained Rebate Levels

Rebate levels that had been increased in FY 2012 due to low market participation were continued at the increased levels throughout FY 2013.

3.3.2. Target Equipment Adaptations

No changes were made to the type or efficiency levels of the equipment offered by RHER in FY 2013. Analyses are currently underway to explore potential additional equipment, most notably including combination boilers that provide space heating & DHW heating in the same unit based on an on-demand water heater design.

3.3.3. Data Management

Through FY 2013, PGW maintained utilization of the program rebate processor's database intake and tracking system. This system allows PGW access to all program activity data and output reports. All data is also transferred to and stored within PGW internal databases as well.

3.3.4. Quality Assurance and Verifications

In addition to ongoing application data QA/QC protocols performed by the program rebate processor, PGW also continued performing random on-site equipment verifications in FY 2013 to confirm that appropriate equipment had been purchased and is present at the premise as documented in the customer application. There were 66 pieces of equipment

inspected, or 12 percent of all heater submissions. PGW will continue routinely performing these random equipment verifications to ensure program integrity. In FY 2013, PGW also implemented a protocol to perform inspections for customers seeking rebates for five or more heaters.

3.3.5. Contractor Engagement

As discussed in the previous PGW DSM Annual Reports and in the Variance section above. HVAC contractors continued to be the most effective communications channel for the RHER program in FY 2013. PGW continued to emphasize contractor engagement, through equipment supplier tabling sessions, contractor educational events, and trade ally emails throughout FY 2013.

TABLE 15. SOURCE OF RHER REFERRALS TO DATE

Source	Percentage
Community Event	1%
Family/Friend	5%
HVAC/Plumber	53%
Internet	4%
Newspaper Ads	1%
Other	8%
PGW Gas Bill	16%
Radio Ads	3%
TV Ads	1%
www.pgworks.com	10%
Total	100%

3.3.6. Large Projects and Coordination with Other PGW Programs

The RHER program has benefitted from both multi-family, new construction and commercial projects seeking CIRC and HECI program incentives. These projects converted to RHER participants after being unable to meet the requirements for the comprehensive grant programs. An increase in applicants seeking multiple furnace rebates for multifamily projects led PGW to simplify the process for these customers by creating a spreadsheet for easy submission and provide a single point of contact instead of relying on the rebate hotline. PGW has also provided letters of funding commitment when requested. This certainty is important for large developers and property managers when they are deciding to purchase high efficiency heaters.

3.3.7. Consumer Marketing

The increased consumer marketing activities, discussed in the Variance section above, continued through FY 2013, and will be further increased in FY 2014.

3.3.8. Partnerships

PGW continued the cross-promotion partnership with EnergyWorks, the low-interest energy-efficiency financing program provided by the City of Philadelphia and the five

surrounding counties. PGW has also engaged Community Development Corporations and other nonprofit agencies focused on housing rehabilitation to make them aware of the PGW equipment rebates.

3.3.9. FY 2011 Impact Evaluation

A third-party impact evaluation of the RHER program performance is currently underway. The initial report, on the initial 17 month long implementation period from April 1, 2011 through August 31, 2012 is expected to be completed in mid-FY 2014.

4. Commercial and Industrial Retrofit Program

The Commercial and Industrial Retrofit Incentives Program (CIRI) promotes natural gas energy efficiency retrofit investments by PGW's multi-family residential, commercial, and industrial customers. The program provides technical assistance and customized financial incentives of up to \$75,000 for cost-effective gas-saving investments including high-efficiency heating system replacements, improved system controls, and building thermal performance enhancements. The program also assists participants arrange financing for the balance of project costs through partnerships with third-party lenders. The program has the following objectives:

- Save natural gas through cost-effective energy efficiency retrofit projects.
- Make comprehensive energy-efficiency retrofits affordable by combining customized financial incentives with third-party financing to provide participating customers with immediate positive cash flow.
- Promote a better understanding of energy efficiency options available to PGW's nonresidential customers.

4.1. Overview

CIRI seeks to encourage property owners and managers to conduct energy audits of their facilities and identify cost-effective energy saving retrofit opportunities. The first phase of the program targeted energy efficiency opportunities in multi-family buildings. As the program ramped up during FY 2013, additional commercial and industrial customer classes were targeted.

PGW utilized a project economic and financial analysis tool to assess the cost-effectiveness of applicant projects. Based on the results of this analysis, PGW selected eligible projects for participation and designed customized incentives for the projects. PGW explained the results of the technical and financial assessment of the retrofit investment to customers, demonstrating the impact of its customized incentive offers on the projects' financial performance. Though PGW offered to work with customers to arrange third-party loans, no customers requested this assistance.

4.2. Discussion of Results

Customer participation in CIRI improved considerably in the FY 2013 program year. While the CIRI program continued to under-perform against its targeted program participation levels, it established an improvement trend that resulted in the receipt of 27 applications and seven paid incentive grants in FY 2013. Specific variance causes and PGW responses are addressed in the Variance section below. The program achieved cost-effectiveness in FY 2013, as demonstrated by the program's total resource cost Benefit-Cost-Ratio of 1.49 (2009\$).

The CIRI program initially focused on multi-family facilities, which are frequently smaller and with less gas consumption than industrial or commercial sites. As a result, each project on average resulted in less savings than initial projections. PGW achieved only 16 percent of its first-year BBTu natural gas savings and 18 percent of lifetime goals. Opportunities for

improvement are also evident in the 49 percent incentive spending rate against budgeted goals, and 70 percent customer participation rate.

TABLE 16. CIRI PROGRAM ACTIVITY FOR FY 2013

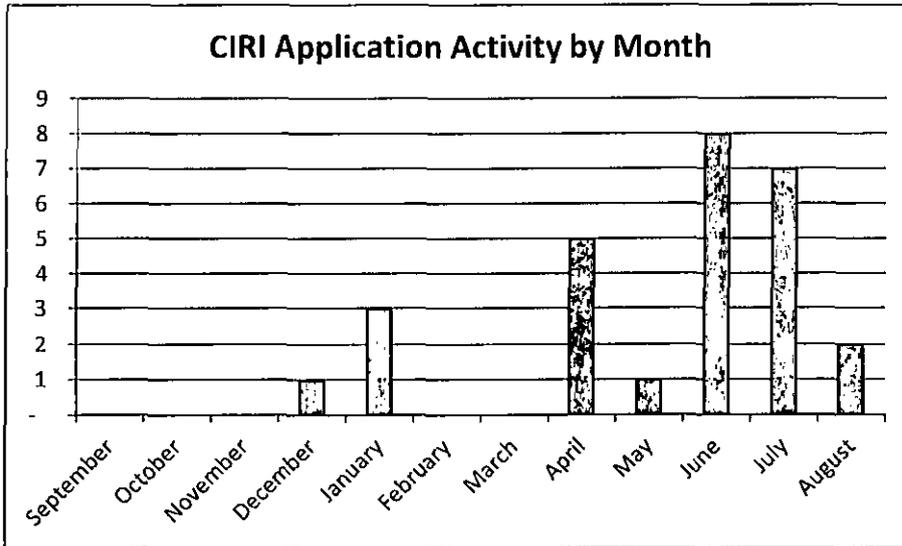
	FY 2013		
	Actual	Goal	Percent
PARTICIPATION			
Applications	27		
Incentive Agreements Issued	9		
Customer with Installations	7	10	70%
COSTS (Nominal)			
Non-Incentive Spending	\$62,766		
Administration and Management	\$-		
Marketing and Business Development	\$-		
Contractor Costs	\$54,419	\$167,420	33%
Inspection and Verification	\$8,348		
On-site Technical Assessment	\$-		
Evaluation	\$-		
Customer Incentives	\$170,597	\$351,529	49%
Total Program Spending	\$233,363	\$502,390	46%
Participant Costs	\$67,581	\$548,432	12%
Total Cost	\$300,944	\$1,050,822	29%
SAVINGS			
First Year BBtu	3.03	19.3	16%
Lifetime BBtu	51.19	289.1	18%
First Year kWh	49,159		
Lifetime kWh	967,242		
Summer Peak Demand kW	3		
First Year Water (Million Gallons)	1.7		
Lifetime Water (Million Gallons)	18.16		

Due to the complexity of CIRI projects, a potential for failure exists at each stage - from the time of initial engagement, through the application and construction stages, to the final test-out verification. In FY 2013, PGW received applications from 27 customers, three of which were ineligible due to the project type or the customer rate class. After full analysis of the application, including an on-site technical assessment, PGW issued incentive agreements to nine customers, two of which were from applications submitted in FY 2012. At the end of FY 2013, the remaining applications remained under review by PGW's technical assessment team, or were placed on hold for customers to provide additional project details.

Incentive agreements are valid for one-year after issuance, which provides customers with a lead-time for final financing, approval, and construction time. However, even after issuing an incentive agreement, PGW found that some customers chose not to proceed with the project. Eight customers that received grant commitments from PGW signed agreements to

proceed with the proposed projects. Seven of the eight projects with agreements signed in FY 2013 were completed and paid-out in FY 2013. PGW expects the final outstanding FY 2013 incentive agreement to be paid-out in early FY 2014.

FIGURE 5. CIRI FY 2013 APPLICATION ACTIVITY BY MONTH



PGW's marketing and outreach activities in early and mid- FY 2013 resulted in an uptick of applications submitted towards the end of the fiscal year. Many of the applications submitted late in the year in FY 2013 continue to be under review in FY 2014, and PGW anticipates seeing most of these projects proceed to construction and result in incentive awards in FY 2014.

4.2.1. Participation Summary

As described in the FY 2012 Implementation Plan, PGW launched CIRI with a commitment to focusing on multifamily retrofits in the first year of the program. Following the first year of programming, the scope was expanded to include all commercial and industrial properties in FY 2013. As a result of this initial focus, the seven completed FY 2013 incentive grants were to multi-family properties. Additionally, the customer sites were smaller than projected, resulting in a 49 percent program spending rate against budgeted goals, but a customer participation rate of 70 percent of the stated goal.

TABLE 17. CIRI CUSTOMER PARTICIPATION SUMMARY

Customer Type	FY 2013	Program Total	Total Percent
Multi-family	13	20	54%
Commercial	13	16	43%
Industrial	1	1	3%
Total	27	37	

4.2.2. Program Costs

In FY 2013, PGW spent \$233,363 on CIRI, approximately 46 percent of its planned budget. Variable Contractor Costs and Verification Costs were \$62,766. Variable costs for customer incentives were \$170,597. The difference between budgeted and actual costs is discussed further in the "Variance" section below.

4.2.3. Measures

CIRI is designed to provide an incentive for any cost-effective measure that conserves natural gas. In FY 2013, the most common measures that PGW incentivized included furnaces, boilers, domestic water heaters, piping insulation, low-flow faucet aerators and showerheads, and thermostats.

4.2.4. Cost-Effectiveness

Table 18 provides TRC results for CIRI.

TABLE 18. COST-EFFECTIVENESS RESULTS FOR CIRI (INCEPTION THROUGH FY 2013)

PRESENT VALUE (2009\$)	Actual
Benefits	\$426,877
Costs	\$286,630
Net Benefits	\$140,246
BCR	1.49

4.2.5. Variance

Although the CIRI program achieved a marked improvement in participation in FY 2013, including an upward trend in application activity through the year, activity fell short of program goals. PGW has identified three primary issues resulting in under-performance to date, which provide opportunities for improvement going forward:

4.2.5.1. Long Project Lifecycles

Due to the complexity of planning, financing, and executing large-scale retrofits on commercial properties, CIRI projects can require 12 months or more from initial engagement to completion of a project. The "slow burn" of business development activities in FY 2012 and early FY 2013 resulted in incentive payments at the close of FY 2013. PGW will continue to see benefits of the prior marketing activities as customers proceed with projects under consideration for CIRI grants from prior PGW fiscal years.

4.2.5.2. Project Characteristics

PGW's focus on the multi-family sector resulted in a greater number of relatively small projects compared to the targeted average project savings and incentive sizes, resulting in a decreased amount of incentive funds issued and savings achieved as compared with initial projections.

4.2.5.3. Communications and Marketing

Much of the initial CIRI marketing efforts targeted HVAC contractors, architects and engineers. This marketing approach has been effective, however direct customer outreach

proved to be more successful. Direct customer outreach through cold-calls or emails, or networking activities, resulted in 11 applications through the end of FY 2013.

Additional factors contributing to the “slow burn” described above are the long project development horizons and rolling application deadline. PGW sought to add a greater level of urgency by issuing a “Request for Applications (RFA)” earned media campaign, establishing a finite application deadline for priority review. This tactic resulted in the submission of six applications in FY 2013 and is discussed in greater detail below in section 4.3.2.

4.3. Program Activities

FY 2013 activities consisted of a renewed push to build customer awareness of the program. PGW renewed its marketing efforts through direct to-customer outreach, and with additional engagement methods, to guide customers through participation in CIRI. Developments to date are detailed below.

4.3.1. Marketing

PGW’s marketing activities for CIRI were conducted in tandem with the Commercial and Industrial Equipment Rebates (CIER) program. For all efficiency programs, PGW has relied heavily on a growing trade ally network of architects, engineers, and HVAC contractors to boost program participation.

In addition, PGW opened new channels to directly reach customers considering upgrade projects. This outreach included:

- Presentations to business associations and economic development agencies;
- A direct mail campaign targeting the chief financial officers, or other targeted financial decision makers at high-usage customer firms, providing a personalized URL for customers to log-on to a website for information about participating in EnergySense; and
- Cold-calling targeted property owners with publicized building upgrade projects.

4.3.2. Request for Applications

Capturing the attention of commercial customers has been a consistent challenge in business-to-business marketing. PGW frequently received a positive response to direct marketing efforts; however customers were not driven to take action. Despite the priority of customer types in prior program years, and the project design priorities, the CIRI program was designed to accept rolling applications.

To drive customers to action, PGW developed a “Request for Applications” (RFA) that, similar to a Request for Proposals (RFP), established a formal framework and timeline for customers to apply to CIRI. The RFA included hard deadlines for customers to apply, which created a stronger call to action than rolling deadlines. It was publicized through a press release, a dedicated page on PGW’s website, and by collaborator organizations that carried the message to their constituents.

The campaign resulted in six new applications being submitted by the deadline. The RFA also resulted in “earned media,” as the accompanying press release was carried by print and online news outlets.

4.3.3. PGW as a Resource Hub

PGW found that many of the customers reached through its direct-mail, and “RFA” earned-media campaigns were interested in building upgrade projects, but did not know where to begin. As a result, customers frequently required PGW’s guidance identifying the resources necessary to start a building upgrade project. This guidance included:

- Referring customers to publications that provide information about conducting an energy efficiency project, such as the EPA’s ENERGY STAR® Building Upgrade Manual.
- Guiding customers to contractors through the Delaware Valley Green Building Council’s Green Contractor Database.
- Directing customers to other funding opportunities, such as grants available through the Pennsylvania Department of Environmental Protection, or federal tax credits for energy efficiency projects.

PGW has begun to formalize project development assistance support for future program years

4.3.4. Quality Assurance

PGW conducted the first on-site inspection verifications of customer installations in FY 2013. All customer projects were inspected to confirm the equipment specifications and project completion. Verification was conducted by visual observation, photographic evidence, or proof of purchase.

While the majority of verifications confirmed that the correct measures were installed, some found discrepancies. In one case, a customer was unaware that the project contractor installed equipment different than specified. The grateful customer was able to correct the installation after learning of the discrepancy from PGW’s technical assistance provider.

4.3.5. Partnerships

4.3.5.1. EnergyWorks Commercial

The EnergyWorks program also assists in providing low-interest financing products for larger commercial and industrial efficiency projects. Similarly, the match between upfront incentives and low-interest financing programs could be a good fit for commercial and industrial applications as well.

Any funding partnerships would be applied on a project-by-project basis. PGW expects that both the City’s EnergyWorks and the PGW EnergySense programs will continue to make the other aware of relevant projects and will work together in closing projects that are eligible for both.

4.3.5.2. Pennsylvania Housing Finance Agency (PHFA)

PHFA currently provides funding assistance for multi-family residential energy-efficiency projects through the Smart Rehab program. PGW met with PHFA to learn best practices for funding energy-efficiency projects within this market, and to discuss specific projects, which may serve as ideal models for potential funding and financing partnerships between the two programs.

4.3.5.3. Energy Efficient Buildings Hub (EEB Hub)

In FY 2013, the EEB Hub offered grant-funded energy measurement and verification to businesses engaging in energy efficiency retrofits. PGW worked with the EEB Hub to identify customers that may be eligible for the EEB Hub's services.

Beginning in June 2013, the EEB Hub also hosted monthly seminars for building owners and service providers about Philadelphia's commercial building benchmarking ordinance. Through its partnership with the EEB Hub, PGW joined other regional utilities to present its grant and rebate programs to the group.

5. Commercial and Industrial Equipment Rebates

The Commercial and Industrial Equipment Rebates Program (CIER) issues prescriptive rebates on premium efficiency gas appliances and heating equipment to increase the penetration of these measures in the facilities of PGW nonresidential customers. The program has the following objectives:

- Promote the selection of premium efficiency models at the time of purchase of commercial- and industrial-sized gas heating equipment.
- Increase business customers' awareness of the breadth of energy efficiency opportunities in their properties.
- Strengthen PGW's relationship with business customers as partners in energy efficiency.
- Encourage market actors throughout the supply chain to provide and promote high efficiency options.
- Align incentives with other programs.
- Aid in market transformation towards highest-efficiency options.

Eligible customers use certified contractors to install the premium efficiency equipment and receive cash rebates to offset most of the incremental cost of the higher efficiency equipment.

5.1. Overview

CIER, which launched in the beginning of FY 2013, is open to any PGW customer who purchases commercial- and industrial-sized heating and cooking equipment for a DSM eligible property. Customers who use a licensed contractor to install the eligible, premium efficiency equipment will receive rebates to offset some of the incremental cost of the higher efficiency equipment. The following table shows the rebates offered through CIER.

TABLE 19. CIER REBATE AMOUNTS

Natural Gas Boilers

Size (kbtu/h)	85% Efficient	90% Efficient
300-499	\$800	\$2,900
500-699	\$1,400	\$3,600
700-899	\$2,000	\$4,200
900-1099	\$2,600	\$4,800
1100-1299	\$3,200	\$5,400
1300-1499	\$3,800	\$6,000
1500-1699	\$4,400	\$6,600
1700-1999	\$5,200	\$7,400
2000-2199	\$6,000	\$8,100
2200-2500	\$6,300	\$8,400

Natural Gas Cooking Equipment

Measure Name	Minimum Efficiency	Rebate Amount
Commercial Gas Convection Oven	ENERGY STAR®	\$500
Commercial Gas Fryer	ENERGY STAR®	\$1,000
Commercial Gas Fryer (large vat)	ENERGY STAR®	\$1,200
Commercial Gas Steam Cooker	ENERGY STAR®	\$500
Commercial Gas Griddle	ENERGY STAR®	\$500
High-Efficiency Pre-Rinse Spray Valve	<= 1.6 Gallons Per Minute (GPM)	\$25

5.2. Discussion of Results

In its first program year, the CIER program achieved cost-effectiveness in FY 2013, as demonstrated by the program's Benefit-Cost-Ratio of 3.39. Targeted program participation levels were not achieved, as discussed in the Variance section below. There is, however, a clear trend of ongoing improvement as additional communication and outreach activities have begun generating increased market awareness, as demonstrated in Figure 3 below.

PGW spent 31 percent of its budget and achieved 19 percent of the projected annual savings. However, due to the long measure life of commercial boilers, PGW achieved 40 percent of its lifetime savings goals.

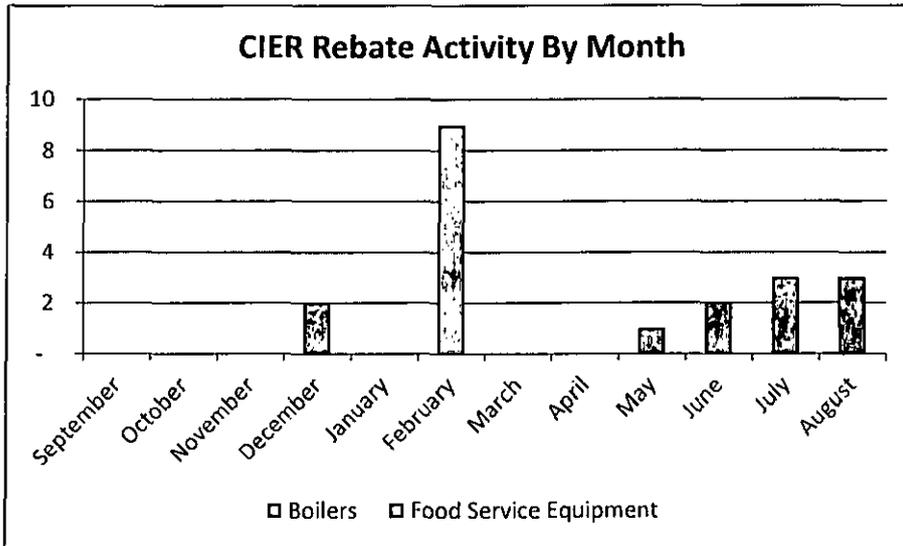
TABLE 20. CIER RESULTS FOR FY 2013

	FY 2013		
	Actual	Goal	Percent
PARTICIPATION⁶			
Rejected Claims	10		
Completed Claims	20	471	4%
Total Claims	30		
COSTS (Nominal)			
Non-Incentive Spending	\$50,898		
Administration and Management			
Marketing and Business Development		\$53,768	
Contractor Costs	\$50,898	\$71,690	
Inspection and Verification		\$12,696	
On-site Technical Assessment			
Evaluation			
Customer Incentives	\$83,100	\$270,004	31%
Total Program Spending	\$133,998	\$408,158	33%
Participant Costs	\$29,280	\$98,371	30%
Total Costs	\$161,277	\$506,530	32%
SAVINGS			
First Year BBTus	4.1	21.3	19%
Lifetime BBTus	100.4	248.3	40%
Measures			
Boilers	18		
Commercial Gas Convection Oven	2		

Rebate activity increased in FY2013 Q3 due to the groundwork laid by PGW's earlier and ongoing marketing activities in FY 2013. As discussed in the marketing section below, PGW communication activities in the latter half of FY 2013 drove the upward trend of rebate applications. This momentum is expected to continue as PGW further develops and deploys marketing efforts in FY 2014.

⁶ A claim is a rebate request for one piece of equipment. Because applications can have claims for multiple pieces of equipment, metrics for this section are based on claims.

FIGURE 6. FY 2013 CIER REBATE ACTIVITY



5.2.1. Program Costs

In FY 2013, PGW spent \$161,277 on CIER, approximately 32 percent of its planned budget. Contractor Costs were \$50,898, and variable costs for customer incentives were \$83,100. The difference between budgeted and actual costs is discussed further in the “Variance” section below.

5.2.2. Measures

In FY 2013, PGW provided 18 boiler rebates and two commercial oven rebates.

5.2.3. Cost-Effectiveness

Table 21 below provides TRC results for CIER.

TABLE 21. COST-EFFECTIVENESS RESULTS FOR CIER (INCEPTION THROUGH FY 2013)

PRESENT VALUE (2009\$)	Actual
Benefits	\$500,867
Costs	\$147,872
Net Benefits	\$352,995
BCR	3.39

5.2.4. Variance

The CIER program’s activity levels began to trend upwards, based on an ongoing increase in program awareness and participation resulting from marketing efforts to date. However, PGW did not meet program targets for FY 2013 due to under-subscription. PGW identified two primary issues resulting in under-performance to date, which provide opportunities for improvement going forward:

5.2.4.1. Communications and Marketing

As activity trended upwards in FY 2013, PGW leveraged the data collected to better inform its marketing activities. This data showed that outreach activities to customers through contractors resulted in the second largest driver of rebate applications, 28 percent of all customer applications.

In FY 2013, PGW aggressively marketed CIER to its trade ally network, including:

- Hosting educational events on high efficiency equipment;
- Establishing a regular email newsletter for trade allies; and
- Presenting at trade association events.

The largest proportion, 39 percent, of PGW's CIER customers learned of the program through their gas bills. This statistic pointed to the need for increased customer-focused outreach, and in FY 2013 PGW increased this effort by:

- Launching a sophisticated direct-mail campaign targeting businesses' CFOs or other financial decision makers in order to sway customer purchasing decisions;
- *Conducting outreach to business associations and economic development agencies;* and
- Advertising in business journals.

These campaigns will continue to urge customers to take advantage of PGW's rebate program to reduce upfront costs and save even more on annual heating bills over the lifetime of the new high-efficiency equipment.

5.2.4.2. Food Service Equipment Supply Chain

The commercial food service equipment rebates were the lowest-performing group of PGW's equipment rebates. When examining causes, PGW found that many of the food service equipment supply houses did not stock high-efficiency equipment. Walk-in customers were unable to purchase equipment for immediate use and frequently had to pre-order the eligible ENERGY STAR® equipment.

Through its outreach activities, PGW educated supply houses on the benefits of stocking premium high-efficiency equipment, and succeeded in convincing two supply houses to stock the equipment. PGW will continue to work with restaurant supply houses to update stocking procedures so the high-efficiency equipment is readily available.

5.3. Program Activities

FY 2013 CIER activities focused on ongoing and increased efforts to raise program participation. Full FY 2013 developments are detailed below.

5.3.1. Data Management

The program rebate processor provided PGW with a comprehensive data tracking system closely linked to its rebate processing. PGW has developed automatic electronic access to the rebate processor's system through a web portal, allowing real-time confirmation of customer eligibility and imports of custom program activity datasets. PGW uses this data to *generate reports that allow program administrators to track progress, performance and costs.*

PGW plans to develop the capability to transfer this data within the Company's internal database for analytical purposes and long-term warehousing.

5.3.2. Quality Assurance and Inspections

PGW performed on-site visits for a random selection of projects to verify that documented measures were present and eligible for the CIER program. The verification included two parts:

1. Validation of application information to confirm the customer data, checks on the installed equipment to ensure the equipment matched the application information, and coordination with customers to validate contractor information;
2. Collection of customer feedback on the rebate processing and application experience to ensure high quality rebate processing service.

All CIER equipment installations inspected in FY2013 were confirmed as valid.

5.3.3. Marketing

As discussed in the CJRI Program Activities section above, PGW will continue to market the CIER program by engaging the contractor trade ally network in the Philadelphia region, while increasingly employing direct to consumer market awareness campaigns and targeted outreach efforts.

5.3.4. Partnerships

In addition to the existing partnerships with EnergyWorks and PHFA, PGW has established the following partnership for CIER.

5.3.4.1. ENERGY STAR®

ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy that promotes energy efficient products and practices. In an effort to promote the CIER commercial food service rebates for ENERGY STAR rated equipment, PGW became an ENERGY STAR Energy Efficiency Program Sponsor in FY 2012. This partnership has allowed PGW to stay up-to-date with ENERGY STAR activities and be listed in its searchable databases of rebates and incentives.

5.3.4.2. Pennsylvania Restaurant and Lodging Association (PRLA)

PGW joined PRLA to communicate to its members in Philadelphia about the benefits of participating in the EnergySense programs. PGW attended networking events to communicate the programs to Philadelphia chapter members, and plans to seek additional outreach opportunities through its membership to PRLA.

6. High Efficiency Construction Incentives Program

The High Efficiency Construction Incentives Program (HECI) promotes natural gas energy efficiency in the construction and gut rehab markets, both for residential and non-residential construction projects. The program provides technical assistance and *prescriptive financial incentives for projects that go beyond building code*. Incentives increase progressively for projects the more natural gas a project saves compared to the code baseline. The program has the following objectives:

- Save natural gas through cost-effective energy efficiency new construction and gut rehabilitation projects.
- Promote a better understanding of energy efficiency options available in the new construction and gut rehabilitation markets.
- Aid in market transformation towards highest-efficiency building and equipment options.

6.1. Overview

HECI seeks to convince homebuilders, building owners, engineers, architects, and contractors to incorporate natural gas efficiency measures into the design of their projects and go beyond the minimum efficiency standards dictated by the building code. The HECI program consists of two types of incentives based on gas conservation achieved beyond baseline building code: a more prescriptive rebate design for single-family residential buildings, and a customized incentive design for commercial and industrial buildings.

Single-family homes are eligible for prescriptive incentives, \$750 per-house, for building to conserve 20 percent or more gas beyond the consumption level resulting from building code. The incentive amount was designed to address over 50 percent of the incremental costs for residential new construction projects in coordination with heating system rebates offered through RHER. This design is intended to provide a prescriptive rebate for developers building multiple houses on the same model.

Commercial, industrial and multi-family facilities are eligible for a customized, sliding scale incentive based on the level of savings, with a maximum per-project HECI incentive of \$60,000 in coordination with heating system rebates offered through RHER and CIER. *This design is intended to incentivize building developers to go beyond standard energy conservation measures, and to seek creative solutions for their facilities to achieve a high level of energy savings.*

TABLE 22. HECI COMMERCIAL, INDUSTRIAL AND MULTI-FAMILY INCENTIVE STRUCTURE

HECI Incentive – Commercial, Industrial and Multi-Family	Incentives to Owner (Per-First Year MMBtu Saved)
≥ 5% to < 10% more efficient than code	\$ 5.00
≥ 10% to < 20% more efficient than code	\$ 13.00
≥ 20% to < 30% more efficient than code	\$ 24.00
≥ 30% more efficient than code	\$ 40.00

6.2. Discussion of Results

Due largely to high program startup costs, and the low savings resulting from smaller projects, HECI was not cost-effective in its first program year. The HECI program's Benefit-Cost-Ratio was 0.95 (2009\$). Specific variance causes and PGW responses are addressed in the Variance section below.

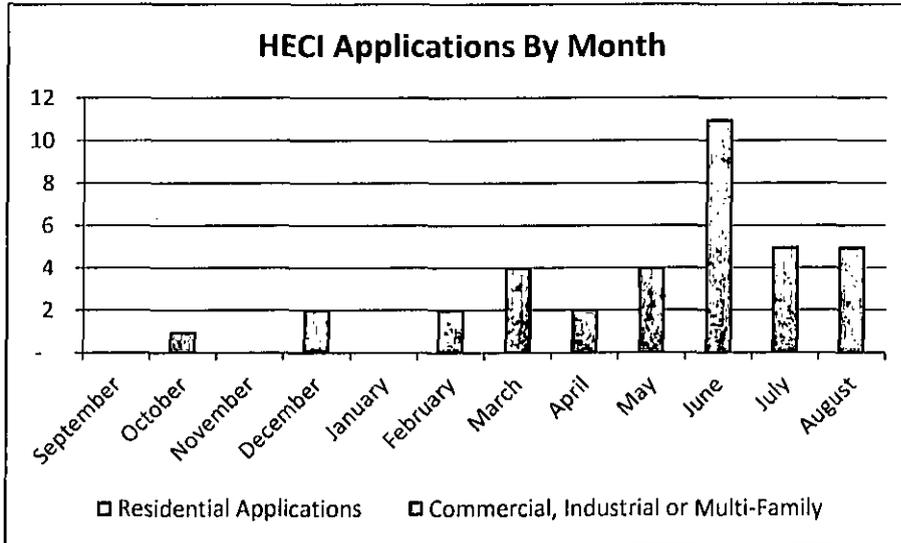
HECI participation levels are increasing as additional communication and outreach activities began raising market awareness, as demonstrated in Figure 7 below. There remains room for program improvement. PGW spent 23 percent of its incentive budget and achieved 20 percent of the projected annual savings.

TABLE 23. HECI RESULTS FOR FY 2013

	FY 2013		
	Actual	Goal	Percent
PARTICIPATION			
Residential Applications	21		
Commercial Applications	15		
Applications Rejected or Withdrawn	9		
Customers with Installations	3	125	2%
COSTS (Nominal)			
Non-Incentive Spending	\$54,455		
Administration and Management	\$-		
Marketing and Business Development	\$-	\$35,845	
Contractor Costs	\$51,855	\$26,635	
Inspection and Verification	\$2,600	\$3,368	
On-site Technical Assessment	\$-		
Evaluation	\$-		
Customer Incentives	\$32,330	\$140,547	23%
Total Program Spending	\$86,785	\$206,395	42%
Participant Costs	\$23,999	\$35,137	
Total Cost	\$110,784	\$241,532	46%
SAVINGS			
Net Annual BBtu	0.66	3.3	20%
Net Lifetime BBtu	12.66	65.3	19%

Application activity for HECI trended upward during the third quarter of FY2013. This increase in activity was due to the groundwork laid by persistent marketing activities in FY 2013. As discussed in the marketing section below, PGW's communication activities in the latter half of FY 2013 drove application submissions. Due to long timeframe of most construction projects, PGW expects this application activity to drive incentive payouts in FY2014.

FIGURE 7. FY 2013 HECI APPLICATION ACTIVITY



6.2.1. Program Costs

In FY 2013, PGW spent \$86,785 on HECI, approximately 42 percent of its planned budget. Fixed and variable Contractor Costs resulted in the bulk of this spending, at \$51,855, and were attributed to the program build-out including application and customer tool development. Variable costs for verification and customer incentives were \$34,930. The difference between budgeted and actual costs is discussed further in the "Variance" section below.

6.2.2. Project Types

In FY 2013, PGW received 21 applications from residential single-family attached town or row-house properties, and 15 applications from commercial properties including nine from multi-family buildings and six from other commercial facilities.

6.2.3. Cost-Effectiveness

Table 13 below provides TRC results for HECI.

TABLE 24. COST-EFFECTIVENESS RESULTS FOR HECI (INCEPTION THROUGH FY 2012)

PRESENT VALUE (2009\$)	Actual
Benefits	\$88,413
Costs	\$92,900
Net Benefits	\$(4,486)
BCR	0.95

6.2.4. Variance

The HECI program's activity levels began to trend upwards, based on increased program awareness and participation resulting from marketing efforts to date. However, PGW did not meet program targets for FY 2013 due to under-subscription. PGW has identified three primary issues resulting in under-performance to date, which provide opportunities for improvement going forward:

6.2.4.1. Communications and Marketing

As activity trended upwards in FY 2013, PGW leveraged historical data to better inform marketing activities. Through this analysis, PGW found that the largest proportion of PGW HECI applicants (28 percent) learned of the program directly from PGW. As construction on buildings increased during the spring and summer of 2013, customers contacted PGW for service turn-ons and other service requests. PGW coordinated internally to refer these customers to EnergySense programming for assistance with their projects. PGW also sought to identify new project developments underway with community and economic development agencies.

PGW aggressively marketed HECI to its trade ally network, including:

- Conducting webinars with program information;
- Establishing a regular email newsletter for trade allies; and
- On-site presentations at trade allies' continuing education seminars.

6.2.4.2. Customer Project Lifecycle

Due to the complexity and long-planning process required for new construction projects, HECI projects were found to take eight months or more from initial engagement to project completion. As a result, business development activities conducted in early FY 2013 resulted in incentive payments at the close of FY 2013. PGW will continue to see benefits of the prior marketing activities as customers proceed with projects under consideration for HECI incentives from prior PGW fiscal years.

6.2.4.3. Program Application Complexity

In several instances after submitting promising screening applications, customers failed to complete the full application required to conduct building energy modeling. This finding led PGW to decide that the HECI application process was too time-consuming for many developers. PGW plans to streamline its application process for future applicants in FY 2014.

6.3. Program Activities

FY 2013 activities consisted of a renewed push to build customer awareness of the program. PGW intensified its marketing efforts through direct-to-customer outreach, and established customer engagement methods that established stronger frameworks to guide customers through participation in HECI. Developments to date are detailed below.

6.3.1. Data Management

PGW's HECI program Technical Assistance Provider (HECI TAP) implemented an online customer relationship management (CRM) database to track customer applications. Customers complete an online screening application that is submitted directly to the online CRM platform. All customer contacts are stored in the system, and the HECI TAP provides PGW with weekly reports on application progress, which PGW stores for use in developing program-wide analysis reports.

6.3.2. Quality Assurance

In FY2013, PGW inspected all incentive recipients, including one multifamily facility and two single-family residences. In future project years, only a sample of all residential

projects, and all commercial, industrial and multi-family projects, will be inspected by the HECI TAP before issuing the incentive payment.

6.3.3. Marketing

There were no updates to PGW's HECI marketing strategy.

6.3.4. Customer Tools

PGW commissioned the HECI TAP to develop two customer tools to provide guidance in selecting high efficiency measures to include in project designs. For residential and multi-family customers, the Efficiency Measure Workbook (EMW) provides an interactive Excel-based tool to determine potential energy savings and incentive estimates for customers considering specific efficiency upgrades. For commercial customers, an Efficiency Measure Guide was developed to identify the savings potential for various efficiency measures based on common building types.

6.3.5. Partnerships

PGW has continued partnership efforts with EnergyWorks and PHFA as described in the RHER and CIRI sections above.

6.3.5.1. American Institute of Architects (AIA) Philadelphia

In FY 2013, PGW became a member of AIA Philadelphia to promote its construction grants program. PGW used this membership to promote program activity in its newsletters. PGW plans to continue expanding the scope of its involvement with AIA Philadelphia.

7. Comprehensive Residential Retrofit Incentive Program

The Comprehensive Residential Retrofit Incentive Program (CRRRI) offers performance-based incentives to PGW's residential customers who implement whole-home energy efficiency retrofits. The program has the following objectives:

- Save natural gas through cost-effective residential retrofits.
- Achieve reductions of 20 percent or more in annual gas heating consumption on average among all participants.
- Promote better understanding of energy efficiency options available for the residential market.

As part of the program launch, the CRRRI program had been re-branded as "Home Rebates" for customer marketing purposes.

7.1. Overview

CRRRI provides incentives to single-family residential customers for implementing natural gas saving measures in their home, such as air sealing, insulation, and heating system replacements. Customers are eligible for a low-cost energy assessment and can earn rebates based on the deemed first-year MMBtu savings of their completed measures. PGW, through a third-party administrator, oversees a network of contractors approved to perform work under CRRRI. The program builds on the lessons learned from implementing ELIRP, which promotes similar energy efficiency packages among PGW's low-income population through use of approved conservation service providers (CSPs).

7.2. Discussion of Results

TABLE 25. CRRI RESULTS FOR FY 2013

	FY 2013		
	Actual	Goal	Percent
PARTICIPATION			
Audits	39		
Completed Jobs	1	150	1%
COSTS (Nominal)			
Non-Incentive Spending	\$274,330	\$204,058	134%
Administration and Management	\$-		
Marketing and Business Development	\$-		
Contractor Costs	\$274,330		
Inspection and Verification	\$-		
On-site Technical Assessment	\$-		
Evaluation	\$-		
Incentives	\$5,846	\$173,407	3%
Total Program Spending	\$280,176	\$377,464	74%
Participant Costs	\$7,907	\$21,095	
Total Cost	\$288,083	\$398,559	72%
SAVINGS			
First Year MMBtus	30	3,121	1%
Lifetime MMBtus	608	65,546	1%
First Year kWh	356		
Lifetime kWh	8,317		

The CRRI program began with a “soft” launch in spring 2013, with the most market-ready CSPs offering CRRI program services to targeted customers. Initial customers were developed through word of mouth and targeted outreach efforts, as a means of slowly market-testing the program design before launching larger mass-market lead generation campaigns.

The CRRI program “hard” launch took place in September 2013. This was marked by increased marketing and outreach initiatives both by PGW and by CSPs who are required to reach marketing targets for FY2014.

7.2.1. Program Costs

In FY 2013, PGW spent \$280,176 on CRRI, approximately 74 percent of its planned budget. Contractor Costs were \$274,330, and incentives paid to customers for completed jobs and contractors for audits and completed jobs totaled \$5,846. The difference between budgeted

and actual costs is mainly due to slower than anticipated start-up with most efforts spent on the development and training of a contractor network for program delivery.

7.2.2. Measures

Measures offered in CRRRI are similar to those in ELIRP. The main difference is the introduction of customer preference. Once more projects have been completed in FY 2014, PGW expects to provide a more detailed report on the measures used in the program.

7.2.3. Cost-Effectiveness

Because implementation of the CRRRI program has involved so few completed projects by the end of FY 2013, cost-effectiveness analysis at this early stage would not be meaningful. Next year's FY 2014 will provide the standard TRC cost-effectiveness analysis results.

7.3. Program Activities

FY 2013 was dedicated to identifying initial program delivery issues, training additional CSPs, and preparing communication and marketing initiatives. Full FY 2013 developments are detailed below.

7.3.1. Program Design

PGW residential customers participating in the CRRRI program are directed to one of the five initially-selected program CSPs to perform their energy audit. PGW and the CSPs partnered to develop an audit fee discount model, in which PGW, the CSP, and the customer all absorb a portion of upfront audit costs. This audit fee model results in an upfront customer charge of \$150, or about 70 percent below market costs. CSPs are required to provide their audit reports to the Program Administrator (PA) for a desktop review and approval. Improving the audit's affordability lowers the customer's initial barrier to entry while still requiring a manageable level of program buy-in. Creating a more uniform cost structure has also simplified efforts to market the program.

After performing the audit, the CSPs then provide a recommended package of cost-effective energy efficiency measures. Customers then select their desired job scope, upon which the PGW incentive is calculated. Upon satisfactorily completing the project and undergoing review by the PA, PGW will then pay incentives to both customers and contractors based on the amount of energy saved. The incentives were designed with three primary considerations:

1. Encourage both homeowners and contractors to seek the greatest savings possible;
2. Preserve program cost-effectiveness and budgets, while also providing a clearly communicated and comprehensible incentive design methodology;
3. Appropriately align with RHER program rebates amounts, to avoid perversely incentivizing customers away from comprehensive projects.

The CRRRI incentives vary depending upon which heating system replacement option the customer chooses to pursue (see **Error! Reference source not found.**²⁷ for a detailed summary). In general, homeowners receive a rebate of \$40 per MMBtu of first-year gas savings, based on PGW deemed savings calculations. An incentive of \$10 per MMBtu is

provided to CSPs who attain a minimum of 15 percent savings. This CSP incentive provides an ambitious yet still realistic goal for deep energy savings, as the overall program goal of 20 percent is not always attainable in all cases. This incentive model rewards both CSPs and customers for proceeding with projects that achieve the maximum energy savings possible.

For air sealing and duct sealing measures, the CSP and customer incentive is calculated based on test-in audit projections, so long as test-out savings fall within 25 percent of the projection. If a CSP reports a discrepancy greater than 25 percent between the audit projection and test-out efficiency gains, incentives are instead based on actual savings. The design of this incentive structure takes into consideration the difficulty in reaching precise calculation estimates for such measures.

TABLE 26. CRRI INCENTIVE DESIGN

Heating System Replacement	Customer Rebate	Contractor Rebate
No Heating System Replacement	\$40 per MMBtu saved	\$10 per MMBtu saved upon achieving 15-percent reduction
High Efficiency Furnace Replacement	\$500 (or \$40 per MMBtu saved if this amount is greater) and \$40 per MMBtu saved from additional measures	\$10 per MMBtu saved upon achieving 15-percent reduction
High Efficiency Boiler Replacement	\$2,000 (or \$40 per MMBtu saved if this amount is greater) and \$40 per MMBtu saved from additional measures	\$10 per MMBtu saved upon achieving 15-percent reduction

PGW and the PA have emphasized the importance of oversight and quality control in order to ensure added value for customers. CSPs are shadowed and evaluated by the PA on three of their first five energy assessments. The PA has performed audits for all participating CSPs during FY2013, evaluating the CSPs on a range of categories such as professionalism, adherence to health and safety protocols, and general home inspection and technical proficiency. Inspections may also take place at the midpoint of the first three energy improvement installations for each CSP. Following project completion, PGW conducts random inspections of a minimum 5 percent of projects. PGW views the inspections as opportunities to mentor CSP staff and ensure performance improvement by assisting CSPs in learning from mistakes discovered during the inspections.

PGW has created four CSP categories to ensure CSPs maintain high standards of quality and to provide a means of disciplining CSPs for poor performance.

1. Provisional – Initial status. CSP is subject to advanced oversight and quality assurance (QA) on two of initial three projects.
2. Full – CSP completes training requirements and demonstrates satisfactory performance.
3. Probationary – CSP is found to have breached ethical standards or fails two consecutive QA inspections. A written action plan must be submitted. PGW increases the number of QA reviews.
4. Suspended – CSP fails to fulfill probationary terms. Already started projects may be completed, but program benefits (incentives, new leads, etc.) are discontinued.

7.3.2. Contractor Network

PGW developed the CRRP program's CSP contractor network so that customers can exercise their preference for a specific CSP. Limiting the CSP network to five CSPs meanwhile reduces potential customer confusion and indecision. PGW also limited the number of CSPs to ensure effective oversight of the CSP network and thereby guarantee a consistently high level of quality in customer experiences.

PGW provides CSPs with the same contractor cost-effectiveness tool initially developed for the ELIRP program, modified for application within the market-rate program. The tool offers additional features for selling the project to the customer, including an incentive calculator, customer economics, financing terms, and a report that can be co-branded by the CSP and left with a customer.

PGW selected Performance Systems Development (PSD) as the CRRP Program Administrator. PSD is responsible for training, mentoring, and overseeing the CSP network. This includes coordinating training sessions, reviewing CRRP applications, performing on-site inspections, mentoring CSPs on performance improvement, and processing all customer applications and incentives.

In spring 2013, PSD led a two-day training on the CRRP program for all participating CSPs. This training provided a comprehensive introduction for all program staff, including auditors and field staff, management, and administrative. PGW and PSD hold quarterly meetings in person to review program performance and program updates. CSP funding reallocations will occur at quarterly meetings, but have not yet been performed in FY 2013 as PGW was still gathering initial program launch data. PGW and PSD also hold webinar meetings monthly or as needed to review updates and offer CSPs the opportunity to bring up questions and issues.

7.3.3. Marketing

Program marketing is achieved through a collaborative model between PGW, the PA, and CSPs. The target market segments among PGW's eligible population of residential heating customers includes:

- Customers with annual gas usage in the top quintile of all PGW heating customers;
- Customers already in the market for end-of-life heating system replacement and thus eligible to participate in the RHER program;
- Previous PGW EnergySense equipment rebate customers who may be interested in further energy efficiency measures

The CRRRI marketing teams are promoting the program at outreach events supported by a mass-market ad campaign including online, billboard, TV, radio, and print. Outreach activities also include development of neighborhood-specific and multi-language marketing tools. These campaigns encourage customers to eliminate energy waste while making their homes more comfortable and less costly to maintain.

PGW coordinated marketing training for CSPs to maximize the impact of their marketing efforts. This training focused on lead generation, communication strategies, metric management, and scaling marketing activities with business and program growth. In addition, development of the split incentive mechanism (\$10/MMBtu saved) serves as motivation for CSPs to attract new leads. Despite the incentive, PGW recognizes that additional program marketing support is still necessary to assist CSPs with lead generation.

7.3.4. Partnerships

7.3.4.1. Keystone HELP

The cross-promotion partnership for project financing through the Keystone HELP program will serve as an effective tool in closing projects. Ongoing partnership with the EnergyWorks for both data and knowledge transfer has also influenced the CRRRI approach to marketing and CSP training, as CRRRI builds off the previous achievements of the EnergyWorks program.

7.3.4.2. Philadelphia Works, Inc.

PGW has also partnered with the Philadelphia Works Inc. through PA CareerLink Philadelphia to connect local unemployed workers with weatherization training programs and employment opportunities with CRRRI CSPs. This builds upon the partnership PGW has developed for ELIRP.

Appendix A

Cost Recovery Reconciliation

Table A.1 - USC Cost Recovery (September 2012 through August 2013)

<u>Month</u>		<u>Applicable</u>	<u>USC</u>	<u>USC</u>	<u>USC</u>	<u>Monthly</u>	<u>Cumulative</u>
<u>FY 12 Reconciliation</u>		<u>Volumes</u>	<u>Charge</u>	<u>Revenue</u>	<u>Expenses</u>	<u>Over/(Under)</u>	<u>Over/(Under)</u>
				<u>Billed</u>		<u>Recovery</u>	<u>Recovery</u>
							<u>(\$12,100,465)</u>
September 2012	Actual	1,169,843	\$2.0689	\$2,420,289	\$(2,095,896)	\$4,516,185	(\$7,584,280)
October	Actual	1,609,480	\$2.0307	\$3,268,371	\$(87,330)	\$3,355,701	(\$4,228,579)
November	Actual	3,948,947	\$2.0307	\$8,019,127	\$6,832,776	\$1,186,351	(\$3,042,229)
December	Actual	6,043,512	\$2.0269	\$12,249,595	\$13,512,866	\$(1,263,271)	(\$4,305,500)
January 2013	Actual	8,011,065	\$2.0231	\$16,207,185	\$20,806,264	\$(4,599,079)	(\$8,904,579)
February	Actual	8,733,933	\$2.0231	\$17,669,619	\$21,468,788	\$(3,799,170)	(\$12,703,748)
March	Actual	7,334,853	\$2.0735	\$15,208,817	\$18,309,930	\$(3,101,113)	(\$15,804,862)
April	Actual	4,990,006	\$2.1239	\$10,598,274	\$11,471,064	\$(872,790)	(\$16,677,652)
May	Actual	2,266,270	\$2.1239	\$4,813,331	\$4,086,611	\$726,721	(\$15,950,931)
June*	Actual	1,468,607	\$2.0716	\$3,042,292	\$146,091	\$2,896,201	(\$13,054,730)
July	Actual	1,119,025	\$2.0192	\$2,259,535	\$(1,088,883)	\$3,348,418	(\$9,706,312)
August	Actual	1,050,483	\$2.0192	\$2,121,136	\$(665,482)	\$2,786,618	(\$6,919,694)

Table A.2 - USC Expenses (September 2012 through August 2013)

<u>USC Expenses</u>	<u>Sep-12</u>	<u>Oct-12</u>	<u>Nov-12</u>	<u>Dec-12</u>	<u>Jan-13</u>	<u>Feb-13</u>
CWP/ELIRP Expense	\$3,438	\$457,807	\$499,011	\$3,347	\$1,075,076	\$872,125
CWP/ELIRP Labor	\$5,331	\$5,489	\$9,190	\$7,826	\$7,834	\$7,951
CRP Discount	\$(2,956,763)	\$(1,446,565)	\$5,210,746	\$12,093,600	\$17,968,024	\$18,835,842
CRP Forgiveness	\$681,304	\$658,753	\$533,301	\$472,759	\$547,865	\$497,360
Senior Citizen Discount	\$170,794	\$237,187	\$580,528	\$935,334	\$1,207,464	\$1,255,510
Bad Debt Expense Offset*	\$-	\$-	\$-	\$-	\$-	\$-
Total	\$(2,095,896)	\$(87,330)	\$6,832,776	\$13,512,866	\$20,806,264	\$21,468,788
<u>USC Expenses</u>	<u>Mar-13</u>	<u>Apr-13</u>	<u>May-13</u>	<u>Jun-13</u>	<u>Jul-13</u>	<u>Aug-13</u>
CWP/ELIRP Expense	\$647,361	\$40,240	\$1,343,847	\$852,976	\$777,559	\$1,491,255
CWP/ELIRP Labor	\$10,454	\$8,188	\$10,381	\$9,339	\$8,347	\$34,561
CRP Discount	\$15,997,508	\$10,110,894	\$1,794,573	\$(1,520,234)	\$(2,632,669)	\$(2,857,389)
CRP Forgiveness	\$587,261	\$580,488	\$594,106	\$593,741	\$592,891	\$513,948
Senior Citizen Discount	\$1,067,346	\$731,254	\$343,703	\$210,268	\$164,990	\$152,143
Bad Debt Expense Offset*	\$-	\$-	\$-	\$-	\$-	\$-
Total	\$18,309,930	\$11,471,064	\$4,086,611	\$146,091	\$(1,088,883)	\$(665,482)
<u>USC Expenses</u>			<u>Total</u>			
CWP/ELIRP Expense				\$8,064,042		
CWP/ELIRP Labor				\$124,891		
CRP Discount				\$70,597,568		
CRP Forgiveness				\$6,853,778		
Senior Citizen Discount				\$7,056,521		
Bad Debt Expense Offset*				\$-		
Total				\$92,696,799		

*Bad Debt Expense Offset Applicable When Actual CRP Participation Exceeds 84,000

Table A.3 - Efficiency Cost Recovery Surcharge (September 2012 through August 2013)

Residential & PHA GS

		<u>Actual * Sep-12</u>	<u>Actual * Oct-12</u>	<u>Actual Nov-12</u>	<u>Actual Dec-12</u>	<u>Actual Jan-13</u>	<u>Actual Feb-13</u>
RESIDENTIAL & PHA GS							
FY 2012 Over-Collection							
Volume Billed		776,091	1,060,326	2,860,862	4,639,892	6,128,404	6,752,192
ECR Surcharge		\$ 0.0399	\$ 0.0411	\$ 0.0411	\$ 0.0588	\$ 0.0765	\$ 0.0765
Revenue Billed		\$ 30,927	\$ 43,579	\$ 117,581	\$ 272,826	\$ 468,823	\$ 516,543
RHER	Expense	\$ 21,577	\$ 46,918	\$ 97,327	\$ 903	\$ 117,724	\$ 57,524
RHER	Labor	\$ 1,438	\$ 1,481	\$ 2,479	\$ 2,112	\$ 2,114	\$ 2,145
HECI	Expense	\$ 52	\$ 500	\$ 11,279	\$ 4,314	\$ 926	\$ 5,988
HECI	Labor	\$ 81	\$ 84	\$ 140	\$ 119	\$ 119	\$ 121
CRR1	Expense	\$ 401	\$ 3,828	\$ 4,501	\$ 391	\$ 7,089	\$ 499
CRR1	Labor	\$ 622	\$ 641	\$ 1,073	\$ 913	\$ 914	\$ 928
CIR1	Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CIR1	Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CIER	Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CIER	Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total		\$ 24,172	\$ 53,452	\$ 116,799	\$ 8,751	\$ 128,886	\$ 67,205
Monthly Over/(Under)		\$ 6,755	\$ (9,872)	\$ 783	\$ 264,074	\$ 339,937	\$ 449,338
Cumulative Over/(Under)		\$ 1,111,115	\$ 1,101,243	\$ 1,102,026	\$ 1,366,100	\$ 1,706,037	\$ 2,155,375
		<u>Actual Mar-13</u>	<u>Actual Apr-13</u>	<u>Actual May-13</u>	<u>Actual Jun-13</u>	<u>Actual Jul-13</u>	<u>Actual Aug-13</u>
RESIDENTIAL & PHA GS							
FY 2012 Over-Collection							
Volume Billed		5,651,374	3,830,140	1,640,553	1,012,327	759,707	679,966
ECR Surcharge		\$ 0.0820	\$ 0.0875	\$ 0.0875	\$ 0.0826	\$ 0.0776	\$ 0.0776
Revenue Billed		\$ 483,413	\$ 335,137	\$ 143,548	\$ 83,568	\$ 58,953	\$ 52,765
RHER	Expense	\$ 41,731	\$ 31,138	\$ 93,998	\$ 40,577	\$ 30,077	\$ 47,800
RHER	Labor	\$ 2,820	\$ 2,209	\$ 2,801	\$ 2,520	\$ 2,252	\$ (13,188)
HECI	Expense	\$ 758	\$ 1,284	\$ 761	\$ 1,117	\$ 2,018	\$ 67,182
HECI	Labor	\$ 159	\$ 125	\$ 158	\$ 142	\$ 127	\$ 856
CRR1	Expense	\$ 5,800	\$ 67,099	\$ 51,429	\$ 45,200	\$ 29,838	\$ 106,408
CRR1	Labor	\$ 1,220	\$ 956	\$ 1,212	\$ 1,090	\$ 974	\$ (483)
CIR1	Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 85,759
CIR1	Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,656
CIER	Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,931
CIER	Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 255
Total		\$ 52,489	\$ 102,811	\$ 150,359	\$ 90,645	\$ 65,287	\$ 308,177
Monthly Over/(Under)		\$ 410,924	\$ 232,326	\$ (6,810)	\$ (7,078)	\$ (6,333)	\$ (255,412)
Cumulative Over/(Under)		\$ 2,566,299	\$ 2,798,625	\$ 2,791,815	\$ 2,784,737	\$ 2,778,404	\$ 2,522,992

Table A.4 - Efficiency Cost Recovery Surcharge (September 2012 through February 2013)

Commercial & PHA

		Actual * Sep-12	Actual * Oct-12	Actual Nov-12	Actual Dec-12	Actual Jan-13	Actual Feb-13
COMMERCIAL & PHA							
FY 2012 Over-Collection							
Volume Billed		357,003	481,856	970,072	1,243,320	1,653,469	1,693,783
ECR Surcharge		\$ 0.0421	\$ 0.0457	\$ 0.0457	\$ 0.0538	\$ 0.0618	\$ 0.0618
Revenue Billed		\$ 15,030	\$ 22,021	\$ 44,332	\$ 66,828	\$ 102,184	\$ 104,676
RHER	Expense	\$ 1,055	\$ 2,295	\$ 4,760	\$ 44	\$ 5,759	\$ 2,814
RHER	Labor	\$ 70	\$ 72	\$ 121	\$ 103	\$ 103	\$ 105
CIRI	Expense	\$ 200	\$ 5,609	\$ 2,246	\$ 195	\$ 4,231	\$ 8,770
CIRI	Labor	\$ 311	\$ 320	\$ 535	\$ 456	\$ 456	\$ 463
CIER	Expense	\$ 197	\$ 5,924	\$ 6,267	\$ 192	\$ 19,656	\$ 9,247
CIER	Labor	\$ 306	\$ 315	\$ 527	\$ 449	\$ 450	\$ 456
HECI	Expense	\$ 52	\$ 500	\$ 11,279	\$ 4,314	\$ 926	\$ 5,988
HECI	Labor	\$ 81	\$ 84	\$ 140	\$ 119	\$ 119	\$ 121
Total		\$ 2,273	\$ 15,119	\$ 25,877	\$ 5,872	\$ 31,700	\$ 27,964
Monthly Over/(Under)		\$ 12,756	\$ 6,902	\$ 18,456	\$ 60,956	\$ 70,485	\$ 76,712
Cumulative Over/(Under)		\$ 191,490	\$ 198,393	\$ 216,848	\$ 277,804	\$ 348,289	\$ 425,001
		Actual Mar-13	Actual Apr-13	Actual May-13	Actual Jun-13	Actual Jul-13	Actual Aug-13
COMMERCIAL & PHA							
FY 2012 Over-Collection							
Volume Billed		1,478,614	1,013,398	565,320	418,131	323,654	336,469
ECR Surcharge		\$ 0.0780	\$ 0.0941	\$ 0.0941	\$ 0.0873	\$ 0.0804	\$ 0.0804
Revenue Billed		\$ 115,258	\$ 95,361	\$ 53,197	\$ 36,482	\$ 26,022	\$ 27,052
RHER	Expense	\$ 2,041	\$ 1,523	\$ 4,597	\$ 1,985	\$ 1,471	\$ 13,110
RHER	Labor	\$ 138	\$ 108	\$ 137	\$ 123	\$ 110	\$ (453)
CIRI	Expense	\$ 5,789	\$ 1,936	\$ 5,853	\$ 10,879	\$ 6,416	\$ 116,111
CIRI	Labor	\$ 609	\$ 477	\$ 605	\$ 544	\$ 486	\$ (2,013)
CIER	Expense	\$ 49,217	\$ 1,907	\$ 9,726	\$ 14,024	\$ 6,867	\$ 9,854
CIER	Labor	\$ 600	\$ 470	\$ 596	\$ 536	\$ 479	\$ (2,338)
HECI	Expense	\$ 758	\$ 1,284	\$ 761	\$ 1,117	\$ 2,018	\$ (28,997)
HECI	Labor	\$ 159	\$ 125	\$ 158	\$ 142	\$ 127	\$ (1,377)
Total		\$ 59,311	\$ 7,830	\$ 22,433	\$ 29,350	\$ 17,975	\$ 103,898
Monthly Over/(Under)		\$ 55,947	\$ 87,531	\$ 30,764	\$ 7,132	\$ 8,046	\$ (76,845)
Cumulative Over/(Under)		\$ 480,948	\$ 568,479	\$ 599,242	\$ 606,375	\$ 614,421	\$ 537,575

Table A.5 - Efficiency Cost Recovery Surcharge (September 20102 through February 2013)

Industrial

		<u>Actual *</u> <u>Sep-12</u>	<u>Actual *</u> <u>Oct-12</u>	<u>Actual</u> <u>Nov-12</u>	<u>Actual</u> <u>Dec-12</u>	<u>Actual</u> <u>Jan-13</u>	<u>Actual</u> <u>Feb-13</u>
INDUSTRIAL							
FY 2012 Over-Collection							
Volume Billed		28,544	45,781	67,683	89,048	129,969	132,282
ECR Surcharge		\$ 0.3432	\$ 0.4264	\$ 0.4264	\$ 0.4954	\$ 0.5644	\$ 0.5644
Revenue Billed		\$ 9,796	\$ 19,521	\$ 28,860	\$ 44,114	\$ 73,355	\$ 74,660
CIRI	Exponso	\$ 35	\$ 990	\$ 396	\$ 34	\$ 747	\$ 1,548
CIRI	Labor	\$ 55	\$ 56	\$ 94	\$ 80	\$ 81	\$ 82
CIER	Exponso	\$ 13	\$ 378	\$ 400	\$ 12	\$ 1,255	\$ 590
CIER	Labor	\$ 20	\$ 20	\$ 34	\$ 29	\$ 29	\$ 29
Total		\$ 122	\$ 1,444	\$ 925	\$ 156	\$ 2,110	\$ 2,249
Monthly Over/(Under)		\$ 9,674	\$ 18,077	\$ 27,935	\$ 43,959	\$ 71,244	\$ 72,411
Cumulative Over/(Under)		\$ 100,628	\$ 118,705	\$ 146,640	\$ 190,599	\$ 261,843	\$ 334,254
		<u>Actual</u> <u>Mar-13</u>	<u>Actual</u> <u>Apr-13</u>	<u>Actual</u> <u>May-13</u>	<u>Actual</u> <u>Jun-13</u>	<u>Actual</u> <u>Jul-13</u>	<u>Actual</u> <u>Aug-13</u>
INDUSTRIAL							
FY 2012 Over-Collection							
Volume Billed		108,370	70,347	38,354	28,702	29,198	26,528
ECR Surcharge		\$ 0.3536	\$ 0.1427	\$ 0.1427	\$ (0.0591)	\$ (0.2609)	\$ (0.2609)
Revenue Billed		\$ 38,314	\$ 10,039	\$ 5,473	\$ (1,696)	\$ (7,618)	\$ (6,921)
CIRI	Exponso	\$ 1,022	\$ 342	\$ 1,033	\$ 1,920	\$ 1,132	\$ (9,198)
CIRI	Labor	\$ 107	\$ 84	\$ 107	\$ 96	\$ 86	\$ (929)
CIER	Exponso	\$ 3,142	\$ 122	\$ 621	\$ 895	\$ 438	\$ (7,865)
CIER	Labor	\$ 38	\$ 30	\$ 38	\$ 34	\$ 31	\$ (331)
Total		\$ 4,309	\$ 578	\$ 1,798	\$ 2,945	\$ 1,687	\$ (18,323)
Monthly Over/(Under)		\$ 34,005	\$ 9,461	\$ 3,675	\$ (4,641)	\$ (9,305)	\$ 11,402
Cumulative Over/(Under)		\$ 368,259	\$ 377,720	\$ 381,395	\$ 376,754	\$ 367,449	\$ 378,851

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of PGW's Demand Side Management program Annual Report (FY 2013 Results) upon the participants listed below in accordance with the requirements of § 1.54 (relating to service by a participant).

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