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December 28, 2017

#### Via Hand Delivery

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

Re: Petition of Philadelphia Gas Works for Approval of Demand Side Management Plan for FY 2016-2020 and Philadelphia Gas Works Universal Service and Energy Conservation Plan for 2014-2016 52 Pa. Code § 62.4 – Request for Waivers – Docket No. P-2014-2459362

#### Dear Secretary Chiavetta:

On behalf of Philadelphia Gas Works ("PGW") enclosed for filing please its Demand Side Management Program Annual Report Fiscal Year 2017 Results with regard to the above-referenced matter. This document is being submitted consistent with the directives of the Commission in its tentative opinion and order entered August 4, 2016 and its final opinion and order entered November 1, 2016 at this docket. Copies to be served in accordance with the attached Certificate of Service.

Sincerely.

Deanne M. O'Dell

DMO/lww Enclosure

cc: Hon. Christopher Pell w/enc.

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Hon. Marta Guhl w/enc. Cert. of Service w/enc.

Cornelia Schneck, TUS w/enc. (via email only) - cschneck@pa.gov

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SECRETARY'S BUREA



# Demand Side Management Program Annual Report

FY 2017 Results

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December 2017

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Annual Report: FY 2017	
	(PGW) with assistance from Green Energy Economics Group, Inc. (GEEG)

PGW EnergySense

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## 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 2017 ("FY 2017").1

PGW's FY 2017 DSM program budget was approved by Commission Order entered on November 1, 2016 at Docket Number P-2014-2459362. The programs were implemented in accordance with the EnergySense Demand Side Management Portfolio Phase II Compliance Plan for Fiscal Years 2017-2020 filed on December 27, 2016 at Docket Number P-2014-2459362.<sup>2</sup>

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 provides quantitative tables of portfolio operations and outcomes for all five DSM programs:

- Residential Equipment Rebates ("RER");
- Efficient Building Grants ("EBG");
- Commercial Equipment Rebates ("CER");
- Efficient Construction Grants ("ECG"); and
- Home Rebates

# 1.2. Summary of Results

In FY 2017, PGW spent \$1,462,930 on DSM programming, approximately 55 percent of the FY 2017 budget filed by PGW in its FY 2017-2020 Compliance Plan. PGW achieved estimated first year gas savings of 20.5 Billion Btu ("BBtu") and 421 BBtu over the lifetime of the measures installed. The FY2017 DSM activities have resulted in present value total resource benefits of \$2,802,923 (2014\$).

<sup>&</sup>lt;sup>1</sup> September 1, 2016 through August 31, 2017.

<sup>&</sup>lt;sup>2</sup> In its Final Order, the PUC directed PGW to submit an amendment to its then pending Universal Service and Energy Conservation Plan 2017-2020 ("USECP") regarding the low income usage reduction program ("LIURP") budget and return of the LIURP to USECP. Pursuant to this (and other directives), PGW filed two amendments to its Universal Service and Energy Conservation Plan 2017-2020 at Docket No. M-2016-2542415. Ultimately, the Commission approved PGW's proposal that the administrative costs of the LIURP budget remain combined with the DSM Plan and allocated proportionally across all programs as done historically given the cost efficiencies that can be achieved. See Second Amended Universal Service and Energy Conservation Plan 2017-2020 dated August 31, 2017 at 27-28. The Commission entered a Final Order approving PGW's Second Amended USECP for the period of 2017-2020 on October 5, 2017.

TABLE 1. DSM Costs and Budgets by Program (Nominal)<sup>3</sup>

D			
Program	Actual	Goal <u>"</u>	%
Residential Equipment Rebates (RER)	\$432,124	\$777,000	56%
Efficient Construction Grants (ECG)	\$154,880	\$284,200	54%
Home Rebates	\$165,606	\$181,000	91%
Commercial Equipment Rebates (CER)	\$223,953	\$313,650	71%
Efficient Building Grants (EBG)	\$3,960	\$163,419	2%
Portfolio-wide Costs <sup>4</sup>	\$482,406	\$920,000	52%
Utility Total	\$1,462,930	\$2,639,269	<b>55</b> %
Participant Costs	\$928,415		
Total	\$2,391,345		

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

Cotoron	FY 201 <u>7</u>		
Category	Actual	Goal	%
Customer Incentives	\$742,164	\$1,346,969	55%
Administration and Management	\$282,767	\$670,000	42%
Marketing and Business Development	\$199,640	\$250,000	80%
Contractor Costs	\$207,416	\$259,000	80%
Inspection and Verification	\$13,485	\$63,300	21%
On-site Technical Assessment	\$-	\$-	
Evaluation	\$17,458	\$50,000	35%
Utility Total	\$1,462,930	\$2,639,269	55%
Participant Costs	\$928,415	·	
Total	\$2,391,345		

<sup>3</sup> All PGW Efficiency Cost Recovery Surcharge collections are shown in Appendix A. FY 2016 over-collections were refunded to the appropriate customer classes in FY 2017.

<sup>&</sup>lt;sup>4</sup> Portfolio-wide costs include administration and labor costs that were allocated proportionally, pursuant to PGW's DSM Phase II Compliance Plan, to PGW's DSM programs and LIURP, the CRP Home Comfort program.

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

Program	F		
	Actual	Goal	%
Residential Equipment Rebates (RER)	7,234	13,558	53%
Efficient Construction Grants (ECG)	3,790	4,817	79%
Home Rebates	1,141	2,778	41%
Commercial Equipment Rebates (CER)	8,334	10,056	83%
Efficient Building Grants (EBG)	-	1,422	0%
Portfolio Total	20,499	32,630	63%

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

Drogram	F		
Program	Actual	Goal	%
Residential Equipment Rebates (RER)	155,619	296,175	53%
Efficient Construction Grants (ECG)	87,458	89,405	98%
Home Rebates	33,541	50,586	66%
Commercial Equipment Rebates (CER)	144,390	156,427	92%
Efficient Building Grants (EBG)	•	37,549	0%
Portfolio Total	421,008	630,141	67%

TABLE 5. NON-GAS BENEFITS

Drogram	FY 2017		
Program	Actual	Goal	%
First Year Energy Savings Installed (kWh)	130,592	143,294	91%
Lifetime Energy Savings Installed (kWh)	2,899,598	3,135,760	92%
Summer Peak Demand Savings Installed (kW)	2	•	
First Year Water Savings Installed (million gallons)	0.68	•	
Lifetime Water Savings Installed (million gallons)	8.88		

TABLE 6. TOTAL ANNUAL SAVINGS FY2011 THROUGH FY2017

Cumulative EnergySense Portfolio Savings <sup>5</sup>		
Natural Gas (MMBtu)	478,952	
Energy Savings (kWh)	4,240,389	
Summer Peak Demand Savings (kW)	1,213	
Water Savings (million gallons)	33	

Savings includes DSM portfolio savings from January 1, 2011 through August 31, 2017. These figures include savings for PGW's LIURP from January 1, 2011 through August 31, 2016, at which point it was moved to PGW's USECP.

TABLE 7. TOTAL RESOURCE COST TEST RESULTS FOR FY 2017 (2014\$) BASE AVOIDED COST SCENARIO

	FY 2017				
Program	PV of Benefits	PV of Costs	PV of Net Benefits	BCR	
Residential Equipment Rebates (RER)	\$1,114,652	\$946,942	\$167,710	1.18	
Efficient Construction Grants (ECG)	\$595,512	\$246,342	\$349,169	2.42	
Home Rebates	\$234,047	\$240,519	\$(6,472)	0.97	
Commercial Equipment Rebates (CER)	\$858,712	\$241,565	\$617,147	3.55	
Efficient Building Grants (EBG)	\$-	\$3,543	\$(3,543)	-	
All Programs	\$2,802,923	\$1,678,911	\$1,124,012	1.67	
Portfolio-wide Costs <sup>6</sup>	\$-	\$420,485	\$(420,485)	-	
Portfolio Total	\$2,802,923	\$2,099,397	\$703,526	1.34	

TABLE 8. TOTAL RESOURCE COST TEST RESULTS FOR FY 2017 (2014\$) AVOIDED COST SCENARIO INCLUDING CO2

	FY 2017				
Program	PV of Benefits	PV of Costs	PV of Net Benefits	BCR	
Residential Equipment Rebates (RER)	\$1,346,677	\$946,942	\$399,735	1.42	
Efficient Construction Grants (ECG)	\$706,312	\$246,342	\$459,970	2.87	
Home Rebates	\$287,729	\$240,519	\$47,210	1.20	
Commercial Equipment Rebates (CER)	\$1,009,933	\$241,565	\$768,368	4.18	
Efficient Building Grants (EBG)	\$-	\$3,543	\$(3,543)	-	
All Programs	\$3,350,651	\$1,678,911	\$1,671,740	2.00	
Portfolio-wide Costs	\$-	\$420,485	\$(420,485)	•	
Portfolio Total	\$3,350,651	\$2,099,397	\$1,251,254	1.60	

<sup>6</sup> The portfolio-wide cost category includes administrative costs allocated to PGW's LIURP consistent with the Commission's approval of PGW's USECP for the period of 2017-2020. See, supra, finte. 2. PGW is in the process of evaluating overall portfolio administrative costs through its implementation of LIURP to determine where efficiencies are best met and could be proposed to remain combined. Reporting after 2020 (the conclusion of the current reporting period of the DSM Phase II Compliance Plan) will likely separate portfolio-wide costs allocated to LIURP from those allocated to the DSM programs.

# 2. Residential Equipment Rebate Program

The Residential Equipment Rebate ("RER") 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. RESIDENTIAL EQUIPMENT REBATES RESULTS FOR FY 2017

		FY 2017			
		Actual		Goal	%
PARTICIPATION				_	
Completed Applications	_	613		1,030	60%
COSTS (Nominal)					
Non-Incentive Spending	\$	48,564	\$	106,000	46%
Contractor Costs	. \$	45,998			
Inspection and Verification	, \$	2,566			
<b>Customer Incentives</b>	\$	383,560	\$	671,000	57%
Total Program Spending	. \$	432,124	. \$	777,000	56%
Participant Costs	\$	647,851			
Total Costs	\$	1,079,976			
SAVINGS					
First Year MMBtus		7,234		13,558	53%
Lifetime MMBtus		155,619		296,175	53%
First Year kWh		95,900			
Lifetime kWh		1,918,000			
Measures	-	•			
Furnaces		505			
Boilers		108			

TABLE 10. TRC COST-EFFECTIVENESS RESULTS FOR RESIDENTIAL EQUIPMENT REBATES FOR FY 2017 (2014\$)

Present Value (2014\$)	Actual
Benefits	\$1,114,652
Costs	\$946,942
Net Benefits	\$167,710
BCR	1.18

# 2.1. Notable Program Activities in FY 2017

In FY 2017, applications from landlords and developers continued to be a large part of the program, consisting of 26 percent of all heater rebates. The majority of these landlord/developer claims were for small to medium sized buildings and small townhouse projects.

The program experienced a low participation rate, which PGW attributes in-part to uncertainty surrounding the DSM Phase II continuation proceeding that extended into FY2017. PGW maintained RER and other programs during the Phase II proceeding under a temporary approval in order to ensure customer satisfaction and honor rebates to eligible customers, as well as avoiding high costs and communication challenges associated with shutting down programs and ramping up again. This continuation was successful in allowing projects that had begun in prior fiscal years to receive a rebate in FY2017, as well as influencing equipment selection at the time of purchase. After the DSM Compliance Plan was filed on December 27, 2016, PGW began increasing program marketing and communications. However, due to the lead-time for marketing to result in rebate projects, program participation finished below the program goal.

In FY 2017, the greatest sources of applications continued to be HVAC contractors and supply houses, 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 RESIDENTIAL EQUIPMENT REBATES REFERRALS FROM INCEPTION THROUGH FY 2017

Source	Percent
Family / Friend	13%
Contractor / Supply House	67%
Website	13%
PGW Rep	1%
Gas Bill	4%
Other	2%

#### **Quality Assurance and Verifications**

There were 37 on-site rebate verifications performed in 2017, accounting for six 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.

# 3. Efficient Building Grants

The Efficient Building Grants 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 for cost-effective gas-saving investments including high-efficiency heating system replacements, improved system controls, and building thermal performance enhancements. 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. EFFICIENT BUILDING GRANTS PROGRAM ACTIVITY FOR FY 2017

	FY 2017		
	Actual	Goal	%
PARTICIPATION			
Applications	5 .		
Incentive Agreements Issued	0		
Customer with Installations	0	,	0%
COSTS (Nominal)			
Non-Incentive Spending	\$3,960	\$81,300	4.9%
Contractor Costs	\$3,960	,	
Customer Incentives	\$-	\$202,900	0.0%
Total Program Spending	\$3,960	\$284,200	1.4%
Participant Costs	\$-		
Total Cost	\$3,960		
SAVINGS			
First Year MBBtu	0 .	4,817	0%
Lifetime MBBtu	0	89,405	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 EFFICIENT BUILDING GRANTS FOR FY 2017 (2014\$)

Present Value (2014\$)	Actual
Benefits	\$-
Costs	\$3,543
Net Benefits	\$(3,543)
BCR	-

# 3.1. Notable Program Activities in FY 2017

#### **Project Timelines**

In 2017, PGW had no completed projects in the Efficient Building Grants Program, though the program remains cost-effective based on activity from its inception in FY 2012 through FY 2017. The lack of program activity was the result of a combination of PGW's strategic decisions around marketing the program, and the inherent time required for retrofit projects. PGW limited proactive lead generation and marketing of the program while PGW was operating under temporary authorization for most of FY2016 and early FY2017.

Efficient Building Grants 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. Furthermore, PGW requires pre-application for this program. This contrasts to projects in the Efficient Construction Grants program, which do not require pre-application and are often used to improve the efficiency of projects already underway.

PGW began marketing the Efficient Building Grants Program again after the Phase II Final Order was entered on November 1, 2016. Though no projects closed within FY2017, PGW received five applications. Three of these projects are expected to close in FY2018 for an estimated grant amount of \$45,000, and one was directed to another EnergySense program.

# 4. Commercial Equipment Rebates

The Commercial Equipment Rebates Program ("CER") 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. CER RESULTS FOR FY 2017

	FY 2017		
	Actual	Goal	%
PARTICIPATION7	•		
Pieces of Equipment	133	144	92%
COSTS (Nominal)	•		
Non-Incentive Spending	\$52,789	\$75,000	70%
Contractor Costs	\$48,888		
Inspection and Verification	\$3,901	·	
Customer Incentives	\$171,164	\$238,650	72%
Total Program Spending	\$223,953	\$313,650	71%
Participant Costs	\$51,985		
Total Costs	\$275,938		
SAVINGS			
First Year MMBtus	8,334	10,056	88%
Lifetime MMBtus	144,390	156,424	112%
First Year kWh	•		
Lifetime kWh	-	·	
Summer Peak Demand kW	-		
First Year Water (Million Gallons)	0.13		
Lifetime Water (Million Gallons)	1.27	,	
MEASURES			
Commercial Boilers	21		

<sup>&</sup>lt;sup>7</sup> 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.

Commercial Cooking Equipment	49	
Commercial Water Heater	12	
Steam Traps	50	•
Custom Projects	1	•

TABLE 15. COST-EFFECTIVENESS RESULTS FOR CER FOR FY 2017 (2014\$)

Present Value (2014\$)	Actual
Benefits	\$858,712
Costs	\$241,565
Net Benefits	\$617,147
BCR	3.55

# 4.1. Notable Program Activities in FY 2017

The CER program was successful in FY 2017, with 133 installations. Total spending for customer incentives was \$171,164, 72 percent of PGW's FY 2017 incentive goal. This program was cost effective, with a benefit to cost ratio of 3.55. It achieved 144,390 lifetime MMBtu savings, reaching 92% of its savings goal. The program had a high level of participation compared to other programs, which PGW attributes to several factors. Large commercial projects have long project lead times so many projects could have been designed and planned in prior fiscal years. Many businesses and commercial property owners have replacement schedules for commercial equipment which make the replacements a more routine activity than replacing equipment in households. This also means that commercial projects are less responsive to short-term marketing activities.

Commercial boilers comprised nearly half of the activity in CER, with \$81,100 in rebates issued for 21 boiler installations. This resulted in gas savings exceeding projections, as commercial boilers contribute greater savings and have longer measure lifetimes than other measures in CER. Customer participating in CER had a range of building types, including multifamily, religious, education healthcare, lodging, and office buildings.

Commercial food service equipment comprised the bulk of the remainder of activity in FY 2017, with forty-nine rebates for a total of \$69,600. This category experienced an increase in 2017. A strong showing for this segment reflects a way that the program has been transforming the marketplace, and is the result of continued supply house outreach. When PGW began offering restaurant equipment rebates in 2012 many restaurant supply houses did not have much of a selection of ENERGY STAR models, which were often considered custom orders. After several years of engagement with restaurant supply houses and manufacturers, this equipment is more readily available. Supply houses now carry models that can be purchased and picked up that day rather than as custom orders, making it easier for businesses with short timelines to select high efficiency.

Twelve rebates totaling \$12,000 were issued for Commercial Hot Water Heaters. Fifty steam trap rebates were issued.

#### 5. Efficient Construction Grants

The Efficient Construction Grants 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. 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.

TABLE 16. EFFICIENT CONSTRUCTION GRANTS PROGRAM RESULTS FOR FY 2017

	FY 2017		
	Actual	Goal	%
PARTICIPATION			
Completed Projects	72	42	171%
Residential Single Family Buildings	45		
Residential Multifamily Buildings	27		
Commercial	0		
COSTS (Nominal)			
Non-Incentive Spending	\$28,169	\$24,000	117%
Contractor Costs	\$21,151		
Inspection and Verification	\$7,018		
Customer Incentives	\$126,711	\$157,000	81%
Total Program Spending	\$154,880	\$181,000	86%
Participant Costs	\$128,527		
Total Cost	\$283,407		
SAVINGS	_		
First Year MMBtu	3,790	2,778	136%
Lifetime MMBtu	87,458	50,586	173%
First Year kWh	17,997	·	
Lifetime kWh	445,800		
Summer Peak Demand kW	2		
First Year Water (Million Gallons)	0.52		
Lifetime Water (Million Gallons)	7.29		

TABLE 17. COST-EFFECTIVENESS RESULTS FOR EFFICIENT CONSTRUCTION GRANTS FOR FY 2017 (2014\$)

PRESENT VALUE (2014\$)	Actual
Benefits	\$595,512
Costs	\$249,885
Net Benefits	\$345,626
BCR	2.38

Efficient Construction Grants program issued \$126,711 in grants for 72 projects during FY 2017, and spent 81% percent of the incentive budget goal. This high level of participation was due in part to several projects that were issued agreements in previous years, though closed in FY2017. PGW has also been successful at cultivating relationships with builders of single family or small multi-family properties, which require a shorter lead and completion time. Furthermore, there have been several leads that have applied for the program, which will complete projects in FY2018. The program showed a significant increase in cost-effectiveness, ending the year with a 2.38 TRC BCR. Savings were 173 percent of the incremental savings goal.

Interest in the program continues to grow among residential, multifamily and commercial builders and developers who have had successful installations. Often times, they will reach out about receiving grants for additional projects, or pursue Efficient Construction Grants after receiving equipment rebates for a previous project.

#### 6. Home Rebates

The Home Rebates program offered performance-based incentives to PGW's residential customers who implement whole-home energy efficiency retrofits. The program had 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.

The Home Rebates program was discontinued in FY2017. The following sections provide an overview of the steps taken to wind-down the program.

TABLE 18. HOME REBATES RESULTS FOR FY 2017

	FY 2017		
	Actual	Goal	%
PARTICIPATION	_		
Audits	37		
Completed Jobs	32	49	65%
COSTS (Nominal)	_		
Non-Incentive Spending	\$104,877	\$86,000	122%
Contractor Costs	\$87,419		
Evaluation	\$17,458		
Incentives	\$60,729	\$77,419	78%
Total Program Spending	\$165,606	\$163,419	101%
Participant Costs	\$100,052		
Total Cost	\$265,658		
SAVINGS	,		
First Year MMBtus	1,141	1,422	80%
Lifetime MMBtus	33,541	37,549	89%
First Year kWh	16,695		
Lifetime kWh	535,797		

TABLE 19. COST-EFFECTIVENESS RESULTS FOR HOME REBATES FOR FY 2017 (2014\$)

PRESENT VALUE (2014\$)	Actual
Benefits	\$234,047
Costs	\$240,519
Net Benefits	\$(6,472)
BCR	0.97

# 6.1. Notable Program Activities in FY 2017

PGW ended the Home Rebates program in FY 2017, pursuant to the Compliance Plan filed with the Commission. PGW offered a four month wind-down period to ensure that customers who were interested in participating in the program had the chance to do so and that participating CSPs could close remaining jobs.

The Home Rebates program had a TRC BCR of 0.97 this fiscal year, performing slightly under cost-effective goals. The primary issues affecting overall program cost-effectiveness continued 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 approximately \$88,000 (2014\$).

PGW followed the wind-down plan outlined below to allow new customers to participate on a first-come first-serve basis, and to complete projects underway. This strategy was effective in serving customers and meeting the program's wind-down participation goals.

#### Milestones were as follows:

- September October 2016: Marketing and outreach to communicate the program's end date to the general public and also to customers that had received energy assessments but had not completed measures.
- November 2016: Deadline for customers to schedule an energy assessment as a first step to participate in the program.
- December 2016: Deadline for all projects to be completed and submitted for approval in order to remain eligible for a rebate.
- January 2017: Program closed out, with all rebates paid to customers. Program reporting, data transfers and remaining deliverables from program vendors and CSPs.

Appendix A: Cost Recovery Reconciliation		
7. Appendix A. Cost Recovery Reconciliation		

TABLE 20. Efficiency Cost Recovery Surcharge Residential and PHA GS Customers (September 2016 Through August 2017)

### Residential & PHA GS

RESIDENTIAL & PHA GS FY 2016 Over-Collection	\$ .	470,139	Actual Sep-16		Actual Oct-16		Actual Nov-16	Actual Dec-16		Actual Jan-17			Actual Feb-17	Actual Mar-17		Actual Apr-17		Actual A <u>av-17</u>	Actual Jun-17		Actual Jul-17			Actual Aug-17	Ē	Total Y 2017
Volume Billed		,	690,3		883,073	:	2,034,747	4,	485,964	6	,792,242	:	,444,687	4,737,25	8	3,630,094	1,	393,529	1,0	016,531		726,798		656,123	32	2 491 422
ECR Surcharge			5 0 01	57 <u>\$</u>	0.0195	5_	0.0195	Ł	0.0221	Ł	0.0247	£	0.0247	\$ 0.023	5	\$ 0.0222	\$	0.0222	1	0.0188	٤	0.0154	Ł	0.0154		
Revenue Billed			\$ 10,8	99 <b>S</b>	17,220	S	39,678	\$	99,140	\$	167,768	\$	134,484	\$ 111,08	8	\$ 60,588	\$	30,936	5	19,111	\$	11,193	\$	10,104	5	732,149
RHER	Expe	nee	S 3,2	9 \$	3,085	\$	40,562	\$	38,157	\$	43,984	5	66,832	\$ 46,84	1	\$ 16,581	\$	45,167	\$	25,325	\$	13,888	\$	96,458	\$	440.091
RHER	Labo	r	5 1,0	¥5 \$	795	\$	1,289	\$	1,176	\$	1,164	\$	1,107	\$ 1,73	2	\$ 1,555	\$	1,746	\$	2,036	\$	1,616	\$	2,344	\$	17.654
HECI	Expe	n se	\$	9 \$	47	\$	762	5	1,632	\$	13,674	\$	27,418	\$ 1,85	3	\$ 4,588	\$	14,314	\$	5,205	S	84	\$	96,363	\$	166,058
HEC1	Labo	•	\$ 1	33 \$	97	\$	117	\$	143	\$	141	5	1,091	\$ 21		\$ 189	\$	910	5	248	\$	197	\$	1,049	\$	4 525
CRRI	Expe	n ya	\$	13 S	1,870	\$	14,029	\$	80,151	\$	9,894	\$	60,908	\$ (34,23	3)		\$	158	\$	-	\$	0	5	3,478	5	138,678
CRRI	Labo	r	<b>\$</b> 2	1 \$	153	\$	196	\$	227	\$	224	\$	234	\$ 33	3	\$ 300	\$	314	\$		5	0	S	1,080	5	3,273
CIRI	Expe	N84	\$	76 \$	61	\$	285	\$	111	\$	1,157	5	387	\$ 5		\$ 272	\$	122	\$	354	5	377	S	2,504	\$	5,782
CIRI	Labo	7	<b>S</b> 1	4 5	126	\$	155	5	166	S	184	S	184	\$ 27		\$ 247	\$	246	\$	323	\$	256	\$	296	\$	2,651
CIER	Expe	nse	\$	4 S	3	\$	(7)	\$	412	\$	362	\$	(786)	-		\$ 686	\$	(1,175)	\$	106	\$	123	5	1,708	\$	1.975
CIER	Labo	•	\$	<u>8 \$</u>	6	<u>\$</u>	<u>(14</u> )	<u>\$</u>	9	<u>s</u>	9	<u>\$</u>	<u>(18</u> )	\$ 1	3	<u> 12</u>	\$	(25)	<u>\$</u> _	15	5_	12	<u>\$</u>	36	\$_	64
Total			\$ 5,0	32 \$	6,243	\$	57,374	\$	122,203	\$	70,793	\$	157,418	\$ 17,56	8	\$ 24,763	\$	61,775	\$	33,611	\$	16,553	\$	205,317	\$	778,681
Monthly Over/(Under)			<b>S</b> 5,7	77 \$	10,977	\$	(17,696)	\$	(23,063)	\$	96,976	5	(22,934)	\$ 93,52	0	\$ 55,825	\$	(30,839)	\$	(14,500)	\$	(5,360)	\$ (	(195,213)		
Cumulative Over/(Under)			\$ 475,9	6 \$	486,892	٠,	469,196	\$ -	446,133	\$	543,108	\$	520,174	<b>S</b> 613,69	4	\$ 669,519	S	638,680	\$ 6	24,180	5	618,820	\$	423,608		

TABLE 21. Efficiency Cost Recovery Surcharge Commercial and PHA Customers (September 2016 Through August 2017)

#### Commercial & PHA

COMMERCIAL & PHA FY 2018 Over-Collection	\$ 16	i0.448	Actual Sep-15	Actual Oct-18		Actual Nov-16		Actual Dec-16		Actual Jan-17		Actual Feb-17		Actual Mar-17		Actual Apr-17		Actual May-17		Actual Jun-17			Actual Jul-17		Actual Aug-17		Total <u>Y 2017</u>
Volume Billed	•		342,337		464,675		809,222		1,351,756		1,746,985		1,486,058	1	407.527	9	46,366		526,783		421,964		350,089		353,743	10	207.505
ECR Surcharge			0 0493	S.	0.0510	£	0.0510	ş	0 0580	£	0.0610	\$	0.0610	Ş	0.0590	\$	0.0570	\$_	0 0570	\$	0 0575	S	0 0580	S.	0,0560		
Revenue Bliled			18,877	\$	23,698	\$	41,270	5	75,698	5	106,566	\$	90,650	S	83,044	\$	53,943	\$	30,027	\$	24,263	\$	20,305	\$	20,517	\$	588,859
RHER	Expens	14	354	5	340	\$	(694)	\$	4,138	5	4,770	\$	3,962	5	5,163	s	1,828	\$	341	s	2,791	s	1,531	5	(2,033)	\$	22,490
RHER	Labor	:	121	\$	88	\$	(208)	\$	128	5	126	5	182	S	191	5	171	5	(23)	5	224	S	178	S	(274)	\$	904
CRRI	Ехрепи	10 3	. 2	\$	35	\$	(36)		1,480	5	183	\$	(1,662)	5	(699)	\$	6	\$	(7)	\$	-	\$	(0)	\$		\$	(700)
CRRI	Labor	:	4	5	3	5	(7)	5	4	s	4	5	(B)	\$	7	5	6	\$	(12)	\$		\$		s		5	
CIRI	Expens	14 :	138	\$	110	5	514	\$	200	5	2,088	\$	699	\$	100	\$	492	\$	220	\$	638	\$	680	\$	4,521	\$	10,400
CIRI	Labor	!	313	\$	227	S	2/9	\$	336	\$	332	\$	333	\$	495	\$	445	\$	445	\$	582	\$	462	5	534	\$	4,784
CIER	Expens	14	193	\$	154	\$	3,753	\$	21,874	\$	19,231	\$	36,765	\$	25,932	5	36,438	\$	16,243	\$	5,604	\$	6,535	\$	49,483	\$	222,200
CLER	Labor		439	\$	319	S	(432)	S	464	\$	459	5	1,360	S	694	S	624	5	962	\$	816	\$	648	\$	988	\$	7,342
HECI	Expens	10 3	72	\$	57	\$	941	\$	2,001	\$	16,771	\$	(19,843)	5	2,273	S	5,627	5	(7,900)	S	6,383	5	103	\$	(6,486)	\$	0
HECI	Labor		163	\$	119	5	146	5	175	5	1/3	\$	(777)	\$	258	S	232	S	_(490)	S	304	5	241	5_	(545)	\$	
Total		i	1,799	5	1,452	s	4,257	S	30,800	\$	44,138	S	21,011	\$	34,415	\$	45,868	S	9,776	\$	17,343	\$	10,378	\$	46,186	\$	207,428
Monthly Over/(Under)		:	15,078	s	22,247	\$	37,013	S	44,898	\$	62,428	S	69,638	\$	48,630	\$	8,075	S	20,250	\$	6,919	\$	9,927	\$	(25,671)		
Cumulative Over#Under}			175,526	\$	197,772	Ś	234,786	\$	279,684	S	342,112	5	411,750	\$	460,380	5 4	88,454	5	188.705	\$	495.624	\$	505,551	\$	479.880		

TABLE 22. Efficiency Cost Recovery Surcharge Industrial Customers (September 2016 Through August 2017)

#### Industrial

NOUSTRIAL FY 2016 Over-Collection	\$ 15,015		Actual Sep-16		Actual Oct-16		Actual Nov-16		Actual <u>Dec-16</u>		Actual Jan-17		Actual Feb-17		Actual Mar-17		Actual Apr-17		Actual May-17	Actual Jun-17		Actual Jui-17			Actual Aug-17		otal 2017
Volume Billed ECR Surcharge	,	5	25,814 0.1224	Ł	37,863 0 1212	<u>s</u>	60,548 0 1212	£	104,737 0 0798	5	136,311 0.0384	<u>\$</u>	117,791 0.0384	£	112,132 0,0470	\$	65,235 0 0556	<u>\$</u>	36,051 0 0556	<u>\$</u>	29,639 0,0575	<u>\$</u>	26,658 0.0594	<u>\$</u> _	28,324 0.0594		781,103
Revenue Billed		5	3,160	\$	4,589	\$	7,338	\$	8,358	\$	5,234	\$	4,523	\$	5,270	\$	3,827	\$	2,004	\$	1,704	\$	1,583	\$	1,682 \$	,	49 074
RHER	Ехрепве	s	3	s	3	\$	(5)	\$	31	\$	35	\$	(67)	\$	38	5	14	5	(52)	\$	21	5	11	s	(32) 5		(1)
RHER	Labor	\$	1	\$	1	5	(2)	5	1	5	1	\$	(2)	5	1	\$	1	\$	(3)	\$	2	\$	1	\$	(3) \$	,	(0)
CIRI	Expense	\$	-	\$		\$	-	\$	-	\$	-	\$	-	\$		\$	-	\$	-	\$	-	5	-	5	- 1		-
CIRI	Labor	\$	-	\$		\$	-	\$		\$		5	-	5		S		\$		5		\$		5	- \$	•	
CIER	Expense	\$	29	5	23	S	12,689	5	3,604	\$	3,169	\$	(7,840)	3	3,829	\$	5,380	\$	(9,300)	\$	827	\$	965	\$	(724) \$		12,650
CIER	Labor	\$	65	\$	47	\$	901	\$	76	5	76	S	(800)	5	103	5	92	S	(212)	5	121	s	96	\$	(153) 1		411
Total		5	97	5	73	5	13,584	\$	3,712	\$	3,281	5	(8,709)	5	3,971	\$	5,487	5	(9,566)	5	970	\$	1,073	5	(912) \$		13 060
Monthly Over#Under}		\$	3,063	\$	4,516	5	(8,245)	\$	4,646	5	1,954	S	13,232	\$	1,299	\$	(1,860)	\$	11,571	\$	734	\$	510	\$	2,594		
Cumulative Over#Under)		5	18,077	\$	22,593	\$	18,348	\$	20,994	\$	22,947	\$	38,180	5	37,479	5	35,619	5	47,190	\$	47,924	\$	48,434	\$	51,029		

### **CERTIFICATE OF SERVICE**

I hereby certify that this day I served a copy of PGW's Demand Side Management Program Annual Report FY 2017 Results upon the parties and persons listed below in the manner indicated in accordance with the requirements of 52 Pa. Code Section 1.54.

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Date: December 28, 2017

PA PUC