

UGI Utilities, Inc. 2525 North 12th Street Suite 360 Post Office Box 12677 Reading, PA 19612-2677

1-800-276-2722

June 1, 2015

## **VIA FEDERAL EXPRESS**

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JUN - 1 2015

Ms. Rosemary Chiavettta, Secretary Pennsylvania Public Utility Commission Commonwealth Keystone Building 400 North St. Harrisburg, PA 17120 PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

M-2015-2460711

RE: Annual Resource Planning Report – UGI Central Penn Gas, Inc. (CPG)

Dear Secretary Chiavetta:

In accordance with 52 Pa. Code §59.81 - 59.84, CPG hereby files the Annual Resource Planning Report. All questions concerning this information can be directed to me at 610-796-3520. Copies of this filing have been served upon the Office of Consumer Advocate and the Office of Small Business Advocate.

Very truly yours,

David E. Lahoff

Manager - Tariff & Supplier Administration

**Enclosures:** 

(1) Original

(7) Copies

(1) Disk

## **VIA FEDERAL EXPRESS**

cc: Darren Gill, Deputy Director
Pennsylvania Public Utility Commission
Bureau of Technical Utility Services
Commonwealth Keystone Bldg.
400 North Street
Harrisburg, PA 17120

Tanya J. McCloskey, Esq. Acting Consumer Advocate Office of Consumer Advocate 555 Walnut St. 5<sup>th</sup> Floor Harrisburg, PA 17101

John R. Evans Small Business Advocate Office of Small Business Advocate 300 North Second Street, Suite 202 Harrisburg, PA 17101 bcc: S. Epler

M. Fessler

L. Harris

S. Hart

C. Jones

A. Key D. Lahoff

D. Leuffen

M. Morrow

K. Murphy

P. Szykman

# FORM-IRP-GAS-4A-SUMMARY: ANNUAL SUPPLY AND REQUIREMENTS SUMMARY REPORTING UTILITY: UGI CENTRAL PENN GAS (volumes in MMcf)

	Current Year	Thre	e Year Forecas	
Index Year Actual Year	0 2015	1 2016	2 2017	3 2018
Gas Supply:				
System Supply	13,412	13,188	13,283	13,474
Transportation	15,228	15,315	15,292	15,269
TOTAL GAS SUPPLY	28,640	28,503	28,575	28,743
Requirements:				
System Sales_	10,278	10,492	10,587	10,778
Transportation	15,228	15,315	15,292	15,269
Load Deductions	(3,134)	(2,696)	(2,696)	(2,696)
TOTAL GAS REQUIREMENTS	28,640	28,503	28,575	28,743
Surplus(Deficiency)	0	0	0	0

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PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

## FORM-IRP-GAS-4B-SUMMARY: PEAK DAY SUPPLY AND REQUIREMENTS SUMMARY REPORTING UTILITY: UGI CENTRAL PENN GAS (volumes in MMcf)

	Current Year	Three Year Forecast		
Index Year	0	1	2	3
Actual Year	2015	<u>2016</u>	<u>2017</u>	<u>2018</u>
Gas Supply:				
System Supply_	112	130	131	133
Transportation	74	68	68	68
TOTAL GAS SUPPLY	186	198	199	201
Requirements:				
System Sales	104	118	119	120
Transportation	70	80	80	81
Load Deductions	(12)	0	0	0
TOTAL GAS REQUIREMENTS	186	198	199	201
Surplus(Deficiency)	0	0	0	0

Appendix A: Page 11

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## Form IRP-GAS-5. Program Description

JUN - 1 2015

**Company:** UGI Central Penn Gas, Inc.

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

Contact:

J.J. Swope

Program:

**Conservation Messages On Hold** 

Proposed \_ Existing X

#### **OBJECTIVES:**

Provide customers with simple, inexpensive tips for conserving energy and managing their energy bills.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

UGI's call center plays a continuous loop tape with messages and music for customers who are holding to speak to a representative. These tapes are updated every two months with seasonally appropriate messages and tips on conserving energy as well as managing energy bills.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Savings		
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2014	N/A				

	Persor	nnel	Catego			
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total
2014	20	\$1,000			\$6,000	\$7,000

Company: UGI Central Penn Gas, Inc.

**Contact:** J.J. Swope

<u>Program:</u> Conservation Messages On Hold Proposed \_ Existing X

## **OBJECTIVES:**

Provide customers with simple, inexpensive tips for conserving energy and managing their energy bills.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

UGI's call center plays a continuous loop tape with messages and music for customers who are holding to speak to a representative. These tapes are updated every two months with seasonally appropriate messages and tips on conserving energy as well as managing energy bills.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Savings		
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results_
2015	N/A				

	Persor	nel	Categorized Program Expenses			
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total
2015	20	\$1,000			\$6,000	\$7,000

**Company:** UGI Central Penn Gas, Inc.

**Contact:** J.J. Swope

Program: Conservation Education & Tools Proposed \_ Existing X

## **OBJECTIVES:**

To provide consumers with information about conservation and weatherization in a variety of easy-to-read formats and also provide an online do-it-yourself energy audit tool.

## DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:

Informational hand-outs, posters, and guides are provided to customers, community groups, and schools. This literature includes information concerning home energy management and selecting energy efficient appliances. UGI's website also serves as a convenient resource for conservation information and also provides a convenient link to an online energy audit tool. In 2012/2013, UGI CPG added a literature fulfillment program for schools through our sponsorship of the NEF Academy for Natural Gas. That program has grown each year and is being used by more and more teachers throughout the service area.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

		E	nergy Savin	gs	
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2014	N/A		N/A		Through UGI's sponsorship of the NEF Academy of Natural Gas, approximately 130 schools each year receive comprehensive energy education instructional packets.

	Person	inel	Categorized Program Expenses			
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total
2014	10	\$500			\$3,000	\$3,500

**Company:** UGI Central Penn Gas, Inc.

**Contact:** J.J. Swope

<u>Program:</u> Conservation Education & Tools Proposed \_ Existing X

## **OBJECTIVES:**

To provide consumers with information about conservation and weatherization in a variety of easy-to-read formats and also provide an online do-it-yourself energy audit tool.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Informational hand-outs, posters, and guides are provided to customers, community groups, and schools. This literature includes information concerning home energy management and selecting energy efficient appliances. UGI's website also serves as a convenient resource for conservation information and also provides a convenient link to an online energy audit tool. In 2012/2013, UGI CPG added a literature fulfillment program for schools through our sponsorship of the NEF Academy for Natural Gas, which has grown each year since its implementation. We expect similar growth in 2015.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

		E	nergy Savin	gs	
Year ——	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2015	N/A		N/A		Through UGI's sponsorship of the NEF Academy of Natural Gas, approximately 130 schools each year receive comprehensive energy education instructional packets.

	Person	nel	Categorized Program Expenses				
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total	
2015	10	\$500			\$3,000	\$3,500	

**Company:** UGI Central Penn Gas, Inc.

**Contact:** J.J. Swope

<u>Program:</u> Customer Newsletter – "The Gasline" Proposed \_ Existing X

## **OBJECTIVES:**

To provide customers with conservation tips, company and industry news, information about rates-related matters, safety suggestions, and other current topics.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

The Gasline is a two-page newsletter included in every customer's bill 11 times each year. Designed to update customers on current energy news, *The Gasline* also provides information on low cost/no cost energy conservation measures and practices, billing practices and rates, as well as safety suggestions and reminders.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

		E	nergy Savin	gs	
Year 	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2014	N/A		N/A		Bill inserts reach 100% of CPG customers. E-bill customers receive electronic versions of all bill inserts.

	Personnel		Categorized Program Expenses				
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total	
2014	100	\$10,000	\$45,000			\$55,000	

Company: UGI Central Penn Gas, Inc.

Contact: J.J. Swope

<u>Program:</u> Customer Newsletter – "The Gasline" Proposed \_ Existing X

## **OBJECTIVES:**

To provide customers with conservation tips, company and industry news, information about rates-related matters, safety suggestions, and other current topics.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

The Gasline is a two-page newsletter included in every customer's bill 11 times each year. Designed to update customers on current energy news, *The Gasline* also provides information on low cost/no cost energy conservation measures and practices, billing practices and rates, as well as safety suggestions and reminders.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

		E	nergy Savin	gs	
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2015	N/A		N/A		Bill inserts reach 100% of CPG customers. E-bill customers receive electronic versions of all bill inserts.

Year	Personnel		Catego			
	Estimated Manhours	Labor	Services	Program Info	Misc.	Total
2015	100	\$10,000	\$45,000			\$55,000

Company: UGI Central Penn Gas

Contact: Y. Belfort

<u>Program:</u> Low Income Usage Reduction Program Proposed \_ Existing X

#### **OBJECTIVES:**

The objective of this program is to reduce energy use among low income, high usage residential customers who are in arrears. Energy efficiency improvement measures are made to eligible customers' dwellings free of charge. Customers also receive free efficiency counseling to further reduce energy consumption.

## DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:

CPG introduced a Low Income Usage Reduction Program ("LIURP") in 2008 to assist its low-income residential customers conserve energy and reduce their energy bills. The purpose of the program is to provide services to help customers conserve and maximize their energy savings. CPG utilizes community-based organizations ("CBOs") to administer the LIURP program and provide energy education services to help decrease the risk of customer payment delinquencies and to reduce collection and arrearage carrying costs. The Company uses furnace inspection, air infiltration analysis and other weatherization techniques to help in the reduction of energy costs.

In 2014, 79 homes received weatherization, energy education and UGI CPG inspection

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2014					

	Pers	Personnel		Categorized Program Expenses					
Year	Est MHs	Labor	Measures	Adm costs/ Educ Matls	Computer Costs	Rehab Pilot	Total		
2014	3,983	\$199,141	\$163,222	\$67,074			\$429,437		

Company: UGI Central Penn Gas

Contact: Y. Belfort

<u>Program:</u> Low Income Usage Reduction Program Proposed \_ Existing X

## **OBJECTIVES:**

The objective of this program is to reduce energy use among low income, high usage residential customers who are in arrears. Energy efficiency improvement measures are made to eligible customers' dwellings free of charge. Customers also receive free efficiency counseling to further reduce energy consumption.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

CPG introduced a Low Income Usage Reduction Program ("LIURP") in 2008 to assist its low-income residential customers conserve energy and reduce their energy bills. The purpose of the program is to provide services to help customers conserve and maximize their energy savings. CPG utilizes community-based organizations ("CBOs") to administer the LIURP program and provide energy education services to help decrease the risk of customer payment delinquencies and to reduce collection and arrearage carrying costs. The Company uses furnace inspection, air infiltration analysis and other weatherization techniques to help in the reduction of energy costs.

In 2015, approximately 71 homes will receive weatherization, energy education and UGI CPG inspection.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

				_ <u>-</u>	
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2015					

	Perso	Personnel		Categorized Program Expenses						
Year	Est MHs	Labor	Measures	Educ Matls	Computer Costs	Oil Swap	Rehab Pilot	Pilot	Total	
2015									\$500,000	

**Company:** UGI Central Penn Gas

**Contact:** Y. Belfort

<u>Program:</u> Customer Cares Program Proposed \_\_ Existing X

## **OBJECTIVES**:

Provide training and guidance to payment-troubled customers, concentrating on energy conservation, budget counseling and fuel assistance. In addition, provide consumers with information and counseling concerning energy conservation measures.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Providing information regarding energy conservation measures, budget counseling, weatherization, fuel assistance programs, and the Low Income Home Energy Assistance Program (LIHEAP). The program is introduced to groups through presentations and workshops. Representatives provide consumers with education materials concerning energy conservation techniques and methods of using energy more efficiently. Educational services are provided, upon request of the agency or group, through presentations to groups such as service clubs and schools, and also by distributing brochures and other conservation-related literature.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2014					

Year	Personnel		Catego	enses		
	Estimated Manhours	Labor	Services	ProgramInfo	Misc.	Total
2014	713	\$8,553		\$2,331	\$16,700	\$27,584

**Company:** UGI Central Penn Gas

**Contact:** Y. Belfort

Program: Customer Cares Program Proposed Existing X

#### **OBJECTIVES:**

Provide training and guidance to payment-troubled customers, concentrating on energy conservation, budget counseling and fuel assistance. In addition, provide consumers with information and counseling concerning energy conservation measures.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Providing information regarding energy conservation measures, budget counseling, weatherization, fuel assistance programs, and the Low Income Home Energy Assistance Program (LIHEAP). The program is introduced to groups through presentations and workshops. Representatives provide consumers with education materials concerning energy conservation techniques and methods of using energy more efficiently. Educational services are provided, upon request of the agency or group, through presentations to groups such as service clubs and schools, and also by distributing brochures and other conservation-related literature.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2015	N/A				

	Person	mel	Catego	enses		
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total
2015						\$18,000

Company: UGI Central Penn Gas, Inc.

Contact: D.R. Leuffen

Program: Residential Conversion Program – Ahead of Construction Proposed \_ Existing X

## **OBJECTIVES:**

The purpose of this conversion program is to convince existing households to switch their current heating system to natural gas. This program will target homes situated along existing gas mains where UGI PNG construction activity is already scheduled to occur.

## DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:

Two months prior to street construction homeowners who do not currently heat with natural gas will be mailed information advising them of a limited time rebate available for converting to natural gas heating. Homeowners will be offered a \$1,000 rebate if they convert to natural gas heating and \$1,200 if they convert to gas heating and water heating. The homeowner must purchase the equipment directly from the contractor of their choice and inform CPG of the need to run a service line during the specified construction period.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2014	N/A	0		0	

	Personnel		Cate	oenses		
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total
2014	100	\$2,000	\$0	\$5,000	\$8,000	\$15,000

**Company:** UGI Central Penn Gas, Inc.

Contact: D.R. Leuffen

<u>Program:</u> Residential Conversion Program – Ahead of Construction Proposed \_ Existing X

#### **OBJECTIVES:**

The purpose of this conversion program is to convince existing households to switch their current heating system to natural gas. This program will target homes situated along existing gas mains where UGI PNG construction activity is already scheduled to occur.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Two months prior to street construction homeowners who do not currently heat with natural gas will be mailed information advising them of their opportunity to convert to natural gas heating. Homeowners will be offered a free service installation when they add natural gas heater or water heater. The homeowner must purchase the equipment directly from the contractor of their choice and inform CPG of the need to run a service line prior to the specified construction period.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Savings		
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2015	N/A	0		0	

	Personnel		Categorized Program Expenses				
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total	
2015	100	\$2,000	\$0	\$5,000	\$0	\$7,000	

**Company:** UGI Central Penn Gas, Inc.

Contact: D.R. Leuffen

<u>Program:</u> Residential Conversion Program - Ahead of Paving Proposed \_ Existing X

## **OBJECTIVES:**

The purpose of this conversion program is to convince existing households along UGI gas mains to switch their current heating or water heating equipment to natural gas. This program targets homes situated along existing gas mains where township/municipal paving is already scheduled to occur.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Two months prior to street construction homeowners who do not currently heat with natural gas will be mailed information advising them of a limited time rebate available for converting to natural gas heating. Homeowners will be offered a \$400 rebate if they convert to natural gas heating and \$600 if they convert to gas heating and water heating. The homeowner must purchase the equipment directly from the contractor of their choice and inform CPG of the need to run a service line prior to the scheduled paving.

#### **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Savings		
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2014	N/A	0		0	

	Personnel		Categorized Program Expenses				
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total	
2014	50	\$1,000	\$0	\$1,000	\$1,000	\$3,000	

**Company:** UGI Central Penn Gas, Inc.

Contact: D.R. Leuffen

<u>Program:</u> Residential Conversion Program – Ahead of Paving Proposed Existing X

## **OBJECTIVES:**

The purpose of this conversion program is to convince existing households along UGI gas mains to switch their current heating or water heating equipment to natural gas. This program targets homes situated along existing gas mains where township/municipal paving is already scheduled to occur.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Two months prior to street construction homeowners who do not currently heat with natural gas will be mailed information advising them of their opportunity to convert to natural gas. Homeowners will be offered a free service installation if they convert to gas heating and/or water heating. The homeowner must purchase the equipment directly from the contractor of their choice and inform CPG of the need to run a service line prior to the scheduled paving.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Savings		
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2015	N/A	0		0	

	Personnel		Categorized Program Expenses			-	
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total	
2015	50	\$1,000	\$0	\$1,000	\$0	\$2,000	

Company: UGI Central Penn Gas, Inc.

Contact: D.R. Leuffen

<u>Program:</u> Apartment Conversion Program Proposed Existing X

## **OBJECTIVES:**

The purpose of this conversion program is to convince apartment owners/managers to convert their existing heating systems to clean, efficient natural gas heat. Apartments heated by electricity or propane and situated along a natural gas main are targeted.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Apartment owners are offered a rebate on the purchase and installation of natural gas heating equipment. Up to \$500/residential unit may be offered for individual heating systems or up to \$250/residential unit for central heating systems. Rebate offers are valid for a limited time period. The economics of installing gas service as well as the availability of rebate funds are evaluated as each prospect is identified.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Savings		
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2014	N/A	0		0	

	Personnel		Categorized Program Expenses				
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total	
2014	100	\$2,000	\$0	\$500	\$0	\$2,500	

**Company:** UGI Central Penn Gas, Inc.

Contact: D.R. Leuffen

Program: Apartment Conversion Program Proposed Existing X

## **OBJECTIVES:**

The purpose of this conversion program is to convince apartment owners/managers to convert their existing heating systems to clean, efficient natural gas heat. Apartments heated by electricity or propane and situated along a natural gas main are targeted.

## DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:

Apartment owners are offered a rebate on the purchase and installation of natural gas heating equipment. Up to \$500/residential unit may be offered for individual heating systems or up to \$250/residential unit for central heating systems. Rebate offers are valid for a limited time period. The economics of installing gas service as well as the availability of rebate funds are evaluated as each prospect is identified.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Savings		
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2015	N/A	0		0	

	Personnel		Categorized Program Expenses				
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total	
2015	100	\$2,000	\$0	\$500	\$0	\$2,500	

**Company:** UGI Central Penn Gas, Inc.

Contact: D. R. Leuffen

Program: HVAC Trade Allies Proposed Existing X

## **OBJECTIVES:**

UGI's Partner Program is intended to increase case of access to local HVAC contractors who can install and service high-efficiency gas equipment.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Both existing and prospective customers have access to a contractor locator tool on UGI's website. Contractors are provided with tools and information on fuel costs and efficiencies. Contractors who are invited to participate in the program must also be approved under Pennsylvania's Keystone HELP Program to insure that customers have access to low-interest loans for energy efficient equipment purchases.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Savings		
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2014	N/A		N/A		

	Personnel		Categ	enses		
Year	Estimated Manhours	Labor 	Services	Program Info	Misc.	Total
2014	N/A					N/A

**Company:** UGI Central Penn Gas, Inc.

**Contact:** D. R. Leuffen

Program: HVAC Trade Allies Proposed \_\_ Existing X

## **OBJECTIVES:**

UGI's Partner Program is intended to increase case of access to local HVAC contractors who can install and service high-efficiency gas equipment.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Both existing and prospective customers have access to a contractor locator tool on UGI's website. Contractors are provided with tools and information on fuel costs and efficiencies. Contractors who offer PowerSaver Plus loans are noted on the website to insure that customers have access to low-interest loans for energy efficient equipment purchases.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

Year	Peak Load ReductionKW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2015	N/A		N/A		

	Person	nnel	Categorized Program Expenses				
Year ——	Estimated Manhours	Labor	Services	Program Info	Misc.	Total	
2015	N/A					N/A	

Company: UGI Central Penn Gas, Inc.

Contact: M.D. Powell

Program: Industrial & Commercial Energy Efficiency Program

Proposed \_ Existing X

#### **OBJECTIVES:**

Industrial and Commercial Energy Utilization Representatives meet routinely with customers and engineering design professionals to assist in identifying efficiency improvements to reduce energy consumption. The representatives offer energy audits, load management, and rate design options. Energy-related seminars and information are also available via company sponsorship and participation in various trade shows and meetings.

## DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:

Work with 500 industrial and over 10,000 commercial customers to recommend the use of high efficiency equipment and conservation measures.

Provide equipment information to architects, engineers and builders through newsletters featuring new equipment, personal contacts, and updates to UGI's Gas Design Manual. The results are improved designs that utilize high efficiency equipment in new and remodeled buildings.

UGI co-sponsors a gas equipment show with five other Delaware Valley gas utilities. Modern high-efficiency equipment is showcased. In addition to vendor displays, educational seminars emphasizing modern conservation techniques are presented. UGI also initiated an annual seminar for design professionals on Indoor Air Quality and new high efficiency natural gas equipment.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2014	N/A		21,296		

## **MONETARY AND PERSONNEL RESOURCES:**

	Personnel		Categorized Program Expenses				
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total	
2014	2,000	\$57,449		\$800	\$5,000	\$63,249	

This program is considered to be informational; therefore, forms IRP-8 and IRP-9 are not required.

Company: UG

UGI Central Penn Gas, Inc.

Contact:

M.D. Powell

Program:

**Industrial & Commercial Energy Efficiency Program** 

Proposed \_ Existing X

## **OBJECTIVES:**

Industrial and Commercial Energy Utilization Representatives meet routinely with customers and engineering design professionals to assist in identifying efficiency improvements to reduce energy consumption. The representatives offer energy audits, load management, and rate design options. Energy-related seminars and information are also available via company sponsorship and participation in various trade shows and meetings.

## DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:

Work with 500 industrial and over 10,000 commercial customers to recommend the use of high efficiency equipment and conservation measures.

Provide equipment information to architects, engineers and builders through newsletters featuring new equipment, personal contacts, and updates to UGI's Gas Design Manual. The results are improved designs that utilize high efficiency equipment in new and remodeled buildings.

UGI co-sponsors a gas equipment show with five other Delaware Valley gas utilities. Modern high-efficiency equipment is showcased. In addition to vendor displays, educational seminars emphasizing modern conservation techniques are presented. UGI also initiated an annual seminar for design professionals on Indoor Air Quality and new high efficiency natural gas equipment.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2015	N/A		21,296		

## **MONETARY AND PERSONNEL RESOURCES:**

	Personnel		Categorized Program Expenses				
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total	
2015	2,000	\$71,780		\$800	\$5,000	\$77,580	

This program is considered to be informational; therefore, forms IRP-8 and IRP-9 are not required.

**Company:** UGI Central Penn Gas, Inc.

Contact: M.D. Powell

<u>Program:</u> Cogeneration/Distributed Generation Proposed \_ Existing X

## **OBJECTIVES:**

Perform preliminary cogeneration studies to provide information on energy savings to commercial and industrial customers.

Disseminate information on energy savings available to commercial and industrial customers considering conservation.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Conduct feasibility studies showing energy savings available through cogeneration.

Disseminate information through seminars to targeted groups such as hospital engineers, administrators, and engineering firms.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Saving	gs	
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons*	Other Results
2014	000,1			662,500/yr	Cogeneration will reduce wasted energy inherent in conventional boilers and oil-fired electric generating equipment

<sup>\*</sup>Assuming #6 oil is burned at the power plant.

## **MONETARY AND PERSONNEL RESOURCES:**

	Personnel		Categorized Program Expenses				
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total	
2014	650	\$19,234			\$3,500	\$22,734	

Installation grants for small systems.

**Company:** UGI Central Penn Gas, Inc.

**Contact:** M.D. Powell

<u>Program:</u> Cogeneration/Distributed Generation Proposed \_ Existing X

## **OBJECTIVES:**

Perform preliminary cogeneration studies to provide information on energy savings to commercial and industrial customers.

Disseminate information on energy savings available to commercial and industrial customers considering conservation.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Conduct feasibility studies showing energy savings available through cogeneration.

Disseminate information through seminars to targeted groups such as hospital engineers, administrators, and engineering firms.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

		<del></del>	Energy Saving	gs	
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons*	Other Results
2015	1,000			662,500/yr.	Cogeneration will reduce wasted energy inherent in conventional boilers and oil-fired electric generating equipment

<sup>\*</sup>Assuming #6 oil is burned at the power plant.

## **MONETARY AND PERSONNEL RESOURCES:**

	Personnel		Categorized Program Expenses			
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total
2015	650	\$23,329			\$3,500	\$26,829

Installation grants for small systems.

Company: UGI Central Penn Gas, Inc.

Contact: M.D. Powell

<u>Program:</u> Natural Gas Vehicles Proposed \_ Existing X

## **OBJECTIVES:**

To expedite the use of natural gas as a clean fuel alternative in commercial fleets, transit authorities, municipal fleets, and fork lifts by distributing information, doing feasibility studies, providing technical support and offering rebates.

### **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Of the alternative fuels identified to satisfy the requirements of the Clean Air Act, natural gas is the best choice. Natural gas emits fewer reactive hydrocarbons, carbon monoxide and nitrogen oxides than any other proposed fuel. Natural gas emits virtually no particulates, unlike diesel fuel. At approximately \$1.60 per equivalent gallon, natural gas represents a cost savings opportunity for fleet operators. Furthermore, using natural gas as a vehicle fuel significantly reduces America's dependence on imported oil. UGI has targeted working with Transportation Authorities and Government Fleets on continued and expanded use of Natural Gas Vehicles.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Savings		
Year	Peak Load Reduction KW	Electric MWH	Diesel Gallons	Oil Gallons	Other Results
2014	N/A		10,920/yr		Improved Air Quality

	Perso	nnel	Categorized Program Expenses				
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total	
2014	400	\$5,128			\$1,500	\$6,628	

<sup>(1)</sup> This is a new program for CPG and there are no known projects at this time.

Company: UGI

UGI Central Penn Gas, Inc.

Contact:

M.D. Powell

Program:

Natural Gas Vehicles

Proposed \_ Existing X

## **OBJECTIVES:**

To expedite the use of natural gas as a clean fuel alternative in commercial fleets, transit authorities, municipal fleets, and fork lifts by distributing information, doing feasibility studies, providing technical support and offering rebates.

## DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:

Of the alternative fuels identified to satisfy the requirements of the Clean Air Act, natural gas is the best choice. Natural gas emits fewer reactive hydrocarbons, carbon monoxide and nitrogen oxides than any other proposed fuel. Natural gas emits virtually no particulates, unlike diesel fuel. At approximately \$1.80 per equivalent gallon, natural gas represents a cost savings opportunity for fleet operators. Furthermore, using natural gas as a vehicle fuel significantly reduces America's dependence on imported oil. UGI has targeted working with Transportation Authorities and Government Fleets on continued and expanded use of Natural Gas Vehicles.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Savings		
Year	Peak Load Reduction KW	Electric MWH	Diesel Gallons	Oil Gallons	Other Results
2015	N/A		10,920 / yr.		Improved Air Quality

	Perso	nnel	Categorized Program Expenses				
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total	
2015	400	\$5,384			\$1,500	\$6,884	

**Company:** UGI Central Penn Gas, Inc.

Contact: M.D. Powell

Program: Underground Storage Tank Removal

Proposed Existing X

#### **OBJECTIVES:**

To promote the removal of underground storage tanks to industrial and commercial customers, non-customers, and engineering design professionals. Sales representatives meet with customers, non-customers and design professionals to assist them in identifying applications and equipment which would provide energy and cost savings by utilizing natural gas and replacing alternative fuels. Target advertising, seminars and brochures are used to distribute this information.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Work with over 500 industrial and 10,000 commercial customers to recommend cost- and energy-efficient improvements in heating, water heating, cooking and process applications when conversions are made from alternate fuels to natural gas. Sales representatives meet with non-customers identified by the sales representative or identified by a response to advertising, seminar attendance or contact with design professionals. These conversions are generally from oil to natural gas, and the storage tanks and alternate energy utilization equipment are permanently placed out of service. This reduces imported oil use, promotes cleaner air and minimizes potential underground pollution by reducing the number of underground storage tanks.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Savin	gs	
Year	Peak Load ReductionKW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2014	N/A			0.4 mm/yr	

	Personnel		Categorized Program Expenses			
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total
2014	350	\$10,420			\$2,500	\$12,920

**Company:** UGI Central Penn Gas, Inc.

**Contact:** M.D. Powell

<u>Program:</u> Underground Storage Tank Removal Proposed \_\_ Existing X

## **OBJECTIVES:**

To promote the removal of underground storage tanks to industrial and commercial customers, non-customers, and engineering design professionals. Sales representatives meet with customers, non-customers and design professionals to assist them in identifying applications and equipment which would provide energy and cost savings by utilizing natural gas and replacing alternative fuels. Target advertising, seminars and brochures are used to distribute this information.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Work with over 500 industrial and 10,000 commercial customers to recommend cost- and energy-efficient improvements in heating, water heating, cooking and process applications when conversions are made from alternate fuels to natural gas. Sales representatives meet with non-customers identified by the sales representative or identified by a response to advertising, seminar attendance or contact with design professionals. These conversions are generally from oil to natural gas, and the storage tanks and alternate energy utilization equipment are permanently placed out of service. This reduces imported oil use, promotes cleaner air and minimizes potential underground pollution by reducing the number of underground storage tanks.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Savir	ngs	
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2015	N/A		•	0.4 MM/yr.	

	Personnel		Categorized Program Expenses				
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total	
2015	350	\$12,562			\$2,500	\$15,062	

**Company:** UGI Central Penn Gas, Inc.

**Contact:** M.D. Powell

Program: Commercial & Industrial Newsletters/Public Events Program:

Proposed \_ Existing X

## **OBJECTIVES:**

To provide customers with updates on new technology and energy-efficient products, to capsulize industry news, and to report on energy-related topics and studies that may affect customers' businesses.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

UGI subscribes to Gas Technology magazine and distributes copies quarterly to area design professionals. This publication promotes the efficient utilization of natural gas technologies in both industrial and commercial applications. In addition, UGI produces case studies of applications of energy efficient natural gas applications within our service territory and distributes these to design professionals and end users.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Saving	s	
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons*	Other Results
2014	It is difficult to estimate er customers.	ergy reduction ac	chieved by prov	riding educational arti	icles on energy topics to

	Personnel		Categorized Program Expenses				
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total	
2014	200	\$6,500	\$1,000		\$5,000	\$12,500	

Company: UGI Central Penn Gas, Inc.

Contact: M.D. Powell

Program: Commercial & Industrial Newsletters/ Public Events Program:

Proposed \_ Existing X

## **OBJECTIVES:**

To provide customers with updates on new technology and energy-efficient products, to capsulize industry news, and to report on energy-related topics and studies that may affect customers' businesses.

#### **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

UGI subscribes to Gas Technology magazine and distributes copies quarterly to area design professionals. This publication promotes the efficient utilization of natural gas technologies in both industrial and commercial applications. In addition, UGI produces case studies of applications of energy efficient natural gas applications within our service territory and distributes these to design professionals and end users.

UGI partners with America's Natural Gas Alliance to host the Think About Energy Briefings, which focuses on the discussion of natural gas supplies, production, consumption and infrastructure. The Briefings are held 3-4 times per year at various locations across UGI's territory. The event is open to the business community, and both legislative and PUC officials.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Saving	ss	
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons*	Other Results
2015	It is difficult to estimate er customers.	ergy reduction ac	chieved by prov	riding educational art	icles on energy topics to

	Personnel		Categ	Categorized Program Expenses		
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total
2015	200	\$7,178	\$1,000		\$5,000	\$13,178

Company: UGI Central Penn Gas, Inc.

Contact: D. Leuffen

<u>Program:</u> Mass Media Advertising Proposed Existing X

## **OBJECTIVES:**

The primary advantage of mass media advertising is that it allows UGI to educate all consumers, including customers as well as non-customers, about the efficiency and cost savings benefit of natural gas over other fuels such as oil, electricity or propane. This information allows consumers to make choices that reduce the use of all energies and save money on individual household bills.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

In 2014, UGI developed a developed a TV commercial with the theme of "Be a Winner" which aired on NBC stations during the winter Olympics. The campaign was supported by online advertising and social media outreach. The goals of this campaign are to educate consumers on the savings when they switch to natural gas and encourage consumers to complete UGI's online natural gas availability form to check for access to gas.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

			Energy Savings		
Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2014	N/A	0	N/A	0	

	Personnel		Categ	benses		
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total
2014	100	\$4,000	\$10,000		\$30,000	\$44,000

**Company:** UGI Central Penn Gas, Inc.

Contact: J.J. Swope

Program: UGl Website Proposed Existing X

## **OBJECTIVES:**

Disseminate conservation tips to a wide range of customers and non-customers throughout UGI's service territory.

## **DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

In 2012, UGI developed and introduced a character, "The Energy Guy at UGI", to convey conservation and energy education information as part of a branding campaign. The Energy Guy at UGI provides a host of energy saving tips and is featured on <a href="https://www.ugi.com">www.ugi.com</a>. In 2013, UGI is redesigning the Company's website and will retain and enhance energy education sections by including an interactive energy cost calculator. In 2014, UGI introduced an enhanced children's section to the website designed and written by a third-party contractor with certified elementary teachers on staff. This section includes general energy, conservation and safety information and includes a number of activities.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

Year					
	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2014	N/A	N/A	N/A	N/A	

	Person	nnel	Cates	enses		
Year ———	Estimated Manhours	Labor	Services	Program Info	Misc.	Total
2014	150	\$20,000	\$55,000			\$75,000

Company: UGI Central Penn Gas, Inc.

**Contact:** J.J. Swope

Program: UGI Website Proposed Existing X

#### **OBJECTIVES:**

Disseminate conservation tips to a wide range of customers and non-customers throughout UGI's service territory.

## DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:

In 2012, UGI developed and introduced a character, "The Energy Guy at UGI", to convey conservation and energy education information as part of a branding campaign. The Energy Guy at UGI provides a host of energy saving tips and is featured on <a href="www.ugi.com">www.ugi.com</a>. In 2013, UGI is redesigning the Company's website and will retain and enhance energy education sections by including an interactive energy cost calculator. In 2014, UGI introduced an enhanced children's section to the website designed and written by a third-party contractor with certified elementary teachers on staff. This section includes general energy, conservation and safety information and includes a number of activities. Further enhancements to this site will be included in a comprehensive redesign of the site in 2015 as part of the company re-brand.

## **ACTUAL AND/OR ANTICIPATED RESULTS:**

Year	Peak Load Reduction KW	Electric MWH	Gas MCF	Oil Gallons	Other Results
2015	N/A	N/A	N/A	N/A	

	Person	nnel	Cate	enses		
Year	Estimated Manhours	Labor	Services	Program Info	Misc.	Total
2015	150	\$20,000	\$55,000			\$75,000

# Form IRP-GAS-6. Energy Users Impacts 2014

Company: CPG

	Number of Customers	Annual Energy Consumption	Conservation Impact (MW Reduction or MWH/MCF Savings)		
Energy Users	(Year End)	(MWH or MCF)	Target	Actual	
Residential (Heating)	66,524	6,745,022			
Residential (Other)	3,109	73,959			
Commercial	9,043	3,299,161			
Industrial	139	326,066			
Street Lighting					
Railroads					
Resale	0	0			
Interruptible	0	0			
Subtotal	78,815	10,444,207			
Other (Specify):					
- Delivery Service (Including Choice)	2,181	15,480,942			
Total Gas Used - Both Gas Sold by CPG and Gas Delivered by CPG	80,996	25,925,149	5 5 5 5 5		

## Form IRP-GAS-7 Program Summary 2014

## Company: UGI Central Penn Gas, Inc.

		Categorized F					d Program Expenses		
	Peak Load	Energy Use	Allocated	Prog.					
<del></del>	Reduction	Change	Manhours	Labor	Serv.	Info.	Misc	Total	
Conservation Messages On Hold	N/A	N/A	20	\$1,000		İ	\$6,000	\$7,000	
Conservation Education & Tools	N/A	N/A	10	\$500			\$3,000	\$3,500	
Customer Newsletter - "The Gasline"	N/A	N/A	100	\$10,000	\$45,000		******	\$55,000	
Low Income Usage Reduction Program	N/A		3,983	\$199,141	\$163,222	\$67,074		\$429,437	
Customer Cares Program	N/A	N/A	713	\$8,553	*****	\$2,331	\$16,700	\$27,584	
Residential Conversion Program - Ahead of Construction	N/A	N/A	100	\$2,000		\$5,000	\$8,000	\$15,000	
Residential Conversion Program - Ahead of Paving	N/A	N/A	50	\$1,000		\$1,000	\$1,000	\$3,000	
Apartment Conversion Program	N/A	N/A	100	\$2,000		\$500	**,,,,,	\$2,500	
HVAC Trade Allies	N/A	N/A	N/A	<b>,</b> , , , , ,		****		<b>V</b> 2,000	
Industrial & Commercial Energy Efficiency Program	N/A	21,296/Mcf Gas	2,000	\$57,449	1	\$800	\$5,000	\$63,249	
Cogeneration/Distributed Generation	1000 KW	662,500 Gal. Oil	650	\$19,234	İ	7333	\$3,500	\$22,734	
Natural Gas Vehicles	N/A	10,920 Diesel Gals.	400	\$5,128			\$1,500	\$6,628	
Underground Storage Tank Removal	N/A	0.4 MM Gals.	350	\$10,420			\$2,500	\$12,920	
Commercial & Industrial Newsletters\Public Events	N/A	N/A	200	\$6,500	\$1,000		\$5,000	\$12,500	
Mass Media Advertising	N/A	N/A	100	\$4,000	\$10,000	İ	\$30,000	\$44,000	
UGI Website	N/A	N/A	150	\$20,000	\$55,000		333,330	\$75,000	
TOTAL			8,926	\$346,925	\$274,222	\$76,705	\$82,200	\$780,052	

## Form IRP-GAS-7 Program Summary 2015

## Company: UGI Central Penn Gas, Inc.

	<b>5</b> (1)				Categorized Program Expenses				
	Peak Load Reduction	Energy Use	Allocated	1 -1	•	Prog.			
<del>-</del>	Reduction	Change	Manhours	Labor	Serv.	Info.	Misc.	Total	
Conservation Messages On Hold	N/A	N/A	20	\$1,000			\$6.000	67.000	
Conservation Education & Tools	N/A	N/A	10	\$500			\$3,000	\$7,000	
Customer Newsletter - "The Gasline"	N/A	N/A	100	\$10,000	\$45,000		\$3,000	\$3,500	
Low Income Usage Reduction Program	N/A	N/A	'00	+10,000	<b>3</b> 40,000	1		\$55,000	
Customer Cares Program	N/A	N/A	N/A	1		ĺ		\$500,000	
Residential Conversion Program - Ahead of Construction	N/A	N/A	100	\$2,000		65 000		\$18,000	
Residential Conversion Program - Ahead of Paving	N/A	N/A	50	\$1,000		\$5,000		\$7,000	
Apartment Conversion Program	N/A	N/A	100	\$2,000		\$1,000		\$2,000	
HVAC Trade Allies	N/A	N/A	N/A	\$2,000		\$500		\$2,500	
Industrial & Commercial Energy Efficiency Program	N/A	21.296/Mcf Gas	2,000	\$71,780	J	****	** ***	4	
Cogeneration/Distributed Generation	1.000 KW	662,500 Gal. Oil	650	\$23,329		\$800	\$5,000	\$77,580	
Natural Gas Vehicles	N/A	10,920 Diesei Gais.	400	\$5,329			\$3,500	\$26,829	
Underground Storage Tank Removal	N/A	0.4 MM Gals.	350	\$12,562			\$1,500	\$6,884	
Commercial & Industrial Newsletters\Public Events	N/A	N/A	200	. ,	** ***		\$2,500	\$15,062	
UGI Website	. N/A	N/A	150	\$7,178	\$1,000	1	\$5,000	\$13,178	
	'  '''	] 1974	150	\$20,000	\$55,000			\$75,000	
TOTAL	<del>                                     </del>	1	4,130	\$156,733	£404 000				
<u></u>			4,130	\$155,7 <u>33</u> ]	\$101,000	\$7,300	\$26,500	\$809,533	

## FORM IRP-GAS-8. COST-BENEFIT ANALYSIS RESULTS

COMPANY:

UGI Central Penn Gas, Inc.

PROGRAM:

2014 Low Income Usage Reduction Program

CONTACT:

**Yvette Belfort** 

		Total	Total	Revenue	Participant	Total	Total	Total	Total
		Utility	Utility	Reduction	Revenue	Participant	Participant	All Ratepayers	All Ratepayers
Period of Analysis	£	Benefits	Costs	Cost	Requirement	Benefits	Costs	Benefits	Costs
Beginning	Ending	(Bu)	(Cu)	(Cr)	(Rp)	(Bp)	(Cp)	(Ba)	(Ca)
Year	Year	\$	\$	\$	\$	_ \$	_ \$	<u> </u>	\$
2014	2031	575,271	464,041	1,435,419	N/A	1,536,720	0	507,312	464,041

	Net Present Value					Rate impact			
Discounted	Participant	Non-Participant	Utility	Ratepayers	Participant	ion-Participar	Utility	Ratepayers	Non-Participant
Payback	(NPVp)	(NPVnp)	(NPVu)	(NPVa)	(BCRp)	(BCRnp)	(BCRu)	(BCRa)	(RIMnp)
Period	\$	\$	\$	\$				<u> </u>	\$/MCF
N/A	1,536,720	(1,310,560)	111,230	43,271	N/A	0.3	1,2	1.1	\$0.13

Bu = Total Utility Benefits from avoided marginal energy costs. NPV of (MCE\*E), Cu = Total Utility Program Costs excluding direct incentives.

Cr = Cost of Revenue Reduction from Participants. NPV of [(E\*ACE)-UA].

Rp = Participant Portion of Gross Revenue Requirement - can be ignored if < 0.5% of system sales.

Bp = Total Participant Benefits. NPV of (E\*ACE)+TC+I.

Cp = Total Participant Costs.

Ba = Total All Ratepayers' Benefits. NPV of (E\*MCE)+UA
Ca = Total All Ratepayers' Cost. NPV of UC+(PC-TC)

NPVp = Bp-Cp

NPVp = Bp.Cp BCRp = Bp/Cp NPVnp = (1-1)(Bu-Cu-Cr-C)) BCRnp = Bu/(Cu+Cr+Cl) NPVu = Bu-Cu

BCRu = Bu/Cu NPVa = Ba-Ca BCRa = Ba/Ca RIMnp = (Cu+Cr+Ci-Bu)/S