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August 28, 2020

**VIA ELECTRONIC FILING**

Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street  
Harrisburg, PA 17120

**Re: Petition of UGI Utilities, Inc. – Electric Division for Approval of Phase III of its  
Energy Efficiency and Conservation Plan  
Docket No. M-2018-3004144**

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Dear Secretary Chiavetta:

Enclosed for filing on behalf of UGI Utilities, Inc. – Electric Division (“UGI Electric”) is the Report for the period June 1, 2019 through May 31, 2020, Program Year 8, and first year of Phase III of UGI Electric’s Energy Efficiency and Conservation Plan.

Copies of this document have been served as indicated on the enclosed Certificate of Service.

Very truly yours,

Danielle Jouenne  
Counsel for UGI Utilities, Inc. – Electric Division

Enclosure

cc: Certificate of Service  
Cornelia R. Schneck, Bureau of Technical Utility Services, at [cschneck@pa.gov](mailto:cschneck@pa.gov)

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

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Petition of UGI Utilities, Inc. – Electric :  
Division for Approval of Phase III of its : Docket No: M-2018-3004144  
Energy Efficiency and Conservation Plan :

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CERTIFICATE OF SERVICE

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I hereby certify that I have, this 28th day of August 2020, served a true and correct copy of the foregoing document in the manner and upon the persons listed below in accordance with requirements of 52 Pa. Code § 1.54 (relating to service by a participant):

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Danielle Jouenne

# **Report to the Pennsylvania Public Utility Commission**

UGI Utilities, Inc. – Electric Division  
Energy Efficiency and Conservation Plan Program Year 8  
(June 1, 2019-May 31, 2020)

Docket No. M-2018-3004144

Prepared by UGI Electric  
Filing Date: August 28, 2020

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# 1 INTRODUCTION

Act 129 of 2008, P.L. 1592 (Act 129) amended the Pennsylvania Public Utility Code, 66 Pa. C.S. §§ 101 et seq., to, *inter alia*, require the Pennsylvania Public Utility Commission (“PUC” or “Commission”) to develop and adopt an Energy Efficiency and Conservation (“EE&C”) program by January 15, 2009. Under Act 129, the Commission’s EE&C program requires electric distribution companies (“EDCs”) serving 100,000 customers and greater to adopt and implement cost-effective energy efficiency and conservation plans to reduce energy demand and energy consumption within the service territory of each EDC. UGI Electric, which serves approximately 62,000 electric customers, is not mandated under Act 129 to implement an EE&C Plan.

In December 2009, a Secretarial Letter was issued by the PUC at Docket No. M-2009-2142851 directing EDCs with fewer than 100,000 customers to consider the voluntary adoption of EE&C Plans similar to those mandated by Act 129 (“EE&C Secretarial Letter”). In November 2010, UGI Utilities, Inc. – Electric Division (“UGI Electric” or the “Company”) filed a voluntary EE&C Plan (“Phase I”) with the PUC in response to the EE&C Secretarial Letter. Because UGI Electric’s EE&C Plan was voluntary, it was not subject to Act 129 energy and demand savings requirements. However, UGI Electric did use the Act 129 requirements as a guide when developing its Phase I EE&C Plan.

On April 9, 2015, UGI Electric filed a Petition at Docket No. M-2010-2210316 to continue its Phase I EE&C Plan until its Phase II was approved (“Phase I Continuation Petition”). On April 16, 2015, UGI Electric filed its Phase II EE&C Plan for approval by the PUC at Docket No. M-2015-2477174. The Phase II EE&C Plan was designed to expend no more than 2% of annual revenues for the 12-month period ended May 31, 2008, on an annual basis, which totaled approximately \$7.5 million for the duration of Phase II. By its order entered May 19, 2015, the PUC approved the Company’s Phase I Continuation Petition. The Commission approved the Phase II EE&C Plan (as amended by settlement in the proceeding) by its Order entered June 9, 2016. UGI Electric filed its Phase II EE&C Compliance Plan with the PUC on August 9, 2016.

On March 21, 2017, UGI Electric filed a Petition to extend its Phase II EE&C Plan for one year. There were no changes to the overall or Residential and Commercial/Industrial budget caps. However, UGI Electric proposed to move funding between programs within the same customer class based on participation. The PUC approved the Extension Petition on May 4, 2017. Accordingly, UGI Electric’s Phase II EE&C Plan ran from June 1, 2016 and expired on May 31, 2019.<sup>1</sup>

On August 21, 2018, UGI Electric filed a Petition at Docket No. M-2018-3004144 for approval of its voluntary Phase III EE&C Plan, effective from June 1, 2019, through May 31, 2024. The Phase III EE&C Plan is designed to expend no more than 2% of annual revenues for the five-year period ended May 31, 2024, on an annual basis, which totals approximately \$6.4 million for the duration of Phase III. On January 31, 2019, a joint petition for approval of settlement was filed. On March 14, 2019, the PUC entered an Order approving the Phase III EE&C Plan (as modified by the settlement). UGI Electric filed its Phase III EE&C Compliance Plan to the PUC on April 12, 2019.

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<sup>1</sup> However, in approving the Company’s petition to extend Phase I of the EE&C, the Commission approved the Company’s proposal to count the costs of continuing the Phase I EE&C programs toward the budgets established for Plan Year 1 of the Company’s Phase II EE&C Plan.

UGI Electric respectfully submits this report documenting the results of its EE&C Plan for Program Year 8 (June 1, 2019 through May 31, 2020, “PY8”), which is the first year of Phase III. The results set forth below represent a portfolio of cost-effective energy efficiency programs that benefit customers through decreased energy costs while maintaining a cost-effective Total Resource Cost (“TRC”) Benefit to Cost Ratio (“BCR”). Program Year 8 resulted in a TRC value of 2.89 for residential customers and 3.72 for Commercial/Industrial customers. When accounting for administrative overhead, the overall portfolio TRC value was 2.93.

## 1.1 Program Year Highlights

- Program Year 8 was the first year of the Phase III EE&C Plan.
- UGI Electric exceeded the Phase III EE&C program first year savings goals by 242% or 6,263 MWh.
- In Program Year 8, the C&I Custom Program exceeded forecasted energy savings by 544%, which was primarily driven by large new construction and lighting retrofit projects.
- The Appliance Rebate Program issued rebates for 214 ductless mini split units which was the highest performing measure in the Appliance Rebate Program.
- The Energy Efficient Lighting Program ended on December 31, 2019 due to the Energy Independence and Security Act (EISA) federal legislation. However, the program still provided incentives for 64,423 LED lamps with 2,246 MWh of savings.
- The School Energy Education Program was expanded to include high school students which increased program participation to 1,530.
- UGI Electric developed and filed for approval to launch a new low-income program effective June 1, 2020. The program will cover the full cost of a direct installation of a heat pump water heater (“HPWH”) and/or ENERGYSTAR smart thermostats for low-income customers who are not eligible for LIURP due to usage and/or limited billing history.
- Due to safety concerns regarding COVID-19, UGI Electric temporarily suspended the Appliance Recycling Program on March 16, 2020 and it remained closed as of the end of Program Year 8.
- While the overall impact of COVID-19 on the UGI Electric EE&C Plan has not been fully determined, customer participation and energy savings in the residential sector have been the most affected.

## 2 OVERVIEW

UGI Electric constructed its Phase III EE&C Plan in accordance with the EE&C Secretarial Letter. The Company’s Phase III EE&C Plan included a portfolio of energy efficiency, conservation, and consumption reduction measures, programs, and education initiatives. During Program Year 8, the EE&C portfolio included the following programs:

1. Appliance Rebate Program (Residential/Low Income Customers)
2. School Energy Education Program (Residential/Low Income Customers)
3. Energy Efficient Lighting Program (Residential/Low Income Customers)
4. Appliance Recycling Program (Residential/Low Income Customers)
5. CBO Marketing Program (Residential/Low Income Customers)
6. Custom Incentive Program (Commercial/Industrial/Governmental Customers)

These six programs were designed to meet the goals and guidelines established in the Commission’s Secretarial Letter. In PY8, UGI Electric designed and received approval for a seventh program, the Residential Low-Income Program, that delivers energy savings to low-income customers and will be launched in PY9. All the EE&C programs were voluntary and offered UGI Electric customers a wide range of energy efficiency and conservation measures to decrease electric consumption and, in turn, their annual energy costs. In Program Year 8, the combined portfolio of residential and commercial/industrial programs maintained a positive TRC BCR.

### 2.1 Portfolio Summary

#### 2.1.1 Program Year 8 Portfolio Summary

In summary, UGI Electric offered six energy efficiency programs to approximately 62,000 customers within the service territory. The combined portfolio of programs had TRC Net Benefits of \$4,072,390, TRC BCR of 2.93, and total spending of \$1,773.460.

**Table 1. Portfolio Savings and Costs:**

Benefits/Cost Component	Residential	Commercial/ Industrial	Portfolio Wide	Portfolio Total
<b>Savings (MWh)</b>	<b>3,485</b>	<b>7,184</b>	<b>N/A</b>	<b>10,669</b>
<b>Capacity Savings (MW)</b>	<b>0.457</b>	<b>1.006</b>	<b>N/A</b>	<b>1.463</b>
Total Resource Cost	\$832,235	\$1,589,459	\$365,484	\$2,787,177
Direct Participant Costs	\$251,249	\$762,468	\$0	\$1,013,717
<b>Direct Utility Costs</b>	<b>\$580,986</b>	<b>\$826,990</b>	<b>\$365,484</b>	<b>\$1,773,460</b>
Customer Incentives	\$346,071	\$418,590	\$0	\$764,661
Marketing	\$58,587	\$825	\$0	\$59,412
Administration	\$176,328	\$407,576	\$365,484	\$949,388

**Table 2. Program Year Performance to Plan:**

Program	PY8 Spending (\$000)			PY8 First Year Savings (MWh)		
	Actual	Goal	% of Goal	Actual	Goal	% of Goal
Appliance Rebate Program	\$140	\$250	56%	360	656	55%
School Energy Education Program	\$124	\$139	89%	616	372	166%
Energy Efficient Lighting Program	\$255	\$141	180%	2,246	1,423	158%
Appliance Recycling Program	\$52	\$140	37%	263	635	41%
Low Income Program	\$0	\$0	0%	0	0	0%
CBO Outreach Program	\$10	\$10	99%	N/A	N/A	N/A
<b>Residential Total</b>	<b>\$581</b>	<b>\$681</b>	<b>85%</b>	<b>3,485</b>	<b>3,086</b>	<b>113%</b>
C&I Custom Incentive	\$827	\$282	293%	7,184	1,320	544%
<b>C&amp;I Total</b>	<b>\$827</b>	<b>\$282</b>	<b>293%</b>	<b>7,184</b>	<b>1,320</b>	<b>544%</b>
Portfolio-wide Costs <sup>2</sup>	\$365	\$270	135%	N/A	N/A	N/A

**Table 3. Portfolio Cost-Effectiveness:**

Benefits/Cost Component (2018\$)	Residential	Commercial/ Industrial	Portfolio Wide	Portfolio Total
TRC NPV Benefits	\$1,361,504	\$4,817,508	\$0	\$6,179,012
TRC NPV Costs	\$471,636	\$1,295,096	\$339,890	\$2,106,621
TRC Net Benefits	\$889,868	\$3,522,412	(\$339,890)	\$4,072,390
TRC Benefit/Cost Ratio	2.89	3.72	0.00	2.93

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<sup>2</sup> Includes administrative costs to manage the UGI Electric EE&C Plan.



## 2.1.2 Phase III Portfolio Summary (Inception to Date)

Table 4 summarizes the Phase III performance compared to budget, in this case, for only Program Year 8. When comparing actual results against budget for Phase III, UGI Electric spent approximately 28% of the budget while achieving approximately 58% of the first-year MWh savings goals.

**Table 4. Phase III Performance to Plan:**

Program	Cumulative Spending (\$000)			Cumulative First Year Savings (MWh)		
	Actual	Phase Goal	% of Goal	Actual	Phase Goal	% of Goal
Appliance Rebate Program	\$140	\$1,244	11%	360	3,258	11%
School Energy Education Program	\$124	\$638	19%	616	1,355	45%
Energy Efficient Lighting Program	\$255	\$141	181%	2,246	1,423	158%
Appliance Recycling Program	\$52	\$702	7%	263	3,174	8%
Low Income Program	\$0	\$140	0%	0	124	0%
CBO Outreach Program	\$10	\$50	20%	N/A	N/A	N/A
<b>Residential Total</b>	<b>\$581</b>	<b>\$2,915</b>	<b>20%</b>	<b>3,485</b>	<b>9,334</b>	<b>37%</b>
C&I Custom Incentive	\$827	\$1,871	44%	7,184	8,910	81%
<b>C&amp;I Total</b>	<b>\$827</b>	<b>\$1,871</b>	<b>44%</b>	<b>7,184</b>	<b>8,910</b>	<b>81%</b>
Portfolio-wide Costs	\$365	\$1,600	23%	N/A	N/A	N/A
<b>Portfolio Total</b>	<b>\$1,773</b>	<b>\$6,386</b>	<b>28%</b>	<b>10,669</b>	<b>18,244</b>	<b>58%</b>

## 2.2 Residential Program Summary

During Program Year 8, the UGI Electric EE&C Portfolio offered six different programs to residential and low-income customers. As outlined below, UGI Electric's residential sector programs were cost-effective, with a TRC BCR of 2.89 and \$889,868 in net benefits.

Spending on the residential portfolio was \$580,986, which was \$99,808 below the first-year plan budget, while exceeding saving by 399 MWh.

**Table 5. Residential Program Participation and Energy Savings:**

Program	Participation	Energy Savings MWh	NPV Benefits (2018\$)	NPV Costs (2018\$)	TRC BCR
Appliance Rebate Program	872	360	\$243,070	\$177,727	1.37
School Energy Education Program	1,530	616	\$686,477	\$102,858	6.67
Energy Efficient Lighting Program	64,423	2,246	\$338,079	\$132,602	2.55
Appliance Recycling Program	275	263	\$93,877	\$49,237	1.91
CBO Outreach Program	N/A	N/A	\$0	\$9,212	-
<b>TOTAL</b>	<b>67,100</b>	<b>3,485</b>	<b>\$1,361,504</b>	<b>\$471,636</b>	<b>2.89</b>

**Table 6. Residential Program Savings and Costs:**

Benefits/Cost Component	Appliance Rebate	School Energy Education	Energy Efficient Lighting	Appliance Recycling	CBO Outreach	RESIDENTIAL TOTAL
Savings (MWh)	360	616	2,246	263	0	3,485
Capacity Savings (MW)	0.091	0.065	0.259	0.042	0.000	0.457
Total Resource Cost	\$187,601	\$124,072	\$458,683	\$51,973	\$9,905	\$832,235
Direct Participant Costs	\$47,251	\$0	\$203,997	\$0	\$0	\$251,249
Direct Utility Costs	<b>\$140,350</b>	<b>\$124,072</b>	<b>\$254,685</b>	<b>\$51,973</b>	<b>\$9,905</b>	<b>\$580,986</b>
Customer Incentives	\$89,700	\$96,782	\$148,069	\$11,520	\$0	\$346,071
Marketing	\$28,241	\$2,481	\$2,732	\$15,228	\$9,905	\$58,587
Administration	\$22,409	\$24,809	\$103,885	\$25,225	\$0	\$176,328

**Table 7. Residential Program Cost Effectiveness:**

Benefits/Cost Component (2018\$)	PY8 Actual
TRC NPV Benefits	<b>\$1,361,504</b>
TRC NPV Costs	<b>\$471,636</b>
TRC Net Benefits	<b>\$889,868</b>
TRC Benefit/Cost Ratio	<b>2.89</b>

### 2.3 Commercial/Industrial Program Summary

During Program Year 8, the UGI Electric EE&C portfolio offered the Commercial & Industrial (“C&I”) program to commercial and industrial customers. UGI Electric’s commercial sector programs were cost-effective, with a TRC BCR of 3.72 and \$3,522,412 in net benefits. Spending on the commercial portfolio was \$826,990.

**Table 8. Commercial/Industrial Program Actuals:**

Program	Projects	Energy Savings MWh	NPV Benefits (2018\$)	NPV Costs (2018\$)	TRC Value
C&I Custom Incentive	34	7,184	\$4,817,508	\$1,295,096	3.72
<b>Total</b>	<b>34</b>	<b>7,184</b>	<b>\$4,817,508</b>	<b>\$1,295,096</b>	<b>3.72</b>

**Table 9. Commercial Savings and Program Costs:**

Benefits/Cost Component	C&I Custom Incentive	C&I TOTAL
Savings (MWh)	7,184	7,184
Capacity Savings (MW)	1.006	1.006
Total Resource Cost	\$1,589,459	\$1,589,459
Direct Participant Costs	\$762,468	\$762,468
<b>Direct Utility Costs</b>	<b>\$826,990</b>	<b>\$826,990</b>
Customer Incentives	\$418,590	\$418,590
Marketing	\$825	\$825
Administration	\$407,576	\$407,576

**Table 10. Commercial/Industrial Program Cost Effectiveness:**

<b>Benefits/Cost Component (2018\$)</b>	<b>C&amp;I Custom Incentive</b>	<b>C&amp;I TOTAL</b>
TRC NPV Benefits	\$4,817,508	\$4,817,508
TRC NPV Costs	\$1,295,096	\$1,295,096
TRC Net Benefits	\$3,522,412	\$3,522,412
TRC Benefit/Cost Ratio	3.72	3.72

## 3 RESIDENTIAL PROGRAMS

### 3.1 Appliance Rebate Program

(Residential/Low Income Customers)

#### **Program Objectives:**

The objectives of the Residential Appliance Rebate Program included:

1. Providing customers with opportunities to reduce their energy costs and increase their energy efficiency.
2. Encouraging customers to install high-efficiency HVAC and electric appliances and to switch to natural gas from electricity.
3. Encouraging the use of high-efficiency/ENERGY STAR-rated equipment.
4. Promoting strategies that encourage and support market transformation for high-efficiency appliances and equipment.
5. Achieving 5,579 installed measures through May 2024, with total savings of approximately 3,258 MWh.

#### **Program Description:**

The Appliance Rebate Program promoted the purchase and installation of a wide range of ENERGY STAR equipment and provided customers with financial incentives to offset the higher purchase costs of energy-efficient equipment. Targeted equipment included electric heating, cooling, and various other appliances.

#### **Program Review:**

As part of this program, customers were required to submit an application with documentation of the equipment purchase(s) and installation(s) for verification and rebate processing. UGI Electric provided overall strategic direction and program management for the program, as well as promotional, educational, trade ally support, and other administrative functions.

Marketing to residential customers was managed through various marketing channels to increase customer awareness in targeted areas. UGI Electric utilized bill inserts and social media to encourage residential customers to purchase energy efficient appliances. The Appliance Rebate Program achieved a TRC BCR of 1.37 and provided \$65,343 in net benefits in Program Year 8.

**Table 11. Program Participation:**

Total Measures		
Measure	PY8 Actual	PY8 Budget
Air Source Heat Pump <sup>3</sup>	2	0
Central Air Conditioner	14	35
Room AC Unit	71	180
Wi-Fi-enabled Thermostat	22	100
Ductless Mini Split Heat Pump	214	86
Clothes Washer	95	180
Dishwasher	198	180
Refrigerator	152	250
Dehumidifier	97	80
Pool Pump (in-ground)	5	8
Gas high efficiency central heat (from electric heating)	2	20
<b>Total</b>	<b>872</b>	<b>1,119</b>

**Table 12. Program Savings and Costs:**

Benefits/Cost Component	PY8 Actual	PY8 Budget
Savings (MWh)	360	656
Capacity Savings (MW)	0.091	0.047
<b>Total Resource Cost</b>	<b>\$187,601</b>	<b>\$358,325</b>
Direct Participant Costs	\$47,251	\$108,175
<b>Direct Utility Costs</b>	<b>\$140,350</b>	<b>\$250,150</b>
Customer Incentives	\$89,700	\$87,550
Marketing	\$28,241	\$24,000
Administration	\$22,409	\$138,600

**Table 13. Program Cost Effectiveness:**

TRC Test (2018\$)	PY8 Actual
TRC NPV Benefits	\$243,070
TRC NPV Costs	\$177,727
TRC Net Benefits	\$65,343
TRC Benefit/Cost Ratio	1.37

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<sup>3</sup> Air source heat pump rebates were issued in PY8 due to carryover of valid applications submitted in PY7.

## 3.2 School Energy Education Program

(Residential/Low Income Customers)

### Program Objectives:

The objectives of the School Energy Education Program included:

1. Educating students on various energy types, generation and consumption, home energy use, and ways to increase energy efficiency in a home.
2. Providing customers with opportunities to reduce their energy costs and increase their energy efficiency.
3. Encouraging customers to improve the efficiency of their homes by providing an energy efficiency toolkit.
4. Obtaining participation of approximately 7,250 students, teachers and families through May 2024, with a total reduction of approximately 1,355 MWh.

### Program Description:

The School Energy Education Program was designed to educate 4<sup>th</sup> through 12<sup>th</sup> grade students on various energy types, energy consumption and generation, home energy use, and ways to save energy.

The School Energy Education Program is delivered through school presentations. Teachers and schools were recruited throughout UGI Electric's service territory. In consultation with the Pennsylvania Department of Education, presentations were scheduled to avoid testing schedules, vacation periods and other school activities.

Students and teachers attended a one-hour presentation on energy efficiency. Under the direction of two National Energy Foundation ("NEF") professional instructors, students learned how to "Think!" about energy, then "Talk" with others about what they have learned, and ultimately "Take Action!" in their own homes to use energy more efficiently. A customized PowerPoint presentation guided the discussion, and hands-on learning activities were employed to build understanding among students.

### Program Review:

National Energy Foundation (NEF), the CSP for this program, registered participating schools, facilitated a PowerPoint presentation to students, and distributed energy efficiency toolkits which contained various energy efficient measures. All participating students were asked to return a *Household Report Card* providing data on household behaviors and device installations. NEF compiled the information from the Household Report Card Scantron forms or online Report Card submissions to create a customized report with program results for UGI Electric.

For Program Year 8, NEF expanded the program offering to high school students partnering with 53 teachers while presenting to twelve different schools (grades 4<sup>th</sup>-12<sup>th</sup>) within the UGI Electric territory. Once the presentations were completed, 1,530 energy efficiency toolkits were distributed to the students. The School Energy Education Program continued to be very cost effective with a TRC BCR of 6.67 and net benefits of \$583,619, including gas and water savings in addition to the electric savings.

The Program Year 8 savings outperformed expectations by 244 MWh. The estimated in-service rates (ISR) for shower heads improved from 36% to 58%, resulting in an additional 99 MWh of energy

savings from shower head measures. The increased ISR is attributed to presentation and student worksheets with a highlighted focused on the importance of energy savings available from hot water. Additional savings resulted from advanced power strips and BR30 LED specialty lamps added to the high school student kits.

**Table 14. Program Participation:**

<b>Total Measures</b>		
<b>Measure</b>	<b>PY8 Actual</b>	<b>PY8 Budget</b>
Innovation Kit (High School)	454	450
Take Action Kit (Middle School)	1,076	1,000
<b>Total Kits</b>	<b>1,530</b>	<b>1,450</b>

**Table 15. Program Savings and Costs:**

<b>School Energy Education Program</b>		
<b>Benefits/Cost Component</b>	<b>PY8 Actual</b>	<b>PY8 Budget</b>
Savings (MWh)	616	372
Capacity Savings (MW)	0.065	0.046
<b>Total Resource Cost</b>	<b>\$124,072</b>	<b>\$139,031</b>
Direct Participant Costs	\$0	\$0
<b>Direct Utility Costs</b>	<b>\$124,072</b>	<b>\$139,031</b>
Customer Incentives	\$96,782	\$109,031
Marketing	\$2,481	\$5,000
Administration	\$24,809	\$25,000

**Table 16. Program Cost Effectiveness:**

<b>TRC Test (2018\$)</b>	<b>PY8 Actual</b>
TRC NPV Benefits	\$686,477
TRC NPV Costs	\$102,858
TRC Net Benefits	\$583,619
TRC Benefit/Cost Ratio	6.67

### **3.3 Energy Efficient Lighting Program**

(Residential/Low Income Customers)

#### **Program Objectives:**

The objectives of the Energy Efficient Lighting Program included:

1. Providing a mechanism for customers to easily obtain discounted ENERGY STAR-qualified LEDs.
2. Increasing consumer awareness and understanding of the energy-efficiency of LEDs.
3. Aiding in the market transition to new efficiency standards under the EISA in 2020.
4. Distributing approximately 38,000 LEDs through May 2020, with a total reduction of approximately 1,423 MWh.

#### **Program Description:**

The Energy Efficient Lighting Program encouraged customers to purchase new ENERGY STAR-rated LED bulbs. The program had two components:

1. A retail upstream lighting incentive that significantly reduced the customer cost of ENERGY STAR LED bulbs.
2. Free LED bulb distribution at various community events and to UGI Electric's Customer Assistance Program ("CAP") participants.

#### **Program Review:**

Franklin Energy, the CSP for this program, managed the upstream LED Lighting Program, including negotiating bulk pricing, education, recruitment, and coordination with retail stores, as well as tracking program data and providing monthly and annual program reports to UGI Electric. Franklin Energy identified various retailers throughout UGI Electric's service territory in which point of sale discounts were offered to customers. Franklin Energy also delivered free LEDs to low income residential customers who participate in the Company's CAP, along with distribution at various food banks throughout the territory.

On December 31, 2019, the program closed due to the adoption of the Energy Independence and Security Act (EISA) federal legislation, which mandates 45 lumens per watt minimum energy efficiency standards. The EISA standard significantly reduced potential savings and cost effectiveness. UGI will closely monitor Act 129 Phase IV planning efforts undertaken by other EDCs in Pennsylvania and may re-evaluate the program if changes to baseline assumptions and/or any other market conditions allow for a viable program.

Marketing to residential customers was managed through various marketing channels to increase customer awareness in targeted areas. The marketing strategy included a mix of social media and outreach events, some of which were focused primarily on low-income customers. In addition, UGI Electric utilized bill inserts to encourage residential customers to purchase ENERGY STAR LED bulbs. Strong customer demand led UGI Electric to increase budget allocations to the program before winding the program down due to changing lighting standards. The Energy Efficient Lighting Program was cost effective with a TRC BCR of 2.55 and net benefits of \$205,477.



**Table 17. Program Participation:**

Total LEDs		
Measure	PY8 Actual	PY8 Budget
LED Purchase	58,053	35,000
LED Give-Away <sup>4</sup>	6,370	3,000
<b>Total LEDs</b>	<b>64,423</b>	<b>38,000</b>

**Table 18. Program Savings and Costs:**

Benefits/Cost Component	Residential Energy Efficient Lighting	
	PY8 Actual	PY8 Budget
Savings (MWh)	2,246	1,423
Capacity Savings (MW)	0.259	0.178
<b>Total Resource Cost</b>	<b>\$458,683</b>	<b>\$175,525</b>
Direct Participant Costs	\$203,997	\$34,312
<b>Direct Utility Costs</b>	<b>\$254,685</b>	<b>\$141,213</b>
Customer Incentives	\$148,069	\$66,213
Marketing	\$2,732	\$5,000
Administration	\$103,885	\$70,000

**Table 19. Program Cost Effectiveness:**

TRC Test (2018\$)	PY8 Actual
TRC NPV Benefits	\$338,079
TRC NPV Costs	\$132,602
TRC Net Benefits	\$205,477
TRC Benefit/Cost Ratio	2.55

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<sup>4</sup> This number includes the Customer Assistance Program (CAP) recipients and other give-away events.

### **3.4 Appliance Recycling Program**

(Residential/Low Income Customers)

#### **Program Objectives:**

The objectives of the Appliance Recycling Program included:

1. Encouraging customers to dispose of their existing, inefficient appliances when they purchase a new appliance or eliminate a second unit that may not be needed.
2. Reducing the use of secondary, inefficient appliances.
3. Ensuring appliances are disposed of in an environmentally responsible manner.
4. Decommissioning to ensure appliances are not resold in a secondary market.
5. Recycling approximately 2,725 refrigerators and freezers, 275 window air conditioning units, and 125 dehumidifiers through May 2024, with a total reduction of approximately 3,174 MWh.

#### **Program Description:**

This Program provided free pick-up and disposal of old, inefficient refrigerators, freezers, dehumidifiers, and room air conditioners. Refrigerators were required to be between 10 and 30 cubic feet, plugged in, and functioning when picked up in order to be eligible. Incentives of \$50 were paid to customers who recycled eligible refrigerators and freezers, and \$20 for eligible room air conditioners and dehumidifiers.

All units were disposed of in an environmentally responsible manner. This involved safely disposing of hazardous materials such as chlorofluorocarbon gases found in foam insulation, preparing refrigerant for reclamation, and recycling other materials such as metal and plastic.

#### **Program Review:**

Recleim, the CSP for this program, provided customer intake, eligibility verification, appliance collection, recycling, rebate processing, and participation tracking.

Marketing to residential customers was managed through various marketing channels to increase customer awareness in targeted areas. UGI Electric utilized bill inserts and social media to encourage residential customers to recycle eligible appliances.

Due to safety concerns regarding COVID-19, UGI temporarily suspended the Appliance Recycling Program on March 16, 2020 and it remained closed as of the end of Program Year 8. Historically, the highest program participation and marketing efforts occurred throughout the Spring and early Summer. Suspending program activity during this time period led to lower customer participation and savings than projected. The program was cost effective in Program Year 8, with a TRC BCR of 1.91 and net benefits of \$44,640.

**Table 20. Program Participation:**

Total Measures		
Measure	PY8 Actual	PY8 Budget
Fridge Recycling	179	435
Freezer Recycling	35	110
Room AC Recycling	46	55
Dehumidifier Recycling	15	25
<b>Total</b>	<b>275</b>	<b>625</b>

**Table 21. Program Savings and Costs:**

Benefits/Cost Component	Appliance Recycling Program	
	PY8 Actual	PY8 Budget
Savings (MWh)	263	635
Capacity Savings (MW)	0.042	0.087
<b>Total Resource Cost</b>	<b>\$51,973</b>	<b>\$140,400</b>
Direct Participant Costs	\$0	\$0
<b>Direct Utility Costs</b>	<b>\$51,973</b>	<b>\$140,400</b>
Customer Incentives	\$11,520	\$28,850
Marketing	\$15,228	\$50,000
Administration	\$25,225	\$61,550

**Table 22. Program Cost Effectiveness:**

TRC Test (2018\$)	PY8 Actual
TRC NPV Benefits	\$93,877
TRC NPV Costs	\$49,237
TRC Net Benefits	\$44,640
TRC Benefit/Cost Ratio	1.91

### **3.5 Community Based Organization (CBO) Marketing Program**

(Residential/Low Income Customers)

#### **Program Objectives:**

The objectives of the CBO Marketing Program included:

1. Communicating and cross promoting EE&C programs, such as the Appliance Recycling and Appliance Rebate Programs.
2. Communicating conservation programs and energy-saving tips to UGI Electric customers.
3. Emphasizing that there are many simple low-cost products to help customers' homes become more energy efficient.

#### **Program Description:**

This program focused on marketing efforts facilitated by CBOs, who partner with UGI Electric to administer the Company's low-income universal service programs, to cross-promote EE&C programs with the intent of driving increased customer awareness and participation to the communities they serve. The marketing strategy included the CBOs developing and distributing specific UGI Electric EE&C materials and attending various community events and/or trade shows to further promote the availability of EE&C programs.

#### **Program Review:**

The Commission on Economic Opportunity (CEO) and Scranton Lackawanna Human Development Agency, Inc. (SLHDA) were the identified CBOs for this program due to their location within the UGI Electric service territory and their administration of the Company's universal-service Low Income Usage Reduction Program. The marketing to residential customers was managed through various channels to increase customer awareness in targeted areas which included attending community events, outbound calls, in-home education, and printing marketing material for customers. In PY8, the CBOs attended job fairs and made outbound calls to reach over 250 customers. The CBO Marketing Program spent \$9,905 on marketing related activities compared to a budget of \$10,000.

**Table 23. Program Savings and Costs:**

Benefits/Cost Component	CBO Outreach Program	
	PY8 Actual	PY8 Budget
Savings (MWh)	0	0
Capacity Savings (MW)	0.000	0.000
<b>Total Resource Cost</b>	<b>\$9,905</b>	<b>\$10,000</b>
Direct Participant Costs	\$0	\$0
<b>Direct Utility Costs</b>	<b>\$9,905</b>	<b>\$10,000</b>
Customer Incentives	\$0	\$0
Marketing	\$9,905	\$10,000
Administration	\$0	\$0

**Table 24. Program Cost Effectiveness:**

TRC Test (2018\$)	PY8 Actual
TRC NPV Benefits	\$0
TRC NPV Costs	\$9,212
TRC Net Benefits	(\$9,212)
TRC Benefit/Cost Ratio	0.00

## 4 COMMERCIAL PROGRAMS

### 4.1 Custom Incentive Program

(Commercial/Industrial Customers)

#### **Program Objectives:**

The objectives of the Commercial & Industrial (“C&I) Custom Incentive Program included:

1. Encouraging the installation of high-efficiency equipment by UGI Electric’s C&I customers in new and existing facilities.
2. Encouraging equipment repairs, optimization and operational or process changes that reduce electricity consumption.
3. Encouraging a “whole facility” approach to energy-efficiency.
4. Increasing customer awareness of the features and benefits of energy-efficient equipment.
5. Increasing the market penetration of high-efficiency equipment.
6. Supporting emerging technologies and non-typical efficiency solutions in cost-effective applications, including Combined Heat and Power applications.
7. Obtaining approximately 189 projects through May 2024, with a total energy reduction of approximately 8,910 MWh.

#### **Program Description:**

The Custom Incentive Program provided a delivery channel and financial incentives to customers installing a variety of custom measures suited to their business needs. To qualify for financial incentives, eligible customers were required to provide documentation that their proposed efficiency upgrades passed the TRC test for cost effectiveness.

#### **Program Review:**

Franklin Energy, the CSP for this program, provided customer intake, eligibility verification, rebate processing, program participation tracking, verification, and auditing of customer projects. In total, 34 projects were completed, 23 of them by Class 2 customers and the remaining from Class 3 customers. The program was very cost effective with a TRC BCR of 3.72, and net benefits of \$3,522,412.

The energy savings of 7,184 MWh represents an increase of 544% above goal. This overperformance was mainly due to significant activity in the new construction of warehouses and lighting retrofit projects for Class 3 customers, including one project that received the maximum incentive possible. Due to increased levels of customer participation, and higher than anticipated program spending, on March 27, 2020 UGI filed a Petition for Approval of Modifications to its Phase III EE&C Plan - to revise incentive rates downward for the C&I Custom Program. The petition was approved - by the Commission in a final order entered on August 27, 2020. Starting in PY9, this modification will change the incentive rate for customers who participate in the C&I Custom Program from \$0.10 per kWh, on average, over the lifetime of the Plan to *up to* \$0.10 per kWh, on average, over the lifetime of the Plan. None of the Custom Projects that were completed in PY8 involved CHP.

**Table 25. Program Budget and Actuals:**

<b>Total Measures</b>		
<b>Projects</b>	<b>PY8 Actual</b>	<b>PY8 Budget</b>
Large CI Project	11	8
Small CI Project	23	20
<b>Total</b>	<b>34</b>	<b>28</b>

**Table 26. Program Savings and Costs:**

<b>Benefits/Cost Component</b>	<b>C&amp;I Custom Incentive Program</b>	
	<b>PY8 Actual</b>	<b>PY8 Budget</b>
Savings (MWh)	7,184	1,320
Capacity Savings (MW)	1.006	0.157
<b>Total Resource Cost</b>	<b>\$1,589,459</b>	<b>\$620,341</b>
Direct Participant Costs	\$762,468	\$337,956
<b>Direct Utility Costs</b>	<b>\$826,990</b>	<b>\$282,385</b>
Customer Incentives	\$418,590	\$132,000
Marketing	\$825	\$20,000
Administration	\$407,576	\$130,385

**Table 27. Program Cost Effectiveness:**

<b>TRC Test (2018\$)</b>	<b>PY8 Actual</b>
TRC NPV Benefits	\$4,817,508
TRC NPV Costs	\$1,295,096
TRC Net Benefits	\$3,522,412
TRC Benefit/Cost Ratio	3.72