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December 27, 2018

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 2018 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,

ane M. Ofel

Deanne M. O'Dell DMO/lww Enclosure

cc: Hon. Christopher Pell w/enc.
Hon. Marta Guhł w/enc.
Cert. of Service w/enc.
Cornelia Schneck, TUS w/enc. (via email only) - <u>cschneck@pa.gov</u>

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Demand Side Management Program Annual Report

FY 2018 Results



December 2018

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

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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 2018 ("FY 2018").¹

PGW's FY 2018 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-2014-2459362.²

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 four DSM programs:³

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

1.2. Portfolio-Level Updates

PGW made a strategic decision to hire one vendor to manage the administration, rebate processing, marketing and technical review for the full EnergySense portfolio (RER, CER, EBG, and ECG), ensuring better integration between programs and improved customer experience. During the 2018 program year, PGW on-boarded the new administrator and implemented various program updates and improvements. Improvements launched in 2018 included an updated website that is more user-friendly and includes online applications for residential and commercial rebates and grants. These online applications have resulted in shorter check payment times and fewer rejections. Customers are required

¹ September 1, 2017 through August 31, 2018.

² In its Final Order approving PGW's DSM program, 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. See Petition of Philadelphia Gas Works for Approval of Demand-Side Management Plan, Docket No. P-2014-245936 Order entered November 1, 2016 ("Final DSM Order"). 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.

³ PGW's LIRUP program was an included program in the DSM portfolio from January 1, 2011 through August 31, 2018 at which point it was moved to PGW's USECP as directed by the Commission. *See* Final DSM Order at 26-27.

to fill all application fields, which helps prevent errors and incomplete applications. The program administrator also increased marketing outreach to civic associations, equipment supply houses and other trade allies.

PGW has focused on building the project lead pipeline, including for projects that will close in 2019, and saw a considerable growth in interest among large projects. In response to the lead activity, PGW established new policies to manage potential oversubscription. For the first time, PGW established rebate caps of \$25,000 per prescriptive rebates per building for the RER and CER programs. These caps are likely to apply only to very large projects that install numerous pieces of rebate-eligible equipment.

PGW continues to apply incentive caps of \$60,000 for the ECG program and \$75,000 for the EBG program, but updated how it applies the caps in 2018 in relation to the RER and CER change listed above. In previous years customers could earn up to the capped amounts of \$60,000 or \$75,000 respectively for custom measures in a building, though could exceed the caps with prescriptive rebates for heating equipment. Now, the caps are firm so that customers cannot earn more than the assigned capped amount for the building. This creates an incentive for customers with larger projects to pursue the comprehensive grant programs. We expect this update will allow PGW to distribute rebates and grants to as many participants as possible, better track leads, and manage the program within budget as we enter 2019.

1.3. Summary of Results

In FY 2018, PGW spent \$1,390,310 on DSM programming, approximately 54 percent of the FY 2018 budget filed by PGW in its FY 2017-2020 Compliance Plan. PGW achieved estimated first year gas savings of 22.3 Billion Btu ("BBtu") and 403 BBtu over the lifetime of the measures installed. The FY 2018 DSM activities have resulted in present value total resource net benefits of \$1,068,935 (2014\$).

	FY 2018			
reogram	Actual	Goal	%	
Residential Equipment Rebates (RER)	\$354,324	\$727,000	49%	
Efficient Construction Grants (ECG)	\$76,794	\$232,000	33%	
Commercial Equipment Rebates (CER)	\$407,297	\$392,650	104%	
Efficient Building Grants (EBG)	\$57,090	\$394,850	14%	
Portfolio-wide Costs	\$494,805	\$844,000	59%	
Utility Total	\$1,390,310	\$2,590,500	54%	
Participant Costs	\$812,279	\$1,574,925	52%	
Total	\$2,202,589	\$4,165,425	53%	

TABLE 1.	DSM COSTS	AND	BUDGETS BY	PROGRAM	(NOMINAL) ⁴
		-			

⁴ All PGW Efficiency Cost Recovery Surcharge collections are shown in Appendix A. FY 2017 over-collections were refunded to the appropriate customer classes in FY 2018.

TABLE 2. DSM Costs and Budgets by Category (Nominal)

Catagory	FY 2018			
Category	Actual	Goal	%	
Customer Incentives	\$781,283	\$1,294,550	60%	
Administration and Management	\$93,144	\$694,000	1 3%	
Marketing and Business Development	\$134,160	\$150,000	89%	
Contractor Costs	\$352,445	\$210,800	167%	
Inspection and Verification	\$27,776	\$46,150	60%	
Evaluation	\$1,502	\$245,000	1%	
Utility Total	\$1,390,310	\$2,640,500	53%	
Participant Costs	\$812,279	\$1,574,925	52%	
Total	\$2,202,589	\$4,215,425	52%	

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

Programme (FY 2018			
Program	Actual	Goal	%	
Residential Equipment Rebates (RER)	5,843	13,558	43%	
Efficient Construction Grants (ECG)	1,019	2,778	37%	
Commercial Equipment Rebates (CER)	14,295	10,056	142%	
Efficient Building Grants (EBG)	1,100	5,399	20%	
Portfolio Total	22,257	31,791	70%	

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

Drogrom	FY 2018			
Program	Actual	Goal	%	
Residential Equipment Rebates (RER)	126,663	296,175	43%	
Efficient Construction Grants (ECG)	23,750	50,586	47%	
Commercial Equipment Rebates (CER)	234,996	156,427	150%	
Efficient Building Grants (EBG)	17,731	100,628	18%	
Portfolio Total	403,140	603,816	67%	

TABLE 5. NON-GAS BENEFITS

Cotogory	FY 2018		
Category	Actual	Goal	%
First Year Energy Savings Installed (kWh)	135,602	136,803	99%
Lifetime Energy Savings Installed (kWh)	1,703,391	2,900,278	59%
Summer Peak Demand Savings Installed (kW)	1		
First Year Water Savings Installed (million gallons)	6		
Lifetime Water Savings Installed (million gallons)	65		

TABLE 6. TOTAL ANNUAL SAVINGS FY2011 THROUGH FY 2018

Cumulative EnergySense Portfolio Savings ⁵				
Natural Gas (MMBtu)	501,209			
Energy Savings (kWh)	4,375,991			
Summer Peak Demand Savings (kW)	1,214			
Water Savings (million gallons)	39			

TABLE 7. TOTAL RESOURCE COST TEST RESULTS FOR FY 2018 (2014\$) BASE AVOIDED COST SCENARIO

		FY 20	18	
Program	PV of Benefits	PV of Costs	PV of Net Benefits	BCR
Residential Equipment Rebates (RER)	\$896,391	\$736,812	\$159,580	1.22
Efficient Construction Grants (ECG)	\$148,040	\$93,245	\$54,795	1.59
Commercial Equipment Rebates (CER)	\$1,667,236	\$519,142	\$1,148,093	3.21
Efficient Building Grants (EBG)	\$204,955	\$81,822	\$123,134	2.50
All Programs	\$2,916,623	\$1,431,021	\$1,485,602	2.04
Portfolio Wide Costs		\$416,666	(\$416,666)	
Portfolio Total	\$2,916,623	\$1,847,687	\$1,068,935	1.58

TABLE 8. TOTAL RESOURCE COST TEST RESULTS FOR FY 2018 (2014\$) Avoided Cost SCENARIO INCLUDING CO2

	م مربور بر	FY 20	18	
Program	PV of Benefits	PV of Costs	PV of Net Benefits	SCR.
Residential Equipment Rebates (RER)	\$1,090,148	\$736,812	\$353,336	1.48
Efficient Construction Grants (ECG)	\$175,086	\$93,245	\$81,841	1.88
Commercial Equipment Rebates (CER)	\$1,845,189	\$519,143	\$1,326,046	3.55
Efficient Building Grants (EBG)	\$244,653	\$81,822	\$162,832	2.99
All Programs	\$3,355,076	\$1,431,021	\$1,924,055	2.34
Portfolio Wide Costs		\$416,666	(\$416,666)	
Portfolio Total	\$3,355,076	\$1,847,687	\$1,507,389	1.82

*

⁵ Savings includes DSM portfolio savings from January 1, 2011 through August 31, 2018. 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.

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.

		FY 2018	
	Actual	Goal	%
PARTICIPATION			
Rebates Awarded	365	1,030	35%
COSTS (Nominal)			
Non-Incentive Spending	\$41,124	\$56,000	73%
Contractor Costs	\$27,651		
Inspection and Verification	\$13,473		
Customer Incentives	\$313,200	\$671,000	47%
Total Program Spending	\$354,324	\$727,000	49%
Participant Costs	\$524,933		
Total Costs	\$879,257		
SAVINGS			
First Year MMBtus	5,843	13,558	43%
Lifetime MMBtus	126,663	296,175	43%
First Year kWh	76,300		
Lifetime kWh	1,526,000		
Measures			
Furnaces	289		
Boilers	76		

TABLE 9. RESIDENTIAL EQUIPMENT REBATES RESULTS FOR FY 2018

Present Value (2014\$)	Actual
Benefits	\$896,391
Costs	\$736,812
Net Benefits	\$159,580
BCR	1.22

TABLE 10. TRC COST-EFFECTIVENESS RESULTS FOR RESIDENTIAL EQUIPMENT REBATES FOR FY 2018 (2014\$)

2.1. Notable Program Activities in FY 2018

In FY 2018, there were two hundred eighty nine (289) residential furnaces installed and seventy six (76) residential boilers installed. The majority of these landlord/developer claims were for small to medium sized buildings and small townhouse projects. PGW attributes lower than expected participation rates to the transition to the new program administrator during the fall and winter which resulted in reduced marketing during the onboarding of the new vendor. Despite the lower participation, the program continued to be cost-effective.

In FY 2018, 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 F	ROM INCEPTI	ION
THROUGH	FY 2018						

Source	Percent
Family / Friend	2%
Contractor / Supply House	72%
Website	13%
Gas Bill	6%
Other	7%

Quality Assurance and Verifications

There were 39 on-site rebate verifications performed in 2018, accounting for 11 percent of all rebate projects. Projects were selected at random for verification. Projects in which the rebate awarded was greater than \$5,000 were given special attention. 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.

	FY 2018									
	Actual	Goal	%							
PARTICIPATION										
Applications	4									
Incentive Agreements Issued	4									
Customers with Installations	3									
COSTS (Nominal)										
Non-Incentive Spending	\$16,262	\$166,950	10%							
Contractor Costs	\$15,746									
Inspection and Verification	\$516									
Customer Incentives	\$40,828	\$227,900	18%							
Total Program Spending	\$57,090	\$394,850	14%							
Participant Costs	\$38,238									
Total Costs	\$95,327									
SAVINGS										
First Year MMBtus	1,100	5,399	20%							
Lifetime MMBtus	10,568	100,628	11%							
First Year kWh	54,928									
Lifetime kWh	1,082,925									
First Year Water Gallons (Million Gallons)	0.5									
Lifetime Water (Million Gallons)	5.1									

TABLE 12.EFFICIENT BUILDING GRANTS PROGRAM ACTIVITY FOR FY 2018

Present Value (2014\$)	Actual
Benefits	\$204,955
Costs	\$81,822
Net Benefits	\$123,134
BCR	2.50

TABLE 13. COST-EFFECTIVENESS RESULTS FOR EFFICIENT BUILDING GRANTS FOR FY 2018 (2014\$)

3.1. Notable Program Activities in FY 2018

Project Timelines

In 2018, PGW completed three projects in the Efficient Building Grants Program, and maintained program cost-effectiveness. 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. PGW focused in 2018 on increasing marketing efforts to build the lead pipeline. As a result of our outreach to building owners and trade allies, PGW has six Efficient Building Grants projects in the pipeline with at least two expected to close in 2019.

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:

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- 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.

	FY 2018									
	Actual	Goal	%							
PARTICIPATION										
Rebates Awarded	120	144	83%							
COSTS (Nominal)										
Non-Incentive Spending	\$34,333	\$154,000	22%							
Contractor Costs	\$26,698									
Inspection and Verification	\$6,827									
Evaluation	\$809									
Customer Incentives	\$372,964	\$238,650	156%							
Total Program Spending	\$407,297	\$392,650	104%							
Participant Costs	\$142,913									
Total Costs	\$550,210									
SAVINGS										
First Year MMBtus	14,295	10,056								
Lifetime MMBtus	234,996	156,427	150%							
First Year kWh	1,302									
Lifetime kWh	35,263									
Summer Peak Demand kW	1									
First Year Water (Million Gallons)	5.4									
Lifetime Water (Million Gallons)	56									

TABLE 14. COMMERCIAL EQUIPMENT REBATES RESULTS FOR FY 2018

	THE YE CHARLES HE WAS AND	FY/2018
	Actual	Goal 16 PM # %
Measures		
Commercial Boilers	13	
Commercial Cooking Equipment	24	
Commercial Water Heater	17	
Steam Traps	54	
Custom Projects	12	

TABLE 15. COST-EFFECTIVENESS RESULTS FOR CER FOR FY 2018 (2014\$)

Present Value (2014\$)	Actual
Benefits	\$1,667,236
Costs	\$519,143
Net Benefits	\$1,148,093
BCR	3.21

4.1. Notable Program Activities in FY 2018

The CER program was successful in FY 2018, with 120 rebates issued, including 108 for prescriptive pieces of equipment and 12 custom projects. Spending for customer incentives totaled \$372,963 which exceeded the program goal of \$238,650. The program had a high level of participation compared to other programs, which PGW attributes to several factors including increased marketing by our third party vendor and several larger rebate projects for commercial water heaters, commercial boilers, and custom projects.

Commercial boilers, which contribute greater savings and have longer measure lifetimes than other measures in CER, accounted for a significant amount of the program's costeffective benefits, with 13 installations and \$81,400 in rebates. This resulted in CER gas savings exceeding projections. Customer participating in CER had a range of building types, including multifamily, religious, education healthcare, lodging, and office buildings.

Commercial food service equipment accounted for 24 pieces of equipment and \$35,100 in rebates. 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.

Seventeen rebates were issued for Commercial Hot Water Heaters, totaling \$168,388 Commercial Water Heaters were installed in a variety of buildings ranging from smaller multifamily buildings, up to a rebate of \$54,000 for equipment installed at a stadium in Philadelphia. There were fifty-four steam trap rebates issued, totaling \$2,700. PGW has continued to offer Commercial Custom Rebates for cost-effective measures that show significant savings but do not constitute a comprehensive project or can be incentivized through the prescriptive rebates. In 2018, these included projects for steam processing equipment and low-flow devices in multifamily buildings.

PGW implemented rebate caps of \$25,000 per project in the spring of 2018, as described above in Section 1.2. This was done to help manage the program budget and manage leads. There were no large projects submitted after this update in 2018 that were capped at \$25,000, though we expect that it will impact CER projects in 2019.

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:

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- 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.

		FY 2018	
	Actual	Goal	%
PARTICIPATION			
Completed Projects	56	42	133%
Residential Single Family Buildings	52	30	
Residential Multifamily Buildings	4	10	
Commercial	0	2	
COSTS (Nominal)			
Non-Incentive Spending	\$22,503	\$75,000	30%
Contractor Costs	\$14,334		
Inspection and Verification	\$7,476		
Evaluation	\$693		
Customer Incentives	\$54,291	\$157,000	57%
Total Program Spending	\$76,794	\$232,000	56%
Participant Costs	\$36,223		
Total Costs	\$113,017		
SAVINGS			
First Year MMBtus	1,019	2,778	37%
Lifetime MMBtus	23,750	50,586	47%
First Year kWh	3,072		
Lifetime kWh	87,200		
First Year Water Gallons (Million Gallons)	0.2		
Lifetime Water (Million Gallons)	3.8		:

TABLE 16. EFFICIENT CONSTRUCTION GRANTS PROGRAM RESULTS FOR FY 2018

Present Value (2014\$)	Actual
Benefits	\$148,040
Costs	\$93,245
Net Benefits	<u>\$54,795</u>
BCR	1.59

TABLE 17. COST-EFFECTIVENESS RESULTS FOR EFFICIENT CONSTRUCTION GRANTS FOR FY 2018 (2014\$)

The Efficient Construction Grants program issued \$54,291 in grants for 56 projects during FY 2018, and spent 57% percent of the incentive budget goal. Although lower than last year, several projects that entered the program as leads have closed or are projected to close in FY2019, including a 60 townhouse development. 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.

Interest in the program continues to grow among residential and multifamily builders and developers who have had successful installations. PGW has engaged with more commercial, educational and institutional customers, and will continue these efforts to improve participation among these customers.

PGW often sees builders who participate in the program for the first time will proceed to complete multiple projects within the program. There are also synergies between ECG, RER and CER. PGW works with builders who first participate in the prescriptive rebate programs and then encourages them to consider ECG for future projects. This strategy has worked for several projects.

6. Appendix A. Cost Recovery Reconciliation

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 TABLE 18. Efficiency Cost Recovery Surcharge Residential and PHA GS Customers (September 2017 Through August 2018)

Residential & PHA GS

			A	ctual		Actual	-	Actual		Actual		Actual		Actual		Actual	• •	Actual		Actual		Actual	. '	Actual	4	Actual		Total
RESIDENTIAL & PHA GS	•	403 600	50	<u>ep-17</u>		<u>U¢t-17</u>		<u>Nov-17</u>		Dec-17		<u>Jan-18</u>		Feb-18		<u>Mar-18</u>	•	Apr-18		<u>187-18</u>	1	<u>Jun-18</u>		<u>Jul-18</u>	4	<u>4ug-18</u>		FY 2018
FT 2017 Over-Collection	\$	423,608	-			774 007		0 070 645		744 640		0 500 050		000 740		C 007 490		4 504 004		774 059		ACE 804		000 300				ae ooe ooo
Volume Billed			. '	41,149		114,201		2,072,045	_ 1	141,009		0,000,000		5,000,710		5,027,430		4,024,024 '	. 1	,774,006		600,624		090,320		020,090		30,290,230
ECR Surcharge			2	0.0175	<u>ş</u> _	0.0196	5	0.0196	<u>s</u> _	_0.0211	Ş	0.0225	5	_0.0225	<u>Ş</u>	0.0199	5.	_0.0173	<u>Ş</u>	_0.0173	<u>ع</u>	0.0176	<u>\$</u> _	0.0179	5	0.0179		
Revenue Billed			\$	12,970	\$	15,174	\$	40,624	\$	99,813	\$	193,065	\$	132,451	\$	100,046	\$	78,276	\$_	30,691	5	15,063	\$	12,357	\$	11,257	\$_	741,787
RHER	Expense		\$	-	\$	73,271	\$	88,391	\$	18,813	\$	57,321	\$	89,579	\$	11,077	\$	(17,047)	\$	31,153	\$	81,765	\$	9,357	\$	48,284	\$	491,964
RHER	Labor		\$	1,393	\$	1,349	\$	3,656	\$	1,693	\$	1,379	\$	6,501	\$	1,812	\$	1,453	\$	2,413	\$	1,810	\$	1,430	\$	(9,761)	\$	15,128
HECI	Expense		\$	-	\$	11,587	\$	13,873	\$	55	\$	2,679	\$	37,948	\$	1,377	5	(913)	\$	9,353	\$	19,630	\$	2,800	\$	34,771	\$	133,160
HECI	Labor		\$	220	\$	213	\$	389	\$	268	5	218	\$	1,755	\$	287	\$	230	\$	593	\$	286	\$	226	\$	(605)	5	4,080
CRRI	Expense		\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
CRRI	Labor		\$	-	\$	-	\$	-	\$	-	\$		\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
CIRI	Expense		\$	-	\$	15,653	\$	9,894	\$	75	\$	18,778	\$	81,349	\$	1,827	\$	(2,226)	\$	(676)	\$	7,289	\$	2,480	\$	(19,113)	\$	115,331
CIRI	Labor		\$	298	5	288	\$	144	\$	362	\$	295	\$	5,716	\$	387	\$	310	\$	(282)	\$	387	\$	306	\$	(4,868)	\$	3,342
CIER	Expense	-	\$	-	\$	695	\$	4,617	\$	543	\$	473	\$	404	\$	107	\$	450	\$	1,851	\$	1,223	\$	(153)	\$	(10,467)	\$	(257)
CIER	Labor		\$	13	\$	13	\$	255	\$	16	5	13	5	62	\$	17	\$	14	\$	80	\$	17	\$	14	<u>\$</u>	(523)	\$	(10)
Total			\$	1,924	\$	103,070	\$	121,220	\$	21,823	\$	81,156	\$	223,314	\$	16,890	\$	(17,729)	\$	44,483	5	112,408	\$	16,459	\$	37,720	\$	762,738
Monthly Over/(Under)			\$	11,046	\$	(87,895)	\$	(80,596)	\$	77,989	\$	111,909	\$	(90,863)	\$	83,156	\$	96,005	\$	(13,792)	\$	(97,345)	\$	(4,103)	\$	(28,463)		
Cumulative Over/(Under)			\$ 4	34,653	\$	346,758	\$	266,162	\$	344,151	\$	456,060	\$	365,197	\$	448,353	\$	544,358	\$	530,566	\$	433,221	\$	429,119	\$	402,656		

.

 TABLE 19. Efficiency Cost Recovery Surcharge Commercial and PHA Customers (September 2017 Through August 2018)

Commercial & PHA

COMMERCIAL & PHA FY 2017 Over-Collection Volume Billed ECR Surcharge Revenue Billed	\$	479,880	A <u>Si</u> 3 5 5	ep-17 377,460 0.0494 18,628	<u>s</u>	Actual Oct-17 409,934 0.0407 16 684	<u>5</u>	Actual Nov-17 845,153 0.0407 34,398	1 5 5	Actual Dec-17 .352,842 0.0440 59.457	5	Actual Jan-18 2,238,980 0.0472 105 585	<u>\$</u>	Actual Feb-18 1,582,385 	5 5 5	Actual Mar-18 1,484,817 0.0441 65,480	<u>\$</u> 5	Actual Apr-18 1,231,192 0.0410 50 479	∦ ₩ \$	ctual ay-18 590,323 0.0410 24,203	<u>+</u> <u>+</u> 5	Actual Jun-18 385,045 0.0444 17 077	<u>\$</u> 5	Actual Jul-18 353,539 0.0477 16 864	<u>s</u>	Actual Aug-18 344,963 0.0477 16.455	ç	Total FY 2018 11,194,633
			•	10,020	•	10,001	•		•	00,101	•		•	14,000	•	00,400	•	00,410	•	14,200	•		•.	10,004	•		•	700,000
RHER	Expense		\$	-	\$	7,520	\$	8,830	\$	1,931	5	5,883	\$	(11,056)	\$	1,137	5	(1,750)	\$	(3,056)	\$	8,392	\$	960	5	(13,455)	\$	5,336
RHER	Labor		\$	143	\$	138	\$	366	\$	174	\$	142	\$	(323)	\$	186	\$	149	\$	(395)	\$	186	\$	147	\$	(587)	\$	326
CRRI	Expense		\$	-	\$	-	\$	-	\$	· -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	1 C	\$	-	\$	•
CRRI	Labor		\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$		\$	-	\$	-	\$	-	\$	-
CIRI	Expense		\$	-	\$	28,255	\$	17,860	\$	135	\$	33,896	\$	(80,145)	\$	3,297	\$	(4,018)	\$	721	\$	13,157	\$	4,477	\$	(25,340)	\$	(7,705)
CIRI	Labor		\$	537	\$	520	Ś	260	\$	653	Ś	532	ŝ	(2.502)	\$	699	S	560	\$	(1.259)	5	698	S	552	S	(1.250)	Ś	-
CIER	Expense		\$	-	5	36,890	Ś	114,227	Ś.	28,825	Ś	25,089	Ś	44,751	Ś	5,673	Ś	23,912	Ś	103,434	Ś	64,935	Ś	(8,124)	\$	169,482	\$	609.098
CIER	Labor		Ś	701	Ś	679	Ś	6,608	ŝ.	852	Ś	694	\$	4,262	Ś	912	ŝ	731	5	4,761	Ś	911	Ś	720	Ś	(2.970)	ŝ	18,863
HECI	Expense		\$	-	Ś	14,211	Ś	6,281	Ś.	68	Ś	3,285	Ś	(23.846)	\$	1.689	Ś	(1.120)	Ś	(569)	Ś	24.076	Ś	3.434	\$	(29,272)	Ś	(1,763)
HECI	Labor		\$	270	5	262	\$	131	\$	328	5	268	\$	(1,258)	\$	351	\$	282	\$	(633)	\$	351	Ś.	277	\$	(628)	\$	
Total			\$	1,652	\$	88,476	5	154,582	5	32,965	s	69,789	s	(70.117)	s	13.944	5	18,746	S	103.006	5	112,706	5	2,443	5	95.980	\$	624,152
Monthly Over/(Under)			Ś	16.976	S	(71,792)	5	(120,164)	\$	26,493	Ś	35,796	\$	144 805	\$	51,537	Ś	31,732	Ś	(78.802)	Ś	(95,630)	\$	14,421	\$	(79.525)		•
Cumulative Over/(Under)			\$ 4	496,856	\$	425,064	\$	304,900	\$	331,393	Ś	367,189	\$	511,995	\$	563,531	ŝ	595.264	\$	516,461	\$	420,832	\$	435,253	\$	355,727		

TABLE 20. Efficiency Cost Recovery Surcharge Industrial Customers (September 2017 Through August 2018)

Industrial

INDUST RIAL FY 2017 Over-Collection Volume Billed	\$	5 1,029	А <u>Ş</u>	ctual <u>ep-17</u> 28,842	- !	Actual <u>Oct-17</u> 30,282		Actual <u>Nov-17</u> 69,559	, [Actual <u>Dec-17</u> _113,515		Actual <u>Jan-18</u> 190,026		Actual Feb-18 116,542	· -	Actual Mar-18 116,906	• • •	Actual Apr-18 81,866	ļ	Actual <u>May-18</u> 45,459	ļ	Actual <u>Jun-18</u> 33,662		Actual <u>Jul-18</u> 30,987	ı	Actual <u>Aug-18</u> 32,438		Total FY 2018 890,084
ECR Surcharge			\$	0.0507	\$	0.0419	5	0.0419	5	0.0338	5	0.0256	<u>\$</u>	0.0256	\$	0.0235	<u>\$</u>	0.0213	<u>\$</u>	0.0213	<u>\$</u>	0.0355	<u>\$</u>	0.0496	<u>\$</u>	0.0496		
Revenue Billed	•		\$	1,461	\$	1,269	\$	2 915	\$	3,831	\$	4,865	\$	2 983	\$	2,741	\$	1,744	\$	968	\$	1,193	\$	1,537	\$	1,609	\$	27,116
RHER	Expense		\$	-	\$	52	\$	11 '	\$	13	\$	41	\$	2,505	\$	8	\$	(12)	\$	(730)	\$	58	\$	- 7	\$	488	\$	2,440
RHER	Labor		\$	1	, \$	1	\$	1	\$	1	\$	1	\$	123	\$	1	\$	1	\$	(14)	\$	1	\$	1	\$	(54)	S	65
CIRI	Expense		\$	-	\$	•	\$	-	\$	•	\$	-	\$	-	\$	-	् \$	•	\$	· .	\$	•	\$	-	\$	• .	\$. •
CIRI	Labor		\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	्\$	-	\$	- '	\$	-	\$		\$		\$	-
CIER	Expense		\$	-	\$	6,078	\$	(1,278)	\$	4,749	\$	4,134	\$	(13,684)	5	935	\$	3,940	\$	(4,875)	\$	10,699	\$	(1,339)	\$	(11,070)	\$	(1,709)
CIER	Labor		\$	116	\$	112	<u>\$</u>	. 26	\$	140	\$	114	<u>\$</u>	(509)	\$	150	\$	120	\$	(271)	<u>\$</u>	150	5	119	<u>\$</u>	(269)	\$	<u> </u>
Total			\$	117	\$	6,243	\$	(1,240)	\$	4,904	\$	4,290	\$	(11,565)	\$	1,094	\$	4,049	\$	(5,889)	\$	10,909	\$	(1,212)	\$	(10,904)	\$	796
Monthly Over/(Under)			\$	1,344	\$	(4,975)	\$	4,155	\$	(1,073)	\$	575	\$	14,548	\$	1,647	\$	(2,306)	\$	6,858	\$	(9,716)	\$	2,749	\$	12,513		
Cumulative Over/(Under)			\$	52,373	\$	47,399	\$	51,554	\$	50,480	\$	51,055	\$	65,603	\$	67,250	\$	64,944	\$	71,802	\$	62,086	\$	64,836	\$	77,349		

CERTIFICATE OF SERVICE

I hereby certify that this day I served a copy of PGW's Demand Side Management Program Annual Report FY 2018 Results upon the parties and persons listed below in the manner indicated in accordance with the requirements of 52 Pa. Code Section 1.54.

Via Email and/or First Class Mail

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Date: December 27, 2018

