

17 North Second Street 12th Floor Harrisburg, PA 17101-1601 717-731-1970 Main 717-731-1985 Main Fax www.postschell.com

Devin Ryan

dryan@postschell.com 717-612-6052 Direct 717-731-1985 Direct Fax File #: 162080

August 31, 2016

VIA HAND DELIVERY

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: UGI Utilities, Inc. Electric Division Energy Efficiency and Conservation Plan Program Year 4 (June 1, 2015 - May 31, 2016) - 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, 2015 through May 31, 2016, Program Year 4 of UGI Electric's Energy Efficiency and Conservation Plan.

Respectfully submitted,

Devin Ryan

DTR/jl Enclosures

cc: Certificate of Service

Bureau of Technical Utility Services

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Report to the Pennsylvania Public Utility Commission

UGI Utilities, Inc. – Electric Division Energy Efficiency and Conservation Plan Program Year 4 (June 1, 2015-May 31, 2016)

> Prepared by UGI Electric Filing Date: August 31, 2016

Table of Contents

Introduction	
Overview	3
Appliance Rebate Program	3
School Energy Education Program	5
LED Lighting Campaign	
Appliance Recycling Program	8
Fuel Switching	10
Customer Energy Education	11
Residential Program Summary	12
Custom Incentive Program	14
HVAC Tune-up Program	15
Commercial/Industrial Program Summary	17
UGI Energy Efficiency Portfolio Summary	18

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 is voluntary, it is not subject to the same Act 129 energy and demand savings requirements as noted above. However, UGI Electric did use the Act 129 requirements as a guide when developing its EE&C Plan.

On April 9, 2015, UGI Electric filed a Petition to continue its Phase I EE&C Plan until its Phase II is approved ("Phase I Continuation Petition") at Docket No. M-2010-2210316. The Company filed the Phase I Continuation Petition because its Phase I EE&C Plan was set to expire on May 31, 2015, and its Phase II EE&C Plan may not be approved by that date. Under the Phase I Continuation Petition, all costs of continuing the Phase I EE&C programs would count toward and not exceed the budgets established for Plan Year 1 of Phase II.

On April 16, 2015, UGI Electric filed its Phase II EE&C Plan for approval by the PUC at Docket No. M-2015-2477174.

By its order entered May 19, 2015, the PUC approved the Company's Phase I Continuation Petition. Litigation over UGI Electric's Phase II EE&C Plan took longer than anticipated, and the PUC ultimately approved the Plan (as amended by settlement in the proceeding) by its order entered June 9, 2016. UGI Electric submitted its compliance Phase II EE&C Plan with the PUC on August 9, 2016. At the time of this report, the PUC has not yet approved UGI Electric's compliance filing.

The Phase II EE&C Plan is designed to expend no more than 2% of annual revenues for the 12-month period ended May 31, 2008, on an annual basis, which totals approximately \$7.5 million for the three-year duration of Phase II.

UGI Electric respectfully submits this report documenting the results of its EE&C Plan for Program Year 4 (June 1, 2015 through May 31, 2016). Even though Program Year 4 was impacted by a period of protracted litigation concerning the Phase II EE&C Plan, UGI believes the results set forth below represent a portfolio of cost-effective energy efficiency programs that benefit the customer through decreased energy costs.

Overview

UGI Electric has constructed its EE&C Plan in accordance with the EE&C Secretarial Letter. The Company's EE&C Plan includes a portfolio of energy efficiency, conservation, and consumption reduction measures, programs, and education initiatives. During Program Year 4, 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 (Residential /Low Income Customers)
- 4. Appliance Recycling Program (Residential/Low Income Customers)
- 5. Fuel Switching (Residential /Low Income Customers)
- 6. Custom Incentive Program (Commercial/Industrial/Governmental Customers)
- 7. HVAC Tune-up Program (Commercial/Industrial/Governmental Customers)
- 8. Customer Energy Education Program (Residential/Small Commercial Customers)¹

These eight programs were designed to meet the goals and guidelines established in the Commission's Secretarial Letter. All of the EE&C programs are voluntary and offer UGI Electric customers a wide range of energy efficiency and conservation measures to decrease electric consumption and, in turn, customer's annual energy costs. Due to the protracted length of litigation regarding approval of UGI Electric's Phase II EE&C Plan, customer participation was minimized in some of the programs; however, the overall portfolio still maintained a positive Total Resource Cost ("TRC") benefit-cost ratio.

RESIDENTIAL PROGRAMS:2

1. <u>Appliance Rebate Program</u> (Residential /Low Income Customers)

Program Objectives:

The objectives of the Residential Appliance Rebate Program include:

- 1. Provide customers with opportunities to reduce their energy costs and increase their energy efficiency
- 2. Encourage customers to install high-efficiency appliances
- 3. Encourage the use of high-efficiency/ENERGY STAR-rated equipment
- 4. Promote strategies that encourage and support market transformation for high-efficiency appliances and equipment

¹ For the purpose of this report, the Customer Energy Education Program is listed under the Residential Programs. However, on a monthly basis, costs are allocated to both Residential and Small Commercial Customer classes.

It should be noted that all Residential Sector programs also apply to governmental entities and the following non-profit entities: firehouses, ambulance providers, and senior centers.

5. Achieve approximately 4,927 installed measures through 2018, with a total reduction of approximately 605 MWh

Program Description:

The Appliance Rebate Program promotes the purchase and installation of a wide range of highefficiency equipment and provides customers with financial incentives to offset the higher purchase costs of energy-efficient equipment. Targeted equipment includes electric heating, cooling, water heating and various other appliances.

Program Review:

Blackhawk Engagement Solutions, the Conservation Service Provider ("CSP"), manages customer intake, eligibility verification, rebate processing, and program participation tracking for the Appliance Rebate program. Customers are required to submit an application with documentation of the equipment purchase(s) and installation(s) for verification and rebate processing. UGI Electric provides 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 is managed through various media and marketing channels to increase customer awareness in targeted areas. UGI Electric utilizes bill inserts and social media to encourage residential customers to purchase energy efficient appliances. Although the Appliance Rebate Program's TRC reflects a value less than 1.0 for Program Year 4, the overall UGI Electric EE&C Portfolio maintains a TRC value above 1.0, indicating the portfolio is cost effective.

Program Participation:

1 logium 1 urticipation.		
Measure	PY4-Actual	PY4-Budget
Central Air Conditioners	10	20
Clothes Washer	98	200
Room Air Conditioners	39	274
Heat Pump Water Heater	15	-
Programmable Thermostats	27	53
Air-Source Heat Pumps - SEER 15	10	11
Air-Source Heat Pumps - SEER 16	28	11
Ductless Mini-Split Heat Pumps	-	20
Dishwasher	128	364
Energy Star Refrigerator	112	587
Energy Star Dehumidifier	32	98
Energy Star Light Fixtures	3	-
Total	502	1,638

Program Savings and Costs:

Benefits/Cost Component	PY4-Actual		
Savings (MWh)	143		188
Capacity Savings (MW)	0.082		0.059
Total Resource Cost	\$ 153,234	\$	230,354
Direct Participant Costs	\$ 94,484	\$	175,854
Direct Utility Costs	\$ 98,541	\$	98,965
Customer Incentives	\$ 39,791		44,465
CSP Labor	\$ 58,750	\$	24,000
CSP Materials and Supplies	\$ -	\$	20,500
Communications	\$ -	\$	10,000

Program Cost Effectiveness:

TRC Test	PY4-Actual		PY4-Budget	
TRC NPV Benefits	\$ 88,233	\$	160,180	
TRC NPV Costs	\$ 153,234	\$	230,354	
TRC Net Benefits	\$ (65,001)	\$	(70,174)	
TRC Benefit/Cost Ratio	0.58		0.70	

2. School Energy Education Program (Residential /Low Income Customers)

Program Objectives:

The objectives of the School Energy Education Program include:

- 1. Provide customers with opportunities to reduce their energy costs and increase their energy efficiency
- 2. Educate students on various energy types, energy generation and consumption, home energy use, and ways to increase energy efficiency in a home
- 3. Distribute energy efficiency toolkits to 4th through 7th grade students in UGI Electric's service territory
- 4. Obtain participation of approximately 2,850 customers through 2018, with a total reduction of approximately 1,756 MWh

Program Description:

The School Energy Education Program is designed to educate 4th through 7th grade students on various energy types, energy consumption and generation, home energy use, and ways to save energy.

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

Students and teachers attend a one-hour presentation on energy efficiency. Under the direction of two National Energy Foundation ("NEF") professional instructors, students learn 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 custom-designed PowerPoint presentation guides the discussion, and hands-on learning activities are employed to build understanding among students.

Program Review:

National Energy Foundation (NEF), the CSP for this program, registers participating schools, facilitates a PowerPoint presentation to students, and distributes energy efficiency toolkits which contain various energy efficient measures. All participating students are asked to return a *Household Report Card* providing data on household behaviors and device installations. NEF compiles the information from the Household Report Card Scantron forms to create a customized report with program results for UGI Electric.

For Program Year 4, NEF partnered with twenty-five teachers while presenting to six different elementary schools (grades 4th-7th) within the UGI Electric territory. Once the presentations were completed, 1,004 energy efficiency toolkits were distributed to the students. The School Energy Education Program was very cost effective with a TRC of 3.56 for Program Year 4.

Program Participation:

Total Measures and Costs					
Measure PY4-Actual PY4-Budg					
Energy Efficiency Toolkit	1,004	925			
Total	1,004	925			

Program Savings and Costs:

Benefits/Cost Component	PY	4-Actual	PY.	4-Budget
Savings (MWh)		335		585
Capacity Savings (MW)		0.021		0.055
Total Resource Cost	\$	66,420	\$	75,125
Direct Participant Costs	\$	-	\$	
Direct Utility Costs	\$	66,420	\$	75,125
Customer Incentives	\$	51,164	\$	60,125
CSP Labor	\$	13,958	\$	13,000
CSP Materials and Supplies	\$	-	\$	-
Communications	\$	1,298	\$	2,000

Program Cost Effectiveness:

TRC Test	st PY4-Actual PY4-Bu		Y4-Budget	
TRC NPV Benefits	\$	236,425	\$	389,905
TRC NPV Costs	\$	66,420	\$	75,125
TRC Net Benefits	\$	170,005	\$	314,780
TRC Benefit/Cost Ratio		3.56		5.19

3. Energy Efficient Lighting (Residential/Low Income Customers)

Program Objectives:

The objectives of the Energy Efficient Lighting Program include:

- Provide a mechanism for customers to easily obtain discounted ENERGY STAR-qualified LEDs
- 2. Develop and execute 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. Increase consumer awareness and understanding of the energy-efficiency of LEDs
- 4. Promote consumer awareness and understanding of the ENERGY STAR label
- 5. Distribute approximately 91,800 LEDs through 2018, with a total reduction of approximately 3,465 MWh

Program Description:

The Energy Efficient Lighting Program encourages customers to purchase new ENERGY STARrated LED bulbs. The program has two components:

- 1. A retail upstream lighting incentive that significantly reduces the customer cost of ENERGY STAR LED bulbs
- 2. LED distribution to UGI Electric's Customer Assistance Program ("CAP") participants. UGI Electric distributes 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:

ECOVA, the CSP for this program, manages the upstream LED Campaign, 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. ECOVA targets a range of retailers throughout UGI Electric's territory. ECOVA also delivers free LEDs to low income residential customers who participate in CAP.

Marketing to residential customers is managed through various media and marketing channels to increase customer awareness in targeted areas. The marketing strategy includes a mix of social media and outreach events, some of which are focused primarily on low-income customers. In addition, UGI Electric utilizes bill inserts and online promotional pricing to encourage residential customers to purchase ENERGY STAR-rated LED bulbs. The Energy Efficient Lighting Program was very cost effective with a TRC of 2.23 for Program Year 4.

Program Participation:

<u>Total LEDs</u>					
Measure	PY4-Actual	PY4-Budget			
LED Purchase	20,976	22,000			
LED Give-Away *	6,300	6,700			
Total	27,276	28,700			

*This number includes the Customer Assistance Program (CAP) recipients and other low income Give-Away events.

Program Savings and Costs:

Benefits/Cost Component	PY4-Actual		PY4-Budget
Savings (MWh)	835		1,083
Capacity Savings (MW)	0.135		0.142
Total Resource Cost	\$ 354,980	\$	615,300
Direct Participant Costs	\$ 253,667	\$	545,300
Direct Utility Costs	\$ 205,398	\$	381,660
Customer Incentives	\$ 104,084	\$	311,660
CSP Labor	\$ 97,271	\$	55,000
CSP Materials and Supplies	\$ -	\$	8,000
Communications	\$ 4,043	\$	7,000

Program Cost Effectiveness:

TRC Test	P.	PY4-Actual		PY4-Budget	
TRC NPV Benefits	\$	792,156	\$	1,042,689	
TRC NPV Costs	\$	354,980	\$	615,300	
TRC Net Benefits	\$	437,176	\$	427,389	
TRC Benefit/Cost Ratio		2.23		1.69	

4. Appliance Recycling Program (Residential /Low Income Customers)

Program Objectives:

The objectives of the Appliance Recycling Program include:

- 1. Encourage 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. Reduce the use of secondary, inefficient appliances
- 3. Ensure appliances are disposed of in an environmentally responsible manner
- 4. Recycle approximately 2,250 refrigerators and freezers and 600 window air conditioning units through 2018, with a total reduction of approximately 2,509 MWh

Program Description:

During Program Year 4, an incentive of \$35 was offered to customers who turn in eligible appliances. The program provides free pick-up and disposal of old, inefficient refrigerators and freezers. Units must be between 10 and 30 cubic feet, plugged in and functioning when picked up in order to be eligible.

All units are disposed of in an environmentally responsible manner. This involves 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:

The Appliance Recycling Program was suspended on November 23, 2015. JACO, the original contracted CSP, is no longer in business.

UGI Electric hired a new CSP, Recleim LLC, as the qualified CSP to provide customer intake, eligibility verification, appliance collection and recycling, rebate processing, and program participation tracking for the Appliance Rebate Program in Program Year 5.

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

Since the program was suspended and not in operation for nearly 6 months of the program year, customer participation was lower than projected; however, the TRC of 2.67 reflects a cost-effective program.

Program Participation:

Total Measures and Costs					
Measure PY4-Actual PY4-Buc					
Refrigerators and Freezers	177	750			
Room Air Conditioners	1	200			
Total	178	950			

Program Savings and Costs:

Benefits/Cost Component	P\	PY4-Actual		PY4-Budget	
Savings (MWh)		189	_	836	
Capacity Savings (MW)		0.021		0.128	
Total Resource Cost	\$	37,025	\$	182,000	
Direct Participant Costs	\$	21,300	\$	102,000	
Direct Utility Costs	\$	24,862	\$	120,500	
Customer Incentives	\$	9,137	\$	40,500	
CSP Labor	\$	12,368	\$	48,000	
CSP Materials and Supplies	\$	_	\$	12,000	
Communications	\$	3,357	\$	20,000	

Program Cost Effectiveness:

TRC Test	PY	4-Actual	PY	PY4-Budget		
TRC NPV Benefits	\$	98,887	\$	467,005		
TRC NPV Costs	\$	37,025	\$	182,000		
TRC Net Benefits	\$	61,862	\$	285,005		
TRC Benefit/Cost Ratio		2.67		2.57		

5. <u>Fuel Switching</u> (Residential/Low Income Customers)

Program Objectives:

The objectives of the Fuel Switching Program include:

- 1. Contribute to UGI Electric's energy savings goals
- 2. Encourage a "full fuel cycle" approach to energy efficiency
- 3. Obtain participation of approximately 264 customers through 2018, with a total reduction of approximately 741 MWh

Program Description:

UGI Electric encourages energy efficiency on a total fuel cycle basis by promoting the use of natural gas appliances, where such appliances are 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:

UGI Electric staff conducts customer intake, eligibility verification, rebate processing, and tracking. Customers are required to submit an application with documentation of the equipment purchase(s) and installation(s) for verification and rebate processing. UGI Electric provides overall strategic direction and program management, as well as promotional, educational, trade ally support, and other administrative functions.

Marketing to residential customers is managed through various media and marketing channels to increase customer awareness in targeted areas. UGI Electric utilizes bill inserts, social media, and marketing flyers to HVAC supply houses and contractors to encourage residential customers to consider switching to more economical natural gas space heating, water heating, and clothes drying.

Although the Fuel Switching program's TRC of 0.90 is slightly less than 1.0 for Program Year 4, the overall UGI Electric EE&C Portfolio maintains a TRC value above 1.0, indicating the portfolio is cost effective.

Program Participation:

Total Measures and Costs									
Measure	PY4-Budget								
Water Heater Fuel Switching	3	24							
Water Heater Solar	-	1							
Dryer Fuel Switching	1	40							
Space Heating Fuel Switching	9	21							
Total	13	86							

Program Savings and Costs:

Benefits/Cost Component	P	Y4-Actual	PY4-Budget		
Savings (MWh)		59		238	
Capacity Savings (MW)		0.115		0.771	
Total Resource Cost	\$	47,180	\$	167,550	
Direct Participant Costs		47,180		157,550	
Direct Utility Costs	\$	12,700	\$	58,120	
Customer Incentives	\$	12,700	\$	48,120	
CSP Labor	\$	-	\$	-	
CSP Materials and Supplies	\$	_	\$	_	
Communications	\$	-	\$	10,000	

Program Cost Effectiveness:

Fuel Switching TRC Test	[PY4-Actual	PΥ	4-Budget
TRC NPV Benefits	\$	90,665	\$	337,476
TRC NPV Costs	\$	100,814	\$	343,952
TRC Net Benefits	\$	(10,150)	\$	(6,477)
TRC Benefit/Cost Ratio		0.90		0.98

6. <u>Customer Energy Education</u> (Residential/Low Income Customers/ Small Commercial Customers)

Program Objectives:

- 1. The objectives of the Customer Education Program include: Communicate conservation tips to UGI Electric customers; emphasize that there are many simple low-cost or no-cost steps to help residential homes become more energy efficient
- 2. Communicate the prices to compare and how they are calculated so that customers can make an informed choice when shopping for an electric generation supplier
- 3. Increase awareness regarding specific rebate programs in which customers may be eligible to participate

Program Description:

UGI Electric utilizes bill inserts, and social media to inform customers of energy savings tips, rebate programs, and choices for selecting an electric supplier. UGI Electric's energy efficiency website, www.ugi.com/savesmart also offers customers energy saving tips and energy use calculators.

Program Review:

In Program Year 4, UGI conducted a comprehensive media campaign throughout the Electric service territory which featured radio and digital banner advertising focused on energy conservation tips and rebate programs.

Program Budget and Actuals:

Benefits/Cost Component	þ,	Y4-Actual	PY4-Budget		
Savings (MWh)		-		-	
Capacity Savings (MW)		-		-	
Total Resource Cost	\$	_ 46,704	\$	60,000	
Direct Participant Costs	\$		\$	-	
Direct Utility Costs	\$	46,704	\$	60,000	
Customer Incentives	\$		\$		
CSP Labor	\$	-	\$	-	
CSP Materials and Supplies	\$	-	\$	-	
Communications	\$	46,704	\$	60,000	

Program Cost Effectiveness:

TRC Test	PY4-Actual	PY4-Budget		
TRC NPV Benefits	\$ <u>-</u>	\$	-	
TRC NPV Costs	\$ 46,704	\$	60,000	
TRC Net Benefits	\$ (46,704)	\$	(60,000)	
TRC Benefit/Cost Ratio	0.00		0.00	

Residential Program Summary:

During Program Year 4, the UGI Electric EE&C portfolio offered six different programs, including the Customer Education Program, to residential customers. The residential program TRC of 1.72 outlined below indicates the program is cost-effective. Additionally, customer feedback received at various outreach events throughout the year, has been positive.

During Program Year 4, spending on the residential portfolio was approximately \$450,000 which is within PUC approved program budget guidelines.

Residential Program Participation and Energy Savings:

Program Year 4 Actuals									
Program	Participants	Energy Savings MWh							
Appliance Recycling	178	189							
Appliance Rebates	502	143							
Fuel Switching	13	59							
Energy Efficient Lighting	27,276	835							
School Energy Education	1,004	335							
Total	28,973	1,561							

Residential Program Costs:

	Residential												
Benefits/Cost Component	Custor	mer Education	(Energy Efficient Lighting	I	ool Energy	ı	appliance Rebate		appliance Recycling	S	Fuel witching	Total
Annual Savings (MWh)	T			835		335		143		189		59	1,561
Capacity Savings (MW)		-		0.135		0.021		0.082		0.021		0.115	0.3742
Total Resource Cost	\$	46,704	\$	354,980	\$	66,420	\$	153,234	\$	37,025	\$	47,180	705,544
Direct Participant Costs	\$	-	\$	253,667	\$	-	\$	94,484	\$	21,300	\$	47,180	416,631
Direct Utility Costs	\$	46,704	\$	205,398	\$	66,420	\$	98,541	\$	24,862	\$	12,700	454,625
Customer Incentives	\$	-	\$	104,084	\$	51,164	\$	39,791	\$	9,137	\$	12,700	216,876
CSP Labor	\$	•	\$	97,271	\$	13,958	\$	58,750	\$	12,368	\$		182,347
CSP Materials and Supplies	\$	-	\$	-	\$		\$	-	\$		\$	•	•
Communications	\$	46,704	\$	4,043	\$	1,298	\$	-	\$	3,357	\$	-	55,402

Residential Program Cost Effectiveness:

TRC Test	Custom	ner Education	LEI	D Lighting	l	ool Energy ducation	Appliance Rebate	appliance Recycling	s	Fuel witching	Total
TRC NPV Benefits	\$	-	\$	792,156	\$	236,425	\$ 88,233	\$ 98,887	\$	90,665	\$ 1,306,366
TRC NPV Costs	\$	46,704	\$	354,980	\$	66,420	\$ 153,234	\$ 37,025	\$	100,814	\$ 759,177
TRC Net Benefits	\$	(46,704)	\$	437,176	\$	170,005	\$ (65,001)	\$ 61,862	\$	(10,150)	\$ 547,188
TRC Benefit/Cost Ratio		-		2.23		3.56	0.58	2.67		0.90	1.72

COMMERCIAL PROGRAMS:

1. <u>Custom Incentive Program</u> (Commercial/Industrial Governmental Customers)

Program Objectives:

The objectives of the Custom Incentive Program include:

- 1. Encourage the installation of high-efficiency equipment not included in UGI Electric's other EE&C Programs by Commercial & Industrial (C&I) customers in new and existing facilities
- 2. Encourage equipment optimization, operational, or process changes that reduce electricity consumption
- 3. Encourage a "whole facility" approach to energy-efficiency
- 4. Increase customer awareness of the features and benefits of electric energy efficient equipment
- 5. Support emerging technologies and non-typical efficiency solutions in cost-effective applications
- 6. Obtain approximately 60 participants through 2018, with a total reduction of approximately 7,812 MWh

Program Description:

The Custom Incentive Program provides a delivery channel and financial incentives to customers installing a variety of custom measures suited to their particular business needs. To qualify for financial incentives, eligible customers are required to provide documentation that their proposed efficiency upgrades pass TRC cost-effectiveness.

Included within the Custom Program is a Combined Heat & Power (CHP) Program. SmartWatt manages this program; however, it was not aggressively marketed in Program Year 4. If a customer inquires about a CHP project, UGI will pre-screen the project and will pay a rebate if the project is determined to be cost effective.

Program Review:

In an effort to continue to develop the C&I Custom program, UGI Electric utilizes SmartWatt Energy as the qualified CSP to provide customer intake, eligibility verification, rebate processing, program participation tracking, verification, and auditing of customer projects. Due to the protracted length of litigation regarding the Phase II filing, customer participation was not at the anticipated level as only 7 custom projects were completed in Program Year 4 compared to a forecast of 20 custom projects; however, the program was very cost effective with a TRC value of 2.33.

None of the Custom Projects that were completed involved CHP. However, CHP projects will continue to be available to customers for which this type of project may be a good fit.

Program Budget and Actuals:

Total Measures and Costs									
Measure PY4-Actual PY4-Budget									
Custom Projects	7	20							
Total	7	20							

Program Savings and Costs:

Benefits/Cost Component	PY4-Actual	PY4-Budget			
Savings (MWh)	995		2,604		
Capacity Savings (MW)	-		-		
Total Resource Cost	\$ 405,248	\$	779,640		
Direct Participant Costs	\$ 294,629	\$	530,840		
Direct Utility Costs	\$ 189,833	\$	750,120		
Customer Incentives	\$ 79,214	\$	501,320		
CSP Labor	\$ 110,484	\$	247,800		
CSP Materials and Supplies	\$ 	\$	-		
Communications	\$ 135	\$	1,000		

Program Cost Effectiveness:

TRC Test	PY4-Actual	PY4-Budget			
TRC NPV Benefits	\$ 944,464	\$	1,204,301		
TRC NPV Costs	\$ 405,248	\$	914,591		
TRC Net Benefits	\$ 539,216	\$	289,710		
TRC Benefit/Cost Ratio	2.33		1.32		

2. <u>HVAC Tune-Up Program</u> (Commercial/Industrial/Governmental Customers)

Program Objectives:

The objectives of the HVAC Tune-up Program include:

- 1. Optimize HVAC unit performance
- 2. Assist commercial customers in lowering their energy bills and operating costs
- 3. Obtain participation by approximately 1,632 rebate applications through 2018, with a total reduction of approximately 2,004 MWh

Program Description:

The HVAC Tune-Up Program is designed to increase the operating performance of electric HVAC systems in commercial buildings. The program offers financial incentives to HVAC contractors to diagnose performance inefficiencies and make energy-saving retrofits. Customers are eligible for a HVAC tune-up once every three years with areas of focus including the following:

- 1. Refrigeration components
- 2. Air distribution system
- 3. Controls

Program Review:

ECOVA, the CSP for this program, manages HVAC contractor recruitment, contractor training, providing ongoing contractor field support, education, processing applications and rebates, tracking program data, and reporting to UGI Electric. HVAC Contractors provide technical assessments and install energy efficiency improvements for commercial customers. UGI Electric's energy efficiency staff provides overall strategic direction and program management for the program, and the CSP supports UGI Electric with education, trade ally support, evaluation, and other administrative functions. Although the HVAC Tune-Up Program's TRC reflects a value less than 1.0 for Program Year 4, the overall UGI Electric EE&C Portfolio maintains a TRC value above 1.0, indicating the portfolio is cost effective.

Program Participation:

Total Measures and Costs							
Measure PY4-Actual PY4-Bud							
Basic diagnostic testing (no economizer)	5	90					
Basic diagnostic testing (economizer is present)	36	90					
Refrigerant/Airflow (Single Compressor)	20	90					
Refrigerant/Airflow (Multiple Compressors)	28	45					
Thermostat Modification	46	135					
Economizer Adjustment	41	65					
Thermostat Replacement	2	28					
Economizer Control Package	0	1					
Total	178	544					

Program Savings and Costs:

Benefits/Cost Component	PY4-Actual		PY4-Budget	
Savings (MWh)		229		668
Capacity Savings (MW)		-		-
Total Resource Cost	\$	106,290	\$	164,100
Direct Participant Costs		27,530		73,100
Direct Utility Costs	\$	96,425	\$	126,575
Customer Incentives	\$	17,665	\$	35,575
CSP Labor	\$	78,760	\$	65,000
CSP Materials and Supplies	\$	-	\$	25,000
Communications	\$	-	\$	1,000

Program Cost Effectiveness:

TRC Test	PY4-Actual		PY4-Budget		
TRC NPV Benefits	\$;	46,955	\$	167,281
TRC NPV Costs	\$		106,290	\$	164,100
TRC Net Benefits	\$		(59,335)	\$	3,181
TRC Benefit/Cost Ratio			0.44		1.02

Commercial/Industrial Program Summary:

During Program Year 4, the UGI Electric EE&C portfolio offered three different programs, (including the Customer Education), to commercial and industrial customers. The Commercial Program TRC of 1.94 outlined below indicates the program is cost-effective. During Program Year 4, spending on the commercial portfolio was approximately \$286,000, which is within PUC approved program budget guidelines.

Commercial/Industrial Program Actuals:

Program Year 4 Actuals						
Program	Participants	Energy Savings MWh				
C&I Appliance Rebate Program	n/a	n/a				
HVAC Tune-Up Program	178	229				
Custom Incentive Program	7	995				
Combined Heat and Power	n/a	n/a				
	185	1,224				

Commercial/Industrial Program Budget and Costs:

			C&I HVAC	
Benefits/Cost Component	C8	kl Custom	Tune-up	Total
Annual Savings (MWh)		995	229	1,224
Capacity Savings (MW)		0.00	•	-
Total Resource Cost	\$	405,248	106,290	\$ 511,538
Direct Participant Costs	\$	294,629	27,530	\$ 322,159
Direct Utility Costs	\$	189,833	96,425	\$ 286,258
Customer Incentives	\$	79,214	17,665	\$ 96,879
CSP Labor	\$	110,484	78,760	\$ 189,244
CSP Materials and Supplies	\$	<u>.</u>	1	\$ -
Communications	\$	135	\$ -	\$ 135

Commercial/Industrial Program Cost Effectiveness:

			c.	&I HVAC			
TRC Test	C8	C&I Custom		Tune-up		Total	
TRC NPV Benefits	\$	944,464	\$	46,955	\$	991,419	
TRC NPV Costs	\$	405,248	\$	106,290	\$	511,538	
TRC Net Benefits	\$	539,216	\$	(59,335)	\$	479,881	
TRC Benefit/Cost Ratio		2.33		0.44		1.94	

UGI Electric Energy Efficiency Portfolio Summary

In summary, UGI Electric offered eight energy efficiency programs to approximately 62,000 customers within the service territory. The combined portfolio of programs had a TRC of 1.81 and total spending of \$740,000. UGI Electric anticipates increased customer participation for Program Years 5-6, because the Phase II EE&C Plan (as amended by the settlement in that proceeding) has been approved by the PUC through May 31, 2018.

CERTIFICATE OF SERVICE

(Docket No. M-2015-2477174)

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).

VIA E-MAIL & FIRST CLASS MAIL

Steven C. Gray, Esquire Office of Small Business Advocate 300 North Second Street, Suite 202 Harrisburg, PA 17101

Aron J. Beatty, Esquire
David T. Evrard, Esquire
Christy M. Appleby, Esquire
Office of Consumer Advocate
555 Walnut Street
Forum Place, 5th Floor
Harrisburg, PA 17101-1923

Robert D. Knecht Consultant for OSBA Industrial Economics Incorporated 2067 Massachusetts Avenue Cambridge, MA 02140

Stacey Sherwood Exeter Associates, Inc. 10480 Little Patuxent Parkway Columbia, MD 21044

Date: August 31, 2016

Devin T. Ryan

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