
Devin Ryan

dryan@postschell.com
717-612-6052 Direct
717-731-1985 Direct Fax
File #: 172359

June 25, 2025

VIA ELECTRONIC FILING

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

**Re: Petition of UGI Utilities, Inc. - Gas Division for Approval of its Phase II Energy Efficiency and Conservation Plan
Docket No. M-2024-3048418**

Dear Secretary Homsher:

In compliance with Section 5.412a of the Pennsylvania Public Utility Commission's regulations, 52 Pa. Code § 5.41a, attached for filing on behalf of UGI Utilities, Inc. – Gas Division (“UGI Gas”) is the following admitted testimony and accompanying exhibits in the above-referenced proceeding:

Public Testimony and Exhibits

- UGI Gas Exhibit 1 – UGI Gas’s Phase II Energy Efficiency and Conservation Plan
- UGI Gas Exhibit 2 – Pro forma tariff pages for the Phase II Energy Efficiency and Conservation Rider
- UGI Gas Exhibit 3 – Petition for Approval of UGI Gas’s Phase II Energy Efficiency and Conservation Plan
- UGI Gas Statement No. 1 – Direct Testimony of Theodore M. Love, including UGI Gas Exhibit TML-1
- UGI Gas Statement No. 1-R – Rebuttal Testimony of Theodore M. Love, including UGI Gas Exhibits TML-1R through TML-6R, and Exhibit TML-8R

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- UGI Gas Statement No. 2 – Direct Testimony of Tracy A. Hazenstab, including UGI Gas Exhibits TAH-1 and TAH-2
- UGI Gas Statement No. 2-R – Rebuttal Testimony of Tracy A. Hazenstab

CONFIDENTIAL Rebuttal Testimony and Exhibits

- UGI Gas Exhibit TML-7R

UGI Gas notes, **CONFIDENTIAL** UGI Gas Exhibit TML-R is being filed separately with the Commission via ShareFile.

Respectfully submitted,



Devin Ryan

DR/dmc
Attachment

cc: The Honorable Steven K. Haas (*via email; w/attachment*)
Certificate of Service

CERTIFICATE OF SERVICE

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

Steven C. Gray, Esquire
Office of Small Business Advocate
555 Walnut Street
Forum Place, 1st Floor
Harrisburg, PA 17101
sgray@pa.gov

Melanie El Atieh, Esquire
Darryl A. Lawrence, Esquire
Ryan Morden, Esquire
Office of Consumer Advocate
555 Walnut Street
Forum Place, 5th Floor
Harrisburg, PA 17101-1923
melatieh@paoca.org
dlawrence@paoca.org
rmorden@paoca.org

Elizabeth R. Marx, Esquire
John W. Sweet, Esquire
Ria M. Pereira, Esquire
Lauren N. Berman, Esquire
Pennsylvania Utility Law Project
118 Locust Street
Harrisburg, PA 17101
pulp@pautilitylawproject.org
CAUSE-PA

Date: June 25, 2025



Devin T. Ryan

UGI Gas Exhibit 1

UGI Utilities, Inc. – Gas Division

Phase II Energy Efficiency and
Conservation Plan October 1, 2025 –
September 30, 2030

Filed: April 15, 2024

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1 Introduction and Background

1.1 Plan Overview

This plan provides a detailed description of the design and implementation of the energy efficiency and conservation portfolio (“EE&C Portfolio” or “Portfolio”) that UGI Utilities, Inc. – Gas Division (“UGI Gas” or “the Company”) is proposing to offer in its Phase II Energy Efficiency and Conservation Plan (“EE&C Plan” or “Plan”). The Plan will have a five-year duration, beginning in UGI Gas’s fiscal year (“FY”) 2026 through FY 2030,¹ and will include both natural gas energy efficiency (“EE”) programs and a combined heat and power (“CHP”) program.

UGI Gas’s EE&C Plan was developed based on the Company’s existing gas EE&C Plan that was approved as part of the UGI Gas base rate proceeding in 2019.² As discussed in more detail below, the Plan contains the same types of programs, Technical Reference Manual (“TRM”), and Total Resource Cost (“TRC”) Test that are employed in the current Plan approved by the Pennsylvania Public Utility Commission (“Commission”). Though UGI Gas is not mandated to enact an EE&C Plan under Act 129 of 2008 (“Act 129”), UGI Gas’s voluntary Phase II EE&C Plan was developed using the guiding principles of the Commission’s Act 129 *Phase IV Implementation Order*.³

Over the five years of the EE&C Plan, UGI Gas plans to spend \$69.5 million on four energy efficiency programs and one CHP program.⁴ Altogether, the EE&C Portfolio is cost-effective, providing \$67.8 million in net resource benefits with a TRC benefit-cost ratio (“BCR”) of 1.57, which generally increases the economic wellbeing of UGI Gas’s customers.

¹ UGI Gas’s fiscal year runs October 1st to September 30th.

² See *Pa. PUC v. UGI Utilities, Inc.*, Docket No. R-2018-3006814 (Order entered Oct. 4, 2019) (“*2019 Rate Case Order*”). The current EE&C Plan is referred to as the Consolidated EE&C Plan or Phase I EE&C Plan.

³ See *Energy Efficiency and Conservation Program*, Docket No. M-2020-3015228 (Order entered June 18, 2020) (“*Phase IV Implementation Order*”), *clarified*, Docket No. M-2020-3015228 (Order entered March 12, 2020).

⁴ All dollars are nominal unless otherwise noted.

The four energy efficiency programs are projected to cost \$67.8 million, save 1,486 BBtus of natural gas during the first five years of the Plan, and save 29,885 BBtus of natural gas over the lifetime of the measures installed. From a total resource perspective, the four energy efficiency programs' present value of benefits is \$155.8 million, with \$96.6 million in present value of costs, leading to a present value of net benefits of \$59.2 million and a TRC BCR of 1.61. Furthermore, the four energy efficiency programs are expected to save 339,662 MWh of electricity, 48.9 million gallons of water, create between 897 and 1,793 jobs, and avoid the emission of CO₂ equivalent to over 34,060⁵ cars being removed from the road.

UGI Gas is also proposing the investment of \$1.68 million in a CHP program over five years. This program would provide net energy savings to customers over the five years of the Plan of 327 BBtus, and 6,538 BBtus over the lifetime of the CHP projects installed. The CHP program is projected to provide present value of net benefits of \$8.6 million from a total resource perspective, with a TRC BCR of 1.38.

1.2 Natural Gas and Energy Efficiency

Natural gas is an abundant resource and an important component of the Pennsylvania economy. The Appalachian Basin, which includes the Marcellus and Utica shale formations, is the largest natural gas-producing region in the United States, constituting nearly one-third of total U.S. production in 2022.⁶ More than 90% of the natural gas UGI Gas delivers to its customers comes from the Marcellus Shale. UGI Gas's customers receive reliable, locally sourced gas that provides economic benefits to both UGI Gas's customers, in the form of lower natural gas supply costs, and the Commonwealth of Pennsylvania.

Natural gas also has many important advantages as an end-use fuel source. When compared to the use of electricity generated from natural gas or most other fuels, the direct end-use of natural gas is more efficient and environmentally

⁵ United States EPA greenhouse gases equivalences calculator

⁶ <https://www.eia.gov/todayinenergy/detail.php?id=57080>

preferable. Natural gas has a source-to-site efficiency of 92%, meaning the vast majority of the energy from natural gas is associated with on-site consumption. Electricity on the other hand, has system losses totaling 65%, meaning that only one third of generated electric energy is used at the site.⁷

As natural gas has continued to grow in importance as a fuel source, natural gas energy efficiency programs have also shown steady growth. According to the American Gas Association (“AGA”), natural gas utilities spent approximately \$1.6 billion on energy efficiency programs in 2020, representing a 391% increase compared to 2007, as shown in Figure 1. Spending even stayed consistent from 2019 through 2020 with the myriad of uncertainty and challenges presented by the COVID Pandemic.⁸ A 2020 AGA report also estimates that natural gas utility energy efficiency programs saved 259 trillion Btus of energy and offset 13.7 million metric tons of carbon dioxide emissions from 2012 through 2018⁹.

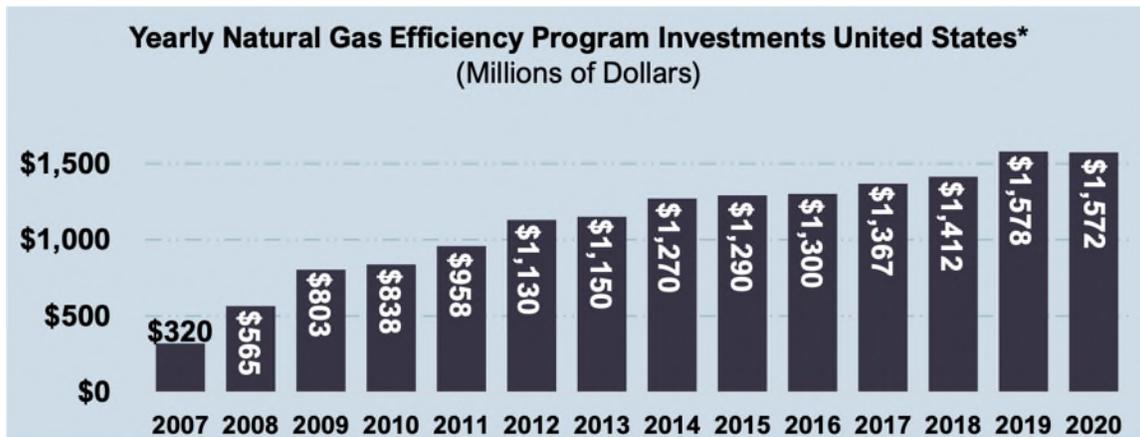


Figure 1. Growth of Natural Gas Energy Efficiency Program Spending¹⁰

The 2022 American Council for an Energy Efficient Economy (“ACEEE”) State Energy Scorecard shows that budgets for natural gas energy-efficiency programs

⁷ <https://www.eia.gov/energyexplained/us-energy-facts/images/consumption-by-source-and-sector.pdf>

⁸ American Gas Association, Natural Gas Efficiency Programs Report, 2020 Program Year, Miles Vondra, Morgan Hoy

⁹ <https://www.aga.org/wp-content/uploads/2022/02/aga-net-zero-emissions-opportunities-for-gas-utilities.pdf>

¹⁰ <https://www.aga.org/research/reports/natural-gas-efficiency-programs-2016-program-year/> .

have grown to \$1.7 billion nationally.¹¹ Within Pennsylvania, a number of gas utilities have undertaken voluntary energy efficiency programs, including the third phase of Philadelphia Gas Works' ("PGW") natural gas efficiency portfolio and the first phase of Columbia Gas of Pennsylvania, Inc.'s ("Columbia") WARM wise natural gas energy efficiency rebate program.

As the energy market is becoming increasingly customer driven, utilities around the country are recognizing the opportunity to drive economic growth and an efficient economy by sponsoring energy efficiency and conservation programs. For natural gas utilities, the opportunity to invest in helping customers save money, increase comfort, and reduce the impact they have on the environment is now a crucial component of joining the next generation of energy utilities and benefiting the communities that they serve.

1.3 Goals

UGI Gas has the following core goals:

- Help its customers save energy cost-effectively through a holistic approach to energy efficiency and conservation;
- Avoid lost opportunities and provide deep levels of savings;
- Provide a wide range of services for its diverse customer base; and
- Contribute to the economic welfare of its customers and Pennsylvania.

To reach these goals, UGI Gas will utilize four energy efficiency programs and one CHP program. For its energy efficiency programs, UGI Gas plans to invest approximately \$67.8 million over five years with the goal of returning \$59.2 million dollars in present value of total resource net benefits. As a secondary goal for efficiency programs, UGI Gas expects to save customers 29,885 BBtus of natural gas and 2 million tons of CO₂ emissions over the lifetime of installed measures during the five-year portfolio.

¹¹ ACEEE (American Council for an Energy-Efficient Economy), *The 2022 State Energy Efficiency Scorecard*, Weston Berg, et al, December 2022, p. 40.

For the CHP program, UGI Gas plans to invest approximately \$1.68 million over five years with the goal of returning \$8.6 million dollars in present value of total resource net benefits.

1.4 Plan Development

The UGI Gas Phase II EE&C Plan was developed based on the following principles:

1. Maintain continuity with the current UGI Gas EE&C Plan while leveraging experience gained from the past six years of EE&C Program activity to improve program design and projections.
2. Include new cost-effective measures to the suite of rebate offerings to provide more energy saving opportunities to UGI Gas's customers.
3. Expand existing programs based on market demand to reduce natural gas consumption and energy bills, improving the overall financial well-being of UGI Gas's customers.

UGI Gas's market information was gathered and characterized, including avoided costs for natural gas and electricity, demographic, building stock, and equipment market characteristics. These were combined with the measure and project characterizations from the UGI Gas EE&C Portfolio for cost-effectiveness screening using the TRC Test. The cost-effective measures and projects were then used to calculate achievable savings and participation levels based on experience with the prior EE&C Program activity. The achievable scenario was adjusted to allow for program ramp up and budget constraints to come up with a final portfolio.

The proposed programs are based on the Company's Phase I EE&C Plan, with some updates based on lessons learned from previous program experience. Updated program offerings include the combination of the Nonresidential Prescriptive Program and the Nonresidential Custom Program into a single Nonresidential program with two unique pathways. The modifications to the

current program offerings are outlined in the following table showing the proposed programs.

Table 1. Proposed Programs

Proposed Program	Existing Program	Disposition	Modifications
Residential Programs			
Residential Prescriptive (RP)	Residential Prescriptive (RP)	Modified	Updated Projections and Incentives, Added Measures
Residential New Construction (RNC)	Residential New Construction (RNC)	Continued	Updated Projections and Baseline
Residential Retrofit (RR)	Residential Retrofit (RR)	Continued	Updated Projections
Nonresidential Programs			
Nonresidential (NR)	Nonresidential Prescriptive (NR) and Nonresidential Custom (NC)	Merged and Modified	Merged Prescriptive and Custom into single program with two pathways, Added Measures

1.4.1 Settlement Provisions from Previous Proceedings

The following settlement items from previous proceedings were adhered to in the development of the Phase II EE&C Plan:

- UGI Gas will establish four EE&C rate classes: (1) R/RT; (2) N/NT; (3) DS; and (4) LFD. Each rate class will only have costs allocated to it for the programs for which that rate class is eligible.
- All appliances and equipment qualifying for rebates or incentives under the Phase II EE&C Plan must meet or exceed U.S. Department of Energy “EnergyStar” Minimum Standards to the extent such standards exist.
- UGI Gas will submit an annual report in January, approximately three months after the end of a program year. UGI Gas shall also hold an annual stakeholder meeting (Parties to this proceeding and other entities that express interest) to review and discuss the EE&C Plan’s progress, as well

as receive input from stakeholders on potential modifications to the EE&C Plan, if any. Each annual stakeholder meeting shall be held: (1) at a time and place chosen by UGI Gas; and (2) within three months after UGI Gas submits its EE&C Plan annual report to the Commission. UGI Gas will provide a copy of its annual EE&C Plan report to the stakeholders at the time it is submitted to the Commission and will review and discuss the report at the stakeholder meeting.

- UGI Gas will continue to develop targeted marketing materials for existing residential multi-family customers and new multi-family residential construction, including master-metered multifamily residences, with such materials focusing on targeting of property management companies and landlords. The materials will be applicable to both residential and commercial class multifamily structures.
- UGI Gas will continue to refer potentially eligible customers to its Low-Income Usage Reduction Program (“LIURP”) and will include LIURP messaging on applications and marketing materials, including a direct phone number to contact UGI Gas to pursue enrollment if the customer believes that they may qualify.
- UGI Gas will, over the five-year term of the EE&C Plan, limit recoverable utility costs (including incentives, program administration, marketing, inspections, and evaluation but excluding portfolio wide costs) for the Nonresidential Program to 55 percent of the overall aggregated TRC costs for the Nonresidential Program. Grant funding will be considered a source of participant funding. To the extent that UGI Gas deems that utility contributions in excess of 55 percent of overall program costs are required to achieve UGI Gas’s desired participation levels, UGI Gas may voluntarily make the necessary contributions without EE&C cost recovery.
- EE&C program budgets will be restricted so that program funds cannot be moved between residential and nonresidential rate classes without Commission approval. Budget flexibility with a rate class's portfolio will be limited to twenty-five (25) percent of a program’s five-year total budget. The

Company will petition the Commission for approval of changes of twenty-five (25) percent or more of a five-year total program budget within a rate class.

- EE&C Plan evaluation costs will be allocated amongst all rate classes for ratemaking recovery as they are incurred.
- The Company will not seek to recover in rates EE&C Plan administrative costs in excess of the projections included in this filing.
- Starting with the effective date of new rates established in this proceeding, customers who contact the UGI LIURP Team and who are determined by the UGI LIURP Team to have income at or below two hundred (200) percent of Federal Poverty Level, but who do not meet LIURP high energy usage thresholds, or who request direct install measures not offered by LIURP but offered by the EE&C Residential Retrofit (“RR”) Program, will be referred to the RR Program to receive a fee waived assessment. The RR assessment fee waiver, including all direct install measures implemented under a fee-waived assessment, will be capped at \$250,000 annually. The \$250,000 is not incremental of the RR Program budget. Direct install measures shall include, but not be limited to, smart thermostats, low flow devices, and water heater tank temperature setback.

Overall, spending was still restricted by a ceiling of 2% of revenue (approximately \$16.6 million per year), which is in-line with Act 129 EE&C Plan spending limits, and the overall portfolio has a TRC BCR greater than 1.0.

1.5 Total Plan’s Costs

The following table provides an overview of the spending by year and program for the total EE&C Plan. The maximum spend in a year is approximately \$15 million in FY 2030, which is approximately 1.8% of UGI Gas’s FY 2019 actual revenues. This level is well under the 2% cap that Act 129 imposes on electric EE&C Plans in Pennsylvania.¹²

¹² See 66 Pa.C.S. § 2806.1(g) (limiting the total cost of an electric distribution company’s (“EDC”) EE&C Plan to 2% of the EDC’s total annual revenue as of December 31, 2006).

Table 2. Projected Spending for EE&C Plan by Program

Program	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
EE&C Total	\$12,659,163	\$13,348,296	\$13,958,527	\$14,493,546	\$14,992,418	\$69,451,950
Residential Prescriptive (RP)	6,177,800	6,667,100	6,895,900	7,127,200	7,342,000	34,210,000
Residential New Construction (RNC)	2,165,243	2,165,243	2,330,558	2,395,888	2,508,203	11,565,135
Residential Retrofit (RR)	760,561	871,598	833,655	980,267	942,323	4,388,403
Nonresidential (NR)	2,320,559	2,409,355	2,638,414	2,730,192	2,914,892	13,013,412
Portfolio-wide Costs	900,000	900,000	925,000	925,000	950,000	4,600,000
EE Total	12,324,163	13,013,296	13,623,527	14,158,546	14,657,418	67,776,950
CHP Program	335,000	335,000	335,000	335,000	335,000	1,675,000

1.6 Energy Efficiency Programs' Costs and Benefits

1.6.1 Energy Efficiency Programs' Costs

The following table provides an overview of the spending by year and by sector on the EE programs. The EE programs will cost approximately \$13.6 million per year over the five-year life of the EE&C Plan.

Table 3. Projected Energy Efficiency Portfolio Budgets by Sector

Sector	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
Nominal	\$12,324,163	\$13,013,296	\$13,623,527	\$14,158,546	\$14,657,418	\$67,776,950
Residential	\$9,855,789	\$10,452,764	\$10,825,202	\$11,262,315	\$11,571,091	\$53,967,161
Nonresidential	\$2,468,373	\$2,560,532	\$2,798,325	\$2,896,231	\$3,086,328	\$13,809,789

The following table shows the projected EE budgets by program.

Table 4. Projected Energy Efficiency Portfolio Budgets by Program

Program	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
EE Total	12,324,163	13,013,296	13,623,527	14,158,546	14,657,418	67,776,950
Residential Prescriptive (RP)	6,177,800	6,667,100	6,895,900	7,127,200	7,342,000	34,210,000
Residential New Construction (RNC)	2,165,243	2,165,243	2,330,558	2,395,888	2,508,203	11,565,135
Residential Retrofit (RR)	760,561	871,598	833,655	980,267	942,323	4,388,403
Nonresidential (NR)	2,320,559	2,409,355	2,638,414	2,730,192	2,914,892	13,013,412
Portfolio-wide Costs	900,000	900,000	925,000	925,000	950,000	4,600,000

The portfolio-wide cost lines from the previous table are costs that apply to all programs in the EE portfolio. They are costs incurred at the portfolio level for program development, design, tracking, reporting, and administrative overhead.

In the final year, the portfolio-wide costs represent 6.5% of the portfolio total cost, and, over the five-year period, they represent 6.8% of the portfolio's costs. The following table provides a portfolio-level look at costs by category.

Table 5. Projected Energy Efficiency Portfolio Budgets by Category

Category	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
EE Total	\$12,324,163	\$13,013,296	\$13,623,527	\$14,158,546	\$14,657,418	\$67,776,950
Customer Incentives	\$8,924,320	\$9,505,657	\$10,019,193	\$10,478,217	\$10,945,782	\$49,873,168
Administration	2,821,843	2,786,639	2,857,334	2,907,330	2,974,636	14,347,782
Marketing	402,000	415,000	425,000	436,000	446,000	2,124,000
Inspections	176,000	186,000	197,000	207,000	216,000	982,000
Evaluation	-	120,000	125,000	130,000	75,000	450,000

1.6.2 Natural Gas Savings

The following tables provide projected natural gas savings by program and sector for the energy efficiency programs in the EE&C Portfolio.

Table 6. Projected First Year Gas Savings by Program (MMBtus)

Program	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
Portfolio Total	263,891	282,311	297,544	314,163	327,735	1,485,645
Residential Prescriptive (RP)	142,097	152,313	157,852	162,300	168,495	783,058
Residential New Construction (RNC)	40,272	40,272	42,635	45,028	47,391	215,598
Residential Retrofit (RR)	4,666	5,420	5,779	6,800	7,158	29,822
Nonresidential (NR)	76,856	84,305	91,278	100,036	104,692	457,167

Table 7. Projected Lifetime Gas Savings by Program (MMBtus)

Program	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
Portfolio Total	5,321,247	5,679,025	5,988,103	6,313,573	6,582,805	29,884,754
Residential Prescriptive (RP)	2,663,922	2,853,519	2,954,238	3,027,560	3,138,629	14,637,868
Residential New Construction (RNC)	926,259	926,259	980,610	1,035,637	1,089,988	4,958,753
Residential Retrofit (RR)	89,274	105,203	111,683	131,692	138,172	576,023
Nonresidential (NR)	1,641,793	1,794,044	1,941,573	2,118,684	2,216,016	9,712,110

Table 8. Projected Gas Savings by Sector (MMBtus)

Sector	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
First Year Gas Savings	263,891	282,311	297,544	314,163	327,735	1,485,645
Residential	187,035	198,006	206,266	214,128	223,043	1,028,478
Nonresidential	76,856	84,305	91,278	100,036	104,692	457,167
Lifetime Gas Savings	5,321,247	5,679,025	5,988,103	6,313,573	6,582,805	29,884,754
Residential	3,679,455	3,884,981	4,046,530	4,194,889	4,366,789	20,172,644
Nonresidential	1,641,793	1,794,044	1,941,573	2,118,684	2,216,016	9,712,110

1.6.3 Electric Savings

The following table shows electric savings for measures installed under the energy efficiency programs in the EE&C Portfolio. The electric savings are secondary savings from measures that primarily save natural gas, such as air-conditioning savings from increased levels of insulation and smart thermostat installations.

Table 9. Projected Electric Savings by Sector

Sector	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
First Year Energy (MWh)	3,075	3,154	3,337	3,542	3,722	16,830
Residential	2,786	2,842	3,004	3,186	3,347	15,165
Nonresidential	289	311	333	356	375	1,665
Lifetime Energy (MWh)	62,360	63,551	67,304	71,390	75,056	339,662
Residential	56,079	56,788	60,061	63,661	66,934	303,523
Nonresidential	6,281	6,763	7,243	7,728	8,123	36,138
Summer Peak (kW)	986	995	1,053	1,116	1,174	5,325
Residential	950	956	1,011	1,072	1,127	5,115
Nonresidential	36	39	42	45	47	210

1.6.4 Water Savings

This section contains ancillary water savings from gas efficiency measures that also save water, such as low-flow faucet aerators and showerheads.

Table 10. Projected Water Savings by Sector (Million Gallons)

Sector	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
First Year Water Savings	0.71	0.74	0.78	0.86	0.90	4.01
Residential	0.37	0.39	0.43	0.51	0.54	2.24
Nonresidential	0.34	0.35	0.35	0.36	0.36	1.76
Lifetime Water Savings	8.81	9.15	9.61	10.41	10.84	48.82
Residential	3.39	3.62	3.96	4.64	4.98	20.59
Nonresidential	5.41	5.53	5.65	5.77	5.87	28.23

1.6.5 Emission Reductions

This section contains projections for CO₂ emission reductions due to the energy efficiency programs. The total savings of 2 million tons of CO₂ is equivalent to removing 34,060 cars off the road each year. The following table breaks out the emission reductions due to gas savings and electric savings. While the emissions reductions are projected below, the main TRC test for the portfolio does not include any value for these emissions reductions.

Table 11. Projected CO₂ Emission Reductions by Energy Source (Short Tons)

Sector	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
First Year Reductions	18,016	19,160	20,205	21,348	22,293	101,022
From Gas Savings	15,438	16,515	17,406	18,379	19,172	86,910
From Electric Savings	2,579	2,644	2,798	2,970	3,121	14,112
Lifetime Reductions	363,582	385,511	406,738	429,204	448,029	2,033,065
From Gas Savings	311,293	332,223	350,304	369,344	385,094	1,748,258
From Electric Savings	52,289	53,288	56,434	59,860	62,935	284,806

1.6.6 Job Creation

UGI Gas estimates that its gas energy efficiency programs portfolio will generate between 897 and 1,793 net additional jobs over the lifetime of the efficiency measures installed over the next five-years. This range is based on assuming that each TBtu of gas savings creates between 30 and 60 full-time equivalent jobs in Pennsylvania.

Investing in cost-effective energy efficiency creates jobs in two ways, one direct and the other indirect, as discussed in a 2012 white paper from the ACEEE.¹³ Direct job creation results from hiring related to implementing the programs. Indirect job creation results from the substitution of capital spent on natural gas with capital spent in the local economy. Additional jobs are created by the indirect or income effect from cost-effective energy efficiency investment. Further, the net economic benefits from efficiency investment reduce household and business gas bills and raise household disposable incomes and business profitability. Customers will tend to spend most of this additional money and save the rest. This additional spending creates a “multiplier” effect through the cycle of re-spending of the initial cost savings, which stimulates aggregate demand for goods and services. Satisfying increased demand for goods and services requires more labor. While some of the jobs created leak into the broader U.S. and global economy, a good portion (possibly higher than 80%) of jobs created due to energy efficiency stay within the Commonwealth. The approach of looking at net job creation through both direct means and with economic multiplier effects is endorsed in the 2012 white paper from ACEEE.¹⁴

The number of jobs created from investments in energy efficiency directly relates to the total resource value of the energy that these measures save. Studies of employment impacts of Demand Side Management (“DSM”) use energy savings as a surrogate for total resource value. A meta-study of U.S. data found that estimates for the number of jobs created had a wide range, but that most studies estimate that between 30 and 60 net jobs are created by saving one TBtu.¹⁵ In

¹³ “Energy Efficiency Job Creation: Real World Experiences” Bell, Casey J. American Council for an Energy-Efficiency Economy. October 2012.

¹⁴ Energy Efficiency Job Creation: Real World Experiences” Bell, Casey J. American Council for an Energy-Efficiency Economy. October 2012.

¹⁵ Laitner, Skip, and Vanessa McKinney. June 2008. *Positive Returns: State Energy Efficiency Analyses Can Inform U.S. Energy Policy Assessments*. Washington, D.C.: American Council for an Energy Efficiency Economy.

New York, New Jersey, and Pennsylvania, the ACEEE projected that 164,320 jobs, or 59 for every TBtu saved, could be attributed to EE in 1997 through 2010.¹⁶

1.7 CHP Program’s Costs and Benefits

The following table provides the annual projected budgets for the CHP Program in nominal dollars.

Table 12. Projected CHP Program’s Budgets

Spending	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
Nominal	\$335,000	\$335,000	\$335,000	\$335,000	\$335,000	\$1,675,000

The following table provides the net primary energy savings installed annually for the CHP Program.

Table 13. Projected Net Primary Energy Savings from CHP (MMBtus) - Cumulative Annual

Savings	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
First Year	65,382	130,764	196,147	261,529	326,911
Lifetime	1,307,643	2,615,287	3,922,930	5,230,573	6,538,217

The following table provides the net CO₂ emission reductions due to the CHP Program. Over the five years of the program, it is anticipated to generate more than 33,000 tons of avoided carbon emissions. Over the lifetime of the program, that number grows to more than 676,000 tons of avoided emissions.

Table 14. Net CO₂ Emission Reductions due to CHP (Short Tons)

Savings	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
First Year	6,766	13,532	20,298	27,065	33,831
Lifetime	135,323	270,645	405,968	541,290	676,613

¹⁶ Nadel, Steven, Skip Laitner, Marshall Goldberg, Neal Elliott, John DeCicco, Howard Geller, and Robert Mowris. 1997. *Energy Efficiency and Economic Development in New York, New Jersey, and Pennsylvania*. Washington, D.C.: American Council for an Energy Efficiency Economy.

1.8 Cost-Effectiveness Analysis

The Company's cost-effectiveness methodology is described in detail in this section of its Plan. The following table provides cost-effectiveness projections for the EE&C Portfolio using the TRC Test, which is the primary metric by which UGI Gas evaluates the EE&C Plan.

Table 15. TRC Cost-effectiveness Summary of EE&C Portfolio (2024\$)

Program	Total Resource PV Benefits	Total Resource PV Costs	Total Resource PV Net Benefits	Total Resource BCR
EE&C Total	187,062,294	119,309,881	67,752,413	1.57
Residential Prescriptive (RP)	74,045,850	46,868,197	27,177,653	1.58
Residential New Construction (RNC)	44,157,230	12,559,344	31,597,886	3.52
Residential Retrofit (RR)	3,699,060	5,513,278	(1,814,217)	0.67
Nonresidential (NR)	33,932,197	27,866,711	6,065,486	1.22
Portfolio-wide Costs	-	3,835,802	(3,835,802)	-
EE Total	155,834,338	96,643,333	59,191,005	1.61
CHP Program	31,227,956	22,666,549	8,561,408	1.38

1.8.1 Cost-Effectiveness Analysis Methodology

The cost-effectiveness results reported in the Plan followed standard industry practices for utilizing the TRC Test for cost-effectiveness. The TRC Test methodology used is the same as that used by the Company in its current EE&C Plan. To calculate benefits, projected natural gas, electricity, and water savings are multiplied by avoided costs, and this stream of future values is discounted to the present. For measures that have an increase in resource usage, such as CHP projects, the increase in usage may offset some, or all, of the positive benefit derived from resource savings. The cost side of the test consists of the present value of all incremental costs incurred by participants, including net operation and maintenance costs, and the non-incentive costs incurred by the portfolio administrator. If the benefits outweigh the costs (the benefit-cost ratio is above one), then the total cost of energy services for an average customer within the territory will fall, and the portfolio is considered cost-effective.

The analysis used the same discount rate as the Act 129 EDCs for the TRC test, including a nominal rate of 5% and an inflation rate of 2%.

1.8.2 Avoided Costs

UGI Gas developed avoided costs consistent with its Phase I EE&C Plan. The costs of baseload and peaking capacity were included (paralleling the inclusion of generation capacity in the electric avoided costs), along with avoidable local distribution costs.

The avoided commodity costs for baseload were computed as the cost of the projected Henry Hub price, minus a weighted average basis for delivery to TetCo M2, TCO Pool, Transco Leidy, and Tennessee Zone 4 Marcellus, using futures pricing from August 15, 2023. To this was added the weighted average capacity charge, commodity cost and gas retention rate for baseload supplies, using a representative marginal contract for each supply system (TETCo, Columbia, Transco and Tennessee), using annual deliveries to the various UGI Gas regions.

Futures prices were blended with 2023 Annual Energy Outlook ("AEO") values for 2030 through 2035, and the AEO projections were used thereafter.

The avoided costs for heating load were computed in the same manner as baseload, reflecting the different amount of heating load in each month, and a mix of baseload and storage resources, again weighted across the four pipelines serving UGI Gas. This was then combined with capacity costs for a liquefied natural gas peaking contract to cover the design-day load. The peaking capacity in annual dollars per Dth-day of capacity is multiplied by the ratio of the load-weighted design-day peak, equivalent to 69.9 HDD, divided over the annual heating load, which averages about 5,214 HDD.

Avoided transmission and distribution were updated to include the actual plant additions for reliability (Budget Group 12O), Station Equipment (09O) and the much smaller Miscellaneous Plant Equipment (01O) and Supply Equipment (13O) for 2017 through 2022 (restated in constant dollars), from the Annual Asset Optimization Plan ("AAOP") filings. All investments identified as replacement were excluded, along with all investments for new business, which are not in the AAOPs.

The total investment was divided by an estimate of the associated design-day growth in that same period, from Section 14 of the §1307(f) filings. The result represents an estimate of the investment required to accommodate one Dth/day of design peak growth by the customers eligible for the efficiency programs.

The load growth estimate includes growth due to new business, even though new business investments are excluded from the computation. Thus, it will tend to be underestimated. Growth in 2019 was anomalously high, due to the addition of a large Rate XD customer, so the average growth in the other years was imputed.

Evaluation of some gas-efficiency programs and CHP also requires estimates of avoided electric costs. Electric avoided costs were taken directly from the analysis performed by the Statewide Evaluator (“SWE”). Specifically, to develop UGI Gas’s avoided electric costs, the Company utilized a blend of 50% PPL Electric Utilities Corporation, 25% FirstEnergy – Penelec, and 25% FirstEnergy - MetEd, the major EDCs whose service territories overlap with UGI Gas’s service territory, restated to constant 2023 dollars. Both the electric and gas avoided costs are also provided with the benefits of reduced supply prices and the internalized market price for carbon emissions included. A table showing the annual values for gas and electric avoided costs is included in Appendix 3.1.

1.9 Implementation

1.9.1 Program Staging

All programs are projected to be operating by October 1, 2025, given timely approval by the Commission, since all the programs exist, in some form or another, as part of the Company’s current Phase I EE&C Plan. However, programs may have some ramp up time due to program design changes.

1.9.2 Marketing

General Awareness and Branding

UGI Gas will leverage much of the Company's already established marketing infrastructure. This will create cost-effective and consistent messaging regarding UGI Gas's efficiency and conservation efforts. Marketing efforts may include, but not be limited to, www.ugi.com/savesmart, print, radio and digital advertisements, billboards, social media, bill inserts, and trade ally outreach. Once a customer reaches the website, the customer will be guided towards appropriate programs and incentives through targeted links. While the website will be a primary component of marketing the Plan, it will also be supplemented with additional marketing collateral such as flyers and application forms.

In addition, UGI Gas will promote how incentives may align and be eligible for additional savings through Inflation Reduction Act ("IRA") rebates. This may include, but not be limited to, URL links to aligned IRA incentives, guidance on the Company's website, and cross promotion of IRA Home Energy Performance-Based, Whole-House Rebates ("HOMES") and High-Efficiency Electric Home Rebate Act ("HEEHRA") program availability as part of supporting the Pennsylvania Department of Environmental Protection's roll out of measures targeting residential customer equipment through inclusion in its EE&C marketing materials.

Multi-family Outreach

UGI Gas will market directly to residential multi-family customers and multi-family new construction, including master-metered multifamily residences. These efforts will focus on residents, landlords, and management companies, regardless of the rate class structure of the property.

Low-income Customers

Customers who contact UGI Gas or its Conservation Service Providers ("CSPs") with interest in participating in the EE&C Plan will be informed that they might qualify for LIURP if they are income qualified. Any interested customers will be referred to UGI Gas's LIURP.

Targeted Outreach and Partnerships

UGI Gas will continue to leverage and enhance partnerships with trade allies. These efforts are likely to be the best way to drive nonresidential participation. Successful activities involve all sectors within the community and may include as activities such as:

- Partnering with local businesses and trade organizations (builders, contractors, plumbers, HVAC service providers, equipment suppliers, etc.) to familiarize them with program opportunities, energy efficiency practices, and implementation requirements and to utilize them, where appropriate, as one of the program's service delivery channels.
- Targeting equipment manufacturers, distributors, installation contractors, and retailers/vendors to make sure they offer high-efficiency equipment and can make customers aware of available incentives.
- Connecting with local business organizations to provide opportunities to address their specific needs and translate them to their tenants, management, and facility operations personnel.
- Working with administrators of Act 129 EDCs' EE&C Plans to combine marketing and delivery options and address all aspects of efficiency at the same time.
-

1.9.3 Administration

The table below describes the main roles in the management of the EE&C Plan.

Table 2. Overview of Administration Roles

Role	Description
Plan Administrator	Primarily responsible for program and portfolio planning, management and reporting. Supervises and manages all other roles.
Implementation and Design Consultants	Provide assistance in the design and implementation on multiple aspects of the portfolio, including, but not limited to, program design, reporting, marketing, and training. UGI Gas will leverage internal resources wherever possible to provide these services.
Implementation Contractor	Directly responsible for main aspects of program delivery, including, but not limited to, customer engagement and retention, technical assistance, measure installation, rebate processing, program tracking, and reporting.
Third-party Inspector	Responsible for measure and project inspections that are conducted separately from the implementation contractor.
Evaluator	Performs independent program and portfolio evaluations that are used to verify savings and guide future plans.

1.9.4 Reporting

UGI Gas will submit an annual report on the EE&C Plan each January, three months after the close of the program year. This report will provide information on activity for the previous year and progress towards five-year goals, including, but not limited to:

- First year and lifetime savings;
- Participation;
- Spending;
- Cost-effectiveness;
- Highlights of portfolio and program activity; and
- Updates to program delivery and design.

To tie savings and costs together as effectively as possible, results will be reported based on commitments made. UGI Gas will also report on any participation by buildings with more than one unit.

1.9.5 Program Flexibility

To make sure that the EE&C Portfolio can address changing market conditions and improve service delivery as quickly as possible, UGI Gas requires flexibility in the allocation of budgets and implementation of program improvements. This plan document provides the principles and five-year goals that UGI Gas is seeking, but certain adjustments, such as providing incentives for new measures or moving budgets between years and programs, may be required to meet these goals. UGI Gas will include any such adjustments in its annual report but does not anticipate seeking initial approval for such updates. However, if necessary, UGI Gas will file an updated EE&C Plan in anticipation of material changes that may have a serious effect on five-year goals, such as:

- The addition or removal of a program;
- A need for total funding levels above those approved for the five-year period;
- The need to transfer funds between programs, but within the same sector (Residential or Commercial) more than 25% of a program's five-year total budget; and
- Significant changes to cost-effectiveness projections, such as an update to avoided costs or a large reduction in portfolio spending projections.

1.9.6 Technical Reference Manual

To accommodate the additional measures being added to the Plan, UGI Gas is submitting an updated TRM along with the proposed Phase II EE&C Plan. Any results from program evaluations that affect deemed savings calculations will be added to the TRM and provided in subsequent annual report filings throughout the five-year Plan period.

1.9.7 Tracking System

UGI Gas will require CSPs to collect all relevant customer, application, measure, and contractor information and that this data is provided to UGI Gas in a timely fashion. UGI Gas will in turn maintain a program and portfolio-level aggregation of this information to be used for program management and assessment, as well as for annual reporting.

1.9.8 Third-party Inspections

Each program will have a third-party inspector, separate from the contractor that performed the work, who will solicit customer feedback and will examine whether the work was done properly and whether the installed measures match the application data. Inspections for large, complex, and custom projects will be mandatory. Inspection rates for prescriptive programs will be designed to gather a statistically significant sample of program activity. See individual program plans for additional details.

1.9.9 Evaluation, Measurement, and Verification

UGI Gas will monitor the ongoing progress of the EE&C Plan to provide the highest possible service to customers, while maintaining rigorous processes and controls to ensure that savings and costs are being properly accounted for. UGI Gas will closely track program data, perform independent inspections of completed projects, and perform periodic evaluations for all programs.

UGI Gas will evaluate each of its programs once adequate participation levels have been reached and after a full 12 months of post-participation billing data has been collected. The programs may be evaluated again after another two years have passed. As part of the initial program development, UGI Gas will work with the selected evaluator to establish the methodology and goals of the process evaluation. Initial objectives include:

- Verifying energy savings and associated costs;
- Assessing market attitudes towards the program, including contractors, customers, and efficient equipment suppliers; and
- Measuring the effectiveness of current program design, marketing, and service delivery.

The evaluation section of the individual program descriptions includes additional details on evaluation schedules and goals unique to that program.

2 Program Plans

2.1 Residential Prescriptive

Objective	The Residential Prescriptive (RP) program is designed to overcome market barriers to energy efficient space and water heating equipment in the residential and small commercial sectors through rebates and customer awareness. The program’s objective is to avoid lost opportunities by encouraging consumers to install the most efficient natural gas heating technologies available when replacing older, less efficient equipment. The program also aims to strengthen UGI Gas’s relationship with HVAC contractors, suppliers, and other trade allies.						
Eligible Rate Class	R/RT, N/NT						
Cost-Effectiveness	Five-Year Cost-Effectiveness Results (2024\$)						
	CE Test	PV Benefits	PV Costs	PV Net	BCR		
	TRC Test	74,045,850	46,868,197	27,177,653	1.58		
Gas Admin Test	72,780,132	28,450,312	44,329,821	2.56			
Savings Projections	Five-Year Savings Projections						
		FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
	Natural Gas (MMBtus)						
	First Year	142,097	152,313	157,852	162,300	168,495	783,058
	Lifetime	2,663,922	2,853,519	2,954,238	3,027,560	3,138,629	14,637,868
Electric Energy (kWh)							
First Year	660,000	708,000	744,000	792,000	828,000	3,732,000	

	Lifetime	7,260,000	7,788,000	8,184,000	8,712,000	9,108,000	41,052,000
	Peak (kW)	-	-	-	-	-	-
	Water (Gallons)						
	First Year	-	-	-	-	-	-
	Lifetime	-	-	-	-	-	-
Budget Projections	<i>Five-Year Budgets (Nominal)</i>						
	Category	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
	Customer Incentives	\$ 5,656,800	\$ 6,069,100	\$ 6,332,900	\$ 6,486,200	\$ 6,745,000	\$ 31,290,000
	Administration	252,000	262,000	268,000	275,000	281,000	1,338,000
	Marketing	181,000	191,000	197,000	204,000	210,000	983,000
	Inspections	88,000	95,000	98,000	102,000	106,000	489,000
	Evaluation	-	50,000	-	60,000	-	110,000
	Total	\$ 6,177,800	\$ 6,667,100	\$ 6,895,900	\$ 7,127,200	\$ 7,342,000	\$ 34,210,000

Participation Projections	<i>Five-Year Participation Projections</i>						
	Measure	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
	Furnace - ENERGY STAR	4,600	4,900	4,900	5,000	5,100	24,500
	Boiler - (94+ AFUE)	410	440	470	490	490	2,300
	Combi Boiler - (94+ AFUE)	1,400	1,500	1,600	1,600	1,700	7,800
	Smart Thermostat – ENERGY STAR	5,500	5,900	6,200	6,600	6,900	31,100
	Tankless Water Heater - ENERGY STAR	1,130	1,210	1,280	1,360	1,360	6,340
	Boiler Reset Control	50	130	170	260	330	940
	Single Package Vertical Unit (SPVU)	50	50	100	100	150	450
	Fireplace Insert	2	4	6	8	10	30
Total	13,142	14,134	14,726	15,418	16,040	73,460	
Program Design	<p>The RP program follows the same design as the current program of the same name. The same measures from the current program are also included with the same incentive levels. In addition, incentives for efficient natural gas fireplace inserts, boiler reset controls, and efficient single package vertical units (“SPVUs”) are being offered. SPVUs are being offered to provide multi-family building owners and occupants with an efficient option for space heating where there are many barriers to installing efficient natural gas furnaces.</p> <p>The RP program offers rebates for qualifying residential-sized space and water heating equipment. Customer rebates can be issued via mail or in the form of an instant rebate issued by qualified participating contractors or equipment distributors. Customers will be made aware of opportunities through traditional marketing efforts, such as bill inserts and media advertisements, as well as from installation contractors. For most measures, customers will have a contractor install the measure and</p>						

	<p>receive a cash rebate to offset most of the incremental cost of the higher efficiency equipment. Smaller measures, such as Wi-Fi enabled thermostats, will only require a valid proof of purchase before a cash rebate is issued.</p> <p>UGI Gas will continue to examine other equipment for potential inclusion in the program, as well as the relative market adoption of equipment already receiving incentives.</p> <p>If program funds begin to run low each year, incentive levels may be lowered, or equipment removed from the program if additional budget adjustments cannot be made. UGI Gas will aim to provide as little interruption to customers as possible due to such adjustments.</p>
<p>Target Market and End Uses</p>	<p>The RP targets residential and small commercial consumers who use natural gas to heat their homes and/or generate hot water. In general, the program aims to incentivize only the highest levels of efficient equipment on the market. The minimum level of efficiency for measures offered through the RP program will be ENERGY STAR®, when available, and in some cases may exceed ENERGY STAR®.</p> <p>On the space heating side, the program provides incentives for ENERGY STAR® labeled smart thermostats, furnaces, high efficiency boilers, and combination boilers. ENERGY STAR® smart thermostats offer the potential for deeper savings than traditional programmable thermostats due to the wide range of features and feedback they offer. ENERGY STAR® requirements for furnaces drive customers toward the highest efficiency tier of condensing units (95+ AFUE) and require efficient fans that save electricity. The program would also require boilers to go towards the highest efficiency tier with an AFUE of at least 94. Offering incentives for combination space and water heating boilers</p>

addresses two types of end-use with one piece of equipment. These “combi boilers” also address issues with orphaned water heaters having existing atmospheric venting systems that are no longer adequate, when switching to condensing heating equipment. The program also addresses water heating savings by offering incentives for ENERGY STAR® tankless water heaters. Gas fireplace inserts have become increasingly popular in UGI’s service territory. Because of this, UGI Gas is offering an incentive for customers to install a more efficient system. Incentives will be given to qualifying units achieving 70% efficiency or greater. The baseline efficiency for these fireplace inserts is 60%. UGI Gas will also offer incentives for boiler reset controls. These controls will be eligible on residential boilers that currently do not have a reset control that is controlling the feed water temperature based on the outdoor temperature. Finally, to better serve multi-family customers in UGI Gas’s territory an incentive will be given for SPVUs. These units are the most popular space heating method in multi-family buildings. SPVUs do not have an ENERGY STAR® certification category, therefore, incentives will be given to qualifying units achieving 94% AFUE or greater. The baseline efficiency for SPVUs is 80%.

<p>Financial Incentives</p>	<p>Incentives were designed to be in line with other offerings in the region and/or cover approximately half of the incremental cost of the measure. The table below lists the proposed incentive schedule.</p> <p><i>Proposed Residential Prescriptive Program Rebates (Nominal)</i></p> <table border="1"> <thead> <tr> <th>Equipment</th> <th>Minimum Efficiency</th> <th>Initial Incentive</th> <th>Maximum Incentive</th> </tr> </thead> <tbody> <tr> <td>Smart Thermostat</td> <td>ENERGY STAR®</td> <td>\$50</td> <td>\$100</td> </tr> <tr> <td>Furnace</td> <td>ENERGY STAR®</td> <td>\$500</td> <td>\$500</td> </tr> <tr> <td>Boiler</td> <td>94+ AFUE</td> <td>\$1,200</td> <td>\$1,500</td> </tr> <tr> <td>Combi Boiler</td> <td>94+ AFUE</td> <td>\$1,500</td> <td>\$1,800</td> </tr> <tr> <td>Tankless Water Heater</td> <td>ENERGY STAR®</td> <td>\$400</td> <td>\$400</td> </tr> <tr> <td>Boiler Reset Control</td> <td>N/A</td> <td>\$300</td> <td>\$350</td> </tr> <tr> <td>SPVU</td> <td>94+ AFUE</td> <td>\$450</td> <td>\$500</td> </tr> <tr> <td>Fireplace Insert</td> <td>70+ FE</td> <td>\$150</td> <td>\$200</td> </tr> </tbody> </table> <p>All equipment other than the Smart thermostat must be powered by natural gas.</p>	Equipment	Minimum Efficiency	Initial Incentive	Maximum Incentive	Smart Thermostat	ENERGY STAR®	\$50	\$100	Furnace	ENERGY STAR®	\$500	\$500	Boiler	94+ AFUE	\$1,200	\$1,500	Combi Boiler	94+ AFUE	\$1,500	\$1,800	Tankless Water Heater	ENERGY STAR®	\$400	\$400	Boiler Reset Control	N/A	\$300	\$350	SPVU	94+ AFUE	\$450	\$500	Fireplace Insert	70+ FE	\$150	\$200
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Fireplace Insert	70+ FE	\$150	\$200																																		
<p>Marketing Approach</p>	<p>The RP program will be a cornerstone of the two-pronged marketing approach for the portfolio. The program is expected to be a large portion of the general call-to-action on the residential side as well as a key part of trade ally outreach efforts. This will include placement on UGI’s energy efficiency website, www.ugi.com/savesmart, as well as a general social media push. This program will also include more tailored messages for developers, owners, and managers of larger multi-family properties to make sure that high efficiency options are considered when bulk-purchasing decisions may be made.</p>																																				

<p>Evaluation, Measurement, and Verification</p>	<p><u>Quality Assurance</u></p> <p>All applications will require proof of purchase and a valid UGI Gas account number. Rebates received as an instant rebate via a qualified participating contractor or equipment distributor will be accompanied by an invoice showing the point-of-sale discount passed on to the customer. The rebate processor will verify that the equipment is eligible for the rebate based on the model number before issuing any rebate. The program’s rebate processor will maintain a real-time database of rebate activity, which will be periodically reviewed by UGI Gas and stored separately for long-term purposes.</p> <p>A third-party inspector will perform on-site inspections on approximately five percent (5%) of non-thermostat equipment rebates and approximately three percent (3%) of smart thermostat rebates in order to obtain a statistically significant sample of activity. The inspection will consist of verifying that the rebated equipment is installed and operational and conclude with a short informational interview with the participant.</p> <p><u>Evaluations</u></p> <p>A third-party vendor began evaluation activity on the existing UGI South and North programs at the end of FY 2018 and has continued through the existing consolidated programs. This vendor will continue to provide evaluation activity in conjunction with all applicable UGI Gas EE&C programs.</p>
<p>Program Administration</p>	<p><u>Rebate Processing</u></p>

	<p>The rebate processor will accept customer applications, track and verify application information, notify the customer of any issues, maintain a call center, and report results to UGI Gas. The rebate processor may also be responsible for other rebate programs in order to streamline portfolio management. UGI Gas plans to continue to utilize the existing rebate processor to help ensure a seamless transition and process for customers.</p> <p><u>Marketing and Outreach</u></p> <p>The UGI Gas marketing vendor and the UGI Gas internal team will handle marketing and outreach for the RP program.</p> <p><u>Inspector</u></p> <p>A separate contractor from the one installing any equipment will perform on-site inspections and collect customer feedback and is expected to be the same as that utilized by UGI Gas in order to standardize inspection workflows and data collection.</p> <p><u>Evaluator</u></p> <p>A third-party evaluator will be retained to perform regular evaluations approximately every two years.</p>
Special Notes	<p>In addition to offering cash rebates and instant rebates via a qualified participating contractor, customers will also have the option to purchase qualified smart thermostats via an online marketplace operated by the UGI Gas rebate processor. This website offers the most popular qualified smart thermostats, with the rebate being discounted from the purchase price instantly during checkout.</p>

2.2 Residential New Construction

Objective	<p>The Residential New Construction (RNC) program is designed to overcome market barriers to energy efficient space and water heating equipment, as well as high efficiency thermal envelopes, in the residential new construction sector through rebates offered to builders and developers and through general potential buyer awareness. The program’s objective is to avoid lost opportunities by encouraging builders and developers to install the most efficient natural gas heating technologies available instead of less efficient baseline equipment, as well as promote thermal envelope best practices. The program also aims to strengthen UGI Gas’s relationship with builders, HVAC contractors, suppliers, and other trade allies.</p>																																																						
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Cost-Effectiveness	<p><i>Five-Year Cost-Effectiveness Results (2024\$)</i></p> <table border="1" data-bbox="485 899 1902 1040"> <thead> <tr> <th>CE Test</th> <th>PV Benefits</th> <th>PV Costs</th> <th>PV Net</th> <th>BCR</th> </tr> </thead> <tbody> <tr> <td>TRC</td> <td>44,157,230</td> <td>12,559,344</td> <td>31,597,886</td> <td>3.52</td> </tr> <tr> <td>PAC</td> <td>24,494,425</td> <td>9,619,372</td> <td>14,875,053</td> <td>2.55</td> </tr> </tbody> </table>						CE Test	PV Benefits	PV Costs	PV Net	BCR	TRC	44,157,230	12,559,344	31,597,886	3.52	PAC	24,494,425	9,619,372	14,875,053	2.55																																		
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Program Design	Addressing efficiency when a building is being planned and built is the cheapest and longest lasting way to change energy consumption patterns. The RNC program offers incentives to builders and/or developers for going beyond building code to reduce natural gas consumption. UGI Gas will continue to use the current program administrator to review customer applications, assess the project plans, verify that each project meets program eligibility requirements, help the customer to achieve the highest feasible and cost-effective savings, and issue rebate payments.																																																	

	<p>Similar to the program design of the Act 129 EDCs, the program focuses on a whole home energy efficient building practice that is evaluated by the percentage of savings above a code-built home, as established through a Home Energy Rating System score (“HERS rating” or “HERS score”). The HERS rating will evaluate the savings above a baseline code construction home and will issue incentives based on the natural gas savings achieved. The RNC program encourages participants to go as deep as possible by addressing the space heating system, water heating system, and building envelope.</p>
<p>Target Market and End Uses</p>	<p>The RNC program targets all new residential construction projects (including “gut rehab”) contemplating use of natural gas to provide space and hot water heating. For the purposes of this program, gut rehabilitation is defined as a project where the interior space of the building exposes the studs or two or more of the mechanical systems are being replaced and are required to meet current energy code standards.</p> <p>In general, the program aims to incentivize only the highest levels of efficient equipment and construction practices on the market. The RNC program takes a whole-building approach, acquiring savings from multiple measures compared to a baseline building that is designed to simply meet code. For single family and small multi-family buildings, measures might include thermal envelope insulation, air infiltration reduction, heating equipment, and water heating equipment and low-flow fixtures.</p>

Financial Incentives	<p>Residential builders and/or developers will receive a lump sum incentive for achieving the program required level of savings over code and/or a designated HERS rating score that will be designed to represent an average saving over code. An additional incentive category will be created to more deeply incentivize homes that achieve ENERGY STAR® certification in addition to the required level of savings over code and/or designated HERS score. The maximum incentive that UGI Gas will offer is \$55/MMBtu. The following table provides an overview of proposed savings levels and associated incentives.</p> <table border="1" data-bbox="590 643 1843 797"> <thead> <tr> <th data-bbox="590 643 852 748">Code Baseline</th> <th data-bbox="852 643 1031 748">Savings Over Code</th> <th data-bbox="1031 643 1247 748">Initial Base Incentive (\$/MMBtu)</th> <th data-bbox="1247 643 1545 748">Initial Incentive ENERGY STAR® (\$/MMBtu)</th> <th data-bbox="1545 643 1843 748">Incentive Cap/Home</th> </tr> </thead> <tbody> <tr> <td data-bbox="590 748 852 797">2018 IECC</td> <td data-bbox="852 748 1031 797">15%</td> <td data-bbox="1031 748 1247 797">\$35.00</td> <td data-bbox="1247 748 1545 797">\$45.00</td> <td data-bbox="1545 748 1843 797">\$1,750</td> </tr> </tbody> </table>	Code Baseline	Savings Over Code	Initial Base Incentive (\$/MMBtu)	Initial Incentive ENERGY STAR® (\$/MMBtu)	Incentive Cap/Home	2018 IECC	15%	\$35.00	\$45.00	\$1,750
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2018 IECC	15%	\$35.00	\$45.00	\$1,750							
Marketing Approach	<p>The RNC program will focus on tailored messages for developers, and builders (including ENERGY STAR® builders) to ensure that high efficiency options are considered when engaging in major rehab projects and new construction. UGI Gas will also explore ways in which to highlight the efficiency of homes to potential buyers, including through social media, signage placed at model homes and participating in builder events.</p>										
Evaluation, Measurement, and Verification	<p><u>Quality Assurance</u></p> <p>All applications will require information confirming installation and proof of UGI Gas service for heating. Inspections will be performed on 5% of residential new construction projects. Inspections</p>										

must verify that the measures proposed for the building were installed as planned and that savings targets have been met and must conclude with a short informational interview with the owner and/or developer. The program's rebate processor will maintain a real-time database of rebate activity, which will be periodically reviewed by UGI Gas and stored separately for long-term purposes.

Evaluations

The program evaluation activity will be expected to continue seamlessly with the current evaluation of the UGI Gas EE&C program. This vendor will continue to provide evaluation activity in conjunction with all applicable UGI Gas EE&C programs.

<p>Program Administration</p>	<p><u>Technical Assistance and Rebate Processing</u></p> <p>UGI Gas plans to use the current program administrator to review customer applications, assess the project plans, verify that each project meets program eligibility requirements, help the customer to achieve the highest feasible and cost-effective savings, and issue rebate payments.</p> <p><u>Marketing and Outreach</u></p> <p>The UGI Gas marketing vendor and the UGI Gas internal team will handle marketing and outreach for the RNC program.</p> <p><u>Inspector</u></p> <p>A separate contractor will perform on-site inspections and collect customer feedback. The same firm responsible for providing technical assistance may perform this role.</p> <p><u>Evaluator</u></p> <p>A third-party evaluator will be retained to perform regular evaluations approximately every two years.</p>
<p>Special Notes</p>	<p>UGI Gas will follow the guidance from the Act 129 SWE regarding the baseline code level from which the program counts savings. Currently, UGI Gas anticipates that the code baseline for savings purposes will be IECC 2018, which went into effect on June 1, 2023.</p>

	<p>The new construction market is highly cyclical and participation levels in the program will be highly influenced by broader economic trends beyond the control of UGI Gas. All projections in this program are based on historical program performance as a best practice.</p>
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2.3 Residential Retrofit

Objective	The Residential Retrofit (RR) program is designed to overcome market barriers to energy efficiency in the existing residential sector through rebates offered either to customers undergoing a retrofit project or to their installation contractor(s). The program encourages improvements to the thermal envelope of the structure, particularly reductions in building air leakage and increases in insulation levels. The program also aims to strengthen UGI Gas’s relationship with Home Performance contractors, suppliers, and other trade allies.																																																						
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Program Design	The RR program offers incentives to customers and/or their installing contractor(s) for retrofitting or weatherizing their homes by installing low-cost energy savings measures and making thermal																																																	

envelope improvements through use of approved contractors who may also receive an incentive to encourage comprehensiveness.

Customers must have an in-home energy assessment performed, which will cost up to \$100. The assessment may include the direct installation of energy saving measures as well as a visual inspection of the thermal envelope and the space and water heating equipment in the home. During the assessment, the customer will be provided with a gas savings kit that may be directly installed by the contractor. This kit will include a smart thermostat, low-flow devices, outlet and switch gaskets, and a carbon monoxide detector, for health and safety purposes. After the assessment, the customer will receive a list of recommended efficiency improvements for their consideration, in addition to those measures that were directly installed. The customer can then have a contractor perform the recommended efficiency improvements. The customer may receive an instant rebate from the contractor and allow the contractor to collect the subsequent rebate. Audits and thermal envelope improvements must be made by a contractor previously selected by the program as meeting program standards for high quality and technical performance, as well as possessing Building Performance Institute (“BPI”) certifications appropriate with their job responsibilities.

The rebate will be given to the customer and/or the contractor upon submission of suitable documentation. Thermal envelope improvement rebates will require submittal of pre- and post-blower door measurements to document leakage rate reductions, and pre- and post-R-values, along with affected square footage, to document insulation improvements.

	<p>Program participation levels will dictate allocation of funds from year to year, as well as the incentive levels offered. Incentive levels will be designed to give a percentage of the total project cost and as a mechanism to control program budgets will include a cap per rebate. UGI Gas will aim to provide as little interruption due to any program adjustments made to accommodate market conditions.</p>
<p>Target Market and End Uses</p>	<p>The RR program targets all residential homes that can benefit from improvements to the building envelope by encouraging a whole house approach to consider the full implications of specific measures to the overall performance of the house. The program offers a low-cost Home Energy Assessment, that may include the direct installation of gas saving measures, with the goal of convincing homeowners to install a more comprehensive project. For comprehensive projects, the program aims to incentivize only the most impactful thermal envelope improvements.</p> <p>A Home Energy Assessment may include, but is not limited to, the following gas saving measures:</p> <ul style="list-style-type: none"> • ENERGY STAR® Smart Thermostat • Kitchen and Bathroom Faucet Aerator • Low flow Showerhead • Water Heater Tank Temperature Turndown <p>In addition, the assessment may include the installation of health and safety measures, such as a Carbon Monoxide Detector.</p>

	<p>A comprehensive project is a project that goes beyond a Home Energy Assessment to include air sealing and insulation as part of the home retrofit package. To qualify for even the lowest incentive tier, customers are guided toward the most impactful envelope improvements.</p>
Financial Incentives	<p>Customers will pay up to \$100 for a home energy assessment, and contractors will be compensated up to \$200 plus the cost of installed measures for a home energy assessment. The customer fee may be waived for qualifying low-income customers that are not eligible for LIURP services due to usage levels, or as a marketing promotion to assist with program ramp-up.</p> <p>Incentives for comprehensive jobs are designed to be in line with other offerings in the region and/or other companion programs in the UGI Gas portfolio, such as the RP program. UGI Gas anticipates an incentive of approximately 25% of the project cost with an incentive cap being put into place up to \$3,000. This incentive is designed to provide a significant contribution to the cost of qualifying thermal envelope improvements.</p>
Marketing Approach	<p>Customers will be made aware of the RR program through the general media and bill inserts, as well as through equipment distributors, Home Performance contractors, and others in a position to affect equipment installation and thermal envelope improvement choices.</p> <p>The contractor network will play a large role in generating program leads. Approved program contractors will be encouraged to do their own marketing to enlist high quality leads for promoting high lead conversion rates, and to up-serve comprehensive retrofit packages qualifying for the</p>

	<p>highest incentive tier(s). They will be supported in these efforts through training and the development of co-branding materials that the contractor can use to promote the program.</p>
<p>Evaluation, Measurement, and Verification</p>	<p><u>Quality Assurance</u></p> <p>A contractor approved by UGI Gas will supervise all assessments and installation work. All approved contractors must employ a BPI-certified employee to conduct both the in-home energy assessment and as crew leader for the installation of weatherization measures. Approved contractors must employ site technicians and site supervisors with BPI professional certifications appropriate to their duties. The approved contractor must also be trained in program protocols, and the contractor's first three projects will require confirmation of quality installation by an approved third party before moving from probationary status to becoming fully approved. Subsequent contractor work will be sampled up to 10% of projects submitted. Following approval into the program, an approved contractor will be required to meet a variety of criteria to remain in good standing with the program. These criteria will include, but not be limited to, customer satisfaction, quality assurance results, program activity, and ongoing training.</p> <p><u>Rebate Processing</u></p> <p>UGI Gas plans to use the current program administrator to review customer applications, assess the project plans, verify that each project meets program eligibility requirements, help the customer to achieve the highest feasible and cost-effective savings, and issue rebate payments.</p>

	<p><u>Evaluations</u></p> <p>A third-party vendor will continue to provide evaluation activity in conjunction with all applicable UGI Gas EE&C programs.</p>
<p>Program Administration</p>	<p><u>Contractor Network</u></p> <p>UGI Gas will put in place an approved contractor network that will perform energy audits, natural gas retrofit projects, and submit project and incentive application information to the program administrator.</p> <p><u>Program Manager</u></p> <p>As part of the scope of work for the program administrator duties, UGI Gas will engage a program administrator to oversee the contractor network, accept program applications, track and verify application information, communicate with customers if necessary, and report results to UGI Gas.</p> <p><u>Marketing and Outreach</u></p> <p>UGI Gas and the program administrator will handle marketing and outreach for the RR program.</p> <p><u>Inspector</u></p> <p>A separate contractor will perform on-site inspections and collect customer feedback. The inspector may also spend a portion of their time directed towards onsite mentoring for contractors. The program administrator may also perform the inspection role.</p>

	<p><u>Evaluator</u></p> <p>A third-party evaluator will be retained to perform regular evaluations approximately every two years.</p>
<p>Special Notes</p>	<p>UGI Gas will explore ways in which to encourage contractors to install measures that achieve deeper savings. This may include setting aside a portion of incentives to go directly towards contractors in the form of a performance bonus.</p> <p>Should other marketing efforts fail to achieve the audit and job targets projected in this plan, UGI Gas may consider implementing a program offering where a customer has the option to fill out an online self-assessment of their home to be used as a customer educational tool and as a lead mechanism for energy audits. Customers that fill out this self-assessment may be provided with a free energy saving kit as an incentive to fill out the self-assessment.</p>

2.4 Nonresidential

Objective	<p>The Nonresidential (NR) program will provide incentives for overcoming market barriers for natural gas efficiency in commercial, industrial, and multifamily buildings with a commercial account. The program’s objective is to encourage business owners to install the most efficient natural gas heating and process technologies available when replacing older, less efficient equipment and to perform comprehensive natural gas energy savings retrofits of existing buildings. Natural gas energy savings in new construction or gut renovations will also be incentivized. The program also aims to strengthen UGI Gas’s relationship with HVAC contractors, suppliers, mechanical contractors, energy service companies (“ESCOs”), energy engineering firms, and other trade allies.</p>																																																													
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	Water (Gallons)						
	First Year	341,838	347,281	352,723	358,166	362,520	1,762,527
	Lifetime	5,412,052	5,531,788	5,651,523	5,771,258	5,867,046	28,233,667
Budget Projections	Five-Year Budgets (Nominal)						
	Category	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
	Customer Incentives	\$ 1,465,716	\$ 1,596,716	\$ 1,732,080	\$ 1,880,862	\$ 1,975,256	\$ 8,650,630
	Administration	755,843	708,639	721,334	734,330	744,636	3,664,782
	Marketing	71,000	74,000	77,000	81,000	84,000	387,000
	Inspections	28,000	30,000	33,000	34,000	36,000	161,000
	Evaluation	-	-	75,000	-	75,000	150,000
Total	\$ 2,320,559	\$ 2,409,355	\$ 2,638,414	\$ 2,730,192	\$ 2,914,892	\$ 13,013,412	
Participation Projections	Five-Year Participation Projections						
	Measure Name	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26 - FY '30
	Commercial Space Heating						
	Commercial Boiler (ENERGY STAR)	14	14	20	23	24	95
	Unit Heater (Warm Air)	16	21	24	32	32	125
	Steam Trap (<15 PSIG)	9	17	26	35	44	131
	Advanced Rooftop Controls	23	26	28	33	41	151
	Gas Heat Pump	-	-	-	-	-	-
	Commercial Water Heating						
	Commercial Water Heater (Storage & Tankless)	56	67	72	78	83	356
	Commercial Kitchen						
	Fryers (ENERGY STAR - Small Vat)	7	7	7	7	7	35
	Fryers (ENERGY STAR - Large Vat)	1	1	1	1	1	5
	Griddle (ENERGY STAR - 6 SF)	5	5	5	5	5	25
	Griddle (ENERGY STAR - 8 SF)	2	2	2	2	2	10
	Griddle (ENERGY STAR - 10SF)	1	1	1	1	1	5
	Dishwasher (Low Temp - Under Counter)	2	2	2	2	2	10
	Dishwasher (Low Temp - Stationary Single Tank Door)	2	2	2	2	2	10
	Dishwasher (Low Temp - Single Tank Conveyor)	-	-	-	-	-	-
	Dishwasher (High Temp - Under Counter)	2	2	2	2	2	10
	Dishwasher (High Temp - Stationary Single Tank Door)	1	1	1	1	1	5

	Dishwasher (High Temp - Single Tank Conveyor)	-	-	-	-	-	-
	<u>Nonresidential Custom</u>						
	Custom Projects	65	70	75	80	84	374
	Total	206	238	268	304	331	1,347
Program Design	<p>The NR will be broken into two pathways: a Prescriptive Pathway, which offers rebates for qualifying commercial-sized space heating equipment, commercial-sized water heating equipment, and commercial kitchen equipment; and a Custom Pathway, which offers incentives to commercial buildings and multi-family projects that aim to upgrade some portion of an existing building's performance or incorporate cost-effective efficiency upgrades over code baseline in new construction. Customers will be made aware of opportunities through traditional marketing efforts, such as bill inserts and media advertisements, installation contractors, and supply houses. The program will rely heavily on marketing through the participating Trade Allies who will be designing, selling, and installing these projects for customers. With more small businesses finding it hard to make investments in energy saving projects, natural gas energy saving measures may also be offered to small business customers (Rates N/NT) as a direct install measure in order to provide this customer class with easy, low-cost ways to save energy and also provide an opportunity to educate these customers more effectively on other ways to save natural gas.</p> <p>The details of the Prescriptive and Custom Pathways are as follows:</p>						

Prescriptive Pathway:

Customers will have the qualifying measures installed and receive a cash rebate to offset a portion of the incremental cost of installing the high-efficiency equipment. To relieve busy business owners of the paperwork and to create a more customer-focused process, UGI Gas will also explore batching rebates and paying them directly to contractors and/or supply houses, with the rebate amount clearly indicated on the participant's invoice. The Prescriptive Pathway offers rebates for qualifying commercial-sized space heating, water heating, and kitchen equipment. For this new phase, a new measure has been added to the Prescriptive Pathway offering to further expand prescriptive energy saving opportunities for customers. The new measure being added is Advanced Rooftop Controls, to enable customers to improve the efficiency and performance of building rooftop units, which are the most popular method for space heating in commercial buildings.

UGI Gas will continue to examine other equipment for potential inclusion in the program, as well as the relative market adoption of equipment already receiving incentives. For example, UGI Gas has screened Commercial Gas Heat Pumps for cost-effectiveness and has included them in the equipment table above. However, there are no projections or rebates provided for this equipment in the initial plan. UGI Gas may include a rebate for the installation of this newer technology as it becomes more available in the marketplace.

	<p>Custom Pathway:</p> <p>Customers will have a cost-effective natural gas energy saving project designed and specified by a Trade Ally. A technical assistance provider will evaluate projects for both savings opportunities and cost-effectiveness. A custom package of measures that is determined to be cost-effective will have an incentive offer extended to the customer based on the project’s financial characteristics. The customer then has a set amount of time to perform the upgrades and may need to receive a test-out audit after which the incentive will be paid. To relieve busy business owners of the paperwork and to create a more customer-focused process, UGI Gas may also provide the incentive directly to the installing contractor, with the rebate amount clearly indicated on the customer’s invoice.</p>
<p>Target Market and End Uses</p>	<p>The NR will serve the small business, commercial and industrial market such as office buildings, restaurants, agricultural facilities, manufacturing facilities, campuses, government buildings, and laundry facilities. Within the two program pathways, any cost-effective measure that saves natural gas is eligible, with space heating, water heating, and process heating expected to be the largest opportunities. The NR is also expected to cover technology with more site-specific applications, such as heat-recovery systems, controls, range-hood ventilation, make-up air systems, and others. The NR Custom Pathway will be a source for identifying potential technologies to include as prescriptive rebates.</p>
<p>Financial Incentives</p>	<p>Incentives were designed to be generally in-line with the current UGI Gas programs of the same name. The Prescriptive Pathway incentives are designed to offset approximately one-half of the</p>

incremental cost to install efficient equipment. The Custom Pathway incentives will be based on the financial characteristics of a cost-effective energy-saving project. UGI Gas will negotiate with the customer to find an incentive that makes the project attractive enough for the customer to pursue without paying too much of the incremental cost. The incentive for a single project will be capped at the lesser of the project's gas benefits, incremental cost, or \$100,000.

The table below lists the proposed incentive schedule for the Prescriptive Pathway, with the addition of advanced rooftop controls.

Proposed Nonresidential Prescriptive Pathway Rebates (Nominal)

Equipment	Minimum Efficiency	Initial Incentive
Commercial Boiler (>= 300MBh)	ENERGY STAR®	\$2 / MBh + \$2,000
Unit Heater (Warm Air)	90+ Et/AFUE	\$2 / MBh
Steam Trap	<15 PSIG	\$50
Advanced Rooftop Controls	N/A	\$950
Gas Heat Pump	N/A	N/A
Commercial Water Heater	ENERGY STAR efficiency*	\$4 / MBh
Commercial Fryer	ENERGY STAR®	\$500
Commercial Fryer (Large)	ENERGY STAR®	\$750
Commercial Griddle	ENERGY STAR®	\$400
Dishwasher (Low Temp – Undercounter)	ENERGY STAR®	\$400
Dishwasher (Low Temp – Door)	ENERGY STAR®	\$800
Dishwasher (Low Temp – Conveyor)	ENERGY STAR®	\$1,000
Dishwasher (High Temp – Undercounter)	ENERGY STAR®	\$700
Dishwasher (High Temp – Door)	ENERGY STAR®	\$400
Dishwasher (High Temp – Conveyor)	ENERGY STAR®	\$1,100

All equipment must be powered by natural gas, except for commercial dishwashers.

*Commercial water heaters must meet all ENERGY STAR® efficiency requirements and be intended for use in the commercial market.

<p>Marketing Approach</p>	<p>The NR marketing approach focuses on targeted outreach to trade allies and supply houses, as well as regular communication to end-use customers. Outreach efforts will attempt to reach the decision maker at the time of, and in advance of, the need for equipment replacement. UGI Gas will provide regular outreach and training sessions on efficiency opportunities with HVAC contractors, heating suppliers, kitchen equipment suppliers, local business organizations, and other parties that deal with commercial equipment to provide education on opportunities for engagement with the program, hand out rebate applications, and encourage the stocking of high efficiency equipment. Good penetration rates will rely heavily on an educated contractor network to understand how to up-serve participants with more efficient products when a service call is requested, or new equipment is needed. Contractor training will be provided to those already part of the existing contractor network and qualified for commercial work.</p> <p>UGI Gas will promote the program through its energy efficiency website, www.ugi.com/savesmart, and other marketing activities.</p>
<p>Evaluation, Measurement, and Verification</p>	<p><u>Quality Assurance – Prescriptive Pathway</u></p> <p>All applications will require proof of purchase and a valid UGI Gas account number. All rebates will require proof of equipment installation, including information about the installer. The rebate processor will verify that the equipment is eligible for the rebate based on the model number before issuing any rebate. The program’s rebate processor will maintain a real-time database of rebate activity, which will be periodically reviewed by UGI Gas and stored separately for long-term purposes.</p>

	<p>A third-party inspector will perform on-site inspections on approximately five percent (5%) of all prescriptive rebates in order to get a statistically significant sample of ongoing activity. The inspection will verify that the rebated equipment is installed and operational and conclude with a short informational interview with the participant.</p> <p><u>Quality Assurance – Custom Pathway</u></p> <p>The administrator will monitor all projects from the outset. This includes monitoring the installation specifications and practices as well as the final project inspection to verify that all program requirements have been met for issuance of the requested incentive.</p> <p><u>Evaluations</u></p> <p>A third-party evaluator will be retained to perform regular evaluations approximately every two years.</p>
<p>Program Administration</p>	<p><u>Conservation Service Provider</u></p> <p>The rebate processor will accept customer applications, track and verify application information, notify the customer of any issues, maintain a call center, and report results to UGI Gas. The rebate processor may also be responsible for other rebate programs in order to streamline portfolio management. UGI Gas plans to use the current program administrator to help ensure a seamless transition and process for customers.</p>

	<p><u>Marketing and Outreach</u></p> <p>UGI Gas and the Conservation Service Provider will handle marketing and outreach for the NR program.</p> <p><u>Inspector</u></p> <p>The Conservation Service Provider will perform on-site inspections and collect customer feedback.</p> <p><u>Evaluator</u></p> <p>A third-party evaluator will be retained to perform evaluations approximately every two years.</p> <p><u>Administrator</u></p> <p>The Conservation Service Provider will work with customers to improve the energy efficiency of their projects. The CSP will also provide technical review of projects, verify eligibility of installed equipment, and process/issue rebate payments. UGI Gas EE&C staff will maintain a separate project tracking system that will house energy savings calculations, efficiency modeling, and/or equipment specifications for each project, to be uploaded by the CSP.</p>
Special Notes	<p>Due to the complex nature of the nonresidential equipment market, the exact mix of measures and adoption of different technologies is not easily predicted. While UGI Gas is confident that the projected budget levels are appropriate, the exact mix of measures may vary.</p>

	<p>If program funds begin to run low in any given year, incentive levels may be lowered, or equipment may be removed from the program if additional budget adjustments cannot be made. UGI Gas will aim to provide as little interruption to customers as possible due to such adjustments.</p>
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2.5 Combined Heat and Power

Objective	The CHP program seeks to promote the installation of cost-effective and net-primary-energy-saving CHP projects and to provide meaningful CO ₂ emission reductions. A CHP plant produces electricity at a commercial or industrial site while at the same time using the waste heat from the production of the electricity to serve a thermal load. Net efficiencies come from the recovered heat that is typically wasted in grid electricity production, and from the avoided transmission and distribution losses from delivering the electricity from the generator to the customer site.																																																	
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CE Test	PV Benefits	PV Costs	PV Net	BCR																																														
TRC	31,227,956	22,666,549	8,561,408	1.38																																														
Savings Projections	<p><i>Five-Year Savings Projections</i></p> <table border="1"> <thead> <tr> <th></th> <th>FY 2026</th> <th>FY 2027</th> <th>FY 2028</th> <th>FY 2029</th> <th>FY 2030</th> <th>FY '26-'30</th> </tr> </thead> <tbody> <tr> <td colspan="7">Net Primary Energy Savings (MMBtus)</td> </tr> <tr> <td>First Year</td> <td>65,382</td> <td>65,382</td> <td>65,382</td> <td>65,382</td> <td>65,382</td> <td>326,911</td> </tr> <tr> <td>Lifetime</td> <td>1,307,643</td> <td>1,307,643</td> <td>1,307,643</td> <td>1,307,643</td> <td>1,307,643</td> <td>6,538,217</td> </tr> <tr> <td colspan="7">Net Customer Gas Usage Increase (MMBtus)</td> </tr> <tr> <td>First Year</td> <td>60,574</td> <td>60,574</td> <td>60,574</td> <td>60,574</td> <td>60,574</td> <td>302,872</td> </tr> <tr> <td>Lifetime</td> <td>1,211,487</td> <td>1,211,487</td> <td>1,211,487</td> <td>1,211,487</td> <td>1,211,487</td> <td>6,057,435</td> </tr> </tbody> </table>		FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30	Net Primary Energy Savings (MMBtus)							First Year	65,382	65,382	65,382	65,382	65,382	326,911	Lifetime	1,307,643	1,307,643	1,307,643	1,307,643	1,307,643	6,538,217	Net Customer Gas Usage Increase (MMBtus)							First Year	60,574	60,574	60,574	60,574	60,574	302,872	Lifetime	1,211,487	1,211,487	1,211,487	1,211,487	1,211,487	6,057,435
	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30																																												
Net Primary Energy Savings (MMBtus)																																																		
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Lifetime	1,211,487	1,211,487	1,211,487	1,211,487	1,211,487	6,057,435																																												

Budget Projections	<i>Five-Year Budgets (Nominal)</i>						
	Category	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
	Customer Incentives	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,250,000
	Administration	50,000	50,000	50,000	50,000	50,000	250,000
	Marketing	15,000	15,000	15,000	15,000	15,000	75,000
	Inspections*	-	-	-	-	-	0
	Evaluation	20,000	20,000	20,000	20,000	20,000	100,000
	Total	\$335,000	\$335,000	\$335,000	\$335,000	\$335,000	\$1,675,000
<i>* Each project will have an evaluation, so no inspection costs are proposed.</i>							
Participation Projections	<i>Five-Year Participation Projections</i>						
	Project Type	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY '26-'30
	1426 kW CHP	1	1	1	1	1	5
	Total	1	1	1	1	1	5
Program Design	<p>The CHP program is a continuation of the same program as that offered under the current UGI Gas Phase I EE&C Plan. Customers that are considering CHP need to submit the project details including CHP installation costs, annual electricity production, and gas usage before and after the CHP project is completed. Based on the particular CHP project details, verified by UGI Gas or its contractor, UGI Gas will determine whether the proposed project is cost-effective from the TRC perspective and reduces net primary energy usage. If these criteria are met, then the CHP project is eligible for an incentive from UGI Gas.</p> <p>Though the customer has primary responsibility for developing the CHP costs, savings, and technical details, UGI Gas may provide some technical assistance, as well as business development for new projects.</p>						

Target Market and End Uses	<p>The CHP Program targets large commercial and industrial customers with high thermal and electric loads. This program is most likely applicable to customers with year-round thermal requirements and high hours of use. Customer types that are likely candidates include hospitals, campuses and multi-shift industrial.</p> <p>Based on current electric and gas avoided costs, only larger CHP projects (over 1,000 kW) are typically cost-effective from the TRC perspective. If avoided costs change or the costs for micro turbines decline, then some smaller projects may become cost-effective. UGI Gas will continue to closely monitor the CHP market and identify opportunities for all ranges of CHP technology and sizes.</p>
Financial Incentives	<p>\$750/kW with a maximum of \$250,000 per CHP project and no more than 50% of the CHP project cost.</p>
Marketing Approach	<p>UGI Gas will leverage its Relationship Managers to identify specific customers that may be likely candidates for CHP.</p>
Evaluation, Measurement, and Verification	<p>Every CHP project will be inspected and documentation will be reviewed to ensure that the expected technology is correctly installed and operational.</p> <p>A third-party evaluator will be chosen to assess the actual versus projected electric and gas generation and usage, respectively. Since the number of projects anticipated to be completed under the program is small, evaluations will be more focused on a “case study” approach that verifies performance once a project is complete and sufficient post data is collected.</p>

Program Administration	The CHP program may be implemented either solely by UGI Gas or with assistance from an implementation contractor.
Special Notes	<p>The CHP Program's costs and savings will be reported separately from the other efficiency programs, due to this program's increase in gas usage, whereas the other efficiency programs decrease gas usage.</p> <p>While UGI Gas is asking for general flexibility regarding the annual program costs for the entire EE&C Portfolio, this flexibility is particularly important for the CHP program. CHP projects are complex and require long-term planning. Moreover, incentives represent a large percentage of the program budget. Because of these factors, it is difficult to predict the outcome for a single year. UGI Gas will limit its total spending to the five-year projected total spending, and under-spending from one year may be carried over to the next year.</p>

3 Appendices

3.1 Avoided Cost Tables

Gas Avoided Costs (2024\$)

	NG Base	NG Space Heat	NG DHW
	\$/MMBtu	\$/MMBtu	\$/MMBtu
2024	3.15	7.13	4.15
2025	3.93	8.16	4.99
2026	3.94	8.28	5.02
2027	3.81	8.13	4.89
2028	3.71	7.97	4.77
2029	3.67	7.90	4.73
2030	3.69	7.90	4.74
2031	3.84	8.04	4.89
2032	3.97	8.12	5.01
2033	4.01	8.05	5.02
2034	3.56	7.51	4.55
2035	3.37	7.21	4.33
2036	3.41	7.22	4.37
2037	3.53	7.33	4.48
2038	3.46	7.22	4.40
2039	3.59	7.35	4.53
2040	3.67	7.41	4.61
2041	3.67	7.38	4.60
2042	3.61	7.30	4.53
2043	3.58	7.25	4.50
2044	3.59	7.23	4.50
2045	3.59	7.21	4.49
2046	3.56	7.16	4.46
2047	3.55	7.13	4.44
2048	3.50	7.05	4.39
2049	3.49	7.03	4.38
2050	3.51	7.03	4.39
2051	3.53	7.03	4.40
2052	3.55	7.03	4.42
2053	3.57	7.03	4.43
2054	3.58	7.03	4.45
2055	3.60	7.04	4.46
2056	3.62	7.04	4.48
2057	3.64	7.05	4.49
2058	3.66	7.05	4.51
2059	3.68	7.06	4.53
2060	3.70	7.06	4.54
2061	3.72	7.07	4.56
2062	3.74	7.08	4.58
2063	3.76	7.09	4.59

Developed by Resource Insight, Inc.

Electric Avoided Costs – EE Programs (2024\$)

Period:	All-Year Energy	Summer Generation Capacity	Transm. & Dist Capacity
Units:	\$/kWh	\$/kW-yr	\$/kW-yr
2024	0.0334	52.807	117.426
2025	0.0332	52.805	117.429
2026	0.0335	52.807	117.428
2027	0.0348	52.808	117.429
2028	0.0367	52.807	117.427
2029	0.0384	52.805	117.428
2030	0.0398	52.806	117.427
2031	0.0412	52.806	117.427
2032	0.0424	52.808	117.426
2033	0.0426	52.807	117.425
2034	0.0428	52.805	117.428
2035	0.0429	52.808	117.428
2036	0.0431	52.804	117.428
2037	0.0437	52.806	117.428
2038	0.0435	52.805	117.428
2039	0.0433	52.805	117.427
2040	0.0436	52.805	117.426
2041	0.0438	52.805	117.428
2042	0.0438	52.805	117.428
2043	0.0438	52.805	117.428
2044	0.0438	52.805	117.428
2045	0.0438	52.805	117.428
2046	0.0438	52.805	117.428
2047	0.0438	52.805	117.428
2048	0.0438	52.805	117.428
2049	0.0438	52.805	117.428
2050	0.0438	52.805	117.428
2051	0.0438	52.805	117.428
2052	0.0438	52.805	117.428
2053	0.0438	52.805	117.428
2054	0.0438	52.805	117.428
2055	0.0438	52.805	117.428
2056	0.0438	52.805	117.428
2057	0.0438	52.805	117.428
2058	0.0438	52.805	117.428
2059	0.0438	52.805	117.428
2060	0.0438	52.805	117.428
2061	0.0438	52.805	117.428
2062	0.0438	52.805	117.428
2063	0.0438	52.805	117.428
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Developed by Resource Insight, Inc.

3.2 Detailed Program and Portfolio Cost-Effectiveness

Energy Efficiency Programs' Cost-effectiveness over Five-Year Portfolio (2024\$)

	Total Resource					Gas Energy System				
	Present Value		PV of	Benefit-	Levelized	Present Value		PV of	Benefit-	Levelized
	<u>Benefit</u>	<u>Cost</u>	<u>Net Benefits</u>	<u>Cost Ratio</u>	<u>Cost \$/MMBTU</u>	<u>Benefit</u>	<u>Cost</u>	<u>Net Benefits</u>	<u>Cost Ratio</u>	<u>Cost \$/MCF</u>
	[2]	[3]	[4]	[5]		[10]	[11]	[12]	[13]	
Portfolio Total	\$155,834,338	\$96,643,333	\$59,191,005	1.61	4.80	\$132,271,706	\$57,885,228	\$74,386,478	2.29	2.88
Non-Measure Costs		\$14,916,552					\$14,916,552			
Total Measure Costs	\$155,834,338	\$81,726,781	\$74,107,557	1.91	4.06	\$132,271,706	\$42,968,676	\$89,303,030	3.08	2.13
Program										
Residential Prescriptive (RP)										
Program Total	\$74,045,850	\$46,868,197	\$27,177,653	1.58	4.67	\$72,780,132	\$28,450,312	\$44,329,821	2.56	2.83
Non-Measure Costs		\$2,430,050					\$2,430,050			
Total Measure Costs	\$74,045,850	\$44,438,147	\$29,607,703	1.67	4.42	\$72,780,132	\$26,020,262	\$46,759,871	2.80	2.59
Residential New Construction (RNC)										
Program Total	\$44,157,230	\$12,559,344	\$31,597,886	3.52	3.88	\$24,494,425	\$9,619,372	\$14,875,053	2.55	2.97
Non-Measure Costs		\$3,003,774					\$3,003,774			
Total Measure Costs	\$44,157,230	\$9,555,570	\$34,601,660	4.62	2.95	\$24,494,425	\$6,615,598	\$17,878,827	3.70	2.04
Residential Retrofit (RR)										
Program Total	\$3,699,060	\$5,513,278	\$(1,814,217)	0.67	14.59	\$2,857,306	\$4,857,790	\$(2,000,484)	0.59	12.86
Non-Measure Costs		\$2,012,414					\$2,012,414			
Total Measure Costs	\$3,699,060	\$3,500,864	\$198,196	1.06	9.27	\$2,857,306	\$2,845,376	\$11,929	1.00	7.53
Nonresidential (NR)										
Program Total	\$33,932,197	\$27,866,711	\$6,065,486	1.22	4.31	\$32,139,843	\$11,121,952	\$21,017,891	2.89	1.72
Non-Measure Costs		\$3,634,512					\$3,634,512			
Total Measure Costs	\$33,932,197	\$24,232,199	\$9,699,998	1.40	3.75	\$32,139,843	\$7,487,440	\$24,652,403	4.29	1.16
Portfoliowide Costs										
Program Total	-	\$3,835,802	\$(3,835,802)	-	-	-	\$3,835,802	\$(3,835,802)	-	-
Non-Measure Costs		\$3,835,802					\$3,835,802			
Total Measure Costs	-	-	-	-	-	-	-	-	-	-

CHP Program's Cost-Effectiveness over Five-Year Portfolio (2024\$)

<i>PV 2024\$</i>	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	Total
TRC Benefits	6,421,676	6,352,081	6,264,282	6,156,261	6,033,655	31,227,956
TRC Costs	4,799,862	4,662,723	4,529,503	4,400,088	4,274,372	22,666,549
Utility Costs	335,000	335,000	335,000	335,000	335,000	1,675,000
TRC Net Benefits	1,621,814	1,689,358	1,734,780	1,756,173	1,759,284	8,561,408
TRC BCR	1.34	1.36	1.38	1.40	1.41	1.38

UGI Gas Exhibit 2

UGI UTILITIES, INC. - GAS DIVISION

GAS TARIFF

INCLUDING THE GAS SERVICE TARIFF NO. 7

AND

THE CHOICE SUPPLIER TARIFF NO. 7S

Rates and Rules
Governing the
Furnishing of
Gas Service and Choice Aggregation Service
in the
Territory Described Herein

Issued: Effective for service rendered on
and after _____. Issued in
accordance the Commission Order at
Docket No. R-2024-_____ entered
_____.

Issued By:

Paul J. Szykman
Chief Regulatory Officer
1 UGI Drive
Denver, PA 17517

<https://www.ugi.com/tariffs>

NOTICE

This tariff makes changes to existing rates (see Page 2).

LIST OF CHANGES MADE BY THIS SUPPLEMENT
(Page Numbers Refer to Official Tariff)

Rule 17, Energy Efficiency and Conservation Charge, Pages 60 - 61.

- The Energy Efficiency and Conservation rider has been updated to include cost recovery for expenses related to the development and implementation of Phase II of the Energy Efficiency and Conservation Plan approved by the Pennsylvania Public Utility Commission by Order entered ____ at Docket No. _____.

RULES AND REGULATIONS

17. RIDER G

ENERGY EFFICIENCY AND CONSERVATION RIDER

Applicability and Purpose

The Energy Efficiency and Conservation Rider ("EEC Rider") shall recover costs related to the Company's Energy Efficiency and Conservation Plan ("EECP"). The EEC Rider shall be computed separately for each of the following four customer classes:

1. Residential customers served under Rate Schedules R/RT,
2. Non-Residential customers served under Rate Schedules N/NT,
3. Non-Residential customers served under Rate Schedule DS, and
4. Non-Residential customers served under Rate Schedule LFD.

EEC Rider Rate:

Rate R/RT	
Rate N/NT	
Rate DS	
Rate LFD	

(C)

The EEC Rider shall be subject to the State Tax Adjustment Surcharge.

Calculation

The EEC Rider shall be determined as follows:

1. Costs to be recovered shall include Company incurred costs to implement its Commission approved EECP during each plan year (October 1st through September 30th) (Plan Year), including all costs incurred to develop and administer the Company's EECP.
2. The Residential EEC Rider shall be calculated in accordance with the formula below and shall be rounded to the fourth decimal:

$$\text{Residential EEC Rider} = (\text{Cr} / \text{Sr}) - (\text{Er} / \text{Sr}) \text{ where}$$

Cr = Projected Residential EECP Costs.

Sr = Projected Residential Class Sales.

Er = Net over or under collection of the Residential EEC Rider resulting from the difference between the EEC Rider revenues received and the EECP costs incurred.

(C) Indicates Change

RULES AND REGULATIONS

17. RIDER G - Continued

ENERGY EFFICIENCY AND CONSERVATION RIDER

3. The Non-Residential EEC Rider shall be calculated in accordance with the formula below and shall be rounded to the fourth decimal:

Non-Residential EEC Rider = $(Cn / Sn) - (En / Sn)$ where

Cn = Projected Non-Residential EEC Costs.

Sn = Projected Non-Residential Class Sales.

En = Net over or under collection of the Non-Residential EEC Rider resulting from the difference between the EEC Rider revenues received and the EEC costs incurred.

4. The Residential and Non-Residential EEC Riders will be updated annually and will be filed with the Commission on one day's notice to be effective December 1 of each year. The Company reserves the right to make an interim filing to adjust the EEC Riders to be effective on sixty (60) days' notice. (C)
5. The Riders will be reconciled annually and will be filed with the Commission on or before November 1 of each year. (C)
6. If it is known that there will be a Phase III EE&C Plan at the end of the Final Reconciliation Year related to Phase II, any remaining balance will be recovered/refunded through the Phase III EEC Rider's E-Factor. If there will be no Phase III EE&C Plan, any balance remaining for a customer class at the end of the Final Reconciliation Year will be trued up through a one-time bill credit/debit issued to the applicable customers during the second full billing month following the end of the Final Reconciliation Year. The annual reconciliation and end-of-Plan reconciliation will be subject to Commission review and potential audit, as the Commission deems necessary. (C)

(C) Indicates Change

Issued: Effective for Service Rendered on and after

UGI GAS EXHIBIT 3

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Petition of UGI Utilities, Inc. – Gas :
Division for Approval of Phase II of its : Docket No. M-2024-_____
Energy Efficiency and Conservation Plan :

**PETITION OF UGI UTILITIES, INC. – GAS DIVISION FOR
APPROVAL OF PHASE II OF ITS
ENERGY EFFICIENCY AND CONSERVATION PLAN**

Pursuant to Section 5.41 of the Pennsylvania Public Utility Commission’s (“Commission”) regulations, 52 Pa. Code § 5.41, UGI Utilities, Inc. – Gas Division (“UGI Gas” or the “Company”) hereby files this Petition seeking approval of its Phase II Energy Efficiency and Conservation Plan (“Phase II EE&C Plan” or the “Plan”). The Phase II EE&C Plan includes a broad portfolio of energy efficiency programs, conservation practices, and energy education initiatives for the time period beginning October 1, 2025, through September 30, 2030. These integrated programs are designed to help customers reduce their energy consumption in a cost-effective manner over the five-year duration of the Phase II EE&C Plan. The Plan builds upon the Company’s Phase I EE&C Plan or Phase I Plan, which was approved in UGI Gas’s 2019 base rate proceeding.¹ It consists of four natural gas efficiency programs and one combined heat and power (“CHP”) program.

For the reasons set forth below, UGI Gas respectfully requests that the Commission approve the Phase II EE&C Plan as described herein and the appended **Attachment A**, which contains a copy of the proposed Phase II EE&C Plan that is marked as UGI Gas Exhibit 1, and **Attachment B**, which contains copies of the Company’s supporting direct testimony and exhibits.

¹ See *Pa. PUC v. UGI Utilities, Inc.*, Docket No. R-2018-3006814 (Order entered Oct. 4, 2019) (“*2019 Rate Case Order*”). The current EE&C Plan is referred to as the Consolidated EE&C Plan or Phase I EE&C Plan.

I. INTRODUCTION

1. UGI Utilities, Inc. (“UGI”) is a corporation organized and existing under the laws of the Commonwealth of Pennsylvania. UGI has two operating divisions through which it renders public utility service to customers, the Electric Division (“UGI Electric”) and the Gas Division.

2. UGI Gas is engaged in the business of selling and distributing natural gas to retail customers within the Commonwealth and is a “public utility” within the meaning of Section 102 of the Public Utility Code, 66 Pa. C.S. § 102, subject to the regulatory jurisdiction of the Commission. *See* 66 Pa. C.S. § 102.

3. UGI Gas provides natural gas distribution service to approximately 698,000 customers in all or parts of forty-five Pennsylvania counties. UGI Gas furnishes natural gas distribution service through a distribution system containing more than 12,300 miles of gas mains. The Company’s natural gas service is rendered under and in accordance with certificates issued by or registrations filed with the Commission or its predecessors, or unregistered powers (*e.g.*, corporate charter rights) preserved by 66 Pa. C.S. § 103 and predecessor statutes. *See* 66 Pa. C.S. § 103.

4. UGI Gas’s attorneys are:

Devin T. Ryan (ID # 316602)
Post & Schell, P.C.
One Oxford Centre
301 Grant Street, Suite 3010
Pittsburgh, PA 15219
Phone: 717-612-6052
Fax: 717-731-1985
E-mail: dryan@postschell.com

Megan E. Rulli (ID # 331981)
Post & Schell, P.C.
17 North Second St., 12th Floor
Harrisburg, PA 17101-1601
Phone: 717-612-6012
Fax: 717-731-1985

E-mail: mrulli@ postschell.com

Michael S. Swerling (ID # 94748)
UGI Corporation
500 North Gulph Road
King of Prussia, PA 19406
Phone: 717-255-1491
E-mail: swerlingm@ugicorp.com

Lindsay A. Berkstresser (ID # 318370)
UGI Corporation
500 North Gulph Road
King of Prussia, PA 19406
Phone: 717-504-9925
E-mail: berkstresserl@ugicorp.com

UGI Gas's attorneys are authorized to receive all notices and communications regarding this Petition. If only one UGI Gas attorney is deemed the recipient for service on any formal or informal service lists in this proceeding, the Company respectfully requests that Devin T. Ryan, Esquire, be the UGI Gas attorney included on any such lists.

5. On January 28, 2019, UGI Gas filed its 2019 base rate case (at Docket Nos. R-2018-3006814, *et al.*), which included its Consolidated EE&C Plan that was based on the Company's then-existing two voluntary gas EE&C Plans for its former North and South rate districts.

6. The Consolidated EE&C Plan is currently effective from October 1, 2019, until September 30, 2024, and extends the Company's EE&C program and measure offerings to its entire UGI Gas service territory.

7. On October 4, 2019, UGI Gas's Consolidated EE&C Plan was approved by the Commission, as part of the 2019 base rate proceeding as modified by the settlement, at Docket Nos. R-2018-3006814, *et al.*

8. On January 29, 2021, UGI Gas filed its Annual Report on Program Year (“PY”) 1 of the EE&C Plan.

9. On June 23, 2021, UGI Gas filed a Petition to Modify its Phase I EE&C Plan, which proposed minor changes to the EE&C Plan.

10. On July 21, 2021, the Commission issued a Secretarial Letter approving the Petition to Modify and directing the Company to file a revised EE&C Plan within 30 days that incorporated the minor changes that were approved.

11. On July 23, 2021, UGI Gas filed the revised EE&C Plan pursuant to the July 21, 2021 Secretarial Letter.

12. On January 11, 2022, UGI Gas filed its Annual Report on PY 2 of the EE&C Plan.

13. On January 26, 2023, UGI Gas filed its Annual Report on PY 3 of the EE&C Plan.

14. On January 31, 2024, UGI Gas filed its Annual Report on PY 4 of the EE&C Plan.

15. On February 7, 2024, UGI Gas filed a Petition Requesting a One-Year Extension of the Phase I EE&C Plan (“Extension Petition”). The Extension Petition was granted by the Commission in an order entered on March 14, 2024.

16. Building upon the successes of its Phase I EE&C Plan (as described herein), UGI Gas prepared its Phase II EE&C Plan.

17. For the reasons that follow, UGI Gas respectfully requests that the Commission approve its proposed Phase II EE&C Plan.

II. LEGAL REQUIREMENTS

18. UGI Gas is not mandated to enact an EE&C Plan under Act 129 of 2008 (“Act 129”).

19. However, UGI Gas’s voluntary Phase II EE&C Plan was developed using the guiding principles of the Commission’s Act 129 *Phase IV Implementation Order*.²

20. In addition, on December 23, 2009, the Commission issued a Secretarial Letter³ encouraging smaller electric distribution companies (“EDCs”) to file voluntary EE&C Plans and stating that petitions for approval of voluntary EE&C plans must be filed in accordance with 52 Pa. Code § 5.41 and must contain the following components:

- A detailed plan and description of the measures to be offered;
- Sufficient supporting documentation and verified statements or testimony or both;
- Proposed energy consumption or peak demand reduction objectives or both, with proposed dates the objectives are to be met;
- A budget showing total planned expenditures by program and customer class;
- Tariffs and a section 1307⁴ cost recovery mechanism; and
- A description of the method for monitoring and verifying plan results.

EE&C Secretarial Letter at 1.

21. In addition, voluntary plans, like their mandatory counterparts, must employ the Total Resource Cost (“TRC”) Test, as defined in Act 129⁵ and applied by the Commission to determine whether a certain proposed EE&C Plan is cost-effective.

22. Although not directly applicable to natural gas distribution companies (“NGDCs”), UGI Gas has used the Commission’s *Phase IV Implementation Order* and EE&C Secretarial Letter

² See *Energy Efficiency and Conservation Program*, Docket No. M-2020-3015228 (Order entered June 18, 2020) (“*Phase IV Implementation Order*”), clarified, Docket No. M-2020-3015228 (Order entered March 12, 2020).

³ See *Re: Voluntary Energy Efficiency and Conservation Program*, Docket No. M-2009-2142851 (Dec. 23, 2009) (“EE&C Secretarial Letter”)

⁴ 66 Pa.C.S. § 1307.

⁵ See 66 Pa.C.S. § 1307.

as a guide for developing its voluntary EE&C Plans, including for the proposed Phase II EE&C Plan.

III. UGI GAS'S PROPOSED PHASE II EE&C PLAN

A. OVERVIEW OF UGI GAS'S PHASE II EE&C PLAN

23. UGI Gas's Phase II EE&C Plan is described more fully below and attached hereto as **UGI Gas Exhibit 1**. The Company proposes to implement Phase II of the Plan over a five-year period, beginning October 1, 2025, and ending September 30, 2030. Phase II includes a variety of energy efficiency and conservation practices and energy education initiatives that are anticipated to reduce participating customers' energy consumption.

24. UGI Gas's Phase II EE&C Plan was developed based on the Company's existing gas Phase I Plan that was approved as part of the UGI Gas base rate proceeding in 2019.⁶

25. The Phase II EE&C Plan contains the same types of programs, Technical Reference Manual ("TRM"), and TRC Test that are employed in the current Phase I EE&C Plan approved by the Commission.

26. UGI Gas's portfolio of programs is designed to provide customer benefits and to meet targeted energy consumption reduction goals established by UGI Gas to be reasonably achievable.

27. Over the five years of the Phase II EE&C Plan, UGI Gas plans to spend \$69.5 million on four energy efficiency programs and one CHP program.⁷ Altogether, the EE&C Portfolio is cost-effective, providing \$67.8 million in net resource benefits with a TRC benefit-cost ratio ("BCR") of 1.57, which generally increases the economic wellbeing of UGI Gas's customers.

⁶ See note 1, *supra*.

⁷ All dollars are nominal unless otherwise noted.

28. UGI Gas’s Phase II EE&C Plan addresses each of the requirements for voluntary EE&C Plans in the Commission’s EE&C Secretarial Letter. The Plan is divided into the following three overall sections: (1) Introduction and Background; (2) Program Plans; and (3) Appendices.

29. In support of the Phase II EE&C Plan, UGI Gas has provided the following two statements of Direct Testimony:

- **UGI Gas Statement No. 1** – the Direct Testimony of Theodore M. Love, Partner at Green Energy Economics Group, Inc., which addresses: (1) background on the Company’s EE&C Plans and an overview of the Phase II EE&C Plan; (2) the development of the Phase II EE&C Plan and changes proposed for the Phase II EE&C Plan; (3) the projected benefits and costs of the Phase II EE&C Plan; and (4) the implementation, evaluation, and reporting and administrative requirements for the Phase II EE&C Plan; and
- **UGI Gas Statement No. 2** – the Direct Testimony of Tracy A. Hazenstab, Principal Analyst – Rates for UGI Utilities, Inc., which addresses the Phase II Energy Efficiency and Conservation Rider (“EEC Rider”).

30. Included as **UGI Gas Exhibit 2** is the *pro forma* Phase II EEC Rider to UGI Gas Tariff – Pa. P.U.C. No. 7. The Company currently has an EEC Rider that recovers all applicable design, development, implementation, and ongoing administrative costs related to its Phase I EE&C Plan. The Phase II EEC Rider is fully reconcilable and will apply to all customers who receive distribution service from the Company.

31. Included as **UGI Gas Exhibit TAH-2** is the calculation of the proposed annual Phase II EEC Rider.

B. EE&C PLAN DEVELOPMENT PROCESS

32. In approaching the development of its Phase II EE&C Plan, UGI Gas utilized an in-house team with representatives from all affected areas of the Company to solicit input with regard to Plan development. In addition, UGI Gas retained Theodore M. Love, an experienced and independent economic consultant who has worked extensively in the energy conservation plan arena, to assist in the development and preparation of UGI Gas's Phase II EE&C Plan.

33. As with the Company's Phase I EE&C Plan, UGI Gas's Phase II EE&C Plan is modeled after the requirements set forth in the Commission's EE&C Secretarial Letter and related provisions of Act 129.

34. The planned maximum spend in a year is approximately \$15 million in FY 2030, which is approximately 1.8% of UGI Gas's FY 2019 actual revenues. This level is under the 2% cap that Act 129 imposes on EE&C Plans in Pennsylvania.⁸

35. Furthermore, UGI Gas developed its Phase II EE&C Plan based on the following principles: (a) maintain continuity with the current UGI Gas EE&C Plan while leveraging experience gained from the past six years of EE&C Program activity to improve program design and projections; (b) include new cost-effective measures to the suite of rebate offerings to provide more energy saving opportunities to UGI Gas's customers; and (c) expand existing programs based on market demand to reduce natural gas consumption and energy bills, improving the overall financial well-being of UGI Gas's customers.

36. UGI Gas's market information was gathered and characterized, including avoided costs for natural gas and electricity, demographic, building stock, and equipment market characteristics. These were combined with the measure and project characterizations from UGI

⁸ See 66 Pa.C.S. § 2806.1(g) (limiting the total cost of an EDC's EE&C Plan to 2% of the EDC's total annual revenue as of December 31, 2006).

Gas's EE&C Portfolio for cost-effectiveness screening using the TRC Test. The cost-effective measures and projects were then used to calculate achievable savings and participation levels based on experience with the prior EE&C program activity. The achievable scenario was adjusted to allow for program ramp up, and budget constraints to come up with a final portfolio.

37. The proposed programs are based on the Company's Phase I EE&C Plan, with some updates based on lessons learned from previous program experience. Updated program offerings include the combination of the Nonresidential Prescriptive Program and the Nonresidential Custom Program into a single Nonresidential program with two unique pathways.

C. DESCRIPTION OF THE PHASE II EE&C PLAN

38. UGI Gas's Phase II EE&C Plan is a comprehensive package of programs designed to allow customers to effectively and efficiently reduce their energy consumption. The Plan includes the following programs and eligible customers:

- 1) Residential Prescriptive (for Residential, Low-Income, and Small Commercial Customers);
- 2) Residential New Construction (for Residential and Low-Income Customers);
- 3) Residential Retrofit (for Residential and Low-Income Customers);
- 4) Nonresidential (for Commercial and Industrial Customers); and
- 5) Combined Heat and Power (for Commercial and Industrial Customers)

A full description of all of the programs and measures is found in Section 2 of the Phase II EE&C Plan.

39. UGI Gas has the following core goals for its Phase II EE&C Plan: (a) help its customers save energy cost-effectively through a holistic approach to energy efficiency and conservation; (b) avoid lost opportunities and provide deep levels of savings; (c) provide a wide

range of services for its diverse customer base; and (d) contribute to the economic welfare of its customers and Pennsylvania.

40. To reach these goals, UGI Gas will utilize four energy efficiency programs and one CHP program.

41. For its energy efficiency programs, UGI Gas plans to invest approximately \$67.8 million over five years with the goal of returning \$59.2 million in present value of total resource net benefits. As a secondary goal for efficiency programs, UGI Gas expects measures installed during the five-year portfolio to save customers 29,885 BBTus of natural gas and 2 million tons of CO₂ emissions over the lifetime of the equipment.

42. For the CHP program, UGI Gas plans to invest approximately \$1.68 million over five years with the goal of returning \$8.6 million dollars in present value of total resource net benefits.

43. UGI Gas's portfolio offers a diverse array of programs to all customer classes, including low-income customers. Specifically, the Residential Prescriptive, Residential New Construction, and Residential Retrofit Programs are available to assist low-income customers to reduce their energy consumption. These programs are in addition to UGI Gas's already robust low-income assistance programs outside the context of the Phase II EE&C Plan. Additionally, customers who contact UGI Gas or its Conservation Service Providers ("CSPs") with interest in participating in the Phase II EE&C Plan will be informed that they might qualify for the Company's Low-Income Usage Reduction Program ("LIURP") if they are income qualified. Any interested customers will be referred to UGI Gas's LIURP.

44. Section 1.8 of the Phase II EE&C Plan describes the cost-effectiveness of the Plan based on the TRC Test criterion, employing the methodology included in the *Phase IV TRC Test*

*Order.*⁹ Consistent with Act 129, the Plan allocates the cost of the measures to the customer class that will benefit from that measure.

45. Section 3.2 of the EE&C Plan contains program costs and savings by year during the implementation period of the Phase II EE&C Plan.

46. Section 3.1 of the Plan contains the avoided costs used for UGI Gas's benefit-to-cost analysis. The development of those avoided costs is explained in Section 1.8.2 of the Phase II EE&C Plan.

47. The Phase II EE&C Plan also includes procedures to measure, evaluate and verify the performance of the programs and the Plan as a whole, as detailed in Section 1.9.9 of the EE&C Plan.

48. UGI Gas anticipates filing an annual report with the Commission on the status of Phase II, as described in Section 1.9.4 of the Phase II EE&C Plan.

49. UGI Gas proposes to continue reconciling the revenues collected under its cost recovery mechanism on an annual basis, as explained more fully in Ms. Hazenstab's Direct Testimony (UGI Gas Statement No. 2). Plan cost recovery will be accomplished utilizing the Phase II EEC Rider, by which UGI Gas will calculate separately and recover the applicable EE&C Plan costs from its individual customer classes. In addition, UGI Gas proposes to conduct a final reconciliation of total revenue collected to total Plan expenditures (up to the budget caps) at the end of the five-year Plan. Any resulting over/under collections existing as of the last year of the Phase II EE&C Plan will be recovered/refunded over the one-year period following the end of the Plan ("Final Reconciliation Year").

⁹ See *Phase IV TRC Test Order*.

D. IMPLEMENTATION STRATEGY

50. UGI Gas will implement modifications to its current EE&C Plan through its own internal staff and via the CSPs with which UGI Gas contracts. UGI Gas proposes to continue utilizing its current CSPs where possible to provide continuity to customers currently benefitting from Phase I programs; however, the Company will utilize a request for proposal (“RFP”) process to find and employ new CSPs as needed.

51. In addition, UGI Gas plans to hold an annual stakeholder meeting to review and discuss the Phase II EE&C Plan’s progress, as well as receive input from stakeholders on potential modifications to the Plan, if any.

E. PUBLIC INTEREST DETERMINATION AND REQUEST FOR RELIEF

52. UGI Gas submits that its Phase II EE&C Plan as proposed is consistent with the guidance set forth in the Commission’s EE&C Secretarial Letter and that the Plan is in the public interest. The Plan includes a broad range of energy efficiency and conservation measures that are designed to meet the needs of all classes of customers.

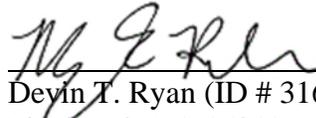
53. The Phase II EE&C Plan is cost-effective and is designed to achieve 1,485,645 MMBtus of first-year gas savings in total over the five-year period for Phase II.

54. Accordingly, UGI Gas respectfully requests that the Commission approve UGI Gas’s Phase II EE&C Plan as proposed, including the Phase II EEC Rider.

IV. CONCLUSION

WHEREFORE, UGI Utilities, Inc. – Gas Division, respectfully requests that the Pennsylvania Public Utility Commission approve Phase II of UGI Gas’s voluntary EE&C Plan, as set forth in this Petition and the attachments hereto.

Respectfully submitted,



Deyin T. Ryan (ID # 316602)
Pittsburgh, PA 15219

Post & Schell, P.C.
One Oxford Centre
301 Grant Street, Suite 3010
Phone: 717-612-6052
Fax: 717-731-1985
E-mail: dryan@postschell.com

Megan E. Rulli (ID # 331981)
Post & Schell, P.C.
17 North Second St., 12th Floor
Harrisburg, PA 17101-1601
Phone: 717-612-6012
Fax: 717-731-1985
E-mail: mrulli@ postschell.com

Michael S. Swerling (ID # 94748)
UGI Corporation
500 North Gulph Road
King of Prussia, PA 19406
Phone: 717-255-1491
E-mail: swerlingm@ugicorp.com

Lindsay A. Berkstresser (ID # 318370)
UGI Corporation
500 North Gulph Road
King of Prussia, PA 19406
Phone: 717-504-9925
E-mail: berkstresserl@ugicorp.com

Dated: April 15, 2024

Counsel for UGI Utilities, Inc. – Gas Division

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**PETITION OF UGI UTILITIES, INC. – GAS DIVISION
FOR APPROVAL OF PHASE II OF ITS
ENERGY EFFICIENCY AND CONSERVATION PLAN**

DOCKET NO. M-2024-_____

**TESTIMONY
OF
THEODORE M. LOVE**

UGI GAS STATEMENT NO. 1

April 15, 2024

1 **I. INTRODUCTION**

2 **Q. Please state your full name, occupation, and business address.**

3 A. My name is Theodore M. Love, and I am a Partner at Green Energy Economics
4 Group, Inc. (“GEEG”), an energy consulting firm founded in 2005. My business
5 address is 2534 Downingsville Rd., Lincoln, VT 05443.

6

7 **Q. On whose behalf are you testifying in this proceeding?**

8 A. I am testifying on behalf of UGI Utilities, Inc. – Gas Division (“UGI Gas” or the
9 “Company”).

10

11 **Q. Please briefly state your qualifications.**

12 A. I have been involved in the review and preparation of electric and natural gas energy
13 efficiency and conservation (“EE&C”) plans, as well as potential studies and cost-
14 effectiveness analyses, in nearly a dozen states, three Canadian Provinces, and
15 China, since I began working with GEEG in 2007. Most relevant to this
16 proceeding, I have been advising UGI Gas on its natural gas EE&C Plans since
17 2015. I have also been advising UGI Utilities, Inc. – Electric Division (“UGI
18 Electric”) on the implementation, analysis, and reporting of its current EE&C Plans,
19 including the most recent filing in Docket No. M-2023-3043230 (“Phase IV EE&C
20 Plan”). I have also been advising Philadelphia Gas Works (“PGW”) on its natural
21 gas energy efficiency activities since 2008. My full resume is attached as UGI Gas
22 Exhibit TML-1.

23

1 **Q. Have you previously provided expert testimony before the Pennsylvania**
2 **Public Utility Commission (“Commission”)?**

3 A. Yes. I also provided testimony supporting UGI Gas’s EE&C Plans in three prior
4 base rate cases at Docket Nos. R-2015-2518438, R-2016-2580030, and R-2018-
5 3006814. I have also presented testimony on behalf of UGI Electric for approval
6 of its Phase III EE&C Plan (Docket No. M-2018-3004144) and Phase IV EE&C
7 Plan (Docket No. M-2023-3043230). I have presented testimony on behalf of
8 Columbia Gas of Pennsylvania, Inc. in support of the approval of its three-year
9 energy efficiency plan in Docket No. R-2022-3031211. I presented testimony on
10 behalf of PGW in support of the continuation of its demand-side management
11 (“DSM”) gas programs at Docket Nos. P-2014-2459362 and P-2014-2459362. I
12 also provided testimony for Peoples Natural Gas Company in support of the
13 approval of its EE&C Plan at Docket No. M-2017-2640306 in 2018.

14
15 **Q. What is the purpose of your direct testimony in this proceeding?**

16 A. I will provide support for and information about Phase II of UGI Gas’s EE&C Plan
17 (“Phase II EE&C Plan” or the “Plan”). I will explain the background and
18 development process that UGI Gas applied to the preparation of the Phase II EE&C
19 Plan. I will then provide a summary of the Plan, followed by details on UGI Gas’s
20 proposed programs for Phase II, including updates to its Phase I programs. I will
21 conclude with a description of the Plan’s implementation, evaluation and reporting
22 and administrative requirements.

23

1 **Q. Are you sponsoring any exhibits in the filing?**

2 A. Yes. I am sponsoring the following exhibits:

- 3 • UGI Gas Exhibit TML-1 – Resume of Theodore M. Love, which is
- 4 attached to this testimony; and
- 5 • UGI Gas Exhibit 1 – Phase II EE&C Plan.

6

7 **II. BACKGROUND**

8 **Q. Does the Company currently operate an EE&C Plan?**

9 A. Yes. UGI Gas currently operates Phase I of its voluntary EE&C Plan (“Phase I
10 EE&C Plan”). The Phase I EE&C Plan was approved as part of UGI Gas’s base
11 rate proceeding by order entered October 4, 2019, at Docket No. R-2018-3006814,
12 and currently covers the period from October 1, 2019 to September 30, 2024. The
13 Company filed a petition requesting a one-year extension of its existing Phase I
14 EE&C Plan on February 7, 2024, which was approved by the Commission in an
15 order entered on March 14, 2024, and extended the Phase I EE&C Plan to
16 September 30, 2025. Prior to its Phase I EE&C Plan, UGI Gas had a voluntary
17 EE&C Plan that was launched October 1, 2016, and a separately approved
18 voluntary EE&C Plan in its UGI Penn Natural Gas, Inc. territory that was launched
19 October 1, 2017.¹ Altogether, UGI Gas has been successfully running a voluntary
20 natural gas EE&C Plan since October 1, 2016.

¹ Pursuant to the Joint Application of UGI Gas, UGI Penn Natural Gas and UGI Central Penn Gas, the three former NGDCs merged into one entity. *See Joint Application of UGI Utilities, Inc., UGI Penn Natural Gas, Inc. and UGI Central Penn Gas, Inc. for All of the Necessary Authority, Approvals, and Certificates of Public Convenience for Merger*, Docket Nos. A-2018-3000381, A-2018-3000382 and A-2018-3000383 (Opinion and Order entered Sept. 20, 2018).

1

2 **Q. Why is UGI Gas filing a Petition for Approval of Phase II of its EE&C Plan?**

3 A. Improving efficiency and reducing energy usage in buildings is an increasingly
4 important part of the nation’s energy, economic, and environmental policy goals.
5 At the Federal level, the passage of the Inflation Reduction Act of 2022 (“IRA”)
6 shows the Nation’s commitment to addressing climate change through energy
7 efficiency. In Pennsylvania, the success of the Act 129 programs administered by
8 electric utilities over more than a decade shows the Commonwealth’s commitment
9 to efficiency.

10 The Company’s current Phase I EE&C Plan has been very successful at
11 delivering energy savings to its customers, creating new jobs, and providing
12 economic benefits to the Commonwealth of Pennsylvania. The Company’s current
13 plan is set to end on September 30, 2025.

14 In this proceeding, UGI Gas is seeking approval of a new five-year Phase
15 II EE&C Plan that would continue to make the Company a leader in natural gas
16 energy efficiency programs in Pennsylvania. The Phase II EE&C Plan would
17 commence October 1, 2025, and continue until September 30, 2030. The Company
18 aims to provide continuous services to its customers to help them save natural gas
19 and provide significant net benefits to the economy of Pennsylvania.

20

21 **III. OVERVIEW OF PHASE I EE&C PLAN**

22 **Q. Please describe the current Phase I EE&C Plan.**

23 A. UGI Gas currently offers a portfolio of energy efficiency and conservation
24 programs that help both its residential and nonresidential customer base invest in

1 energy saving equipment and projects. The Company currently offers the following
2 programs:

- 3 1. Residential Prescriptive Program
- 4 2. Residential Retrofit Program
- 5 3. Residential New Construction Program
- 6 4. Nonresidential Prescriptive Program
- 7 5. Nonresidential Custom Program
- 8 6. Combined Heat and Power (“CHP”) Program

9 The total five-year budget for the Phase I EE&C Plan is \$63.3 million,
10 which includes the six programs identified above as well as portfolio-wide costs.
11 The full Phase I EE&C Plan Portfolio was projected, at the time of the original
12 filing, to provide net benefits under the Total Resource Cost (“TRC”) test of \$85.2
13 million in 2018 dollars with a benefit-cost ratio (“BCR”) of 1.51 over the five-year
14 life of the original Phase I EE&C Plan.

15 The energy efficiency (“EE”) program portion of the Phase I EE&C Plan
16 portfolio (programs one through five and portfolio-wide costs) is projected to cost
17 \$59.9 million and provide first year natural gas savings of 1,280 BBtus and 25,458
18 BBtus of natural gas savings over the lifetime of installed measures. The EE
19 portion of the portfolio is projected to deliver TRC net benefits of \$63.5 million in
20 2018 dollars with a TRC BCR of 1.84. The CHP program is projected to cost \$3.4
21 million over five years and to deliver annual net primary energy savings of 1,756

1 BBTus and 26,336 BBTus over the lifetime of the measures installed.² The CHP
2 program is projected to deliver TRC net benefits of \$21.7 million in 2018 dollars
3 and a TRC BCR of 1.24.

4

5 **Q. How has the current EE&C Plan performed?**

6 A. Over the first four years of the current phase (FY 2020 to FY 2023),³ UGI Gas has
7 delivered nearly two dollars in benefits for every dollar invested, as shown in the
8 TRC Test results in the following table.

9

Table 1. UGI Gas Phase I EE&C TRC Test Results (FY 2020 – FY 2023)

2018 \$	Total Portfolio	EE Programs	CHP Program
TRC Benefits	\$125,343,091	\$117,992,945	\$7,350,146
TRC Costs	\$63,852,060	\$59,865,554	\$3,986,505
TRC Net	\$61,491,031	\$58,127,391	\$3,363,640
TRC BCR	1.96	1.97	1.84

10

11 The vast majority of these benefits have come from the Company’s successful suite
12 of energy efficiency programs, which have delivered over \$58 million in net
13 benefits to Pennsylvania. The CHP program has also delivered \$3.4 million in net
14 benefits to the Commonwealth.

15 The following table provides a summary of the Phase I EE&C Plan’s
16 spending and saving over the first four years of the Phase I EE&C Plan, compared
17 to the five-year phase goals.

² CHP savings are expressed as the net effect of avoided electric generation energy and increased gas usage expressed in million British Thermal Units (“MMBTUs”) to differentiate from the reduction in natural gas usage derived from the natural gas energy efficiency programs.

³ UGI Gas utilizes a fiscal year running from October 1 through September 30. For example, FY 2023 began on October 1, 2022 and concluded on September 30, 2023.

1

Table 2. UGI Gas Phase I EE&C Spending and Saving (FY 2020 – FY 2023)

Component (Nominal \$)	Actual	Budget	%
Portfolio Spending	\$41,515,430	\$63,369,600	66%
EE Program	\$40,940,632	\$59,927,100	68%
CHP Program	\$574,798	\$3,442,500	17%
EE Program Natural Gas Savings			
Annual (MMBtus)	950,624	1,279,547	74%
Lifetime (MMBtus)	19,053,860	25,457,795	75%
CHP Net Primary Energy Savings			
Annual (MMBtus)	140,246	1,755,747	8%
Lifetime (MMBtus)	2,804,915	26,336,204	11%

2

3 Progress on the EE programs has been successful, with the Company spending
4 approximately \$40.9 million dollars, 68% of its phase budget through Year 4, to
5 achieve 19,054 BBTus in lifetime gas savings, 75% of its goal. Additionally, the
6 Company has issued nearly \$28 million in rebates to approximately 47,000
7 Residential Customers and approximately \$5 million in rebates to nearly 1,100
8 Nonresidential Customers. The CHP Program has made slower progress due to the
9 extremely long lifecycles associated with CHP projects, with \$574,798 spent, or
10 17% of budget, and 2,805 BBTus in lifetime net primary energy savings achieved.
11 Even though the CHP Program has not seen as much progress as the EE programs
12 in Phase I, there were two CHP projects successfully completed, with a third CHP
13 project anticipated to close in Program Year 5.

14 For additional details on the performance of the Phase I EE&C Portfolio,
15 including results by program, please refer to the Annual Reports filed by the
16 Company at Docket No. R-2018-3006814. The latest Annual Report, for FY 2023,
17 was filed on January 31, 2024.

18

1 **IV. PHASE II EE&C PLAN OVERVIEW AND DEVELOPMENT**

2 **Q. Please provide a summary of UGI Gas’s Phase II EE&C Plan.**

3 A. The Phase II EE&C Plan is projected to cost \$67.8 million over five years, an
4 average of \$13.6 million per year, while providing \$59.2 million in net benefits
5 under the TRC Test with a BCR of 1.61. The Phase II Plan is a continuation of its
6 successful Phase I programs and consists of the following four natural gas energy
7 efficiency programs:

- 8 1. Residential Prescriptive (“RP”)
- 9 2. Residential New Construction (“RNC”)
- 10 3. Residential Retrofit (“RR”)
- 11 4. Nonresidential (“NR”)

12 The Plan also includes a proposed CHP Program that promotes net energy savings,
13 with a budget for portfolio-wide administrative costs. I discuss program details
14 further in Sections V and VI of my direct testimony.

15 The energy efficiency programs in the Plan are projected to save 29,884,754
16 MMBtus of gas over the lifetime of measures installed, at a cost of \$67.8 million
17 over five years. The energy efficiency programs are projected to provide \$59.2
18 million in TRC net benefits with a TRC BCR of 1.61. The CHP Program is
19 projected to save 6,538,217 MMBtus in lifetime net energy savings at a cost of \$1.7
20 million over five years. The CHP Program is projected to provide \$8.6 million in
21 TRC net benefits with a TRC BCR of 1.38.

22

1 **Q. Has UGI Gas provided detailed plans for the proposed programs?**

2 A. Yes, Section 2 of UGI Gas Exhibit 1 provides a detailed plan for each of the
3 programs, including annual budgets, savings, and participation projections along
4 with more information on program design, eligible rate classes, target markets,
5 incentive approach, marketing, evaluation, measurement, and verification
6 (“EM&V”), and implementation.

7
8 **Q. What are the goals that UGI Gas used to develop its Phase II EE&C Plan?**

9 A. The Company used four core goals in the development of the Phase II EE&C Plan:
10 (1) help its customers save energy cost-effectively through a holistic approach to
11 energy efficiency and conservation; (2) avoid lost opportunities for energy
12 conservation and provide deep levels of savings for participants; (3) provide a wide
13 range of services for its diverse customer base; and (4) contribute to the economic
14 welfare of its customers and Pennsylvania.

15
16 **Q. How was the Phase II EE&C Plan developed?**

17 A. As described in Section 1.4 of UGI Gas Exhibit 1, the Plan was developed using
18 the goals previously highlighted in my testimony. UGI Gas performed a review of
19 its existing program design and did a bottom-up characterization of measures,
20 including a review of new measures that could be included in programs. All the
21 measures were screened for cost-effectiveness and recommended modifications to
22 the programs were determined. Participation and program costs were projected
23 based on UGI Gas’s experience with the operations of its Phase I programs. Some

1 changes were made to the Phase I EE&C Plan, including the expansion of measures
2 for the RP Program and the combination of the Nonresidential Custom and
3 Nonresidential Prescriptive Programs into a single Nonresidential Program.

4

5 **Q. How were avoided costs for the Phase II EE&C Plan developed?**

6 A. Section 1.8.2 of UGI Gas Exhibit 1 provides a detailed description of the methods
7 used to develop avoided costs for the Plan. Phase II follows the methodology
8 adopted in Phase I for the avoided costs of natural gas. Underlying inputs,
9 including commodity prices, heating degree days, pipeline costs, storage costs, and
10 avoided transmission and distribution costs, have been updated to reflect current
11 conditions, as described in Section 1.8.2 of the Plan. Avoided costs of electricity
12 and water are based on Act 129 Phase IV values that have been weighted to align
13 more closely with UGI Gas's service territory. The Company also utilized a
14 nominal rate of 5% and a long-term inflation rate of 2% to align with assumptions
15 used in Phase IV of Act 129.

16

17 **Q. Does UGI Gas's Phase II EE&C Plan meet the criteria for spending caps
18 previously adhered to in the Phase I EE&C Plan?**

19 A. Yes. The Company had FY 2019 revenue of \$830 million, 2% of which represents
20 a single year budget cap of \$16.6 million. UGI Gas is projecting annual spending
21 of approximately \$13.9 million per year, with the largest single year's cost
22 projected to be \$14.9 million, which is below the \$16.6 million cap.

23

1 **Q. How are low-income customers addressed by the Phase II EE&C Plan?**

2 A. Low-income customers are addressed in two ways. First, the Company is
3 proposing to waive the customer fee for receiving an energy assessment and energy
4 savings kit under the RR Program for low-income customers who meet income
5 requirements, but do not meet the usage requirements for participation in the Low
6 Income Usage Reduction Program (“LIURP”). Second, as with the current EE&C
7 Plan, UGI Gas will continue to refer potentially eligible customers to LIURP and
8 will include LIURP messaging on applications and marketing materials, including
9 a direct phone number to contact UGI Gas to pursue enrollment if the customer
10 believes that he or she may qualify.

11

12 **Q. How are small business customers served in UGI Gas’s Phase II EE&C Plan?**

13 A. While there is no designated program within the Phase II EE&C Plan specifically
14 designed for small business customers, such as those on rates N/NT, they are
15 provided the ultimate flexibility by being eligible for multiple programs within the
16 Phase II EE&C Plan, depending on the project’s characteristics. If a small business
17 customer’s building is best served by installing residential sized high-efficiency
18 equipment, they would be eligible for rebates in the RP Program. If their building
19 is best served by installing commercial sized high-efficiency equipment, they
20 would be eligible for rebates in the prescriptive pathway of the NR Program. If
21 they are best served by completing a cost-effective comprehensive energy saving
22 upgrade to their building, they would be eligible for rebates in the custom pathway
23 of the NR Program.

1 In addition, individually metered multi-family buildings that are completing
2 cost-effective comprehensive energy saving upgrades to their building would be
3 eligible for rebates through the RR Program for the building units and any upgrades
4 benefiting the common area, typically on a commercial house meter. These
5 customers would be eligible for rebates through the NR custom pathway. The same
6 process would apply for the RNC and NR custom pathway based on the account
7 types served in the building. This ensures that small business and multi-family
8 projects are always provided an appropriate pathway to natural gas savings and
9 rebates without slipping through the cracks.

10

11 **V. PHASE II RESIDENTIAL PROGRAMS**

12 **Q. What updates has UGI Gas made to the Residential Programs in Phase II?**

13 A. Residential offerings in Phase II are mainly a continuation of the successful
14 programs offered currently in UGI Gas’s Phase I EE&C Plan. The Residential
15 Prescriptive Program includes some additional equipment rebates and anticipates a
16 steady rise in overall participation. The Residential New Construction Program
17 will continue as currently designed, with similar participation levels to recent years.
18 The Residential Retrofit Program has been designed to improve contractor
19 participation and ramp up program activity.

20

21 **Q. Please describe the Residential Prescriptive (“RP”) Program.**

22 A. The RP Program provides prescriptive rebates to customers who pursue energy
23 efficiency measures using residential, as opposed to commercial, equipment that
24 saves natural gas. Eligible customers use their own contractor or self-install the

1 eligible equipment and receive a cash rebate to offset most of the incremental cost
2 of installing high-efficiency equipment. The program is also open to small
3 commercial customers and multifamily buildings that install residential sized high-
4 efficiency equipment. Rebates are designed to cover between 43% and 82% of the
5 incremental cost between baseline and high-efficiency equipment installation.

6

7 **Q. How much is the RP Program projected to cost, and what savings will it**
8 **provide?**

9 A. The RP Program is expected to cost \$34.2 million over five years with savings of
10 14,637,868 MMBtus over the lifetime of the measures installed. The program is
11 projected to be cost-effective under the TRC Test, providing \$27.2 million in net
12 benefits with a BCR of 1.58.

13

14 **Q. What changes have been proposed to the RP Program in Phase II?**

15 A. UGI Gas has added three new pieces of high-efficiency equipment that will be
16 eligible for a rebate in the Phase II EE&C Plan. First, UGI Gas will begin offering
17 a rebate for residential boiler reset controls. It is critical for customers to get the
18 most efficiency possible out of their boiler when they are not in the financial
19 position to replace their existing boiler before the end of its useful life. Adding
20 boiler reset controls to an existing boiler will allow for a better response to outdoor
21 air temperature, increased efficiency, and all at a low cost to the customer.

22 Second, UGI Gas plans to provide incentives for single package vertical
23 units (“SPVUs”). These units are a popular space heating method for multi-family

1 buildings in UGI Gas’s service territory, and by offering SPVUs as a prescriptive
2 incentive, the Company expects to be able to serve more multifamily buildings
3 through the RP Program. Since SPVUs are not covered by an ENERGY STAR®
4 certification, incentives will be given to qualifying units achieving 94% AFUE or
5 greater efficiency.

6 Finally, the Company will offer a rebate for customers that install a high-
7 efficiency gas fireplace insert with a 70% or greater efficiency, against a baseline
8 efficiency of 60%.

9

10 **Q. Please describe the Residential New Construction (“RNC”) Program.**

11 A. The RNC Program provides incentives for home builders to incorporate natural gas
12 efficiency into the design of their projects and go beyond the minimum standards
13 dictated by building energy codes. The program provides incentives for reaching a
14 certain percentage of natural gas savings above the savings achieved by a property
15 being built to code minimum standards. The program also provides an additional
16 incentive amount for achieving ENERGY STAR® new home certification. There
17 are no proposed changes to the program in Phase II, due to the overwhelming
18 success of the RNC Program in Phase I.

19

20 **Q. How much is the RNC Program projected to cost, and what savings will it
21 provide?**

22 A. The RNC Program is expected to cost \$11.6 million over five years with savings of
23 4,958,753 MMBtu over the lifetime of measures installed. The program is

1 projected to be cost-effective under the TRC Test, providing \$31.6 million in net
2 benefits with a BCR of 3.52.

3

4 **Q. Please describe the Residential Retrofit (RR) Program.**

5 A. The RR Program provides incentives to customers that receive an in-home energy
6 assessment and install insulation and air infiltration reduction measures to make
7 their building envelope more efficient. Customers will receive an in-home energy
8 assessment from an approved member of UGI Gas's contractor network. The
9 assessment will provide the customer with an energy saving kit and a report of
10 measure installation recommendations to make the customer's home more efficient.
11 Following the assessment, customers will receive an incentive if they choose to
12 install insulation and air infiltration reduction measures. The RP Program is
13 available to residential customers.

14

15 **Q. How much is the RR Program projected to cost, and what savings will it
16 provide?**

17 A. The RR program is expected to cost \$4.4 million over five years with savings of
18 576,023 MMBtu over the lifetime of measures installed, however, the program is
19 not projected to be cost-effective under the TRC Test, providing \$(1.8) million in
20 net benefits with a BCR of 0.67. While this program is not cost-effective on its
21 own, the overall portfolio is projected to be cost-effective, which aligns with the
22 Act 129 treatment for approval of programs that are not cost-effective.

1 The RR Program fills an important need in the market by supporting
2 comprehensive weatherization services for market-rate customers, including
3 improvements to the building shell through insulation and air-sealing rebates. This
4 is complementary to the services performed under LIURP for low-income
5 customers. Continuing the RR Program will ensure that the EE&C portfolio has a
6 full range of energy saving options for UGI Gas’s residential customers.

7

8 **Q. What changes are being proposed to the RR Program in Phase II?**

9 A. The fundamental design of the RR Program remains the same as Phase I. However,
10 the RR Program has higher projected participation levels due to the improvements
11 UGI Gas has made, and continues to make, with contractor engagement and
12 improved messaging to customers. The Company anticipates additional tailwinds
13 for participation from tax credits available to customers from the IRA, including
14 for efficient natural gas heating equipment, weatherization improvements, and
15 potentially a small tax credit to offset audit costs.

16

17 **VI. PHASE II NONRESIDENTIAL PROGRAMS**

18 **Q. What updates has UGI Gas made to the Nonresidential Programs in Phase II?**

19 A. UGI Gas is proposing to combine the two existing nonresidential programs into a
20 single consolidated program for Phase II. The former Nonresidential Prescriptive
21 (“NP”) Program and Nonresidential Custom (“NC”) Program are being combined
22 into a single Nonresidential (“NR”) Program with prescriptive and custom pathway
23 program components.

24

1 **Q. Why is it beneficial to consolidate the former NP and NC Programs into one**
2 **NR Program?**

3 A. The streamlined program design for the new NR Program will benefit participating
4 trade allies and customers. First, trade allies will be able to work with a single
5 program implementer to find the best pathway for their project. Currently, the NP
6 Program has a rebate processor but no program implementer, while the NC Program
7 has a dedicated program implementer that is guiding trade allies through their
8 rebate project. Trade allies are potentially missing out on the benefits of the
9 prescriptive program as they are designing projects for their customers.

10 Second, both customers and trade allies will have a single-entry point to
11 either the NR prescriptive or custom pathway. This will enable the program
12 implementer to identify the best possible incentive opportunity for a customer to
13 install the most cost-effective project that fits their needs.

14 Lastly, combining the budgets of these programs will enable the program to
15 utilize funding for the most effective efficiency projects based on market conditions
16 without reallocating budget resources between multiple programs in the case that
17 one program is outperforming another. Overall, this consolidated program design
18 will lead to increased trade ally satisfaction, customer satisfaction and participation,
19 as well as operational efficiency for UGI Gas.

20

21 **Q. Please describe the NR Program.**

22 A. The NR Program provides prescriptive or customized incentives to customers that
23 make natural gas saving upgrades to their building or incorporate natural gas saving

1 measures into their new construction projects. Prescriptive incentives are given to
2 commercial and multi-family customers that install high-efficiency commercial
3 space heating, commercial water heating, or commercial kitchen equipment. A list
4 of the proposed prescriptive rebates can be found in Section 2.4 of the Plan.

5 A custom incentive will be offered to customers who pursue cost-effective
6 natural gas saving upgrades to their building that are not offered a prescriptive
7 incentive. The custom incentive will be capped at the lesser of the project's gas
8 benefits, incremental cost, or \$100,000.

9

10 **Q. How much is the NR Program projected to cost, and what savings will it**
11 **provide?**

12 A. The NR Program is expected to cost \$13 million over five years with savings of
13 9,712,110 MMBtus over the lifetime of measures installed. The program is
14 projected to be cost-effective under the TRC Test, providing \$6.1 million in net
15 benefits with a BCR of 1.22.

16

17 **Q. Please describe the CHP Program.**

18 A. The CHP Program provides incentives for CHP plants that have net-primary-energy
19 savings and are cost effective under the TRC Test. The program offers incentives
20 of \$750 per kW, with a per project cap minimum of \$250,000 or 50% of the project
21 cost. UGI Gas works with customers considering CHP projects on the
22 characteristics of the proposed plant to determine whether the plant is efficient
23 enough and uses enough of the waste heat to qualify for the program. The customer

1 constructs the CHP plant, and then UGI Gas’s evaluator works with the customer
2 during the commissioning phase to make sure that the plant and usage profile still
3 qualify it for the rebate. The Company will then provide a rebate to the customer
4 based on the post-installation evaluation results.

5
6 **Q. How much is the CHP Program projected to cost, and what savings will it
7 provide?**

8 A. The program is expected to cost \$1.7 million over five years to provide net lifetime
9 energy savings of 6,538,217 MMBtus, while providing TRC net benefits of \$8.6
10 million with a BCR of 1.38.

11
12 **Q. Were there any updates made to the CHP Program design for Phase II?**

13 A. No. The Phase II CHP program consists of the same program design as Phase I.
14 Participation rates for Phase II are estimated at one project a year based on UGI
15 Gas’s experience and current project pipeline, which reflects the participation rates
16 experienced by UGI Gas in Phase I.

17
18 **VII. IMPLEMENTATION AND EVALUATION**

19 **Q. Please summarize UGI Gas’s strategy to implement the Phase II EE&C Plan
20 after Commission review and approval.**

21 A. The Company anticipates that all programs will be operational starting October 1,
22 2025. Implementation of UGI Gas’s Phase II EE&C Plan will rely on the
23 performance of the Company’s internal staff in collaboration with Conservation
24 Service Providers (“CSPs”), trade allies, community agencies, and other entities

1 engaged in energy efficiency activities to promote, administer, and support the
2 effective deployment of programs.

3 Various forms of communication, including the Company’s website, bill
4 inserts, email, direct mail, print and radio advertisements, and social media, will be
5 utilized as needed to reach customers with Plan details. UGI Gas’s internal EE&C
6 Staff will oversee planning, marketing, and implementation for the Phase II EE&C
7 Plan and will continue utilizing program CSPs to deliver services in support of the
8 Phase II programs.

9

10 **Q. What will UGI Gas do if any updates to the Phase II EE&C Plan are needed?**

11 A. To address changing market conditions and improve service delivery, UGI Gas may
12 make certain adjustments, such as moving budgets between years or adjusting
13 incentives within approved ranges, without seeking official Commission approval.
14 UGI Gas will include information on any such modifications in its Annual Report.

15 If larger modifications are required, UGI Gas will file a petition to modify
16 the EE&C Plan seeking approval for such changes. UGI Gas considers material
17 changes to be: (1) the addition or removal of a program; (2) seeking funding beyond
18 the five-year budget that was initially approved; (3) the need to transfer more than
19 25% of a program’s five-year budget between programs within the same sector
20 (residential or nonresidential); and (4) any significant changes to cost-effectiveness
21 projections, such as an update to avoided costs or a large reduction in projected
22 spending. UGI Gas previously filed a successful program modification request in

1 2021 that was used to shift budget from the underperforming RR program to the
2 over-performing RNC program.

3

4 **Q. How is the Company proposing to track, evaluate, and report on the Phase II**
5 **EE&C Plan?**

6 A. CSPs will conduct verifications of applications and participants and collect all the
7 required data needed to calculate savings and cost-effectiveness. This information
8 will then be transmitted to the UGI Gas reporting database, which stores
9 participation, costs, savings, and cost-effectiveness information on all the programs
10 in the Plan. UGI Gas’s EE&C team and consultants will continue to verify the data
11 entered in the reporting system and evaluate progress against stated Plan goals. No
12 later than three months after each Program Year (“PY”) concludes, the Company
13 will compile and provide an Annual Report, which will include program highlights
14 and updates, as well as progress towards Plan goals, such as savings and costs. UGI
15 Gas will also retain a third-party evaluator to perform a process and impact
16 evaluation on its programs during the Plan.

17

18 **VIII. CHALLENGES, CONCLUSIONS, AND RECOMMENDATIONS**

19 **Q. Are there any areas that may challenge the success of the Phase II EE&C**
20 **Plan?**

21 A. Yes. The Company anticipates two major sources of uncertainty that may have an
22 outsized effect on the Plan over its lifetime. First, the willingness of customers to
23 implement EE&C measures will impact program participation. Customer
24 willingness is influenced by many different factors, including the effectiveness of

1 the Company’s communication efforts, lingering supply-chain impacts, and the
2 general state of the economy. For Commercial and Industrial customers, in
3 particular, the general state of the economy may adversely affect the ability of
4 customers to make investments in energy efficiency projects. The current interest
5 rate environment, with rates at multi-decade highs, makes financing options limited
6 for many customers. Despite these headwinds, the proposed Plan will provide
7 needed financial and technical assistance to UGI Gas’s customers to help them use
8 energy as efficiently as possible and deliver significant economic benefits to
9 Pennsylvania as a whole.

10 Second, there are several new federal programs and initiatives that may
11 affect the outcome of the Plan. Specifically, the Company will closely monitor the
12 IRA and the effects it may have on program activity and cost-effectiveness
13 reporting. Currently, the IRA provides significant tax credits that overlap with
14 offerings in the Plan, such as efficient space heating and water heating equipment
15 powered by natural gas, as well as insulation/air sealing and energy audit tax
16 credits. It remains to be seen how many of UGI Gas’s customers will take
17 advantage of these tax credits and how those tax credits may affect the supply,
18 distribution, and installation of efficient equipment in UGI Gas’s service territory.
19 The Company will also be monitoring the Home Energy Performance-Based
20 Whole-House Rebates (“HOMES”) and High-Efficiency Electric Home Rebate Act
21 (“HEEHRA”). In particular, UGI Gas will closely watch the potential
22 implementation of HOMES and HEEHRA in Pennsylvania for how they may
23 interact and/or overlap with the Plan’s offerings.

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Q. How will the Company address the IRA in Phase II?

A. UGI Gas plans to include multiple references to the IRA throughout its program materials, including information provided on the Company’s website, EE&C marketing materials, and customer applications. The Company also plans to raise awareness with trade allies, such as contractors and distributors, about the IRA, and in particular about tax credits that may be available for measures offered by the UGI Gas programs.

Q. What conclusions do you reach?

A. I conclude that UGI Gas’s proposed Phase II EE&C Plan, which is largely a continuation of UGI Gas’s Phase I EE&C Plan, is cost-effective and will be economically beneficial to UGI Gas ratepayers, the UGI Gas territory, and the Commonwealth of Pennsylvania.

Q. On the basis of these conclusions, what are your recommendations to the Commission?

A. I recommend that the Commission approve UGI Gas’s Phase II EE&C Plan, which will enable the continuation of cost-effective energy savings programs in UGI Gas’s service territory, saving customers money and energy while improving the economy of the Commonwealth of Pennsylvania.

1 **Q. Does this conclude your direct testimony?**

2 A. Yes, it does. I reserve the right to submit supplemental testimony during the course
3 of the proceeding. Thank you.

UGI Gas Exhibit TML-1

Theodore Love

2534 Downingsville Rd. | Lincoln, VT 05443
tel: (919) 949 – 5906
tlove@greenenergyeconomics.com



Professional Experience

Green Energy Economics Group, Inc. – Cuttingsville, VT

<i>Partner</i>	2017 to Present
<i>Senior Associate and Data Scientist</i>	2013 to 2017
<i>Associate</i>	2010 to 2013
<i>Analyst</i>	2007 to 2010

For over 15 years, Theodore “Theo” Love has been providing insights into the design, analysis, and implementation of energy efficiency and distributed energy resource programs and portfolios in twelve states, three Canadian provinces, and China. He has a particular focus on EE/DER policy analysis, program design and implementation, cost-effectiveness testing, financing, and building scalable tools to analyze everything from individual projects to programs to portfolios. Some recent project experience includes:

- Providing regulatory and policy analysis assistance to the Small business Utility Advocate in California and Ontario on various energy efficiency dockets.
- Ongoing review and analysis of EfficiencyOne’s energy efficiency portfolio in Nova Scotia on behalf of the Consumer Advocate of Nova Scotia.
- Design, regulatory, and implementation support for voluntary electric and gas energy efficiency programs in Pennsylvania for UGI, PGW, and Columbia Gas.
- Working with PSE&G in New Jersey on forecasting and scaling their internally managed commercial and industrial programs.

2007 – 2010

Consultant, Alter & Rosen, LLP, New York, NY

2006 – 2007

Client Reporting Analyst, AllianceBernstein LP, White Plains, NY

Affiliations

Association of Energy Service Professionals (AESP) - Business Issues and Regulatory Models Topic Committee Co-Chair 2023 - present

AESP Gas Topic Committee Co-Chair 2019-2023

AESP National Conference Planning Committee 2021, 2022, 2023

Energy Efficiency Alliance (EEA) of Pennsylvania / New Jersey - Policy Conference Planning Committee 2022, 2023

Recent Project Experience

Green Energy Economics Group, Inc.

Development and Implementation of Energy Efficiency and Conservation Plans

UGI Utilities, Inc. – Pennsylvania

(June 2015 – Present)

Assist UGI Utilities, Inc. and PNG with the development and approval of Energy Efficiency and Conservation (EE&C) Plans for their UGI Gas PNG Gas, and UGI Electric divisions, including:

- Ongoing evaluation and portfolio planning activities for both UGI Gas and UGI Electric energy efficiency portfolios.
- Developing an achievable efficiency scenarios for UGI Gas and PNG Gas.
- Designing a five-year, \$27 million energy efficiency and conservation plan for UGI Gas. Submitting direct testimony on behalf of UGI Gas, Inc. on the design and implementation of the proposed plan (Docket No. R-2015-2518438)
- Designing a five-year \$15 million energy efficiency and conservation plan for PNG Gas. Submitting direct testimony on behalf of PNG Gas, Inc. on the design and implementation of the proposed plan (Docket No. R-2016-2580030)
- Assisting with the design and implementation and reporting of the UGI Electric's voluntary EE programs. Designing and assisting with approval for a five-year \$7.2 million electric energy efficiency and conservation plan (Docket No. M-2018-3004144)

Strategic Planning and Implementation of DSM Portfolio

Philadelphia Gas Work's (PGW) - Philadelphia, Pennsylvania

(August 2008 – Present)

- Assisting with ongoing program planning and implementation of both the Low-Income Usage Reduction Plan (LIURP) and the market-rate DSM portfolio.
- Provided supporting testimony and analysis for the Phase III market-rate DSM plan under Docket No. P-2014-2459362.
- Designed Phase II plan with PGW and submitted direct testimony supporting the plan on behalf of PGW (Docket No. P-2014-2459362)
- Member of lead consulting team that aided in the design and approval of PGW's five-year, \$54 million portfolio of DSM programs;
- Providing ongoing technical assistance in the development of PGW's \$35 million Phase II five year plan.
- Providing ongoing technical support in program design and implementation, including the roll-out of six programs that, combined since inception, have saved 120,000 MMBtus at a cost of approximately \$17 million;
- Developed specifications for and currently collaborating with internal PGW staff on database system to track weatherization projects, rebate applications, and other information pertaining to PGW's DSM portfolio;
- Developed multiple Excel-based tools used by contractors to perform field audits, provide QA/QC, and track ongoing progress for contractors, programs, and the portfolio as a whole;

- Provided research and analysis support for multiple rounds of expert testimony before the Pennsylvania Public Utility Commission (Docket R-2009—2149884);
- Aided in the issuance of RFPs and selection of candidates for over \$40 million in contracts;
- Major contributor to PGW's ongoing formal reporting and evaluation process, including the issuance of five implementation plans, three annual reports, and two impact evaluations.

Economic and Policy Analysis

Attorney General's Office of Ratepayer Advocacy- Massachusetts (October 2023 – Present)

- Provides economic, technical, and policy related consulting services to the AG's office related to MA's 2025 to 2027 Energy Efficiency Plans and other decarbonization issues, such as the Clean Heat Standard.

Economic and Policy Analysis

Small Business Utility Advocate - California (June 2020 – Present)

- Reviewed plans and provided testimony on codes and standards, program budgets, and non-energy benefits (Docket No. A22-02-005)
- Provided assistance on comments and testimony regarding phase out of gas incentives (Docket No. A22-02-005)
- Reviewed plans and provided testimony on cost-effectiveness test and application of Automated Response Technology (ART) Program. (Docket No. A22-05-002)
- Assisted SBUA with analysis of claims and provided feedback on potential areas of mismanagement of funds (Docket No. A22-06-003)
- Reviewed plan and worked with SBUA to draft advice letter on program design related to small business, measures selection, and reporting requirements. (Docket No. R08-16-021)
- Participated in working group to examine the definition of underserved customers. Authored report on participation rates for small and microbusinesses in CA energy efficiency programs. (Docket No. R13-11-005)
- Provided comments on cost-effectiveness tools and reporting databases for Energy Efficiency programs (Docket No. R13-11-005)
- Reviewed third-party evaluation plans (Docket No. R13-11-005)
- Participated in workshops and developed comments and testimony supporting small business access to clean energy financing (Docket No. R20-08-022).

Economic and Policy Analysis

Small Business Utility Alliance – Ontario, CA (June 2021 – Present)

- Reviewed plan and participated in fully litigated proceeding, including providing testimony on bet practices and program design, coordination with electric programs, cost-effectiveness, shareholder incentives, and stake holder engagement. (Matter No. EB-2021-0002)

Economic and Policy Analysis

Consumer Advocate – Nova Scotia

(March 2019 – Present)

- Member of DSM Advisory Group (DSMAG) on behalf of the Consumer Advocate of Nova Scotia to provide ongoing support for design and implementation of programs.
- Provided analysis and written testimony on Efficiency One's (E1) 2023 – 2025 DSM Plan (Matter No. M10473) as it relates to historical spending, affordability, underserved communities, and avoided costs.
- Provided analysis and written testimony on Efficiency One's (E1) 2020 – 2022 DSM Plan (Matter No. M09096) as it relates to spending and savings levels, affordability, and allocation of funds.
- Provided comments on the 2019 DSM Potential Study's economic analysis and projection assumptions and approach

Program Management and Benefit Cost Analysis Expert

Public Service Enterprise Group (PSE&G) – New Jersey. (Oct 2021 – Apr 2023, Feb 2024 = present)

- Consulted on forecasting and management of PSE&G's internally run commercial Engineered Solutions and Direct Install programs.
- Assisted with rollout of tracking system for PSE&G DSM portfolio.
- Provided assistance with calculation of six economic tests for PSE&G's energy efficiency and conservation portfolio, including development of calculation engine and launch as a subcontractor to ANB Enterprises.

Development and Regulatory Support for DSM Portfolio

Columbia Gas of Pennsylvania - Pittsburgh, Pennsylvania (February 2022 – Present)

- Successfully developed, provided regulatory support for, and got approval of a three-year voluntary gas energy efficiency plan and provided supporting testimony under Docket No. P-2014-2459362.
- Ongoing assistance with the launch and implementation of the first three-year voluntary gas energy efficiency plan.

DSM Potential Studies in New York, New Jersey, and Pennsylvania

Optimal Energy, Inc. - Vermont

(December 2018 – December 2019)

- Assisted Optimal Energy, Inc. with the development of measure assumptions and characterizations for statewide, electric and gas DSM potential studies.

Natural Gas Efficiency Options and EE&C Plan for Peoples Natural Gas

Peoples Natural Gas, Inc. – Pennsylvania

(September 2017 – February 2019)

- Prepared report on program, sector, and portfolio-level cost and savings for 29 natural gas administrators in 11 States, and provided recommendations for potential natural gas DSM opportunities for Peoples Natural Gas
- Assist with stakeholder review process
- Developed five year \$42 million Energy Efficiency and Conservation (EE&C) Plan, and provided testimony to support the adoption of the Plan (ongoing).

Research on Leading Energy Efficiency Portfolios

Green Energy Economics Group - Vermont

(November 2007 – Present)

- Maintain research and proprietary analysis on actual and projected results from over a dozen electric and natural gas demand side management (DSM) portfolios throughout North America;

Analytic and Technical Support for DSM Tracking Systems

PECO Energy Company – Pennsylvania

(September 2016 – December 2017)

Commonwealth Edison Company – Illinois

(August 2017 – August 2018)

Companywide

(September 2020 – present)

- Subcontractor to ANB Systems Inc. to provide domain expertise and analytic support to rollout of enhanced tracking system.
- Developed dashboards and internal reports used by PECO's EM&V team, business planning, and various program and portfolio managers.
- Guided automation of PECO's six-month and annual reporting process.
- Provided expert guidance on the development of cost effectiveness calculation modules for clients in Pennsylvania and New Jersey
- Oversaw project development of audit tool for ComEd's Carbon Free School Assessment Program.

Technical Assistance for Energy Efficiency Program Planning

Green Mountain Power - Vermont

(August 2012 – July 2017)

- Developed multivariable regression model and framework to estimate the cost per kW to address a reliability gap in the St. Albans region with targeted energy efficiency.
- Reviewed and analyzed program proposals for the \$20 million Community Energy & Efficiency Development Fund (CEED Fund), including the development of scoring and rebalancing mechanisms;
- Analyzed dataset of 5,000 custom business projects to establish models used for future planning exercises.
- Prepared report on uncounted benefits of renewable generation sources for Vermont.

Analysis of Energy Efficiency in British Columbia

BC Sustainable Energy Association & Sierra Club BC, British Columbia (May 2011 – June 2014)

- Provided comments and energy efficiency opportunities report for proceedings on FortisBC Gas and Electric's long-term DSM plans in December of 2013.
- Assisted on research for direct testimony on reasonableness of gas DSM Plan by Fortis Energy Utilities before the British Columbia Utilities Commission, BCUC Project No. 3698627;
- Technical support on assessment of FortisBC Electric's long-term DSM plan and corresponding expert testimony;
- Assistance with direct testimony and technical support on assessment of BC Hydro's long-term DSM plan, before the BCUC.

Energy Efficiency Potential in Oklahoma

Sierra Club, Oklahoma (April 2011 – November 2011, December 2013 – January 2014)

- Provided updated report for energy efficiency in Oklahoma and additional comments on PUC rulemaking for electric and gas utility programs.
- Preparation of report on energy efficiency potential for Oklahoma;
- Assistance with research and drafting comments on the US regional haze Federal Implementation Plan for the State of Oklahoma;
- Research and formulation of energy efficiency potential projections provided as part of expert testimony for Oklahoma Gas & Electric's rate case before the Corporation Commission of Oklahoma, Cause No. PUD 201100087.

Technical Assistance for Energy Efficiency Programs

Focus on Energy - *Wisconsin*

(June 2011 – August 2013)

- Developed and customized cost-effectiveness calculators for Wisconsin's Focus on Energy portfolio of energy efficiency programs;
- Trained staff and other consultants on usage of tools and general economic analysis of energy efficiency programs;
- Provided QA/QC on cost-effectiveness analysis of 14 programs spending over \$160 million in two years.

Chicagoland Energy Efficiency Portfolio

People's Gas - *Chicago, Illinois*

(September 2008 – January 2013)

- Providing ongoing regulatory support;
- Provided cost-benefit analysis of various program scenarios and aided in the analysis of contractor bids;
- Customized excel-based portfolio and project cost-effectiveness tools to client's specifications.

Testimony Support for Expanding Gas Energy Efficiency in Pennsylvania

Citizens for Pennsylvania's Future, *Pennsylvania*

(July 2013 – September 2013)

- Provided support on preparation of testimony regarding Peoples Gas of Pennsylvania's DSM plans, including preparation of benchmarking report and alternative scenario projections.

Energy Efficiency Potential in Texas

Sierra Club, *Texas*

(May 2012 – August 2012)

- Research and development of alternative energy efficiency potential scenarios for the ten investor owned utilities (IOUs) in Texas;
- Development of comments for the Public Utility Commission of Texas;
- Development of presentation before the Energy Efficiency Incentive Program Committee.

Austin Energy's Energy Efficiency Potential

Austin City Council Consumer Advocate, *Austin, Texas*

(April 2012)

- Research and development of alternative energy efficiency potential scenarios for Austin Energy.

Nevada Power's Energy Efficiency Potential

Sierra Club, *Nevada*

(November 2011 – June 2012)

- Research on Nevada Power's Integrated Resource Plan (IRP) and development of alternative energy efficiency potential projections.

Comments on EmPower Maryland Programs

Sierra Club, *Maryland*

(September 2011 – October 2011)

- Research for and development of comments on EmPower Maryland's energy efficiency programs, including the development of alternative energy efficiency potential projections.

Ontario Power Authority Field Audit Support Tool

Green Communities Canada - *Ontario, Canada*

(January 2011 – May 2011)

- Collected and implemented specifications for updating the tool used by Ontario Power Authority's low-income program field agents to collect data and determine project net present values;
- Added custom features including customer input forms, saving and closing routines, and database file importing.

Energy Efficiency Potential in Arkansas

Sierra Club/Audubon Society, *Arkansas*

(September 2009 – March 2010)

- Research and drafting assistance for expert testimony on energy efficiency' as an alternative to the White Bluff Steam Electric Station before the Public Service Commission of Arkansas, Docket No. 09-024-U.

Training for NGOs Working on Energy Efficiency Projects in China

ISC and NRDC – *United States and China*

(August 2008 – September 2010)

- Developed training materials and provided remote and in-person training sessions on the economic and financial analysis of industrial retrofit projects for structuring and negotiating financial incentive offers to customers;
 - o Worked with the Institute for Sustainable Communities (ISC) to aid its efforts to promote energy efficiency in the Guangdong and Jiangsu Provinces (February 2009 – September 2010);
 - o Worked with the National Resource Defense Council (NRDC) to aid in its efforts in China, especially in conjunction with a \$100 million revolving loan fund from the Asia Development Bank (August 2008- January 2009).

Incentive Calculations for the Project Cost-effectiveness Analysis Tool (CAT)

Efficiency Vermont – *Burlington, Vermont*

(November 2008 – June 2010)

- Aided in the design of a new approach to calculating incentives for custom energy efficiency projects based on financing and reaching a desired rate of return;
- Modified CAT's cash-flow projection engine, an Excel VBA system, to accommodate the new approach to incentives.

Vermont's 20-year Forecast of Electricity Savings from Sustained Investment

Efficiency Vermont – Burlington, Vermont

(December 2008 – October 2009)

- Provided components of final report relating to long-term trends for the environment (climate change, land-use, and water-use), population growth, and governmental regulation;
- Provided additional technical support on electric demand-side savings potential.

Connecticut's Long Term Acquisition Plan

Connecticut Office of the Consumer Council – Connecticut

(August – October 2008)

- Provided research and support for expert testimony regarding long-range energy-efficiency procurement plan of the Energy Conservation Management Board, on behalf of the Connecticut Office of Consumer Counsel.

Energy Efficiency Plans of BC Hydro and Terasen Gas

BC Sustainable Energy Association and

The Sierra Club - British Columbia, Canada

(October 2008 – March 2009)

- Provided research and support for expert testimony and technical support on assessment of BC Hydro's long-term DSM plan, before the BCUC, on behalf of the BC Sustainable Energy Association and Sierra Club Canada (November 2008 – March 2009);
- Provided research and support for expert testimony on assessment of Terasen Gas conservation plans before the BCUC, on behalf of the BC Sustainable Energy Association and Sierra Club Canada (October 2008).

Testimony and Proceeding Participation

Forum	On Behalf Of	Docket/Matter	Date	Issues Addressed
Pennsylvania Public Utility Commission	Philadelphia Gas Works	Docket No. P-2014-2495362. Approval of Demand-Side Management Plan for FY 2024-2026	September-23	Historical performance. Plan design and cost-effectiveness.
Pennsylvania Public Utility Commission	UGI Utilites Inc. - Electric Division	Docket No.M-2023-3043230 . Petition of UGI Utilities, Inc. – Electric Division for Approval of Phase IV of its Energy Efficiency and Conservation Plan	September-23	Energy efficiency plan proposal, including projections for costs, savings, and cost-effectiveness.

California Public Utility Commission	Small Business Utility Advocates	R. 22-02-005. Application of Pacific Gas and Electric Company for Approval of 2024-2031 Energy Efficiency Business Plan and 2024-2027 Portfolio Plan (U 39 M) and associated Matters.	October-22	Issues related to 3-year Energy Efficiency Business Plan
California Public Utility Commission	Small Business Utility Advocates	R. 22-02-005. Application of Pacific Gas and Electric Company for Approval of 2024-2031 Energy Efficiency Business Plan and 2024-2027 Portfolio Plan (U 39 M) and associated Matters.	September-22	Comments on the phase out of gas incentives.
Nova Scotia Utility and Review Board	The Consumer Advocate of Nova Scotia	Matter No. M10473 An Application by EfficiencyOne for Approval of a 2023 – 2025 Demand Side Management (“DSM”) Resource Plan	May-22	Historical performance of portfolio, proposed scenarios, affordability, addressing underserved communities, program design, and avoided costs.
Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania	Docket No. R-2022-3031211. Columbia Gas of Pennsylvania, Inc. 2022 Rate Case Proceeding	March-22	Three-year energy efficiency plan proposal, including projections for costs, savings, and cost-effectiveness.
Ontario Energy Board	Small Business utility Alliance	EB-2021-0002. Enbridge Gas Inc. – Multi Year Demand Side Management Plan (2022 – 2027)	December-21	Analysis of commercial program goals and program design
California Public Utility Commission	Small Business Utility Advocates	R. 21-02-014. Rulemaking to Address Energy Utility Customer Bill Debt Accumulated During the COVID-19 Pandemic.	April-21	Report on Analysis of Small Business Utility Bill Arrearages in California during COVID-19
Pennsylvania Public Utility Commission	Philadelphia Gas Works	P-2014-2459362, Petition of Philadelphia Gas Works for Approval of Demand-Side Management Plan for FY 2016-2020	October-20	Historical performance of PGW’s DSM Phase II Plan and modifications to program design.

California Public Utility Commission	Small Business Utility Advocates	R. 20-08-022 to Investigate and Design Clean Energy Financing Options for Electricity and Natural Gas Customers	July-20	Comments to address options for small business customer
Nova Scotia Utility and Review Board	The Consumer Advocate of Nova Scotia	Matter No. M09096, Efficiency 1 (E1) Application for Approval of 2020 – 2022 Demand Side Management (DSM) Resource Plan	May-19	DSM Investment Levels and Affordability, Usage of Unspent Ratepayer Funding, Rate and Bill Impacts, Target Setting.
Pennsylvania Public Utility Commission	UGI Gas Utilities Inc. – Gas Division	R-2018-3006814, UGI Gas Utilities Inc. – Gas Division, Rate Case	January-19	Energy Efficiency & Conservation Plan and Total Resource Cost Implementation.
Pennsylvania Public Utility Commission	UGI Utilities, Inc. – Electric Division	M-2018-3004144, Petition of UGI Utilities, Inc. – Electric Division for Approval of Phase III of Its Energy Efficiency and Conservation Plan	August-18	Electric energy efficiency and conservation plan development, projections, implementation, and EM&V.
Pennsylvania Public Utility Commission	Peoples Natural Gas Company	M-2017-2640306, Petition of Peoples Natural Gas Company LLC for Approval of its Energy Efficiency and Conservation Plan	January-18	Energy efficiency study, energy efficiency & conservation plan, and total resource cost implementation.
Pennsylvania Public Utility Commission	UGI Penn Natural Gas, Inc	P-2016-2580030, UGI Penn Natural Gas, Inc. Rate Case	January-17	Energy efficiency & conservation plan and total resource cost implementation.
Pennsylvania Public Utility Commission	UGI Utilities, Inc.	P-2015-2518438, UGI Utilities, Inc.- Gas Division Rate Case	January-16	Energy efficiency & conservation plan and total resource cost implementation.
Pennsylvania Public Utility Commission	Philadelphia Gas Works	P-2014-2459362, Philadelphia Gas Works Demand-Side Management Plan for FY 2016-2021	May-15	Analysis of Phase I DSM Plan and design of Phase II DSM Plan.

Publications

Love, Theodore. J. Nunley. "Using Smart Thermostats to Engage Residential Customers and Drive Comprehensive Retrofit Projects" In *Proceedings of the ACEEE 2020 Summer Study on Energy Efficiency in Buildings*, Washington, D.C.: American Council for an Energy Efficient Economy.

Love, Theodore. "The Future for Residential Gas Efficiency is Combined". *Strategies*. Association of Energy Service Professionals. January 11, 2019.

Love, Theodore. "Using Open Data to Predict Energy Usage: What tax lot data can tell us about energy usage intensity in New York City". *Behavior Energy, and Climate Change Conference 2015*. Sacramento, CA

Plunkett, John, Theodore Love, Francis Wyatt. "An Empirical Model for Predicting Electric Energy Efficiency Acquisition Costs in North America: Analysis and Application". In *Proceedings of the ACEEE 2012 Summer Study on Energy Efficiency in Buildings*, #906, Washington, D.C.: American Council for an Energy Efficient Economy.

Gold, Elliott, Marie-Claire Munnely, Theodore Love, John Plunkett, Francis Wyatt.
"Comprehensive and Cost-Effective: A Natural Gas Utility's Approach to Deep Natural Gas Retrofits for Low Income Customers." In *Proceedings of the ACEEE 2012 Summer Study on Energy Efficiency in Buildings*, #442, Washington, D.C.: American Council for an Energy Efficient Economy.

Education

Clark University – Worcester, MA

B.A. Magna cum Laude, *Mathematics and Computer Science*, 2006.

Study Abroad Program, Spring Semester 2005 (Kansai Gaidai University: Osaka Japan)

General Assembly: New York City, NY

Data Science Intensive Course, 2015

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**PETITION OF UGI UTILITIES, INC. – GAS DIVISION
FOR APPROVAL OF PHASE II OF ITS
ENERGY EFFICIENCY AND CONSERVATION PLAN**

DOCKET NO. M-2024-3048418

**REBUTTAL TESTIMONY
OF
THEODORE M. LOVE**

UGI GAS STATEMENT NO. 1-R

March 4, 2025

1 **I. INTRODUCTION**

2 **Q. Please state your full name, occupation, and business address.**

3 A. My name is Theodore M. Love, and I am a Partner at Green Energy Economics
4 Group, Inc. (“GEEG”), an energy consulting firm founded in 2005. My business
5 address is 2534 Downingsville Rd., Lincoln, VT 05443.

6

7 **Q. On whose behalf are you testifying in this proceeding?**

8 A. I am testifying on behalf of UGI Utilities, Inc. – Gas Division (“UGI Gas” or the
9 “Company”).

10

11 **Q. Have you previously submitted testimony in this proceeding?**

12 A. Yes, I submitted direct testimony on behalf of the Company, which was marked as
13 UGI Gas Statement No. 1.

14

15 **Q. What is the purpose of your rebuttal testimony in this proceeding?**

16 A. I will respond to other parties’ direct testimony and exhibits about Phase II of UGI
17 Gas’s EE&C Plan (“Phase II EE&C Plan” or the “Plan”). In particular, I will
18 respond to the direct testimony of Office of Consumer Advocate (“OCA”) witness
19 Stacy L. Sherwood (OCA Statement 1), Office of Small Business Advocate
20 (“OSBA”) witness Angela Vitulli (OSBA Statement No. 1), and Coalition for
21 Affordable Utility Services and Energy Efficiency in Pennsylvania (“CAUSE-PA”)
22 witness Mitchell Miller (CAUSE-PA Statement No. 1).

23

1 **Q. Are you sponsoring any exhibits with your rebuttal testimony?**

2 A. Yes. I am sponsoring the following exhibits:

- 3 • UGI Gas Exhibit TML-1R – Annual Report Summaries
- 4 • UGI Gas Exhibit TML-2R – CAUSE-PA Response to CAUSE-PA-I-1
- 5 • UGI Gas Exhibit TML-3R – Gas Heat Pump Programs
- 6 • UGI Gas Exhibit TML-4R - Delivered Fuel Workpaper
- 7 • UGI Gas Exhibit TML-5R - Low Income Customer Savings
- 8 • UGI Gas Exhibit TML-6R – CAUSE-PA Response to CAUSE-PA-I-10
- 9 • UGI Gas Exhibit TML-7R (CONFIDENTIAL) – Evaluation Report
- 10 • UGI Gas Exhibit TML-8R – CAUSE-PA Response to CAUSE-PA-I-3

11
12 **Q. Before responding to the other party witnesses’ direct testimony, do you have**
13 **any overall observations or comments about their positions regarding UGI**
14 **Gas’s Phase II EE&C Plan?**

15 A. Yes I do. UGI Gas’s Phase I EE&C Plan has delivered \$155 million in total resource
16 cost (“TRC”) net benefits with a benefit-cost ratio (“BCR”) of 1.97 (*See* Exh. TML-
17 1R). The Company achieved first year natural gas savings of 1,222,032 MMBtus,
18 96% of projections, at a cost of \$52.1 million, 86% of projected total costs (*Id.*).
19 This included \$40.1 million in customer incentives and ancillary first year electric
20 savings of 22,511 MWh (*Id.*). Most importantly, these rebates helped reach 60,162
21 customers (*Id.*), of which 4,896 were verified or self-identified low income
22 customers.¹ The importance of the continued customer benefits in direct energy

¹ UGI Gas Response to CAUSE-PA-I-10, attached to CAUSE-PA Statement 1.

1 savings, system reliability, and bill savings cannot be overstated. UGI Gas’s Phase
2 II EE&C Plan should be adopted so that the Company can continue to serve the
3 community and deliver real energy and cost savings that benefit customers.

4 To that end, the Company should be permitted to design and implement its
5 Phase II EE&C Plan in a way that continues to benefit customers in terms of bill
6 savings resulting from the installation of the most efficient equipment. The design
7 and implementation of an EE&C Plan requires a careful balancing of several
8 components, including the measures and incentives offered, the projected savings,
9 the budget of individual programs and the overall EE&C portfolio. Changes to that
10 design and implementation cannot and should not occur in a vacuum without a full
11 understanding of how the change to one component affects all the other components
12 in the EE&C Plan. In that respect, recommended changes to the measures and
13 incentives offered under UGI Gas’s Phase II EE&C Plan should not be adopted
14 absent detailed investigations and full evaluations on the remainder of UGI Gas’s
15 Phase II EE&C Plan. (*See* UGI Gas Exhibit TML-2R) While I address the other
16 parties’ recommendations in more detail in this rebuttal testimony, I caution the
17 adoption of any unsubstantiated proposal where its impact on the remainder of the
18 EE&C portfolio has not been carefully considered and weighed by the witness who
19 suggested it.

20

21 **II. BASELINE COMPLIANCE**

22 **Q. Could you please summarize OCA witness Sherwood’s “concerns with the**
23 **equipment baselines assumed under” the Phase II EE&C Plan (OCA St. 1, pp.**
24 **9-11)?**

1 A. First, Ms. Sherwood is concerned with the baseline assumed for natural gas
2 furnaces. Specifically, the U.S. Department of Energy’s (“DOE”) final rule on
3 natural gas furnace efficiency raises the standard for furnace efficiency from 80%
4 annual fuel utilization efficiency (“AFUE”) to 95% AFUE, with compliance from
5 manufacturers required by December 18, 2028. The Company plans to continue
6 offering rebates for natural gas furnaces through the end of its proposed phase, in
7 September of 2030. However, Ms. Sherwood is concerned that the Company’s
8 Phase II EE&C Plan increases the number of furnace rebates through the end of
9 fiscal year (“FY”) 2030. In other words, the new furnaces will be so efficient that
10 gas utilities should be prohibited from claiming any associated efficiency
11 reductions in their EE&C plans. She testifies that “manufacturing will be adjusting
12 to accommodate DOE’s final rule and will likely stop offering inventory below the
13 new baseline prior to the compliance date...” (OCA Statement No. 1 at 9).
14 According to Ms. Sherwood, the Company cannot issue any rebates for baseline
15 equipment between December 18, 2028 and September 30, 2030. *Id.*

16 Second, Ms. Sherwood is concerned that the Residential New Construction
17 (“RNC”) Program does not consider the shift to International Energy Conservation
18 Code (“IECC”) 2021, which will go into effect in July 2025.

19
20 **Q. Do you agree with her concerns regarding natural gas furnaces?**

21 A. No. First, although manufacturers are required to stop the production of 80% AFUE
22 equipment, that does not mean supply houses and retailers are prevented from
23 selling existing 80% AFUE inventory. When the federal baseline for manufacturing

1 shifts, there will be a “sell-through” period. While manufacturing of new equipment
2 may be halted, existing 80% AFUE inventories will continue to be sold off. It is
3 impossible to say exactly how long this sell-through period will last. Therefore,
4 during this transition period, UGI Gas should be permitted to continue issuing
5 rebates and claiming efficiency reductions for furnaces in their EE&C plans.
6 Accordingly, regarding this transition period, the Residential Prescriptive (“RP”)
7 Program, under which furnace rebates are offered, has an end date that is one year
8 and nine months after the compliance date for manufacturers. The Company is
9 proposing that the sell-through period extend for one year and nine months for this
10 equipment, so that the program is not interrupted for customers partway through its
11 final year.

12 Second, there exists significant regulatory uncertainty around the future of
13 the current furnace standards. Both the U.S. House of Representatives² and Senate³
14 have taken up efforts in the last year to repeal the standard. The current federal
15 administration held up multiple federal appliance standards during its previous time
16 in office and has signaled that they will continue to do the same, as they announced
17 the postponement of standards for seven types of appliances, including gas
18 instantaneous water heaters, on February 14, 2025.⁴ Additionally, on January 20,
19 2025, an Executive Order was issued confirming the current administration’s
20 commitment to safeguarding consumers’ ability to choose to use and install natural

² <https://appliance-standards.org/sites/default/files/Repealing%20Furnace%20Standards%20fact%20sheet%20June%202024.pdf>

³ <https://www.nfib.com/news-article/u-s-senate-works-to-repeal-department-of-energy-furnace-rule/>

⁴ <https://www.energy.gov/articles/energy-department-acts-lower-prices-and-increase-consumer-choice-household-appliances>

1 gas-fired appliances.⁵ Finally, there is ongoing litigation by natural gas appliance
2 manufacturers, the American Gas Association (“AGA”) and other parties
3 challenging the DOE’s Consumer Furnace Rule. *AGA v. DOE*, Docket No. 22-
4 1030. Given the need to maintain program continuity through a sell-through period,
5 as well as the uncertainty that the federal standard will still be in place by 2030, it
6 is reasonable for the Company to continue offering rebates for natural gas furnaces
7 through the end of its Phase II EE&C Plan.

8

9 **Q. Do you agree with her concerns regarding Pennsylvania’s switch to IECC**
10 **2021?**

11 A. Yes, with the exception that there was no final ruling to base any projections on at
12 the time of the Phase II EE&C Plan filing. As Ms. Sherwood points out in her
13 testimony, the Phase II EE&C Plan was filed in April of 2024, and the move to
14 IECC 2021 was adopted as final in October of 2024. Additionally, the shift to IECC
15 will take many years, as mentioned by Ms. Sherwood. There is a 2-year grace
16 period, and then there is the time that it takes a building to be constructed before it
17 would be eligible for a rebate, which easily brings the timeline for adherence of the
18 new code to mid-2028. Given this timeline, it is reasonable to have the RNC
19 program shift to a baseline of IECC 2021 starting in FY 2029 (October 1, 2028) to
20 ensure a smooth transition. The Company will update its program projections to

⁵ The Executive Order seeks “to safeguard the American people’s freedom to choose from a variety of goods and appliances, including but not limited to lightbulbs, dishwashers, washing machines, gas stoves, water heaters, toilets, and shower heads, and to promote market competition and innovation within the manufacturing and appliance industries.”

1 account for this shift as part of its compliance Phase II EE&C Plan in this
2 proceeding.

3

4 **Q. What recommendations does Ms. Sherwood make to address her concerns?**

5 A. Ms. Sherwood recommends that the Phase II EE&C Plan “be updated to include
6 this transition, a timeline for the transition, and indication of changes to energy
7 savings assumptions and customer incentives.” (OCA St. 1, p. 11.) More
8 specifically, Ms. Sherwood proposes the following:

9

- The Commission should consider the duration of natural gas equipment energy efficiency programs offerings. With the changing baselines in the next five years to the most efficient furnaces and changes to ENERGY STAR specifications, the need for natural gas efficiency programs is questionable. The purpose of an efficiency program is to transform the market and there is potential that the market for efficient natural gas equipment has already transformed.

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- The Commission should direct the Company to update its Plan to reflect changes to baselines, in particular natural gas furnaces and the Residential New Construction program. Measures offered under the Plan will either be ineligible or require increased efficiency levels based on building codes. The programs should be designed to anticipate these changes and for UGI Gas to convey the changes in a timely manner to both customers and contractors that support the programs.

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- The Company should phase out natural gas furnace rebates prior to December 18, 2028, based upon availability of furnaces below 95% AFUE in the market.

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31 (OCA St. 1, p. 14.)

32

1 **Q. Do you agree with her recommendations regarding natural gas furnaces?**

2 A. No. As described previously, the proposed Phase II EE&C Plan will allow for a
3 reasonable sell-through period and avoid program interruption part way through the
4 RP Program’s final year. Also, given the uncertainty regarding the future of the
5 federal standard, it is certainly premature to phase out natural gas rebates prior to
6 December 18, 2028, and reasonable to allow them to continue through the end of
7 the Phase II EE&C Plan period.

8

9 **Q. Do you agree with her recommendations regarding new construction**
10 **baselines?**

11 A. Yes, as stated previously in this testimony, the Company will update its plans to
12 account for a shift to IECC 2021 in FY 2029 as part of its compliance Phase II
13 EE&C Plan filing in this proceeding.

14

15 **III. COMMERCIAL GAS HEAT PUMPS**

16 **Q. OSBA witness Ms. Vitulli asserts that it is not “typical for utility EE&C**
17 **programs to incentivize customers to invest in emerging technologies like**
18 **commercial gas heat pumps.” (OSBA St. No. 1, p. 8.) Do you agree?**

19 A. No. EE&C programs are constantly testing new measures and usually operate with
20 the goal to transform a market to higher efficiency levels. Ms. Vitulli states on page
21 1 of her direct testimony that she specializes in evaluating technology
22 demonstration and pilot programs, which are presumably paid for through ratepayer
23 funded energy efficiency surcharges, such as in New York and Massachusetts
24 where she has extensive experience. The energy efficiency industry at large seeks

1 to determine the best path forward for making buildings more efficient. Not
2 allowing UGI Gas’s EE&C programs to invest in new and emerging technology
3 will keep the Company’s customers in the back seat as this transition gets going.
4

5 **Q. Ms. Vitulli claims that “including gas heat pumps without specific projections**
6 **‘just in case’ the technology becomes more readily available in the future is**
7 **unusual and is not an adequate substitute for a comprehensive pilot study.”**
8 **(OSBA St. No. 1, p. 9.) Please respond.**

9 A. UGI Gas’s Phase II EE&C Plan must be flexible to adapt to changing market
10 conditions that support energy saving achievements, something that gas heat pumps
11 can offer. The market for commercial heat pumps has existed for some time and
12 provides significant energy savings compared to existing boiler technology. I am
13 aware of at least 8 utilities that have programs for gas heat pumps. (*See* UGI Gas
14 Exhibit TML-3R). However, given the low deployment of this technology, it is very
15 unlikely that attendant rebates would represent any significant portion of program
16 activity. A comprehensive pilot study would most likely cost more to undertake
17 than issuing rebates for a few projects, and UGI Gas would plan to leverage studies
18 performed by other jurisdictions, such as Philadelphia Gas Works’ recently
19 approved Demand Side Management Plan,⁶ which includes a commercial variable
20 refrigerant flow (“VRF”) heat pump pilot to be completed, before offering
21 incentives for projects in its territory.
22

⁶ <https://www.puc.pa.gov/pdocs/1840181.pdf>

1 **Q. Do you agree with Ms. Vitulli’s recommendation that “UGI Gas conduct an**
2 **energy savings and cost-effectiveness analysis before offering incentives for**
3 **commercial gas heat pumps” (OSBA St. No. 1, pp. 3, 8-9)?**

4 A. Yes, and the Company has done so. As explained on page 49 of the Phase II EE&C
5 Plan, UGI Gas already screened a generic gas heat pump measure for cost-
6 effectiveness under the TRC test, and the Company found that such a measure was
7 not cost-effective. The assumptions for this analysis were included in the workbook
8 provided with the initial Phase II EE&C Plan filing. This analysis included lifetime
9 savings compared to a natural gas boiler baseline against the incremental cost to
10 install the equipment. It did not include an analysis of the customer’s financials,
11 such as bill savings or maintenance costs. Furthermore, there is no requirement that
12 any individual measure pass the TRC test, as the only cost-effectiveness
13 requirement is that the overall portfolio pass the TRC test. UGI Gas would update
14 its cost-effectiveness analysis for any future gas heat pump offering and would
15 make sure that it does not bring down the overall Phase II EE&C Plan portfolio’s
16 benefit cost ratio below 1.0.

17
18 **IV. FUEL SWITCHING**

19 **Q. What are Ms. Sherwood’s concerns with fuel switching measures (OCA St. 1,**
20 **pp. 11-12)?**

21 A. Ms. Sherwood is concerned that since customers are eligible to receive rebates for
22 new high efficiency natural gas equipment regardless of their existing fuel type
23 under the RP Program, that UGI Gas is promoting fuel switching. According to

1 Ms. Sherwood, fuel switching should be prohibited under the Phase II EE&C Plan
2 because the Plan should be not used to increase natural gas consumption. *Id.*

3

4 **Q. Does UGI Gas offer fuel switching measures under its Phase II EE&C Plan?**

5 A. No. The messaging, savings calculations, and incentives for the RP Program are all
6 designed to intervene at the time of natural replacement of equipment and push a
7 customer considering purchasing baseline efficiency gas equipment to high
8 efficiency gas equipment. This is reflected in the savings calculations, as Ms.
9 Sherwood points out on page 12 of her direct testimony, and the incremental costs
10 used in the TRC test. Likewise, the incentive design is meant to overcome a portion
11 of the cost of going from baseline equipment to high efficiency equipment, not the
12 much greater cost of switching from one fuel to another.

13 While it may be true that a customer can receive an incentive as part of their
14 switch from electric to gas, it is important to separate the decision to switch from
15 electric to gas, from the decision to buy a high efficiency piece of gas equipment.
16 A customer switching from electric heating could have purchased an 80% AFUE
17 furnace, the current baseline efficiency, when they switched, and UGI Gas would
18 not have provided an incentive. Instead, they must purchase a 95% AFUE,
19 ENERGY STAR model in order to receive any incentive from the RP Program.
20 Even in the event that the customer does take the RP rebate, they are still paying
21 more out of pocket for the high efficiency option, since the rebate does not cover
22 the entire difference between baseline and efficient equipment costs.

1 It is reasonable to assume that a customer switching from electric heating
2 and looking at both baseline gas equipment and efficient gas equipment would
3 understand that the incentive offered by UGI Gas is not there to incentivize the
4 switch from electric heating but is instead there to push them towards a more
5 efficient gas option that would reduce their gas consumption.

6

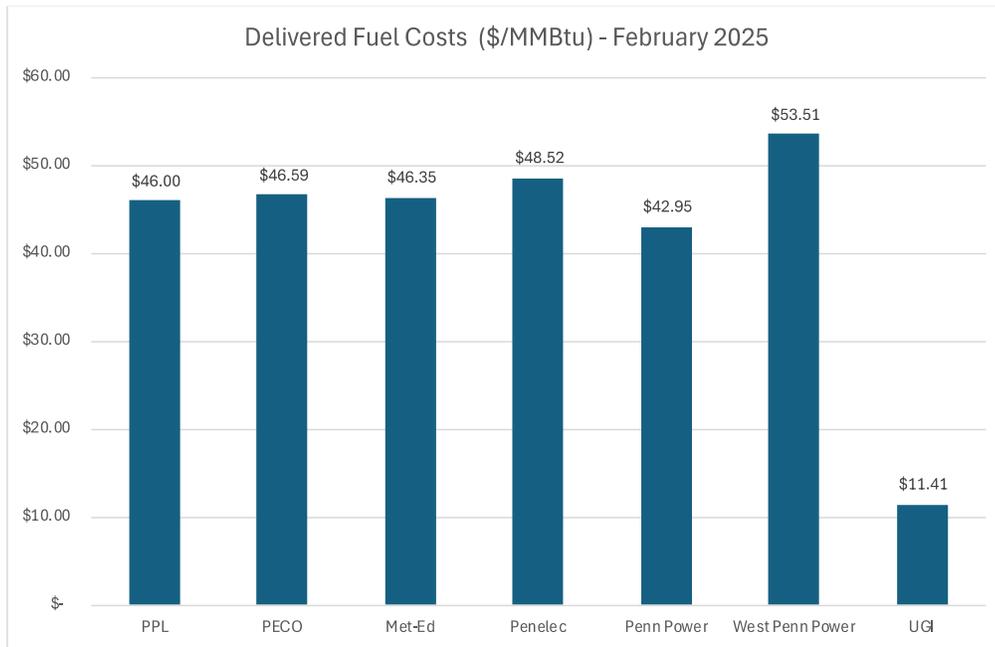
7 **Q. Do other conditions exist that might drive customers from heating with**
8 **electricity to natural gas?**

9 A. Yes. A primary driver for switching to natural gas could be the price differential
10 between delivered electric energy and natural gas. The DOE found that the
11 delivered cost of electricity was approximately 3.5 times higher than natural gas
12 nationally, and the Energy Information Administration (“EIA”) recently projected
13 that households heating with natural gas will spend 42% less than residential
14 consumers heating with electricity⁷. This is particularly evident in UGI Gas’s
15 territory. The following figure, from UGI Gas Exhibit TML-4R, compares the price
16 per MMBtu for residential customers of delivered energy for each of the major
17 electric investor-owned utilities (“IOUs”) in Pennsylvania to UGI Gas’s volumetric
18 price of natural gas for residential customers.

⁷ <https://www.aga.org/news/news-releases/doe-announces-natural-gas-affordability-jumps-to-3-5-times-more-affordable-than-electricity/#:~:text=The%202024%20Representative%20Average%20Unit,measured%20by%20the%20DOE%20report>

1

Figure 1. Delivered Fuel Costs (\$/MMBtu) – February 2025



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This shows that electricity is currently more than four times as expensive as natural gas on a per MMBtu basis for a residential customer in the territory with the largest overlap with UGI Gas, PPL Electric’s territory, at \$46.00 per MMBtu, compared to the price of natural gas from UGI Gas, at \$11.41 per MMBtu. Even with the inclusion of an additional fixed monthly charge for natural gas service, currently around \$15 per month or \$180 per year,⁸ this would represent a significant potential cost savings for electric heating customers.

10

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In a simplified example, an average UGI Gas residential customer uses 88.4 Mcf/year of natural gas⁹. This equates to roughly 82 MMBtus of energy used for space heating assuming that 10% of overall usage is for baseload and water heating and converting from Mcf to MMBtus.¹⁰ If an electric customer is using electric

⁸ See Supp. No. 37 to UGI Gas – Pa. P.U.C. No. 7, Fifth Revised Page No. 85.

⁹ See the UGI 2025 Rate Case (Docket No. R-2024-3052716), Book IV, Exhibit SAE-4(k).

¹⁰ 88.4 Mcf * 1.03 MMBtu/Mcf = 91.1 MMBtus * 90% = 82.0 MMBtus.

1 baseboards, at 100% AFUE, and would like to convert to a baseline efficient gas
2 furnace, at 80% AFUE, with an average space heating usage of 82.0 MMBtus, they
3 would use 65.6 MMBtus of electricity for space heating. This customer would
4 spend \$46.00 dollars per MMBtu in PPL Electric's territory, or \$3,018 to heat with
5 electricity. If they convert to a baseline efficiency gas furnace at 80% AFUE, from
6 the 100% AFUE electric baseboards, they would spend \$11.41 per MMBtu for
7 space heating with an annual variable cost of \$936 plus the fixed cost of \$180, for
8 a total of \$1,116 a year in heating costs. This would be \$1,902 a year in cost savings
9 for using natural gas heating versus electric heating. In this instance, the Phase II
10 EE&C Plan would not even provide an incentive, instead the customer would need
11 to go from that 80% AFUE furnace to a 95% AFUE model in order to access a \$500
12 incentive to utilize a more efficient heating option.

13 Ms. Sherwood's recommendation to not allow these customers to access RP
14 rebates would provide an ill-advised disincentive for customers to pursue higher
15 energy efficient equipment, locking them into higher gas usage for the next 20 or
16 more years, i.e., deterring and precluding gas conservation. Purposefully excluding
17 these customers from accessing rebates for going to higher efficiency equipment
18 would be a mistake, and Ms. Sherwood's recommendation should be rejected.

19

20 **Q. Are there a significant number of customers who participate in the RP**
21 **Program that are converting from electricity?**

22 A. Not at all. UGI Gas's response to CAUSE-PA-III-6, included in Mr. Miller's direct
23 testimony, shows that only 56 out of the 8,314 customers that participated in the

1 RP Program in Fiscal Year 2024 converted from electricity to natural gas
2 equipment. This represents only 0.7% of the participants in the program, and it is
3 clear that these rebates are not a load growth factor.

4

5 **Q. Do you agree with Ms. Sherwood’s position that “[t]he purpose of the Plan is**
6 **to reduce gas consumption, not increase it” and that “the customer-funded**
7 **EEC program should not be used to increase natural gas consumption” (OCA**
8 **St. 1, p. 12)?**

9 A. No. The purpose of the Phase II EE&C Plan is to reduce energy consumption,
10 which is why, for instance the combined heat and power (“CHP”) program requires
11 net primary energy savings, not natural gas savings. The rebates incentivize
12 customers, who decide on their own to move from electric equipment, to install
13 efficient natural gas equipment. The rebate is not the reason why customers switch
14 fuel sources (as shown by the small number of customers switching from electric
15 to gas).

16

17 **Q. “If fuel switching continues to be offered under” the Phase II EE&C Plan, Ms.**
18 **Sherwood proposes that UGI Gas: (1) “[e]stablish an efficiency baselines**
19 **standard”; (2) “[t]rack and report both increases in consumption and**
20 **decreases in electric use as the result of fuel switching measures in the**
21 **Company’s annual report and as part of its future plan modeling”; and (3)**
22 **“not actively market fuel switching under its program, particularly to**

1 **customers within Act 129 EDCs' service territories.” (OCA St. 1, p. 15.)**

2 **Please respond.**

3 A. UGI Gas has already undertaken these activities. The Company's technical
4 reference manual (“TRM”) has a clear baseline condition and efficient condition
5 for every measure that is part of the portfolio. As discussed previously in this
6 testimony, measures offered under the RP Program are all designed to intervene at
7 the time of natural replacement and the incentives are designed to overcome the
8 difference between a baseline piece of natural gas equipment and a high efficiency
9 piece of natural gas equipment. The only measure that is currently designed to shift
10 energy usage on-site from electricity to natural gas is the CHP measure.¹¹ That
11 measure accounts for the decrease in grid electric usage, the increase of gas usage
12 in the calculation of the net primary energy savings, and general cost-effectiveness.
13 Finally, the Company has advised me that it does not specifically market electric to
14 natural gas fuel switching under the RP Program.

15

16 **Q. Could you please summarize CAUSE-PA witness Mr. Miller's position on**
17 **“fuel switching” (CAUSE-PA St. 1, pp. 34-36)?**

18 A. Mr. Miller “do[es] not believe that it would be good use of ratepayer-funded
19 program dollars for the Commission to allow UGI to continue to convert electric
20 heating customers to gas combustion equipment rebate measures.” (CAUSE-PA
21 St. 1, p. 36.) According to him, “[t]he purpose of the program is to reduce gas
22 usage,” and “[c]onverting electric heating customers increases the amount of gas

¹¹ The CHP measure is not a fuel switching measure, since the customer is still using electricity. It is the generation of that electricity that has shifted from the grid to the customer's site.

1 the household will use.” (CAUSE-PA St. 1, p. 35.) He also asserts that “fuel
2 switching in this manner is explicitly prohibited in the Commission’s LIURP
3 regulations” and that “in the context of Act 129, increased fuel consumption from
4 fuel switching is treated as a negative TRC benefit, and fuel-switching measures
5 have been removed from the 2026 TRM.” (CAUSE-PA St. 1, p. 35.)

6

7 **Q. Do you agree with Mr. Miller?**

8 A. No. The Phase II EE&C Plan is not part of LIURP, nor is it subject to Act 129 (as
9 it is a voluntary natural gas Plan). Also, as stated previously in this rebuttal
10 testimony, the purpose of the Phase II EE&C Plan is to save energy. Mr. Miller,
11 like Ms. Sherwood, incorrectly characterizes the activity of the RP Program as fuel
12 switching, ignores the efficiencies resulting from adopting more efficient
13 appliances, and his recommendations would adversely affect those customers who
14 do choose to switch from one fuel to another, irrespective of the RP Program’s
15 designs and intent.

16

17 **Q. Mr. Miller claims that “[t]he Commission has also ordered that any EDC that**
18 **wishes to offer fuel switching measures must include in their EE&C plan a**
19 **proposed minimum standard and provide justification for the threshold to**
20 **receive program support” and that “UGI has not provided any such analysis**
21 **in its proposed Plan.” (CAUSE-PA St. 1, p. 35.) Please respond.**

22 A. First, UGI Gas is not an EDC and therefore Mr. Miller’s reliance on Act 129 is not
23 indicative. Second, the Phase II EE&C Plan is not promoting fuel switching. All of

1 the measures provided in the portfolio have clear baseline and efficient conditions
2 established in the UGI Gas TRM. The Company’s initial filing has included
3 projections of costs, savings, and cost-effectiveness for every offering in the Phase
4 II EE&C Plan. The incidental participation by customers who moved from
5 electricity to natural gas make up less than 1% of historical participation.

6

7 **V. LOW-INCOME MEASURES**

8 **Q. Do you have any overall response to Mr. Miller’s position that “the**
9 **Commission reject UGI’s proposed Phase II Plan, unless the Plan is amended**
10 **to include dedicated low income efficiency programming specifically designed**
11 **to meaningful energy savings and corresponding bill reductions for low**
12 **income households” (CAUSE-PA St. 1, p. 7)?**

13 **A.** Yes. Mr. Miller’s inflexible approach appears to completely disregard the
14 efficiency benefits that the Company’s “energy-efficiency” program provides.
15 Moreover, the outright denial of the Phase II EE&C Plan would cause far more
16 harm than good for all classes of customers, including low-income customers. As
17 clearly established in my direct testimony, the Phase II EE&C Plan provides
18 significant benefits for ratepayers, participants, and Pennsylvania as a whole. The
19 Plan will deliver \$85 million in net benefits under the TRC test, 25,458 BBtus of
20 natural gas savings, 2 million tons of greenhouse gas emission reductions, and net
21 job creation of over 1,700 jobs, much of which will be in Pennsylvania.
22 Importantly, a substantial portion of historical program participation has been from
23 low-income customers, as I explain further in this testimony. Denying these

1 benefits by shutting down the Company’s EE&C programming would provide clear
2 harm without any clear benefit.

3 Even a temporary delay or shutdown of programming can do irreparable
4 harm. It costs significant time and money to communicate a shutdown to vendors,
5 customers, and other stakeholders, and can put financial strains on smaller
6 contractors that may rely on the program. Reopening a program brings additional
7 costs for reengaging with these same stakeholders and building project pipelines
8 and participation back up. More importantly, an interruption in programming
9 erodes trust from key stakeholders. Vendors and customers require a dependable
10 partner, that is in it for the long term, to build trust and push through more difficult
11 projects, such as multifamily low-income projects. Ultimately, Mr. Miller’s
12 recommendation to reject the Phase II EE&C Plan without dedicated low-income
13 programming is short sighted and will do more harm than good. His proposal is
14 contrary to public policy, harms the public interest and should be rejected.

15

16 **Q. Do you agree with Mr. Miller that UGI Gas’s Phase II EE&C programs**
17 **“benefit higher income households” (CAUSE-PA St. 1, p. 7)?**

18 A. No. The very basis of incentive EE&C programs is that they help overcome part of
19 the cost barrier so that customers can invest in energy efficiency and conservation
20 measures that they otherwise could not afford. The following table summarizes the
21 results shown in UGI Gas Exhibit TML-5R, which provides a breakout of the
22 savings attributable to low-income customers for the five years of the Phase I
23 EE&C Plan portfolio.

1

2

Table 1. First Year MMBtu Savings Attributed to Low Income Customers

Program	FY 20 – FY 24
RP	54,967
RR	193
NC	7,300
Total	62,460
Portfolio Savings	1,222,031
% of Portfolio Savings	5.1%

3

4

This analysis shows that UGI Gas achieved savings attributable to low-income customers that was near the levels required for the Act 129 Phase IV EE&C Plan of 5.8% of total portfolio savings coming from the low-income customer sector.

5

6

7

This level of savings demonstrates that UGI Gas’s low income customers are able to access and participate in its efficiency programs.

8

9

10 **Q. Do you believe Mr. Miller’s reliance on Act 129’s requirement for low-income**
11 **measures (i.e., EE&C measures for households at or below 150% of the FPL)**
12 **is appropriate (CAUSE-PA St. 1, pp. 8-9)?**

13 A. No. I am advised by counsel that voluntary EE&C Plans are not required to comply
14 with Act 129 and have never been required to meet the same low-income savings
15 targets as Act 129 EE&C Plan portfolios. Indeed, in its EE&C Secretarial Letter
16 governing smaller electric distribution companies’ (“EDCs”) voluntary EE&C
17 Plans, the Commission required “[e]ach petition” for approval of a voluntary EE&C
18 Plan to “contain at least the following: (1) a detailed plan with a description of
19 EE&C measures to be offered; (2) sufficient supporting documentation and verified

1 statements or testimony or both; (3) proposed energy consumption or peak demand
2 reduction objectives or both, with proposed dates the objectives are to be met; (4)
3 a budget showing total planned expenditures by program and customer class; (5)
4 tariffs and a section 1307 cost recovery mechanism; and (6) a description of the
5 method for monitoring and verifying plan results.”¹² Also, the Commission has
6 explained that the voluntary EE&C Plans can use Act 129 as a guide, but they are
7 not required to adhere to every requirement set forth in Act 129 for EE&C Plans.¹³
8 In particular, the Commission stated in its EE&C Secretarial Letter that “in
9 evaluating each voluntary EE&C plan, the Commission will be looking to the Act
10 129 program and applying elements of that program where it is prudent and
11 cost-effective.”¹⁴ However, low-income programs and measures are usually not
12 cost-effective. Accordingly, from my perspective, it seems inconsistent with the
13 EE&C Secretarial Letter to incorporate a requirement for low-income-specific
14 measures into the Company’s voluntary Phase II EE&C Plan.

15

16 **Q. Please respond to Mr. Miller’s testimony about whether UGI Gas’s Phase II**
17 **EE&C Plan “provide[s] a proportional number of low income measures” and**
18 **“provide[s] a proportionate level of low income savings.” (CAUSE-PA St. 1,**
19 **pp. 9-10.)**

20 A. While the Company has not specifically broken out low-income program
21 participation in its previous reporting, UGI Gas was able to go back through

¹² *Re: Voluntary Energy Efficiency and Conservation Program*, Docket No. M-2009-2142851, p. 1 (Dec. 23, 2009) (“EE&C Secretarial Letter”).

¹³ *Id.*, pp. 1-2.

¹⁴ *Id.*, p. 2.

1 customer records to compare participation with low-income status and provided the
2 results mentioned previously in this testimony. This analysis showed that at least
3 4,896 low-income customers were served through the Phase I EE&C Plan (UGI
4 Response to CAUSE-PA-I-10 attached to CAUSE-PA St.1) and that 5.1% of all
5 gas savings (Exh. TML-5R) are attributable to low-income customers. Therefore,
6 the Company has provided a proportionate number of low-income measures and
7 provided a proportionate level of low-income savings, despite those not being
8 requirements for voluntary EE&C Plans, as I explained previously.

9

10 **Q. Do you agree with Mr. Miller’s positions regarding the alleged “other ways**
11 **that UGI’s plan deviates from Act 129 plans” (CAUSE-PA St. 1, pp. 13-14)?**

12 A. No. Mr. Miller insists that UGI Gas include benefits attributable to “reduced
13 customer arrearages, shutoffs, and collections” in its TRC test. (CAUSE-PA St. 1,
14 pp 13-15.) First, the avoided costs are only applied to dedicated low-income
15 programs for Act 129 EDCs, and as Mr. Miller, has pointed out multiple times in
16 his testimony, UGI Gas does not have any dedicated low-income programs in its
17 proposed Plan. Second, as Mr. Miller points out, the statewide evaluator (“SWE”)
18 conducted a study to quantify these savings for the EDCs. The SWE did not conduct
19 this study for UGI Gas, and given the variance across the EDCs in values for this
20 benefit, it is not clear that using any of the values for the other EDCs would serve
21 as a reasonable approximation for UGI Gas. The additional cost to develop and
22 quantify this benefit would then be borne by UGI Gas’s ratepayers with uncertain
23 and unproven results in the proposed Phase II EE&C Plan as filed.

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Q. Please respond to Mr. Miller’s claim that “UGI’s discovery responses included inconsistent numbers that were substantially lower than the number of confirmed low income customers it reported to the Commission.” (CAUSE-PA St. 1, p. 17.)

A. The confusion arises through the definition of “confirmed.” In the context of the numbers provided in discovery, this means customers that have had their income verified and are eligible to participate in a Universal Service Program. A clearer term to use for this group of customers would be “verified” low-income customers. It is correct that the Company provided revised responses to CAUSE-PA-III-2 and CAUSE-PA-III-3. Based on the revised response, 13,780 (29%) of the Company’s 47,526 confirmed, or verified, low-income customers were eligible for LIURP based on their income and meeting the LIURP minimum usage threshold as of December 31, 2024, while 22,232 (47%) of the 47,526 confirmed low-income customers were not eligible for LIURP as they did not meet the LIURP minimum usage threshold. The remaining customers did not have the full 12 months of usage data available in order to determine that they met the usage threshold.

The number of confirmed low-income customers, 89,923, that UGI Gas reported to the Commission, and that Mr. Miller referenced in his direct testimony, includes both verified low income and self-certified customers. The number is reported this way in accordance with 52 Pa. Code § 62.2, which defines Confirmed low-income residential accounts as:

Accounts where the NGDC has obtained information that would reasonably place the customer in a low-income designation. This information may

1 include receipt of LIHEAP funds (Low-Income Home Energy Assistance
2 Program), self-certification by the customer, income source or information
3 obtained in § 56.97(b) (relating to procedures upon rate-payer or occupant
4 contact prior to termination).
5

6 52 Pa. Code § 62.2.
7

8 **Q. What is your opinion on Mr. Miller’s assertion that “the actual number of**
9 **UGI’s low income customers is likely closer to the 166,336 estimated low**
10 **income customer count that it reported to the Commission in the 2023**
11 **Universal Service Report” (CAUSE-PA St. 1, p. 17)?**

12 A. Mr. Miller is correct that UGI Gas reported 166,336 estimated low-income
13 customers in its 2023 Universal Service Report. That number is an estimate that is
14 arrived at via a separate process based on census data. In 2024, UGI Gas had 47,526
15 customers who progressed through an income verification process and were eligible
16 for enrollment in a Universal Service Program.
17

18 **Q. Do you have any response to Mr. Miller’s claim that there is “evidence that**
19 **UGI’s low income customers struggle to afford and maintain gas service”**
20 **(CAUSE-PA St. 1, pp. 18-19)?**

21 A. Mr. Miller is referencing metrics from the 2023 Universal Service Report. The
22 Company believes this analysis is better suited for discussion in a Universal Service
23 and Energy Conservation Plan (“USECP”) proceeding. With that being said, the
24 Company has recently discovered that it was inadvertently counting customers up
25 to 250% of the federal poverty limit (“FPL”) as “confirmed low income” in prior
26 Universal Service Reports. The correct methodology should have been to count up

1 to 150% FPL. The Company is currently evaluating what enhancements are
2 required to correct reporting moving forward.

3

4 **Q. Please respond to Mr. Miller’s criticisms of the low-income assessment fee
5 waiver under the RR Program (CAUSE-PA St. 1, pp. 8-9, 22-24.)**

6 A. Mr. Miller takes issue with the amount of spending on the RR Program low-income
7 assessment fee waiver. He is referencing the following settlement language from
8 Phase I of the Gas EE&C Plan:

9 Starting with the effective date of new rates established in this proceeding,
10 customers who contact the UGI LIURP Team and who are determined by
11 the UGI LIURP Team to have income at or below two hundred (200)
12 percent of FPL, but who do not meet LIURP high energy usage thresholds,
13 or who request direct install measures not offered by LIURP but offered by
14 the EE&C Residential Retrofit (“RR”) Program, will be referred to the RR
15 Program to receive a fee waived assessment. The RR assessment fee
16 waiver, including all direct install measures implemented under a fee-
17 waived assessment, will be capped at \$250,000 annually. The \$250,000 is
18 not incremental of the RR Program budget. Direct install measures shall
19 include, but not be limited to: smart thermostats, low flow devices, and
20 water heater tank temperature setback.

21 It is worth noting that this settlement language required customers who contact the
22 Company’s LIURP Team to be referred to the EE&C RR Program if they are
23 eligible for a fee (\$50) waived assessment (i.e., at incomes below 200% FPL). The
24 Company refers these customers to the RR Program, but the overall number of
25 referrals is limited, and not all customers follow through with an audit.

26

27 **Q. On page 24 of his direct testimony, Mr. Miller claims that UGI Gas’s budget
28 for the low-income fee waiver assessment is \$250,000, or just 5.7% of the RR**

1 **Program’s five-year budget of \$4,388,403 (CAUSE-PA St. 1, pp. 24, 5-4). Is**
2 **this correct?**

3 A. No. UGI Gas has proposed a \$250,000 annual budget or \$1,250,000 over the five-
4 year term of Phase II. In reality, UGI Gas has allocated 28.5%
5 (\$1,250,000/\$4,388,403) of the RR budget to the low-income fee waiver
6 assessment, which represents a very substantial portion of the RR Program and is
7 much higher than the 5.7% Mr. Miller recommends. However, if Mr. Miller prefers
8 that the Company utilize his proposed total budget of \$650,000 applicable over the
9 entire Phase II term, UGI Gas is willing to accept his reduced proposal.

10

11 **Q. Do you agree with Mr. Miller’s recommendation that the Company “establish**
12 **a \$650,00 budget within its RR program to support free energy assessments**
13 **and direct installation of efficiency measures identified through those**
14 **assessments for low income customers who are ineligible for services through**
15 **LIURP” (CAUSE-PA St. 1, p. 24)?**

16 A. No. The Company has already proposed to spend up to \$1,250,000 on free energy
17 assessments and the direct installation of energy saving kits, which substantially
18 exceeds Mr. Miller’s proposed \$650,000 budget. While this is the case, the
19 Company is willing to move to his proposed total \$650,000 Phase II budget
20 applicable over the 5-year term.

21

22 **Q. What are your thoughts on Mr. Miller’s recommendation that “UGI should**
23 **be required to roll the remaining \$244,250 from its Phase I budget for low**

1 **income assessment fee waiver and direct measure installation” and that**
2 **“[t]hese funds should be *in addition to*” the \$650,000 budget, meaning that**
3 **“UGI’s budget for low income energy assessments and direct measure**
4 **installation should be set at \$894,250 for Phase II” (CAUSE-PA St. 1, p. 25)?**

5 A. This proposed rollover is unnecessary and should be rejected. As mentioned
6 previously in this testimony, the Company has already proposed a budget of
7 \$1,250,000 for the fee waiver, which is nearly 40% higher than the full budget
8 proposed by Mr. Miller.

9

10 **Q. Please respond to Mr. Miller’s recommendation that “[i]n addition to low**
11 **income assessment fee waivers, these dedicated low income funds should be**
12 **used to cover the full cost of efficiency measures identified in an energy**
13 **assessment, with a special focus on weatherization measures such as insulation**
14 **and air sealing.” (CAUSE-PA St. 1, p. 25.)**

15 A. As stated earlier, the UGI Gas Phase II EE&C Plan is not subject to Act 129. It is
16 the Company’s position that low-income customers are best served through the
17 existing USP programs, such as LIURP. For those customers who meet the LIURP
18 income requirement but do not meet the LIURP minimum usage threshold, UGI
19 Gas will continue to refer those customers to the low income assessment fee waiver
20 measure in order receive a free assessment and free energy assessment kit. Based
21 on feedback from the weatherization contractors, the RR Program pivoted away
22 from the direct installation of measures and instead began utilizing a leave behind
23 kit including a smart thermostat and low flow device starting in FY 2022. As a

1 result of these program changes, the Company also discontinued the direct
2 installation of measures in favor of the leave behind kit.

3

4 **Q. Please respond to Mr. Miller’s claim that “UGI should also promote the**
5 **availability of the low income assessment waiver program by informing all**
6 **customers rejected from the LIURP program about the availability of the**
7 **assessment waivers and accompanying direct install benefits.” (CAUSE-PA**
8 **St. 1, p. 25.)**

9 A. UGI Gas will continue following the terms of the Phase I EE&C Plan settlement
10 that were carried forward into the proposed Phase II EE&C Plan and which address
11 Mr. Miller’s proposal. Regarding referrals from LIURP, the settlement states,
12 “customers who contact the UGI LIURP Team and who are determined by the UGI
13 LIURP Team to have income at or below two hundred (200) percent of FPL, but
14 who do not meet LIURP high energy usage thresholds, or who request direct install
15 measures not offered by LIURP but offered by the EE&C Residential Retrofit
16 (‘RR’) Program, will be referred to the RR Program to receive a fee waived
17 assessment.” This portion of the RR Program is capped at \$250,000 annually and
18 participation has been tracked in UGI Gas’s annual reports and discussed at the
19 annual stakeholder meetings. Customers who do participate are provided a fee
20 assessment waiver as well as an energy saving kit at no cost.

21

22 **Q. Do you have any comments on Mr. Miller’s testimony regarding the RP**
23 **Program participation (CAUSE-PA St. 1, pp. 27-28)?**

1 A. Mr. Miller is concerned that the number of customers participating does not provide
2 any information about the savings attributed to low income customers. However,
3 the analysis provided in UGI Gas Exhibit TML-5R and summarized previously in
4 this testimony provides additional context around the savings values attributable to
5 residential low-income customers, not just the proportional number of customers
6 that participated.

7
8 **Q. Mr. Miller states that the Commission should deny the Phase II EE&C Plan**
9 **unless there are updates to the RP Program that “are capable of achieving**
10 **meaningful and proportional energy and bill savings for [the Company’s] low**
11 **income customers.” (CAUSE-PA St. 1, p. 28.) Please respond.**

12 A. As described previously in this testimony, UGI Gas is achieving meaningful low
13 income customer savings using its existing program design. Therefore, I disagree
14 that the RP Program needs to be updated as claimed by Mr. Miller.

15
16 **Q. Do you agree with Mr. Miller that UGI Gas’s efforts to participate in**
17 **“trainings and events” focused on low-income housing, such as the Housing**
18 **Alliance of PA Homes Within Reach conference, have been “quite sparse over**
19 **the Plan period and do not seem adequate to increase engagement with**
20 **housing providers across its service territory” (CAUSE-PA St. 1, pp. 30-31)?**

21 A. No. The Phase I EE&C Plan settlement requires that UGI Gas “coordinate with the
22 Pennsylvania Housing Alliance and the Pennsylvania Housing Finance Agency.”
23 Pursuant to the settlement provision that UGI Gas “coordinate with the

1 Pennsylvania Housing Alliance (PHA) and the Pennsylvania Housing Finance
2 Agency (PHFA),” the Company supported PHA’s Homes Within Reach conference
3 in all four years it was held. UGI Gas exhibited twice, attended once, and advertised
4 the availability of residential and nonresidential rebates in the program guide once
5 (the conference was cancelled due to COVID in 2020). In addition, UGI Gas: (1)
6 executed a webinar to PHA stakeholders in 2021 where it provided an overview of
7 the Company’s EE&C programs and available rebates; (2) participated in a
8 Pennsylvania Utility Law Project (“PULP”) webinar in 2022, which focused on
9 PULP’s goals, energy equity, potential impacts of the IRA, and how to utilize
10 multiple funding sources for projects; (3) participated in a multifamily “bootcamp”
11 with PHFA in 2024 to discuss program coordination between utilities; and (4)
12 coordinated emails to recipients of PHFA funding in 2021 and 2023. Along with
13 frequent communications throughout the phase, these activities more than
14 demonstrate engagement that is consistent and through a variety of channels.

15

16 **Q. Do you agree with Mr. Miller that “it does not appear that the steps UGI has**
17 **taken have been effective at reaching low income multifamily properties in**
18 **need of EE&C measures” (CAUSE-PA St. 1, p. 31)?**

19 A. No. UGI Gas is not subject to Act 129, and is not required to track low income
20 participation. Although UGI Gas does not track low-income multifamily projects
21 specifically, the Company searched through historical project activity and was able
22 to identify at least one project that was clearly low-income multifamily. This
23 project, for a city housing authority, was a multi-phase low-income housing project

1 that included insulation and the replacement of three gas fired boilers. UGI Gas’s
2 rebates for this project through the Nonresidential Custom Program alone were
3 \$208,400. Additionally, UGI Gas tracked and reported data on projects that
4 included buildings with more than one unit within its annual reports. The Company
5 provided 1,892 rebates totaling \$951,794 in incentives for buildings with more than
6 one unit over the five-year phase, a portion of which would include low-income
7 customers.

8 Second, under the Phase I EE&C Plan settlement, UGI Gas agreed to
9 “develop targeted marketing materials for existing residential multi-family
10 customers and new multi-family residential construction, including master-metered
11 multifamily residences, with such materials focusing on targeting of property
12 management companies and landlords.” The settlement language did not
13 specifically reference *low-income* multifamily customers, although low-income
14 customers would be a part of the multi-family component. To address this critical
15 need, UGI Gas developed and sent two promotional emails each program year.
16 Emails were sent targeting multi-family stakeholders each year of the phase and in
17 the most recent communication sent in June of 2024, over 33,000 emails were sent
18 with an open rate of 38%. Based on the Company’s successes in achieving low-
19 income savings, it is not credible for Mr. Miller to assert that UGI Gas’s steps in
20 reaching low-income multifamily properties have not been effective.

21

22 **Q. What are your thoughts on Mr. Miller’s “recommendations to improve UGI’s**
23 **ability to reach low income housing projects” (CAUSE-PA St. 1, pp. 31-32)?**

1 A. UGI Gas already offers multiple channels for multifamily projects to participate in
2 the Phase I EE&C Plan, including through the RP, Nonresidential Prescriptive, and
3 Nonresidential Custom Programs. The Company does not agree with the
4 recommendation for UGI Gas to hold a dedicated Multifamily stakeholder meeting
5 with the parties listed, as it already attends the annual PHA conference to reach
6 these stakeholders. The Company will continue to adhere to the Phase I EE&C
7 Plan settlement terms, which state, “UGI Gas agrees to coordinate with the
8 Pennsylvania Housing Alliance and the Pennsylvania Housing Finance Agency.”
9 As explained earlier in my rebuttal testimony, UGI Gas has engaged with these
10 organizations and will continue to do so. In addition, when appropriate, UGI Gas
11 will collaborate with neighboring EDCs at conferences, such as the Keystone
12 Energy Efficiency Alliance (“KEEA”) conference, and currently exchanges project
13 leads with PPL Electric.

14

15 **VI. PLAN COORDINATION**

16 **Q. Please respond to Mr. Miller’s recommendation that UGI Gas “be required to**
17 **file a Plan addendum explaining how it will ensure EE&C programming is**
18 **coordinated with new IRA-funded programs as they come online.” (CAUSE-**
19 **PA St. 1, p. 33.)**

20 A. The Company already coordinates efforts to the extent possible with the Inflation
21 Reduction Act (“IRA”) by providing links to tax credit information on its website,
22 and mentioning available tax credits in outreach and marketing materials. Mr.
23 Miller mentions coordination with the Home Electrification and Appliance Rebates

1 (“HEAR”) and Home Energy Rebates (“HER”) programs,¹⁵ both of which are
2 focused on electrification and electric appliances, making coordination with a gas-
3 focused energy efficiency program unclear. Not only are potential coordination
4 options limited, but there is still significant uncertainty regarding the ultimate fate
5 of the state-implemented IRA programs, as the new federal administration may try
6 to roll back or hinder these IRA programs. Mr. Miller even observes in discovery,
7 how “Governor Shapiro and multiple state agencies filed a complaint last week in
8 the Eastern District of Pennsylvania against the Trump Administration and multiple
9 federal agencies for withholding the release of IRA funds associated with multiple
10 IRA programs that are contractually obligated to Pennsylvania.” (UGI Gas Exhibit
11 TML-6R.) Mr. Miller also states in that same discovery response that “[t]he
12 anticipated timeline for roll-out of each IRA program varies” and that “a vendor
13 has not yet been selected to operate the Home Efficiency Rebate Program (HER).”
14 (*Id.*) With this level of uncertainty, the proposed coordination between EE&C and
15 IRA is dubious at best.

16

17 **Q. Would you please respond to Mr. Miller’s “recommendations to improve**
18 **coordination between UGI’s EE&C and the Act 129 programs in its territory”**
19 **and “to improve LIURP coordination” (CAUSE-PA St. 1, pp. 33-34)?**

20 A. Although Mr. Miller suggests that UGI Gas focus on improved coordination with
21 Act 129 EDCs and LIURP, he provides no details on how this coordination should
22 take place, nor does he provide any analysis or research associated with

¹⁵ See CAUSE-PA St. 1, p. 32.

1 Pennsylvania utilities on whether this coordination will result in successful
2 outcomes for the customer.

3 In addition, UGI Gas already consults and coordinates with PPL Electric,
4 which is the Act 129 EDC whose service territory overlaps significantly with UGI
5 Gas’s service territory, in particular with the sharing of leads for its Nonresidential
6 Custom (“NC”) Program. Furthermore, UGI Gas utilizes the same vendor for
7 delivery and eligibility criteria of a home energy rating system (“HERS”) score, as
8 the EDCs for its RNC program. There are also limits to coordination with EDCs on
9 the prescriptive programs in UGI Gas’s EE&C Portfolio, given their inherently
10 different focus on electric powered equipment and gas-powered equipment
11 respectively. While the Company will continually look for opportunities to improve
12 the delivery and coordination of its EE&C programs, UGI Gas must strive to do
13 what is best for its customers while avoiding complexity in the application and
14 approval process.

15 As for LIURP coordination, I agree with Mr. Miller that LIURP should be
16 the first option for low-income customers in need of weatherization. For customers
17 who are not eligible because they do not meet the LIURP minimum usage
18 threshold, UGI Gas will continue to refer those customers to its low-income
19 assessment fee waiver.

20

21 **VII. EVALUATION, MEASUREMENT, AND VERIFICATION**

22 **Q. Do you agree with OCA witness Sherwood that the Company has not provided**
23 **sufficient support of its proposed evaluation . . . efforts” (OCA St. 1, p. 13)?**

1 A. No. The Company developed an evaluation plan with its third-party evaluator, and
2 a copy of the resulting evaluation was provided in discovery in response to CAUSE-
3 PA to UGI Set IV, No. 1. A copy of these evaluations is attached as UGI Gas
4 Exhibit TML-7R (CONFIDENTIAL).

5
6 **Q. What are your thoughts on OCA witness Sherwood’s recommendation that**
7 **UGI Gas “file its completed evaluations” as part of the docket and “all EM&V**
8 **reports for transparency” (OCA St. 1, pp. 8, 15)?**

9 A. I agree that the Company should file any completed evaluations as part of its annual
10 reporting process. This is consistent with the settlement reached with stakeholders
11 for UGI Electric’s voluntary EE&C Plan.

12
13 **Q. OSBA witness Vitulli asserts that “[t]he Company could increase**
14 **transparency around evaluation insights by regularly filing and serving its**
15 **completed program evaluations to the parties to this docket” and that**
16 **“[a]lternatively, the Company could post the evaluations publicly.” (OSBA St.**
17 **No. 1, pp. 2, 7-8.) Please respond.**

18 A. As mentioned previously in this testimony, I agree with Ms. Vitulli’s
19 recommendation, and the Company agrees to provide the results of its evaluations
20 to stakeholders.

21
22 **Q. Mr. Miller recommends that UGI Gas “be required to establish” an EM&V**
23 **Plan “modeled after the EE&C reporting metrics provided by EDCs in their**

1 **Act 129 programs.” (CAUSE-PA St. 1, p. 26.) What additional information**
2 **does he provide about this recommendation?**

3 A. Mr. Miller states the following:

4 The EMV Plan should provide sufficient data to evaluate and verify
5 low income participation in both its dedicated low income
6 programming, as well as its general residential programming,
7 including the RR and RP programs. The EMV Plan should contain
8 specific metrics that allow the Commission and stakeholders to
9 evaluate how many low income customers participate in the
10 program, the specific measures they receive, and how much money
11 was spent on low income customers. The EMV should also track
12 verified energy savings achieved through participation in both
13 general residential programs and dedicated low income programs.
14 As I explained earlier in my testimony, UGI should also evaluate the
15 proportion of its overall customer energy consumption that is
16 attributable to the low income sector based on its estimated low
17 income customers. UGI should use that data to ensure that its
18 program has a proportional number of low income measures and that
19 low income customers are achieving a proportional level of energy
20 savings through participation in its EE&C programs. UGI should be
21 required to develop the EMV within 90 days of a final order in this
22 proceeding and submit it along with its updated Phase II EE&C
23 Plan.

24
25 (CAUSE-PA St. 1, p. 26.)
26

27 **Q. Do you agree with Mr. Miller’s recommendation?**

28 A. As previously discussed in this testimony, UGI Gas is not subject to Act 129’s
29 requirements. UGI Gas performed detailed planning with its selected third-party
30 evaluator after the approval of its Phase I EE&C Plan and the resulting evaluation
31 report is provided as Exhibit TML-7R (CONFIDENTIAL). The Company
32 anticipates providing details on low income participation in its Phase II annual
33 reports which will contain specific metrics that allow the Commission and the

1 stakeholders to identify how many low income customers have participated in
2 EE&C programs.

3

4 **Q. In his response to CAUSE-PA-I-3 (UGI Gas Exhibit TML-7R), Mr. Miller**
5 **contends that UGI Gas has not provided sufficient data to determine actual**
6 **savings. Do you agree?**

7 A. No. It is not clear what Mr. Miller means by the term “actual” savings. UGI Gas
8 and the Act 129 EDCs all provide annual reports that have savings numbers based
9 on tracked program data and calculated using an approved TRM, classified as
10 “reported” savings. As mentioned in the introduction to this rebuttal testimony, the
11 Company has reported first year savings of 1,222,032 MMBtus of natural gas and
12 22,511 MWh of electricity for the five years of its Phase I EE&C Plan.

13 The Act 129 EDCs also provide “verified” savings in their annual reports
14 that have gone through some form of evaluation, usually a review of the tracking
15 system and calculations performed to arrive at the “reported” savings. As described
16 in the UGI Gas’s Phase I EE&C Plan, the Company similarly performs regular
17 impact evaluations on all its programs to arrive at “verified” or “evaluated” savings,
18 and a copy of its recent evaluation has been provided as UGI Gas Exhibit TML-7R
19 (CONFIDENTIAL). If by “actual,” Mr. Miller means a pre/post-usage analysis for
20 every measure, every year, then that is not a feasible or reasonable request since (1)
21 it is not required for voluntary gas EE&C programs; and (2) it generally requires a
22 large sample size and at least 12 months of post usage data before the analysis can
23 be performed, and even then, results may not be statistically significant.

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VIII. MARKETING

Q. Do you agree with OCA witness Sherwood that the Company has not provided sufficient support of its proposed . . . marketing efforts (OCA St. 1, p. 13)?

A. No. Section 1.9.2 of the proposed Phase II EE&C Plan provides a multi-page overview of the portfolio’s marketing plans and efforts, and then each program plan has its own section dedicated to the marketing strategy for that specific offering.

Q. Do you agree with Ms. Sherwood’s recommendation that UGI Gas be required “to file within the docket its annual marketing plan, detailing its planned marketing activity on each program” (OCA St. 1, p. 15)?

A. No. I am not aware of any other voluntary plans that are required to provide this level of detail. If any interested stakeholders have questions about the marketing activity overviews shared by the Company, they have multiple chances to engage with the Company through the filing of the EE&C Plan’s annual report and the annual stakeholder engagement meeting.

IX. TRACKING AND REPORTING

Q. Could you please respond to OSBA witness Vitulli’s claim that a “[l]ack of available data makes it difficult to determine UGI Gas’ track record in serving small businesses with its EE&C Plan” (OSBA St. No. 1, p. 6)?

A. UGI Gas has been unable to break out “small business” participation in its EE&C programs because UGI Gas’s rate class structure does not differentiate whether a customer is a small business or not. The definition of “small business” is not a

1 universal one and can be defined through a number of different metrics, such as
2 revenue or employees. In the context of utility customers, the most accessible
3 definition is based on energy consumption. However, there is no definition or
4 consensus used by UGI Gas that I am aware of for what consumption level defines
5 a “small business” customer in EE&C plans Without certainty on this term, UGI
6 Gas cannot report on small business customer participation.

7

8 **Q. Could you please summarize OSBA witness Vitulli’s recommendation for the**
9 **Company’s reporting on the Phase II EE&C Plan’s implementation?**

10 A. Yes, on page 2 of her direct testimony, Ms. Vitulli recommends the following:

11 At minimum, UGI Gas should track and report (at annual
12 stakeholder meetings and in annual reports) each program’s (1)
13 number of unique participants by rate class and (2) total rebates
14 issued by rate class. In addition, UGI Gas should also track and
15 report program participation by other customer categories
16 including but not limited to small business and low-income. This
17 more detailed approach to tracking and reporting will increase
18 transparency, enable the Company and its stakeholders to assess
19 how program costs and benefits are distributed across rate classes
20 and customer categories, and allow the Company and its
21 stakeholders to identify opportunities for improvement.

22

23 (OSBA St. No. 1, p. 2.) She provides further information on page 7 of her direct
24 testimony, where she states that “UGI Gas should break down program
25 participation by rate class in its annual reports to increase transparency, enable the
26 Company and its stakeholders to assess how program costs and benefits are
27 distributed across rate classes, and identify opportunities for improvement” and that
28 “UGI Gas should also track and report program participation by other customer

1 categories including but not limited to small business and low-income.” (OSBA
2 St. No. 1, p. 7.)

3

4 **Q. Do you agree with her recommendation?**

5 A. No. The Company already provides reporting on costs by rate class for cost
6 recovery purposes. Given that there is no specific definition for small business,
7 UGI Gas cannot report on this metric, as I explained previously.

8

9 **Q. Do you agree with CAUSE-PA witness Miller’s recommendation that UGI Gas
10 “be required to track and report annually the number of low income housing
11 units served through its RNC and NR programs, as well as the total dollars
12 spent on each low income housing project” (CAUSE-PA St. 1, p. 32)?**

13 A. No. My understanding is that the Company does not currently have the necessary
14 account information, project details, or reporting capabilities to definitively deem
15 a project as low-income or decipher the number of units encompassed within a
16 multi-family housing project. However, consistent with the Phase I EE&C Plan
17 settlement terms, the Company will continue to track participation for buildings
18 with more than one unit and report the results in the Company’s annual report.

19

20 **Q. Does this conclude your rebuttal testimony?**

21 A. Yes, it does. I reserve the right to submit supplemental testimony during the course
22 of the proceeding. Thank you.

UGI GAS EXHIBIT TML-1R

Annual Report Summaries

Metric	FY2020	FY2021	FY2022	FY2023	FY2024	Total Source
Customers	11,495	15,174	11,671	11,841	9,981	60,162 <i>Table 3</i>
TRC Test - Base Case (PV 2018\$) - includes CHP						
Benefits	\$ 25,101,461	\$ 34,130,072	\$ 34,800,816	\$ 31,304,206	\$ 29,781,396	155,117,951 <i>Table 6</i>
Costs	\$ 13,203,318	\$ 18,190,596	\$ 17,013,252	\$ 15,444,893	\$ 14,794,082	78,646,141 <i>Table 6</i>
Net	\$ 25,101,461	\$ 34,130,072	\$ 34,800,816	\$ 31,304,206	\$ 29,781,396	155,117,951 <i>Benefits - Costs</i>
BCR	1.90	1.88	2.05	2.03	2.01	1.97 <i>Benefits / Costs</i>

Source: UGI Gas Annual Reports

Phase-to-Date (FY2020 - FY2024) Results

Metric	Actual	Projected	% Source
Total Spending	\$ 52,129,447	\$ 63,369,600	82% <i>Table 9</i>
Customer Incentive Spending	\$ 40,109,100	\$ 46,377,100	86% <i>Table 9</i>
Non-incentive Spending	\$ 12,020,347	\$ 16,992,500	71% <i>Total - Incentive</i>
Annual MMBtus	1,222,032	1,279,547	96% <i>Table 11</i>
Electric Energy (MWh)	22,511	7,524	299% <i>Table 11</i>

Source: UGI Gas FY2024 Annual Report

UGI GAS EXHIBIT TML-2R

Petition of UGI Utilities, Inc. – Gas Division for Approval of Phase II of its Energy Efficiency and Conservation Plan – Docket No. M-2024-3048418

CAUSE-PA RESPONSE TO UGI– SET I

UGI to CAUSE-PA-I-1

Re: CAUSE-PA Statement 1. For each recommendation made in CAUSE-PA Statement 1:

- (a) Please explain whether Mr. Miller has studied or evaluated his recommendation’s impact on:
 - (i) The individual programs’ cost-effectiveness;
 - (ii) The overall portfolio’s cost-effectiveness;
 - (iii) The savings for all customer sectors and programs; and
 - (iv) The costs for all sectors and programs.
 - (v) If so, please provide those studies or evaluations, including all Documents that Mr. Miller relied upon in performing those studies or evaluations, in their native format (e.g., Microsoft Excel).
- (b) Please identify where the dollars in the budget for the proposed Phase II EE&C Plan will come from to implement this recommendation.
- (c) If the recommendation is the addition of a new measure or program, please provide its projected budget, participation level, and savings for each Program Year of Phase II.
- (d) If the recommendation is the addition of a new measure or program, please provide its TRC benefit-cost ratio.
- (e) Please provide all Documents relied upon by Mr. Miller in providing the information requested in subparts (c) and (d) above.

Response:

- (a)
 - (i) No.
 - (ii) No.
 - (iii) No.
 - (iv) No.
 - (v) None.
- (b) Mr. Miller’s overarching recommendation is for the Commission to “reject UGI’s proposed Phase II Plan and order the Company to submit a revised plan that includes dedicated and proportionate programming designed to effectively reach its low income customer base.”

Petition of UGI Utilities, Inc. – Gas Division for Approval of Phase II of its Energy Efficiency and Conservation Plan – Docket No. M-2024-3048418

CAUSE-PA RESPONSE TO UGI– SET I

CAUSE-PA St. 1 at 20:7-9; *see also* CAUSE-PA St. 1 at 17, 20, 24-26. Costs associated with amendments to UGI’s Phase II Plan should be allocated to the appropriate rate class.

- (c) *See* response to subpart (b). The answer to the question posed here depends on the results of UGI’s analysis of the proportionate usage attributable to its low income customers and the revised program proposals UGI includes in its revised Phase II Plan. *See id.*
- (d) Mr. Miller has not calculated the TRC ratio for these recommendations. *See* above response to subpart (b). In developing revisions to its Phase II Plan consistent with Mr. Miller’s recommendations, UGI should use the TRC ratio adopted by the Commission in the Act 129 Phase V TRC Order.
- (e) *See* CAUSE-PA St. 1; *see also* 2026 Total Resource Cost (TRC) Test, M-2024-3048998, Final Order (Entered Nov. 7, 2024).

Respondent: Mitchell Miller

Response Date: February 24, 2025

UGI GAS EXHIBIT TML-3R

Utilities with Natural Gas Heat Pump Programs

As of 3/3/2025

Utility	State	Rebate Link
Philadelphia Gas Works	PA	https://www.puc.pa.gov/pdocs/1840181.pdf
Columbia Gas	PA	https://www.columbiagaspa.com/energy-efficiency/for-your-home/available-rebates
New Jersey Natural Gas	NJ	https://www.njresources.com/news/releases/2024/njng/25_2_njng_savegreen_ee_filing.aspx
Nicor Gas	IL	https://www.nicorgas.com/business/ways-to-save/emerging-technology-program/gas-heat-pumps.html
People Gas	IL	https://tradeallycenter.com/gas-heat-pumps/
Black Hills Energy	CO	https://www.blackhillsenergy.com/efficiency-and-savings/residential-rebates/colorado-gas-residential-rebates
Fortis BC	BC	https://www.fortisbc.com/rebates/business/gas-absorption-heat-pump-rebates
Eastward Energy	NS	https://eastwardenergy.com/natural-gas-heat-pumps/

UGI GAS EXHIBIT TML-4R

EDC Rates as of February 25, 2025

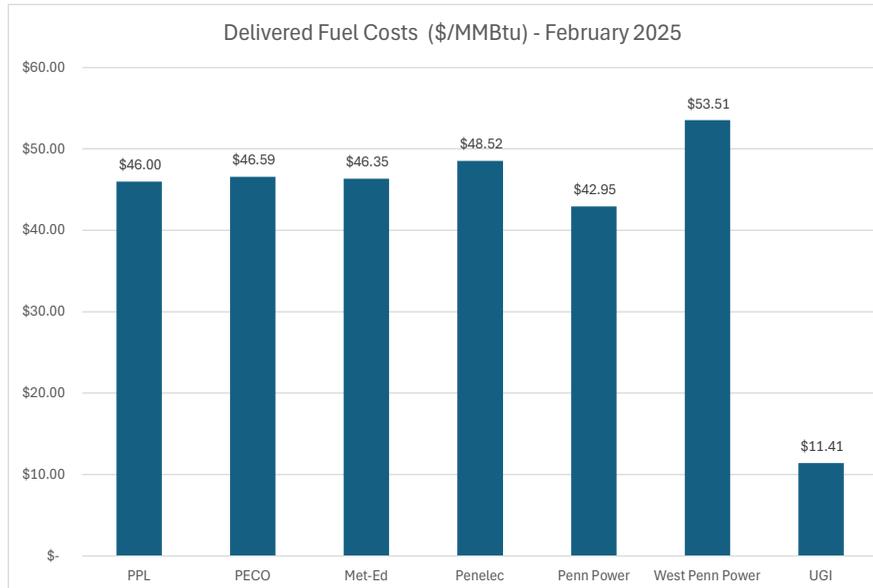
	\$/MMBtu		\$/kWh Commodity		\$/kWh Dist	\$/kWh Total	Source			
PPL	\$	46.00	PPL	\$	0.108	\$	0.049	\$	0.157	www.ppelectric.com (price to compare and customer bill)
PECO	\$	46.59	PECO	\$	0.093	\$	0.066	\$	0.159	https://www.peco.com/my-account/my-service/customer-choice/electric-price-to-compare ; https://www.utilityrates.com/utility/pa/peco
Met-Ed	\$	46.35	Met-Ed	\$	0.110	\$	0.048	\$	0.158	https://www.firstenergycorp.com/content/dam/customer/Customer%20Choice/Files/PA/Met-Ed_and_Penelec/MEPTC.pdf ; https://www.utilityrates.com/utility/pa/met-ed
Penelec	\$	48.52	Penelec	\$	0.105	\$	0.061	\$	0.166	https://www.firstenergycorp.com/content/dam/customer/Customer%20Choice/Files/PA/Met-Ed_and_Penelec/PNPTC.pdf ; https://www.utilityrates.com/utility/pa/penelec
Penn Power	\$	42.95	Penn Power	\$	0.112	\$	0.035	\$	0.147	https://www.firstenergycorp.com/content/dam/customer/Customer%20Choice/Files/PA/PennPower/PPPTC.pdf ; https://www.utilityrates.com/utility/pa/penn-power
West Penn Power	\$	53.51	West Penn Power	\$	0.095	\$	0.088	\$	0.183	https://www.firstenergycorp.com/content/dam/customer/Customer%20Choice/Files/PA/West_Penn_Power/WPPTC.pdf ; https://www.chooseenergy.com/utilities/west-penn-power-pa
UGI	\$	11.41								

UGI Rates as of February 25, 2025

	\$/ccf Commodity	\$/ccf Dist	\$/ccf Total	
UGI	\$	0.582	\$	1.176

Energy Conversion Values

Unit	MMBtu/Unit
kWh	0.003412
ccf	0.103



UGI GAS EXHIBIT TML-5R

Savings Attributed to Low-Income Customers (First Year MMBtus)

Program	FY20	FY21	FY22	FY23	FY24	FY 20 – FY 24	Method of Attribution
RP	8,871	13,712	10,604	10,848	10,932	54,967	<i>Verified and Self Reported LI customers</i>
RR	43	50			100	193	<i>Customers who received a low income fee waiver</i>
NC		1,792	2,839		2,669	7,300	<i>City Housing Authority project</i>
Total	8,915	15,554	13,443	10,848	13,701	62,460	
Portfolio Savings	182,580	225,831	281,069	261,143	271,408	1,222,031	<i>Annual Reports</i>
% of Portfolio Savings	4.9%	6.9%	4.8%	4.2%	5.0%	5.1%	

Source: Program Tracking Database

UGI GAS EXHIBIT TML-6R

Petition of UGI Utilities, Inc. – Gas Division for Approval of Phase II of its Energy Efficiency and Conservation Plan – Docket No. M-2024-3048418

CAUSE-PA RESPONSE TO UGI– SET I

UGI to CAUSE-PA-I-10

Re: CAUSE-PA Statement 1, p. 33. Mr. Miller recommends that “recommend that UGI be required to file a Plan addendum explaining how it will ensure EE&C programming is coordinated with new IRA-funded programs as they come online.”

- (a) Please provide the anticipated time for rollout of the “new IRA-funded programs” in Pennsylvania.
- (b) Please state whether IRA funding has been received from the federal government yet.
- (c) Please identify the department, agency, or vendor that will oversee Pennsylvania’s IRA funding.
- (d) Please explain in detail how IRA rebates will be issued to qualifying customers.
- (e) Please explain in detail what documentation customers will need to provide in order to be eligible for an IRA rebate.
- (f) Please provide all Documents relied upon in responding to subparts (a) through (e).

Response:

- (a) The anticipated timeline for roll-out of each IRA program varies. Some are in development, while others – such as the new IRA tax incentives – have been available for quite some time. According to the Commonwealth’s website, the Department of Environmental Protection’s Energy Programs Office anticipates that the Home Energy Rebate Programs, which includes the Home Electrification Appliance Rebate and Home Efficiency Rebate Programs (HEAR and HER) “will be available to Pennsylvania residents in early 2025.” See www.pennenergysavers.com.

More information about the IRA programs can be found on the Commonwealth’s Website:

- <https://www.pa.gov/agencies/dep/residents/saving-energy/home-energy-efficiency-and-conservation/energy-efficiency-incentives.html>
- <https://www.pa.gov/agencies/dep/residents/saving-energy/inflation-reduction-act.html#accordion-e5c6390c15-item-52135a30a6>.

- (b) I am advised by counsel that Governor Shapiro and multiple state agencies filed a complaint last week in the Eastern District of Pennsylvania against the Trump Administration and multiple federal agencies for withholding the release of IRA funds associated with multiple IRA programs that are contractually obligated to Pennsylvania. See <https://www.pa.gov/governor/newsroom/2025-press-releases/gov-shapiro-files-lawsuit-trump-admin-unconstitutional-federal-f.html>.

Petition of UGI Utilities, Inc. – Gas Division for Approval of Phase II of its Energy Efficiency and Conservation Plan – Docket No. M-2024-3048418

CAUSE-PA RESPONSE TO UGI– SET I

- (c) The Home Energy Rebate Programs established by the IRA are administered in Pennsylvania by the Department of Environmental Protection’s Energy Programs Office. Mr. Miller is advised by counsel that DEP EPO has contracted with Resource Innovations, a third-party vendor, to administer the Home Energy Appliance Rebate Program (HEAR), and that a vendor has not yet been selected to operate the Home Efficiency Rebate Program (HER).
- (d) See www.pennenergysavers.com. The IRA Home Energy Rebate programs are anticipated to launch in early 2025. Stakeholders can sign up to “receive updates about program launch, eligibility, and applications.”
- (e) See response to subpart (d). This information is not yet available.
- (f) See above referenced hyperlinks to all relevant documents.

Respondent: Mitchell Miller

Response Date: February 24, 2025

UGI GAS EXHIBIT TML-8R

**Petition of UGI Utilities, Inc. – Gas Division for Approval of Phase II of its Energy
Efficiency and Conservation Plan – Docket No. M-2024-3048418**

CAUSE-PA RESPONSE TO UGI– SET I

UGI to CAUSE-PA-I-3

Re: CAUSE-PA Statement 1, p. 8. Please provide the total MCf and kWh savings that Mr. Miller maintains that UGI Gas achieved during its Phase I EE&C Plan. Please provide all Documents relied upon by Mr. Miller in reaching that conclusion and in responding to this interrogatory.

Response:

As explained in the above cited testimony, UGI has not provided sufficient data from which to determine the actual savings achieved during UGI’s Phase I EE&C. *See* CAUSE-PA St. 1 at 8:2-9 (citing CAUSE-PA to UGI II-14).

Respondent: Mitchell Miller

Response Date: February 24, 2025

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**PETITION OF UGI UTILITIES, INC. – GAS DIVISION
FOR APPROVAL OF PHASE II OF ITS
ENERGY EFFICIENCY AND CONSERVATION PLAN**

DOCKET NO. M-2024-_____

**TESTIMONY
OF
TRACY A. HAZENSTAB**

UGI GAS STATEMENT NO. 2

April 15, 2024

1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is Tracy A. Hazenstab, and my business address is UGI Utilities, Inc., 1
4 UGI Drive, Denver, Pennsylvania 17517.

5

6 **Q. By whom are you employed and in what capacity?**

7 A. I am employed by UGI Utilities, Inc. as a Principal Analyst, Rates. UGI is a wholly-
8 owned subsidiary of UGI Corporation (“UGI Corp.”). UGI has two operating
9 divisions, the Electric Division (“UGI Electric”) and the Gas Division (“UGI Gas” or
10 the “Company”), each of which is a public utility regulated by the Pennsylvania
11 Public Utility Commission (“Commission” or “PUC”).

12

13 **Q. What are your responsibilities as Principal Analyst, Rates?**

14 A. I am primarily responsible for various tariff filings and related computations for UGI
15 Gas and UGI Electric rate and regulatory filings before federal and state regulatory
16 commissions.

17

18 **Q. Please describe your educational and professional experience.**

19 A. Please see my resume, UGI Gas Exhibit TAH-1, which is attached to my testimony.

20

1 **Q. Have you previously testified before the Pennsylvania Public Utility Commission**
2 **(“Commission”)?**

3 A. Yes. Attached to my direct testimony is UGI Gas Exhibit TAH-1, which contains a list
4 of the proceedings in which I previously testified.

5
6 **Q. What is the subject matter of your testimony in this proceeding?**

7 A. I will describe how UGI Gas is proposing to recover the costs for developing and
8 implementing its five-year Phase II Energy Efficiency and Conservation Plan (“Phase
9 II EE&C Plan” or the “Plan”), which is being proposed to become effective on October
10 1, 2025, and last through September 30, 2030.

11
12 **Q. Are you sponsoring any exhibits in this proceeding?**

13 A. Yes. I am primarily responsible for and am sponsoring: (1) UGI Gas Exhibit 2, the pro
14 forma tariff supplement for the Phase II Energy Efficiency and Conservation Rider
15 (“Phase II EEC Rider”), which is attached to the Petition for Approval of the Phase II
16 EE&C Plan; and (2) UGI Gas Exhibit TAH-2, which is attached to my testimony and
17 shows the calculation of the proposed annual Phase II EEC Rider.

18
19 **Q. What rate mechanism is UGI Gas proposing in connection with its Phase II EE&C**
20 **Plan?**

21 A: UGI Gas proposes to utilize a separate rate mechanism to recover the budgeted costs
22 for development and implementation of the Plan. Plan cost recovery will be
23 accomplished utilizing the Phase II EEC Rider.

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II. PROJECTION OF EE&C PLAN COSTS

Q. What is UGI Gas’s projection of the annual costs for its EE&C Plan?

A. The projected annual cost for the Company’s EE&C Plan is approximately \$13.9 million. This equates to a total budget of approximately \$69.5 million. The total budget also includes the Company’s annual spending on the Phase II EE&C Plan programs and measures, as well as the Company’s annual internal administrative costs associated with the design, development, and implementation of the EE&C Plan. Specifically, the internal costs include, among other things: (1) legal (internal and external), consulting and regulatory costs associated with developing, submitting, and obtaining Commission approval of this Plan; (2) internal costs incurred to manage and administer the programs on an ongoing basis; and (3) internal costs to measure and verify program results.

Q. How was the Company’s annual spending target for the Phase II EE&C Plan’s programs and measures calculated?

A. Pursuant to the Commission’s guidance in Phase IV of Act 129, UGI Gas used 2% of its revenues to establish a spending cap. UGI Gas has constructed the Phase II EE&C Plan using the actual revenue for the 12-months ended September 30, 2019 (FY 2019). The jurisdictional revenues for this period were approximately \$830 million. Two percent (2%) of \$830 million results in a single year budget cap of \$16.6 million. Based on this revenue level, the Company proposes an annual budget for expenditures on the Phase II EE&C Plan programs and measures of approximately \$13.9 million on

1 average, with the largest single year's costs projected at \$14.9 million, both of which
2 are under the 2% cap typically placed on Act 129 EDC plans.

3

4 **Q. How is the budget allocated among the customer classes?**

5 A. Of the \$69.5 million total Phase II budget, UGI Gas proposes to allocate approximately
6 \$54.0 million over the five years to the residential customer class and approximately
7 \$13.8 million over the five years to the non-residential customer class. An additional
8 \$1.7 million is budgeted for the Combined Heat and Power program, which is
9 applicable to the DS and LFD rate classes. These allocations of the total budget amount
10 include an allocation of the internal administrative costs, which are assigned to the
11 applicable customer class based on projected spending levels.

12

13 **Q. How does the Company propose to treat the costs to design and develop the**
14 **Company's Phase II EE&C Plan?**

15 A. The Commission provided in its *Phase I Implementation Order*¹ that companies should
16 be permitted to recover the incremental costs incurred to design, create, and obtain
17 Commission approval of a plan. This practice was continued in the Commission's
18 *Phase II Implementation Order*, *Phase III Implementation Order* and *Phase IV*
19 *Implementation Order*². The design and development costs associated with the Phase
20 II EE&C Plan are estimated to be \$250,000 and are included within the \$69.5 million

¹ See *Energy Efficiency Conservation Program*, Docket No. M-2008-2069887 (Order entered Jan. 16, 2009).

² See *Energy Efficiency Conservation Program*, Docket No. M-2012-2289411 (Order entered Aug. 3, 2012) ("*Phase II Implementation Order*"); *Energy Efficiency Conservation Program*, Docket No. M-2014-2428464 (Order entered June 19, 2015) ("*Phase III Implementation Order*"); *Energy Efficiency and Conservation Program*, Docket No. M-2020-3015228 (Order entered June 18, 2020) ("*Phase IV Implementation Order*").

1 spending target. The Company proposes to defer such development costs and to
2 amortize and recover those deferred costs ratably over the 60-month life of its Phase II
3 EE&C Plan. As a result, the Company proposes to recover approximately \$50,000 (on
4 average) during each year of the Plan for plan design and development.

5
6 **Q. Did the Company propose a limit on annual expenditures for its Phase II EE&C
7 Plan programs?**

8 A. Yes. UGI Gas has proposed an annual spending cap of \$16.6 million, which is less
9 than 2% of annual jurisdictional revenues for the 12-month period ended September
10 30, 2019.

11
12 **III. COST RECOVERY**

13 **Q. Please describe the rate mechanism UGI Gas is proposing to use to recover the
14 costs of its Phase II EE&C Plan.**

15 A. Consistent with Act 129, UGI Gas proposes to recover the costs of its EE&C Plan
16 through a reconcilable adjustment clause under Section 1307 of the Public Utility Code.
17 In the Commission’s *Phase I Implementation Order*, it directed that such cost recovery
18 mechanisms be applicable to all customers and not affect the utility’s price-to-compare,
19 provided the plan benefits both shopping and non-shopping customers. In the *Phase*
20 *III Implementation Order*, the Commission directed that: (1) the “annual cost recovery
21 methodology” must be “based on the projected program costs that the EDC anticipates
22 will be incurred over the surcharge application year to attain the energy reduction
23 targets”; and (2) every utility must “annually reconcile (*i.e.*, 1307(e) Statement) actual

1 expenses incurred with actual revenues received for the reconciliation period.” *Phase*
2 *III Implementation Order*, p. 149. The Commission set forth the same requirement in
3 its *Phase IV Implementation Order*. See *Phase IV Implementation Order*, p. 142.

4 Based on this Act 129 requirement and the Commission’s orders, UGI Gas
5 proposes to recover the costs of its Phase II EE&C Plan through the reconcilable Phase
6 II EEC Rider that will be imposed pursuant to Section 1307 of the Public Utility Code.
7 As in Phase I, the Company has designed its cost recovery mechanism to be applicable
8 to default service and choice customers because UGI Gas’s Phase II EE&C Plan will
9 benefit both shopping and non-shopping customers. In this regard, UGI Gas proposes
10 that, as with Phase I, the cost recovery mechanism be included in the distribution
11 charges for each customer class rather than appear as a separate line item on customers’
12 bills.

13
14 **Q. Is UGI Gas proposing any change from how the rates were calculated during**
15 **Phase I?**

16 A. No.

17
18 **Q. How were the proposed rates calculated for Phase II?**

19 A. Attached to my testimony is UGI Gas Exhibit TAH-2, which shows the calculation of
20 the proposed annual Phase II EEC Rider. The proposed rates were calculated based on
21 the annual projected costs and do not include any reconciliation of Phase I.

22

1 **Q. How many customer classes will be reflected in UGI Gas’s annual cost recovery**
2 **mechanism?**

3 A. As in Phase I, the Company proposes to calculate separately the applicable Phase II
4 EE&C Plan costs for four general customer classes on its system: (1) residential
5 customers served under Rate Schedules R and RT; (2) non-residential customers served
6 under Rate Schedules N and NT; (3) delivery service customers served under Rate
7 Schedule DS; and (4) large firm delivery service customers served under Rate Schedule
8 LFD.

9
10 **Q. What is UGI Gas’s overall approach for determining which customer class is**
11 **responsible to pay for the programs in the Phase II EE&C Plan?**

12 A. My understanding is that Act 129 and the Commission require that the EE&C Plan
13 programs approved by the Commission be supported by the same customer classes that
14 will receive the direct energy and conservation benefits. As a result, under the
15 Company’s Plan, the costs of Phase II EE&C Plan programs that target specific rate
16 classes are directly assigned to those classes for purposes of developing the recovery
17 charge.

18
19 **Q. What is the recovery period, and when will it begin and expire?**

20 A. The Company proposes that the Phase II EE&C Plan become effective on October 1,
21 2025, with rates effective December 1, 2025. As in Phase I, the Company proposes
22 that the Phase II EEC Rider apply to all usage on and after December 1, 2025, through
23 and until the last day of the respective month in Plan Year Five.

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Q. Will the Company file a reconciliation each year?

A. As in Phase I, the Company proposes to adjust the Phase II EEC Rider for actual program expenses and revenues each year. Each year, the Company will submit a filing to become effective on 30 days’ notice to reconcile the previous period’s revenues and expenses and adjust the Phase II EEC Rider. In addition, as in Phase I, the Company reserves the right to make an interim filing (to become effective on 60 days’ notice) to adjust the Phase II EEC Rider if it becomes evident that the over or under recovery is significantly deviating from expected activity. The net over or under collections will be based on the difference between the actual Phase II EEC Rider revenues received and the actual Phase II EE&C Plan costs incurred. The over or under collection calculation for each year of the Phase II EE&C Plan will include the actual over or under collections for the period where the data is known.

Q. What does UGI Gas propose for the final reconciliation treatment of EE&C costs?

A. Since Plan Year Five may result in over or under collections of expenses, the rate recovery mechanism must continue for a one-year period following the end of the Plan (“Final Reconciliation Year”), as in Phase I, so that the Company may fully recover any under collection or refund any over collection incurred during Year Five. If it is known that there will be a Phase III EE&C Plan at the end of the Final Reconciliation Year related to Phase II, any remaining balance will be recovered/refunded through the Phase III EEC Rider’s E-Factor. If there will be no Phase III EE&C Plan, any balance remaining for a customer class at the end of the Final Reconciliation Year will be trued

1 up through a one-time bill credit/debit issued to the applicable customers during the
2 second full billing month following the end of the Final Reconciliation Year. The
3 annual reconciliation and end-of-Plan reconciliation will be subject to Commission
4 review and potential audit, as the Commission deems necessary.

5
6 **Q. Is the Company proposing any tariff modifications in its Phase II EE&C Plan?**

7 A. The pro forma tariff supplement to implement the Phase II EEC Rider, which would
8 become effective on one day's notice, is attached to UGI Gas's Petition for Approval
9 of the Phase II EE&C Plan as UGI Gas Exhibit 2. The tariff language provides a
10 description of the cost recovery method, the formula for calculating the charge, and the
11 charges specific to each rate class. The only modification to the Phase I EE&C tariff
12 language proposed in this proceeding reflects the end-of-Plan reconciliation process
13 previously described in my testimony.

14
15 **Q. Does this conclude your Direct Testimony?**

16 A. Yes, although I reserve the right to submit supplemental testimony if other issues arise
17 during the course of the proceeding.

UGI Gas Exhibit TAH-1

Tracy A. Hazenstab
Principal Analyst - Rates

Work Experience:

2008 - Current	Rates Analyst – II/Sr/Principal (Progressive Positions) UGI Utilities, Inc., Denver, PA
2004 - 2008	Business Analyst PPL Gas, Lewistown, PA
2001 - 2004	Contact Center Analyst PPL Gas, Lock Haven, PA

Previous Testimony – Pennsylvania Public Utility Commission:

2014 1307(f) Proceeding:	Docket No. R-2014-2543523
2015 1307(f) Proceedings:	Docket Nos. R-2015-2480937, R-2015-2480934
2016 1307(f) Proceedings:	Docket Nos. R-2016-2543311, R-2016-2543314
2018 1307(f) Proceedings:	Docket Nos. R-2018-3001631, R-2018-3001632
2019 1307(f) Proceeding:	Docket No. R-2019-3009647
2019 UGI Electric EEC Phase III Petition:	Docket No. R-2019-3004144
2020 1307(f) Proceeding:	Docket No. R-2020-3019680
2021 UGI Gas Base Rate Proceeding:	Docket No. R-2021-3030218
2022 UGI Electric Base Rate Proceeding:	Docket No. R-2022-3037368
2023 1307(f) Proceeding:	Docket No. R-2023-3040290

Previous Testimony – Maryland Public Service Commission:

Purchased Gas Adjustment/Annual Cost Adjustment Hearing:

2008 Hearing:	Case Number 9511(c)
2009 Hearing:	Case Number 9511(d)
2010 Hearing:	Case Number 9511(e)
2012 Hearing:	Case Number 9511(g)
2014 Hearing:	Case Number 9511(i)
2015 Hearing:	Case Number 9511(j)
2016 Hearing:	Case Number 9511(k)
2017 Hearing:	Case Number 9511(l)
2018 Hearing:	Case Number 9516(a)
2019 Hearing:	Case Number 9516(b)
2020 Hearing:	Case Number 9516(c)

Assisted in Preparing – Pennsylvania Public Utility Commission:

2009 UGI Gas Rate Case (former Central Rate District):	Docket No. R-2008-2079675
2009 UGI Gas Rate Case (former North Rate District):	Docket No. R-2008-2079660
2011 UGI Gas Rate Case (former Central Rate District):	Docket No. R-2010-2214415
2016 UGI Gas Rate Case (former South Rate District):	Docket No. R-2015-2518438
2017 UGI Gas Rate Case (former North Rate District):	Docket No. R-2016-2580030
2018 UGI Electric Rate Case	Docket No. R-2017-2640058
2019 UGI Gas Rate Case	Docket No. R-2018-3006814
2020 UGI Gas Rate Case	Docket No. R-2019-3015162

Education:

B.A. in International Politics, Pennsylvania State University

UGI Gas Exhibit TAH-2

**UGI Utilities, Inc. - Gas Division
Phase II Energy Efficiency and Conservation Plan
Development and Impact of Energy Efficiency and Conservation Rate
"Phase II EEC Rider"**

Residential (Rate Classes R/RT)

<u>Plan Year</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>	<u>Year 11</u>
Program Cost - Rates R & RT ¹	\$9,855,789	\$10,452,763	\$10,825,203	\$11,262,316	\$11,571,091
Declining Projected Residential Usage (Mcf)	54,381,697	54,183,691	53,977,459	53,763,376	53,540,378
EEC Rate (\$/Mcf)	0.1812	0.1929	0.2006	0.2095	0.2161
Average Residential Heating Monthly Bill @ 7.36 Mcf	\$ 90.73	\$ 90.79	\$ 90.88	\$ 90.94	\$ 91.01
Rate Impact as Compared to Current Bill @ 7.36 Mcf	0.07%	0.17%	0.23%	0.31%	0.36%
Average EEC charge per Monthly Residential Bill	\$1.33	\$1.42	\$1.48	\$1.54	\$1.59

Non-Residential (Rate Classes N/NT)

<u>Plan Year</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>	<u>Year 11</u>
Program Cost - Rates N & NT ¹	\$1,135,451	\$1,177,845	\$1,287,230	\$1,332,267	\$1,419,711
Declining Projected Non-Residential Usage (Mcf)	32,326,439	32,287,659	32,245,671	32,199,654	32,151,496
Non-Residential EEC Rate (\$/Mcf)	0.0351	0.0365	0.0399	0.0414	0.0442
Average Commercial Heating Monthly Bill @ 28.8 Mcf	\$ 262.26	\$ 262.52	\$ 262.56	\$ 262.67	\$ 262.71
Rate Impact as Compared to Current Bill @ 28.8 Mcf	0.10%	0.12%	0.15%	0.17%	0.20%
Average EEC Charge per Monthly Commercial Heating Bill	\$ 1.01	\$ 1.05	\$ 1.15	\$ 1.19	\$ 1.27
Average Industrial Customer Monthly Bill @ 92.4 Mcf	\$ 778.79	\$ 779.63	\$ 779.76	\$ 780.09	\$ 780.24
Rate Impact as Compared to Current Bill @ 92.4 Mcf	0.11%	0.12%	0.17%	0.19%	0.22%
Average EEC Charge per Monthly Industrial Bill	\$ 3.24	\$ 3.37	\$ 3.69	\$ 3.83	\$ 4.08

Delivery Service (Rate Class DS)

<u>Plan Year</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>	<u>Year 11</u>
Program Cost - Rate DS ¹	\$750,211	\$775,093	\$839,298	\$865,733	\$917,058
Projected DS Usage (Mcf)	9,294,953	9,288,537	9,280,237	9,269,573	9,257,652
EEC Rate (\$/Mcf)	0.0807	0.0834	0.0904	0.0934	0.0991
Customers in Former South/Central Rate Districts					
Average DS Monthly Bill @ 575.5 Mcf	\$ 2,257.97	\$ 2,259.30	\$ 2,260.93	\$ 2,265.15	\$ 2,270.41
Rate Impact as Compared to Current Bill @ 575.5 Mcf	0.06%	0.13%	0.32%	0.40%	0.55%
Average EEC charge per Monthly DS Bill	\$46.44	\$48.00	\$52.03	\$53.75	\$57.03
Customers in Former North Rate District					
Average DS Monthly Bill @ 575.5 Mcf	\$ 1,897.27	\$ 1,898.60	\$ 1,900.23	\$ 1,904.45	\$ 1,909.70
Rate Impact as Compared to Current Bill @ 575.5 Mcf	0.07%	0.16%	0.38%	0.47%	0.66%
Average EEC charge per Monthly DS Bill	\$46.44	\$48.00	\$52.03	\$53.75	\$57.03

Large Firm Delivery Service (Rate Class LFD)

<u>Plan Year</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>	<u>Year 11</u>
Program Cost - Rate LFD ¹	\$917,711	\$942,593	\$1,006,798	\$1,033,233	\$1,084,558
Projected LFD Usage (Mcf)	24,916,590	24,942,865	24,967,256	24,989,283	25,010,053
EEC Rate (\$/Mcf)	0.0368	0.0378	0.0403	0.0413	0.0434
Average LFD Monthly Bill @ 3,272.3 Mcf	\$ 6,514.02	\$ 6,517.46	\$ 6,520.89	\$ 6,529.47	\$ 6,540.11
Rate Impact as Compared to Current Bill @ 3,272.3 Mcf	0.05%	0.11%	0.24%	0.29%	0.40%
Average EEC charge per Monthly LFD Bill	\$120.42	\$123.69	\$131.87	\$135.15	\$142.02

Footnotes:

¹Administrative costs, including the costs associated with the preparation and obtaining Commission approval of the EE&C Plan, are allocated between EEC classes based on projected incentive spending.

²Total Bill as of April 1, 2024, with projected portion of EEC rate only.

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**PETITION OF UGI UTILITIES, INC. – GAS DIVISION
FOR APPROVAL OF PHASE II OF ITS
ENERGY EFFICIENCY AND CONSERVATION PLAN**

DOCKET NO. M-2024-3048418

**REBUTTAL TESTIMONY
OF
TRACY A. HAZENSTAB**

UGI GAS STATEMENT NO. 2-R

March 4, 2025

1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is Tracy A. Hazenstab, and my business address is UGI Utilities, Inc., 1 UGI
4 Drive, Denver, Pennsylvania 17517.

5

6 **Q. On whose behalf are you testifying in this proceeding?**

7 A. I am testifying on behalf of UGI Utilities, Inc. – Gas Division (“UGI Gas” or the
8 “Company”).

9

10 **Q. Have you previously submitted testimony in this proceeding?**

11 A. Yes, I submitted direct testimony on behalf of the Company, which was marked as UGI
12 Gas Statement No. 2.

13

14 **Q. What is the purpose of your rebuttal testimony in this proceeding?**

15 A. In support of Phase II of UGI Gas’s EE&C Plan (“Phase II EE&C Plan” or the “Plan”),
16 I will respond to the direct testimony of Office of Consumer Advocate (“OCA”)
17 witness Stacy L. Sherwood (OCA Statement 1) and Coalition for Affordable Utility
18 Services and Energy Efficiency in Pennsylvania (“CAUSE-PA”) witness Mitchell
19 Miller (CAUSE-PA Statement 1) concerning the Phase II Energy Efficiency and
20 Conservation Rider (“Phase II EEC Rider”).

21

22 **Q. Are you sponsoring any exhibits with your rebuttal testimony?**

23 A. No.

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II. PHASE II EEC RIDER

Q. Referencing the Phase II EE&C Plan’s allowance for small business customers to participate in either the Residential or Non-Residential Programs, OCA witness Sherwood argues that “the Company should ensure that there is a charge back if a small business customer utilizes the residential programs.” (OCA St. 1, p. 9.) Please respond.

A. UGI Gas ensures that costs are coded to the correct R/RT and N/NT rate class based on the rate class associated with the account connected to the invoice for processing. Both incentive and administrative costs are charged to the appropriate internal order that aligns with the residential and non-residential rate classes for all residential and non-residential prescriptive measures.

Q. Please respond to CAUSE-PA witness Miller’s claims regarding the rate and financial impact of UGI Gas’s Phase II EE&C Plan on low-income customers. (CAUSE-PA St. 1, pp. 7, 19-20.)

A. UGI Gas’s low-income and Customer Assistance Program (“CAP”) customers are included in the Phase II EEC Rider because it is a non-bypassable surcharge. In addition, UGI Gas has demonstrated low-income customers do participate in UGI Gas’s EE&C programs, as explained in Mr. Love’s rebuttal testimony (UGI Gas St. No. 1-R).

1 **Q. Does this conclude your rebuttal testimony?**

2 A. Yes, although I reserve the right to submit supplemental testimony if other issues arise

3 during the course of the proceeding.

VERIFICATION

I, THEODORE M. LOVE, being Partner at Green Energy Economics Group, Inc. hereby state that the testimony set forth in UGI Gas Statement Nos. 1 and 1-R is true and correct to the best of my knowledge, information and belief and that, if asked orally at a hearing in this matter, my answers would be as set forth therein. I am also sponsoring UGI Gas Exhibits 1, 3, TML-1, TML-1R through TML-6R, **CONFIDENTIAL** Exhibit TML-7R, and Exhibit TML-8R, and verifying any discovery responses that I sponsored or co-sponsored throughout the course of this proceeding. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 5/6/2025

Signed by:

53C45A04D38D482

Theodore M. Love

VERIFICATION

I, TRACY A. HAZENSTAB, being Principal Analyst, Rates at UGI Utilities, Inc. hereby state that the testimony set forth in UGI Gas Statement Nos. 2 and 2-R is true and correct to the best of my knowledge, information and belief and that, if asked orally at a hearing in this matter, my answers would be as set forth therein. I am also sponsoring UGI Gas Exhibits 2, TAH-1, and TAH-2, and verifying any discovery responses that I sponsored or co-sponsored throughout the course of this proceeding. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 5/6/2025

DocuSigned by:
Tracy Hazenstab
15940BB855D24FA...

Tracy A. Hazenstab