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December 23, 2020

Via eFiling

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 find its Demand Side Management Program Annual Report Fiscal Year 2020 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,

/s/ Lauren M. Burge

Lauren M. Burge

Enclosure

cc: Hon. F. Joseph Brady w/enc.
Cert. of Service w/enc.
Cornelia Schneck, TUS w/enc. – cschneck@pa.gov

CERTIFICATE OF SERVICE

I hereby certify that this day I served a copy of PGW's Demand Side Management Program Annual Report FY 2020 Results upon the persons listed below in the manner indicated in accordance with the requirements of 52 Pa. Code Section 1.54.

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/s/ Lauren M. Burge

Lauren M. Burge, Esq.

Dated: December 23, 2020



Demand Side Management Program Annual Report

FY 2020 Results

December 2020

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 2020 (“FY 2020”).¹

PGW’s FY 2020 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.

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:²

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

1.2. Portfolio-Level Updates

FY 2020 marked the third year in which the program’s management, administration, rebates processing, marketing, and technical review was administered with the assistance of one vendor (called the “program administrator”). Further, improvements launched during the previous years were expanded upon in FY 2020, allowing for more efficient programming. The program administrator oversaw a strategic marketing plan which included outreach to HVAC contractors and trade allies, real estate professionals, and civic associations.

In FY 2020, numerous projects from PGW’s internal project lead pipeline – built over the course of FY 2018 and FY 2019 – received EnergySense incentives, primarily as CER and single-family residential ECG projects. Grant agreements were signed in FY 2020 for additional single-family ECG projects, but these projects were not completed by the end of FY 2020, and consequently were not incentivized under the terms of the FY 2017-2020 Compliance Plan.

Participation was low in FY 2020 for the EBG program, as well as multifamily and commercial buildings in the ECG program. A significant reason for this is that these projects require a high level of administrative review and customer effort for participation, which

¹ September 1, 2019 through August 31, 2020.

² PGW’s LIURP 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.

limits customer interest and ability to participate. This is especially true for less-sophisticated customers and contractors working on smaller projects. As a consequence, both the EBG and the multifamily and commercial segments of the ECG program were discontinued at the end of FY 2020.

Several EBG projects with grant agreements signed in August 2020 are still eligible for incentives in FY 2021, under the terms of the wind-down arrangements outlined in the EnergySense Demand Side Management Portfolio Implementation Plan for Fiscal Years 2021-2023, filed on May 7, 2020 at Docket Number P-2014-2459362.

As described in the FY 2021-2023 Implementation Plan, most efficiency measures that were previously incentivized for commercial and multifamily ECG and EBG projects will be eligible for rebate incentives through RER and CER beginning in FY 2021. This change is expected to streamline the customer experience and make it easier for commercial and multifamily customers to quickly apply for and receive PGW incentives.

PGW did not perform any program evaluations in FY 2020.

1.3. COVID-19

As could be expected, PGW's DSM programs were impacted by the COVID-19 pandemic. Program participation was less than PGW had projected at the beginning of the fiscal year, with some projects canceled or delayed as a result of public health restrictions in Philadelphia, business closures, and customers likely putting off contracted work due to fears of the virus or financial concerns. In response to COVID-19, PGW and the program administrator stopped holding in-person meetings from March 16, 2020 through the end of the program year, opting instead to hold teleconferences or video calls. PGW also implemented a virtual quality assurance pilot in order to continue equipment verifications throughout the year without requiring in-person engagements.

1.4. Summary of Results³

In FY 2020, PGW spent \$920,313 on DSM programming, approximately 33 percent of the FY 2020 budget filed by PGW in its FY 2017-2020 Compliance Plan. PGW achieved estimated first year gas savings of 15.4 Billion Btu ("BBtu") and 326 BBtu over the lifetime of the measures installed. The FY 2020 DSM activities have resulted in present value total resource net benefits of \$860,405 (2014\$).

Though overall program participation was lower than planned due to COVID-19, portfolio-wide costs were comparable to those of previous fiscal years, largely due to baseline expenses for program management, administration, and infrastructure, which do not vary significantly as a function of participation. In addition, PGW incurred a small amount of administrative start-up costs in FY 2020, to prepare program operations for the changes to program design described in PGW's FY 2021-2023 Implementation Plan.

³ All figures expressed in dollars are rounded to the nearest dollar.

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

Program	FY 2020		
	Actual	Goal	%
Residential Equipment Rebates (RER)	\$391,866	\$727,000	54%
Efficient Building Grants (EBG)	\$8,054	\$408,650	2%
Commercial Equipment Rebates (CER)	\$119,923	\$325,650	37%
Efficient Construction Grants (ECG)	\$68,379	\$182,000	38%
Portfolio-wide Costs ⁵	\$332,092	\$904,000	37%
Utility Total	\$920,313	\$2,547,200	36%
Participant Costs	\$646,932	\$1,748,795	37%
Total	\$1,567,245	\$4,295,995	36%

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

Category	FY 2020		
	Actual	Goal	%
Customer Incentives	\$529,245	\$1,344,550	39%
Administration and Management ⁶	\$48,890	\$734,000	7%
Marketing and Business Development	\$138,155	\$170,000	81%
Contractor Costs	\$195,674	\$243,900	80%
Inspection and Verification	\$8,349	\$54,750	15%
Evaluation ⁷	\$0	\$0	0%
Utility Total	\$920,313	\$2,547,200	36%
Participant Costs	\$646,932	\$1,748,795	37%
Total	\$1,567,245	\$4,295,995	36%

⁴ All PGW Efficiency Cost Recovery Surcharge collections are shown in Appendix A.

⁵ Portfolio-wide Costs were allocated proportionally between LIURP and the EnergySense market rate portfolio, pursuant to the Final DSM Order.

⁶ Administration and Management costs were allocated proportionally between LIURP and the EnergySense market rate portfolio, pursuant to the Final DSM Order.

⁷ Evaluations were initially budgeted for CER, EBG and ECG programs, though not conducted since the programs lacked adequate sample sizes and there was minimal opportunity for evaluation findings to inform program improvements since program designs have changed in the FY 2021 – 2023 Compliance Plan.

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

Program	FY 2020		
	Actual	Goal	%
Residential Equipment Rebates (RER)	6,406	13,558	47%
Efficient Building Grants (EBG)	0	6,563	0%
Commercial Equipment Rebates (CER)	8,138	10,056	81%
Efficient Construction Grants (ECG)	894	2,778	32%
Portfolio Total	15,438	32,954	47%

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

Program	FY 2020		
	Actual	Goal	%
Residential Equipment Rebates (RER)	141,929	296,175	48%
Efficient Building Grants (EBG)	0	123,073	0%
Commercial Equipment Rebates (CER)	163,019	156,427	104%
Efficient Construction Grants (ECG)	21,184	50,586	42%
Portfolio Total	326,132	626,261	52%

TABLE 5. NON-GAS BENEFITS

Category	FY 2020		
	Actual	Goal	%
First Year Energy Savings Installed (kWh)	119,284	158,136	75%
Lifetime Energy Savings Installed (kWh)	2,402,306	3,355,788	72%
First Year Water Savings Installed (million gallons)	0.84		
Lifetime Water Savings Installed (million gallons)	9.1		

TABLE 6. TOTAL ANNUAL SAVINGS FY 2011 THROUGH FY 2020

Cumulative EnergySense Portfolio Savings ⁸	
Natural Gas (MMBtu)	546,993
Energy Savings (kWh)	4,649,313
Summer Peak Demand Savings (kW)	1,214
Water Savings (million gallons)	42.92

⁸ Savings include DSM portfolio savings from January 1, 2011 through August 31, 2020. These figures include savings for PGW's LIURP from January 1, 2011 through August 31, 2016, at which point LIURP was moved to PGW's USECP.

TABLE 7. TOTAL RESOURCE COST TEST RESULTS FOR FY 2020 (2014\$) BASE AVOIDED COST SCENARIO

Program	FY 2020			
	PV of Benefits	PV of Costs	PV of Net Benefits	BCR
Residential Equipment Rebates (RER)	\$1,022,507	\$719,745	\$302,762	1.42
Efficient Building Grants (EBG)	\$0	\$6,137	(\$6,137)	-
Commercial Equipment Rebates (CER)	\$929,600	\$138,360	\$791,240	6.72
Efficient Construction Grants (ECG)	\$96,848	\$72,367	\$24,481	1.34
All Programs	\$2,048,955	\$936,610	\$1,112,345	2.19
Portfolio Wide Costs	\$0	\$251,940	(\$251,940)	-
Portfolio Total	\$2,048,955	\$1,188,550	\$860,405	1.72

TABLE 8. TOTAL RESOURCE COST TEST RESULTS FOR FY 2020 (2014\$) AVOIDED COST SCENARIO INCLUDING CO2

Program	FY 2020			
	PV of Benefits	PV of Costs	PV of Net Benefits	BCR
Residential Equipment Rebates (RER)	\$1,276,087	\$719,745	\$556,342	1.77
Efficient Building Grants (EBG)	\$0	\$6,137	(\$6,137)	-
Commercial Equipment Rebates (CER)	\$1,145,132	\$138,360	\$1,006,772	8.28
Efficient Construction Grants (ECG)	\$116,493	\$72,367	\$44,126	1.61
All Programs	\$2,537,712	\$936,610	\$1,601,103	2.71
Portfolio Wide Costs	\$0	\$251,940	(\$251,940)	-
Portfolio Total	\$2,537,712	\$1,188,550	\$1,349,163	2.14

2. Residential Equipment Rebate Program

The Residential Equipment Rebate 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 residential-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 2020

	FY 2020		
	Actual	Goal	%
PARTICIPATION			
Completed Applications	484	1,030	47%
COSTS (Nominal)			
Non-Incentive Spending	\$20,766	\$56,000	37%
Contractor Costs	\$13,453		
Inspection and Verification	\$7,313		
Customer Incentives	\$371,100	\$671,000	55%
Total Program Spending	\$391,866	\$727,000	54%
Participant Costs	\$530,393		
Total Costs	\$922,259		
SAVINGS			
First Year MMBtus	6,406	13,558	47%
Lifetime MMBtus	141,929	296,175	48%
First Year kWh	116,900		
Lifetime kWh	2,338,000		
Measures			
Furnaces	344		
Boilers	140		

TABLE 10. TRC COST-EFFECTIVENESS RESULTS FOR RESIDENTIAL EQUIPMENT REBATES FOR FY 2020 (2014\$)

Metric	Result
PV of Benefits	\$1,022,507
PV of Costs	\$719,745
PV of Net Benefits	\$302,762
BCR	1.42

2.1. Notable Program Activities in FY 2020

In FY 2020, there were three hundred forty four (344) residential furnaces installed and one hundred forty (140) residential boilers installed. Although the number of furnaces incentivized declined compared to the previous year, the number of boilers increased markedly, and overall the program continued to be cost-effective.

In FY 2020, 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 two thirds of applications were referrals from this source.

TABLE 11. SOURCE OF RESIDENTIAL EQUIPMENT REBATES REFERRALS IN FY 2020

Source	Percent
Family / Friend	6%
Contractor / Supply House	65%
Website	21%
Gas Bill	3%
Other	6%

Quality Assurance and Verifications

There were 37 rebate verifications performed in FY 2020, accounting for eight percent of all rebate projects. Of these verifications, 16 were conducted on-site, and 21 were performed virtually due to public health restrictions and precautions related to the COVID-19 pandemic starting in March 2020. As a highly cost-effective quality assurance tool, virtual verifications will continue to be conducted in FY 2021 while COVID-19 remains a concern. On-site verifications will be performed when and where it is necessary to satisfactorily verify equipment installation, and such verifications can be expected to increase in frequency as public health considerations abate.

Projects were selected at random for verification, with verifications performed prior to issuing the rebate check. None of the projects selected for verification failed the process.

3. Efficient Building Grants

The Efficient Building Grants program promotes natural gas energy efficiency retrofit investments by PGW's multifamily 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 offering customized financial incentives.
- Promote a better understanding of energy efficiency options available to PGW's nonresidential customers.

TABLE 12. EFFICIENT BUILDING GRANTS PROGRAM ACTIVITY FOR FY 2020

	FY 2020		
	Actual	Goal	%
PARTICIPATION			
Applications	5	18	
Customers with Installations	0	18	
COSTS (Nominal)			
Non-Incentive Spending	\$8,054	\$130,650	6%
Contractor Costs and Project Analysis	\$8,054		
On-Site Verifications	\$0		
Customer Incentives	\$0	\$277,900	0%
Total Program Spending	\$8,054	\$488,550	2%
Participant Costs	\$0		
Total Costs			
SAVINGS			
First Year MMBtus	0	6,563	0%
Lifetime MMBtus	0	123,073	0%
First Year kWh	0		
Lifetime kWh	0		

TABLE 13. COST-EFFECTIVENESS RESULTS FOR EFFICIENT BUILDING GRANTS FOR FY 2020 (2014\$)

Metric	Result
PV of Benefits	\$0
PV of Costs	\$6,137
PV of Net Benefits	(\$6,137)
BCR	-

3.1. Notable Program Activities in FY 2020

Project Timelines

PGW did not incentivize any projects in the Efficient Building Grants program in FY 2020. This was due to a few reasons. First, some projects that came in the pipeline as EBG prospects were diverted to the prescriptive rebates program, particularly if these programs were more appropriate to the application and would provide an easier process for the customer. The inter-program referrals were made primarily in cases where customers were not interested in a comprehensive project, or where the comprehensive project did not meet cost-effectiveness requirements. Second, the low participation observed in FY 2020 was consistent with PGW's experience throughout the lifetime of the program; the high level of administrative review for EBG projects, and the customer effort required to get projects approved, discouraged participation by customers looking for clarity and predictability around incentive amounts. As a result the majority of measures installed in the program are prescriptive measures or have been made into prescriptive measures in the FY 2021 – 2023 Implementation Plan, helping to ensure customers with comprehensive building upgrades can still take advantage of rebates though at a lower level of effort.

While the EBG program was discontinued at the end of FY 2020, wind-down accommodations for the program were established in the FY 2021-2023 Implementation Plan. Five projects with grant agreements signed before the end of FY 2020 remain eligible for incentives under these wind-down arrangements, so long as the projects are completed in FY 2021. Four of the projects are for multifamily buildings and one is commercial; the projects are expected to total \$200,905 in customer incentives.

4. Commercial Equipment Rebates

The Commercial Equipment Rebates program 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.
- 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.
- 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. COMMERCIAL EQUIPMENT REBATES RESULTS FOR FY 2020

	FY 2020		
	Actual	Goal	%
PARTICIPATION			
Completed Applications	44	144	31%
COSTS (Nominal)			
Non-Incentive Spending	\$2,832	\$87,000	3%
Contractor Costs	\$2,532		
Inspection and Verification	\$300		
Customer Incentives	\$117,091	\$238,650	49%
Total Program Spending	\$119,923	\$405,650	30%
Participant Costs	\$64,191		
Total Costs	\$184,114		
SAVINGS			
First Year MMBtus	8,138	10,056	81%
Lifetime MMBtus	163,019	156,427	104%
First Year Water (Gallons)	793,026		
Lifetime Water (Gallons)	8,299,969		
Measures			
Commercial Boilers	13		
Commercial Cooking Equipment	7		
Commercial Water Heater	17		
Steam Traps	0		
Custom Projects	7		

TABLE 15. COST-EFFECTIVENESS RESULTS FOR COMMERCIAL EQUIPMENT REBATES FOR FY 2020 (2014\$)

Metric	Result
PV of Benefits	\$929,600
PV of Costs	\$138,360
PV of Net Benefits	\$791,240
BCR	6.72

4.1. Notable Program Activities in FY 2020

The Commercial Equipment Rebates program successfully issued 44 rebates in FY 2020, including 37 prescriptive rebates and seven custom rebates. Spending for customer incentives totaled \$117,091, and the program exceeded its lifetime savings goal due to the large number of commercial boilers that were incentivized. Overall, CER continues to be a highly cost-effective program for PGW ratepayers.

The program experienced a slight reduction in total participation compared to FY 2019, but this was a result of a significant decline in rebate applications for commercial cooking equipment; all other rebate categories remained steady or saw year-over-year increases. The restaurant industry in Philadelphia was heavily impacted by COVID-19 and related public health restrictions, which may have contributed to the observed decline in cooking equipment rebate applications, and could potentially impact cooking equipment applications in FY 2021.

Quality Assurance and Verifications

There were 3 rebate verifications performed in FY 2020, accounting for seven percent of rebate projects. Each of the 3 verifications were completed virtually during the second half of the fiscal year, when COVID-related restrictions and precautions were in place. As a highly cost-effective quality assurance tool, virtual verifications will continue to be conducted in FY 2021 while COVID-19 remains a concern. On-site verifications will be performed when and where it is necessary to satisfactorily verify equipment installation, and such verifications can be expected to increase in frequency as public health considerations abate.

Projects were selected at random for verification, with verifications performed prior to issuing the rebate check. None of the projects selected for verification failed the process.

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 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 2020

	FY 2020		
	Actual	Goal	%
PARTICIPATION			
Completed Projects	33	42	79%
Residential Single-Family Buildings	29	30	
Multifamily and Mixed-Use Buildings	4	10	
Non-residential buildings	0	2	
COSTS (Nominal)			
Non-Incentive Spending	\$27,325	\$25,000	109%
Contractor Costs and Verifications	\$27,325		
Evaluation	\$0		
Customer Incentives	\$41,054	\$157,000	26%
Total Program Spending	\$68,379	\$242,000	28%
Participant Costs	\$27,576		
Total Costs	\$95,955		
SAVINGS			
First Year MMBtus	894	2,778	32%
Lifetime MMBtus	21,184	50,586	42%
First Year kWh	2384		
Lifetime kWh	64,306		
Summer Peak Demand kW	0		
First Year Water (Gallons)	45,572		
Lifetime Water (Gallons)	888,638		

TABLE 17. COST-EFFECTIVENESS RESULTS FOR EFFICIENT CONSTRUCTION GRANTS FOR FY 2020 (2014\$)

Metric	Result
PV of Benefits	\$96,848
PV of Costs	\$72,367
PV of Net Benefits	\$24,481
BCR	1.34

5.1. Notable Program Activities in FY 2020

The Efficient Construction Grants program issued \$41,054 in grants for 33 projects during FY 2020. Of this number, 29 were residential single-family projects and four were multifamily projects. The program saw an increase in participation from the previous year. However, because many of the projects were residential single-family buildings, there was a decrease in savings achieved compared to FY 2019. PGW also signed grant agreements for 34 additional single-family projects that were not completed in FY 2020, and consequently were not incentivized under the terms of PGW's FY 2017-2020 Compliance Plan. Several of these projects are expected to be completed in FY 2021, and incentivized under the terms of PGW's FY 2021-2023 Implementation Plan.

As with the EBG program, the commercial and multifamily segments of the ECG program were discontinued at the end of FY 2020. This action was taken as a result of consistently low participation in the ECG program by these customer segments, as well as Philadelphia's recent adoption of new commercial building energy code standards, which would limit the type and scope of commercial and multifamily ECG projects moving forward. Instead multifamily and commercial builders can earn up to \$50,000 in prescriptive rebates for energy efficient equipment as part of the FY 2021 – 2023 Implementation Plan.

6. Appendix A. Cost Recovery Reconciliation

TABLE 18. Efficiency Cost Recovery Surcharge Residential and PHA GS Customers (September 2019 Through August 2020)

Residential & PHA GS

		Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Total
RESIDENTIAL & PHA GS		Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	FY2020
FY 2019 Over-Collection	\$600,385													
Volume Billed		673,192	841,321	2,645,792	5,232,100	6,155,599	5,681,716	4,179,288	3,076,441	2,223,751	1,021,558	695,140	612,727	33,038,626
ECR Surcharge		\$ 0.0110	\$ 0.0166	\$ 0.0166	\$ 0.0094	\$ 0.0021	\$ 0.0021	\$ 0.0028	\$ 0.0035	\$ 0.0035	\$ 0.0125	\$ 0.0214	\$ 0.0214	
Revenue Billed		\$ 7,371	\$ 13,966	\$ 43,920	\$ 48,920	\$ 12,927	\$ 11,932	\$ 11,702	\$ 10,768	\$ 7,783	\$ 12,718	\$ 14,876	\$ 13,112	\$ 209,995
RHER	Expense	\$ 81,353	\$ 25,311	\$ 76,763	\$ 51,711	\$ 51,777	\$ 79,015	\$ 48,281	\$ 23,570	\$ 89,896	\$ 25,599	\$ 35,813	\$ 70,988	\$ 660,075
RHER	Labor	\$ (1,539)	\$ 1,097	\$ 1,157	\$ 1,571	\$ 1,679	\$ 1,438	\$ 1,558	\$ 1,552	\$ 2,937	\$ 1,434	\$ 1,795	\$ 815	\$ 15,496
HECI	Expense	\$ (78,991)	\$ 2,137	\$ (2,165)	\$ 2,404	\$ 3,299	\$ 35,946	\$ 9,039	\$ 262	\$ 4,545	\$ 4,639	\$ 18,527	\$ (78,669)	\$ (79,026)
HECI	Labor	\$ (2,516)	\$ 222	\$ (463)	\$ 317	\$ 339	\$ 529	\$ 572	\$ 570	\$ (570)	\$ 526	\$ 659	\$ (2,959)	\$ (2,774)
CRRI	Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CRRI	Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CIRI	Expense	\$ (126,730)	\$ 3,504	\$ (1,914)	\$ 2,079	\$ 2,493	\$ (6,292)	\$ 6,354	\$ 324	\$ (2,602)	\$ 4,152	\$ 4,100	\$ (7,848)	\$ (122,379)
CIRI	Labor	\$ (1,406)	\$ 234	\$ (451)	\$ 335	\$ 358	\$ (750)	\$ 708	\$ 705	\$ (1,285)	\$ 651	\$ 815	\$ (1,455)	\$ (1,541)
CIER	Expense	\$ (9,535)	\$ 53	\$ (53)	\$ 55	\$ 24	\$ 16,754	\$ 813	\$ 63	\$ (631)	\$ 6,422	\$ 7,595	\$ (17,111)	\$ 4,448
CIER	Labor	\$ (167)	\$ 3	\$ (6)	\$ 4	\$ 4	\$ 477	\$ 138	\$ 137	\$ (214)	\$ 127	\$ 159	\$ (389)	\$ 272
Total		\$ (139,531)	\$ 32,560	\$ 72,867	\$ 58,478	\$ 59,975	\$ 127,117	\$ 67,462	\$ 27,183	\$ 92,076	\$ 43,551	\$ 69,462	\$ (36,628)	\$ 474,570
Monthly Over/(Under)		\$ 146,903	\$ (18,594)	\$ (28,947)	\$ (9,558)	\$ (47,048)	\$ (115,185)	\$ (55,760)	\$ (16,415)	\$ (84,293)	\$ (30,833)	\$ (54,586)	\$ 49,741	
Cumulative Over/(Under)		\$ 747,287	\$ 728,693	\$ 699,747	\$ 690,189	\$ 643,141	\$ 527,956	\$ 472,196	\$ 455,781	\$ 371,488	\$ 340,656	\$ 286,069	\$ 335,810	

TABLE 19. EFFICIENCY COST RECOVERY SURCHARGE COMMERCIAL AND PHA CUSTOMERS (SEPTEMBER 2019 THROUGH AUGUST 2020)**Commercial & PHA**

		Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Total
		Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	FY2020
COMMERCIAL & PHA														
FY 2019 Over-Collection	\$356,338													
Volume Billed		423,048	466,216	963,448	1,577,726	1,720,841	1,566,059	1,197,408	829,580	550,811	342,409	302,387	301,578	10,241,509
ECR Surcharge		\$ 0.0597	\$ 0.0552	\$ 0.0552	\$ 0.0399	\$ 0.0245	\$ 0.0245	\$ 0.0241	\$ 0.0236	\$ 0.0236	\$ 0.0036	\$ (0.0164)	\$ (0.0164)	
Revenue Billed		\$ 25,256	\$ 25,735	\$ 53,182	\$ 62,872	\$ 42,161	\$ 38,368	\$ 28,798	\$ 19,578	\$ 12,999	\$ 1,233	\$ (4,959)	\$ (4,946)	\$ 300,277
RHER	Expense	\$ 6,942	\$ 958	\$ 13	\$ 1,958	\$ 1,961	\$ 6,590	\$ 1,828	\$ 892	\$ 4,092	\$ 969	\$ 1,356	\$ 9,749	\$ 37,309
RHER	Labor	\$ 78	\$ 42	\$ (56)	\$ 59	\$ 64	\$ 175	\$ 59	\$ 59	\$ 135	\$ 54	\$ 68	\$ 254	\$ 990
CRRI	Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CRRI	Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CIRI	Expense	\$ 31,849	\$ 5,820	\$ (3,225)	\$ 3,454	\$ 4,142	\$ (3,113)	\$ 1,589	\$ 81	\$ (2,192)	\$ 1,038	\$ 1,025	\$ (1,392)	\$ 39,076
CIRI	Labor	\$ (3)	\$ 389	\$ (751)	\$ 557	\$ 595	\$ (1,033)	\$ 177	\$ 176	\$ (352)	\$ 163	\$ 204	\$ (348)	\$ (227)
CIER	Expense	\$ (237,368)	\$ 9,789	\$ 2,925	\$ 10,232	\$ 4,402	\$ (13,956)	\$ 3,612	\$ 280	\$ (660)	\$ 28,542	\$ 33,756	\$ 99,830	\$ (58,617)
CIER	Labor	\$ (2,500)	\$ 525	\$ (695)	\$ 751	\$ 803	\$ (1,602)	\$ 612	\$ 609	\$ (1,082)	\$ 563	\$ 705	\$ 3,857	\$ 2,545
HECI	Expense	\$ 256,197	\$ 1,746	\$ (1,267)	\$ 1,965	\$ 2,696	\$ (5,245)	\$ -	\$ -	\$ 75	\$ -	\$ -	\$ 89,389	\$ 345,557
HECI	Labor	\$ 5,726	\$ 181	\$ (378)	\$ 259	\$ 277	\$ (551)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,828	\$ 8,343
Total		\$ 60,920	\$ 19,450	\$ (3,434)	\$ 19,236	\$ 14,940	\$ (18,736)	\$ 7,876	\$ 2,098	\$ 16	\$ 31,329	\$ 37,113	\$ 204,167	\$ 374,976
Monthly Over/(Under)		\$ (35,664)	\$ 6,285	\$ 56,616	\$ 43,637	\$ 27,221	\$ 57,104	\$ 20,921	\$ 17,480	\$ 12,983	\$ (30,097)	\$ (42,072)	\$ (209,113)	
Cumulative Over/(Under)		\$ 320,674	\$ 326,959	\$ 383,576	\$ 427,212	\$ 454,433	\$ 511,537	\$ 532,459	\$ 549,939	\$ 562,922	\$ 532,825	\$ 490,753	\$ 281,639	

TABLE 20. EFFICIENCY COST RECOVERY SURCHARGE INDUSTRIAL CUSTOMERS (SEPTEMBER 2019 THROUGH AUGUST 2020)**Industrial**

		Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Total
		Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	FY2020
INDUSTRIAL														
FY 2018 Over-Collection	\$ 49,225													
Volume Billed		30,519	37,952	67,847	113,159	128,501	105,535	79,580	55,956	39,362	30,983	24,117	26,794	740,305
ECR Surcharge		\$ (0.0225)	\$ (0.0150)	\$ (0.0150)	\$ (0.0231)	\$ (0.0312)	\$ (0.0312)	\$ (0.0202)	\$ (0.0091)	\$ (0.0091)	\$ (0.0081)	\$ (0.0070)	\$ (0.0070)	
Revenue Billed		\$ (685)	\$ (569)	\$ (1,018)	\$ (2,614)	\$ (4,009)	\$ (3,293)	\$ (1,604)	\$ (509)	\$ (358)	\$ (249)	\$ (169)	\$ (188)	\$ (15,265)
RHER	Expense	\$ (1,724)	\$ 31	\$ (32)	\$ 64	\$ 64	\$ (129)	\$ 60	\$ 29	\$ (88)	\$ 32	\$ 44	\$ (76)	\$ (1,724)
RHER	Labor	\$ (59)	\$ 1	\$ (3)	\$ 2	\$ 2	\$ (4)	\$ 2	\$ 2	\$ (4)	\$ 2	\$ 2	\$ (4)	\$ (61)
CIRI	Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CIRI	Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CIER	Expense	\$ 2	\$ 202	\$ (204)	\$ 211	\$ 91	\$ (307)	\$ 90	\$ 7	\$ (93)	\$ 714	\$ 844	\$ (1,557)	\$ 0
CIER	Labor	\$ 13	\$ 11	\$ (24)	\$ 16	\$ 17	\$ (32)	\$ 15	\$ 15	\$ (31)	\$ 14	\$ 18	\$ (32)	\$ 0
Total		\$ (1,769)	\$ 246	\$ (262)	\$ 293	\$ 174	\$ (472)	\$ 167	\$ 53	\$ (215)	\$ 761	\$ 908	\$ (1,669)	\$ (1,785)
Monthly Over/(Under)		\$ 1,083	\$ (815)	\$ (756)	\$ (2,907)	\$ (4,183)	\$ (2,821)	\$ (1,771)	\$ (563)	\$ (143)	\$ (1,011)	\$ (1,077)	\$ 1,482	
Cumulative Over/(Under)		\$ 50,309	\$ 49,494	\$ 48,738	\$ 45,831	\$ 41,648	\$ 38,827	\$ 37,057	\$ 36,494	\$ 36,351	\$ 35,341	\$ 34,264	\$ 35,745	