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August 30, 2023

VIA ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

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

Dear Secretary Chiavetta:

Enclosed for filing on behalf of UGI Utilities, Inc. – Electric Division (“UGI Electric” or the “Company”) is the Report for UGI Electric’s Program Year 11 (June 1, 2022, through May 31, 2023) of its Phase III Energy Efficiency and Conservation Plan.

Copies of this filing will be provided as indicated on the Certificate of Service.

Respectfully submitted,



Devin Ryan

DTR/dc
Enclosures

cc: Cornelia R. Schneck, Bureau of Technical Utility Services
Certificate of Service

CERTIFICATE OF SERVICE

Docket No. M-2018-3004144

I hereby certify that a true and correct copy of the foregoing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

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Date: August 30, 2023



Devin T. Ryan

Report to the Pennsylvania Public Utility Commission

**UGI Utilities, Inc. – Electric Division
Energy Efficiency and Conservation Plan Program Year 11
(June 1, 2022-May 31, 2023)**

Prepared by UGI Electric
Filing Date: August 30, 2023

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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. The Commission’s EE&C program requires electric distribution companies (“EDCs”) serving at least 100,000 customers to adopt and implement cost-effective EE&C Plans, which reduce energy demand and energy consumption according to specific targets¹ 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 Phase I EE&C Plan 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’s 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 EE&C Plan 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 UGI Electric’s total annual revenue on EE&C programs 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 Order entered May 19, 2015, the PUC approved the Company’s Phase I Continuation Petition. The Commission approved the Company’s Phase II EE&C Plan (as amended by settlement in the proceeding) by 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 (“Extension Petition”).² 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 levels. The PUC approved the Extension Petition on May 4, 2017. Accordingly, UGI Electric’s Phase II EE&C Plan ran from June 1, 2016, to May 31, 2019.³

¹ 66 Pa. C.S. § 2806.1(c) and (d).

² UGI Electric filed the Extension Petition because the Phase II EE&C Plan began in earnest much later than originally anticipated. Phase II was slated to begin on June 1, 2015, but the Phase II EE&C Plan was not formally approved until June 9, 2016. This effectively reduced the Phase II EE&C Plan’s term from three years to about two years. As a result, the Extension Petition sought to restore the three-year term of the Phase II EE&C Plan and allow the Company’s Phase II EE&C programs to ramp up fully.

³In approving the Company’s petition to extend Phase I of the EE&C Plan, 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.

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 UGI Electric’s total annual revenue on EE&C programs for the 12-month period ended May 31, 2008, on an annual basis, which totals approximately \$7.5 million for the duration of Phase III. However, UGI Electric’s budget for the five-year Phase III Plan is approximately \$6.4 million. On January 31, 2019, a Joint Petition for Approval of Settlement was filed. On March 14, 2019, the PUC entered an Order approving the Company’s Phase III EE&C Plan (as modified by the settlement). UGI Electric filed its Phase III EE&C Compliance Plan with the PUC on April 12, 2019.

On February 22, 2022, UGI Electric filed a Petition at Docket No. M-2018-3004144 to increase the budget for the Commercial & Industrial (“C&I”) Custom Program by approximately \$1.63 million due to average project size being higher than anticipated. On June 16, 2022, the PUC entered an order approving this Petition, which increased the overall Phase II EE&C Plan by the requested amount, from \$6,386,894 to \$8,015,241.

UGI Electric respectfully submits this report documenting the results of its EE&C Plan for Program Year 11 (June 1, 2022, through May 31, 2023, “PY11”), which is also the fourth year of the Phase III EE&C Plan. 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”). The programs’ performance in PY11 resulted in a TRC value of 3.19 for residential customers and 2.74 for Commercial/Industrial customers. When accounting for administrative overhead, the overall portfolio TRC value was 2.45.

1.1 Program Year Highlights

UGI Electric spent 63% of its PY11 budget but achieved a cost-effective portfolio and reached 76% of its PY11 savings goal. Strong performance by the School Energy Education Program and the Appliance Rebate programs helped drive savings. Specific highlights include:

- The School Energy Education Program facilitated virtual and in person presentations and achieved 155% of its energy savings goal.
- The Appliance Rebate Program achieved 188% of its annual savings projections and continued to see strong demand for ductless mini split heat pumps, which were the highest performing measure in the program.
- The C&I Custom Incentive Program generated 3,673 MWh of first-year savings, which was 64% of goal. However, the goal for PY11 was adjusted upward as a result of program overperformance in PY8 and PY9, which necessitated a Petition for additional funding in 2022.⁴ The additional MWh savings were added to the goals for PY10-PY12 in order to balance out the overall five-year plan. (The MWh savings would have been 186% of the original C&I Custom Incentive Program goal for PY11.)

⁴ See *Petition of UGI Utils., Inc. – Elec. Div. for Approval of a Modification to its Phase III Energy Efficiency and Conserv. Plan*, Docket No. M-2018-3004144, pp. 11-13 (Order entered June 16, 2022).

- After a brief pause in PY10 to identify and onboard a new CSP, the Appliance Recycling Program rebounded in PY11, recycling 580 units, which was 93% of the goal. However, the program was not cost-effective, with a TRC BCR of 0.80, due to high administrative costs and a high percentage of room air conditioners, which provide lower savings.

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 PY11, the Company's 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. Residential Low-Income Program (Low Income Customers)
4. Appliance Recycling Program (Residential/Low Income Customers)
5. CBO Marketing Program (Residential/Low Income Customers)
6. C&I Custom Incentive Program (Commercial/Industrial/Governmental Customers)

These six programs were designed to meet the goals and guidelines established in the EE&C Secretarial Letter. All the EE&C programs were voluntary and offered UGI Electric customers a wide range of EE&C measures to decrease electric consumption and, in turn, their annual energy costs. In PY11, the combined portfolio of residential and commercial/industrial programs maintained a TRC BCR of 2.45.

2.1 Portfolio Summary

2.1.1 Program Year 11 Portfolio Summary

In summary, UGI Electric offered six energy efficiency programs to approximately 62,000 customers within its service territory. The combined portfolio of programs had TRC Net Benefits of \$2,243,797, with a TRC BCR of 2.45 and total direct utility costs of \$1,285,857 (as shown in Tables 1-3 below).

Table 1. Portfolio Savings and Costs:

Benefits/Cost Component	Residential	Commercial/Industrial	Portfolio Wide	Portfolio Total
Savings (MWh)	1,914	3,673	N/A	5,586
Capacity Savings (MW)	0.170	0.777	N/A	0.947
Total Resource Cost	\$536,123	\$1,308,662	\$324,358	\$2,169,143
Direct Participant Costs	\$90,894	\$792,392	\$0	\$883,286
Direct Utility Costs	\$445,229	\$516,270	\$324,358	\$1,285,857
Customer Incentives	\$285,122	\$182,090	\$0	\$467,212
Marketing	\$49,259	\$2,500	\$0	\$51,759
Administration	\$110,848	\$331,680	\$324,358	\$766,886

Table 2. Program Year Performance to Plan:

Program	PY11 Spending (\$000)			PY11 First Year Savings (MWh)		
	Actual	Goal	% of Goal	Actual	Goal	% of Goal
Appliance Rebate Program	\$175	\$247	71%	1,214	645	188%
School Energy Education Program	\$124	\$125	99%	381	246	155%
Appliance Recycling Program	\$105	\$140	75%	295	635	46%
Low-Income Program	\$31	\$35	90%	24	31	77%
CBO Outreach Program	\$10	\$10	100%	N/A	N/A	N/A
Residential Total	\$445	\$557	80%	1,914	1,557	123%
C&I Custom Incentive	\$516	\$956	54%	3,673	5,760	64%
C&I Total	\$516	\$956	54%	3,673	5,760	64%
Portfolio-wide Costs ⁵	\$324	\$520	62%	N/A	N/A	N/A
Portfolio Total	\$1,286	\$2,033	63%	5,586	7,317	76%

Table 3. Portfolio Cost-Effectiveness:

Benefits/Cost Component (2018\$)	Residential	Commercial/Industrial	Portfolio Wide	Portfolio Total
TRC NPV Benefits	\$1,241,244	\$2,546,460	\$0	\$3,787,704
TRC NPV Costs	\$389,499	\$928,894	\$225,514	\$1,543,907
TRC Net Benefits	\$851,745	\$1,617,566	(\$225,514)	\$2,243,797
TRC Benefit/Cost Ratio	3.19	2.74	0.00	2.45

⁵ 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 spending and first year savings (MWh) to date (PY8-PY11) compared to overall Phase III goals. When comparing actual results against budget for Phase III, UGI Electric has spent approximately 67% of the budget while achieving approximately 83% 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	\$611	\$1,244	49%	2,765	3,258	85%
School Energy Education Program	\$486	\$638	76%	1,901	1,355	140%
Energy Efficient Lighting Program	\$255	\$141	181%	2,246	1,423	158%
Appliance Recycling Program	\$241	\$702	34%	807	3,174	24%
Low-Income Program	\$55	\$140	39%	41	125	33%
CBO Outreach Program	\$38	\$50	76%	N/A	N/A	N/A
Residential Total	\$1,686	\$2,916	58%	7,762	9,336	83%
C&I Custom Incentive	\$2,366	\$3,499	68%	16,893	20,250	83%
C&I Total	\$2,366	\$3,499	68%	16,893	20,250	83%
Portfolio-wide Costs	\$1,285	\$1,600	80%	N/A	N/A	N/A
Portfolio Total	\$5,337	\$8,015	67%	24,655	29,586	83%

2.2 Residential Program Summary

During PY11, the UGI Electric EE&C Portfolio offered five different programs to residential and low-income customers. As outlined below (in Tables 5-7), UGI Electric's residential sector programs were cost-effective, with a TRC BCR of 3.19 and \$851,745 in net benefits.

Spending on the residential portfolio was \$445,229, which was 80% of budget, while savings were 1,914 MWh, which was 123% of budget.

Table 5. Residential Program Participation and Energy Savings:

Program	Participation	Energy Savings MWh	NPV Benefits (2018\$)	NPV Costs (2018\$)	TRC BCR
Appliance Rebate Program	734	1,214	\$590,974	\$195,646	3.02
School Energy Education Program	1,572	381	\$560,218	\$87,153	6.43
Appliance Recycling Program	580	295	\$61,384	\$76,272	0.80
Low-Income Program	11	24	\$28,668	\$23,477	1.22
CBO Outreach Program	N/A	N/A	N/A	\$6,950	N/A
TOTAL	2,897	1,914	\$1,241,244	\$389,499	3.19

Table 6. Residential Program Savings and Costs:

Benefits/Cost Component	Appliance Rebate	School Energy Education	Appliance Recycling	Low Income	CBO Outreach	Residential Total
Savings (MWh)	1,214	381	295	24	N/A	1,914
Capacity Savings (MW)	0.060	0.040	0.051	0.018	N/A	0.170
Total Resource Cost	\$265,508	\$123,777	\$105,441	\$31,400	\$9,997	\$536,123
Direct Participant Costs	\$90,895	\$0	\$0	\$0	N/A	\$90,895
Direct Utility Costs	\$174,614	\$123,777	\$105,441	\$31,400	\$9,997	\$445,229
Customer Incentives	\$119,100	\$96,547	\$38,075	\$31,400	N/A	\$285,122
Marketing	\$20,029	\$2,476	\$16,758	\$0	\$9,997	\$49,259
Administration	\$35,485	\$24,756	\$50,608	\$0	N/A	\$110,848

Table 7. Residential Program Cost-Effectiveness:

Benefits/Cost Component (2018\$)	PY11 Actual
TRC NPV Benefits	\$1,241,244
TRC NPV Costs	\$389,499
TRC Net Benefits	\$851,745
TRC Benefit/Cost Ratio	3.19

2.3 Commercial/Industrial Program Summary

During PY11, the UGI Electric EE&C portfolio offered the C&I Custom Incentive Program to commercial and industrial customers. As outlined in tables 8-10, this program was cost-effective, with a TRC BCR of 2.74 and \$1,617,566 in net benefits.

Spending on the commercial portfolio was \$516,270, which was 54% of budget, while savings were 3,673 MWh, which was 64% of budget.

Table 8. Commercial/Industrial Program Actuals:

Program	Projects	Energy Savings MWh	NPV Benefits (2018\$)	NPV Costs (2018\$)	TRC Value
C&I Custom Incentive	15	3,673	\$2,546,460	\$928,894	2.74
Total	15	3,673	\$2,546,460	\$928,894	2.74

Table 9. Commercial Savings and Program Costs:

Benefits/Cost Component	C&I Custom Incentive
Savings (MWh)	3,673
Capacity Savings (MW)	0.777
Total Resource Cost	\$1,308,662
Direct Participant Costs	\$792,392
Direct Utility Costs	\$516,270
Customer Incentives	\$182,090
Marketing	\$2,500
Administration	\$331,680

Table 10. Commercial/Industrial Program Cost-Effectiveness:

Benefits/Cost Component (2018\$)	C&I Custom Incentive
TRC NPV Benefits	\$2,546,460
TRC NPV Costs	\$928,894
TRC Net Benefits	\$1,617,566
TRC Benefit/Cost Ratio	2.74

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 or to switch from less efficient electric appliances to more efficient natural gas appliances.
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 3.02 and provided \$395,329 in net benefits in PY11 (as shown in Tables 11-13 below).

Table 11. Program Participation:

Total Measures		
Measure	PY11 Actual	PY11 Budget
Central Air Conditioner	7	37
Room AC Unit	53	178
Smart Thermostat	27	100
Ductless Mini Split Heat Pump	296	85
Clothes Washer	56	178
Dishwasher	105	182
Refrigerator	119	247
Dehumidifier	55	82
Pool Pump (in-ground)	7	0
Gas high efficiency central heat (from electric heating)	9	20
Total	734	1,109

Table 12. Program Savings and Costs:

Benefits/Cost Component	PY11 Actual	PY11 Budget
Savings (MWh)	1,214	645
Capacity Savings (MW)	0.060	0.044
Total Resource Cost	\$265,508	\$364,140
Direct Participant Costs	\$90,895	\$117,290
Direct Utility Costs	\$174,614	\$246,850
Customer Incentives	\$119,100	\$84,750
Marketing	\$20,029	\$24,000
Administration	\$35,485	\$138,100

Table 13. Program Cost-Effectiveness:

TRC Test (2018\$)	PY11 Actual
TRC NPV Benefits	\$590,974
TRC NPV Costs	\$195,646
TRC Net Benefits	\$395,329
TRC Benefit/Cost Ratio	3.02

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 4th through 12th 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 schedule conflicts, 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:

The CSP for this program registered participating schools, facilitated a presentation to students, and distributed energy efficiency toolkits that 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 Phase III, NEF expanded the program offering to high school students partnering with 44 teachers while presenting to ten different schools (grades 4th-12th) within the UGI Electric territory. Once the presentations were completed, 1,558 energy efficiency toolkits were distributed to the students, including students who participated virtually. The School Energy Education Program continued to be very cost-effective with a TRC BCR of 6.43 and net benefits of \$473,065, including gas and water savings in addition to the electric savings.

Table 14. Program Participation:

Total Measures		
Measure	PY11 Actual	PY11 Budget
Innovation Kit (High School)	477	450
Take Action Kit (Middle School)	1,081	1,000
Total Kits	1,558	1,450

Table 15. Program Savings and Costs:

Benefits/Cost Component	School Energy Education Program	
	PY11 Actual	PY11 Budget
Savings (MWh)	381	246
Capacity Savings (MW)	0.040	0.031
Total Resource Cost	\$123,778	\$124,850
Direct Participant Costs	\$0	\$0
Direct Utility Costs	\$123,778	\$124,850
Customer Incentives	\$96,547	\$94,850
Marketing	\$2,476	\$5,000
Administration	\$24,756	\$25,000

Table 16. Program Cost-Effectiveness:

TRC Test (2018\$)	PY11 Actual
TRC NPV Benefits	\$560,218
TRC NPV Costs	\$87,153
TRC Net Benefits	\$473,065
TRC Benefit/Cost Ratio	6.43

3.3 Residential Low-Income Program

(Low-Income Customers)

Program Objectives:

The objectives of the Residential Low-Income Program included:

1. Providing UGI Electric’s confirmed low-income customers with an array of no-cost energy-saving equipment and/or education to help reduce their energy costs, such as the direct installation of HPWHs, ENERGY STAR smart thermostats, and additional and/or different measures than those offered through the Company’s Low-Income Usage Reduction Program (“LIURP”);
2. Achieving high customer satisfaction through impactful program offerings; and
3. Achieving a total reduction in energy use of 124 MWh over the life of the Phase III EE&C Plan.

Program Description:

Through the Residential Low-Income Program, UGI Electric offers a direct installation, at no cost to the participant, of an ENERGY STAR HPWH, smart thermostats, and additional and/or different measures than those offered through the Company’s LIURP to eligible low-income customer residents.

Program Review:

The Residential Low-Income Program launched on June 1, 2020. The UGI Electric EE&C team partnered with CBOs Agency for Community EmPOWERment (ACE) of Northeastern PA (NEPA) and the Commission on Economic Opportunity (CEO) to identify eligible participants and perform customer installations. The program completed ten HPWHs and one smart thermostat installation. The program was cost-effective, as the TRC BCR was 1.22 and net benefits were \$5,190. See Tables 17-19 below.

Table 17. Program Participation:

Total Measures		
Measure	PY11 Actual	PY11 Budget
ENERGY STAR Smart Thermostat	10	9
Heat Pump Water Heater	1	9
Total	11	18

Table 18. Program Savings and Costs:

Benefits/Cost Component	Residential Low-Income Program	
	PY11 Actual	PY11 Budget
Savings (MWh)	24	31
Capacity Savings (MW)	0.018	0.016
Total Resource Cost	\$31,400	\$35,000
Direct Participant Costs	\$0	\$0
Direct Utility Costs	\$31,400	\$35,000
Customer Incentives	\$31,400	\$31,500
Marketing	\$0	\$1,000
Administration	\$0	\$2,500

Table 19. Program Cost-Effectiveness:

TRC Test (2018\$)	PY11 Actual
TRC NPV Benefits	\$28,668
TRC NPV Costs	\$23,477
TRC Net Benefits	\$5,190
TRC Benefit/Cost Ratio	1.22

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 \$75 were paid to customers who recycled eligible refrigerators and freezers, and \$50 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:

ARCA Recycling, 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.

After the program was on a brief pause in PY10, the program rebounded in PY11 and 580 units were recycled, which was 93% of the goal. These results were driven by the strong desire of customers to recycle room air conditioning units. Despite these results, the program was not cost-effective, as the TRC BCR was 0.80 and net benefits were (\$14,888). See Tables 20-22 below.

Table 20. Program Participation:

Total Measures		
Measure	PY11 Actual	PY11 Budget
Fridge Recycling	321	435
Freezer Recycling	42	110
Room AC Recycling	165	55
Dehumidifier Recycling	52	25
Total	580	625

Table 21. Program Savings and Costs:

Benefits/Cost Component	Appliance Recycling Program	
	PY11 Actual	PY11 Budget
Savings (MWh)	295	635
Capacity Savings (MW)	0.051	0.087
Total Resource Cost	\$105,441	\$140,400
Direct Participant Costs	\$0	\$0
Direct Utility Costs	\$105,441	\$140,400
Customer Incentives	\$38,075	\$28,850
Marketing	\$16,758	\$50,000
Administration	\$50,608	\$61,550

Table 22. Program Cost-Effectiveness:

TRC Test (2018\$)	PY11 Actual
TRC NPV Benefits	\$61,384
TRC NPV Costs	\$76,272
TRC Net Benefits	(\$14,888)
TRC Benefit/Cost Ratio	0.80

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:

Agency for Community EmPOWERment (ACE) of Northeastern PA (NEPA) and the Commission on Economic Opportunity (CEO) 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 LIURP. 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 PY11, the CBOs made 215 outbound calls, 22 site visits, and sent out 400 direct mail pieces. The CBO Marketing Program spent \$9,997 on marketing related activities compared to a budget of \$10,000 (as shown in Tables 23 and 24 below).

Table 23. Program Savings and Costs:

Benefits/Cost Component	CBO Outreach Program	
	PY11 Actual	PY11 Budget
Savings (MWh)	0	0
Capacity Savings (MW)	0.000	0.000
Total Resource Cost	\$9,997	\$10,000
Direct Participant Costs	\$0	\$0
Direct Utility Costs	\$9,997	\$10,000
Customer Incentives	\$0	\$0
Marketing	\$9,997	\$10,000
Administration	\$0	\$0

Table 24. Program Cost-Effectiveness:

TRC Test (2018\$)	PY11 Actual
TRC NPV Benefits	\$0
TRC NPV Costs	\$6,950
TRC Net Benefits	(\$6,950)
TRC Benefit/Cost Ratio	0.00

4 COMMERCIAL PROGRAMS

4.1 C&I Custom Incentive Program

(Commercial/Industrial Customers)

Program Objectives:

The objectives of the 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 ("CHP") applications.
7. Obtaining approximately 225 projects through May 2024, with a total energy reduction of approximately 20,250 MWh.

Program Description:

The C&I 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.

Due to higher-than-anticipated average project size during the first two years of Phase III, the program exhausted all of its Phase III funding in January 2022, approximately halfway through the phase. To prevent program shutdown, UGI Electric filed a petition for additional funding, which was approved by the PUC on June 16, 2022. As a consequence of these events, the program was essentially paused for the last five months of PY10 and the first three months of PY11. Prospective projects were collected on a waitlist, but the program was not actively promoted during this period.

Further, the PUC-approved petition also adjusted program savings and spending goals so that the overperformance in PY8 and PY9 would be accounted for in the PY10, PY11, and PY12 goals. Thus, the PY11 performance of 3,673 MWh saved and \$182,090 in customer incentives represents 64% and 56%, respectively, of the modified goals; however, they would have represented 186% and 92%, respectively, of the program's original goals.

In total, 15 projects were completed in PY11, 8 of them by small C&I customers and 7 by large C&I customers. The program was cost-effective with a TRC BCR of 2.74, and net benefits of \$1,617,566. None of the custom projects that were completed in PY11 involved CHP.

Finally, in the Phase III Plan, UGI Electric agreed to limit customer incentives to \$100 per first-year MWh saved, and non-incentive spending to \$110 per first-year MWh saved, over the five-year term of Phase III. As indicated in Table 28, the program is well within compliance with these targets.

Table 25. Program Budget and Actuals:

Total Measures		
Projects	PY11 Actual	PY11 Budget
Large CI Project	7	18
Small CI Project	8	36
Total	15	54

Table 26. Program Savings and Costs:

Benefits/Cost Component	C&I Custom Incentive Program	
	PY11 Actual	PY11 Budget
Savings (MWh)	3,673	5,760
Capacity Savings (MW)	0.777	0.864
Total Resource Cost	\$1,308,662	\$1,793,612
Direct Participant Costs	\$792,392	\$837,252
Direct Utility Costs	\$516,270	\$956,360
Customer Incentives	\$182,090	\$325,800
Marketing	\$2,500	\$20,000
Administration	\$331,680	\$610,560

Table 27. Program Cost-Effectiveness:

TRC Test (2018\$)	PY11 Actual
TRC NPV Benefits	\$2,546,460
TRC NPV Costs	\$928,894
TRC Net Benefits	\$1,617,566
TRC Benefit/Cost Ratio	2.74

Table 28. Program Spending per First-Year MWh Saved:

	PY11	Phase III Cumulative
Incentive Spending/MWh	\$49.58	\$61.67
Non-Incentive Spending/MWh	\$90.98	\$78.39