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August 28, 2019

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 II of its
Energy Efficiency and Conservation Plan
Docket No. M-2015-2477174**

Dear Secretary Chiavetta:

Enclosed for filing on behalf of UGI Utilities, Inc. – Electric Division (“UGI Electric”) is the Report for the period June 1, 2018 through May 31, 2019, Program Year 7, and final year for Phase II, 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,

A handwritten signature in blue ink, appearing to read 'Danielle Jouenne', is written over a horizontal line.

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

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Petition of UGI Utilities, Inc. – Electric
Division for Approval of Phase II of its
Energy Efficiency and Conservation Plan

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Docket No: M-2015-2477174

CERTIFICATE OF SERVICE

I hereby certify that I have, this 28th day of August 2019, 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):

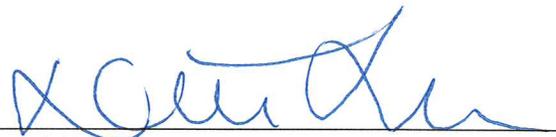
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Report to the Pennsylvania Public Utility Commission

UGI Utilities, Inc. – Electric Division
Energy Efficiency and Conservation Plan Program Year 7
(June 1, 2018-May 31, 2019)

Prepared by UGI Electric
Filing Date: August 28, 2019

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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, 2019.¹

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, which would be 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.

¹ 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 7 (June 1, 2018 through May 31, 2019), which was the final year of Phase II. 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 7 resulted in a TRC value of **2.56** for residential customers and **1.90** for Commercial/Industrial customers. When accounting for administrative overhead, the overall portfolio TRC value was **1.94**.

1.1 Program Year Highlights

- Program Year 7 was the final year of the Phase II EE&C Plan.
- UGI Electric exceeded the Phase II EE&C Plan savings goals by 1,439 MWh, while remaining under budget by \$952,158.
- In Program Year 7, the C&I Custom Program exceeded Program Year 6’s energy savings by 498%, which was primarily driven by large new construction and lighting retrofit projects for Class 3 customers.
- The Appliance Rebate Program issued rebates for 144 ductless mini split units and was cost effective with a TRC BCR of 1.79.
- The Energy Efficient Lighting Program provided incentives for 81,305 LED lamps with 3,060 MWh of savings.
- The Home Energy Audit Program reached maximum participation of 260 assessments in November 2018.

2 OVERVIEW

UGI Electric constructed its Phase II EE&C Plan in accordance with the EE&C Secretarial Letter. The Company's Phase II EE&C Plan included a portfolio of energy efficiency, conservation, and consumption reduction measures, programs, and education initiatives. During Program Year 7, 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. Fuel Switching Program (Residential /Low Income Customers)
6. Home Energy Assessment Program (Residential Customers/Low Income Customers)
7. Low Income Water Heater Pilot Program (Low Income Customers)
8. Custom Incentive Program (Commercial/Industrial/Governmental Customers)
9. Fuel Switching Program (Small Commercial Customers)
10. Customer Energy Education Program (Residential)

These ten programs were designed to meet the goals and guidelines established in the Commission's Secretarial Letter. 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 7, the combined portfolio of residential and commercial/industrial programs maintained a positive TRC BCR.

2.1 Portfolio Summary

2.1.1 Program Year 7 Portfolio Summary

In summary, UGI Electric offered ten energy efficiency programs to approximately 62,000 customers within the service territory. The combined portfolio of programs had TRC Net Benefits of \$4,655,566, TRC BCR of 1.94, and total spending of \$2,230,980.

Table 1. Portfolio Savings and Costs:

Benefits/Cost Component	Residential	Commercial / Industrial	Portfolio Wide	Portfolio Total
Annual Savings (MWh)	4,385	7,503	N/A	11,889
Capacity Savings (MW)	0.539	1.167	N/A	1.706
Total Resource Cost	\$1,099,559	\$4,328,006	\$172,560	\$5,600,125
Direct Participant Costs	\$720,103	\$3,601,908	\$0	\$4,322,012
Direct Utility Costs	\$785,373	\$1,273,046	\$172,560	\$2,230,980
Customer Incentives	\$405,918	\$546,948	\$0	\$952,866
CSP Labor	\$329,718	\$726,098	\$172,560	\$1,228,376
CSP Materials and Supplies	\$4,456	\$0	\$0	\$4,456
Communications	\$45,282	\$0	\$0	\$45,282

Table 2. Portfolio Cost-Effectiveness:

Benefits/Cost Component (2016\$)	Residential	Commercial/ Industrial	Portfolio Wide	Portfolio Total
TRC NPV Benefits	\$1,940,440	\$7,651,133	\$0	\$9,591,572
TRC NPV Costs	\$757,188	\$4,029,235	\$149,583	\$4,936,006
TRC Net Benefits	\$1,183,252	\$3,621,897	(\$149,583)	\$4,655,566
TRC Benefit/Cost Ratio	2.56	1.90	0.00	1.94

2.1.2 Phase II Portfolio Summary (Program Years 4-7)

Table 3 highlights total Phase II performance compared to budget. Though Phase II officially ran from June 2016 – June 2019, the Commission approved the Company’s proposal to count the costs of continuing the Phase I EE&C programs toward the budgets established for the Company’s Phase II EE&C Plan and therefore Table 3 includes Program Years 4-7. When comparing actual results against goals for Phase II, UGI Electric spent only approximately 86% of the budget while achieving approximately 107% of the first-year MWh savings goals. Under the PUC-approved extension, individual year budgets for PY7 were not established. However, spending was maintained within the spending targets identified in the Phase II EE&C Plan.

Table 3. Phase II Performance to Plan:

Program	Spending (\$)			First Year Savings (MWh)		
	Actual	Budget	Difference	Actual	Projection	Difference
Appliance Rebates	\$487,892	\$422,825	(\$65,067)	654	605	(49)
School Energy	\$256,413	\$230,250	(\$26,163)	1,057	1,756	699
Energy Efficient	\$1,327,519	\$1,221,420	(\$106,099)	7,600	3,465	(4,135)
Appliance Recycling	\$172,947	\$361,500	\$188,553	1,282	2,509	1,227
Fuel Switching	\$90,233	\$179,670	\$89,437	999	741	(258)
Home Energy	\$222,257	\$411,000	\$188,743	309	586	277
Low Income Water	\$7,803	\$22,500	\$14,697	9	51	42
Customer Education	\$170,579	\$163,800	(\$6,779)	-	-	-
Residential Total	\$2,735,643	\$3,012,965	\$277,322	11,909	9,713	(2,196)
Custom Incentive	\$1,954,142	\$2,250,360	\$296,218	10,544	9,423	(1,121)
HVAC Tune-Up	\$241,490	\$379,725	\$138,235	484	2,004	1,520
Fuel Switching	\$3,011	\$122,820	\$119,809	17	375	358
Customer Education	\$9,117	\$16,200	\$7,083	-	-	-
Commercial/Industrial	\$2,207,760	\$2,769,105	\$561,345	11,045	11,802	757
Internal Costs	\$861,509	\$975,000	\$113,491	-	-	-
Portfolio Total	\$5,804,912	\$6,757,070	\$952,158	22,954	21,515	(1,439)

2.2 Residential Program Summary

During Program Year 7, the UGI Electric EE&C Portfolio offered eight different programs, (including the Customer Education Program) to residential customers. As outlined below, UGI Electric’s residential sector programs were cost-effective, with a TRC BCR of 2.56 and approximately \$1,183,252 in net benefits.

Spending on the residential portfolio was \$785,373, which was within PUC-approved program budgets.

Table 4. Residential Program Participation and Energy Savings:

Program	Participation	Energy Savings MWh	NPV Benefits	NPV Costs	TRC Value
Appliance Rebates	1,159	252	\$277,307	\$154,928	1.79
School Energy Education	1,367	309	\$402,040	\$64,025	6.28
Energy Efficient Lighting	81,305	3,060	\$873,736	\$317,908	2.75
Appliance Recycling	383	381	\$208,311	\$46,028	4.53
Residential Fuel Switching	19	206	\$80,494	\$47,044	1.71
Home Energy Assessment	260	176	\$98,552	\$90,774	1.09
Low Income Water Heater Pilot	0	0	\$0	\$0	0
Customer Education	0	0	\$0	\$36,480	0
Total	84,493	4,385	\$1,940,440	\$757,188	2.56

Table 5. Residential Program Savings and Costs:

Benefits/Cost Component	Appliance Rebate	School Energy Education	Energy Efficient Lighting	Appliance Recycling	Fuel Switching	Home Energy Assessment	Low Income Water Heater Pilot	Customer Education	Total
Annual Savings (MWh)	252	309	3,060	381	206	176	0	0	4,385
Capacity Savings (MW)	0.074	0.034	0.353	0.058	0.001	0.020	0.000	0.000	0.539
Total Resource Cost	\$178,726	\$83,113	\$583,550	\$53,098	\$54,270	\$104,717	\$0	\$42,084	\$1,099,559
Direct Participant Costs	\$146,399	\$70,486	\$434,079	\$16,980	\$52,160	\$0	\$0	\$0	\$720,103
Direct Utility Costs	\$134,482	\$83,113	\$349,708	\$53,098	\$18,170	\$104,717	\$0	\$42,084	\$785,373
Customer Incentives	\$102,155	\$70,486	\$200,237	\$16,980	\$16,060	\$0	\$0	\$0	\$405,918
CSP Labor	\$31,417	\$11,480	\$145,875	\$36,118	\$110	\$104,717	\$0	\$0	\$329,718
CSP Materials and Supplies	\$860	\$0	\$3,596	\$0	\$0	\$0	\$0	\$0	\$4,456
Communications	\$50	\$1,148	\$0	\$0	\$2,000	\$0	\$0	\$42,084	\$45,282

Table 6. Residential Program Cost Effectiveness:

Benefits/Cost Component (2016\$)	PY7 Actual
TRC NPV Benefits	\$1,940,440
TRC NPV Costs	\$757,188
TRC Net Benefits	\$1,183,252
TRC Benefit/Cost Ratio	2.56

2.3 Commercial/Industrial Program Summary

During Program Year 7, the UGI Electric EE&C portfolio offered two different programs to commercial and industrial customers. UGI Electric’s commercial sector programs were cost-effective, with a TRC BCR of 1.90 and approximately \$3,621,897 in net benefits. Spending on the commercial portfolio was \$1,273,046, which was within PUC-approved program budgets.

Table 7. Commercial/Industrial Program Actuals:

Program	Projects	Energy Savings MWh	NPV Benefits	NPV Costs	TRC Value
Custom Incentive	38	7,486	\$7,636,525	\$4,024,633	1.90
Fuel Switching	2	17	\$14,608	\$4,602	3.17
Total	40	7,503	\$7,651,133	\$4,029,235	1.90

Table 8: Commercial Savings and Program Costs:

Benefits/Cost Component	C&I Custom Incentive	Small Commercial Fuel Switching	Total
Annual Savings (MWh)	7486	17	7,503
Capacity Savings (MW)	1.167	0.000	1.167
Total Resource Cost	\$4,322,697	\$5,309	\$4,328,006
Direct Participant Costs	\$3,596,610	\$5,298	\$3,601,908
Direct Utility Costs	\$1,270,035	\$3,011	\$1,273,046
Customer Incentives	\$543,948	\$3,000	\$546,948
CSP Labor	\$726,087	\$11	\$726,098
CSP Materials and Supplies	\$0	\$0	\$0
Communications	\$0	\$0	\$0

Table 9. Commercial/Industrial Program Cost Effectiveness:

Benefits/Cost Component (2016\$)	PY7 Actual
TRC NPV Benefits	\$7,651,133
TRC NPV Costs	\$4,029,235
TRC Net Benefits	\$3,621,897
TRC Benefit/Cost Ratio	1.90

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 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 approximately 4,927 installed measures through 2019, with total savings of approximately 605 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, water heating 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 1.79 and provided \$122,379 in net benefits in Program Year 7.

Table 10. Program Participation:

Total Measures	
Measure	PY7 Actual
Central Air Conditioners	15
Clothes Washer	222
Room Air Conditioners	91
Programmable Thermostats	27
Air-Source Heat Pumps	16
Ductless Mini-Split Heat Pumps	144
Dishwasher	281
Refrigerator	243
Dehumidifier	120
Total	1,159

Table 11. Program Savings and Costs:

	Appliance Rebate Program
Benefits/Cost Component	PY7 Actual
Savings (MWh)	252
Capacity Savings (MW)	0.074
Total Resource Cost	\$178,726
Direct Participant Costs	\$146,399
Direct Utility Costs	\$134,482
Customer Incentives	\$102,155
CSP Labor	\$31,417
CSP Materials and Supplies	\$860
Communications	\$50

Table 12. Program Cost Effectiveness:

Benefits/Cost Component	PY7 Actual
TRC NPV Benefits	\$277,307
TRC NPV Costs	\$154,928
TRC Net Benefits	\$122,379
TRC Benefit/Cost Ratio	1.79

3.2 School Energy Education Program

(Residential/Low Income Customers)

Program Objectives:

The objectives of the School Energy Education Program included:

1. Providing customers with opportunities to reduce their energy costs and increase their energy efficiency
2. Educating students on various energy types, energy generation and consumption, home energy use, and ways to increase energy efficiency in a home
3. Distributing energy efficiency toolkits to 4th through 8th grade students in UGI Electric's service territory
4. Obtaining participation of approximately 2,850 students through 2019, with total savings of approximately 1,756 MWh

Program Description:

The School Energy Education Program was designed to educate 4th through 8th grade students on various energy types, energy consumption and generation, home energy use, and ways to save energy.

Think! Energy was typically 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 to create a customized report with program results for UGI Electric.

For Program Year 7, NEF partnered with 35 teachers while presenting to eight different schools (grades 4th-8th) within the UGI Electric territory. Once the presentations were completed, 1,367 energy efficiency toolkits were distributed to the students. The School Energy Education Program continued to be very cost effective with a TRC BCR of 6.28 and net benefits of \$338,015, including gas and water savings in addition to the electric savings.

Table 13. Program Participation:

Total Measures	
Measure	PY7 Actual
Energy Efficiency Toolkit	1,367
Total	1,367

Table 14. Program Savings and Costs:

	School Energy Education Program
Benefits/Cost Component	PY7 Actual
Savings (MWh)	309
Capacity Savings (MW)	0.034
Total Resource Cost	\$83,113
Direct Participant Costs	\$70,486
Direct Utility Costs	\$83,113
Customer Incentives	\$70,486
CSP Labor	\$11,480
CSP Materials and Supplies	\$0
Communications	\$1,148

Table 15. Program Cost Effectiveness:

Benefits/Cost Component	PY7 Actual
TRC NPV Benefits	\$402,040
TRC NPV Costs	\$64,025
TRC Net Benefits	\$338,015
TRC Benefit/Cost Ratio	6.28

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. Developing and executing strategies aimed at transforming the market for ENERGY STAR-qualified LEDs with the goal of increasing the number of qualified products purchased and installed in UGI Electric's service territory
3. Increasing consumer awareness and understanding of the energy-efficiency of LEDs
4. Promoting consumer awareness and understanding of the ENERGY STAR label
5. Distributing approximately 91,800 LEDs through 2019, with total savings of approximately 3,465 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. LED distribution to UGI Electric's Customer Assistance Program ("CAP") participants. UGI Electric distributed a package of LEDs to CAP participants each year at no cost to the customer, utilizing the same CSP as the retail upstream lighting incentive

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.

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. The Energy Efficient Lighting Program was cost effective with a TRC BCR of 2.75 and net benefits of \$555,828.

Table 16. Program Participation:

Total LEDs	
Measure	PY7 Actual
LED Purchase	74,171
LED Give-Away*	7,134
Total LEDs	81,305

*This number includes the Customer Assistance Program (CAP) recipients and other give-away events.

Table 17. Program Savings and Costs:

Energy Efficient Lighting Program	
Benefits/Cost Component	PY7 Actual
Savings (MWh)	3,060
Capacity Savings (MW)	0.353
Total Resource Cost	\$583,550
Direct Participant Costs	\$434,079
Direct Utility Costs	\$349,708
Customer Incentives	\$200,237
CSP Labor	\$145,875
CSP Materials and Supplies	\$3,596
Communications	\$0

Table 18. Program Cost Effectiveness:

Benefits/Cost Component	PY7 Actual
TRC NPV Benefits	\$873,736
TRC NPV Costs	\$317,908
TRC Net Benefits	\$555,828
TRC Benefit/Cost Ratio	2.75

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. Recycling approximately 2,250 refrigerators and freezers and 600 window air conditioning units through 2019, with total savings of approximately 2,509 MWh

Program Description:

This Program provided free pick-up and disposal of old, inefficient refrigerators, freezers, and room air conditioners. Units 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 recycle eligible refrigerators and freezers, and \$15 for eligible room air conditioners.

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.

The program was very cost effective in Program Year 7, with a TRC BCR of 4.53 and net benefits of \$162,283.

Table 19. Program Participation:

Total Measures	
Measure	PY7 Actual
Refrigerators and Freezers	321
Room Air Conditioners	62
Total	383

Table 20. Program Savings and Costs:

	Appliance Recycling Program
Benefits/Cost Component	PY7 Actual
Savings (MWh)	381
Capacity Savings (MW)	0.058
Total Resource Cost	\$53,098
Direct Participant Costs	\$16,980
Direct Utility Costs	\$53,098
Customer Incentives	\$16,980
CSP Labor	\$36,118
CSP Materials and Supplies	\$0
Communications	\$0

Table 21. Program Cost Effectiveness:

Benefits/Cost Component	PY7 Actual
TRC NPV Benefits	\$208,311
TRC NPV Costs	\$46,028
TRC Net Benefits	\$162,283
TRC Benefit/Cost Ratio	4.53

3.5 Fuel Switching Program

(Residential/Low Income Customers)

Program Objectives:

The objectives of the Fuel Switching Program included:

1. Contributing to UGI Electric's energy savings goals
2. Encouraging a "full fuel cycle" approach to energy efficiency
3. Obtaining participation of approximately 264 customers through 2019, with total savings of approximately 741 MWh

Program Description:

UGI Electric encouraged energy efficiency on a total fuel cycle basis by promoting the use of natural gas appliances, where such appliances were more cost-effective under the TRC test than electric counterparts.

Natural gas appliances such as furnaces, water heaters, and clothes dryers use less energy and emit less carbon than electric appliances. In addition, natural gas appliances have an annual operating cost advantage over their electric counterparts.

Fuel Switching Program Components:

- Water heating fuel switching (natural gas and solar thermal)
- Space heating fuel switching
- Clothes dryer fuel switching

Program Review:

EFI, the CSP for this program, managed customer intake, eligibility verification, rebate processing, and tracking. 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, 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, social media, and HVAC Contractor outreach to encourage residential customers to consider switching to more economical natural gas space heating, water heating, and clothes drying.

The Fuel Switching Program achieved a TRC BCR of 1.71 and provided \$33,450 in net benefits.

Table 22. Program Participation:

Total Measures	
Measure	PY7 Actual
Water Heater Fuel Switching	3
Water Heater Solar	0
Dryer Fuel Switching	7
Space Heating Fuel Switching	9
Total	19

Table 23. Program Savings and Costs:

	Residential Fuel Switching Program
Benefits/Cost Component	PY7 Actual
Savings (MWh)	206
Capacity Savings (MW)	0.001
Total Resource Cost	\$54,270
Direct Participant Costs	\$52,160
Direct Utility Costs	\$18,170
Customer Incentives	\$16,060
CSP Labor	\$110
CSP Materials and Supplies	\$0
Communications	\$2,000

Table 24. Program Cost Effectiveness:

Benefits/Cost Component	PY7 Actual
TRC NPV Benefits	\$80,494
TRC NPV Costs	\$47,044
TRC Net Benefits	\$33,450
TRC Benefit/Cost Ratio	1.71

3.6 Home Energy Assessment Program

(Residential Sector/Low Income Customers)

Program Objectives:

The objectives of the Residential Home Energy Assessment Program included:

1. Providing customers with opportunities to reduce their energy costs and increase their energy savings;
2. Encouraging customers to install high-efficiency HVAC, lighting equipment, and electric appliances;
3. Providing customers with energy-saving solutions and home energy audits;
4. Providing immediate energy savings to customers by installing energy saving measures; and
5. Achieving approximately 780 audits through 2019, with total savings of approximately 586 MWh.

Program Description:

The Home Energy Assessment Program provided a home energy assessment and energy reducing direct install measures to UGI Electric customers. During the assessment, the CSP educated the customer on: (1) how to save money based on the customer's usage; and (2) the benefits of upgrading to energy-efficient equipment. In addition, the Home Energy Assessment Program provided immediate energy savings to the customer in the form of direct install energy saving measures. The measures were provided at no cost to the participating customer and included the installation of up to 10 LEDs, two faucet aerators, one smart strip plug, water pipe insulation, and water heater thermostat setback.

Program Review:

Franklin Energy Services was the qualified CSP who provided customer intake, eligibility verification, customer invoicing, marketing and program participation for the Home Energy Assessment Program.

Marketing to residential customers was managed through various marketing channels, including email, bill inserts, and digital advertising.

On December 21, 2017, UGI Electric received approval from the PUC to waive the customer fee of \$50 per home energy assessment, up to a maximum of 260 assessments per program year.

For PY7, the program continued to be offered at no cost to customers until November 2018 at which point UGI Electric reached its maximum number of allowed assessments of 260. The total cost per audit, including administration and customer contributions, was approximately \$400. The Home Energy Assessment Program achieved 176 MWh in first-year electric savings. The program was also cost effective for the year, with a TRC BCR of 1.09, and net benefits of \$7,778. Details for the PY7 costs, savings, and cost-effectiveness are reflected in the tables below.

Table 25. Program Participation:

Total Assessments	
Measure	PY7 Actual
Home Energy Assessment	260

Table 26. Program Savings and Costs:

	Home Energy Assessment Program
Benefits/Cost Component	PY7 Actual
Savings (MWh)	176
Capacity Savings (MW)	0.020
Total Resource Cost	\$104,717
Direct Participant Costs	\$0
Direct Utility Costs	\$104,717
Customer Incentives	\$0
CSP Labor	\$104,717
CSP Materials and Supplies	\$0
Communications	\$0

Table 27. Program Cost Effectiveness:

Benefits/Cost Component	PY7 Actual
TRC NPV Benefits	\$98,552
TRC NPV Costs	\$90,774
TRC Net Benefits	\$7,778
TRC Benefit/Cost Ratio	1.09

3.7 Low Income Water Heater Pilot Program

(Residential Sector/Low Income Customers)

Program Objectives:

The objectives of the Residential Low-Income Water Heater Pilot Program included:

1. Providing 15 low income customers participating in UGI Electric’s Low-Income Usage Reduction Program (“LIURP”) with an ENERGY STAR rated natural gas water heater where natural gas was already present and their current electric water heaters were less efficient
2. Providing LIURP participants with opportunities to reduce their energy costs and increase their energy efficiency
3. Achieving approximately 15 installed measures through 2019, with total savings of approximately 50 MWh.

Program Description:

The program provided 15 low income customers who participate in UGI Electric’s LIURP with a free high efficiency natural gas water heater where natural gas was present, and their current electric water heater was not efficient. LIURP offers free energy conservation measures to high usage, low income households to help make energy bills more affordable. UGI Electric’s EE&C Staff partnered with UGI Electric’s LIURP Team to offer this energy saving measure to prequalified LIURP customers.

Program Review:

In PY7, zero customers participated in the low-income water heater pilot program. The TRC BCR and the impact on net benefits were zero. The Company will not offer this program in Phase III.

Table 28. Program Participation:

Total Measures	
Measure	PY7 Actual
Gas Water Heater	0
Total	0

Table 29. Program Savings and Costs:

	Low Income Water Heater Pilot
Benefits/Cost Component	PY7 Actual
Savings (MWh)	0
Capacity Savings (MW)	0
Total Resource Cost	\$0
Direct Participant Costs	\$0
Direct Utility Costs	\$0
Customer Incentives	\$0
CSP Labor	\$0
CSP Materials and Supplies	\$0
Communications	\$0

Table 30. Program Cost Effectiveness:

Benefits/Cost Component	PY7 Actual
TRC NPV Benefits	\$0
TRC NPV Costs	\$0
TRC Net Benefits	\$0
TRC Benefit/Cost Ratio	\$0

3.8 Customer Education

(Residential Sector/Low Income Customers)

Program Objectives:

The objectives of the Customer Education Program included:

1. Communicating conservation tips to UGI Electric customers
2. Emphasizing that there are many simple low-cost or no-cost steps to help residential homes become more energy efficient
3. Increasing awareness regarding specific rebate programs in which customers may be eligible to participate

Program Description:

UGI Electric utilized various forms of advertising, including www.ugi.com/savesmart to provide customers with information regarding energy saving tips, rebates, and customer applications.

Program Review:

In Program Year 7, UGI Electric conducted a comprehensive marketing campaign throughout its service territory, which featured email, social media, bill inserts, and digital advertising focused on energy conservation tips and rebate programs. UGI Electric retained a third-party vendor for design and enhanced social media targeted marketing. There were not any savings directly associated with these activities.

Table 31. Program Budget and Actuals:

	Customer Education Program
Benefits/Cost Component	PY7 Actual
Savings (MWh)	0
Capacity Savings (MW)	0
Total Resource Cost	\$42,084
Direct Participant Costs	\$0
Direct Utility Costs	\$42,084
Customer Incentives	\$0
CSP Labor	\$0
CSP Materials and Supplies	\$0
Communications	\$42,084

Table 32. Program Cost Effectiveness:

Benefits/Cost Component	PY7 Actual
TRC NPV Benefits	0
TRC NPV Costs	\$36,480
TRC Net Benefits	(\$36,480)
TRC Benefit/Cost Ratio	0

4 COMMERCIAL PROGRAMS

4.1 Custom Incentive Program

(Commercial/Industrial Customers)

Program Objectives:

The objectives of the Custom Incentive Program included:

1. Encouraging the installation of high-efficiency equipment not included in UGI Electric's other EE&C Programs by Commercial & Industrial (C&I), Government, Non-Profit, & Educational (GNE) customers in new and existing facilities
2. Encouraging equipment optimization, 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 electric energy efficient equipment
5. Supporting emerging technologies and non-typical efficiency solutions in cost-effective applications
6. Obtaining approximately 60 participants through 2019, with total savings of approximately 9,423 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, 38 projects were completed, 19 of them by Class 2 customers and the remaining from Class 3 customers. The program was very cost effective with a TRC BCR of 1.90, and net benefits of \$3,611,892.

The energy savings of 7,486 MWh was a significant increase over the prior year and was driven, in part, by new construction warehouses and lighting retrofit projects for some Class 3 customers. Franklin Energy is currently working to encourage further participation in this program in Phase III. None of the Custom Projects that were completed involved CHP.

Table 33. Program Budget and Actuals:

Total Projects	
Measure	PY7 Actual
Custom Projects	38
Total	38

Table 34. Program Savings and Costs:

	C&I Custom Incentive Program
Benefits/Cost Component	PY7 Actual
Savings (MWh)	7,486
Capacity Savings (MW)	1.167
Total Resource Cost	\$4,322,697
Direct Participant Costs	\$3,596,610
Direct Utility Costs	\$1,270,035
Customer Incentives	\$543,948
CSP Labor	\$726,087
CSP Materials and Supplies	\$0
Communications	\$0

Table 35. Program Cost Effectiveness:

Benefits/Cost Component	PY7 Actual
TRC NPV Benefits	\$7,636,525
TRC NPV Costs	\$4,024,633
TRC Net Benefits	\$3,611,892
TRC Benefit/Cost Ratio	1.90

4.2 Small Commercial Fuel Switching Program

(Small Commercial Sector)

Program Objective:

The Small Commercial Fuel Switching program had several objectives:

1. Contributing to UGI Electric's energy savings goals
2. Encouraging a "full fuel cycle" approach to energy efficiency
3. Obtaining participation of approximately 99 customers through 2019, with total savings of approximately 375 MWh

Program Description:

UGI Electric encouraged energy efficiency on a total fuel cycle basis by promoting the use of natural gas appliances where such appliances were more cost-effective under the TRC test than electric counterparts.

Natural gas appliances such as furnaces, water heaters, and clothes dryers use less energy and emit less carbon than electric appliances. In addition, natural gas appliances have an annual operating cost advantage over their electric counterparts.

Fuel Switching Program Components:

- ENERGY STAR rated water heater (natural gas and solar thermal)
- ENERGY STAR rated natural gas furnace or boiler
- Natural Gas Clothes dryer fuel switching

Program Review:

EFI, the CSP for this program, managed customer intake, eligibility verification, rebate processing, and tracking. 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, as well as promotional, educational, trade ally support, and other administrative functions. There were two measures completed in Program Year 7. The program was cost effective with a TRC BCR of 3.17, and net benefits of \$10,005.

Table 36. Program Budget and Actuals:

Measure	PY7 Actual
Space Heating Fuel Switching	2
Total	2

Table 37. Program Savings and Cost:

	Small Commercial Fuel Switching Program
Benefits/Cost Component	PY7 Actual
Savings (MWh)	17
Capacity Savings (MW)	0
Total Resource Cost	\$5,309
Direct Participant Costs	\$5,298
Direct Utility Costs	\$3,011
Customer Incentives	\$3,000
CSP Labor	\$11
CSP Materials and Supplies	\$0
Communications	\$0

Table 38. Program Cost Effectiveness:

Benefits/Cost Component	PY7 Actual
TRC NPV Benefits	\$14,608
TRC NPV Costs	\$4,602
TRC Net Benefits	\$10,005
TRC Benefit/Cost Ratio	3.17