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December 27, 2016

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 2016 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

an M. GDUL

Very truly yours,

Deanne M. O'Dell

DMO/lww Enclosure

cc: Cert. of Service w/enc.

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RECEIVED



Demand Side Management Program Annual Report

FY 2016 Results



Annual Report: FY 2016	PGW DSM FY 2016 ANNUAL REPORT (L0662307).DOCX
Prepared by Philadelphia Gas Worl	ks (PGW) with assistance from Green Energy Economics
	Group, Inc. (GEEG)

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PGW EnergySense

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PGW EnergySense

1. Portfolio 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 2016 ("FY 2016").1

The FY 2016 program year was a temporary extension of the initial PGW Five-Year DSM Portfolio ("Phase I") programming approved by the Commission by order entered on July 29, 2010. The order approved PGW's Phase I programs for five years, through August 31, 2015. In April 2015, PGW requested a one-year extension of its Phase I DSM programming as an interim measure while the full DSM Phase II proceeding was underway. On May 7, 2015, the PUC approved this request, and ordered ("Order") at dockets P-2009-2097639 and R-2009-2139884, a limited extension of PGW's DSM Phase I DSM Plan for an interim period ("DSM Bridge Plan") from September 1, 2015, through either: (1) August 31, 2016; or, (2) upon the effective date of a Phase II compliance plan filed in response to a final Commission Order at Docket Number P 2014-2459362, whichever was earlier.

PGW committed to filing its annual report four months after the end of the program year to report on program outcomes to date. This report is the sixth such Annual Fiscal Year Report, and provides quantitative tables of portfolio operations and outcomes for all six DSM programs:

- CRP Home Comfort Program;
- Residential Heating Efficiency Rebate Program ("RHER");
- Commercial and Industrial Retrofit Program;
- Commercial and Industrial Equipment Rebates Program ("CIER"):
- High Efficiency Construction Incentives Program;
- Home Rebates

1.2. Summary of Results

In FY 2016, PGW spent \$9.6 million on DSM programming, approximately 89 percent of the FY 2016 budget filed by PGW in its FY 2016 Implementation Plan. PGW achieved estimated first year gas savings of 87 Billion Btu ("BBtu") and 1,814 BBtu over the lifetime of the measures installed. For FY 2016, overall DSM activities have resulted in projected \$3.2 million (2014\$) in net resource benefits and a benefit-cost-ratio ("BCR") of 1.33 under the Total Resource Cost ("TRC") cost-effectiveness test.

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¹ September 1, 2015 through August 31, 2016

TABLE 1. DSM COSTS AND BUDGETS BY PROGRAM (NOMINAL)²

D	FY 2016		
	Accomal	Goal	%
CRP Home Comfort	\$7,554,528	\$7,570,000	100%
Residential Heating Equipment Rebates	\$502,186	\$777,000	65%
Home Rebates	\$430,653	\$666,614	65%
High Efficiency Construction Incentives ³	\$178,072	\$181,000	98%
Residential Total	\$8,665,439	\$9,194,614	94%
Commercial and Industrial Retrofit Incentives	\$1,411	\$284,200	0%
Commercial and Industrial Equipment Rebates	\$240,325	\$313,650	77%
Non-residential Total	\$241,735	\$597,850	40%
Portfolio-wide Costs	\$657,818	\$900,000	73%
UTILITY TOTAL	\$9,564,992	\$10,692,464	89%
Participant Costs	\$975,024	\$2,394,143	41%
Total	\$10,540,016	\$13,086,607	81%

TABLE 2. DSM COSTS AND BUDGETS BY CATEGORY (NOMINAL)

- Announ	FY 2016		
GETGROVA	Actual	Goal	%
Customer Incentives	\$6,648,532	\$7,674,164	87%
Administration and Management	\$439,579	\$630,000	70%
Marketing and Business Development	\$218,239	\$300,000	73%
Contractor Costs	\$2,041,553	\$1,867,000	109%
Inspection and Verification	\$74,081	\$171,300	43%
On-site Technical Assessment	\$-	\$-	
Evaluation	\$143,009	\$50,000	286%
UTILITY TOTAL	\$9,564,992	\$10,692,464	89%
Participant Costs	\$975,024	\$2,394,143	41%
Total	\$10,540,016	\$13,086,607	81%

 $^{^2\,}$ All PGW Efficiency Cost Recovery Surcharge collections are shown in Appendix A. FY 2015 over-collections were refunded to the appropriate customer classes in FY 2016.

³ Includes multifamily and mixed-use buildings.

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

December	FY 2016		
Program :-	Actual	Coal	% _
CRP Home Comfort	61,014.9	54,633.6	112%
Residential Heating Equipment Rebates	8,613.5	14,151.6	61%
Home Rebates	2,071.8	7,463.5	28%
High Efficiency Construction Incentives	6,699.0	2,777.6	241%
Residential Total	78,399.2	79,026.3	99%
Commercial and Industrial Retrofit Incentives	-	4,817.1	0%
Commercial and Industrial Equipment Rebates	8,861.4	10,951.5	81%
Non-residential Total	8,861.4	15,768.7	56%
Portfolio-wide Costs	-	-	
PORTFOLIO TOTAL	87,260.6	94,795.0	92%

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

(December)	FY 2016		
Program	Actual	<u> ලිංකු</u>]	<u></u> %
CRP Home Comfort	1,288,201.3	1,098,818.0	117%
Residential Heating Equipment Rebates	188,806.5	310,263.3	61%
Home Rebates	58,687.7	218,759.0	27%
High Efficiency Construction Incentives	103,734.8	50,585.9	205%
Residential Total	1,639,430.2	1,678,426.1	98%
Commercial and Industrial Retrofit Incentives	-	89,405.2	0%
Commercial and Industrial Equipment Rebates	175,042.5	175,481.5	100%
Non-residential Total	175,042.5	264,886.6	66%
Portfolio-wide Costs	-	-	
PORTFOLIO TOTAL	1,814,472.7	1,943,312.7	93%

TABLE 5. NON-GAS BENEFITS

- Dansen	FY 2016			
Program	Actual	<u>Goal</u>	%	
First Year Energy Savings Installed (kWh)	729,865.7	913,505.3	80%	
Lifetime Energy Savings Installed (kWh)	16,366,379.9	21,228,041.6	77%	
Summer Peak Demand Savings Installed (kW)	198	253	78%	
First Year Water Savings Installed (million gallons)	10.4			
Lifetime Water Savings Installed (million gallons)	107.5			

TABLE 6. TOTAL RESOURCE COST TEST RESULTS FOR FY 2016 (2014\$)

	FY 2016			
Program	PV of Benefits	etecond to VI	PV of Net Benefits	BCR
Enhanced Low Income Retrofit	\$9,253,250	\$6,966,702	\$2,286,548	1.33
Residential Heating Equipment Rebates	\$1,328,396	\$1,061,026	\$267,370	1.25
Home Rebates	\$412,651	\$570,536	\$(157,885)	0.72
Efficient Construction Grants	\$792,854	\$228,902	\$563,952	3.46
Residential Total	\$11,787,152	\$8,827,166	\$2,959,985	1.34
Efficient Building Grants	\$-	\$1,287	\$(1,287)	-
Commercial and Industrial Equipment Rebates	\$1,141,290	\$283,165	\$858,125	4.03
Non-residential Total	\$1,141,290	\$284,451	\$856,838	4.01
Portfolio-wide Costs	\$-	\$603,602	\$(603,602)	_
PORTFOLIO TOTAL	\$12,928,441	\$9,715,219	\$3,213,222	1.33

2. CRP Home Comfort Program

The CRP Home Comfort Program (formerly known as Enhanced Low Income Retrofit Program, or "ELIRP"), 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 costeffectiveness.
- Streamlining the delivery mechanism through the use of implementation contractors.

TABLE 7. CRP HOME COMFORT RESULTS FOR FY 2016

	FY 2016		
· ·	Acomal	Goal -	%
PARTICIPATION			
Closed Cases	4,025	1,795	224%
Comprehensively Closed	1,763	-	
Closed, Limited Measures	2,262		
COSTS (Nominal)			
Non-Incentive Spending ⁴	\$1,781,597	\$1,598,000	111%
Administration and Management	\$-		
Marketing and Business Development	\$-		
Contractor Costs ⁵	\$1,691,601		·
Inspection and Verification	\$59,936		_

⁴ The costs charged by the contractors for non-administrative program support were slightly higher than PGW initially projected. Measure installations, administrative and program support expenses are all charged by the contractors under the same budget, which resulted in fewer funds available for measure installations, and caused PGW to exceed its goal for non-incentive spending. See Footnote 5 for further explanation of contractor costs.

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⁵ Includes annual administrative expenses (costs not directly related to the provision of program services, such as office overhead), which are capped at 15 percent of a contractor's budget; and also includes non-administrative program support costs (for variable program support expenses that are directly related to the provision of program services). PGW's own overhead is not included.

Annual Report: FY 2016

On-site Technical Assessment	\$-		
Evaluation	\$30,060		
Measure Installation	\$5,772,930	\$5,972,000	97%
Total Program Spending	\$7,554,528	\$7,570,000	100%
Participant Costs	\$-	\$-	
Total Cost	\$7,554,528	\$7,570,000	100%
SAVINGS ⁶			
First Year BBtu	61,015	54,634	112%
Lifetime BBtu	1,288,201	1,098,818	117%
First Year kWh	582,165		
Lifetime kWh	13,086,931		

TABLE 8. TRC COST-EFFECTIVENESS RESULTS FOR CRP HOME COMFORT IN FY 2016 (2014\$)

PRESENT VALUE (2014S)	Actual
Benefits	\$9,253,250
Costs	\$6,966,702
Net Benefits	\$2,286,548
BCR	1.33

2.1. Notable Program Activities in FY 2016

PGW changed the name of the program from ELIRP to CRP Home Comfort in FY 2016, as an effort to better brand the program, and emphasize the connection between weatherization services and PGW's CAP program, CRP. CRP Home Comfort has continued to show strong results, with a 1.33 BCR, and \$2,286,548 in net benefits.

In 2016 there were 1,763 comprehensively closed cases that received either air sealing, insulation or a heater repair or replacement. There were 2,262 Closed Limited cases that received only core measures (thermostat, low-flow devices, pipe wrap) at the time of the audit, as comprehensive measures could not be performed due to health and safety issues, and/or work is not cost-effective; or CSPs were unsuccessful at scheduling additional work with customers after performing the audit.

Quality Assurance Inspections and Field Training

PGW had 167 cases inspected by a third-party inspector in FY 2016. The following types of inspections were performed:

 Standard inspections at 126 homes, which include visual inspection of weatherization measures to identify missed opportunities and assess work quality, review of audit and work scope, identification of health and safety issues, and combustion safety testing.

- Shadowed energy audits and installation jobs at 15 homes to review testing, installation and CSP communication practices.
- Enhanced QA activities at 26 homes, which included all items included in standard inspections, and also blower door tests, zonal pressure diagnostics, and infrared scans to evaluate insulation.

In 2016, cases were targeted for inspection randomly based on certain criteria:

- high and low percentage savings;
- · small and large air sealing blower door reductions; and
- · specific measure combinations.

PGW's inspections continue to be a useful tool for encouraging CSPs to capture all cost-effective savings opportunities, reducing health and safety issues, and improving work quality. The average inspection score was 93 percent. This is an increase from the average in FY 2015 of 91 percent, due in part to the newer more stringent standards. The inspection score average since program inception is 93 percent.

Classroom Training

PGW held a day-long training event for auditors, crews and program managers in January 2016. The training was performed by Robert Kahabka of Northern Comfort Diagnostics, and focused on assessing and documenting health and safety hazards. The trainers presented research on best practices for safely performing weatherization when health and safety hazards are discovered.

Health and Safety Documentation Protocol

In FY 2016, PGW launched a new Health and Safety Documentation Protocol that requires the CSPs to take a more critical look at health and safety issues to reduce the amount of Closed Limited cases, and also empowers customers with information they need to address issues preventing weatherization. The protocol included development of a new form to document the issues. CSPs are required to complete the form and provide a copy to the customer to inform future remediation. The documentation also provides PGW's inspector with greater details about the project to review as part of the inspection process.

BPI 1200

The Building Performance Institute (BPI) upgraded its standards to the BPI-1200 standard in January 1, 2016. As a requirement of CRP Home Comfort, CSPs must follow BPI protocols and remain certified. PGW's inspector utilized the BPI 1200 standard in its review of crews and auditors from each CSP. All of PGW's CSPs reported that they understand and follow the new BPI-1200 protocols.

3. Residential Heating Efficiency Rebate Program

The Residential Heating Equipment Rebates program 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.

TABLE 9. RHER RESULTS FOR FY 2016

	FY 2016		
	Actual	Goal !	%
PARTICIPATION			-
Approved Applications	613	1,084	57%
COSTS (Nominal)			
Non-Incentive Spending	\$80,497	\$109,000	74%
Administration and Management	\$-		
Marketing and Business Development	\$-		
Contractor Costs	\$47,287		
Inspection and Verification	\$4,408	ĺ	
On-site Technical Assessment	\$-		
Evaluation	\$28,802		
Customer Incentives	\$421,689	\$668,000	63%
Total Program Spending	\$502,186	\$777,000	65%
Participant Costs	\$-		
Total Costs	\$502,186		
SAVINGS			
First Year BBtu	8,344	14,152	59%
Lifetime BBtu	183,213	310,263	59%
First Year kWh	109,900		
Lifetime kWh	2,198,000		
MEASURES			
Furnaces	461		
Boilers	152		
Programmable Thermostats	42	-	

TABLE 10. TRC COST-EFFECTIVENESS RESULTS FOR RHER FOR FY 2016 (2014\$)

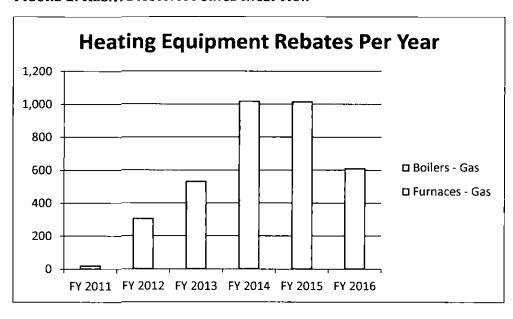
Present Value (20145)	Actual
Benefits	\$1,328,396
Costs	\$1,061,026
Net Benefits	\$267,370
BCR	1.25

3.1. Notable Program Activities in FY 2016

In FY 2016, applications from landlords and developers continued to be a large part of the program, consisting of 23 percent of all heater rebates. The majority of these landlord/developer claims were for small to medium sized buildings and small townhouse projects. The largest project was a 28-unit apartment building. PGW attributes this activity to its outreach to trade allies. In FY 2016, PGW did not issue rebates for any very large projects like in previous years.

The RHER activity in FY 2016 was lower than previous years due in-part to the reduced level of builder and contractor marketing during the PUC temporary approval period. The Phase II proceeding created uncertainty among the builders and contractors who weren't sure if the program would continue long enough to claim a rebate. This caused some builders to refrain from purchasing high efficiency units. Rebate activity since inception by year is detailed in Figure 1.

FIGURE 1. REPATE ACTIVITY SINCE INCEPTION



In FY 2016, the greatest sources of applications continued to be HVAC technicians and plumbers, as shown in Table 11. PGW continued its outreach to these trade allies through activities similar to those conducted in previous program years, and as a result more than half of applications were referrals from this source.

TABLE 11. SOURCE OF RHER REFERRALS FROM INCEPTION THROUGH FY 2016

Source	Percentage
Family / Friend	4%
HVAC / Plumber	65%
Internet	20%
Newspaper Ads	1%
PGW Rep	2%
PGW Gas Bill	7%
Radio Ads	<1%
TV Ads	<1%

Quality Assurance and Verifications

There were 17 on-site rebate verifications performed in 2016, accounting for three percent of all rebate projects. Projects were selected at random for verification. Multifamily projects with more than six submissions were also flagged to receive on-site verifications for a small sample of units. No discrepancies were found through verifications.

4. Commercial and Industrial Retrofit Incentives

The Commercial and Industrial Retrofit Incentives program 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 helps 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.

TABLE 12. COMMERCIAL AND INDUSTRIAL RETROFIT INCENTIVES PROGRAM ACTIVITY FOR FY 2016

	FY 2016		
	Actual	Coal	%
PARTICIPATION			
Applications	4		
Incentive Agreements Issued	0		
Customer with Installations	0	12	0%
COSTS (Nominal)			
Non-Incentive Spending	\$1,411	\$81,300	1.7%
Administration and Management	\$-		
Marketing and Business Development	\$-		
Contractor Costs	\$407		
Inspections	\$128		
Evaluation	\$876		
Customer Incentives	\$-	\$202,900	0.0%
Total Program Spending	\$1,411	\$284,200	0.5%
Participant Costs	\$-	\$177,789	0.0%
Total Cost	\$1,411	\$461,989	0.3%
SAVINGS			
First Year BBtu	0	4.8	0%
Lifetime BBtu	0	89.4	0%
First Year kWh	0		
Lifetime kWh	0		
Summer Peak Demand kW	0		
First Year Water (Million Gallons)	0		
Lifetime Water (Million Gallons)	0		

Table 13. Cost-effectiveness Results for Commercial and Industrial Retrofit Incentives for FY 2016 (2014\$)

Present Value (2014S)	Actual
Benefits	\$-
Costs	\$1,287
Net Benefits	\$(1,287)
BCR	

4.1. Notable Program Activities in FY 2016

Project Timelines

In 2016, PGW had no activity in the Commercial and Industrial Retrofit Incentives Program, though the program remains cost-effective based on activity from its inception in FY 2012 through FY 2016, resulting in TRC net benefits of \$367,940 and a 1.39 BCR. The lack of program activity was the result of a strategic decision to limit proactive lead generation and marketing of the program while PGW was operating under temporary authorization. Commercial and Industrial Retrofit Incentives projects are typically discretionary and can take a significant amount of lead time for the customer to plan the project and obtain all necessary approvals and are frequently dependent on the PGW grant to proceed. This contrasts to projects in the High Efficiency Construction Incentives program, which are not dependent on the PGW grant to proceed, but use it to improve the efficiency of projects already underway. The DSM Bridge Order eased some of the concerns about grant availability for projects slated to close later in the year, but customers were often unwilling to risk applying for the program with project timelines that could potentially extend beyond the approval horizon.

PGW has previously reported on long lead times for Commercial and Industrial Retrofit Incentives projects to proceed from an application to a completed project ready for payment. In FY 2015, the average time elapsed between application date and grant payment date increased even further due to several projects completing that originally applied for the grant as much as two and a half years prior to completion. From inception through August 2016, the Commercial and Industrial Retrofit Incentives project lifecycle from time of application to time of grant payment ranged from 4 months to 25 months, with the average project taking about 8.9 months.

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.

TABLE 14. CIER RESULTS FOR FY 2016

ſ	FY 2016		
	Actual	Goal	%
PARTICIPATION ⁷			
Completed Claims	71	170	42%
COSTS (Nominal)			_
Non-Incentive Spending	\$52,306	\$77,000	68%
Administration and Management	\$-		
Marketing and Business Development	\$-		
Contractor Costs	\$48,370		
Inspection and Verification	\$3,163		
On-site Technical Assessment	\$-		
Evaluation	\$773		
Customer Incentives	\$188,018	\$236,650	79%
Total Program Spending	\$240,324	\$313,650	77%
Participant Costs	\$66,163	\$131,335	50%
Total Costs	\$306,487	\$444,985	69%
SAVINGS			
First Year MMBtus	8,861	10,056	88%
Lifetime MMBtus	175,043	156,424	112%
First Year kWh	28,598		
Lifetime kWh	-		
Summer Peak Demand kW	_		

⁷ 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.

First Year Water (Million Gallons)	1.57		
Lifetime Water (Million Gallons)	16.00		
MEASURES			
Commercial Boilers	27		
Commercial Gas Convection Oven	-		
Commercial Fryer	12	· ·	
Commercial Gas Steam Cooker	4		
Commercial Water Heater	14		
Steam Traps	11		
Custom Projects	3		

TABLE 15. COST-EFFECTIVENESS RESULTS FOR CIER FOR FY 2016 (2014\$)

Present Value (20145)	Actual
Benefits	\$1,141,290
Costs	\$283,165
Net Benefits	\$858,125
BCR	4.03

5.1. Notable Program Activities in FY 2016

The CIER program was successful in FY 16, with 71 installations. Total spending for customer incentives was \$188,018, 79 percent of PGW's FY 2016 incentive goal. This program was cost effective, with a benefit to cost ratio of 4.03. It achieved 175,043 lifetime MMBtu savings, exceeding the program goal by 12 percent

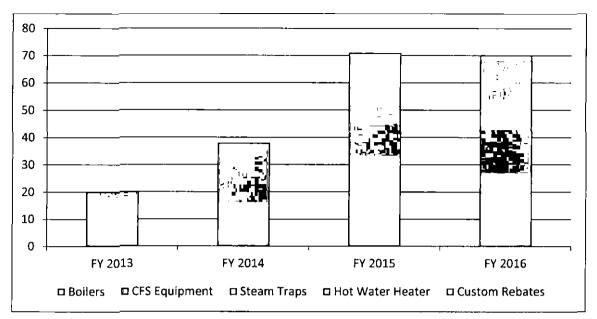
Commercial Boilers comprised the majority of the program, with \$139,000 in rebates issued for 27 boiler installations. This trend resulted in gas savings exceeding projections, as commercial boilers achieved greater savings and have longer measure lifetimes than other measures in CIER.

In FY 2016, the majority (37 percent) of boiler installations occurred in multifamily buildings. A significant amount of installations (19 percent) also occurred in education buildings.

In FY 2016, sixteen rebates were issued for the commercial food service category. This category experienced an increase due to higher promotion of this type of equipment. The requirement for the commercial hot water heaters changed from ENERGY STAR® certified to a minimum of 94 percent Et, as certified by AHRI. This change is due to the customers investing in high efficiency commercial hot-water heaters that are new to the market but which ENERGY STAR certification has not been sought by the manufacturer. In FY 2016, eleven rebates were issued for steam traps, a significant increase from the zero rebates issued in FY 2015, when the measure was first introduced.

This year \$11,684 was spent on custom rebate projects. The custom rebate projects consisted of three multi-family projects which involved installation of hot water conservation measures.

FIGURE 2. CIER REBATE ISSUANCE ANNUAL ACTIVITY



6. High Efficiency Construction Incentives Program

The High Efficiency Construction Incentives program 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 exceed energy code design requirements. Incentives increase based on the relative and actual amount of gas a project saves. 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.

TABLE 16. HIGH EFFICIENCY CONSTRUCTION INCENTIVES PROGRAM RESULTS FOR FY 2016

	FY 2016		
	Actual	Goal	%
PARTICIPATION			
Residential Applications	27		
Commercial Applications	22		
Applications Rejected or Withdrawn	16		
Customers with Installations	22	42	52%
Residential	16		
Commercial	6		
COSTS (Nominal)			
Non-Incentive Spending	\$40,319	\$24,000	168%
Administration and Management	\$-		
Marketing and Business Development	\$-		
Contractor Costs	\$13,403		
Inspection and Verification	\$6,446		
On-site Technical Assessment	\$-		
Evaluation	\$20,470		
Customer Incentives	\$137,753	\$157,000	88%
Total Program Spending	\$178,072	\$181,000	98%
Participant Costs	\$73,037	\$90,009	81%
Total Cost	\$251,109	\$271,009	93%
SAVINGS			
First Year MMBtu	6,699	2,778	241%
Lifetime MMBtu	103,735	50,586	205%

Table 17. Cost-effectiveness Results for High Efficiency Construction Incentives for FY 2016 (2014\$)

PRIESENT VALUE (2014S)	Aetral
Benefits	\$792,854
Costs	\$228,902
Net Benefits	\$563,952
BCR	3.46

6.1. Notable Program Activities in FY 2016

The High Efficiency Construction Incentives program issued \$137,753 in grants for 22 projects during FY 2016, and spent 88 percent of the budget goal. Although the amount of applications received was smaller than that of other years, PGW still spent 88 percent of its grant budget, due to projects from the previous fiscal year getting closed out. The total residential incentives issued for this program was \$25,176, and the total commercial incentives issued for this program was \$112,577. The program showed a significant increase in cost-effectiveness, ending the year with a 3.46 TRC BCR. Savings were 241 percent of the incremental savings goal thanks to large commercial projects with significant savings that were completed during FY 2016.

Non-incentive spending was higher than initially projected for FY 2016, as a result of spending on the program evaluation, which was initially budgeted for FY 2015. The evaluation was started in FY 2015 completed in FY 2016 to include a larger sample size for analysis.

As Figure 3 shows, the number of applications received decreased in to five applications in FY 2016, down from 22 applications in FY 2015. The decrease was due to the reduction in marketing and communications activities as PGW awaited the PUC's decision in the DSM Phase II proceeding. However, more grants were issued in FY 2016 than any other year, in part due to projects applied for in previous years being completed.

FIGURE 3. HIGH EFFICIENCY CONSTRUCTION INCENTIVES PROGRAM APPLICATION ACTIVITY

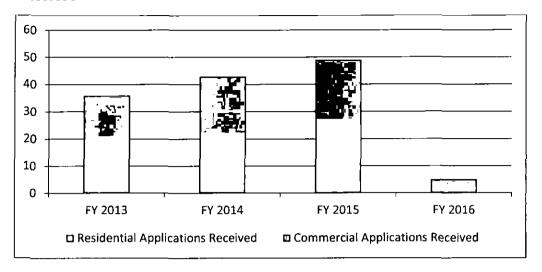
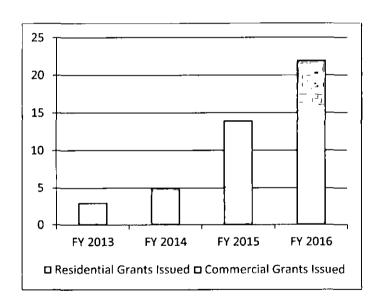


FIGURE 4. HIGH EFFICIENCY CONSTRUCTION INCENTIVES PROGRAM ISSUANCE ACTIVITY



7. Home Rebates

The Home Rebates program 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.

TABLE 18. HOME REBATES RESULTS FOR FY 2016

Γ	FY 2016		
	Actual	Goal	· %
PARTICIPATION			
Audits	82		
Completed Jobs	77	257	30%
COSTS (Nominal)			
Non-Incentive Spending	\$302,512	\$229,000	132%
Administration and Management	\$-		
Marketing and Business Development	\$-		
Contractor Costs	\$240,484		
On-site Technical Assessment	\$-		
Evaluation	\$62,028		
Incentives	\$128,141	\$437,614	29%
Total Program Spending	\$430,653	\$664,614	65%
Participant Costs	\$184,461	\$863,909	
Total Cost	\$615,115	\$1,528,523	40%
SAVINGS			
First Year MMBtus	2,072	7,464	28%
Lifetime MMBtus	58,688	218,759	27%
First Year kWh	29,375		
Lifetime kWh	902,151		

TABLE 19. COST-EFFECTIVENESS RESULTS FOR HOME REBATES FOR FY 2016 (2014\$)

PRESENT VALUE (2014S)	Actual
Benefits	\$412,651
Costs	\$570,536
Net Benefits	\$(157,885)
BCR	0.72

7.1. Notable Program Activities in FY 2016

The Home Rebates program was not cost-effective in FY 2016, though the TRC BCR of 0.72 was the same as the 0.72 TRC BCR achieved in FY 2015. The primary issues affecting overall program cost-effectiveness continues to be high overhead costs necessary in administering the program, combined with low participation levels. Setting aside the overhead cost, individual customer projects were cost-effective and demonstrated net benefits of \$121,000, with a BCR of 1.42.

Non-incentive spending was higher than initially planned, as a result of PGW conducting its program evaluation in FY 2016, which was initially planned for FY 2015 but postponed to include a larger sample size for analysis. Contractor costs were slightly higher than expected.

Home Rebates participation decreased in 2016 compared to 2015 levels. Although the overall participation dropped mid-year, activity trended upward at the end of the year due to marketing activities discussed below. PGW's updates in FY 2016 were related to increasing proactive lead generation and new marketing initiatives, and efforts to increase customer participation. A lack of CSP capacity was a challenge in FY 2016. CSPs did not make long-term staff investments or dedicate new resources to the program because of the probability that the program would wind down and be discontinued.

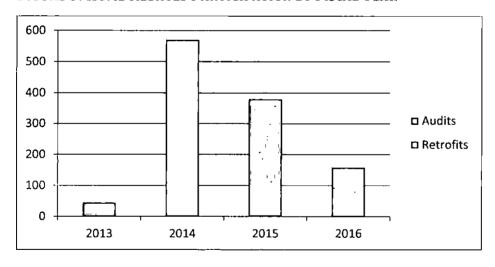


FIGURE 5. HOME REBATES PARTICIPATION BY FISCAL YEAR

Marketing Activities

PGW's FY 2016 marketing activities consisted of a strategic multi-layer approach consisting of the following activities:

- A \$200 "signing bonus" to customers who sign contracts for weatherization work within two weeks of receiving their audit report and proposal.
- A pilot thermal imaging campaign that offered a custom thermal analysis report to PGW's customers identified as the best candidates for Home Rebates projects.
- Advertisements and promotion to build awareness of the program.

• Neighborhood blitzes consisting of localized marketing activities and presentation to generate quality leads and have one-on-one conversations.

PGW launched its pilot thermal imaging campaign in summer 2015, which extended into FY 2016. It offered customized thermal reports to 2,500 targeted customers. Letters were mailed to leads explaining the program and giving customers the opportunity to opt-in to receive a custom thermal image report showing the air leakage and insulation deficiency of the home, and an estimated dollar figure for how much they could save through a Home Rebates Project. Thirty customers requested the customized thermal reports. Throughout the fall and winter, CSPs followed up with these customers, and offered to explain the report in-person as part of a free walk-through assessment.

PGW launched a "Signing Bonus" in spring 2016. It offered customers an additional \$200 if they signed a contract for over \$2,500 of weatherization work within 14 days of receiving their audit report and proposal. Ten customers received this incentive. This initiative was developed based on CSP feedback and the success of a similar limited time offer that PGW offered at the close of FY 2015. The CSPs have found it to be a useful tool for closing jobs, and a good opportunity for following up with customers.

8. Appendix A. Cost Recovery Reconciliation

TABLE 20. USC COST RECOVERY (SEPTEMBER 2015 THROUGH AUGUST 2016)

· · · · · · · · · · · · · · · · · · ·		USC		USC	<u> </u>		Monthly	С	umulative
		Applicable	USC	Revenue	USC	Ov	er/(Under)	Ov	er/(Under)
<u>Month</u>		<u>Volumes</u>	Charge	<u>Billed</u>	<u>Expenses</u>]	Recovery_	1	Recovery
FY 15 Reconciliation	_	·	_					\$_	(9,295,907)
	·			· . –	·				
September 2015	Actual	1,035,315	\$ 1.4187	\$ 1,468,750	\$ (1,940,513)	<u>\$</u>	3,409,263	\$_	<u>(5,886,644)</u>
October	<u>Actual</u>	<u>1,530,956</u>	\$ 1.3471	\$ 2,062,351	<u>\$ (179,146)</u>	_\$	2,241,497	<u>\$</u>	(<u>3,645,14</u> 7)
November	Actual	2,667,452	\$ 1.3471	\$ 3,593,325	\$ 3,725,297	\$	(131,973)	\$	(3,777,119)
December	Actual	4,261,276	_\$ 1.2070_	\$ 5,143,360	\$ 7,360,541	. \$	(2,217,181)	\$	(5,994,301)
January 2016	Actual	7,019,199	\$ 1.0669	\$ 7,488,784	\$ 12,271,685	\$	(4,782,901)	\$	(10,777,202)
February	Actual	8,466,423	\$ 1.0669	\$ 9,032,826	\$ 12,852,293	\$	(3,819,467)	_\$_	(14,596,669)
March	Actual	6,231,280	\$ 1.21 <u>74</u>	\$ 7,585,960	\$ 10,5 ₀ 1,395	\$	(2,915,434)	\$	(<u>17,5</u> 12 <u>,</u> 103)
April	<u>Actual</u>	4,094,452	\$ 1.3679	\$ 5,600,801	\$ 7,089,99	\$	(1,489,197)	\$	(19,001,301)
May	Actual	2,599,218	\$ 1.3679	\$ 3,555,470	\$ 2,824,027	_ \$	73 <u>1,</u> 44 <u>2</u>	. \$	(18,269,858)
June	Ac <u>tual</u>	1,554,784	\$ 1.43 <u>6</u> 4	\$ 2,233,214	\$ 512,417	\$_	1,720,797	\$	(16,549,061)
July	<u>Actual</u>	1,090,333	\$ 1.5048	_ \$ _1,640, <u>734</u>	\$ (416,323)	_\$	2,057,057	_\$	(14,492,005)
August	Actual	997,202	\$ 1.5048	\$ 1,500,589	\$ 317,617	\$	1,182,972	_\$	(13,309,033)

TABLE 21. USC EXPENSES (SEPTEMBER 2015 THROUGH AUGUST 2016)

<u>USC Expenses</u>	<u>Sep-15</u>			<u>Oct-15</u>		Nov-15		<u>Dec-15</u>		Jan-16	-	Feb-16		
CRP Home Comfort Expense	\$	2,532	\$	553,720	\$	622,738	\$	602,084	\$	627,513	\$	614,085		
CRP Home Comfort Labor	\$	10,623	\$	12,196	\$	8,913	\$	8,759	\$	11,284	\$	9,149		
CRP Discount	\$	(2,580,366)	\$	(1,452,007)	\$	2,250,502	\$	5,686,259	\$	10,196,817	\$	10,828,112		-
CRP Forgiveness	\$	533,280	\$	561,291	\$	542,000	\$	616,950	\$	781,302	\$	718,458		
Senior Citizen Discount	\$	93,418	\$	145,654	\$	301,144	\$	446,490	\$	654,769	\$	682,489		
Bad Debt Expense Offset*	\$	-	\$	-	\$	-	\$	-	\$	-	\$			
Total	. \$	(1,940,513)	\$	(179,146)	\$	3,725,297	\$	7,360,541	\$	12,271,685	\$	12,852,293		
	<u>Mar-16</u>													
USC Expenses	-+	<u>Mar-16</u>	·	<u>Apr-16</u>		<u>May-16</u>		<u>lun-16</u>		Jul-16		Aug-16		<u>Total</u> -
USC Expenses CRP Home Comfort Expense	· *	Mar-1 6 577,807			. \$. \$	Jun-16 639,508	 \$	Jul-16 735,507	<u>.</u> -	Aug-16 1,574,432	\$	Total 7,939,322
· 			\$				\$		\$ \$		\$_ \$		\$ \$	-
CRP Home Comfort Expense	· <u>\$</u> \$	577,807	\$ \$	773,096	\$	616,300	\$ \$ \$	639,508	\$	735 <u>,507</u>	\$ \$ \$	1,574,432	\$	7,939,32 <u>2</u> 129,544
CRP Home Comfort Expense CRP Home Comfort Labor		577,807 9,212	\$ \$ \$	773,096 12,251	\$	616,300 9,325	\$ \$ \$	6 <u>39,5</u> 08 10,614	\$	735 <u>,507</u> 14,025	\$ \$ \$ \$	1,574,432 13,193	\$	7,939,322
CRP Home Comfort Expense CRP Home Comfort Labor CRP Discount	\$. \$. \$. \$	577,807 9,212 8,489,760	\$ \$ \$ \$	773,096 12,251 4,982,892	\$	616,300 9,325 1,114,289	\$ \$ \$ \$	639,508 10,614 (1,096,436)	\$ \$ \$	735,507 14,025 (2,026,795)	\$ \$ \$ \$	1,574,432 13,193 (2,160,228)	\$	7,939,32 <u>2</u> 129,544 34,232,797
CRP Home Comfort Expense CRP Home Comfort Labor CRP Discount CRP Forgiveness	\$. \$. \$. \$	577,807 9,212 8,489,760 867,149	\$ \$ \$ \$	773,096 12,251 4,982,892 934,553	\$	616,300 9,325 1,114,289 855,603	\$ \$ \$ \$ \$	6 <u>39,5</u> 08 <u>10,614</u> (1,096,436) 825,567	\$ \$ \$	735,507 14,025 (2,026,795) 768,032	\$ \$ \$ \$ \$	1,574,432 13,193 (2,160,228) 801,053	\$	7,939,32 <u>2</u> 129,544 34,23 <u>2,797</u> 8,805,239

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

TABLE 22. EFFICIENCY COST RECOVERY SURCHARGE (SEPTEMBER 2015 THROUGH AUGUST 2016)

Residential & PHA GS

RESIDENTIAL & PI				Actual Sep-15		Actual Oct-15		Actual . Nov-15		Actual Dec-15		Actual Jan-16		Actual Feb-16]	Actual Mar-16		Actual Apr-16		Actual . May-16 .		Actual Jun-16		Actual Jul-16		Actual Aug-16		Fotal
FY 2015 Over-Coll	ection	\$1,566,406																										
Volume Billed ECR Surcharge			•	646,466 0.0045	•	991,567 0.0071	•	1,879,532 ° 0.0071	•	3,150,135 0.0049	•	5,284,536 0.0027	¢	6,475,144		4,775,075 0.0029	¢	3,099,648	٠.	1,931,355 0.0030	•	1,077,228	•	705,589 0.0119	•	630,227 0.0119	30,	646,502
Revenue Billed			\$	2,909	\$	7,040	\$		\$	15,436	\$	14,268	\$	17,483	\$	13,609	\$	9,299	· \$	`	\$	8,025	\$	8,397	\$		\$	123,104
RHER	Expense		\$	233	\$	83,436		30,200	5	45,339	\$	13,297	\$	114,028	s	,	5	70,565	· \$	30,572	\$	30,621		55,963	\$		\$	567,031
RHER	Labor		\$	976	\$	1,121	. \$. Ş	.805	S	1,037	\$		S	847	S	1,126	Ş	1,006		975		1,289	\$	1,321	\$	12,311
HECI	Expense		. \$	27	\$	2,894	\$	7,426	5	3,268	5	527	\$	27,496	S	.,,	S	-	, s	(31,683)		1,676	\$	5,242		20,748	5	86,628
HECI	Labor		\$	115	.\$	131	S	-	5	94	S _.	122	\$. 9 80	Ş	99 _	\$	132		(1,297)		114	\$	151			\$	1,386
Home Rebates	Expense		\$	219	\$	373	\$		5	36,556	S	29,111	\$	29,702	\$	27,497	\$	33,532		6,723	5	51,584	\$	38,715	•	102,517	\$	528,883
Home Rebates	Labor		\$	919	\$	1,056		-	S	758	\$	977	\$	968	\$		\$	1,060	•		\$	919		1,214			\$	11,086
CIRI	Expense		\$	34		4,372		37	\$	425	\$	344		262 _		190	S	207		61		164		53			\$	9,922
CIRI	Labor		\$	142	\$	163	. \$		\$	117	\$	151 .	\$	231		2.2.1	\$	164		(31)		142		188	. \$		\$	1,734
CIER	Expense		\$	2 .	\$	390	.\$	(1 9),	\$	1,282	\$	89	\$	(1,371)	\$	544	\$		\$	(1,313)	\$	577	\$	650	\$	(1,210)	\$	383
CIER	Labor		<u> </u>	<u> 10</u> .,	. <u>\$</u>	12	. <u>\$</u>	<u>12</u> .	<u>\$</u> _	9	<u>\$</u> _	<u>11</u> .	<u>s</u>	(15)	<u>\$</u> _	9	<u>\$</u>	12	. <u>\$</u>	(52)	\$	10	<u>\$</u>	14	. <u>\$</u>	(25)	<u>\$</u>	<u>8</u>
Total			\$	2,678	\$	93,947	S	212,235	\$	88,653	\$	45,666	\$	173,239	\$	57,299	\$	152,780	\$	4,445	\$	86,783	\$	103,479	\$	198,167	\$ 1,	219,371
Monthly Over/(Un	der)		\$	<u>2</u> 31	\$	(86,907)	\$	(198,891)	\$	(73,217)	\$	(31,397)	\$	(155,756)	\$	(43,690)	\$	(143,481)	S	1,349	\$	(78,758)	Ş	(95,082)	. \$	(190,667)		
Cumulative O <u>ve</u> r/	(Under)		\$	1,566,637	\$:	1, 479 ,730	\$	1,280,839	S	1,207,622	\$	1,176,225	5	1,020,469	S.	976,778	\$	833,297	. \$	834,646	\$	755,889	\$	660,806	. \$	470,139		

 TABLE 23. Efficiency Cost Recovery Surcharge (September 2015 through August 2016)

Commercial & PHA

COMMERCIAL & PH FY 2015 Over-Colle	**	201,155	Act Sep		Actual Oct-15	<u>A</u> ct Nos	<u>ual</u> /-15		ctual ec-15	Actual Jan-16		Actual eb-16	Actual Mar-16		Actual Apr-16		Actual Ia <u>v-16</u>	Actual Jun-16		Actual Jul-16		tual g:16	Total
Valume Billed			3	349,209	487,460	•	700,057		971,790	1,506,529		1,702,505	1,280,66	2 .	B65,683		600,966	422,008		337,246	3	331,574	9,555,689
ECR Surcharge			\$	0 9	\$ 0	\$	0	\$	0	\$ 0	5	0 \$		9 \$	0	5	0 \$	0	\$	0		0	.,,
Revenue Billed		·	\$	7,700			17,011	\$	33,478	\$ 67,191		75,932 \$	65.05		49,344	\$	34,255 \$	22,071	\$	16,053	\$	15,783 \$	415,721
RHER	Expense		\$	27	9,679	\$	2,943	\$	5,259	\$ 1,542	\$	9,374 \$	2,71	5 \$	8,186	s	(7,322) \$	3,552	\$	6,492	5	2,969 \$	45,415
RHER	Labor	•	\$	113			71	\$	93	\$ 120		(5) \$		8 \$	131		(64) \$		\$	150	Š	36 \$	986
Home Rebates	Expense		\$	4 . 9	\$ ⁻ 7	\$	3.514	\$	640	\$ 510	5	610 \$	48	1 , \$	587		1,250 \$	903	\$	678	\$	435 \$	9,619
Home Rebates	Labor		\$	16			-	\$	13	\$ 17	\$	(162) \$		4 \$	19	\$	361 \$	16	\$	21	S	(12) \$	322
CIRI	Expense		\$	61 .	\$ 7,892	\$	27	\$	768	\$ 621	\$	222 \$	34	2 . \$	373	\$	401 \$	296	\$	96	\$	6,810 \$	17,909
CIRI	Labor		\$	257	\$ 295	. \$	168	\$	212	273	\$	113 \$	22	3 \$	296	\$	381 \$	256	\$	339	\$	319 \$	3,130
CIER	Expense		\$	83 . 9		. \$	4,312	\$		\$ 2,983	\$	18,150 \$			25,465	\$	31,200 \$	19,290	\$	21,747	\$	67,764 \$	265,075
CIER	Labor		\$	34B :		\$	459	\$	287	\$ 370 .	\$	960 \$		2 <u>.</u> \$_	402	\$	196 .	348	\$	460	\$	769 \$	5,300
HECI	Expense		\$	33 . 5		. \$	397	\$	3,981	\$ 642	\$	(2,627) \$	4.61	3 \$	55,095	\$	37.430	2.042	\$	6,386	\$	(4,555) \$	106,963
HECI	. Labor		\$	140	_	. \$	(508)		115	148	\$	(762) \$	12		161	\$	1,520	139	\$	184	\$	(7), \$	1,711
Total			\$	1,082	\$ 35,132	5	11,682	\$	54,222	\$ 7,226	\$	25,874 . \$	27,10	9 \$	90,713	\$	65,353 \$	26,956	5	36,552	\$	74,527 \$	456,429
Monthly Over/(Ur	nder)		\$	6,618	\$ (23,286)	\$	5,329	s	(20,744)	\$ 59,965	\$	50,058 \$	37,94	8 \$	(41,369)	\$	(31,098) \$	(4,885)	\$	(20,499)	\$	(58,744)	
Cumulative Over/		•	\$ 2	207,773	\$ 184,487	\$	189,816	\$	169,071	\$ 229,036	\$	279,094 \$	317,04		275,673	\$	244,575	239,690	\$	219,191		160,448	

TABLE 24. EFFICIENCY COST RECOVERY SURCHARGE (SEPTEMBER 2015 THROUGH AUGUST 2016)

Industrial

INDUSTRIAL FY 2015 Under-C	Collection	\$ (<u>11</u> 3,291)	Actual Sep:15	Actual Oct-15	Actual Nov-15	Actual Dec-15	Ac <u>tual</u> Ian-16	Act Feb-		Actual Mar-16	Actual Apr-16	Actual May-16	Actual lun-16	Actual Jul-16	Actual Aug-16	Total
Volume Billed	•		28,538	36,712	40,035	70,044	117,70	13	35,137	B8,355	57,354	42,617	41,716	35,900	24,059	726,171
ECR Surcharge			(0 0102)	\$(0.0091)	(0.0091)	0.1086	S 0.226	: 	12262 \$	0.2575	<u>0.2888</u>	\$ 0.2888	\$0.2062	\$ 0.1236	\$ 0.1236	
Revenue Billed			\$ (291)	\$ (334)	\$ (437)	\$ 7,603	\$ 26,62	i js 2	30,568 \$	22,751	\$ 16,564	\$ 12,308	\$ 8,602	\$ 4,437	\$ 2,974 \$	131,369
RHER	Expense		s 0	\$ 81			\$ 1	5 _ 5	(66) \$		\$ 69	\$ (81)	\$ 30	\$ 54.	\$ (84) \$	-
RHER	Labor		\$ 1,	5 1	. \$ (6)), \$ 1	\$. 	(14) \$	1 _	\$ 1	\$ 15.	\$ <u>1</u> .	\$ 1	\$ (2) \$	
CIRI	Expense		.	\$ -	. S -	_\$	S -	<u>,</u> \$. 5	٠.	\$ -	\$	\$	\$	S - S	-
CIRI	Labor		\$ ·	\$ =	\$ -	\$ -	\$ -	\$. \$	٠,	\$ -	\$	\$ -	\$ -	S = S	-
CIER	Expense	_	\$ 19	\$ 3,053	\$ (211)	\$ 10,045	\$ 69) \$ (1	11,121) \$	4.266	\$ 5,969	\$ (9,856)	\$ 4.522	\$ 5,098	\$ (9,480) \$	3,004
CIER	Labor		\$ 82	\$ 94	\$ (102)	5 67	\$ 8	<u> </u>	(567) \$	71	\$ 94	\$ 243	\$ 82	\$ 108	\$ [197] \$	60
Total		_	S _ 102	\$ 3,229	\$ (402)	\$ 10,157	\$ 80) (<u>1,768)</u> \$	4,361	\$ 6,133	\$ (9,679)	\$ 4,634	5 5,261	\$ [9,764] \$	3.064
Monthly Over/(l	Under)		\$ (393)	\$ (3,563)	\$ (35)	(2,554	3 25,82	\$ 4	12,336 \$	18,391	\$ 10,431	\$ 21,987	\$ 3,968	\$ (824)	\$ 12,738	
Cumulative Over	/(Under)		\$ (113,685)	\$ (117.248)	\$ [117,283]	\$ (119,837	(94,01)	(9	51,676) \$	(33,285)	\$ (22,854)	\$ (867)	\$ 3,101	\$ 2,277	\$ 15,015	

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 2016 upon the participants listed below in accordance

with the requirements of § 1.54 (relating to service by a participant).

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