COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA PUBLIC UTILITY COMMISSION
COMMONWEALTH KEYSTONE BUILDING
400 NORTH STREET, HARRISBURG, PA 17120

BUREAU OF
INVESTIGATION
&
ENFORCEMENT

June 21, 2022

Via Electronic Filing
Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

Re: Pennsylvania Public Utility Commission v.
UGI Utilities, Inc. – Gas Division Base Rate Case
Docket No. R-2021-3030218
I&E Pre-Served Testimony, Exhibits, and Verification Statements

Dear Secretary Chiavetta,

Enclosed for electronic filing please find the **Non-Proprietary versions of the Pre-Served Testimony,Exhibits, and Verification Statements** of the Bureau of Investigation & Enforcement's (I&E) witnesses in the above-captioned proceeding. ***The Proprietary versions have been submitted to the Secretary's Bureau Sharefile***. The following documents were admitted into the record at the evidentiary hearing held on June 2, 2022:

Zachari Walker:	I&E Statement No. 1 I&E Exhibit No. 1 I&E Statement No. 1-R I&E Exhibit No. 1-R I&E Statement No. 1-SR I&E Exhibit No. 1-SR Verification Statement
Anthony Spadaccio:	I&E Statement No. 2 I&E Exhibit No. 2 I&E Statement No. 2-SR Verification Statement
Brian J. LaTorre:	I&E Statement No. 3 I&E Exhibit No. 3 I&E Statement No. 3-SR Verification Statement
Ethan H. Cline:	I&E Statement No. 4 I&E Exhibit No. 4 I&E Statement No. 4-SR I&E Exhibit No. 4-SR Verification Statement

Esyan Sakaya	I&E Statement No. 5 I&E Exhibit No. 5 I&E Statement No. 5-SR I&E Exhibit No. 5-SR Verification Statement
Jessalynn Heydenreich	I&E Statement No. 6 ***(Proprietary and Non-Proprietary)*** I&E Exhibit No. 6 ***(Proprietary and Non-Proprietary)*** I&E Statement No. 6-SR Verification Statement

Copies of this letter are being served on parties of record per the attached Certificate of Service. Should you have any questions, please do not hesitate to contact me.

Sincerely,

Carrie B Wright

Carrie B. Wright
Prosecutor
Bureau of Investigation and Enforcement
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CBW/cem
Enclosures

cc: Deputy Chief ALJ Joel Cheskis (*Cover Letter and Certificate of Service only – via email*)
ALJ Gail M. Chiodo (*Cover Letter and Certificate of Service only – via email*)
Per Certificate of Service (*Cover Letter and Certificate of Service only – via email*)

I&E Statement No. 1
Witness: Zachari Walker

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Direct Testimony

of

Zachari Walker

Bureau of Investigation and Enforcement

Concerning:

OPERATING AND MAINTENANCE EXPENSES

TAXES

CASH WORKING CAPITAL

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INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Zachari Walker, and my business address is Pennsylvania Public Utility Commission, 400 North Street, Harrisburg, PA 17120.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Pennsylvania Public Utility Commission (Commission) in the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial Analyst.

Q. WHAT IS YOUR EDUCATIONAL AND EMPLOYMENT BACKGROUND?

A. My education and employment background is attached as Appendix A.

Q. PLEASE DESCRIBE THE ROLE OF I&E IN RATE PROCEEDINGS.

A. I&E is responsible for representing the public interest in rate and other proceedings before the Commission. I&E's analysis in this proceeding is based on its responsibility to represent the public interest. This responsibility requires balancing the interests of ratepayers, the regulated utility, and the regulated community as a whole.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my direct testimony is to review the base rate filing of UGI Utilities, Inc. – Gas Division (UGI Gas or Company) and recommend adjustments to the Company's proposed operating and maintenance (O&M) expenses, taxes, and cash working capital (CWC) claims for the fully projected future test year (FPFTY) ending September 30, 2023.

Q. DOES YOUR TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 1 contains schedules that support my direct testimony.

Q. PLEASE SUMMARIZE THE COMPANY'S REQUESTED REVENUE INCREASE.

A. UGI Gas' base rate case was filed on January 28, 2022, with a requested increase of $82,742,000[1] to claimed present rate revenues of $1,062,724,000 resulting in an overall revenue requirement of $1,145,466,000 for the FPFTY.[2]

Q. PLEASE SUMMARIZE YOUR ADJUSTMENTS.

A. The following table summarizes my recommended adjustments:

[1] UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-2.
[2] UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-2.

	UGI Gas Claim	I&E Recommended Allowance	I&E Adjustment
O&M Expenses:			
Employee Activity Costs	$588,226	$217,935	($370,291)
Advertising Expense	$1,901,541	$1,016,363	($885,178)
Membership Dues	$1,115,404	$961,406	($153,998)
Interest for Customer Deposits	$972,000	$648,000	($324,000)
Payroll Expense	$82,929,000	$80,677,324	($2,251,676)
Employee Benefits Expense	$22,117,000	$21,510,994	($606,006)
Total O&M Adjustments			**($4,591,139)**
Taxes:			
Payroll Taxes	$6,927,000	$6,738,985	($188,015)
Total Tax Adjustments			**($188,015)**
Rate Base:			
Cash Working Capital	$62,148,000	$61,313,000	($835,000)
Total Rate Base Adjustments			**($835,000)**

I&E OVERALL RECOMMENDED REVENUE REQUIREMENT

Q. WHAT IS I&E'S TOTAL RECOMMENDED REVENUE REQUIREMENT?

A. I&E's total recommended revenue requirement is $1,094,441,000. This recommended revenue requirement represents an increase of $18,072,000 to the I&E-adjusted present rate revenues of $1,076,369,000. This total recommended allowance incorporates my adjustments made in this testimony to O&M expenses, taxes, and CWC, and those recommended adjustments made in the testimony of I&E witnesses Anthony Spadaccio,[3] Brian LaTorre,[4] Ethan Cline,[5] and Esyan Sakaya.[6]

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[3] I&E Statement No. 2.
[4] I&E Statement No. 3.
[5] I&E Statement No. 4.
[6] I&E Statement No. 5.

A calculation of I&E's recommended revenue requirement is shown below:

UGI Utilities Inc. - Gas Division		TABLE I			
R-2021-3030218		INCOME SUMMARY			
($ in Thousands)					
	9/30/23	INVESTIGATION & ENFORCEMENT			
	Proforma	[---]			
	Present Rates	Adjustments	Present Rates	Allowances	Proposed
	$	$	$	$	$
Operating Revenue	1,062,724	13,645	1,076,369	18,072	1,094,441
Deductions:					
O&M Expenses	689,306	-996	688,310	298	688,608
Depreciation	125,537	-3,666	121,871		121,871
Taxes, Other	13,658	-188	13,470	0	13,470
Income Taxes:					
Current State	4,364	2,109	6,473	1,776	8,249
Current Federal	15,064	3,992	19,056	3,360	22,416
Deferred Taxes	20,732	0	20,732		20,732
ITC	-324	0	-324		-324
Total Deductions	868,337	1,251	869,588	5,434	875,022
Income Available	194,387	12,394	206,781	12,639	219,420
				12,638	219,419
Measure of Value	3,169,023	-146,707	3,022,316	1	3,022,316
Rate of Return	6.13%		6.84%		7.26%

EMPLOYEE ACTIVITY COSTS

Q. WHAT IS INCLUDED IN EMPLOYEE ACTIVITY COSTS?

A. Per the Company's response to I&E-RE-24(b),[7] the employee activity costs consist of expenses related to the company picnic, employee service awards, an annual holiday breakfast, and "other activity." In further explanation, the Company states "other activity" includes, but is not limited to, department

[7] I&E Exhibit No. 1, Schedule 1, pp. 1-2.

meetings, employee gifts, field employee welfare (water, ice, etc.), special activity gifts, flowers, and cards.[8]

Q. WHAT IS THE COMPANY'S CLAIM FOR EMPLOYEE ACTIVITY COSTS?

A. UGI Gas' FPFTY expense claim for Employee Activity Costs is $588,226.[9] A breakdown of the FPFTY claim is as follows:[10]

Company Picnic	$213,000
Service Awards	$165,996
Annual Holiday Breakfast	$24,800
Other Activity	$184,430
Total	**$588,226**

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

8 I&E Exhibit No. 1, Schedule 1, p. 2.
9 UGI Gas Book II, SDR-RR-30(e).
10 I&E Exhibit No. 1, Schedule 1, p. 2.

Q. WHAT IS YOUR RECOMMENDATION FOR EMPLOYEE ACTIVITY COSTS?

A. I recommend an allowance of $217,935 or a reduction of $370,291 ($588,226 - $217,935) to the Company's claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation is based on the historic year 2019 level expense inflated to the FPFTY. The 2019 data represents the most recent known and measurable data prior to the effects of the COVID-19 pandemic. In response to I&E-RE-24, the Company provided a breakdown of employee activity costs by year for 2019 through the FPFTY.[11] There is a considerable difference in expense level during 2020 and the HTY, seemingly due to the impact of the COVID-19.[12] Going forward the Company plans to resume the Company picnic in 2022 and 2023;[13] however, it appears the Company has accepted the new level of expense as the new normal.[14] At this juncture, given that we are still in the midst of a pandemic, it is impossible to determine whether all employees would be willing to gather at an optional Company picnic. Even if all UGI Gas employees attend the picnic, the $123 ($213,000[15] ÷ 1,731 employees[16]) cost per employee is not prudent.

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11 I&E Exhibit No. 1, Schedule 1, p. 2.
12 I&E Exhibit No. 1, Schedule 1, p. 1, Response Part B.
13 I&E Exhibit No. 1, Schedule 1, p. 1, Response Part B.
14 I&E Exhibit No. 1, Schedule 1, p. 2.
15 I&E Exhibit No. 1, Schedule 1, p. 2.
16 I&E Exhibit No. 1, Schedule 2, p. 2.

Q. HOW DID YOU CALCULATE YOUR RECOMMENDATION?

A. First, I started with the known and measurable historic expense level from 2019, \$189,346, provided in response to I&E-RE-24.[17] Using the CPI Inflation Calculator, I converted the September 30, 2019 expense to the September 30, 2021 (2021) equivalent after inflation, \$202,289.[18] Next, I applied an average of consumer price index (CPI)[19] inflation factors of 6.0% [(7.9% + 5.8% + 6.6% + 3.8%) ÷ 4] and 2.8% [(3.0% + 2.9% + 2.6% + 2.6%) ÷ 4] for the four quarters in the 2022 fiscal year and the four quarters in the 2023 fiscal year, respectively, to adjust the 2021 equivalent value to the 2023 equivalent value. This yields \$217,935 [{\$202,289 x (1+6.0%)} x (1+2.8%)] for my FPFTY recommended allowance. My recommended allowance of \$217,935 represents a reduction of \$370,291 (\$588,226 - \$217,935) to the Company's FPFTY employee activity costs claim.

COVID-19 RELATED UNCOLLECTIBLE ACCOUNTS EXPENSE

Q. WHAT IS UNCOLLECTIBLE ACCOUNTS EXPENSE?

A. Uncollectible accounts expense are specific receivables that are determined to be uncollectible, in whole or in part, either because the debtors do not pay or because the creditor finds it impracticable to enforce payment. Those accounts deemed uncollectible are charged against income as uncollectible accounts expense.

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17 I&E Exhibit No. 1, Schedule 1, p. 2.
18 I&E Exhibit No. 1, Schedule 3.
19 Blue Chip Financial Forecasts Vol 41, No. 4, April 1, 2022, p. 2.

Q. HOW DO UTILITIES RECOGNIZE UNCOLLECTIBLE EXPENSE FOR RATEMAKING PURPOSES?

A. Generally, for ratemaking purposes, utilities compute uncollectible expense on an annual prospective basis. While the uncollectible expense is a prospective claim, the proper calculation begins with a historic analysis of actual net write-offs to gross revenues to develop a historic write-off ratio. Thus, net write-offs are gross write-offs less recoveries of amounts previously written off. This ratio is applied to projected revenues to determine the proper prospective allowance. Normally, the historic analysis is based on several years of data.

Q. WHAT CLAIM ARE YOU ADDRESSING HEREIN FOR UNCOLLECTIBLE EXPENSE?

A. I am addressing the COVID-19 related cost recovery associated with uncollectible accounts expense.

Q. WHAT IS THE COMPANY'S CLAIM FOR COVID-19 RELATED UNCOLLECTIBLE ACCOUNTS EXPENSE?

A. The Company's total claim for COVID-19 cost recovery of deferred uncollectible accounts expense is $1,503,000 which represents $607,000 through September 30, 2020, and $896,000 through 2021.[20] This produces a ten-year amortization of

[20] UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-11.

$150,000 ($1,503,000 ÷ 10 years). The Company is also proposing regulatory asset treatment going forward for incremental uncollectible costs above what is included in this proceeding to be recovered in the next base rate proceeding.[21]

Q. WHAT IS THE BASIS FOR THE COMPANY'S COVID-19 RELATED UNCOLLECTIBLE ACCOUNTS EXPENSE CLAIM?

A. The Company followed the Commission's guidance in the May 13, 2020 Secretarial Letter regarding *COVID-19 Cost Tracking and Creation of Regulatory Asset, Docket No. M-2020-3019775* (May 13, 2020 Secretarial Letter), taking the difference between the amount of uncollectible expense claimed in the prior base rate case and the amount experienced at the fiscal year ended September 30, 2020, and the amount experienced at the fiscal year ended September 30, 2021. The Company included this amount in a regulatory asset and is following the 10-year amortization period in line with the Settlement Agreement in the previous base rate case at Docket No. R-2019-3015162.[22] Additionally, the Company does not agree that the accumulation of COVID-19 related uncollectible deferrals should cease upon the effective date of new rates in the instant proceeding.[23] In this regard, the Company states it should be able to continue to accumulate and defer costs above the normalized level as approved within the Company's new rates as a

[21] I&E Exhibit No. 1, Schedule 4, p. 1, Response Part B.
[22] UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-11.
[23] I&E Exhibit No. 1, Schedule 4, p. 1, Response Part B.

regulatory asset citing higher than normal delinquency rates on COVID-19 related payment arrangements.[24]

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

Q. WHAT IS YOUR RECOMMENDATION FOR THE CONTINUED DEFERRAL OF COVID-19 RELATED UNCOLLECTIBLE ACCOUNTS EXPENSE?

A. I accept the Company's total deferral claim of $1,503,000 for the 2020 and 2021 excess COVID-19 related uncollectible accounts, as well as the 10-year amortization period as approved by the Commission as part of the settlement in the UGI Gas 2020 BRC proceeding.[25] However, I disagree that the Company should be allowed to continue recording a regulatory asset for ongoing COVID-19 related incremental uncollectible costs after the effective date of new rates for the instant proceeding. Upon the effective date of new rates for this proceeding, the Company will have a new uncollectible accounts expense percentage built into the rate formula that accounts for the increased delinquency rates and higher customer balances.

[24] I&E Exhibit No. 1, Schedule 4, p. 1, Response Part B.
[25] *Pa. PUC, et al. v. UGI,* Docket Nos. R-2019-3015162 (Order entered on October 8, 2020).

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. First, the Company has provided evidence that COVID-19 related uncollectible accounts expenses are included in forward-looking routine uncollectible accounts expense as seen in the discrepancy between the rate of accrual provided in UGI Gas Book I, Attachment III-A-5 and UGI Gas Book V, Schedule D-11. The Company states the 2020 Uncollectible Accounts Expense on Schedule D-11, $13,417[26] (12,810[27] + $607[28]), includes the COVID-19 related uncollectible accounts expense, and the 2021 Uncollectible Accounts Expense, $13,706[29] ($12,810[30] + $896[31]), includes the COVID-19 related uncollectible accounts expense. Therefore, allowing the Company to continue the deferral past the effective date of new rates in this proceeding would allow for redundant recovery of the COVID-19 related uncollectible accounts since they are already built into the routine uncollectible accounts percentage on Schedule D-11 for the FPFTY calculation.[32]

Additionally, in the 2020 Joint Petition for Unopposed Settlement – UGI Gas et al., page 21, item 49, the Company states COVID-19 Pandemic Costs may include reasonable and prudently incurred…annual uncollectible accounts expense beginning with the fiscal year period ending September 30, 2020 and continuing

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26 UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-11, line 2.
27 UGI Gas Book I, Attachment III-A-5.
28 UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-11, Footnote 1.
29 UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-11, line 3.
30 UGI Gas Book I, Attachment III-A-5.
31 UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-11, Footnote 1.
32 UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-11, lines 1-4.

for annual periods thereafter until the effective date of the Company's next base rate filing. This statement in the previous base rate case Settlement Agreement indicates the Company agreed not continue to accumulate COVID-19 related costs beyond the effective date of new rates for the instant proceeding.

ADVERTISING EXPENSE

Q. WHAT IS THE COMPANY'S CLAIM FOR ADVERTISING EXPENSE?

A. The Company's FPFTY claim for advertising expense is $1,901,541.[33]

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. In response to I&E-RE-30, the Company indicated it has an integrated advertising campaign promoting the benefits of domestic natural gas, including messaging that relates to the overall economic value of natural gas versus other energy sources and benefits of high efficiency natural gas appliances.[34]

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

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[33] UGI Gas Book 1, Attachment III-A-25.
[34] I&E Exhibit No. 1, Schedule 5, p. 1, Response Part C.

Q. WHAT IS YOUR RECOMMENDATION FOR ADVERTISING EXPENSE?

A. I recommend an allowance of $1,016,363 or a reduction of $885,178 ($1,901,541 - $1,016,363) to UGI Gas' FPFTY advertising expense claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. In response to I&E-RE-31, the Company provided a breakdown of the other advertising programs included in its advertising expense claim.[35] The listed categories: Sponsorship, Builder Meetings/Trade Shows, Branded Promotional Items, Customer Promotional Offers, and Miscellaneous Advertising, are represented by images provided in response to I&E-RE-30.[36] These representations merely promote the Company's image without promoting the benefits of domestic natural gas. Therefore, I recommend the other advertising programs in the amount of $885,178[37] be disallowed for ratemaking purposes as they are not necessary to ensure safe and reliable gas service.

<u>**MEMBERSHIP DUES**</u>

Q. WHAT IS INCLUDED IN MEMBERSHIP DUES?

A. The Company's claim includes payments to industry organizations with the

35 I&E Exhibit No. 1, Schedule 6, p. 2.
36 I&E Exhibit No. 1, Schedule 5, pp. 2-5.
37 UGI Gas Book I, Attachment III-A-25.

intention of improving the welfare, educational, social, and economic climate in the Company's local communities.[38]

Q. WHAT IS THE COMPANY'S CLAIM FOR MEMBERSHIP DUES?

A. UGI Gas is claiming membership dues of $1,115,404 for the FPFTY.[39]

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

Q. WHAT IS YOUR RECOMMENDATION FOR MEMBERSHIP DUES?

A. I recommend an allowance of $961,406, or a decrease of $153,998 ($1,115,404 - $961,406) to the Company's membership dues claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation is based on disallowing, for ratemaking purposes, claims for numerous organizations where the Company has not provided adequate support for their necessity to ensure safe and reliable gas service.[40] The recommended decrease to the FPFTY claim is the total of the following: Allentown Economic Development Corporation ($5,148); Economic Development Company of Lancaster County ($32,964); Lebanon Valley Economic Development Corporation

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[38] I&E Exhibit No. 1, Schedule 7.
[39] UGI Gas Book II, Attachment SDR-RR-30.
[40] I&E Exhibit No. 1, Schedule 8, pp. 1-3.

($8,244); Lehigh Valley Economic Development Corporation ($21,636); Northeastern Pennsylvania Alliance ($1,704); Penn's Northeast ($5,664); Pennsylvania Chamber of Business & Industry ($66,521); and Pennsylvania Economy League ($12,117). The total of the organizations listed above is my recommended reduction of $153,998 ($5,148 + $32,964 + $8,244 + $21,636 + $1,704 + $5,664 + $66,521 + $12,117) to the Company's FPFTY membership dues claim.

INTEREST ON CUSTOMER DEPOSITS

Q. WHAT IS THE COMPANY'S CLAIM FOR INTEREST ON CUSTOMER DEPOSITS?

A. The Company's FPFTY expense claim for interest on customer deposits is $972,000.[41]

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. UGI Gas is required to pay interest on customer deposits that it holds in accordance with tariff requirements. The interest is calculated by using the average level of customer deposits anticipated for the FPFTY times the required interest rate (4.50%) anticipated for the FPFTY, as published by the Department of Revenue and as required under the Company's tariff.[42] Additionally, in response

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[41] UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-15, line 7.
[42] UGI Gas Statement No. 2, pp. 21-22.

to I&E-RE-59, the Company stated 4.50% is the maximum lawful rate of interest for residential mortgages for December 2021 as published by the Department of Banking and Securities on November 13, 2021.[43]

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

Q. WHAT IS YOUR RECOMMENDATION FOR INTEREST ON CUSTOMER DEPOSITS?

A. I recommend an allowance of $648,000, or a reduction of $324,000 ($972,000 - $648,000) to the Company's claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. Per the Pennsylvania Secretary of Revenue, the current interest rate for Title 72 taxes is 3% for 2021 and 2022.[44] This interest rate is revised every year in December. The Company's FPFTY begins in October 2022 and the Pennsylvania Department of Revenue may revise the current interest rate in December 2022; however, as of today, this is speculative. Thus, I am recommending the allowance of $648,000 ($21,600,000[45] x 3.00%) using the current interest rate for Title 72 taxes.

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[43] I&E Exhibit No. 1, Schedule 9.
[44] I&E Exhibit No. 1, Schedule 10.
[45] UGI Gas Statement No. 2, p. 21.

PAYROLL EXPENSE

Q. WHAT IS INCLUDED IN THE COMPANY'S CLAIM FOR PAYROLL EXPENSE?

A. The Company's payroll expense claim includes operations and maintenance salaries and wages for union, exempt, and non-exempt employees.

Q. WHAT IS THE COMPANY'S CLAIM FOR PAYROLL EXPENSE?

A. The Company's FPFTY claim for payroll expense is $82,929,000.[46]

Q. WHAT IS THE BASIS FOR THE COMPANY'S PAYROLL EXPENSE CLAIM?

A. The Company's claim for payroll expense is based on the HTY budgeted headcount with an increase of 43 regular employees in the FTY and an additional 27 regular employees to the FTY headcount.[47] The claim includes compensation changes targeted at increasing retention and recruitment.[48]

Q. DO YOU AGREE WITH THE COMPANY'S PAYROLL EXPENSE CLAIM?

A. No.

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[46] UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-7, p. 1.
[47] UGI Gas Book II, SDR-RR-20.
[48] UGI Gas Book II, SDR-RR-20.

Q. WHAT IS YOUR RECOMMENDATION FOR PAYROLL EXPENSE?

A. I recommend an allowance of $80,677,324, or a reduction of $2,251,676 ($82,929,000 - $80,677,324) to the Company's FPFTY claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation is based on an employee vacancy adjustment for unfilled positions included in the Company's claim.

Q. PLEASE EXPLAIN YOUR RECOMMENDED VACANCY ADJUSTMENT.

A. My recommended vacancy adjustment is based on an average employee vacancy rate of 2.74% [(2.63% + 5.04% + 0.54%) ÷ 3] determined from the response to I&E-RE-63.[49] I calculated the monthly vacancy rate by dividing the actual monthly vacancies by the budgeted positions for each month in the fiscal years ended September 30, 2019; September 30, 2020; and September 30, 2021.[50] Next, I calculated the annual average vacancy rate for each fiscal year and then calculated the overall average vacancy rate,[51] as summarized in the table below:

Fiscal Year Ended	Vacancy Rate
September 30, 2019	2.63%
September 30, 2020	5.04%
September 30, 2021	0.54%
Average Vacancy Rate	2.74%

49 I&E Exhibit No. 1, Schedule 11, pp. 1-3.
50 I&E Exhibit No. 1, Schedule 12.
51 I&E Exhibit No. 1, Schedule 12.

The average of the annual employee vacancy rate, 2.74% [(2.63% + 5.04% + 0.54%) ÷ 3] yields 47 (1,731 FPFTY budgeted employees[52] x 0.0274) vacant employee positions for the FPFTY. Finally, I multiplied the vacant positions by the average annual payroll, $47,908 ($82,929,000 ÷ 1,731), per employee which produces my recommended payroll adjustment of $2,251,676 ($47,908 x 47 positions). This adjustment results in my recommended payroll allowance of $80,677,324 ($82,929,000 - $2,251,676).

Q. EXPLAIN YOUR RATIONALE FOR THE VACANCY ADJUSTMENT.

A. The Company budgeted its payroll expense based on the average employee count of 1,731 at the end of the FPFTY as compared with the HTY employee count of 1,667 employees,[53] which includes 20 anticipated additional new employees in the FPFTY.[54] It is unreasonable to assume that the Company will fill and maintain 100% full staffing of 1,731 budgeted positions in the FPFTY based on its own historic vacancy records of the fiscal years ended September 30, 2019, 2020, and 2021. As discussed above, using my recommendation, the Company would reflect a normal vacancy rate of 2.74% in the FPFTY. Additionally, as evidenced at the end of the first quarter of the FTY, the Company experienced an overall increase to a 2.24% vacancy rate and an average vacancy rate of 1.73%.[55] These historic

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52 I&E Exhibit No. 1, Schedule 2, p. 2.
53 I&E Exhibit No. 1, Schedule 2, p. 2.
54 UGI Gas Statement No. 9, p. 16.
55 I&E Exhibit No. 1, Schedule 12.

vacancy rates support my recommended 47 vacant positions based on an average vacancy rate of 2.74% for an adjustment to payroll expense.

With the current COVID-19 pandemic, the Company may continue to face challenges to fill all positions as budgeted in the FTY and FPFTY. Additionally, there will always be a certain level of normal vacancies due to retirements, resignations, transfers, layoffs, etc., on a day-to-day operating basis, which are unpredictable and there will always be search and placement time involved in filling normal employee vacancies as well as newly added positions. Such vacancies will yield an annual savings in payroll costs that must be reflected in payroll expense to eliminate an unreasonable impact to ratepayers.

EMPLOYEE BENEFITS

Q. WHAT IS INCLUDED IN THE COMPANY'S CLAIM FOR EMPLOYEE BENEFITS EXPENSE?

A. The Company's employee benefits claim includes insurance premiums for medical, dental, basic life, long term disability, accidental death and dismemberment, and business travel accident insurances.[56]

[56] UGI Gas Book II, Attachment SDR-RR-22.

Q. WHAT IS THE COMPANY'S CLAIM FOR EMPLOYEE BENEFITS EXPENSE?

A. The Company is claiming employee benefits expense of $22,177,000 for the FPFTY.[57]

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. The Company has based its FPFTY claim for employee benefits expense on budgeted 2022 fiscal year health and dental insurance expense.

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

Q. WHAT IS YOUR RECOMMENDATION FOR EMPLOYEE BENEFITS EXPENSE?

A. I recommend an allowance of $21,510,994, or a reduction of $606,006 ($22,117,000 - $21,510,994) to the Company's FPFTY claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation is based on an employee vacancy adjustment as noted in the payroll expense section above. I applied the 2.74% vacancy rate to the Company's

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[57] I&E Exhibit No. 1, Schedule 13, p. 2.

claim for employee benefits to calculate my employee benefits expense adjustment. The result is my recommended adjustment of $606,006 ($22,117,000 x 0.0274).

PAYROLL TAXES

Q. WHAT IS THE COMPANY'S CLAIM FOR PAYROLL TAXES?

A. The Company is claiming $6,927,000 for FPFTY payroll taxes.[58]

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. The Company's claim is based on the FPFTY payroll expense claim including an adjustment for an increase in payroll expense[59] and the social security and Medicare taxes, federal unemployment tax, and Pennsylvania state unemployment tax.

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

Q. WHAT IS YOUR RECOMMENDATION FOR PAYROLL TAXES?

A. I recommend an allowance of $6,738,985, or a reduction of $188,015 ($6,927,000 - $6,738,985) to the Company's FPFTY claim.

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[58] UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-31, lines 4-6.

[59] UGI Gas Statement No. 2, p. 25.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation is based on my recommended total payroll expense adjustment of $2,251,676 and calculated by applying the Company's payroll tax rate of $8.35% (7.59% + 0.14% + 0.62%).[60] The result is my recommended adjustment of $188,015 ($2,251,676 x 0.0835), a reduction to the Company's FPFTY payroll tax claim.

CASH WORKING CAPITAL

Q. WHAT IS A CASH WORKING CAPITAL (CWC) ALLOWANCE FOR RATEMAKING PURPOSES?

A. CWC includes the amount of funds necessary to operate a utility during the interim period between the rendition of service, including the payment of related expenses, and the receipt of revenue in payment for services rendered by the utility.

Q. HOW DOES THE COMPANY CALCULATE ITS CWC CLAIM?

A. The Company calculates its CWC claim by using a lead/lag study. A lead/lag study measures the differences in time between: (1) the time services are rendered until payment of those services is received; and (2) the time between the point when a utility has incurred an expense and the actual payment of the expense.

[60] UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-32, lines 3,7, and 9.

Stated a different way, the lead/lag study measures how many days exist on an average between the midpoint of the service period and the date the payment is made.

Q. DO YOU AGREE WITH THE COMPANY'S USE OF THE LEAD/LAG METHOD?

A. Yes. I agree with the Company's use of the lead/lag method for CWC calculation.

Q. WHAT IS THE COMPANY'S CWC CLAIM?

A. The Company's FPFTY CWC claim is $62,148,000.[61]

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

Q. WHAT DO YOU RECOMMEND?

A. I recommend an allowance of $61,313,000, or a reduction of $835,000 ($62,148,000 - $61,313,000) to the Company's claim.[62]

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation includes modification of the Company's claim based on my

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[61] UGI Gas Book V, Exhibit A – Fully Projected, Schedule C-4, p. 1.
[62] I&E Exhibit No. 1, Schedule 14, p. 1, line 5.

recommended adjustments to O&M expenses as discussed previously in this testimony and the other I&E witnesses as explained below.

Q. HOW DO YOUR PROPOSED ADJUSTMENTS, DISCUSSED ABOVE, IMPACT YOUR RECOMMENDATION FOR CWC?

A. All O&M adjustments that are cash-based expense claims are included when determining the Company's overall CWC requirement. Therefore, CWC was adjusted to reflect these recommended adjustments. To reflect the I&E recommended adjustments, I modified the Company's electronic CWC file as shown on UGI Gas Book V, Schedule C-4, pp. 1, 2, 3, and 7, for each recommended adjustment.[63]

Q. SUMMARIZE WHERE EACH OF THE I&E RECOMMENDED O&M EXPENSE ADJUSTMENTS ARE REFLECTED IN THE CWC COMPUTATION.

A. **<u>Expense Lag Days - Payroll</u>:**

I recommended a payroll expense adjustment of ($2,251,676) in the Expense Lag - Payroll, which is reflected as reduction to line 3 of the Company's Exhibit A – Fully Projected, Schedule C-4, p. 2 as shown in I&E modified Schedule C-4.[64]

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[63] I&E Exhibit No. 1, Schedule 14, pp. 1-4.
[64] I&E Exhibit No. 1, Schedule 14, p. 2, line 3.

Expense Lag Days – Purchased Gas Costs:

Mr. Cline recommended a purchased gas expense increase of $7,729,631, which is reflected as an addition in the FPFTY purchased gas costs of $404,893,000 ($397,163,000 + $7,729,631) in the Purchased Gas Costs Expense Lag Days calculation.[65]

Expense Lag Days – Other Expenses:

Mr. LaTorre and I recommended the following expense adjustments in the Expense Lag Days - Other Expenses as an overall decrease of $6,662,328 of the Company's Exhibit A – Fully Projected, Schedule C-4, p. 2 as shown in I&E modified Schedule C-4:[66]

Other Expenses	Reduction
Employee Activity Costs	$370,291
Advertising Expense	$885,178
Membership Dues	$153,998
Interest on Customer Deposits	$324,000
Rate Case Expense	$422,000
Environmental Remediation Expense	$1,861,600
OSHA/Emergency Temporary Standard Compliance Costs	$1,851,240
Employee Benefits Expense	$606,006
Payroll Taxes	$188,015
Total	**$6,662,328**

65 I&E Exhibit No. 1, Schedule 14, p. 2, line 4.
66 I&E Exhibit No. 1, Schedule 14, p. 2, line 5.

Revenue Lag Calculations:

The Company provided a correction to miscellaneous revenue reducing present rate revenue by $1,003,000 as seen in the Company's response to I&E-RS-27.[67] Mr. Cline recommended an adjustment to increase present rate revenue by $14,648,202. The net of the two adjustments, $13,645,202, is reflected as an addition in the total account receivable amount of $1,304,884,202 ($1,327,239,000 + $13,645,202) and in the total sales revenue of $857,917,202 ($844,272,000 + $13,645,202) in the Revenue Lag calculation.[68]

Interest Payment Lag Calculations:

Mr. Sakaya recommended an adjustment to rate base of $145,872,000 ($137,649,000 + $8,223,000), which is reflected as a reduction to rate base resulting in an updated total of $3,023,154,000 ($3,169,026,000 - $145,872,000) in the Interest Payments Lag calculation.[69]

Q. DOES YOUR RECOMMENDED ALLOWANCE REPRESENT A FINAL RECOMMENDED ALLOWANCE FOR CWC?

A. No. All adjustments to the Company's claims for revenues, expenses, taxes, and rate base must be consistently brought together in the Administrative Law Judge's Recommended Decision and again in the Commission's Final Order. This

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67 I&E Exhibit No. 4, Schedule 5.
68 I&E Exhibit No. 1, Schedule 14, p. 3, lines 15 and 18.
69 I&E Exhibit No. 1, Schedule 14, p. 4, line 1.

process, which is known as iteration, effectively prevents the determination of a precise calculation until such time as all adjustments have been made to the Company’s claim.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

Zachari Walker

Professional and Educational Background

<u>Experience</u>:

<u>Pennsylvania Public Utility Commission</u>, Harrisburg, Pennsylvania
March 2021 to Present:
Fixed Utility Financial Analyst, Bureau of Investigation and Enforcement

<u>Bridgestone Retail Operations, LLC,</u> Nashville, Tennessee
December 2014 to July 2020:
Business Manager
Evaluated and validated accounting entry postings. Monitored, reconciled, and corrected daily transactions and accounts. Ensured accuracy of daily reports of business and researched inaccuracies. Utilized data analysis to determine key performance indicators and corresponding trends.

<u>Education/Professional Development</u>:

Bridging the Gap, Holly Ridge, North Carolina, 2021
Business Analyst Blueprint Training Program, 36 PD hours earned

Stevenson University, Stevenson, Maryland, 2014
Bachelor of Science, *magna cum laude*, Business Administration
Concentration in Finance

<u>Professional Affiliations</u>:

International Institute of Business Analysis (IIBA), Pickering, Ontario, Canada
Active Member 2021

<u>Utility-Related Trainings & Other Courses/Webinars</u>:

Pennsylvania Public Utility Commission Rate School 2022, January 18-February 8, 2022

Michigan State University IPU Accounting and Ratemaking Course 2021, September 14-16, 2021

NARUC Staff Subcommittee on Accounting & Finance, Spring 2021 Virtual Conference, April 6-8, 2021

Testimony Submitted:

R-2021-3026682	City of Lancaster – Bureau of Water
R-2021-3026116	Borough of Hanover – Hanover Municipal Water Works
R-2021-3025206	Community Utilities of Pennsylvania Inc. – Water Division
R-2021-3025207	Community Utilities of Pennsylvania Inc. – Wastewater Division

I&E Exhibit No. 1
Witness: Zachari Walker

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Exhibit to Accompany

the

Direct Testimony

of

Zachari Walker

Bureau of Investigation and Enforcement

Concerning:

OPERATING AND MAINTENANCE EXPENSES

CASH WORKING CAPITAL

I&E-RE-24

Request:

Reference UGI Gas Book II, SDR-RR-30(e) concerning the employee activity costs (for picnics, parties, and awards) of $588,226 claimed in the FPFTY, provide the following:

A. Employee activity cost incurred in the fiscal years 2019, 2020, and the HTY, and claimed costs in the FTY and the FPFTY with breakdown by type of cost; and

B. Explanation for any increases by year in the employee activity costs from the HTY to the FPFTY.

Response:

A. Please see Attachment I&E-RE-24.

B. The increase from the HTY to the FPFTY is primarily due to resumption of the company picnic in 2022 and 2023 after cancellation in 2020 and 2021 due to the COVID pandemic.

Prepared by or under the supervision of: Vivian K. Ressler

UGI UTILITIES, INC. - GAS DIVISION
Employee Activity Cost
For the 12 Months Ending September 30,

	2019 Actual	2020 Actual	2021 Actual	2022 Budget	2023 Budget
Company Picnic	$ 138,124	$ 500	$ -	$ 183,000	$ 213,000
Service Awards	$ 33,467	$ 33,766	$ 93,382	$ 165,996	$ 165,996
Annual Holiday Breakfast	$ 10,288	$ 6,950	$ -	$ 22,500	$ 24,800
Other Activity	$ 7,468	$ 318,301	$ 385,928	$ 151,481	$ 184,430
Total Employee Activity	$ 189,346	$ 359,517	$ 479,309	$ 522,977	$ 588,226

*Other Activities include but not limited to Department meetings, employee gifts, Field employee welfare (water, ice, etc.), Special Activity Gifts, Flowers and Cards.

I&E-RE-5

Request:

Reference UGI Gas Book V, Exhibit A, Schedule D-7, p. 1 concerning the Salaries and Wages adjustment, provide the following:

A. Detailed calculation and basis for the FPFTY budgeted total payroll expense of $79,358,000, breakdown of payroll expense, and number of employees by employee class (Union, Non-exempt, and Exempt) considered in budgeting this expense;

B. Detailed calculation and basis for the FTY budgeted total payroll expense of $75,040,000, breakdown of payroll expense, and number of employees by employee class (Union, Non-exempt, and Exempt) considered in budgeting this expense;

C. Breakdown of the HTY payroll expense of $70,777,000 and number of employees by employee class (Union, Non-exempt, and Exempt); and

D. Total payroll expense incurred through January 31, 2022, in the FTY and number of employees by employee class (Union, Non-exempt, and Exempt) as of that date.

Response:

A. Please see Attachment I&E-RE-5-A for payroll expense by employee class. Calculation of FPFTY total payroll expense is included in Attachment I&E-RE-5-B.

B. Please see Attachment I&E-RE-5-A for payroll expense by employee class. Calculation of FPFTY total payroll expense is included in Attachment I&E-RE-5-B.

C. Please see Attachment I&E-RE-5-A.

D. Please see Attachment I&E-RE-5-A.

Prepared by or under the supervision of: Tracy A. Hazenstab

UGI Utilities, Inc. - Gas Division

	Total Payroll ($ in Thousands)	Employee Count
HTY - September 30, 2021		
Union	28,311	673
Exempt	14,863	644
Non-Exempt	27,603	350
	70,777	**1,667**
FTY - YTD January 31, 2022		
Union	10,852	668
Exempt	10,592	652
Non-Exempt	5,458	336
	26,902	**1,656**
FTY - September 30, 2022		
Union	30,016	669
Exempt	15,758	665
Non-Exempt	29,266	370
	75,040	**1,704**
FPFTY - September 30, 2023		
Union	31,743	680
Exempt	16,665	675
Non-Exempt	30,950	376
	79,358	**1,731**

Attachment I&E- RE-5-B
T.A. Hazenstab
Page 1 of 1

UGI Utilities, Inc. - Gas Division
($ in Thousands)

HTY Actual Payroll	**70,777**
Merit Increase	1,899
Reduced Vacancy to 4.5%	2,177
Additional Hires	200
Other	(12)
Sub-Total	4,263
FTY Budget	**75,040**

FTY Budget	**75,040**
Merit Increase	2,251
Reduced Vacancy to 3.5%	726
Additional Hires	1,389
Other	(48)
Sub-Total	4,318
FPFTY Budget	**79,358**

CPI Inflation Calculator

https://data.bls.gov/cgi-bin/cpicalc.pl?cost1=189346&year1=201909&year2=202109

CPI Inflation Calculator

$ 189,346.00

in September 2019

has the same buying power as

$202,288.92

in September 2021

Calculate

UGI Utilities, Inc. - Gas Division
Docket No. R-2021-3030218
UGI Gas 2022 Base Rate Case
Responses to I&E (RE-1 thru RE-43)
Delivered on March 16, 2022

I&E-RE-41

Request:

Reference UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-11, Adjustment #2 for Uncollectible Accounts:

A. Provide a monthly breakdown for the years 2020 and 2021 that make up the entire regulatory asset balance prior to any amortization along with each monthly amount; and

B. State whether the Company agrees that the accumulation of COVID-19 uncollectible deferrals should cease upon the effective date of new rates in this proceeding.

Response:

A. Please see Attachment I&E-RE-41.

B. The Company does not agree. Consistent with the Commission's March 13, 2020 Emergency Order at Docket No. M-2020-3019244, Secretarial Letter dated May 13, 2020, and the Commission's October 8, 2020 Order, the Company had in place a moratorium on all terminations through October 2020 and restrictions on certain terminations through April 1, 2021. The Company also offered extended payment arrangements to customers through September 30, 2021 at the direction of the Commission which extend up to 5 years. The Company has continued to experience higher than normal delinquency rates on the COVID related payment arrangements as shown in the responses to OCA-II-40 and OCA-II-41, and the customers on these arrangements continue to carry balances higher than prior to the March 13, 2020 Emergency Order. As a result, the Company will continue to incur additional incremental expenses above those embedded in rates as a result of the 2020 orders until the COVID related payment arrangements are settled. Therefore, the Company should be able to continue to accumulate and defer costs above the normalized level as approved within the Company's new rates as a regulatory asset.

Prepared by or under the supervision of: Vivian K. Ressler

UGI Utilities, Inc. - Gas Division
Regulatory Asset: Uncollectible Accounts
24 Months Ended September 30, 2021

Month	Uncollectible Accounts Expense	Regulatory Asset: Uncollectible Accounts Cumulative Balance
10/31/2019	$ -	$ -
11/30/2019	-	-
12/31/2019	-	-
1/31/2020	-	-
2/29/2020	-	-
3/31/2020	-	-
4/30/2020	-	-
5/31/2020	-	-
6/30/2020	-	-
7/31/2020	679,208	679,208
8/31/2020	306,447	985,655
9/30/2020	(378,562)	607,093
10/31/2020	-	607,093
11/30/2020	-	607,093
12/31/2020	-	607,093
1/31/2021	-	607,093
2/28/2021	-	607,093
3/31/2021	-	607,093
4/30/2021	-	607,093
5/31/2021	-	607,093
6/30/2021	-	607,093
7/31/2021	-	607,093
8/31/2021	-	607,093
9/30/2021	895,401	1,502,494

I&E-RE-30

Request:

Reference UGI Gas Book V, Schedule D-2 concerning Sales Expense:

A. Explain in detail the basis for the total claim of $1,651,000 in the FTY over the HTY amount of $2,071,000, and provide a detailed breakdown for the FTY budgeted amount;

B. Explain in detail the basis for the FPFTY total claim of $1,738,000 over the FTY claim of $1,651,000, and provide a detailed breakdown for the FPFTY budgeted claim; and

C. For each type of demonstrating and selling expense and the advertising expense included in responses to Parts A and B above, explain why it is appropriate to include each one for ratemaking purposes, and provide examples for each type, along with dollar amounts by type of advertising.

Response:

A.-B. Please see Attachment I&E-RE-30(a).

C. Please see Attachment I&E-RE-30(c). The Company has an integrated advertising campaign promoting the benefits of domestic natural gas, including messaging that relates to the overall economic value of natural gas versus other energy sources and benefits of high efficiency natural gas appliances. This campaign encourages energy independence, promotes energy conservation as well as the wise development of natural gas as a fuel source. Please see Attachment III-A-25 for types of advertising.

Prepared by or under the supervision of: Tracy A. Hazenstab

Wildlands Conservancy

Corporate Giving

Questions about Corporate Giving?

VISIONARY $100,000+

AIR PRODUCTS

DEER PARK

EMBASSY BANK

JUST BORN

ppl

Altitude

BB&T

CITY CENTER

Fulton Bank

GROSS McGINLEY

LafargeHolcim

Martin & Co. EST. 1833

St Luke's

UGI Energy to do more

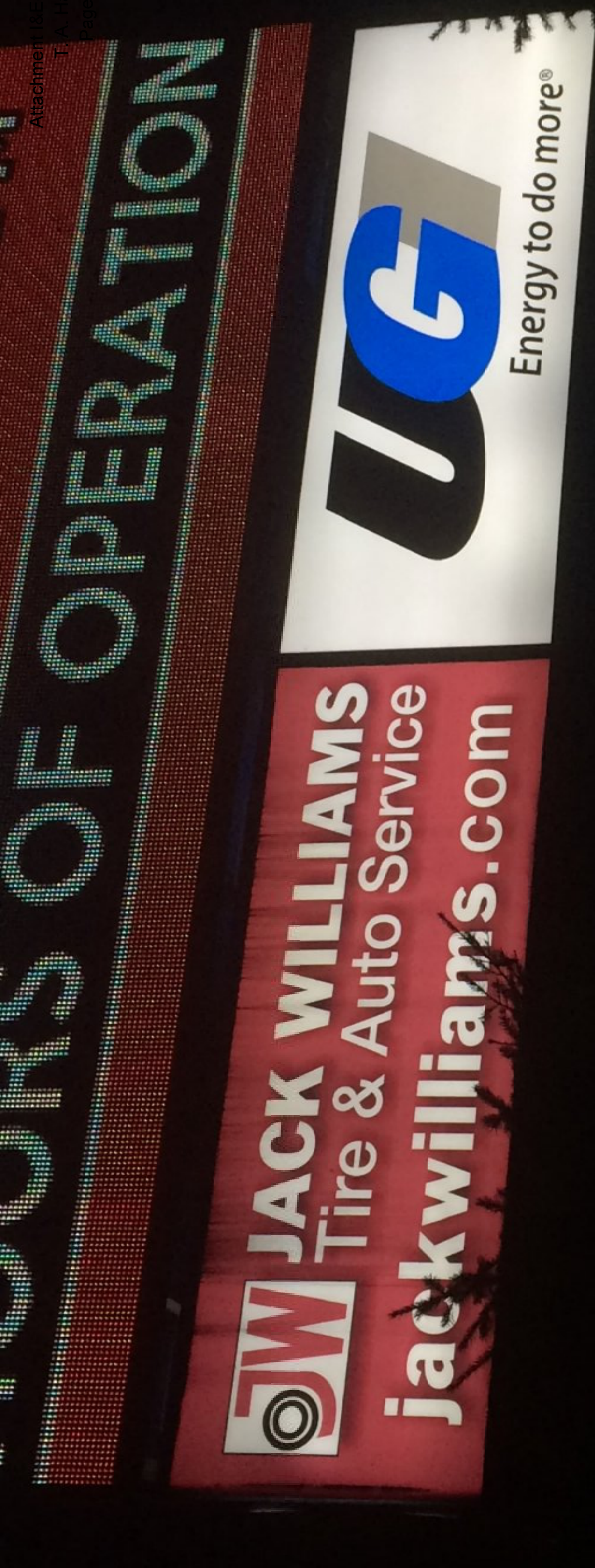
PRESERVER

PROTECTOR

SUPPORTER


A TASTE OF SCIENCE
FOR THE LANCASTER SCIENCE FACTORY
PRESENTED BY:
enspire® leather
with additional support from
Mind. Development & Design
ARCOBALENO
Northwest
Armstrong WORLD INDUSTRIES
HALLER ENTERPRISES
CH&E
UGI Energy to do more
HALL media solutions
SHANK'S
ENB Ephrata National Bank
RE-BATH
FRISCO'S
HIGH
Everence
ppl
Little Brook Orchids
FIELD TRIPS
WEEKLY
LANCASTER SCIENCE
FALL INTO STEM

Attachment I&E-RE-30(c)
T. A. Hazenstab
Page 22 of 23



Product Information	**Product Name:** Soothe-It Ice/Heat Pack **Item #**1655
	Imprint Area: Front Side Only: 1 1/2"H x 3"W
	PLEASE NOTE: Any art issues are indicated on the first page of this proof ***Image Size May Have Been Reduced For Proofing Purposes***

Notes to PrePress:
Art contains Halftones

dashed line represents imprint area only and will not print

I&E-RE-31

Request:

Reference UGI Gas Book I, Attachment III-A-25 concerning Advertising Expenses:

A. Provide a breakdown of other advertising expenses listed as other advertising programs for the fiscal years 2019, 2020, the HTY, and the FTY, and the FPFTY claims;

B. State whether each expense listed is included in expenses for ratemaking purposes;

C. Explain why advertising expenses listed as other advertising programs, increased from $1,220,127 in the HTY to $1,857,544 in the FTY and $1,901,541 in the FPFTY; (an increase of 55.85% from the HTY to the FPFTY); and

D. Explain why advertising expenses listed as other advertising programs, increased by 54.01% from $671,093 in the HTY to $1,033,556 in the FPFTY.

Response:

A. Refer to Attachment I&E-RE-31(A).

B. Yes.

C. The numbers referenced in this request are the amounts for Total Advertising Programs per Attachment III-A-25. The primary sources of the variances in these totals are 1) Other Advertising Programs, which varied between the HTY and the FPFTY as described in subpart D below; and 2) the resumption of normal activities in print and digital channel adverting related to Conservation of Energy (i.e., conversion-related efforts), which help customers reduce energy consumption.

D. The variance of advertising expenses listed as Other Advertising Programs in the HTY as compared to other years shown in Attachment III-A-25 is driven primarily by the reduction in event sponsorship, builder meetings, tradeshows and arena signage opportunities as a result of the COVID-19 pandemic. The Company expects a more normal level of these activities in the FTY and the FPFTY.

Prepared by or under the supervision of: Vivian K. Ressler

UGI Utilities, Inc. - Gas Division
Other Advertising Programs - Other Expenses
For the Years Ended September 30, 2019 through 2023

Description	FY2019	FY2020	FY2021	FY2022	FY2023
Sponsorship	633,785	803,503	405,949	634,905	646,021
Builder Meetings/Trade Shows	178,468	148,031	41,938	178,783	181,914
Branded Promotional Items	29,649	26,362	3,660	29,701	30,221
Customer Promotional Offers	-	6,775	-	-	-
Misc. Advertising	26,510	37,083	29,760	26,557	27,022
Grand Total	868,412	1,021,754	481,308	869,946	885,178

UGI Utilities, Inc. - Gas Division
Docket No. R-2021-3030218
UGI Gas 2022 Base Rate Case
Responses to Standard Data Requests - Revenue Requirement
Delivered on January 28, 2022

SDR-RR-31

Request:

Please provide a description and the purpose for membership for each organization listed in the previous response.

Response:

Refer to response SDR-RR-32 for the purpose of memberships in industry organizations. The purpose of the Company's membership in other organizations is to improve the welfare, educational, social and economic climate in the Company's local communities, as well as to sponsor memberships for employees whose active participation in these organizations would be in the best interests of the Company and the communities within which the Company serves.

Prepared by or under the supervision of: Tracy A. Hazenstab

I&E-RE-20

Request:

Reference UGI Gas Book II, SDR-RR-30(c) concerning membership dues of $588,226 claimed in the FPFTY, provide the following:

A. Similar breakdown to Attachment SDR-RR-30 by year for the fiscal years 2019, 2020, and the HTY, and claimed FTY expenses; and

B. Explanation for any increases by year from 2019 through the FPFTY claim;

C. Explanation of the specific benefit to distribution ratepayers for the following memberships:

1. Allentown Economic Development Corporation - $5,148;
2. Economic Development Co. of Lancaster County - $32,964;
3. Lebanon Valley Economic Development Corp. - $8,244;
4. Lehigh Valley Economic Development Corp. – $21,636;
5. Natural Gas Supply Collaborative - $20,000;
6. Natural Gas Vehicles for America - $26,753
7. Pennsylvania Economy League - $12,117
8. Coalition for Renewable Natural Gas - $29,000; and
9. Identify any portions of memberships attributable to lobby not specifically identified on Attachment SDR-RR-30.

Response:

Membership dues in Attachment SDR-RR-30(c) totaled $1.1 million for FY23, not $588,226 as listed above. The amount of $588,226 is the direct employee activity cost for FY23 as described in part (e) of SDR-RR-30.

A. Please see Attachment I&E-RE-20(A) for a breakdown of membership dues.

B. The increase in association dues is related to anticipated increases in annual dues and new memberships to professional associations. Additionally, certain association dues were categorized within Other Expenses for 2019, but within Association Dues for all other years presented, resulting in lower Association Dues expense for 2019 than would have been shown if these dues were categorized consistently.

I&E-RE-20 (Continued)

C.1. Allentown Economic Development Corporation is a nonprofit organization specializing in the property rehabilitation, business incubation, and strengthening of urban manufacturing in the City of Allentown.

C.2. The Economic Development Co. of Lancaster County is the leading local organization dedicated to promoting business development and expansion throughout Lancaster County, PA.

C.3. The Lebanon Valley Economic Development Corporation is a nonprofit organization that works with area businesses and the community at large to strengthen existing business and create an environment in which new companies can flourish.

C.4. The Lehigh Valley Economic Development Corporation markets the economic assets of the Lehigh valley and creates partnerships to support the recruitment, growth and retention of employers and the creation of jobs for people of all skill and education levels.

C.5. The Natural Gas Supply Collaborative is a group of natural gas purchasers that promote safe and responsible practices for natural gas supply.

C.6. The Natural Gas Vehicles for America (NGV America) is a national organization dedicated to the development of a growing, profitable, and sustainable market for vehicles powered by natural gas or biomethane.

C.7. The Pennsylvania Economy League addresses critical issues by providing impactful research, connecting diverse leaders, and advancing sharing of knowledge.

C.8. The Coalition for Renewable Natural Gas serves as the public policy advocate and educational platform for Renewable Natural Gas in North America.

C.9. There are no additional portions of memberships attributable to lobbying expense not already identified on Attachment SDR-RR-30.

Prepared by or under the supervision of: Vivian K. Ressler

UGI UTILITIES, INC. - GAS DIVISION
SCHEDULE OF COMPANY MEMBERSHIPS
FOR THE YEARS ENDED SEPTEMBER 30, 2019, 2020, 2021, AND 2022

Organization Name	2019	2020	HTY 2021	FTY 2022	
Allentown Economic Development Corp.	$ -	$ -	$ -	$ 5,000	
American Gas Association	526,563	535,757	559,659	580,015	*
Association for Material Protection and Performance	-	-	-	1,932	
Clinton County Economic Partnership	1,600	500	1,000	-	
Cumberland Area Economic Assoc.	-	5,000	5,000	-	
Cyber Resilient Energy Delivery Consortium (CREDC)	22,500	22,500	25,000	30,000	
Economic Development Co. of Lancaster County	30,000	60,000	30,000	32,000	
Energy Association of Pennsylvania	147,025	146,997	146,963	145,058	*
Energy Solutions Center Inc.	5,000	40,144	17,576	6,050	
Focus Central Pennsylvania Inc.	3,000	3,000	3,000	3,000	
Gas Technology Institute	-	25,000	25,000	-	
Gold Shovel Association	1,612	2,400	-	-	
Greater Lehigh Valley Chamber of Commerce	2,384	2,384	1,180	-	
Greater Reading Chamber of Commerce & Industry	20,000	32,100	20,550	-	
Greater Scranton Chamber of Commerce	5,605	5,605	5,690	-	
Greater Susquehanna Valley Chamber of Commerce	682	-	5,717	-	
Greater Wilkes Barre Chamber of Commerce	-	7,000	-	-	
Harrisburg Regional Chamber	-	-	1,673	-	
Lancaster City Alliance	-	10,000	-	-	
Lebanon Valley Economic Development Corp.	7,500	7,500	7,500	8,000	
Lehigh Valley Economic Development Corp	21,000	42,000	-	21,000	
Lehigh Valley Economic Investment Corporation	-	1,700	-	-	
Midwest Energy Association	-	4,883	4,883	-	
Natural Gas Supply Collaborative	-	-	20,000	20,000	
Natural Gas Vehicles for America	26,620	26,620	26,620	26,000	
Northeast Gas Association	55,000	55,000	55,000	55,000	
Northeastern Pennsylvania Alliance	1,655	1,655	1,655	1,650	
Penn's Northeast	5,500	5,500	11,000	5,500	
Pennsylvania Chamber of Business & Industry	30,670	37,462	29,246	32,651	*
Pennsylvania Economy League	6,759	6,799	6,802	11,764	
Society of Gas Operators	-	272	-	1,845	
The Coalition for Renewable Natural Gas	-	-	18,750	18,750	*
Wayne Economic Development Corp.	-	5,000	7,000	-	
Wyoming County Chamber of Commerce	5,000	5,000	12,000	-	
Organizations Under $1,500	12,601	11,662	11,769	10,864	
	$ 938,275	$ 1,109,439	$ 1,060,233	$ 1,016,079	

*Does not include Lobbying expense

UGI Utilities, Inc. - Gas Division
Docket No. R-2021-3030218
UGI Gas 2022 Base Rate Case
Responses to I&E (RE-52 thru RE-62)
Delivered on March 21, 2022

I&E-RE-59

Request:

Reference UGI Gas Book V, Schedule D-15 and UGI Gas Statement No. 2, pp. 21-22 concerning Interest for Customer Deposits, provide the following:

A. The basis for the 4.50% interest rate; and

B. Supporting documentation for the calculation based on the 4.50% interest rate.

Response:

A. The 4.50% interest rate was the maximum lawful rate of interest for residential mortgages for December 2021 as published by the Department of Banking and Securities on November 13, 2021.

B. Please see the response to I&E-RE-15.

Prepared by or under the supervision of: Tracy A. Hazenstab

pennsylvania
DEPARTMENT OF REVENUE

2022

Interest Rate and Calculation Method for Title 72 Taxes Due After Jan. 1, 1982

REV-1611 (AD+) 01-22

The PA Department of Revenue will calculate daily interest on taxes due the commonwealth using an annual interest rate, which varies by calendar year. The following interest rates are applied on any outstanding tax balance originally due on or after Jan. 1, 1982, and on delinquent taxes originally due during the years indicated below:

CALENDAR YEAR	INTEREST RATE	DAILY RATE	CHARGED FROM
2021 - 2022	3%	0.000082	1/1/21 - 12/31/22
2020	5%	0.000137	1/1/20 - 12/31/20
2019	6%	0.000164	1/1/19 - 12/31/19
2017 - 2018	4%	0.000110	1/1/17 - 12/31/18
2011 - 2016	3%	0.000082	1/1/11 - 12/31/16
2010	4%	0.000110	1/1/10 - 12/31/10
2009	5%	0.000137	1/1/09 - 12/31/09
2008	7%	0.000192	1/1/08 - 12/31/08
2007	8%	0.000219	1/1/07 - 12/31/07
2006	7%	0.000192	1/1/06 - 12/31/06
2005	5%	0.000137	1/1/05 - 12/31/05
2004	4%	0.000110	1/1/04 - 12/31/04
2003	5%	0.000137	1/1/03 - 12/31/03
2002	6%	0.000164	1/1/02 - 12/31/02
2001	9%	0.000247	1/1/01 - 12/31/01
2000	8%	0.000219	1/1/00 - 12/31/00
1999	7%	0.000192	1/1/99 - 12/31/99
1995 - 1998	9%	0.000247	1/1/95 - 12/31/98
1993 - 1994	7%	0.000192	1/1/93 - 12/31/94
1992	9%	0.000247	1/1/92 - 12/31/92
1988 - 1991	11%	0.000301	1/1/88 - 12/31/91
1987	9%	0.000247	1/1/87 - 12/31/87
1986	10%	0.000274	1/1/86 - 12/31/86
1985	13%	0.000356	1/1/85 - 12/31/85
1984	11%	0.000301	1/1/84 - 12/31/84
1983	16%	0.000438	1/1/83 - 12/31/83
1982	20%	0.000548	1/1/82 - 12/31/82

Interest is calculated on a daily basis using the following formula:

INTEREST = LATE OR UNPAID TAX x NUMBER OF DAYS x APPLICABLE DAILY INTEREST RATE

Outstanding taxes due on or before Dec. 31, 1981, will bear interest at the old rates and using the old calculation methods governed by individual laws and regulations for each of the various taxes. Motor and Alternative Fuel Taxes are statutorily administered by Title 75, the PA Vehicle Code; interest rates for these tax types are available upon request.

UGI Utilities, Inc. - Gas Division
Docket No. R-2021-3030218
UGI Gas 2022 Base Rate Case
Responses to I&E (RE-63)
Delivered on April 8, 2022

I&E-RE-63

Request:

Reference Company filing Book II, SDR-RR-20, SDR-RR-21, and SDR-RR-26 concerning employee counts and employee additions. Provide the following:

A. Monthly total number of full-time employees by category (union, non-union, and non-union temporary) for twelve months ended September 30, 2020, and the corresponding monthly labor cost in a similar format to Attachment SDR-RR-26;

B. Total number of full-time employees by category (union, non-union, and non-union temporary) claimed for the FTY and the FPFTY, detailing total number of additional new hires and retirements anticipated by month; and

C. Number of normal vacancies by month for unfilled open positions in the fiscal years 2019, 2020, the HTY, and for October 2021, November 2021, December 2021, and January 2022.

Response:

A. SDR-RR-26 provides the twelve months ended September 30, 2020 in the categories requested. Labor cost is also provided for the same period including expense and capital labor costs on page 2. Full time and part time employee costs are included.

B. Please see Attachment I&E-RE-5-A for the total number of employees by category. The total number of part time employees by month is attached in Attachment I&E-RE-63B. Additional new hires by month can be found at OCA-III-7.

C. Please see Attachment I&E-RE-63C for open positions by month. The attachment includes temporary positions in the total headcount. The average vacancy percentage for FY19-FY21 was 2.6%.

Prepared by or under the supervision of: Tracy A. Hazenstab

Attachment I&E-RE-63B
T.A. Hazenstab
Page 1 of 1

UGI UTILITIES, INC.
PART TIME POSITION COUNT

12 MONTHS ENDED SEPTEMBER 30, 2019

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Part time positions	11	12	11	12	13	12	12	10	15	13	13	12

12 MONTHS ENDED SEPTEMBER 30, 2020

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Part time positions	13	15	15	13	13	13	14	14	14	13	13	16

12 MONTHS ENDED SEPTEMBER 30, 2021

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Part time positions	18	18	17	16	16	16	18	19	19	18	18	18

12 MONTHS ENDED SEPTEMBER 30, 2022

	Oct	Nov	Dec	Jan
Part time positions	17	17	16	14

UGI UTILITIES, INC.
OPEN POSITION COUNT

12 MONTHS ENDED SEPTEMBER 30, 2019

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Budgeted Positions	1,665	1,665	1,666	1,668	1,669	1,676	1,682	1,688	1,688	1,688	1,688	1,689
Actual Headcount	1,615	1,614	1,621	1,616	1,620	1,624	1,635	1,655	1,671	1,668	1,634	1,629
Vacancies- Actual	50	51	45	52	49	52	47	33	17	20	54	60

12 MONTHS ENDED SEPTEMBER 30, 2020

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Budgeted Positions	1,659	1,680	1,685	1,718	1,723	1,732	1,750	1,751	1,753	1,753	1,753	1,753
Actual Headcount	1,622	1,627	1,638	1,646	1,643	1,657	1,650	1,636	1,637	1,636	1,626	1,642
Vacancies- Actual	37	53	47	72	80	75	100	115	116	117	127	111

12 MONTHS ENDED SEPTEMBER 30, 2021

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Budgeted Positions	1,652	1,671	1,671	1,682	1,682	1,682	1,683	1,683	1,683	1,683	1,683	1,683
Actual Headcount	1,640	1,635	1,636	1,658	1,667	1,677	1,675	1,685	1,704	1,698	1,687	1,667
Vacancies- Actual	12	36	35	24	15	5	8	(2)	(21)	(15)	(4)	16

12 MONTHS ENDED SEPTEMBER 30, 2022

	Oct	Nov	Dec	Jan
Budgeted Positions	1,693	1,693	1,693	1,694
Actual Headcount	1,668	1,671	1,661	1,656
Vacancies- Actual	25	22	32	38

I&E Calculations Based on Company Provided Data

2019

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual Average[2]	2019-2021 Average[2]
Budgeted[1]	1665	1665	1666	1668	1669	1676	1682	1688	1688	1688	1688	1689		
Actual[1]	1615	1614	1621	1616	1620	1624	1635	1655	1671	1668	1634	1629		
Vacancies-Actual[1]	50	51	45	52	49	52	47	33	17	20	54	60		
Vacancy Rate[2]	**3.00%**	**3.06%**	**2.70%**	**3.12%**	**2.94%**	**3.10%**	**2.79%**	**1.95%**	**1.01%**	**1.18%**	**3.20%**	**3.55%**	**2.63%**	

2020

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual Average[2]	2019-2021 Average[2]
Budgeted[1]	1659	1680	1685	1718	1723	1732	1750	1751	1753	1753	1753	1753		
Actual[1]	1622	1627	1638	1646	1643	1657	1650	1636	1637	1636	1626	1642		
Vacancies-Actual[1]	37	53	47	72	80	75	100	115	116	117	127	111		
Vacancy Rate[2]	**2.23%**	**3.15%**	**2.79%**	**4.19%**	**4.64%**	**4.33%**	**5.71%**	**6.57%**	**6.62%**	**6.67%**	**7.24%**	**6.33%**	**5.04%**	

2021

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual Average[2]	2019-2021 Average[2]
Budgeted[1]	1652	1671	1671	1682	1682	1682	1683	1683	1683	1683	1683	1683		
Actual[1]	1640	1635	1636	1658	1667	1677	1675	1685	1704	1698	1687	1667		
Vacancies-Actual[1]	12	36	35	24	15	5	8	(2)	(21)	(15)	(4)	16		
Vacancy Rate[2]	**0.73%**	**2.15%**	**2.09%**	**1.43%**	**0.89%**	**0.30%**	**0.48%**	**-0.12%**	**-1.25%**	**-0.89%**	**-0.24%**	**0.95%**	**0.54%**	
														2.74%

2022

	Oct	Nov	Dec	Jan	Q1 Average
Budgeted[1]	1693	1693	1693	1694	
Actual[1]	1668	1671	1661	1656	
Vacancies-Actual[1]	25	22	32	38	
Vacancy Rate[2]	**1.48%**	**1.30%**	**1.89%**	**2.24%**	
					1.73%

[1]Data provided by the Company in Attachment I&E-RE-63C
[2]**I&E Calculations**

UGI Utilities, Inc. - Gas Division
Docket No. R-2021-3030218
UGI Gas 2022 Base Rate Case
Responses to I&E (RE-1 thru RE-43)
Delivered on March 16, 2022

I&E-RE-32

Request:

Reference UGI Gas Book V, Schedule D-2, line 19 and Schedule D-3 concerning Administrative & General Expense:

A. Explain in detail the basis for the total claim and each adjustment component and provide a detailed breakdown for the FTY budgeted/adjusted amount of $111,878,000 an increase of $3,656,000, or 3.38%, over the HTY amount of $108,222,000; and

B. Explain in detail the basis for the total claim and each adjustment component and provide a detailed breakdown for the FPFTY claim of $128,357,000, a significant increase of $16,479,000, or 14.73%, over the FTY amount of $111,878,000.

Response:

Please see Attachment I&E-RE-32.

Prepared by or under the supervision of: Tracy A. Hazenstab

UGI Utilities, Inc. - Gas Division
Administrative and General Expense - Schedule D-2
($ in Thousands)

Account Number		Total FTY 2022 Sch D-2	Total HTY 2021 Sch D-2	Change	Total FTY 2022 Budget
	ADMINISTRATIVE & GENERAL EXPENSE				
920.0	Administrative and General Salaries[1]	$ 34,424	$ 17,806	$ 16,618	$ 33,895
921.0	Office Supplies and Expenses	20,600	17,564	3,036	20,600
923.0	Outside Service Employed[1]	24,151	36,515	(12,364)	24,151
924.0	Property Insurance	-	360	(360)	-
925.0	Injuries and Damages	10,332	7,140	3,192	10,317
926.0	Employee Pensions and Benefits	13,214	25,210	(11,996)	13,188
928.0	Regulatory Commission Expenses	394	770	(376)	394
930.1	General Advertising Expenses	284	-	284	280
930.2	Miscellaneous General Expenses[2]	3,911	2,216	1,695	2,642
931.0	Rents	37	21	16	37
932.0	A&G Maintenance of General Plant	4,272	620	3,652	4,255
935.0	A&G Maintenance of General Plant	259	-	259	255
	Total Administrative and General Expense	$ 111,878	$ 108,222	$ 3,656	$ 110,014

Account Number		Total FPFTY 2023 Sch D-2	Total FTY 2022 Sch D-2	Change	Total FPFTY 2023 Budget
	ADMINISTRATIVE & GENERAL EXPENSE				
920.0	Administrative and General Salaries	$ 35,895	$ 34,424	$ 1,471	$ 35,612
921.0	Office Supplies and Expenses	21,222	20,600	622	21,222
923.0	Outside Service Employed	25,612	24,151	1,461	25,612
924.0	Property Insurance	-	-	-	-
925.0	Injuries and Damages	10,372	10,332	40	11,027
926.0	Employee Pensions and Benefits	22,117	13,214	8,903	13,722
928.0	Regulatory Commission Expenses	1,193	394	799	1,138
930.1	General Advertising Expenses	292	284	8	288
930.2	Miscellaneous General Expenses[2]	6,938	3,911	3,027	2,728
931.0	Rents	38	37	1	38
932.0	A&G Maintenance of General Plant	4,411	4,272	139	4,394
935.0	A&G Maintenance of General Plant	267	259	8	263
	Total Administrative and General Expense	$ 128,357	$ 111,878	$ 16,479	$ 116,044

[1] For FY21, all corporate allocation amounts were allocated to FERC 923, for FY22 & 23, the amounts are allocated to various FERC accounts, including FERC 923.

[2] Includes $1.883 million for FPFTY and $1.269 million for FTY in Schedule D-13 for OSHA/ETS expenses. Please see OCA-III-25 for the Company's proposed adjustments to these amounts.

UGI Utilities, Inc. - Gas Division
Before the Pennsylvania Public Utility Commission
Fully Projected Future Period - 12 Months Ended September 30, 2023
($ in Thousands)

Schedule C-4
Witness: V. K. Ressler

I&E Modified

Working Capital

		[1]	[2]
Line No	**Description**	**Fully Projected FTY 9-30-23**	**Reference**
1	Working Capital for O & M Expense	$ 51,401	C-4, Page 2
2	Interest Payments	(4,489)	C-4, Page 7
3	Tax Payment Lag Calculations	4,353	C-4, Page 8
4	Prepaid Expenses	10,047	C-4, Page 9
5	Total Cash Working Capital Requirements	$ 61,313	

UGI Utilities, Inc. - Gas Division
Before the Pennsylvania Public Utility Commission
Fully Projected Future Period - 12 Months Ended September 30, 2023
($ in Thousands)

Schedule C-4
Witness: V. K. Ressler
Page 2 of 9

I&E Modified

Summary of Working Capital

Line #	Description	[1] Reference	[2] Test Year Expenses	[3] Factor	[4] Number of (Lead) / Lag Days [2] * [3]	[5] Totals
	WORKING CAPITAL REQUIREMENT					
1	REVENUE LAG DAYS	Page 3				60.91
2	EXPENSE LAG DAYS	Page 4				
3	Payroll	Sch D-7	$ 80,677	12.00	$ 968,122	
4	Purchased Gas Costs	Sch D-6	404,893	39.85	16,136,808	
5	Other Expenses	L 19 - L 2 to L 4	185,957	27.08	5,035,709	
6	Total	Sum (L 3 to L 5)	$ 671,527		$ 22,140,639	
7	O & M Expense Lag Days	L6, C 4 / C 2				32.97
8	Net (Lead) Lag Days	L 1 - L 7				27.94
9	Operating Expenses Per Day	L 6, C 2 / 365				$ 1,840
10	Working Capital for O & M Expense	L 8 * L 9				$ 51,401
11	Interest Payments	Page 7				(4,489)
12	Tax Payment Lag Calculations	Page 8				4,353
13	Prepaid Expenses	Page 9				10,047
14	Total Working Capital Requirement	Sum (L 10 to L 13)				$ 61,313
15	Pro Forma O & M Expense		$ 688,122			
	Less:					
16	Uncollectible Expense		16,595			
17	Sub-Total		16,595			
18	Pro Forma Cash O&M Expense		$ 671,527			

UGI Utilities, Inc. - Gas Division
Before the Pennsylvania Public Utility Commission
Fully Projected Future Period - 12 Months Ended September 30, 2023
($ in Thousands)

Schedule C-4
Witness: V. K. Ressler
Page 3 of 9

I&E Modified

Revenue Lag

Line No.	Description	[1] Reference Or Factor	[2] Accounts Receivable Balance End of Month	[3] Total Monthly Sales Page 2	[4] A/R Turnover [3] / [2]	[5] Days Lag 365 / [4]
1	Annual Number of Days					365
2	September, 2020		$ 52,950			
3	October		$ 61,679	$ 41,665		
4	November		$ 72,123	$ 55,297		
5	December, 2020		$ 106,368	$ 100,676		
6	January, 2021		$ 140,439	$ 126,612		
7	February		$ 164,061	$ 130,900		
8	March		$ 153,427	$ 128,921		
9	April		$ 133,479	$ 74,513		
10	May		$ 116,982	$ 48,952		
11	June		$ 100,284	$ 39,572		
12	July		$ 87,161	$ 31,323		
13	August		$ 76,062	$ 33,489		
14	September, 2021		$ 62,224	$ 32,352		
15	Total	Sum L 2 to L 14	$ 1,340,884			
16	Number of Months	13				
17	Average Acct Rec Balance	L 15 / L 16	$103,145			
18	Total Sales for Year	Sum L 2 to L 14		$ 857,917		
19	Acct Rec Turnover Ratio	L 18 / L 17			8.32	
20	Collection Lag Day Factor	L 1 / L 19				43.87
21	Meter Read Lag Factor					1.83
22	Midpoint Lag Factor		365 /	12 /	2 =	15.21
23	Total Revenue Lag Days	Sum L 20 to L 22				**60.91**

UGI Utilities, Inc. - Gas Division
Before the Pennsylvania Public Utility Commission
Fully Projected Future Period - 12 Months Ended September 30, 2023

Schedule **C-4**
Witness: **V. K. Ressler**
Page 7 of 9

Interest Payments

I&E Modified

Line No.	Description	[1] Reference Or Factor	[2] # of Days	[3] # of Days	[4] Total
1	Measure of Value at September 30, 2023	Sch C-1			$ 3,023,154
2	Long-term Debt Ratio	Sch B-6			44.88%
3	Embedded Cost of Long-term Debt	Sch B-6			3.98%
4	Pro forma Interest Expense	L 1 * L 2 * L 3			$ 54,000
5	Daily Amount	L 4 / L 5 [2]	365		$ 148
6	Days to mid-point of interest payments			91.25	
7	Less: Revenue Lag Days	Page 3		60.91	
8	Interest Payment lag days	L 7 - L 6			(30.3)
9	Total Interest for Working Capital	L 5 * L 8			$ (4,489)

I&E Statement No. 2
Witness: Anthony Spadaccio

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Direct Testimony

of

Anthony Spadaccio, CRRA

Bureau of Investigation & Enforcement

Concerning:

Rate of Return

TABLE OF CONTENTS

<u>INTRODUCTION</u>

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Anthony Spadaccio. My business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Pennsylvania Public Utility Commission (Commission) in the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial Analyst.

Q. WHAT IS YOUR EDUCATION AND PROFESSIONAL EXPERIENCE?

A. My educational and professional experience is set forth in Appendix A, which is attached.

Q. PLEASE DESCRIBE THE ROLE OF I&E IN RATE PROCEEDINGS.

A. I&E is responsible for representing the public interest in rate and other proceedings before the Commission. I&E's analysis in this proceeding is based on its responsibility to represent the public interest. This responsibility requires balancing the interests of ratepayers, the utility company, and the regulated community as a whole.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to address the rate of return, including capital structure, cost of long-term debt, the cost of equity, and the overall fair rate of return for UGI Utilities, Inc. – Gas Division (UGI Gas or Company) for the fully projected future test year (FPFTY) ending September 30, 2023.

Q. DOES YOUR TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 2 contains schedules that support my direct testimony.

BACKGROUND

Q. WHAT IS THE GENERAL DEFINITION OF RATE OF RETURN IN THE CONTEXT OF A RATE CASE?

A. Rate of return is one of the components of the revenue requirement formula. Rate of return is the amount of revenue an investment generates in the form of net income and is usually expressed as a percentage of the amount of capital invested over a given period of time.

Q. WHAT IS THE REVENUE REQUIREMENT FORMULA?

A. The revenue requirement formula used in base rate cases is as follows:

$$RR = E + D + T + (RB \times ROR)$$

Where:

RR	=	Revenue Requirement
E	=	Operating Expenses
D	=	Depreciation Expense
T	=	Taxes
RB	=	Rate Base
ROR	=	Overall Rate of Return

In the above formula, the rate of return is expressed as a percentage. The calculation of that percentage is independent of the determination of the appropriate rate base value for ratemaking purposes. As such, the appropriate total dollar return is dependent upon the proper computation of the rate of return and the proper valuation of the Company's rate base.

Q. WHAT CONSTITUTES A FAIR AND REASONABLE OVERALL RATE OF RETURN?

A. A fair and reasonable overall rate of return is one that will allow the utility an opportunity to recover those costs prudently incurred by all classes of capital used to finance the rate base during the prospective period in which its rates will be in effect.

The *Bluefield Water Works & Improvements Co. v. Public Service Comm. of West Virginia,* 262 U.S. 679, 692-93 (1923), and the *Federal Power Commission et al v. Hope Natural Gas Co.,* 320 U.S. 591, 603 (1944) cases set forth the principles that are generally accepted by regulators throughout the country as the appropriate criteria for measuring a fair rate of return:

1. A utility is entitled to a return similar to that being earned by other enterprises with corresponding risks and uncertainties, but not as high as those earned by highly profitable or speculative ventures.
2. A utility is entitled to a return level reasonably sufficient to assure financial soundness.
3. A utility is entitled to a return sufficient to maintain and support its credit and raise necessary capital.
4. A fair return can change (increase or decrease) along with economic conditions and capital markets.

Q. EXPLAIN HOW THE OVERALL RATE OF RETURN IS TRADITIONALLY CALCULATED IN BASE RATE PROCEEDINGS.

A. In base rate proceedings, the overall rate of return is traditionally calculated using the weighted average cost of capital method. To calculate the weighted average cost of capital, a company's capital structure must first be determined by comparing the percentage of each capitalization component, which has financed rate base, to total capital. Next, the effective cost rate of each capital structure component must be determined. The historical component of the cost rate of debt can be computed accurately, and any future debt issuances are based on estimates. The cost rate of common equity is not fixed and is more difficult to measure. Because of this difficulty, a proxy group is used as discussed later in this testimony. Next, each capital structure component percentage is multiplied by its corresponding effective cost rate to determine the weighted capital component cost rate. The table in the *"I&E Position"* section below demonstrates the interaction of each capital structure component and its corresponding effective cost rate. Finally, the sum of the weighted cost rates produces the overall rate of return. This overall rate of return is multiplied by the rate base to determine the return portion of a company's revenue requirement.

COMPANY'S RATE OF RETURN CLAIM

Q. WHO IS THE COMPANY'S RATE OF RETURN WITNESS IN THIS CASE?

A. Paul R. Moul is the primary witness addressing rate of return. Throughout his Direct Testimony (UGI Gas Statement No. 6), Mr. Moul provides his analysis for the claimed capital structure, long-term debt, and cost of common equity for UGI Gas.

Q. PLEASE SUMMARIZE MR. MOUL'S RECOMMENDATIONS FOR THE COMPANY'S RATE OF RETURN CLAIM.

A. Mr. Moul recommends the following rate of return for the Company based on its FPFTY ending September 30, 2023:[1]

UGI UTILITIES, INC. - GAS DIVISION Summary of Cost of Capital			
Type of Capital	**Ratio**	**Cost Rate**	**Weighted Cost**
UGI Utilities, Inc. - Gas Division			
Long-Term Debt	44.88%	3.98%	1.79%
Common Equity	55.12%	11.20%	6.17%
Total	100.00%		7.96%

I&E POSITION

Q. PLEASE SUMMARIZE YOUR RATE OF RETURN RECOMMENDATION FOR THE COMPANY.

A. I recommend the following rate of return for the Company:[2]

I&E Summary of Cost of Capital			
Type of Capital	**Ratio**	**Cost Rate**	**Weighted Cost**
UGI Utilities, Inc. - Gas Division			
Long-Term Debt	44.88%	3.98%	1.79%
Common Equity	55.12%	9.92%	5.47%
Total	100.00%		7.26%

[1] UGI Gas Exhibit B, Schedule 1.
[2] I&E Exhibit No. 2, Schedule 1.

PROXY GROUP

Q. WHAT IS A PROXY GROUP AS USED IN BASE RATE CASES?

A. A proxy group is a set of companies that have similar traits as compared to the subject utility. This group of companies acts as a benchmark for determining the subject utility's rate of return in a base rate case.

Q. WHAT ARE THE REASONS FOR USING A PROXY GROUP?

A. A proxy group's cost of equity is used as a benchmark to satisfy the long-established guideline of utility regulation that seeks to provide the subject utility with the opportunity to earn a return similar to that of enterprises with corresponding risks and uncertainties.

A proxy group is typically utilized since the use of data exclusively from one company may be less reliable. The lower reliability occurs because the data for one company may be subject to events that can cause short-term anomalies in the marketplace. The rate of return on common equity for a single company could become distorted in these circumstances and would therefore not be representative of similarly situated companies. Therefore, a proxy group has the effect of smoothing out potential anomalies associated with a single company.

Q. WHAT CRITERIA DID YOU USE IN SELECTING YOUR GAS UTILITY PROXY GROUP?

A. The criteria for my proxy group was designed to select companies that are representative of UGI Gas. I applied the following criteria to Value Line's "Natural Gas Utility" company group:

1. Fifty percent or more of the company's revenues must be generated from the regulated gas utility industry.

2. The company's stock must be publicly traded.

3. Investment information for the company must be available from more than one source, which includes Value Line.

4. The company must not be currently involved in an announced merger or the target of an acquisition.

5. The company must have four consecutive years of historic earnings data.

6. The company must be operating in a state that has a deregulated gas utility market.

Q. WHAT CRITERIA DID MR. MOUL USE IN SELECTING THE COMPANIES THAT FORMULATE HIS "GAS GROUP"?

A. Mr. Moul began with the gas utilities contained in Value Line's Investment Survey. From there, he eliminated one company, UGI Corp., due to its diversified businesses, which includes six reportable segments. These various business segments include propane, international LPG segments, natural gas utility, energy services, and electric generation. Beyond his rationale for excluding UGI Corp., Mr. Moul has not provided a list of criteria used to determine the remainder of his Gas Group other than that it is made up of the companies the Commission's Bureau of Technical Utility Services used to calculate the cost of equity in its Quarterly Earnings Reports approved on October 9, 2021.[3]

[3] UGI Gas Statement No. 6, p. 5, lines 4-18.

Q. WHAT PROXY GROUP DID YOU USE IN YOUR ANALYSIS?

A. I included the following seven companies in my proxy group:

Atmos Energy Corp.	ATO
Chesapeake Utilities	CPK
NiSource Inc.	NI
Northwest Natural Gas Co.	NWN
One Gas Inc.	OGS
South Jersey Industries Inc.	SJI
Spire Inc.	SR

Q. WHAT PROXY GROUP DID MR. MOUL USE IN HIS ANALYSIS?

A. Mr. Moul's Gas Group consists of the following nine companies:[4]

Atmos Energy Corp.	ATO
Chesapeake Utilities	CPK
New Jersey Resources Corp.	NJR
NiSource Inc.	NI
Northwest Natural Gas Co.	NWN
One Gas Inc.	OGS
South Jersey Industries Inc.	SJI
Southwest Gas Corp.	SWX
Spire Inc.	SR

Q. DO YOU AGREE WITH MR. MOUL'S GAS PROXY GROUP?

A. Not entirely. While Mr. Moul's Gas Group included all seven of the companies in my proxy group, I have excluded two of the companies he uses.

[4] UGI Gas Exhibit B, Schedule 3, p. 2.

Q. PLEASE IDENTIFY THE TWO COMPANIES MR. MOUL HAS INCLUDED THAT YOU DO NOT AND EXPLAIN WHY YOU HAVE EXCLUDED THEM FROM YOUR PROXY GROUP.

A. The two companies Mr. Moul included in his Gas Group that I have excluded from my proxy group are New Jersey Resources Corp. and Southwest Gas Holdings, Inc. as these companies did not meet my first criterion that fifty percent or more of the company's revenues must be generated from the regulated gas utility industry. This is important because revenues represent the percentage of cash flow a company receives from each business line related to providing a good or service. If less than fifty percent of revenues come from the regulated gas sector, the companies are not comparable to the subject utility as they do not provide a similar level of regulated business. Therefore, these companies should be removed from the proxy group.

<u>CAPITAL STRUCTURE</u>

Q. WHAT IS A CAPITAL STRUCTURE?

A. A capital structure represents how a firm has financed its rate base with different sources of funds. The primary sources of funding are long-term debt and common equity. A capital structure may also include preferred stock and/or short-term debt, although this is not the case for UGI Gas.

Q. WHAT IS THE COMPANY'S CLAIMED CAPITAL STRUCTURE?

A. The Company's claimed capital structure is summarized in the table below:[5]

UGI Utilities, Inc. - Gas Division Capital Structure - September 30, 2023	
Long-Term Debt	44.88%
Common Equity	55.12%
Total	**100.00%**

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIMED CAPITAL STRUCTURE?

A. Mr. Moul explains that UGI Utilities, Inc. raises its own long-term debt directly in the capital markets. He believes the consolidated capital structure ratios for UGI Utilities, Inc. should be used in determining the rate of return for each of its utility divisions because all operations of each the division are financed on a consolidated basis.[6]

Q. WHAT IS YOUR RECOMMENDATION REGARDING THE COMPANY'S CAPITAL STRUCTURE?

A. I recommend using the Company's claimed capital structure as presented in the table above.

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[5] UGI Gas Statement No. 6, p. 21, ln. 22 through p. 22, ln. 4 and UGI Gas Exhibit B, Schedule 5.

[6] UGI Gas Statement No. 6, p. 20, lines 5-16.

Q. WHAT IS THE BASIS FOR YOUR CAPITAL STRUCTURE RECOMMENDATION?

A. Although I believe a capital structure of 50% long-term debt and 50% common equity is optimal when trying to balance the financial integrity of a utility as well as trying to control costs to ratepayers, in this proceeding, I recommend using the Company's claimed capital structure as it falls within the range of my proxy group's 2020 (most recently available) capital structures. The most recent five-year average range contains individual company capital structure ratios from 27.88% to 55.48% long-term debt and 34.19% to 56.96% equity, with an overall five-year average of 41.48% long-term debt and 46.93% common equity.[7] UGI Gas only employs short-term debt to finance non-rate base items, which is why it has been excluded in this proceeding.

It is worth noting that the Company's equity ratio is well above the average and near the highest end of the proxy group's equity ratios. In fact, five of the seven companies in my proxy group have a capital structure wherein the equity ratio is less than 50%. This equity heavy capital structure must be recognized when considering UGI Gas' financial risk, as higher equity ratios generally correspond with lower financial risk as Mr. Moul himself concedes.[8]

For consideration when examining the Company's overall financial risk, the example below illustrates the cost savings to ratepayers if the Company were to employ a 50% long-term debt and 50% common equity capital structure in its cost of capital while

[7] I&E Exhibit No. 2, Schedule 2.
[8] UGI Gas Statement No. 6, p. 17, lines 5-7.

maintaining its claimed return on equity and rate base:

UGI UTILITIES, INC. - GAS DIVISION Summary of Cost of Capital			
Type of Capital	**Ratio**	**Cost Rate**	**Weighted Cost**
AS FILED CAPITAL STRUCTURE			
Long-Term Debt	44.88%	3.98%	1.79%
Common Equity	55.12%	11.20%	6.17%
Total	100.00%		7.96%
50/50 OPTIMAL CAPITAL STRUCTURE			
Long-Term Debt	50.00%	3.98%	1.99%
Common Equity	50.00%	11.20%	5.60%
Total	100.00%		7.59%
Difference In The Overall Rate of Return (7.96% - 7.59% = 0.37%)			0.37%
Impact To Ratepayers (Claimed Rate Base* x Difference In The Overall Rate of Return) ($3,169,023,000 x .0037)			$11,725,385
Gross Revenue Conversion Fator**			1.429864
Total Impact To Ratepayers ($11,725,385 x 1.429864)			**$16,765,706**

*UGI Gas Exhibit A, Schedule A-1, ln. 9.
**UGI Gas Exhibit A, Schedule A-1, ln. 24.

In this example, if the Company were to employ a 50/50 capital structure, the cost savings to ratepayers would be $16,765,706. While I understand achieving and maintaining an exact 50/50 capital structure is not truly feasible, this example is intended to demonstrate UGI Gas's financial security as compared to its peers and prove that Mr. Moul's various "add-ons" to his cost of equity calculations are unnecessary.

<u>COST OF LONG-TERM DEBT</u>

Q. WHAT IS YOUR RECOMMENDATION REGARDING THE COMPANY'S COST RATE OF LONG-TERM DEBT?

A. I recommend using the Company's claimed long-term debt cost rate of 3.98% for the FPFTY.[9]

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION TO USE THE COMPANY'S CLAIMED COST RATE OF LONG-TERM DEBT?

A. The Company's claimed cost rate of long-term debt is reasonable, as it is representative of the industry. It falls within my proxy group's implied long-term debt cost range of 1.96% to 4.58%, with an average implied long-term debt cost of 3.99%.[10] Additionally, the Company's forecasted cost of long-term debt has been gradually trending downward, which is beneficial to ratepayers; therefore, I recommend the claimed cost rate of long-term debt be used.

<u>COST OF COMMON EQUITY</u>

<u>COMMON METHODS</u>

Q. WHAT METHODS ARE COMMONLY PRESENTED BY UTILITIES IN DETERMINING THE COST OF COMMON EQUITY?

A. Four methods commonly presented to estimate the cost of common equity are the Discounted Cash Flow (DCF), the Capital Asset Pricing Model (CAPM), the Risk Premium (RP) Method, and the Comparable Earnings (CE) Method.

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[9] UGI Gas Statement No. 6, p. 23, ln. 25 through p. 24, ln. 1 and UGI Gas Exhibit B, Schedule 6, p. 3.

[10] I&E Exhibit No. 2, Schedule 3.

Q. WHAT IS THE THEORETICAL BASIS FOR THE DCF METHOD?

A. The DCF method is the "dividend discount model" of financial theory, which maintains that the value (price) of any security or commodity is the discounted present value of all future cash flows. The DCF method assumes that investors evaluate stocks in the traditional economic framework, which maintains that the value of a financial asset is determined by its earning power, or its ability to generate future cash flows.

Q. WHAT IS THE THEORETICAL BASIS FOR THE CAPM?

A. The CAPM describes the relationship of a stock's investment risk and its market rate of return. It identifies the rate of return investors expect so that it is comparable with returns of other stocks of similar risk. This method hypothesizes that the investor-required return on a company's stock is equal to the return on a "risk free" asset plus an equity premium reflecting the company's investment risk. In the CAPM, two types of risk are associated with a stock: (1) firm-specific risk (unsystematic risk); and (2) market risk (systematic risk), which is measured by a firm's beta. The CAPM allows for investors to receive a return only for bearing systematic risk. Unsystematic risk is assumed to be diversified away, and therefore, does not earn a return.

Q. WHAT IS THE THEORETICAL BASIS FOR THE RP METHOD?

A. The theoretical basis for the RP method is a simplified version of the CAPM. The RP method's theory is that common stock is riskier than debt, thus, investors require a higher expected return on stocks than bonds. In the RP approach, the cost of equity is made up of the cost of debt and a risk premium. While the CAPM uses the market risk premium, it also directly measures the systematic risk of a company or proxy group through the use of beta. The RP method does not measure the specific risk of a company.

Q. WHAT IS THE THEORETICAL BASIS FOR THE CE METHOD?

A. The CE method utilizes the concept of opportunity cost. This means that investors will likely dedicate their capital to the investment offering the highest return with similar risk to alternative investments. Unlike the DCF, CAPM, and the RP methods, the CE method is not market-based and relies upon historic accounting data. The most problematic issue with the CE method is determining what constitutes comparable companies.

Q. WHAT METHOD DO YOU RECOMMEND USING TO DETERMINE AN APPROPRIATE COST OF COMMON EQUITY FOR UGI GAS?

A. I recommend using the DCF method as the primary method to determine the cost of common equity. Additionally, I recommend using the results of the CAPM as a comparison to the DCF results. This is consistent with the methodology historically used by the Commission in base rate proceedings, but also as recently as 2017, 2018, 2020, and 2021.[11]

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[11] *Pa. PUC v. City of DuBois – Bureau of Water*; Docket No. R-2016-2554150 (Order Entered March 28, 2017). *See generally* Disposition of Cost Rate Models, pp. 96-97; *Pa. PUC v. UGI Utilities, Inc. – Electric Division;* Docket No. R-2017-2640058 (Order Entered October 25, 2018). *See generally* Disposition of Cost of Common Equity, p. 119; *Pa. PUC v. Wellsboro Electric Company;* Docket No. R-2019-3008208 (Order Entered April 29, 2020). *See generally* Disposition of Primary Methodology to Determine ROE, pp. 80-81; *Pa. PUC v. Citizens Electric Company of Lewisburg, PA;* Docket No. R-2019-3008212 (Order Entered April 29, 2020). *See generally* Disposition of Cost of Common Equity, pp. 91-92. *Pa. PUC v. Columbia Gas of Pennsylvania, Inc.;* Docket No. R-2020-3018835 (Order Entered February 19, 2021). *See generally* Disposition of Cost of Common Equity, p. 131.

Q. PLEASE EXPLAIN WHY YOU CHOSE TO USE THE DCF AND CAPM IN YOUR ANALYSIS.

A. I have used the DCF as the primary method for a variety of reasons. The DCF is appealing to investors since it is based upon the concept that the receipt of dividends in addition to expected appreciation is the total return requirement determined by the market.[12] The use of a growth rate and expected dividend yield are also strengths of the DCF, as this recognizes the time value of money and is forward-looking. The use of the utilities' own, or in this case the proxy group's, stock prices and growth rates directly in the calculation also causes the DCF to be industry and company specific. Therefore, the DCF method is superior for determining the rate of return for the current economic market because it measures the cost of equity directly.

I have included a CAPM analysis as a comparison because the CAPM and the DCF include inputs that allow the results to be specific to the utility industry, although the CAPM is far less responsive to changes in the industry than the DCF. The CAPM is based on the performance of U.S. Treasury bonds and the performance of the market as measured through the S&P 500 and is company-specific only through the use of beta. Beta reflects a stock's volatility relative to the overall market, thereby incorporating an industry-specific aspect to the CAPM, but only as a measure of how reactive the industry is compared to the market as a whole. Although changes in the utility industry are more likely to be accurately reflected in the DCF, which uses the companies' actual prices, dividends, and growth rates, I have included the results of my CAPM analysis because changes in the market, whether as a whole or specific to the utility industry, affect the

[12] David C. Parcell, "The Cost of Capital – A Practitioner's Guide," 2010 Edition, p. 151.

outcome of each method in different ways. Although I have chosen to use the CAPM as a secondary method, it does have several disadvantages and should not be used as a primary method.

Q. EXPLAIN THE DISADVANTAGES OF THE CAPM.

A. The CAPM, and the RP method by virtue of its similarities to the CAPM, give results that indicate to an investor what the equity cost rate should be if current economic and regulatory conditions are the same as those present during the historical period in which the risk premiums were determined. This is because beta, which is the only company-specific variable in the CAPM model, measures the *historical* volatility of a stock compared to the *historical* overall market return. Reliance on historical values is especially problematic now given the recent impact of the COVID-19 pandemic on economic conditions. Although the CAPM and RP results can be useful to investors in making rational buy and sell decisions within their portfolios, the DCF method is the superior method for determining the rate of return for the current economic market and measuring the cost of equity directly. The CAPM and the RP methods are less reliable indicators because they measure the cost of equity indirectly and risk premiums vary depending on the debt and equity being compared. Also, regulators can never be certain that economic and regulatory conditions underlying the historical period during which the risk premiums were calculated are the same today or will be the same in the future.

Q. IS THERE ANY ACADEMIC EVIDENCE THAT QUESTIONS THE CREDIBILITY OF THE CAPM MODEL?

A. Yes. An article, "Market Place; A Study Shakes Confidence in the Volatile-Stock

Theory," which appeared in the *New York Times* on February 18, 1992, summarized a CAPM study conducted by professors Eugene F. Fama and Kenneth R. French.[13] Their study examined the importance of beta, CAPM's risk factor, in explaining returns on common stock. In CAPM theory a stock with a higher beta should have a higher expected return. However, they found that the model did not do well in predicting actual returns and suggested the use of more elaborate multi-factor models.

A more recent article, "The Capital Asset Pricing Model: Theory and Evidence," which appeared in the *Journal of Economic Perspectives,* states that "the attraction of the CAPM is that it offers powerful and intuitively pleasing predictions about how to measure risk and the relation between expected return and risk. Unfortunately, the empirical record of the model is poor - poor enough to invalidate the way it is used in applications."[14] As a result, I conclude that the CAPM's relevance to the investment decision making process does not carry over into the regulatory rate setting process.

Q. PLEASE EXPLAIN WHY YOU HAVE CHOSEN TO EXCLUDE THE RP METHOD FROM YOUR ANALYSIS.

A. The RP method is excluded because it is a simplified version of the CAPM and is subject to the same faults explained above. Most importantly, unlike the CAPM, the RP method does not recognize company-specific risk through beta.

[13] Berg, Eric N. "Market Place; A Study Shakes Confidence in the Volatile-Stock Theory" *The New York Times*, 18 Feb 1992: *nytimes.com* Web. 23 Mar 2016.

[14] Fama, Eugene F. and French, Kenneth R., "The Capital Asset Pricing Model: Theory and Evidence." *Journal of Economic Perspectives* (2004): Volume 18, Number 3, pp. 25-46.

Q. EXPLAIN WHY YOU HAVE CHOSEN TO EXCLUDE THE CE METHOD IN YOUR ANALYSIS.

A. The CE method is excluded because the choice of which companies are comparable is highly subjective, and it is debatable whether historic accounting values are representative of the future. Moreover, its historical usage in this regulatory forum has been minimal.

<u>SUMMARY OF THE COMPANY'S RESULTS</u>

Q. WHAT ARE THE RESULTS OF THE COMPANY'S COST OF EQUITY ANALYSES?

A. Mr. Moul employed the DCF, CAPM, RP, and CE methods in analyzing the Company's cost of equity. He makes several adjustments to his results, which include consideration of risk, leverage, and size.[15] Ultimately, Mr. Moul opines that a cost of equity of 11.20% is warranted due to UGI Gas' risk characteristics, so it can compete in the capital markets, attain reasonable credit quality, and be recognized for the Company's strong management performance.[16]

<u>I&E RECOMMENDATION</u>

Q. WHAT IS YOUR RECOMMENDED COST OF COMMON EQUITY FOR UGI GAS?

A. Based upon my analysis, I recommend a cost of common equity of 9.92%.[17]

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation is based on the use of the DCF method. As explained below, I used

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15 UGI Gas Exhibit B, Schedule 1, p. 2.
16 UGI Gas Statement No. 6, p. 50, lines 2-16.
17 I&E Exhibit No. 2, Schedule 1.

my CAPM result only to present to the Commission a comparison to my DCF results. My DCF analysis uses a spot dividend yield, a 52-week dividend yield, and earnings growth forecasts.

DISCOUNTED CASH FLOW

Q. PLEASE EXPLAIN YOUR DCF ANALYSIS.

A. My analysis employs the constant growth DCF model as portrayed in the following formula:

$$K = D_1/P_0 + g$$

Where:

K	=	Cost of equity
D_1	=	Dividend expected during the year
P_0	=	Current price of the stock
g	=	Expected growth rate

When a forecast of D_1 is not available, D_0 (the current dividend) must be adjusted by one half of the expected growth rate to account for changes in the dividend paid in period one. As forecasts for each company in my proxy group were available from Value Line, no dividends were adjusted for the purpose of my analysis.

Q. PLEASE EXPLAIN HOW YOU DEVELOPED THE DIVIDEND YIELDS USED IN YOUR DCF ANALYSIS.

A. A representative dividend yield must be calculated over a time frame that avoids the problems of both short-term anomalies and stale data series. For my DCF analysis, the dividend yield calculation places equal emphasis on the most recent spot and the 52-week average dividend yields. The following table summarizes my dividend yield computations for the proxy group:[18]

Proxy Group - Average Dividend Yields	
Spot	3.23%
52-week average	3.55%
Average	3.39%

Q. WHAT INFORMATION DID YOU RELY UPON TO DETERMINE YOUR EXPECTED GROWTH RATE?

A. I have used five-year projected growth rate estimates from Value Line, Yahoo! Finance, Zacks, and Morningstar.

Q. WHAT WERE THE RESULTS OF YOUR FORECASTED EARNINGS GROWTH RATES?

A. The expected average growth rates for my gas proxy group ranged from 4.63% to 7.33% with an overall average of 6.53%.[19]

[18] I&E Exhibit No. 2, Schedule 4.
[19] I&E Exhibit No. 2, Schedule 5.

Q. WHAT IS THE RESULT OF YOUR DCF ANALYSIS BASED ON YOUR RECOMMENDED DIVIDEND YIELD AND GROWTH RATE?

A. The results of my DCF analysis are calculated as follows:[20]

K	=	D_1/P_0	+	g
9.92%	=	3.39%	+	6.53%

CAPITAL ASSET PRICING MODEL

Q. PLEASE EXPLAIN YOUR CAPM ANALYSIS.

A. My analysis employs the traditional CAPM as portrayed in the following formula:

$$K = R_f + \beta(R_m - R_f)$$

Where:

K	=	Cost of equity
R_f	=	Risk-free rate of return
R_m	=	Expected rate of return on the overall stock market
β	=	Beta measures the systematic risk of an asset

Q. WHAT IS BETA AS EMPLOYED IN YOUR CAPM ANALYSIS?

A. Beta is a measure of the systematic risk of a stock in relation to the rest of the stock market. A stock's beta is estimated by calculating the linear regression of a stock's return against the return on the overall stock market. The beta of a stock with a price pattern identical to that of the overall stock market will equal one. A stock with a price

[20] I&E Exhibit No. 2, Schedule 6.

movement that is greater than the overall stock market will have a beta that is greater than one and would be described as having more investment risk than the market. Conversely, a stock with a price movement that is less than the overall stock market will have a beta of less than one and would be described as having less investment risk than the overall stock market.

Q. HOW DID YOU DETERMINE YOUR BETA FOR YOUR CAPM ANALYSIS?

A. In estimating an equity cost rate for my proxy group, I used the average of the betas for the companies as provided in the Value Line Investment Survey. The average beta for my proxy group is 0.84.[21]

Q. WHAT RISK-FREE RATE OF RETURN HAVE YOU USED FOR YOUR FORECASTED CAPM ANALYSIS?

A. I have chosen to use the risk-free rate of return (R_f) from the projected yield on 10-year Treasury Notes. While the yield on the short-term T-Bill is a more theoretically correct parameter to represent a risk-free rate of return, it can be extremely volatile. The volatility of short-term T-Bills is directly influenced by Federal Reserve policy. At the other extreme, the 30-year Treasury Bond exhibits more stability but is not risk-free. Long-term Treasury Bonds have substantial maturity risk associated with market risk and the risk of unexpected inflation. Long-term treasuries normally offer higher yields to compensate investors for these risks. As a result, I chose to use the yield on the 10-year Treasury Note because it mitigates the shortcomings of the other two alternatives.

[21] I&E Exhibit No. 2, Schedule 7.

Additionally, the Commission has recently agreed with I&E and recognized the 10-year Treasury Note as the superior measure of the risk-free rate of return.[22]

The forecasted yield on the 10-year Treasury Note, as seen in Blue Chip Financial Forecasts, is expected to range between 2.00% and 2.50% from the second quarter of 2022 through the second quarter of 2023, and it is forecasted to be 2.90% from 2023-2027. For my forecasted CAPM analysis, I used 2.35%, which is the average of all the yield forecasts I observed.[23]

Q. HOW DID YOU DETERMINE THE RETURN ON THE OVERALL STOCK MARKET EMPLOYED IN YOUR FORECASTED CAPM ANALYSIS?

A. To arrive at a representative expected return on the overall stock market, I observed Value Line's 1700 stocks and the S&P 500. Value Line expects its universe of 1700 stocks to have an average yearly return of 12.57% over the next three to five years based on a forecasted dividend yield of 1.90% and a yearly index appreciation of 50%. The S&P 500 index is expected to have an average yearly return of 15.41% over the next five years based upon Barron's forecasted dividend yield of 1.41% and Morningstar's average expected increase in the S&P 500 index of 13.90%.[24]

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[22] *Pa. PUC v. UGI Utilities, Inc. – Electric Division;* Docket No. R-2017-2640058 (Order Entered October 25, 2018). *See generally* Disposition of Capital Asset Pricing Model (CAPM), p. 99.
[23] I&E Exhibit No. 2, Schedule 8.
[24] I&E Exhibit No. 2, Schedule 9.

Q. WHAT IS THE EXPECTED RETURN ON THE OVERALL STOCK MARKET BASED ON YOUR FORECASTED ANALYSIS?

A. The expected return on the overall market is 13.99% for my forecasted analysis.[25]

Q. WHAT IS THE COST OF EQUITY RESULT FROM YOUR CAPM ANALYSIS?

A. The result of my analysis is as follows:[26]

K	=	R_f	+	$\beta(R_m - R_f)$
12.13%	=	2.35%	+	0.84 (13.99% - 2.35%)

CRITIQUE OF MR. MOUL'S PROPOSED COST OF EQUITY

Q. DO YOU AGREE WITH MR. MOUL'S PROPOSED COST OF EQUITY?

A. No. I disagree with Mr. Moul's proposed cost of equity analysis for several reasons. First, I disagree with the weights given to the results of Mr. Moul's CAPM, RP, and CE analyses in his recommendation. Second, I take issue with certain aspects of Mr. Moul's risk analysis of UGI Gas. Third, I disagree with his application of the DCF including the forecasted growth rate and leverage adjustment he uses. Fourth, I do not agree with his use of the 30-year Treasury Bond in place of the 10-year Treasury Note, his inclusion of a size adjustment, and use of an inflated beta in his CAPM analysis. Finally, I disagree with Mr. Moul's recommendation to include an adjustment to the cost of equity for recognition of management performance.

25 I&E Exhibit No. 2, Schedule 9.
26 I&E Exhibit No. 2, Schedule 10.

<u>WEIGHTS GIVEN TO THE CAPM, RP, AND CE METHODS</u>

Q. DO YOU AGREE WITH MR. MOUL'S RELIANCE ON THE CAPM AND RP MODELS?

A. No. While I am not opposed to providing the Commission the results of the CAPM methodology for a point of comparison to the results of the DCF calculation, I am opposed to giving the CAPM and RP considerable weight. For the reasons previously discussed in this testimony, including my reference to recent Commission orders, it is inappropriate to give the CAPM and RP models similar weight to the DCF as Mr. Moul has done in creating his recommended cost of equity range.[27] As discussed above, the CAPM measures the cost of equity indirectly and can be manipulated by the time period chosen. Since the RP is a simplified version of the CAPM, it suffers these same flaws.

Q. DO YOU AGREE WITH MR. MOUL'S USE OF THE CE METHOD?

A. No. The companies in Mr. Moul's analysis are not utilities, and, therefore, they are too dissimilar to be used in a CE analysis. The companies in Mr. Moul's CE proxy group are simply not comparable to gas utilities in terms of business risk or financial risk profile. Natural gas distribution companies are monopolies, which are subject to very little competition, if any at all. Due to this minimal competition, utilities in general have very low business risk and can maintain higher financial risk profiles by employing more leverage. Conversely, since the companies in Mr. Moul's CE proxy group operate in an unregulated competitive environment with a higher level of business risk, they must maintain lower financial risk profiles by employing a smaller amount of leverage.

[27] UGI Gas Statement No. 6, p. 6, ln. 10 through p. 7, ln. 3.

Further, in his CE analysis, Mr. Moul states, "I used 20% as the point where those returns could be viewed as highly profitable and should be excluded from the Comparable Earnings approach."[28] I do not believe this arbitrary use of 20% is justified, as I am unaware of any natural gas utility company that has been granted a Commission authorized or regularly earns a 20% or greater return on equity.

RISK ANALYSIS

Q. PLEASE SUMMARIZE MR. MOUL'S CLAIMS REGARDING THE RISK FACTORS THE COMPANY FACES.

A. Mr. Moul described the Company's claimed risk factors in two different sub-sections. In the first section, labeled "Natural Gas Risk Factors," he described the *qualitative* risk factors. In this section, Mr. Moul discussed the potential for bypass, the Company's construction program, and the proposed weather normalization adjustment (WNA) mechanism.[29] In the second section of his risk analysis, labeled "Fundamental Risk Analysis," he described the *quantitative* risk factors. In this section, Mr. Moul discusses the Company's credit quality, as well as many different financial metrics including size, market ratios, common equity ratios, return on book equity, operating ratios, pre-tax interest coverage, quality of earnings, internally generated funds, and betas.[30]

Q. WHAT HAS MR. MOUL CLAIMED REGARDING THE POTENTIAL RISK OF BYPASS?

A. Mr. Moul opines that the Company's close proximity to the Marcellus Shale production

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[28] UGI Gas Statement No. 6, p. 49, lines 15-17.
[29] UGI Gas Statement No. 6, p. 7, ln. 12 through p. 14, ln. 2.
[30] UGI Gas Statement No. 6, p. 14, ln. 3 through p. 20, ln. 3.

area, and the competition gas utilities face from alternative energy sources such as electricity, fuel oil, and propane contribute to the Company's risk profile.[31]

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S CLAIMED RISK OF BYPASS FOR UGI GAS?

A. All natural gas distribution utilities face competition from the alternate sources of energy Mr. Moul mentions. Furthermore, all gas utilities face similar risk with competitive market customers. The overlapping territories in western Pennsylvania provide a good example. In my opinion, UGI Gas faces no more risk than any of the companies in my proxy group. The cost of equity measured by my proxy group adequately compensates investors for these risks common to all gas utilities.

Q. WHAT IS MR. MOUL'S CLAIM REGARDING ADDITIONAL RISK DUE TO THE COMPANY'S CONSTRUCTION PROGRAM AND AGING INFRASTRUCTURE?

A. Mr. Moul claims that the Company must invest in new facilities to meet growth demands and to maintain and upgrade existing facilities to maintain safe and reliable service to existing customers.[32] The Company anticipates that gross construction expenditures will represent a 59% increase in net utility plant, including construction work in progress during 2022-2025 period.[33]

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[31] UGI Gas Statement No. 6, p. 8, lines 6-18.
[32] UGI Gas Statement No. 6, p. 10, lines 5-9.
[33] UGI Gas Statement No. 6, p. 11, lines 1-4.

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S CLAIM REGARDING THE COMPANY'S CONSTRUCTION PROGRAM AND REPLACEMENT OF AGING INFRASTRUCTURE?

A. First, Mr. Moul states, "[w]ith customer demand for the Company's service at high levels, the Company is faced with the requirement to invest in new facilities…"[34] It is worth noting that this statement is contrary to Mr. Moul's concerns regarding loss of customers and risk of bypass as discussed above. Every gas utility faces the same issues of upgrading or replacing its infrastructure. As costs for replacing infrastructure increase, UGI Gas, like any other regulated gas utility, has the option to file a base rate case at any time to address revenue inadequacy due to increasing costs, infrastructure replacement, or any other associated issues. Base rate cases allow a utility to recover its costs and provide it with the *opportunity* to earn a reasonable return on capital investments. Additionally, the Commission offers risk reducing mechanisms such as the Distribution System Improvement Charge (DSIC) and the FPFTY to help reduce any regulatory lag in recovery of infrastructure investment or other unforeseen expenditures. It should be noted that these mechanisms were not designed to eliminate the need for periodic base rate case filings, but only to mitigate regulatory lag and support increasing infrastructure replacement needs.

Q. ACCORDING TO MR. MOUL, WHAT ADDITIONAL BUSINESS RISKS AFFECT THE COMPANY?

A. Mr. Moul suggests that regulatory risks such as the requirements to obtain the necessary

[34] UGI Gas Statement No. 6, p. 10, lines 5-7.

permits and approvals to secure adequate and reliable gas supply have become time consuming and costly.[35] Further, he opines that the Company faces operational risks such as counterparty risk, cyber security, and attacks from foreign enemies and domestic terrorists.[36]

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S CLAIMS REGARDING THE VARIOUS BUSINESS (REGULATORY AND OPERATIONAL) RISKS HE MENTIONS?

A. The issues referenced by Mr. Moul affect the entire gas utility industry, therefore, UGI Gas faces the same exposure to these issues as do all the other companies in our respective proxy groups. Investors voluntarily buy and hold shares of stocks in natural gas utility companies, indicating they are aware of these risks and the returns. The cost of equity I present for UGI Gas in this proceeding is adequately measured by my proxy group and adequately compensates investors for these risks.

Q. PLEASE COMMENT ON THE COMPANY'S PROPOSAL REGARDING A WEATHER NORMALIZATION ADJUSTMENT (WNA) MECHANISM AND ITS CLAIM REGARDING THE POTENTIAL IMPACT ON THE COMPANY'S COST OF EQUITY.

A. Generally, the goal of a WNA is to stabilize revenues from volumetric charges as they are highly variable depending on weather conditions. Company witness John D. Taylor (UGI Gas Statement No. 11) discusses in detail the specifics of UGI Gas' WNA proposal.

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35 UGI Gas Statement No. 6, p. 9, lines 8-13.

36 UGI Gas Statement No. 6, p. 9, lines 15-21.

Mr. Moul claims that all the companies in his Gas Group have similar WNA mechanisms to what UGI Gas is proposing in this proceeding, and that his market-determined return on equity analysis reflects the effects of decoupling on investor expectations.[37]

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S CLAIM REGARDING THE COMPANY'S PROPOSED WNA MECHANISM?

A. The Commission allows utilities the opportunity to propose alternative ratemaking mechanisms such as the WNA requested by the Company in this proceeding. If the Commission approves the Company's WNA proposal, the benefits of revenue decoupling would certainly reduce the Company's overall risk profile. However, I&E's position on UGI Gas' specific request regarding the WNA proposal are addressed in the testimony of I&E witness Cline (I&E Statement No. 4).

Q. PLEASE DISCUSS THE CLAIMS MR. MOUL MAKES REGARDING QUANTITATIVE RISK FACTORS IN THE SECTION HE LABELS "FUNDAMENTAL RISK ANALYSIS."

A. Mr. Moul states that it is necessary to establish a company's relative risk position within its industry through an analysis of quantitative and qualitative factors. In this section, Mr. Moul uses various financial metrics to compare UGI Gas to the S&P Public Utilities Index and his Gas Group.[38]

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[37] UGI Gas Statement No. 6, p. 12, lines 4-11.
[38] UGI Gas Statement No. 6, p. 14, lines 6-13.

Q. WHAT ARE YOUR COMMENTS REGARDING MR. MOUL'S "FUNDAMENTAL RISK ANALYSIS?"

A. Two of the points he examines, size risk and betas, are discussed and disputed elsewhere in my direct testimony. Throughout the remainder of his "fundamental risk analysis," Mr. Moul makes several statements to indicate that UGI Gas has no more of a risk than any other company in his Gas Group. First, Mr. Moul identifies the Company's long-term issuer credit quality rating from Moody's Investors Service (Moody's) to be A2, which is categorized as upper-medium investment grade with low credit risk. By comparison, the average Moody's ratings of Mr. Moul's Gas Group and the S&P Public Utilities Index both have a rating one step lower at A3.[39] These ratings indicate that UGI Gas has a lower credit risk than both Mr. Moul's Gas Group and the S&P Public Utilities Index.

Second, while discussing common equity ratios, Mr. Moul states, "The five-year average common equity ratios, based on permanent capital, were 56.6% for UGI Gas, 51.5% for the Gas Group, and 41.3% for the S&P Public Utilities." He concludes that UGI Gas' higher common equity ratio indicates lower financial risk than that of his Gas Group.[40]

Third, regarding operating ratios, Mr. Moul states, "The five-year average operating ratios were 76.7% for the Company, 83.6% for the Gas Group, and 78.8% for the S&P Public Utilities".[41] As Mr. Moul explains, the operating ratio illustrates the percentage of revenue required to cover operating expenses. The lower the operating

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[39] UGI Gas Statement No. 6, p. 15, lines 11-19.
[40] UGI Gas Statement No. 6, p. 17, lines 3-7.
[41] UGI Gas Statement No. 6, p. 17, lines 20-21.

ratio is, the higher the operating margin becomes.[42] In this case, UGI Gas's lower operating ratio implies less risk than the Gas Group and the S&P Public Utilities Index.

Fourth, concerning coverage, he explains that excluding the Allowance for Funds Used During Construction, the five-year average pre-tax interest coverage was 5.07 times for the Company, 4.05 times for the Gas Group, and 3.02 times for the S&P Public Utilities. Mr. Moul acknowledges that "[t]he interest coverages were higher for the Company as compared to the Gas Group, thereby indicating lower credit risk."[43]

Fifth, regarding quality of earnings, Mr. Moul concludes, "[q]uality of earnings has not been a significant concern for the Company, the Gas Group, and the S&P Public Utilities."[44]

Finally, concerning internally generated funds (IGF), Mr. Moul shows the five-year average percentage of IGF to capital expenditures to be 72.4% for UGI Gas, 56.0% for his Gas Group, and 69.5% for the S&P Public Utilities.[45] Although the Company's IGF to capital expenditures dropped in 2019 and 2020, the higher five-year average percentage indicates lower financial risk as compared to the Gas Group and the S&P Public Utilities.

Q. PLEASE CONTINUE.

A. Mr. Moul summarizes his fundamental risk analysis by stating, "[o]n balance, the cost of equity measured with the Gas Group data will provide a reasonable, albeit conservative, representation of the Company's cost of equity."[46] While some measures he discusses

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42 UGI Gas Statement No. 6, p. 17, lines 18-20 and Footnote 3.
43 UGI Gas Statement No. 6. p. 18, lines 5-9.
44 UGI Gas Statement No. 6. p. 18, lines 21-22.
45 UGI Gas Statement No. 6. p. 18, ln. 23 through p. 19, ln. 4.
46 UGI Gas Statement No. 6, p. 20, lines 1-3.

may imply a higher risk profile for the Company, he provides a greater amount and more convincing measures that illustrate the Company has lower risk. Overall, through his own analysis and testimony, Mr. Moul substantiated that the Company has very similar risk as compared to that of his Gas Group, therefore, any additional consideration for the Company's risk profile is unnecessary.

COST OF EQUITY ADJUSTMENTS

INFLATED GROWTH RATES USED IN DCF ANALYSIS

Q. WHAT GROWTH RATE HAS MR. MOUL USED IN HIS DCF ANALYSIS?

A. Mr. Moul has chosen a growth rate of 6.75%.

Q. WHAT IS THE BASIS FOR MR. MOUL'S GROWTH RATE?

A. Mr. Moul indicates that Schedule 9 of his exhibit shows the prospective five-year earnings per share growth rates projected for the Gas Group to be 5.41% from IBES/First Call, 5.88% from Zacks, and 7.61% from Value Line.[47] Although the average of his sources for the growth rate is 6.30%,[48] Mr. Moul chooses to use 6.75% claiming that DCF growth rates should not be established by mathematical formulation and that the reasonableness of his chosen growth rate is justified by investor-expected growth for the Gas Group and continuation of gas utility infrastructure spending.[49]

Q. DO YOU AGREE WITH MR. MOUL'S GROWTH RATE ANALYSIS?

A. No. Contrary to Mr. Moul's belief that DCF growth rates *should not* be established by

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[47] UGI Gas Statement No. 6, p. 31, lines 12-13.
[48] (5.41% + 5.88% + 7.61%) ÷ 3 = 6.30%.
[49] UGI Gas Statement No. 6, p. 32, lines 8-15.

mathematical formulation, I feel that any alternative is subjective and introduces additional and unnecessary bias and should be avoided when possible. The use of a higher growth rate than the average of his proxy group ignores the fact that analysts making earnings per share growth forecasts are already aware of the economic conditions and the state of the gas utility industry. The reasons Mr. Moul has given for choosing a growth rate above his calculated average are factors that are already included in the earnings per share growth forecasts; thus, choosing a growth rate higher than the average of his proxy group would account for the same factors twice.

Q. DO YOU HAVE ANY ADDITIONAL COMMENTS REGARDING THE RESULTS OF MR. MOUL'S PROJECTED GROWTH RATES?

A. Yes. While the five-year projected growth rates can be used in analyses, one must be aware that analysts' estimates may be biased. This bias has been observed in literature. An article authored by Professors Ciciretti, Dwyer, and Hasan in 2009 observed strong support of earnings forecasts being higher than actual earnings.[50] In spring of 2010, McKinsey on Finance presented an article reporting that after a decade of stricter regulation analysts' forecasts are still overly optimistic.[51]

Analysts' estimates are an attempt to forecast future cash flows and thus expected earnings growth. However, it should be kept in mind that prudent judgment must be exercised as to the sustainability of forecasted growth rates with respect to the base earnings. If the base year earnings are abnormally high, the growth rates from which

[50] Ciciretti, Rocco; Dwyer, Gerald R; and Iftekhan Hasan. "Investment Analysts' Forecasts of Earnings" Federal Reserve Bank of St. Louis *Review*, September/October 2009, 91 (5, part 2) pp. 545-67.
[51] Goedhart, Marc J; Raj, Rishi; and Abhishek Saxena. "Equity analyst: Still too bullish" McKinsey on Finance Number 35 Spring 2010, pp. 14-17.

they are calculated will be biased downward. Similarly, if the base year earnings are abnormally low, the growth rates from which they are calculated will be biased upward. As a result, it is typically necessary to employ a methodology to smooth out the abnormally high or low base year earnings.

In summary, since analysts' projected growth forecasts are most often overly optimistic, there is no need to arbitrarily and non-formulaically increase the estimates used in a DCF analysis.

LEVERAGE ADJUSTMENT APPLIED TO DCF ANALYSIS

Q. HAS MR. MOUL MADE ANY ADDITIONAL ADJUSTMENTS TO THE RESULT OF HIS DCF ANALYSIS?

A. Yes. Mr. Moul proposes to make a 95-basis point "leverage" adjustment[52] to the results of his DCF analysis to account for applying a market-determined cost of equity to a book value capital structure.[53]

Q. WHAT IS FINANCIAL LEVERAGE?

A. Financial leverage is the use of debt capital to supplement equity capital. A firm with significantly more debt than equity is considered highly leveraged.

Q. WHAT IS A MARKET-TO-BOOK (M/B) RATIO?

A. A market-to-book ratio is used to evaluate a public firm's equity value by comparing the market value and book value of a company's equity. One way of doing this is to divide

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[52] UGI Gas Exhibit B, Schedule 1, p. 2.
[53] UGI Gas Statement No. 6, p. 33, lines 12-14.

the current price per share of stock by the book value per share. A M/B result of above one (1) is desired.

Q. HAS MR. MOUL PROPOSED TO ADJUST THE RESULT OF HIS DCF ANALYSIS TO RECOGNIZE HOW THE COMPANY IS LEVERAGED?

A. No. Mr. Moul does not propose to change the capital structure of the utility (a leverage adjustment), nor does he proposed to apply the market-to-book ratio to the DCF model (a market-to-book adjustment). Instead, Mr. Moul proposes to make an adjustment to account for applying the market value cost rate of equity to the book value of the utility's capital structure. I am not aware of any term in academic journals, textbooks, or other literature that describes this type of adjustment.

Q. WHAT IS THE BASIS FOR MR. MOUL'S PROPOSED LEVERAGE ADJUSTMENT?

A. As stated above, Mr. Moul theorizes that to make the DCF results relevant to a book value capital structure, the market-derived cost of equity needs to be adjusted to take into consideration the difference in financial risk.[54] Mr. Moul opines this is because market valuations of equity are based on market value capital structures, which in general have more equity, less debt, and therefore, less risk than book value capital structures.[55]

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54 UGI Gas Statement No. 6, p. 33, lines 12-14.
55 UGI Gas Statement No. 6, p. 33, lines 4-10.

Q. HOW DOES MR. MOUL CALCULATE THE LEVERAGE ADJUSTMENT USED IN HIS ANAYSIS?

A. Mr. Moul simply states:

> I know of no means to mathematically solve for the 0.95% leverage adjustment by expressing it in the terms of any particular relationship of market price to book value. The 0.95% adjustment is merely a convenient way to compare the 11.21% return computed using the Modigliani & Miller formulas to the 10.26% return generated by the DCF model based on a market-value capital structure.[56]

Q. DO YOU AGREE WITH MR. MOUL'S "LEVERAGE ADJUSTMENT"?

A. No. Mr. Moul's adjustment is inappropriate for a couple of reasons, including the characterization of financial risk and its inconsistency with Commission precedent.

Q. EXPLAIN HOW RATING AGENCIES ASSESS FINANCIAL RISK.

A. Rating agencies assess financial risk based upon a company's booked debt obligations and the ability of its cash flow to cover the interest payments on those obligations. The agencies use a company's financial statements for their analysis, not market capital structure. The income statement reflects the financial risk of a company because it represents the performance of the company over a certain period. A change in the market value of the stock is not reflected in the income statement nor is a change in market value capital structure reflected in the book value capital structure unless treasury stock is purchased. It is a company's financial statements that affect the market value of the stock, and, therefore, the financial statements and the book value capital structure are relied upon in an analysis such as that done by rating agencies.

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[56] UGI Gas Statement No. 6, p. 36, lines 17-23.

Q. WHAT ARE THE MOST RECENT COMMISSION DECISIONS REGARDING A LEVERAGE ADJUSTMENT?

A. The following cases are the most recent instances where the Commission has addressed the use of a "leverage adjustment." In these cases, this adjustment has been rejected.

First, in *Pennsylvania Public Utility Commission v. Aqua Pennsylvania, Inc.*, at Docket No. R-00072711 (Order Entered July 31, 2008), pp. 38-39, the Commission rejected the ALJ's recommendation for a leverage adjustment stating, "[t]he fact that we have granted leverage adjustments in the past does not mean that such adjustments are indicated in all cases." In this proceeding, the Commission determined that there was no viable support for an upwards adjustment to compensate for any perceived risk.

Second, in *Pennsylvania Public Utility Commission, et al v. City of Lancaster – Bureau of Water*, at Docket No. R-2010-2179103 (Order Entered July 14, 2011), p. 101, the Commission agreed with the I&E position and stated, "any adjustment to the results of the market based DCF are unnecessary and will harm ratepayers. Consistent with our determination in *Aqua 2008* there is no need to add a leverage adjustment. . ."

Third, in *Pennsylvania Public Utility Commission, et al v. UGI Utilities, Inc. – Electric Division*, at Docket No. R-2017-2640058 (Order Entered October 25, 2018), pp. 93-94, the Commission agreed with the I&E position and stated, "we conclude that an artificial adjustment in this proceeding is unnecessary and contrary to the public interest. Accordingly, we decline to include a leverage adjustment in our calculation of the DCF cost of equity."

Fourth, in *Pennsylvania Public Utility Commission, et. al v. Columbia Gas of Pennsylvania, Inc.*, at Docket R-2020-3018835 (Order Entered February 19, 2021), pp.

137-141, the Commission adopted the ALJ's recommendation to use I&E's DCF methodology, which excluded Columbia's application of a leverage adjustment.

Finally, in the most recent case of *Pennsylvania Public Utility Commission, et. al v. PECO Energy Company – Gas Division*, at Docket R-2020-3018929 (Order Entered June 22, 2021, Public Version), pp. 172-173, the Commission adopted the ALJ's recommendation to use I&E's DCF methodology, which excluded PECO's application of a leverage adjustment.

Q. BASED ON THE COMPANY'S FILED RATE BASE AND CLAIMED CAPITAL STRUCTURE, WHAT IS THE VALUE OF AN ADDITIONAL 95 BASIS POINTS FOR MR. MOUL'S LEVERAGE ADJUSTMENT TO THE COST OF EQUITY?

A. The example below illustrates the impact of 95 additional basis points for the leverage adjustment to the Company's cost of equity:

UGI Utilities, Inc. - Gas Division	
Claimed Equity Percentage of Capital Structure	55.12%
Additional Basis Points to Calculated Cost of Equity	95
Claimed Rate Base*	$3,169,023,000
Impact Prior to Gross Up (0.5512 x 0.0095 x $3,169,023,000)	$16,594,272
Gross Revenue Conversion Factor**	1.429864
Total Impact ($16,594,272 x 1.429864)	**$23,727,552**
*UGI Gas Exhibit A, Schedule A-1, ln. 9. **UGI Gas Exhibit A, Schedule A-1, ln. 24.	

In this example, an addition of 95 basis points for the leverage adjustment to the cost of equity would force ratepayers to fund an unwarranted additional amount of $23,727,552 annually to cover the increase of the inflated rate of return along with the associated impact resulting from increases to income taxes, gross receipts tax, uncollectibles, and assessments.

Q. SUMMARIZE YOUR RECOMMENDATION REGARDING THE PROPOSED LEVERAGE ADJUSTMENT.

A. I recommend that Mr. Moul's proposed 95-basis point leverage adjustment be rejected because true financial risk is a function of the amount of interest expense, and capital structure information provided to investors through Value Line is that of book values, not market values. This demonstrates that investors base their decisions on book value debt and equity ratios for the regulated utilities; therefore, no adjustment is needed. Mr. Moul's proposed adjustment serves only to manipulate the DCF's market-based methodology and causes undue harm to ratepayers as illustrated above.

Q. DO YOU HAVE ANY FURTHER COMMENTS REGARDING MR. MOUL'S DCF CALCULATION?

A. Yes. While I am not directly disputing Mr. Moul's adjusted dividend yields, it is important to recognize that, as cited above, the Commission has recently agreed with I&E's DCF methodology which includes the appropriate calculation of dividend yields. Although it is acceptable to adjust historical dividend yields as Mr. Moul has done, it is preferable to use forecasted dividends to calculate the dividend yields when available, such as the ones offered by Value Line that I have employed.

Q. WHAT WOULD MR. MOUL'S DCF BE WITHOUT ANY ADJUSTMENTS?

A. Without Mr. Moul's use of inflated growth rates and a leverage adjustment, his DCF would consist of a dividend yield of 3.51% and an average growth rate of 6.30%, which results in an 9.81% cost of equity. This result is slightly lower, yet comparable to my DCF result of 9.92% and is much more reasonable than his originally calculated and inappropriately inflated result of 11.21%.

<u>RISK-FREE RATE OF RETURN</u>

Q. HOW HAS MR. MOUL CALCULATED HIS RISK-FREE RATE FOR USE IN HIS CAPM MODEL?

A. Mr. Moul's calculation of his risk-free rate is similar to mine. He considered Treasury yield estimates published by Blue Chip Financial Forecasts over the next six quarters, from the time of his analysis, as well as long-range, five-year averages. However, he used the 30-year Treasury Bond while I employed the 10-year Treasury Note. Also, where I used a long-range, five-year average, future data point accounting for years 2023-2027 predictions, Mr. Moul used two future data points accounting for not only years 2023-2027, but also included an estimate for years 2028-2032. His calculation resulted in a 2.75% risk-free rate as opposed to the 2.35% I used.[57]

Q. WHAT COMMENTS DO YOU HAVE REGARDING MR. MOUL'S CALCULATION OF THE RISK-FREE RATE?

A. First, I must reiterate my earlier statements that long-term Treasury Bonds have

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[57] UGI Gas Statement No. 6, p. 43, ln. 14 through p. 45, ln. 5 and UGI Gas Exhibit B, Schedule 13, p. 2.

substantial maturity risk associated with the market risk and the risk of unexpected inflation and normally offer higher yields to compensate investors for these risks. Using the 10-year Treasury Note is more appropriate to balance the short-term volatility risk and the long-term inflation risk.

The Commission has recently recognized the 10-year Treasury Note as the superior measure for the risk-free rate by stating the following: [58]

> We agree with I&E and the ALJs that using the yield on the 10-year Treasury Note provides a better measure of the risk-free rate of return than using the yield on the 30-year Treasury Bond, as recommended by UGI. In our view, using the 10-year Treasury Note balances the shortcomings of the short-term T-Bill and the 30-year Treasury Bond. Although long-term Treasury Bonds have less risk of being influenced by federal policies, they have substantial maturity risk associated with the market risk. In addition, long-term Treasury Bonds bear the risk of unexpected inflation.

Additionally, the further out into the future one projects, the less reliable the information becomes. Using the projection for 2028-2032 is an unreliable measure and this should not be included in the risk-free rate. The Company's FPFTY ends September 30, 2023, and in my opinion using an estimated risk-free rate that is up to nine years beyond the FPFTY is unreasonable and unnecessary.

<u>INFLATED BETAS USED IN CAPM ANALYSIS</u>

Q. HOW HAS MR. MOUL INFLATED THE BETAS EMPLOYED IN HIS CAPM ANALYSIS?

A. Mr. Moul has used the same logic for inflating his CAPM betas from 0.88 to 1.00 that he

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[58] *Pa. PUC v. UGI Utilities, Inc. – Electric Division;* Docket No. R-2017-2640058 (Order entered October 25, 2018), p. 99. (Disposition of Capital Asset Pricing Model (CAPM)).

used to enhance his DCF returns, through a financial risk or "leverage" adjustment.[59]

Q. DO YOU AGREE WITH MR. MOUL'S USE OF ADJUSTED BETAS?

A. No. Such enhancements are unwarranted for beta in a CAPM analysis for the same reasons that the "leverage" adjustment is unwarranted for DCF results.

Additionally, if the unadjusted *Value Line* betas do not reflect an accurate investment risk as Mr. Moul contends, the question naturally arises as to why *Value Line* does not publish betas that are adjusted for leverage. Until this type of adjustment is demonstrated in the academic literature to be valid, such leverage adjusted betas in a CAPM model should be rejected.

Finally, as described in my CAPM analysis above, a stock with a price movement that is greater than the overall stock market will have a beta that is greater than one and would be described as having more investment risk than the market. Due to being regulated and the monopolistic nature of utilities, very rarely do they have a beta equal to or greater than one. Therefore, in this case, to apply an adjusted beta of 1.00 to the entire industry or gas proxy group is irrational.

<u>SIZE ADJUSTMENT APPLIED TO CAPM ANALYSIS</u>

Q. PLEASE EXPLAIN MR. MOUL'S PROPOSED SIZE ADJUSTMENT.

A. Mr. Moul adds 102 basis points to his CAPM indicated cost of common equity because he believes that as the size of a firm decreases, its risk and required return increases. Mr. Moul relies upon technical literature including the Stocks, Bonds, Bills, and Inflation

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[59] UGI Gas Statement No. 6, p. 42, ln. 14 through p. 43, ln. 13.

Yearbook, a Fama and French study entitled "The Cross-Section of Expected Stock Returns," and an article published in Public Utilities Fortnightly entitled "Equity and the Small-Stock Effect."[60]

Q. DO YOU AGREE WITH MR. MOUL'S SIZE ADJUSTMENT?

A. No. Mr. Moul's proposed size adjustment is unnecessary because the technical literature he cites supporting investment adjustments relating to the size of a company is not specific to the utility industry, and therefore, has no relevance in this proceeding.

Q. IS THERE ACADEMIC EVIDENCE THAT SUPPORTS YOUR CONCLUSION THAT THE SIZE ADJUSTMENT FOR RISK IS NOT APPLICABLE TO UTILITY COMPANIES?

A. Yes. In the article "Utility Stocks and the Size Effect: An Empirical Analysis," Dr. Annie Wong concludes:

> The objective of this study is to examine if the size effect exists in the utility industry. After controlling for equity values, there is some weak evidence that firm size is a missing factor from the CAPM for the industrial but not for utility stocks. This implies that although the size phenomenon has been strongly documented for the industriales, the findings suggest that there is no need to adjust for the firm size in utility rate regulation.[61]

UGI Gas presents no evidence to support application of a non-utility study regarding a size adjustment for risk to a utility setting. Absent any credible article to refute Dr. Wong's findings, Mr. Moul's size adjustment to his CAPM results should be rejected.

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[60] UGI Gas Statement No. 6, p. 45, ln. 21 through p. 46 ln. 16.

[61] Dr. Annie Wong, "Utility Stocks and the Size Effect: An Empirical Analysis," *Journal of Midwest Finance Association* 1993, pp. 95-101.

Further, the Commission has recently rejected the application of a size adjustment to the CAPM cost of equity calculation where it agreed that the same literature the Company cites is not specific to the utility industry.[62]

Q. BASED ON THE COMPANY'S CLAIMED RATE BASE AND CAPITAL STRUCTURE, WHAT IS THE VALUE OF AN ADDITIONAL 102 BASIS POINTS FOR MR. MOUL'S SIZE ADJUSTMENT TO THE COST OF EQUITY?

A. The example below illustrates the impact of 102 additional basis points for the size adjustment to the Company's cost of equity:

UGI Utilities, Inc. - Gas Division	
Claimed Equity Percentage of Capital Structure	55.12%
Additional Basis Points to Calculated Cost of Equity	102
Claimed Rate Base*	$3,169,023,000
Impact Prior to Gross Up (0.5512 x 0.0102 x $3,169,023,000)	$17,817,008
Gross Revenue Conversion Factor**	1.429864
Total Impact ($17,817,008 x 1.429864)	**$25,475,898**
*UGI Gas Exhibit A, Schedule A-1, ln. 9. **UGI Gas Exhibit A, Schedule A-1, ln. 24.	

[62] *Pa. PUC v. UGI Utilities, Inc. – Electric Division;* Docket No. R-2017-2640058 (Order Entered October 25, 2018), p. 100 (Disposition of Cost of Common Equity).

Q. WHAT WOULD MR. MOUL'S CAPM RESULT BE USING YOUR CALCULATED 10-YEAR TREASURY NOTE FOR HIS RISK-FREE RATE AND WITHOUT HIS SIZE ADJUSTMENT AND INFLATED BETAS?

A. Mr. Moul's CAPM result would be 11.13%. This is 242 basis points lower than his originally calculated 13.55% result. The calculation is repeated below without Mr. Moul's unnecessary adjustments:

Rf	**+**	***β***	***x***	***(Rm-Rf)***	**+**	***size***	**=**	***k***
2.35%	+	0.88	x	9.98%	+	0%	=	**11.13%**

MANAGEMENT PERFORMANCE

Q. DISCUSS THE COMPANY'S CLAIMS SPECIFIC TO MANAGEMENT PERFORMANCE.

A. Mr. Moul proposes that 20 basis points be added to the calculated cost of equity in recognition of the Company's exemplary management performance. He refers to the direct testimony of Company witness Christopher R. Brown (UGI Gas Statement No. 1) to support the consideration of additional basis points for UGI Gas' management performance.[63]

Q. WHAT INFORMATION DOES MR. BROWN PROVIDE TO SUPPORT THE COMPANY'S CLAIM OF EXEMPLARY MANAGEMENT PERFORMANCE?

A. Mr. Brown claims that UGI Gas' superior management performance has been

[63] UGI Gas Statement No. 6, p. 6, ln. 20 through p. 7, ln. 11.

demonstrated in recent years through management efforts that include excellent customer service, infrastructure improvements made in line with the Company's Long-Term Infrastructure Improvement Plan, investments in safety and training, modernization of information technology, environmental and social governance initiatives, community engagement, and diversity and inclusion.[64]

Q. DO YOU AGREE WITH THE COMPANY'S CLAIMS REGARDING MANAGEMENT PERFORMANCE?

A. No. First, many of the topics presented by Mr. Brown fall within the categories of reliability, customer satisfaction, and safety which are required of every public utility company under 66 Pa C.S.A. §1501. Additionally, the Company passes capital expenditures to its ratepayers via base rates, or it can utilize a DSIC for capital expenditure recovery. Further, if the Company is effective at controlling operating and maintenance costs, those savings should flow through to ratepayers and/or investors. These savings would likely be offset by the addition of basis points for management performance as ratepayers would have to fund the additional costs. This defeats the purpose of any cost cutting measures to benefit ratepayers.

Q. BASED ON THE COMPANY'S FILED RATE BASE AND CLAIMED CAPITAL STRUCTURE, WHAT IS THE VALUE OF AN ADDITIONAL 20 BASIS POINTS FOR THE CONSIDERATION OF MANAGEMENT PERFORMANCE TO THE COST OF EQUITY?

A. The example below illustrates the impact of 20 additional basis points for the

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[64] UGI Gas Statement No. 1, p. 30, ln. 12 through p. 39, ln. 2.

consideration of management performance to the Company's cost of equity:

UGI Utilities, Inc. - Gas Division	
Claimed Equity Percentage of Capital Structure	55.12%
Additional Basis Points to Calculated Cost of Equity	20
Claimed Rate Base*	$3,169,023,000
Impact Prior to Gross Up (0.5512 x 0.0020 x $3,169,023,000)	$3,493,531
Gross Revenue Conversion Factor**	1.429864
Total Impact ($3,493,531 x 1.429864)	**$4,995,274**
*UGI Gas Exhibit A, Schedule A-1, ln. 9. **UGI Gas Exhibit A, Schedule A-1, ln. 24.	

In this example, an addition of 20 basis points to the cost of equity in consideration of management performance would force ratepayers to fund an unwarranted additional amount of $4,995,274 annually to cover the increase of the inflated rate of return along with the associated impact resulting from increases to income taxes, gross receipts tax, uncollectibles, and assessments.

Q. WHAT IS YOUR RECOMMENDATION REGARDING THE CONSIDERATION OF ADDITIONAL BASIS POINTS FOR THE COMPANY'S MANAGEMENT PERFORMANCE?

A. Ultimately, as alluded to above, true strong management performance is earning a higher return through efficient use of resources and cost cutting measures. The greater net income resulting from cost savings and true efficiency in management and operations is available to be passed on to both ratepayers and shareholders. I do not believe that UGI Gas, or any utility should be gifted additional basis points for doing what they are required to do to provide adequate, efficient, safe, and reasonable service under 66 Pa C.S.A. §1501.

For these reasons, I recommend that any addition of basis points to the cost of equity for management performance be disallowed.

OVERALL RATE OF RETURN RECOMMENDATION

Q. WHAT IS THE COMPANY'S PROPOSED COST OF EQUITY AND OVERALL RATE OF RETURN?

A. The Company recommends a cost of equity of 11.20% and an overall rate of return of 7.96%.

Q. WHAT IS I&E'S RECOMMENDED COST OF EQUITY AND OVERALL RATE OF RETURN?

A. I&E Exhibit No. 2, Schedule 1, shows the calculation of an appropriate cost of equity to be 9.92% with an overall rate of return for UGI Gas to be 7.26%.

Q. DO YOU HAVE ANY FINAL COMMENTS REGARDING THE COMPANY'S PROPOSED RETURN ON EQUITY?

A. Yes. First, a report issued by Regulatory Research Associates, a group within S&P

Global Market Intelligence,[65] illustrates that UGI Utilities Inc. - Gas Division's 11.20% requested return on equity is a significant 99 basis points higher than the average return on equity request of 10.21% of all pending gas utility rate cases as of March 10, 2022.

Second, when asked, Mr. Moul indicated he was unaware if any natural gas distribution utilities throughout the United States were granted a Commission authorized return of 11.20% or higher cost of common equity in the past two years.[66]

Third, the Company's requested return on common equity is 100 basis points higher than the Commission's approved DSIC rate of 10.20% (Q3 2021 Quarterly Earnings Summary Report) for gas distribution companies. The DSIC rate is designed to encourage its use and to incentivize accelerated pipeline replacement and infrastructure upgrades to bring the existing aging infrastructure closer to meeting safety and reliability requirements in between base rate filings. Additionally, the DSIC rate establishes a benchmark above which a utility company is considered "overearning." As such, the DSIC rate does not serve as a proper measurement of a subject utility's cost of equity in a rate case proceeding. To suggest the cost of equity must be at or above the DSIC rate in this base rate proceeding is inappropriate and not in the public interest.

Finally, as detailed in the various charts above, the effect of Mr. Moul's adjustments to the market-determined cost of common equity are an enormous burden to ratepayers and are completely unwarranted and unnecessary. Although they are not cumulative, the impact to ratepayers of each of the disputed adjustments is summarized

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65 Regulatory Research Associates, "Major energy utility cases in progress in the US, Quarterly update on pending rate cases," *S&P Global Market Intelligence*, March 16, 2022.

66 I&E Exhibit No. 2, Schedule 11.

as follows:

Leverage Adjustment	$23,727,552
Size Adjustment	$25,475,898
Management Performance	$4,995,274

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

ANTHONY D. SPADACCIO, CRRA

PROFESSIONAL EXPERIENCE AND EDUCATION

EMPLOYMENT

Fixed Utility Financial Analyst 2014 – Present	PA Public Utility Commission Bureau of Investigation & Enforcement
Auditor 2012 – 2014	Public School Employee's Retirement System Bureau of Benefits Administration
Tax Technician 2010 – 2012	PA Department of Labor and Industry Unemployment Compensation Tax Services
Staff Accountant 2006 – 2009	Boyer & Ritter Certified Public Accountants

EDUCATION & TRAINING

EDUCATION/CERTIFICATIONS:

Society of Utility and Regulatory Financial Analysts (SURFA) – 2018
Certified Rate of Return Analyst (CRRA)

Indiana University of Pennsylvania, A.A. Accounting - 2006

The Pennsylvania State University, B.S. Labor and Industrial Relations – 2003

The Pennsylvania State University - The Smeal College of Business - 2003
Certificates of Completion:
Business Management - 20 credits of instruction
General Business - 20 credits of instruction

UTILITY SPECIFIC TRAINING/CONFERENCES:

NARUC Staff Subcommittee on Accounting & Finance, Fall 2021 webinar, October 5-7, 2021

NARUC Staff Subcommittee on Accounting & Finance, Spring 2021 webinar, April 6-8, 2021

SURFA Annual Financial Forum – New Orleans, LA – 2018

SURFA Annual Financial Forum – Indianapolis, IN - 2016

Western NARUC Utility Rate School – San Diego, CA - 2015

Pennsylvania Public Utility Commission Rate School – Harrisburg, PA – 2014

EXPERIENCE

I have submitted testimony or assisted in the following proceedings:

- Docket No. A-2021-3027268 - Aqua PA Wastewater, Inc. – Acquisition of the Wastewater System Assets of Willistown Township (§1329)*
- Docket No. R-2021-3026682 – City of Lancaster – Water Fund*
- Docket Nos. R-2021-3027385 & R-2021-3027386 – Aqua Pennsylvania, Inc. & Aqua Pennsylvania Wastewater, Inc.*
- Docket Nos. R-2021-3024773, R-2021-3024774 & R-2021-3024779 – Pittsburgh Water & Sewer Authority*
- Docket No. R-2021-3024601 - PECO Energy Company – Electric Division*
- Docket No. R-2021-3023618 – UGI Utilities, Inc. – Electric Division*
- Docket No. R-2020-3022135 – Pike County Light & Power Company (Electric)*
- Docket No. R-2020-3022135 – Pike County Light & Power Company (Gas)*
- Docket No. R-2020-3020919 – Audubon Water Company*
- Docket No. R-2020-3020256 – City of Bethlehem – Bureau of Water*
- Docket Nos. R-2020-3019369 & R-2020-3019371 - Pennsylvania-American Water Company*
- Docket Nos. R-2020-3017951, R-2020-3017970 & P-2020-3019019 – Pittsburgh Water & Sewer Authority*
- Docket No. R-2020-3017206 – Philadelphia Gas Works*
- Docket No. R-2020-3017850 - Peoples Natural Gas Company, LLC 1307(f)*
- Docket No. R-2020-3017846 - Peoples Gas Company, LLC 1307(f)*
- Docket No. R-2019-3010955 – City of Lancaster – Sewer Fund*
- Docket No. R-2019-3008208 - Wellsboro Electric Company*
- Docket No. R-2019-3008212 - Citizens' Electric Company of Lewisburg, PA*
- Docket No. R-2019-3008948 – Community Utilities of PA, Inc. – Wastewater Division*
- Docket No. R-2019-3008947 – Community Utilities of PA, Inc. – Water Division*
- Docket No. A-2019-3006880 – Pennsylvania-American Water Company – Acquisition of the Water Treatment and Distribution System Assets of Steelton Borough Authority (§1329)*
- Docket No. R-2018-3006814 – UGI Utilities, Inc. – Gas Division*
- Docket Nos. M-2018-2640802 & 2640803 – Pittsburgh Water & Sewer Authority (Compliance Plan)*
- Docket Nos. R-2018-3002645 & 3002647 - Pittsburgh Water & Sewer Authority*
- Docket Nos. A-2018-3003517 & 3003519 - SUEZ Water Pennsylvania, Inc. – Acquisition of the Water and Wastewater Assets of Mahoning Township (§1329)*
- Docket No. R-2018-3000124 - Duquesne Light Company*
- Docket No. R-2018-3000164 - PECO Energy Company – Electric Division*
- Docket No. R-2018-2645296 - Peoples Gas Company LLC 1307(f)*

- Docket No. R-2018-3000236 - Peoples Natural Gas – Equitable Division 1307(f)*
- Docket No. R-2018-2645278 - Peoples Natural Gas Company, LLC 1307(f)*
- Docket No. R-2017-2640058 - UGI Utilities, Inc. – Electric Division*
- Docket No. R-2017-2595853 - Pennsylvania-American Water Company*
- Docket No. A-2017-2606103 - Pennsylvania-American Water Company – Acquisition of Assets of the Municipal Authority of the City of McKeesport (§1329)*
- Docket No. A-2016-2580061 - Aqua PA Wastewater, Inc. – Acquisition of the Wastewater System Assets of New Garden Township and the New Garden Township Sewer Authority (§1329)
- Docket No. R-2016-2531551 - Wellsboro Electric Company*
- Docket No. R-2016-2531550 - Citizens' Electric Company of Lewisburg, PA*
- Docket No. R-2016-2542923 - PNG, LLC – Equitable Division (Rate MLX)*
- Docket No. R-2016-2542918 - Peoples Natural Gas Company, LLC (Rate MLX)*
- Docket No. P-2016-2543140 - Duquesne Light Company (DSP VIII)*
- Docket No. R-2016-2529660 - Columbia Gas of PA, Inc.*
- Docket No. R-2016-2538660 - Community Utilities of PA, Inc.
- Docket No. P-2016-2521993 - Columbia Gas of PA, Inc. (DSIC)*
- Docket No. R-2015-2506337 - Twin Lakes Utilities, Inc.
- Docket No. R-2015-2479955 - Allied Utility Services, Inc.
- Docket No. R-2015-2479962 - Corner Water Supply & Service Corp.
- Docket No. R-2015-2470184 - Borough of Schuylkill Haven – Water Dept.
- Docket No. R-2014-2452705 - Delaware Sewer Company*
- Docket No. R-2014-2430945 - Plumer Water Company
- Docket No. R-2014-2427189 - B.E. Rhodes Sewer Company
- Docket No. R-2014-2427035 - Venango Water Company
- Docket No. R-2014-2428745 - Metropolitan Edison Company
- Docket No. R-2014-2428744 - Pennsylvania Power Company
- Docket No. R-2014-2428743 - Pennsylvania Electric Company
- Docket No. R-2014-2428742 - West Penn Power Company

*Testimony Submitted

I&E Exhibit No. 2
Witness: Anthony Spadaccio

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Exhibit to Accompany

the

Direct Testimony

of

Anthony Spadaccio, CRRA

Bureau of Investigation & Enforcement

Concerning:

Rate of Return

I&E Exhibit No. 2
Schedule 1

I&E
Summary of Cost of Capital

Type of Capital	**Ratio**	**Cost Rate**	**Weighted Cost**
UGI Utilities, Inc. - Gas Division			
Long-Term Debt	44.88%	3.98%	1.79%
Common Equity	55.12%	9.92%	5.47%
Total	100.00%		7.26%

I&E Exhibit No. 2
Schedule 2

Proxy Group Capital Structure

	2020		2019		2018		2017		2016		Average
Atmos Energy Corp.											
Long-term Debt	$ 4,732.850	41.07%	$ 3,529.452	36.22%	$ 2,493.665	31.81%	$ 3,067.045	41.37%	$ 2,188.779	33.77%	36.85%
Short-term Debt	-	0.00%	464.915	4.77%	575.780	7.34%	447.745	6.04%	829.811	12.80%	6.19%
Common Equity	6,791.203	58.93%	5,750.223	59.01%	4,769.950	60.85%	3,898.666	52.59%	3,463.059	53.43%	56.96%
	11,524.053	100.00%	9,744.590	100.00%	7,839.395	100.00%	7,413.456	100.00%	6,481.649	100.00%	100.00%
Chesapeake Utilities											
Long-term Debt	518.371	37.26%	450.064	35.75%	316.020	27.99%	197.395	21.12%	136.954	17.27%	27.88%
Short-term Debt	175.644	12.63%	247.371	19.65%	294.458	26.08%	250.969	26.85%	209.871	26.47%	22.34%
Common Equity	697.085	50.11%	561.577	44.60%	518.439	45.92%	486.294	52.03%	446.086	56.26%	49.79%
	1,391.100	100.00%	1,259.012	100.00%	1,128.917	100.00%	934.658	100.00%	792.911	100.00%	100.00%
NiSource Inc.											
Long-term Debt	9,249.700	63.25%	7,907.800	53.48%	7,105.400	50.92%	7,512.200	57.62%	6,058.200	52.15%	55.48%
Short-term Debt	503.000	3.44%	1,773.200	11.99%	1,977.200	14.17%	1,205.700	9.25%	1,488.000	12.81%	10.33%
Common Equity	4,872.200	33.31%	5,106.700	34.53%	4,870.900	34.91%	4,320.100	33.13%	4,071.200	35.04%	34.19%
	14,624.900	100.00%	14,787.700	100.00%	13,953.500	100.00%	13,038.000	100.00%	11,617.400	100.00%	100.00%
Northwest Natural Gas Co.											
Long-term Debt	940.702	44.08%	806.796	44.28%	706.247	41.88%	683.184	46.16%	679.334	42.91%	43.86%
Short-term Debt	304.525	14.27%	149.100	8.18%	217.620	12.90%	54.200	3.66%	53.300	3.37%	8.48%
Common Equity	888.730	41.65%	865.999	47.53%	762.634	45.22%	742.776	50.18%	850.497	53.72%	47.66%
	2,133.957	100.00%	1,821.895	100.00%	1,686.501	100.00%	1,480.160	100.00%	1,583.131	100.00%	100.00%
One Gas Inc.											
Long-term Debt	1,613.228	37.83%	1,314.064	33.18%	1,285.483	35.44%	1,193.257	33.99%	1,192.446	36.97%	35.48%
Short-term Debt	418.225	9.81%	516.500	13.04%	299.500	8.26%	357.215	10.18%	145.000	4.50%	9.16%
Common Equity	2,233.311	52.37%	2,129.390	53.77%	2,042.656	56.31%	1,960.209	55.84%	1,888.280	58.54%	55.36%
	4,264.764	100.00%	3,959.954	100.00%	3,627.639	100.00%	3,510.681	100.00%	3,225.726	100.00%	100.00%
South Jersey Industries Inc.											
Long-term Debt	2,777.698	55.17%	2,070.767	47.68%	2,106.863	57.81%	1,122.999	42.19%	808.005	33.76%	47.32%
Short-term Debt	596.400	11.85%	848.700	19.54%	270.500	7.42%	346.400	13.01%	296.100	12.37%	12.84%
Common Equity	1,660.881	32.99%	1,423.785	32.78%	1,267.022	34.77%	1,192.409	44.80%	1,289.240	53.87%	39.84%
	5,034.979	100.00%	4,343.252	100.00%	3,644.385	100.00%	2,661.808	100.00%	2,393.345	100.00%	100.00%
Spire Inc.											
Long-term Debt	2,482.100	45.88%	2,082.600	40.62%	1,900.100	40.35%	1,995.000	44.69%	1,833.700	45.84%	43.48%
Short-term Debt	648.000	11.98%	743.200	14.50%	553.600	11.76%	477.300	10.69%	398.700	9.97%	11.78%
Common Equity	2,280.300	42.15%	2,301.000	44.88%	2,255.400	47.89%	1,991.300	44.61%	1,768.200	44.20%	44.75%
	5,410.400	100.00%	5,126.800	100.00%	4,709.100	100.00%	4,463.600	100.00%	4,000.600	100.00%	100.00%

Five-Year Average Capital Structure					
Long-term Debt	41.48%	**Maximum**	55.48%	**Minimum**	27.88%
Short-term Debt	11.59%				
Common Equity	46.93%	**Minimum**	34.19%	**Maximum**	56.96%
	100.00%				

Source:
Compustat (S&P Global Market Intelligence - Data Management Solutions)
Yearly data updates typically provided late April of each year
(data in millions)

I&E Exhibit No. 2
Schedule 3

		2020	
Company	**Interest Charges**	**Long-Term Debt**	**Debt Cost**
Atmos Energy Corp.	$ 92.91	$ 4,732.85	1.96%
Chesapeake Utilities	21.50	518.37	4.15%
NiSource Inc.	377.70	9,249.70	4.08%
Northwest Natural Gas Co.	43.05	940.70	4.58%
One Gas Inc.	66.71	1,613.23	4.13%
South Jersey Industries Inc.	125.63	2,777.70	4.52%
Spire Inc.	111.30	2,482.10	4.48%
	Range:	**Low**	**1.96%**
		High	**4.58%**
		Average	**3.99%**

Source:
Compustat (S&P Global Market Intelligence - Data Management Solutions)
Yearly data updates typically provided late April of each year
(data in millions)

Dividend Yields of the Proxy Group

Company	Atmos Energy Corp.	Chesapeake Utilities	NiSource Inc.	Northwest Natural Gas Co.	One Gas Inc.	South Jersey Industries Inc.	Spire Inc.
Symbol	*ATO*	*CPK*	*NI*	*NWN*	*OGS*	*SJI*	*SR*
Div	2.92	2.16	0.98	1.94	2.64	1.28	2.86
52-wk low	85.80	105.30	21.11	43.07	62.52	20.75	59.60
52-wk high	110.68	146.30	30.19	56.75	83.88	34.05	77.95
Spot Price	109.81	132.95	28.93	52.01	83.09	33.93	67.11
Spot Div Yield	2.66%	1.62%	3.39%	3.73%	3.18%	3.77%	4.26%
52-wk Div Yield	2.97%	1.72%	3.82%	3.89%	3.61%	4.67%	4.16%
Average	**2.82%**	**1.67%**	**3.60%**	**3.81%**	**3.39%**	**4.22%**	**4.21%**

	Average
Spot Div Yield	**3.23%**
52-wk Div Yield	**3.55%**
Average	**3.39%**

Source:	Barrons	3/1/2022 & 2/25/2022
	Value Line	02/25/22

I&E Exhibit No. 2
Schedule 5

Five-Year Growth Estimate Forecast for Proxy Group (Actual)

Company	Symbol	Yahoo!	Zacks	Morningstar	Value Line	Average
		Source				
Atmos Energy Corp.	ATO	7.20%	7.30%	7.30%	7.50%	7.33%
Chesapeake Utilities	CPK	4.74%	NA	8.20%	8.00%	6.98%
NiSource Inc.	NI	3.52%	6.70%	6.70%	10.50%	6.86%
Northwest Natural Gas Co.	NWN	5.70%	5.10%	6.40%	6.00%	5.80%
One Gas Inc.	OGS	2.90%	5.00%	NA	6.00%	4.63%
South Jersey Industries Inc.	SJI	5.20%	5.20%	NA	10.00%	6.80%
Spire Inc.	SR	7.31%	5.30%	7.60%	9.00%	7.30%
Average						**6.53%**

Sources date:
2/11/2022 & 2/25/2022

I&E Exhibit No. 2
Schedule 6

Expected Market Cost Rate of Equity for the Proxy Group

5-Year Forecasted Growth Rates

	Time Period		Adjusted Dividend Yield (1)	Growth Rate (2)	Expected Return on Equity (3=1+2)
(1)	**52-Week Average**		3.55%	6.53%	10.08%
	Ending:	3/1/2022 & 2/25/2022			
(2)	**Spot Price**		3.23%	6.53%	9.76%
	Ending:	3/1/2022 & 2/25/2022			
(3)	**Average:**		**3.39%**	**6.53%**	**9.92%**

Sources: Value Line 02/25/22
Barrons 3/1/2022 & 2/25/2022

I&E Exhibit No. 2
Schedule 7

Company	Beta
Atmos Energy Corp.	0.80
Chesapeake Utilities	0.80
NiSource Inc.	0.85
Northwest Natural Gas Co.	0.80
One Gas Inc.	0.80
South Jersey Industries Inc.	1.00
Spire Inc.	0.85
Average beta for CAPM	**0.84**

Source:
Value Line
02/25/22

Risk-Free Rate

Treasury note 10-yr Note	**Yield**
2Q 2022	2.00
3Q 2022	2.10
4Q 2022	2.20
1Q 2023	2.40
2Q 2023	2.50
2023-2027	2.90
Average	**2.35**

Source:
Blue Chip
12/1/2021 & 2/2/2022

I&E Exhibit No. 2
Schedule 9

Required Rate of Return on Market as a Whole Forecasted

	Dividend Yield	+	Growth Rate	=	Expected Market Return
Value Line Estimate	1.90%		10.67%	(a)	12.57%
S&P 500	1.51%	(b)	13.90%		15.41%
Average Expected Market Return				=	**13.99%**

(a) ((1+50%)^.25) -1) Value Line forecast for the 3 to 5 year index appreciation is 50%
(b) S&P 500 dividend yield multiplied by half the S&P 500 growth rate
(b) 1.41%*((1+13.90%/2)) = 1.51%

Sources:

S&P 500 Growth Rate Morningstar	2/11/2022	13.90%
S&P 500 Dividend Yield Barron's	2/25/2022	1.41%
Value Line Dividend Yield	2/25/2022	1.90%
Value Line Appreciation Potential	2/25/2022	50.00%

CAPM with Forecasted Return

Re	Required return on individual equity security
Rf	Risk-free rate
Rm	Required return on the market as a whole
Be	Beta on individual equity security

Re = Rf+Be(Rm-Rf)

Rf =	2.35
Rm =	13.99
Be =	0.84
Re =	**12.13**

Sources: Value Line 02/25/22
Blue Chip 12/1/2021 & 2/2/2022

I&E-RR-10-D

Request:

Reference UGI Gas Statement No. 6, p. 50, lines 11-16:

A. State whether Mr. Moul is aware of any natural gas distribution utilities throughout the United States that have been granted a Commission authorized 11.20% or higher cost of common equity in the past two years.

B. If the answer to I&E-RR-10-D Part A is yes, state which company/companies have been authorized such cost of common equity and in what jurisdiction.

Response:

A. Mr. Moul has not researched this issue.

B. See the response to (A) above.

Prepared by or under the supervision of: Paul R. Moul

I&E Statement No. 3
Witness: Brian J. LaTorre

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Direct Testimony

of

Brian J. LaTorre

Bureau of Investigation and Enforcement

Concerning:

OPERATING & MAINTENANCE EXPENSES

TABLE OF CONTENTS

INTRODUCTION

Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.

A. My name is Brian LaTorre. I am a Fixed Utility Financial Analyst in the Technical Division of the Pennsylvania Public Utility Commission's (Commission or PUC) Bureau of Investigation and Enforcement (I&E). My business address is Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120.

Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL BACKGROUND.

A. My education and professional background are set forth in Appendix A, which is attached.

Q. DESCRIBE THE ROLE OF I&E IN RATE PROCEEDINGS.

A. I&E is responsible for protecting the public interest in rate proceedings. I&E's analysis in this proceeding is based on its responsibility to represent the public interest. This responsibility requires balancing the interests of ratepayers, the regulated utility, and the regulated community as a whole.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to review the base rate filing of UGI Utilities, Inc. – Gas Division (UGI Gas or Company) and make recommended adjustments to the Company's proposed operating and maintenance (O&M) expense claims for the fully projected future test year (FPFTY) ending September 30, 2023.

Q. DOES YOUR TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 3 contains schedules that support my direct testimony.

SUMMARY OF RECOMMENDED ADJUSTMENTS

Q. PLEASE SUMMARIZE YOUR RECOMMENDED ADJUSTMENTS AS EXPLAINED IN THIS DIRECT TESTIMONY.

A. The following table summarized my recommended adjustments to the O&M expense claims under my purview. These recommended adjustments are reflected in the overall I&E recommended revenue requirement presented by I&E witness Zachari Walker[1] in this proceeding.

	Company Claim	**Recommended Allowance**	**I&E Adjustment**
O&M Expenses:			
Rate Case Expense	$1,055,000	$633,000	($422,000)
2020 and 2021 Environmental Remediation Expense	$2,327,000	$465,400	($1,861,600)
OSHA/Emergency Temporary Standard Compliance Costs	$1,883,000	$31,760	($1,851,240)
Total O&M Expense Adjustments			**($4,134,840)**

[1] I&E Statement No. 1.

<u>RATE CASE EXPENSE</u>

Q. DESCRIBE THE NATURE AND TYPES OF EXPENDITURES TYPICALLY ALLOWED AS PART OF A REGULATED UTILITY'S OVERALL RATE CASE EXPENSE.

A. The nature and types of individual expenditures that comprise a utility's allowable claim for rate case expense are those directly incurred to compile, present, and defend a utility's request for a rate base increase before the Commission. The actual expenditures and estimated costs typically found in an allowable rate case expense claim include legal fees for outside counsel, fees to outside consultants, and the cost of printing, document assembly, and postage.

Q. HOW HAS THE COMMISSION TRADITIONALLY TREATED RATE CASE EXPENSE FOR RATEMAKING PURPOSES?

A. The Commission has historically stated that it considers prudently incurred rate case expense as an ongoing expense, occurring at irregular intervals, related to the rendering of utility service. Thus, it is necessary to normalize rate case expense for ratemaking purposes. The Commission has also cited the importance of considering the involved utility's history regarding the frequency of rate case filings as an essential element in determining the normalized level of rate case expense for ratemaking purposes.

Q. HOW IS THE FREQUENCY OF RATE CASE FILINGS DETERMINED?

A. The frequency is determined by calculating the average number of months between the filing dates of a utility's previous base rate cases.

Q. WHAT IS THE COMPANY'S CLAIM FOR RATE CASE EXPENSE?

A. The Company's FPFTY claim for rate case expense is $1,055,000.[2]

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. The Company has estimated a total rate case expense of $1,055,000 and is requesting a normalization period of one year (12 months). In his testimony, UGI Gas witness Christopher R. Brown indicated the Company expects to file its next rate case approximately one year following the filing of this base rate case.[3]

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

Q. WHAT IS YOUR RECOMMENDATION FOR RATE CASE EXPENSE?

A. I recommend the Company's rate case expense be normalized over a 20-month period resulting in an annual allowance of $633,000 [($1,055,000 ÷ 20 months) x 12] or a reduction of $422,000 ($1,055,000 - $633,000) to the Company's annual rate case expense claim.

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2 UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-10.

3 UGI Gas Statement No. 1, pp. 9-10.

Q. WHAT IS THE BASIS OF YOUR RECOMMENDATION?

A. The Company's requested normalization period of one year for rate case expense is not supported by the historic filing frequency of the Company. In response to I&E-RE-46,[4] the Company provided the following information about its last three historic base rate cases:

Docket No.	Filing Date	Filing Interval - Months
R-2021-3030218	1/28/2022	24
R-2019-3015162	1/28/2020	12
R-2018-3006814	1/28/2019	24
R-2016-2580030	1/19/2017	

The Company filed its three most recent rate cases on January 19, 2017; January 28, 2019; and January 28, 2020. Including the current rate case, which was filed on January 28, 2022, the average filing frequency is 20 months [(24 months + 12 months + 24 months) ÷ 3]. The recommended 20-month normalization period is consistent with the Commission's emphasis on the importance of considering the utility's history of rate case filings when determining the normalization period of rate case expenses. A one-year normalization period should be disallowed as it would result in an unreasonable increase in customer rates.

4 I&E Exhibit No. 3, Schedule 1.

Q. ARE THERE ANY COMMISSION DECISIONS THAT SUPPORT YOUR RECOMMENDATION FOR A RATE CASE FILING INTERVAL BASED ON HISTORIC FILING FREQUENCY?

A. Yes. In a base rate case filed by Emporium Water Company, the Commission adopted the I&E-recommended historic filing frequency finding in favor of I&E's recommended five-year normalization period based on historic average filing frequency that was rounded down from 64 months.[5]

Similarly, the Commission agreed with I&E's recommendation in the City of DuBois base rate case to use a historic filing frequency finding in favor of I&E's recommended 64-month normalization period, matching the actual historic filing frequency.[6]

Likewise, in the 2020 Columbia Gas of Pennsylvania, Inc. base rate proceeding, the Commission confirmed the normalization period should align with the historic data rather than the Company's intent to file its next rate case.[7]

Finally, and most recently, the Commission determined that a normalization period based on actual historic filing frequency is more reliable than future speculation in the 2020 PECO Energy Company – Gas Division (PECO Gas) rate case. In the PECO Gas case, the Commission accepted I&E's

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5 *PA PUC v. Emporium Water Company,* Docket No. R-2014-2402324, pp. 47-50 (Order Entered January 28, 2015).

6 *PA PUC v. City of DuBois – Bureau of Water,* Docket No. R-2016-2554150, pp. 65-66 (Order Entered March 28, 2017); *PA PUC v. City of DuBois – Bureau of Water,* Docket No. R-2016-2554150, p. 13 (Order Entered May 18, 2017).

7 *PA PUC v. Columbia Gas,* Docket No. R-2020-3018835, Opinion and Order, pp. 78-79 (Order Entered February 19, 2021).

recommended five-year normalization period in contrast to a claim based on a three-year period.[8]

UNRECOVERED ENVIRONMENTAL REMEDIATION EXPENSE

Q. WHAT ARE THE ENVIRONMENTAL REMEDIATION COSTS ASSOCIATED WITH MANUFACTURED GAS PLANTS (MGPs)?

A. Environmental remediation costs are those costs attributed to the site investigations, remediation, restoration of MGPs, and Pennsylvania Department of Environmental Protection oversight costs. There may also be costs incurred to obtain an environmental covenant at the site to prevent certain uses of the site and miscellaneous costs associated with transferring the site to a third party once the site has been restored.[9] Briefly, remediation costs are expenses for investigation, assessment, site characterization, and clean-up of MGPs.

Q. BRIEFLY SUMMARIZE THE COMPONENTS OF THE COMPANY'S ENVIRONMENTAL REMEDIATION EXPENSE CLAIM.

A. The Company is claiming a current ongoing cash expenditure based on a three-year historic average,[10] it is making a claim for the unrecovered MGP expenses for

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[8] *PA PUC v. PECO Energy Company – Gas Division,* Docket No. R-2020-3018929, Opinion and Order, pp. 117-119 (Non-Proprietary Order Entered June 22, 2021).

[9] UGI Gas Statement No. 9, pp. 24-25.

[10] UGI Gas Statement No. 3, p. 17 and UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-8, Environmental Adjustment #1.

the Fiscal Year 2019 and prior periods,[11] and it is making a claim for under-recovery of environmental expenditures for 2020 and 2021.[12]

Q. WHAT IS UNRECOVERED ENVIRONMENTAL REMEDIATION EXPENSE?

A. This expense represents the Company's amortization of unrecovered environmental remediation costs for MGPs that exceed the annual allowance for the expense amount approved in the prior base rate cases.

Q. WHICH UNRECOVERED ENVIRONMENTAL REMEDIATION EXPENSE CLAIM ARE YOU ADDRESSING HEREIN?

A. I am addressing the proposed amortization of: (1) unrecovered 2019 and prior years' environmental remediation expenses; and (2) unrecovered 2020/2021 environmental remediation expenses.

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11 UGI Gas Statement No. 3, p. 18 and UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-8, Environmental Adjustment #2.

12 UGI Gas Statement No. 3, p. 18 and UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-8, Environmental Adjustment #3.

<u>Unrecovered 2019 and Prior Years' Environmental Remediation Expense</u>

Q. WHAT IS THE COMPANY'S CLAIM FOR THE AMORTIZATION OF 2019 AND PRIOR YEARS' UNRECOVERED ENVIRONMENTAL REMEDIATION EXPENSE?

A. The Company is claiming $1,865,000 for the FPFTY.[13]

Q. WHAT IS THE BASIS OF THE COMPANY'S CLAIM?

A. UGI Gas witness Vivian K. Ressler has indicated that in the 2020 rate case, the Company was authorized to amortize $8.103 million of under-recovered expense over five years, resulting in $1.621 million per year for fiscal years prior to September 2018, and it was authorized $1.219 million over five years, or $0.24 million per year for Fiscal Year 2019. Thus, she asserts that the annual amount is $1.865 million per year until the total is fully amortized.[14]

Q. DO YOU ACCEPT THE COMPANY'S CLAIM FOR THE 2019 AND PRIOR YEARS' UNRECOVERED ENVIRONMENTAL REMEDIATION EXPENSE AMORTIZATION?

A. Yes. However, I recommend the Company be required to provide a full line-by-line account of the yearly amortizations in the next base rate proceeding because, based on the explanation provided below, by the time the Company files its next rate case and new rates go into effect in that subsequent proceeding I anticipate

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[13] UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-8, Environmental Adjustment #2.

[14] UGI Gas Statement No. 3, p. 18.

that the amounts prior to Fiscal Year 2019 will be fully extinguished and there will be no remaining balance left to recover.

Q. IN WHAT YEAR SHOULD THE AMORTIZATIONS HAVE BEGUN?

A. According to the Commission Orders as cited below, the Company should have begun the amortization on October 1, 2019 for periods prior to September 2019 (for the $1.621 million), and January 1, 2021 for the $0.244 million per year that applies to the Fiscal Year 2019.

Q. WHEN WOULD THOSE AMOUNTS BE FULLY EXTINGUISHED?

A. Based on the following table, the amounts would be fully extinguished as follows:

<u>For Periods Prior to September 2019</u>:[15]

2019	$1.621 million
2020	$1.621 million
2021	$1.621 million
2022	$1.621 million
2023	$1.621 million
	(After FPFTY 2023, fully extinguished)

<u>For Fiscal Year 2019</u>:[16]

2021	$0.244 million x 75% (for Jan.-Sep.) or $0.183 million
2022	$0.244 million
2023	$0.244 million
2024	$0.244 million
2025	$0.244 million
2026	$0.244 million x 25% (for Oct.-Dec.) or $0.061 million
	(After Dec. 31, 2026, fully extinguished)

[15] *PA PUC v. UGI Utilities, Inc – Gas Division* Docket No. R-2018-3006814, Order Entered September 19, 2019; Paragraph 64

[16] *PA PUC v. UGI Utilities, Inc – Gas Division* Docket No. R-2019-3015162, Order Entered October 8, 2020; Paragraph 33

Unrecovered 2020/2021 Environmental Remediation Expense

Q. WHAT IS THE COMPANY'S CLAIM FOR AMORTIZATION OF 2020 AND 2021 UNRECOVERED ENVIRONMENTAL REMEDIATION EXPENSE?

A. The Company is claiming amortization of unrecovered 2020 and 2021 environmental remediation expense of $2,327,000 over a period of one year.[17]

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. The Company's claim is based on amortization of the total 2020 and 2021 unrecovered expense related to environmental remediation costs of $2,327,000 over one year, which is also the FPFTY claim.[18]

Q. UPON WHAT DID THE COMPANY BASE ITS PROPOSED ONE-YEAR AMORTIZATION?

A. The Company's claimed one-year amortization for unrecovered 2020/2021 environmental remediation expense is in line with its claimed one-year normalization period for rate case expense.[19]

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[17] UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-8, Environmental Adjustment #3.
[18] UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-8, line 13-17.
[19] UGI Gas Statement No. 3, p. 18 and UGI Gas Statement No. 1, pp. 9-10.

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM FOR THE AMORTIZATION OF 2020 AND 2021 UNRECOVERED ENVIRONMENTAL REMEDIATION EXPENSE?

A. No.

Q. WHAT DO YOU RECOMMEND FOR THE AMORTIZATION OF UNRECOVERED 2020 AND 2021 ENVIRONMENTAL REMEDIATION EXPENSE?

A. I recommend an allowance of $465,400 for unrecovered 2020 and 2021 environmental remediation expense or a reduction of $1,861,600 ($2,327,000 - $465,400) to the Company's claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommended allowance for the amortization of 2020 and 2021 environmental remediation expense is based on an amortization period of five years to remain consistent with the amortization period of five years for unrecovered environmental remediation expense from the Opinion and Order in the prior case.[20] Accordingly, I calculated the FPFTY amortization or the unrecovered expense by applying the amortization period of five years, which produced my recommended allowance of $465,400 ($2,327,000 ÷ 5 years).

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[20] *PA PUC v. UGI Utilities, Inc – Gas Division* Docket No. R-2019-3015162, Order Entered October 8, 2020; Paragraph 33.

This amortization would begin in the FPFTY 2023 and be fully amortized by Fiscal Year 2027.

<u>OSHA/EMERGENCY TEMPORARY STANDARD (ETS) COMPLIANCE COSTS</u>

Q. WHAT ARE OSHA/ETS COMPLIANCE COSTS?

A. OSHA/ETS compliance costs are costs associated with President Biden's COVID-19 Action Plan and the U.S. Department of Labor's OSHA ETS requirements relating to vaccination and testing mandates. These costs include vaccination status tracking, performing required COVID-19 tests, legal assistance, and policy drafting and communication to affected employees and contractors.[21]

Q. WHAT IS THE COMPANY'S CLAIM FOR OSHA/ETS COMPLIANCE COSTS?

A. In its filing, the Company claims a total budget of $1,883,000 as an adjustment to operating expenses in the FPFTY. These costs include $1,692,000 for the tracking of COVID-19 Vaccination Status and performing required testing, and $191,000 in one-time costs for communication and legal costs.[22]

Q. WHAT IS THE BASIS FOR THE COMPANY'S PROPOSED OSHA/ETS COMPLIANCE COSTS?

A. The Company proposes amortizing these COVID-19 related costs over a one-year

[21] UGI Gas Statement No. 3, pp. 24-26.
[22] UGI Gas Statement No. 3, p. 25 and UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-13.

period in line with its claimed rate case filing interval.[23] On November 5, 2021, OSHA issued the vaccination and testing ETS for businesses that have over 100 employees. Company witness Ressler acknowledges that there is uncertainty concerning the federal mandates due to a recent decision by the U.S. Supreme Court but asserted that "it is appropriate to include a cost associated with vaccination and testing mandates in its revenue requirement to ensure future cost recovery in the event such mandates or similar mandates become law."[24]

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM FOR OSHA/ETS COMPLIANCE COSTS?

A. No.

Q. WHAT DO YOU RECOMMEND FOR OSHA/ETS COMPLIANCE COSTS?

A. I recommend an allowance of $31,760 for amortization of deferred COVID-19 related OSHA/ETS compliance costs or a reduction of $1,851,240 ($1,883,000 - $31,760) to the Company's claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. In response to OCA-III-25,[25] the Company states that it is withdrawing a majority

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[23] UGI Gas Book V, Exhibit A – Fully Projected, Schedule D-13.
[24] UGI Gas Statement No. 3, p. 25.
[25] I&E Exhibit No. 3, Schedule 2.

of the claim because the U.S. Supreme Court overturned the Federal Mandate. However, the Company is still claiming $52,934 on already incurred costs and is requesting to amortize this cost over a one-year period. These are costs that were associated with legal advice related to the application of the mandate, and a subscription to a vaccine tracking software.

While I accept that these COVID-19 related costs are already incurred, I recommend an amortization period of 20 months in line with my recommended rate case filing frequency for rate case expense as explained above. This would minimize any over- or under-recovery of the related cost. Therefore, I recommend an allowance of $31,760 [($52,934 ÷ 20 months) x 12].

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

Brian LaTorre

Professional and Educational Background

Professional Experience

Pennsylvania Public Utility Commission, Harrisburg, Pennsylvania
November 2021 to Present
Fixed Utility Financial Analyst, Bureau of Investigation and Enforcement

Pennsylvania House of Representatives, Lansdale, Pennsylvania
December 2018 to October 2021
Constituent Services Advisor
Organized meetings with local officials and stakeholders on issues impacting the community. Assisted residents and business owners with issues relating to state government, including LIHEAP and Unemployment Compensation.

SimiTree Healthcare Consulting, Conshohocken, Pennsylvania
June 2016 to March 2018
Analyst
Tracked and analyzed revenue cycle accounts receivable trends for home healthcare and hospice clients. Identified and corrected Medicare, Medicaid, and Private Insurance billing issues. Maintained external dashboards that displayed key performance indicators for clients.

Education and Training

Pennsylvania State University – Smeal College of Business
Bachelor of Science, Finance, 2016
Minor in Economics

PUC Rate School, January 18 through February 8, 2022

Testimony Submitted

- R-2022-3030235 – National Fuel Gas Distribution Corporation (§ 1307(f))

I&E Exhibit No. 3
Witness: Brian J. LaTorre

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Exhibit to Accompany

the

Direct Testimony

of

Brian J. LaTorre

Bureau of Investigation and Enforcement

Concerning:

OPERATING & MAINTENANCE EXPENSES

I&E-RE-46

Request:

Reference UGI Gas Book V, Schedule D-10 for the FPFTY, concerning Rate Case Expense, provide the following details for the last three base rate cases (by rate district where applicable) filed with the Commission:

A. The docket number, date of filing, and the method of resolution (e.g., settlement or litigation); and

B. Requested rate case expense and the actual rate case expense incurred.

Response:

Please see Attachment I&E-RE-46.

Prepared by or under the supervision of: Tracy A. Hazenstab

UGI UTILITIES, INC. - GAS DIVISION
Prior Rate Case Costs Incurred

Company	Docket No.	Filing Date	Rate Case Costs Incurred	Rate Case Costs Requested	Resolution
UGI Utilities, Inc. - Gas Division	R-2019-3015162	January 28, 2020	$ 1,050,932	$ 1,077,000	Settlement
UGI Utilities, Inc. - Gas Division	R-2018-3006814	January 28, 2019	$ 859,194	$ 1,378,390	Settlement
UGI Penn Natural Gas, Inc.	R-2016-2580030	January 19, 2017	$ 576,127	$ 821,000	Settlement

UGI Utilities, Inc. - Gas Division
Docket No. R-2021-3030218
UGI Gas 2022 Base Rate Case
Responses to OCA Set III (1 thru 34)
Delivered on March 9, 2022

OCA-III-25

Request:

Refer to Ms. Ressler's Statement No. 3 at 24. Please provide a breakdown of the Company's proposed ongoing costs for tracking and testing (Schedule D-13) of $1.692 million and the one-time costs for communication and legal advice of $191,000. Please provide any known updates regarding the "Federal Mandates" proceeding before the U.S. Supreme Court.

Response:

Since the Company finalized the preparation of its revenue requirement claim, the U.S. Supreme Court overturned the Federal Mandate for vaccination and testing requirements. Due to this decision and the fact that there likely will not be a similar mandate passed into law, the Company will withdraw substantially all of its claim associated with this mandate.

The Company did incur certain costs associated with legal advice related to application of the mandate and a subscription to vaccine tracking software. These costs ($52,934) are detailed in Attachment OCA-III-25 and the Company will maintain its claim to defer and amortize these costs over a one year period.

Prepared by or under the supervision of: Vivian K. Ressler

UGI Utilities, Inc. - Gas Division
OSHA/Emergency Temporary Standard (ETS) Compliance Costs

		UGI Utilities allocation from UGI Corporation	UGI Gas allocation from UGI Utilities	UGI Gas Cost
	A	B	C	A * B * C
Legal Costs	$ 19,143	31.8%	90.69%	$ 5,521
* Vaccine Tracking Software	$ 164,406	31.8%	90.69%	$ 47,414
	Total Costs			$ 52,934

* Because the OSHA / ETS mandate was initially to be effective in January 2022, the Company needed to be prepared to implement requirements on that date, and entered into a 3-year subscription agreement for vaccine tracking software as part of that preparation process. The cost indicated here (which has been paid by the Company) is only for the first year of that subscription, as the Company expects to be able to mitigate the costs for future years.

I&E Statement No. 4
Witness: Ethan H. Cline

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Direct Testimony

of

Ethan H. Cline

Bureau of Investigation and Enforcement

Concerning:

Test Year
Present Rate Revenue
Weather Normalization Adjustment
Average Bill Comparison
Scale Back of Rates

TABLE OF CONTENTS

INTRODUCTION

Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?

A. My name is Ethan H. Cline. My business address is 400 North Street, Harrisburg, PA 17120.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Pennsylvania Public Utility Commission (Commission) in the Bureau of Investigation and Enforcement (I&E) as a Fixed Utility Valuation Engineer.

Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?

A. My education and professional background are set forth in Appendix A, which is attached.

Q. PLEASE DESCRIBE THE ROLE OF I&E IN RATE PROCEEDINGS.

A. I&E is responsible for protecting the public interest in proceedings before the Commission. The I&E analysis in the proceeding is based on its responsibility to represent the public interest. This responsibility requires the balancing of the interests of ratepayers, the regulated utility, and the regulated community as a whole.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to evaluate UGI Utilities, Inc. - Gas Division's ("UGI" or "Company") request for an annual increase in operating revenue of approximately $82.7 million. My testimony will address issues related to the weather normalization adjustment, present rate revenue, and scale back of rates.

Q. DOES YOUR TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 4 contains schedules relating to my testimony.

<u>WEATHER NORMALIZATION ADJUSTMENT</u>

Q. WHAT IS A WEATHER NORMALIZATION ADJUSTMENT MECHANISM?

A. As stated on page 6 of UGI Statement No. 11, a Weather Normalization Adjustment ("WNA") mechanism adjusts a customer's bill to correct for variations from normal weather in order to have the bill reflect normal weather conditions through credits and surcharges for colder than normal and warmer than normal weather, respectively.

Q. IS UGI PROPOSING TO INTRODUCE A WEATHER NORMALIZATION ADJUSTMENT IN THIS CASE?

A. Yes. UGI is proposing to implement a WNA mechanism that adjusts billings on a monthly basis as the bill is being calculated and issued (UGI St. No. 11, p. 7).

Q. IS UGI'S PROPOSED WNA MECHANISM SIMILAR TO A WNA RIDER OF ANOTHER PENNSYLVANIA NATURAL GAS DISTRIBUTION COMPANY?

A. Yes. UGI claims that its proposed WNA mechanism is similar to the calculation of Columbia Gas of Pennsylvania's ("Columbia") WNA rider (UGI St. No. 11, p. 9).

Q. DO YOU AGREE THAT THE UGI WNA IS SIMILAR TO THE COLUMBIA WNA APPROVED BY THE COMMISSION?

A. No. Columbia's WNA includes a deadband range while the UGI's proposal does not. The Company believes that application of a deadband adds unnecessary complexity to the rider. Additionally, UGI stated that the WNA's intended goal is to stabilize billings and distribution revenues from readily identified weather related variances rather than "arbitrarily established" elements of weather variance (UGI St. No. 11, p. 11).

Q. WHAT IS A DEADBAND?

A. A deadband is a threshold of Normal Heating Degree Days where the WNA adjustment is not triggered (UGI St. No. 11, p. 11).

Q. DO ANY OTHER PENNSYLVANIA NGDCS WITH A WNA UTILIZE A DEADBAND?

A. Yes. As previously mentioned, Columbia Gas has a 3% deadband and PGW has a 1% deadband (UGI St. No. 11, p. 11).

Q. ARE THERE CURRENTLY ANY PENNSYLVANIA NGDCS WITH A WNA THAT DO NOT UTILIZE A DEADBAND?

A. I am not aware of any Pennsylvania NGDC with a WNA that does not utilize a deadband.

Q. HAS THE COMMISSION DESCRIBED WHY A DEADBAND COMPONENT IS APPROPRIATE IN A WNA?

A. Yes. In Columbia's 2020 base rate case, the Commission determined that "without an extraordinary set of circumstances, there is no need for Columbia to reconcile day-to-day temperature variations that are part of normal business." (Docket No. R-2020-3018835, Order entered February 19, 2021, pp. 264-265).

Q. WHY IS A DEADBAND A REASONABLE PROVISION TO INCLUDE IN UGI'S PROPOSED WNA?

A A WNA is a departure from traditional ratemaking in that it allows the Company to adjust a customer's base rate bill, which was calculated based on Commission approved rates, outside the scope of a base rate case. I believe such a departure from traditional ratemaking should only occur due to circumstances that are an extraordinary departure from normal operating conditions, such as abnormal weather. There is no need to reconcile the day-to-day temperature variations that can be considered a normal part of doing business. Therefore, a 3% deadband as is applicable in Columbia Gas' WNA mechanism is a reasonable provision because it allows for a range of what is considered "normal" weather in which the Company's Commission-approved rates would be applied without adjustment. Without the deadband customer rates could be subject to constant adjustment for normal weather variations in every billing cycle.

Q. DID UGI PROVIDE ANY EVIDENCE THAT WOULD SHOW WHY A DEADBAND WOULD NOT BE APPROPRIATE IN ITS CIRCUMSTANCES?

A. No. UGI presented no evidence to show that, unlike other Pennsylvania NGDCs, UGI should be permitted to reconcile day-to-day temperature variations that are part of normal business. UGI provided no evidence or support that would show how or why a departure from the Commission's previous ruling in Columbia regarding the deadband should not be followed.

Q. WHAT DO YOU RECOMMEND REGARDING UGI'S PROPOSED WNA?

A. I recommend that UGI's WNA be approved on the condition that a 3% deadband is included. My recommendation maintains consistency with the Commission's previous ruling and with Columbia's existing WNA.

<u>TEST YEAR</u>

Q. WHAT IS A TEST YEAR AND HOW IS IT USED?

A. A test year is the twelve-month period over which a utility's costs and revenues are measured as the basis for setting prospective base rates. In order to meet its burden of proof, a utility has the option of selecting to use a historic test year (HTY), a future test year (FTY), or a fully projected future test year (FPFTY). An HTY is a twelve-month period selected by a company that represents the most recent full year of actual data. The FTY begins the day after the HTY ends and is determined using a combination of actual data and a projection of annualized and normalized estimates of future revenues and expenses and a corresponding measure of value at the end of that period. The FPFTY is defined as the twelve-month period that begins with the first month that the new rates will be placed into effect, after the application of the full suspension period permitted under Section 1308(d). The FPFTY is made up entirely of projections forecasted by the Company.

Q. WHAT TEST YEARS HAS THE COMPANY USED IN THIS PROCEEDING?

A. UGI has selected the year ended September 30, 2021 as the HTY, the year ending September 30, 2022 as the FTY, and the year ending September 30, 2023 as the FPFTY (UGI St. No. 2, p. 2).

Q. WHAT TEST YEAR HAS THE COMPANY BASED ITS REVENUE REQUIREMENT UPON IN THIS PROCEEDING?

A. UGI based its requested revenue requirement on the FPFTY ending September 30, 2023 (UGI St. No. 1, p. 6).

PRESENT RATE REVENUE

Q. WHAT AMOUNT PRESENT RATE REVENUE IS THE COMPANY REFLECTING FOR THE FPFTY ENDING SEPTEMBER 30, 2023?

A. UGI is reflecting approximately $1,062,724,000 of present rate revenue including gas costs, surcharges, and other operating revenues (UGI Book V, FPFTY Ex. A-1 p. 1).

Q. DO YOU AGREE WITH THE CLAIMED $1,062,724,000 OF PRESENT RATE REVENUE FOR THE FPFTY?

A. No. As described below, I have determined that UGI has understated its present rate revenue in the FPFTY and I am recommending an increase of $14,648,202 from $662,172,239 to $676,822,441. My recommendation is based on two adjustments to UGI's claimed $662,172,239 of present rate revenue in the FPFTY as discussed below.

Q. WHAT IS THE BASIS OF YOUR TWO ADJUSTMENTS TO UGI'S PRESENT RATE REVENUE CLAIM IN THE FPFTY?

A. First, I will address the rate class R/RT heating customer usage decline reflected in the FPFTY that was projected beyond the end of the FPFTY. Second, I will address the overall regression analysis performed by UGI to project usage per R/RT heating customer to determine sales volumes.

<u>R/RT HEATING CUSTOMER USAGE DECLINE</u>

Q. WHAT IS THE COMPANY'S CLAIM REGARDING R/RT HEATING CUSTOMER USAGE?

A. UGI projected that R/RT heating customer usage is declining and its usage per customer projections included a reduction to account for conservation items and measures including, but not limited to, regular and accelerated appliance replacements, high efficiency appliance installations, setback thermostat installations, modifications to new and existing buildings that are designed to decrease energy consumption, and changes in consumer behavior in response to energy price changes, and other economic influences (UGI St. No. 8, p. 10).

Q. WHAT AVERAGE USAGE PER R/RT HEATING CUSTOMER IS THE COMPANY PROJECTING?

A. The Company's projected annual usage in the FPFTY for R/RT heating customers is approximately 87.8 Mcf per customer (UGI, Book II, Attachment SDR-RR-11(a), p. 8 of 9).

Q. HOW DID UGI PROJECT THAT R/RT HEATING CUSTOMERS WOULD USE 87.8 MCF PER YEAR?

A. The Company performed a regression analysis of actual usage, degree day, lagged heating degree days, and the weighted trend data for the period October 2003 through September 2021 (UGI Book II, Attachment SDR-RR-11(a)). The Company then used the results of the regression analysis to project the usage decline per month through the FTY, the FPFTY, and through March 2024, which is six months past the end of the FPFTY with the final result being the projected 87.8 Mcf per customer. UGI also projected its commercial usage through March 2024, but that projection did not result in any change from the year end September 2023 projection as shown on UGI Exhibit SAE 3(b). Therefore, my discussion will focus on R/RT Heating customers.

Q. DO YOU AGREE WITH THE COMPANY'S PROJECTED USAGE PER R/RT HEATING CUSTOMER?

A. No. I believe the Company has understated its projected usage per customer for R/RT heating customers.

Q. WHY HAVE YOU CONCLUDED THE COMPANY'S PROJECTED USAGE PER CUSTOMER FOR R/RT HEATING CUSTOMERS IS UNDERSTATED?

A. My disagreement with the Company's determination of average usage per customer concerns the inclusion of usage decline beyond the end of the FPFTY period used to project the average usage per R/RT heating customer in the FPFTY. The FPFTY ends September 30, 2023; however, the Company's analysis projects residential heating customer usage declines through March 2024, which is six months beyond the FPFTY.

Q. DID THE COMPANY EXPLAIN WHY IT EXTENDED THE DECLINE IN USAGE BEYOND THE END OF THE FPFTY?

A. In its response to I&E-RS-14-D, attached as I&E Ex. No. 4, Sch. 1, the Company stated that it used a "mid-period convention in order to capture the full annualized impacts related to customer conservation activities" through the September 30, 2023 end date of the FPFTY.

Q. IS THE USE OF A MID-YEAR CONVENTION APPROPRIATE?

A. No. The Company has selectively used a mid-year convention to make a projection that extends beyond the end of the FPFTY for usage decline when all other financial criteria are based on the end of the FPFTY. This inappropriately misaligns data for determination of a revenue requirement and affords the Company a greater revenue increase than is appropriate for its FPFTY claim. I explain the impact of this discrepancy further below.

Q. IS THERE ANY BASIS FOR PROJECTING USAGE BEYOND THE END OF THE FPFTY?

A. No. The Company selected September 30, 2023 as the end of the FPFTY, and there is no basis for projecting usage six months beyond the end of the FPFTY. The test year period is meant to be a snapshot look at one year of a utility's revenue requirement such that all inputs into the ratemaking equation, i.e. rate base, depreciation, revenues, expenses, taxes, are determined using the same time period. Therefore, the average usage per R/RT heating customer that is used to determine revenue should also be determined consistent with the end-of-FPFTY time period. For example, the Company based its projection of customer count as of the end of the FPFTY; therefore, it is improper to base the usage per R/RT heating customer on the projected average usage per customer six months past the end of the FPFTY as a different customer count would be applicable to that time period. The proposed mismatch in the usage per customer conflicts with all other ratemaking inputs.

Q. WILL THE USE OF "ANNUALIZED" USE PER CUSTOMER DATA BENEFIT THE COMPANY THROUGH INCREASED REVENUES?

A. Yes. If permitted to use the mid-period annualization, the Company would receive additional revenue during the FPFTY. This additional revenue would be the result of deducting the usage of R/RT heating customers that are projected to use less gas after the end of the FPFTY before these customers use less gas. For example, the Company may believe that if a R/RT heating customer replaces their furnace with a high efficiency furnace in February or March 2024, then that customer's usage should be "annualized" for the FPFTY ending September 2023. However, in this example, this R/RT heating customer will use the higher level of gas from October 1, 2023 through January or February 2024, which is 4-5 months <u>beyond</u> the end of the FPFTY. As a result, the Company will sell more gas to this customer for the prior 16-17 months and keep the incremental revenue until that customer potentially uses less gas in February or March of 2024.

Q. WILL THE CUSTOMER AND THE COMPANY EXPERIENCE LOWER SALES FROM A CUSTOMER THAT INSTALLS A HIGH EFFICIENCY HEATING SYSTEM IN FEBRUARY OR MARCH IMMEDIATELY?

A. No. Any furnace replacement in February or March occurs towards the end of the heating season. As such, the savings experienced by those R/RT heating customers would be much less than residential customers that replaced their heating system at the beginning heating season in September or October. Since customers use much less gas in the summer, the late winter/early spring furnace replacement described above lessens the impact on usage until the following heating season. Therefore, that customer (and the Company) likely would not experience any potential meaningful usage decline until the winter heating season begins in the following October. For those customers replacing their heating systems in February or March of 2023, their saving would not be experienced fully until a full year after the end of the of the FPFTY in this case.

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS CONCERNING THE COMPANY'S "ANNUALIZATION" OF POST FPFTY USAGE DECLINES?

A. The usage decline beyond the end of the FPFTY should be rejected. There is no justification for allowing the level of usage projected at the end of the FPFTY to be "annualized" by projecting out to March 2024. The inclusion of such an "annualization" will benefit the Company to the detriment of customers.

Q. WHAT AVERAGE USAGE PER R/RT CUSTOMER DO YOU RECOMMEND TO ELIMINATE THE INCLUSION OF ANY POST FPFTY DECLINE?

A. I recommend that the average usage per R/RT customer be increased by 0.1307 Mcf per customer per year (I&E Ex. No. 4, Sch. 2, line 6). This 0.1307 Mcf per customer per year was determined by subtracting the 87.9625Mcf per customer at the end of the FPFTY from the 87.8318 Mcf per customer as of March 2024 as shown on UGI Book II, Attachment SDR-RR-11(a), page 9.

Q. HOW MUCH DO GAS VOLUMES INCREASE IF THE AVERAGE USAGE PER R/RT CUSTOMER IS INCREASED BY 0.1307 PER CUSTOMER PER YEAR?

A. Gas volumes increase by 77,061 Mcf (589,601 X 0.1307). This 77,061 Mcf of gas was determined by multiplying the 0.1307 per customer per year times 589,601 R/RT heating customers shown on UGI Book III, Exhibit SAE-7(a).

Q. HOW MUCH DOES PRESENT RATE USAGE REVENUE INCREASE IF THE AVERAGE USAGE PER R/RT HEATING CUSTOMER IS INCREASED BY 0.1307 MCF PER CUSTOMER PER YEAR?

A. If my recommendation to use the FPFTY year-end usage is approved, present rate usage revenue increases by $316,752 (I&E Ex. No. 4, Sch. 2, line 6, col. D). This $316,752 of present rate R/RT revenue was determined by multiplying the 77,061 Mcf of gas described above times the present usage rate of $4.1104 per Mcf shown on UGI Book V, Exhibit E, p. 2. The result would be to increase the Company's claimed present rate revenue for residential heating customers by $316,752 from $662,174,239 to $662,490,991.

Q. IF THE COMMISSION ACCEPTS YOUR RECOMMENDATION TO INCREASE R/RT PRESENT USAGE RATE REVENUE BY $316,752 TO $662,490,991 SHOULD THERE BE A CORRESPONDING INCREASE IN PURCHASED GAS REVENUE AND EXPENSES?

A. Yes. Under present rates, the PGC volumes equal approximately 85.47% of total usage volumes (I&E Ex. No. 4, Sch. 2, line 11, col. A). Therefore, increasing total R/RT sales volumes by 77,061 Mcf increases the PGC by 65,862 Mcf (77,061 Mcf X 0.8547) (I&E Ex. No. 4, Sch. 2, line 10, col. B). This results in an increase in PGC revenue and expenses of $413,399 (65,862 Mcf X the $6.2767 per Mcf PGC rate) (I&E Ex. No. 4, Sch. 4, line 10, col. D).

Q. IF THE COMMISSION ACCEPTS YOUR RECOMMENDATION TO INCREASE R/RT PRESENT USAGE RATE REVENUE BY $541,133 TO $191,863,159 SHOULD THERE BE A CORRESPONDING INCREASE IN OTHER SURCHARGES?

A. Yes. Since the following surcharges are based upon volumes or revenue, they would each increase if the Commission accepts my recommendation to eliminate the post FPFTY usage decline. Under present rates, the Merchant Function Charge will increase by $8,971 to $6,189,251 (I&E Ex. No. 4, Sch. 2, line 14, col. D). The Gas Procurement Charge will increase by $4,347 to $2,999,100 (I&E Ex. No. 4, Sch. 2, line 17, col. D). The Universal Service Program rider will increase by $25,484 to $17,562,382 (I&E Ex. No. 4, Sch. 2, line 20, col. D). The Energy and Conservation Efficiency Rider will increase by $16,006 to $11,042,760 (I&E Ex. No. 4, Sch. 2, line 23, col. D).

Q. WHAT IS THE TOTAL INCREASE IN PRESENT RATE REVENUE IF THE COMMISSION ACCEPTS YOUR RECOMMENDATION TO INCREASE R/RT PRESENT USAGE RATE DISTRIBUTION VOLUME BY 77,061 MCF?

A. Present rate revenue increases by $427,964 from $662,174,239 to $662,602,203 (I&E

Ex. No. 4, Sch. 2, line 29, col. D). It should be noted that, if the Commission accepts my second adjustment, discussed below, then this $427,964 adjustment would not be added as it is already a part of the regression analysis adjustment below.

<u>R/RT HEATING CUSTOMERS – REGRESSION ANALYSIS</u>

Q. WHAT IS THE SECOND ADJUSTMENT YOU RECOMMEND TO THE COMPANY'S PROJECTED USAGE FOR R/RT HEATING CUSTOMERS?

A. As described above, my second recommendation addresses UGI's use of 18 years of data to project the 87.8 Mcf annual usage for the R/RT heating customers (UGI Book III, Ex. SAE-7(a)).

Q. DID THE COMPANY ADDRESS WHY IT SELECTED 18 YEARS?

A. No. UGI only stated that it selected 18 years of data because October 2003 was the earliest common data set available for the entire service territory (UGI St. No. 8, p, 10).

Q. DO YOU AGREE THAT USING ALL AVAILABLE DATA TO PERFORM THE REGRESSION ANALYSIS TO DETERMINE USAGE DECLINE IS REASONABLE?

A. No. As a rule, older usage data is less indicative of recent trends. As Ms. Epler described on page 10 of UGI Statement No. 8, the changes in usage per customer are influenced by regular appliance replacements, accelerated appliance replacements, high-efficiency appliance installations, setback thermostat installations, modifications to new and existing buildings that are designed to decrease energy consumption, and changes in consumer usage behavior due to other economic influences. It is reasonable to assume that, as UGI's service territory becomes more saturated with high-efficiency appliance installations and more buildings are modified as time goes on, the decline in residential usage per customer will have a progressively declining impact. Therefore, it is not reasonable to allow less significant older data from a time period when the service territory was not as saturated with usage reducing appliances to influence the results of the projection of future usage.

Q. WHAT TIME PERIOD DO YOU RECOMMEND FOR THE REGRESSION ANALYSIS IN THIS CASE?

A. In this case, I recommend the 15-year time period from October 2006 through September 2021 for the residential usage per customer regression analysis.

Q. WHY DO YOU RECOMMEND THE USE OF 15 YEARS TO PROJECT THE AVERAGE USAGE PER R/RT CUSTOMER FOR THE FPFTY?

A. I recommend the use of 15-years of data for several reasons. First, a fifteen-year time period is consistent with the reasons UGI described for utilizing a multi-year regression period. Second, the 15-year time period is consistent with the time period used for the Company's weather normalization adjustment. Third, the Company has supported the use of 15-year time period for its regression analysis in its previous cases. Finally, I believe that usage and temperature data older than 15 years is not representative of recent usage trends on which to base the usage projection.

Q. WHAT REASONS DID UGI PROVIDE FOR UTILIZING A MULTI-YEAR REGRESSION ANALYSIS TO DETERMINE RESIDENTIAL USE PER CUSTOMER TRENDS?

A. On page 11 of UGI Statement No. 8, Ms. Epler stated that "[t]he Company decided to use the multi-year period because it provides a larger sample set of data to smooth out short-term variations and capture the underlying long-term use per customer trends to more accurately project usage per customer during the period rates are likely to be in effect."

Q. IS THE USE OF A FIFTEEN-YEAR PERIOD IN THE MULTI-YEAR REGRESSION ANALYSIS CONSISTENT WITH THE COMPANY'S REASONS FOR USING A MULTI-YEAR REGRESSION ANALYSIS?

A. Yes. A fifteen-year period remains long enough to smooth out short-term variations and capture the underlying long-term use per customer trends while having the added benefit of not including data that is no longer representative of more recent trends, such as data before October 2006.

Q. WHAT TIME PERIOD DOES THE COMPANY USE TO DETERMINE ADJUSTMENTS FOR TEMPERATURE DATA?

A. UGI has consistently used, over the previous seven base rate cases of both UGI and its former affiliates, a 15-year period updated every five years to determine normal heating degree days (UGI St. No. 8, p. 7). While the analyses performed to determine normalized temperatures and use per customer are different types of analyses, the fact that the Company has consistently used 15-years to normalize highly variable weather data shows that the use of 15-years of data to project use per customer data is reasonable.

Q. HAS UGI SUPPORTED THE USE OF 15 YEARS OF DATA TO PERFORM ITS USE PER CUSTOMER ANALYSIS IN PREVIOUS CASES?

A. Yes. The UGI gas rate case at Docket R-2018-3006814 ("2018 Base Rate case") the Company utilized and supported using 15 years of data to project usage per customer that is used to determine sales volumes for R/RT heating customers at the end of the FPFTY.

Q. IN THE 2018 BASE RATE CASE, DID THE COMPANY STATE THAT 15 YEARS OF DATA WAS STATISTICALLY VALID TO PROJECT R/RT HEATING CUSTOMERS USAGE?

A. Yes. In the 2018 base rate case, the Company supported the use of 15 years of data stating:

> "This is the same methodology was used by the Company in the past several rate base rate cases. UGI's use of a fifteen-year period in its regression analysis is statistically valid and consistent with its use of extended, available periods of data to show long term trends in use per customer" (UGI St. No. 8-R, p. 7).
>
> "UGI Gas's 15-year regression results are strongly supported by other data from the American Gas Association ("AGA") and the US Energy Information Administration ("EIA")" (UGI St. No. 8-R, p. 9).

Q. DOES USING 15 YEARS OF DATA RATHER THAN 18 YEARS OF DATA MAKE A DIFFERENCE IN THE USAGE PER R/RT HEATING CUSTOMER?

A. Yes. Using 15 years of data, the projected average usage per R/RT customer for the FPFTY ending September 30, 2023 is approximately 90.2576 Mcf per year (I&E Ex. No. 4, Sch. 3, p. 4). This shows that when the stale data beyond the fifteen-year time period is removed, the average usage per R/RT customer increases from 87.8138 Mcf per customer per year to 90.2576 Mcf per customer per year, which is an increase of 2.4438 (90.2576 – 87.8138) Mcf per R/RT customer per year.

Q. HOW MUCH DO GAS VOLUMES INCREASE IF THE AVERAGE USAGE PER R/RT CUSTOMER IS INCREASED BY 2.4438 MCF PER CUSTOMER PER YEAR?

A. Gas volumes increase by 1,440,867 Mcf (589,601 X 2.4438). This 1,440,867Mcf of gas was determined by multiplying the 2.4438 MCF per customer per year times 589,601 R/RT heating customers shown on UGI Book III, Exhibit SAE-7(a).

Q. HOW MUCH DOES PRESENT RATE USAGE REVENUE INCREASE IF THE AVERAGE USAGE PER R/RT HEATING CUSTOMER IS INCREASED BY 2.4438 MCF PER CUSTOMER PER YEAR?

A. If my recommendation to use the FPFTY average usage is approved, present rate usage revenue increases by $5,922,539 (I&E Ex. No. 4, Sch. 4, line 6). This $5,922,539 of present rate R/RT revenue was determined by multiplying the

1,440,867 Mcf of gas described above times the present usage rate of $4.1104 per Mcf shown on UGI Book V, Exhibit E, p. 2. The result would be to increase the Company's claimed present rate revenue for residential customers by $5,922,539 from $662,174,239 to $668,096,778.

Q. IF THE COMMISSION ACCEPTS YOUR RECOMMENDATION TO INCREASE R/RT PRESENT USAGE RATE REVENUE BY $5,922,539 TO $668,096,778 SHOULD THERE BE A CORRESPONDING INCREASE IN PURCHASED GAS REVENUE AND EXPENSES?

A. Yes. Under present rates, the PGC volumes equal approximately 85.47% of total usage volumes (I&E Ex. No. 4, Sch. 4, line, col. A). Therefore, increasing total R/RT sales volumes by 1,440,867 Mcf increases the PGC by 1,231,480 Mcf (1,440,867 Mcf X 0.8547) (I&E Ex. No. 4, Sch. 4, line 10 col. B). This results in an increase in PGC revenue and expenses of $7,729,631 (1,231,480 Mcf X the $6.2767 per Mcf PGC rate) (I&E Ex. No. 4, Sch. 4, line 10, col. D).

Q. IF THE COMMISSION ACCEPTS YOUR RECOMMENDATION TO INCREASE R/RT PRESENT USAGE RATE REVENUE BY $5,922,539 TO $668,096,778 SHOULD THERE BE A CORRESPONDING INCREASE IN OTHER SURCHARGES?

A. Yes. Since the following surcharges are based upon volumes or revenue, they would each increase if the Commission accepts my recommendation to eliminate the post FPFTY usage decline. Under present rates, the Merchant Function Charge will increase by $167,733 to $6,348,013 (I&E Ex. No. 4, Sch. 4, line 14, col. 14). The Gas Procurement Charge will increase by $81,278 to $3,076,030 (I&E Ex. No. 4, Sch. Post-FPFTY, line 17, col. D). The Universal Service Program rider will increase by $118,297 to $17,655,195 (I&E Ex. No. 4, Sch. 4, line 20, col. D). The Energy and Conservation Efficiency Rider will increase by $299,268 to $11,101,118 (I&E Ex. No. 4, Sch. 4, line 23, col. D).

Q. WHAT IS THE TOTAL INCREASE IN PRESENT RATE REVENUE IF THE COMMISSION ACCEPTS YOUR RECOMMENDATION TO INCREASE R/RT PRESENT USAGE RATE DISTRIBUTION VOLUME BY 1,440,867 MCF?

A. Present rate revenue increases by $14,648,202 from $662,174,239 to $676,822,441 (I&E Ex. No. 4, Sch. 4, line 29, col. D).

Q. DOES YOUR RECOMMENDATION TO INCREASE USAGE PER R/RT HEATING CUSTOMER INCLUDE THE VOLUMES AND DOLLARS OF YOUR FIRST RECOMMENDATION CONCERNING POST FPFTY R/RT HEATING USAGES?

A. Yes. As I stated above, the adjustments in my second recommendation are inclusive of the adjustment I described regarding the inclusion of post FPFTY usage data. Therefore, if the Commission accepts my second recommendation and adjustments, there is no need to reflect the first adjustment of $316,752 of present rate revenue nor the $413,399 of additional purchase gas expense shown on I&E Ex. No. 4, Sch. 2, line 29 concerning post FPFTY usage declines.

<u>MISCELLANEOUS REVENUE</u>

Q. WHAT IS THE COMPANY'S CLAIM FOR MISCELLANEOUS REVENUE UNDER PRESENT RATES IN THE FPFTY?

A. The Company's claim for miscellaneous revenue under present rates in the FPFTY is $1,998,000 (UGI Book IX, Schedule E, p. 4).

Q. DID THE COMPANY PROVIDE AN UPDATE TO THIS CLAIM DURING THE PROCESS OF DISCOVERY?

A. Yes. In its response to I&E-RS-27, attached as I&E Exhibit No. 4, Schedule 5, the Company admitted that it inadvertently included the company share of off-system sales that should be reflected below the line for ratemaking purposes. The Company further indicated that it would reduce its miscellaneous revenue claim by $1,003,000 from $1,998,000 to $995,000 to correct this error.

Q. IS THE COMPANY'S PLANNED ADJUSTMENT TO ITS MISCELLANEOUS REVENUE CLAIM REASONABLE?

A. Yes. It is reasonable for the Company to correct its claim for miscellaneous revenues in its rebuttal testimony.

AVERAGE BILL COMPARISON

Q. DID THE COMPANY MAKE ANY CLAIMS IN ITS DIRECT TESTIMONY REGARDING THE COMPARISON OF CURRENT RESIDENTIAL RATES TO HISTORIC RESIDENTIAL RATES?

A. Yes. On page 7 of UGI Statement No. 1, the Company claimed that "the Company's average customer bills are less than they were in 2008."

Q. DID THE COMPANY PROVIDE ANY DATA TO SUPPORT ITS CLAIM THAT THE COMPANY'S AVERAGE CUSTOMER BILLS ARE LESS THAN THEY WERE IN 2008?

A. No. The Company provided no data, support, or any other form of analysis support its claim regarding its average customer bills in 2008.

Q. IS THE COMPANY'S CLAIMED COMPARISON OF RATES IN 2008 REPRESENTATIVE OF RATE INCREASES CUSTOMERS HAVE EXPERIENCED IN RECENT HISTORY?

A. No. The level of customer rates in 2008 is not representative of base rate increases customers have experienced in recent history. Specifically, UGI customers, and the customers of its former affiliates, have experienced rate increases in 2016 (UGI Utilities, Inc., Docket No. R-2015-2518438), 2017 (UGI Penn Natural Gas, Inc., Docket No. R-2016-2580030), 2019 (UGI Utilities, Inc., Docket No. R-2018-3006814), 2019 (UGI Utilities, Inc., Docket No. R-2019-3015162), and now in 2022 with the current proceeding.

Q. ARE YOU AWARE OF ANY RATE DECREASES PROPOSED BY UGI OR ITS FORMER AFFILIATES SINCE 2008?

A. No. I am not aware of any rate decreases proposed by UGI or its former affiliates since 2008.

Q. IF UGI HAS ONLY INCREASED ITS BASE RATES SINCE 2008, HOW COULD CUSTOMER RATES BE LOWER NOW THAN IN 2008?

A. Because UGI has not provided any data supporting its claim that rates are lower now than in 2008 despite the multiple increases in base rates in that same time period, it is not possible to accurately determine the cause of this anomaly. One explanation could be that UGI is including the Gas Cost Rate in its analysis.

Q. HOW HAS THE GAS COST RATE CHANGED BETWEEN 2008 AND NOW?

A. In 2008, the purchased gas rate (PGC) for UGI Utilities peaked at approximately $13.261 per Mcf. In this filing, the Company reflected a PGC rate of $6.2757 per Mcf (I&E Ex. No. 4, Sch 6, pp. 1-2). Therefore, even after more than doubling the customer charge, increasing the distribution rate, and creating numerous surcharges, the total bill of a customer is less than it was in 2008 because the PGC component of a customer's bill was so large.

Q. WILL THIS ALWAYS BE THE CASE?

A. Not necessarily. The PGC rate fluctuates and could increase in the future. Just recently the PGC rate increased from $4.4594 per MCF in June 2021 to $6.2767 today (I&E Ex.

No. 4, Sch. 7, pp. 1-2). This is an increase of $1.8173 per Mcf or 40.8%. Given this recent increase, it is certainly possible future increases could match or be greater than the 40.8%.

Q. SHOULD THE GAS COST RATE BE INCLUDED IN A COMPARISON OF HISTORIC TO CURRENT RATES IN THE CONTEXT OF A BASE RATE CASE?

A. No. Gas Cost Rates do not change as a result of a base rate case. In fact, UGI has no control over the historic or present level of the Gas Cost Rate. Therefore, it is disingenuous for UGI to claim credit for lower overall rates when the driving factor of that circumstance is entirely outside of UGI's control.

Q. WHAT DO YOU RECOMMEND REGARDING UGI'S CLAIM THAT CURRENT RATES ARE LOWER THAN RATES IN 2008?

A. I recommend that this claim be disregarded because it is unsupported and misleading for the reasons I described above.

Q. DID UGI INCLUDE ANY OTHER INACCURATE CLAIMS IN ITS FILING?

A. Yes. On page 10 of UGI Statement No. 1, Mr. Brown included a chart showing a comparison of UGI's current and proposed rates of residential heating customers of the major Pennsylvania NGDCs.

Q. DID THE COMPANY EXCLUDE A MAJOR PENNSYLVANIA GAS COMPANY IN ITS RESIDENTIAL BILL COMPARISON?

A. Yes. The Company failed to include National Fuel Gas Distribution Corporation ("NFGD"). If they had, the Company would have determined that the average bill of an NFGD customer is much lower than the average bill of a UGI customer. After the UGI rate increases, the average bill of a residential customer will be $108 per month. With this increase and including NFGD in the comparison results show that four major gas distribution companies will have lower average rates than UGI instead of just three.

Q. WHAT DO YOU RECOMMEND THE COMPANY DO IN FUTURE FILINGS?

A. I recommend that if the Company chooses to provide a comparison of its rates to other NGDCs in Pennsylvania, then the Company should include all major gas companies and compare proposed rates after the UGI increase.

SCALE BACK OF RATES

Q. PLEASE SUMMARIZE THE COMPANY'S PROPOSED INCREASE BY CLASS?

A. The Company proposed R/RT revenue increase by $68,115,150, N/NT revenue - increase by $14,452,827, DS revenue by, $653,949, LFD revenue by $1,531,227, XD revenue decrease by $931,834 and Interruptible revenue decrease by $1,049,187 (UGI Book V, Ex. E, p. 1).

Q. WHAT IS A SCALE BACK OF RATES?

A. If the Commission grants an increase less than the amount UGI requested, the Company's proposed rates would be reduced, or scaled back, to produce the revenue requirement allowed by the Commission.

Q. WHAT SCALE BACK METHODOLOGY DO YOU RECOMMEND FOR THE R/RT AND N/NT CLASSES?

A. I recommend that both the customer charge and usage rates be scaled back such that increase for each customer class is scaled back proportionally to the increase originally proposed by the UGI based on the cost of service study that is ultimately approved.

Q. WHY DO YOU RECOMMEND THAT CUSTOMER CHARGES BE INCLUDED IN ANY SCALE BACK?

A. There are several. First, the proposed increase in the R/RT and N/NT customer charges are larger than increases proposed for the respective usage rates. Therefore, in order to limit the increase in the customer charge applicable to zero and low usage customers, it should be included in the scale back. Second, this recommendation promotes conservation because it causes a larger portion of the customer's bill to be recovered in volumetric rates, thus giving customers more of an incentive to reduce usage. Finally, in the last UGI Electric case, the Commission determined that in spite of the higher customer cost determination in the cost of service study, the customer charges should be reduced for all customers (UGI Electric R-2017-2640058, Order entered October 25, 2018, p. 175).

Q. WHAT SCALE BACK METHODOLOGY DO YOU RECOMMEND FOR THE DS CLASS?

A. The DS customer charge was not increased under proposed rates, so it should not be included in any scale back. I recommend that the usage rates be scale back but no lower than the present North / Central division usage rate of $2.930 per Mcf.

Q. WHAT SCALE BACK METHODOLOGY DO YOU RECOMMEND FOR THE LFD CLASS?

A. The LFD customer charge was not increased under proposed rate, so it should not be included in any scale back. I recommend that the usage rates be scale back proportionally to reduce the revenue from this class.

Q. WHAT SCALE BACK METHODOLOGY DO YOU RECOMMEND FOR THE XD AND INTERRUPTIBLE CLASSES?

A. The customer charges and usage rates were not increased under proposed rate, so they should not be included in any scale back. I recommend that only the surcharges be for these competitive customers be adjusted.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

ETHAN H. CLINE

PROFESSIONAL EXPERIENCE AND EDUCATION

EXPERIENCE:

03/2009 - Present

Bureau of Investigation and Enforcement, Pennsylvania Public Utility Commission - Harrisburg, Pennsylvania

Fixed Utility Valuation Engineer – Assists in the performance of studies and analyses of the engineering-related areas including valuation, depreciation, cost of service, quality and reliability of service as they apply to fixed utilities. Assists in reviewing, comparing and performing analyses in specific areas of valuation engineering and rate structure including valuation concepts, original cost, rate base, fixed capital costs, inventory processing, excess capacity, cost of service, and rate design.

06/2008 – 09/2008

Akens Engineering, Inc. - Shiremanstown, Pennsylvania

Civil Engineer – Responsible, primarily, for assisting engineers and surveyors in the planning and design of residential development projects

10/2007 – 05/2008

J. Michael Brill and Associates - Mechanicsburg, Pennsylvania

Design Technician – Responsible, primarily, for assisting engineers in the permit application process for commercial development projects.

01/2006 – 10/2007

CABE Associates, Inc. - Dover, Delaware

Civil Engineer – Responsible, primarily, for assisting engineers in performing technical reviews of the sewer and sanitary sewer systems of Sussex County, Delaware residential development projects.

EDUCATION:

Pennsylvania State University, State College, Pennsylvania
Bachelor of Science; Major in Civil Engineering, 2005

- Attended NARUC Rate School, Clearwater, FL
- Attended Society of Depreciation Professionals Annual Conference and Training, 2017, 2018, and 2019

TESTIMONY SUBMITTED:

I have testified and/or submitted testimony in the following proceedings:

1. Clean Treatment Sewage Company, Docket No. R-2009-2121928
2. Pennsylvania Utility Company – Water Division, Docket No. R-2009-2103937
3. Pennsylvania Utility Company – Sewer Division, Docket No. R-2009-2103980
4. UGI Central Penn Gas, Inc., 1307(f) proceeding, Docket No. R-2010-2172922
5. AQUA Clarion Wastewater Operations, Docket No. R-2010-2166208
6. AQUA Claysville Wastewater Operations, Docket No. R-2010-2166210
7. Citizens' Electric Company of Lewisburg, Pa, Docket No. R-2010-2172665
8. City of Lancaster – Bureau of Water, Docket No. R-2010-2179103
9. Peoples Natural Gas Company LLC, Docket No. R-2010-2201702
10. UGI Central Penn Gas, Inc., Docket No. R-2010-2214415
11. Pennsylvania-American Water Company, Docket No. R-2011-2232243
12. Pentex Pipeline Company, Docket No. A-2011-2230314
13. Peregrine Keystone Gas Pipeline, LLC, Docket No. A-2010-2200201
14. Philadelphia Gas Works 1307(f), Docket No. R-2012-2286447
15. Peoples Natural Gas Company LLC, Docket No. R-2012-2285985
16. Equitable Gas Company, Docket Nos. R-2012-2312577, G-2012-2312597
17. City of Lancaster – Sewer Fund, Docket No. R-2012-2310366
18. Peoples TWP, LLC 1307(f), Docket No. R-2013-2341604
19. UGI Penn Natural Gas, Inc. 1307(f), Docket No. R-2013-2361763
20. UGI Central Penn Gas, Inc. 1307(f), Docket No. R-2013-2361764
21. Joint Application, Docket Nos. A-2013-2353647, A-2013-2353649, A-2013-2353651
22. City of Dubois – Bureau of Water, Docket No. R-2013-2350509
23. The Peoples Water Company, Docket No. R-2013-2360798
24. Pennsylvania American Water Company, Docket No. R-2013-2355276
25. Generic Investigation Regarding Gas-on-Gas Competition, Docket Nos. P-2011-227868, I-2012-2320323
26. Philadelphia Gas Works 1307(f), Docket No. R-2014-2404355
27. Pike County Light and Power Company (Gas), Docket No. R-2013-2397353
28. Pike County Light and Power Company (Electric), Docket No. R-2013-2397237
29. Peoples Natural Gas Company LLC 1307(f), Docket No. R-2014-2403939
30. UGI Penn Natural Gas, Inc. 1307(f), Docket No. R-2014-2420273
31. UGI Utilities, Inc. – Gas Division 1307(f), Docket No. R-2014-2420276
32. UGI Central Penn Gas, Inc. 1307(f), Docket No. R-2014-2420279
33. Emporium Water Company, Docket No. R-2014-2402324
34. Borough of Hanover – Hanover Municipal Water, Docket No. R-2014-2428304
35. Philadelphia Gas Works 1307(f), Docket No. R-2015-2465656
36. Peoples Natural Gas Company LLC 1307(f), Docket No. R-2015-2465172
37. Peoples Natural Gas Company – Equitable Division 1307(f), Docket No. R-2015-2465181
38. PPL Electric Utilities Corporation, Docket No. R-2015-2469275
39. UGI Penn Natural Gas, Inc. 1307(f), Docket No. R-2015-2480934

40. UGI Central Penn Gas, Inc. 1307(f), Docket No. R-2015-2480937
41. UGI Utilities, Inc. – Gas Division 1307(f), Docket No. R-2015-2480950
42. UGI Utilities, Inc. – Gas Division, Docket No. R-2015-2518438
43. Joint Application of Pennsylvania American Water, et al., Docket No. A-2016-2537209
44. UGI Utilities, Inc. – Gas Division 1307(f), Docket No. R-2016-2543309
45. UGI Central Penn Gas, Inc. 1307(f), Docket No. R-2016-2543311
46. City of Dubois – Company, Docket No. R-2016-2554150
47. UGI Penn Natural Gas, Inc., Docket No. R-2016-2580030
48. UGI Central Penn Gas, Inc. 1307(f), Docket No. R-2017-2602627
49. UGI Penn Natural Gas, Inc. 1307(f), Docket No. R-2017-2602633
50. UGI Utilities, Inc. – Gas Division 1307(f), Docket No. R-2017-2602638
51. Application of Pennsylvania American Water Company Acquisition of the Municipal Authority of the City of McKeesport, Docket No. A-2017-2606103
52. Pennsylvania American Water Company, Docket No. R-2017-2595853
53. Pennsylvania American Water Company Lead Line Petition, Docket No. P-2017-2606100
54. UGI Utilities, Inc. – Electric Division, Docket No. R-2017-2640058
55. Peoples Natural Gas Company, LLC – Peoples and Equitable Division 1307(f), Docket Nos. R-2018-2645278 & R-2018-3000236
56. Peoples Gas Company, LLC 1307(f), Docket No. R-2018-2645296
57. Columbia Gas of Pennsylvania, Inc., Docket No. R-2018-2647577
58. Duquesne Light Company, Docket No. R-2018-3000124
59. Suez Water Pennsylvania, Inc., Docket No. R-2018-3000834
60. Application of Pennsylvania American Water Company Acquisition of the Municipal Authority of the Township of Sadsbury, Docket No. A-2018-3002437
61. The York Water Company, Docket No. R-2018-3000006
62. Application of SUEZ Water Pennsylvania, Inc. Acquisition of the Water and Wastewater Assets of Mahoning Township, Docket Nos. A-2018-3003517 and A-2018-3003519
63. Pittsburgh Water and Sewer Authority, Docket Nos. R-2018-3002645 and R-2018-3002647
64. Joint Application of Aqua America, Inc. et al., Acquisition of Peoples Natural Gas Company LLC, et al., Docket Nos. A-2018-3006061, A-2018-3006062, and A-2018-3006063
65. Implementation of Chapter 32 of the Public Utility Code Regarding Pittsburgh Water and Sewer Authority, Docket Nos. M-2018-2640802 and M-2018-2640803
66. Philadelphia Gas Works 1307(f), Docket No. R-2019-3007636
67. People Natural Gas Company, LLC, Docket No. R-2018-3006818
68. Application of Pennsylvania American Water Company Acquisition of the Steelton Borough Authority, Docket No. A-2019-3006880
69. Application of Aqua America, Inc. et al., Acquisition of the Wastewater System Assets of the Township of Cheltenham, Docket No. A-2019-3006880
70. Philadelphia Gas Works, Docket No. R-2019-3009016
71. Wellsboro Electric Company, Docket No. R-2019-3008208

72. Valley Energy, Inc., Docket No. R-2019-3008209
73. Citizens' Electric Company of Lewisburg, Pa, Docket Non. R-2019-3008212
74. Application of Aqua America, Inc. et al., Acquisition of the Wastewater System Assets of the East Norriton Township, Docket No. A-2019-3009052
75. Peoples Natural Gas Company, LLC 1307(f), Docket No. R-2020-3017850
76. Peoples Gas Company, LLC 1307(f), Docket No. R-2020-3017846
77. Philadelphia Gas Works, Docket No. R-2020-3017206
78. Pittsburgh Water and Sewer Authority, Docket Nos. R-2020-3017951 et al.
79. Columbia Gas of Pennsylvania, Docket No. R-2020-3018835
80. Pennsylvania America Water Company, Docket Nos. R-2020-3019369 and R-2020-3019371
81. PECO Energy Company – Gas Division, Docket No. R-2020-3019829
82. PGW 1307(f), Docket No. R-2021-3023970
83. Peoples Natural Gas Company, LLC 1307(f), Docket No. R-2021-3023965
84. Peoples Gas Company, LLC 1307(f), Docket No. R-2021-3023967
85. UGI Utilities, Inc. – Electric Division, Docket No. R-2021-3023618
86. Columbia Gas of Pennsylvania, Inc., Docket No. R-2021-3024926
87. Duquesne Light Company, Docket No. R-2021-3024750
88. UGI Utilities, Inc. – Gas Division 1307(f), Docket No. R-2021-3025652
89. Pittsburgh Water and Sewer Authority, Docket Nos. R-2021-3024773 et al.
90. Application of Aqua America Wastewater, Inc. et al., Acquisition of the Wastewater System Assets of Lower Makefield Township, Docket No. A-2021-3024267
91. Aqua Pennsylvania Water, Inc. and Aqua Pennsylvania Wastewater, Inc., Docket Nos. R-2021-3027385 and R-2021-3027386
92. Application of Pennsylvania-American Water Company for Acquisition of the Wastewater Collection and Treatment System Assets of the York City Sewer Authority, Docket No. A-2021-3024681
93. City of Lancaster – Bureau of Water, Docket No. R-2021-3026682
94. Application of Aqua America Wastewater, Inc. et al., Acquisition of the Wastewater System Assets of East Whiteland Township, Docket No. A-2021-30246132

I&E Exhibit No. 4
Witness: Ethan H. Cline

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Exhibit to Accompany

the

Direct Testimony

of

Ethan H. Cline

Bureau of Investigation and Enforcement

Concerning:

Test Year
Present Rate Revenue
Weather Normalization Adjustment
Average Bill Comparison
Scale Back of Rates

UGI Utilities, Inc. - Gas Division
Docket No. R-2021-3030218
UGI Gas 2022 Base Rate Case
Responses to I&E (RS-12-D thru RS-16-D)
Delivered on March 15, 2022

I&E-RS-14-D

Request:

Reference UGI SDR-RR-11(a) page 8 as of September 2023 showing 87.9625 Mcf labeled "FY 23".

A. Does the 87.9625 Mcf represent the normal annualized usage of a customer on September 30, 2023, or some other point in time?

B. Does the 87.9625 Mcf represent the average normal annualized usage for the twelve months ending March 31, 2023, or some other period of time?

Response:

A. The normal annualized usage of a customer as of September 30, 2023 is 87.8138 Mcf, and is noted as "Fully Projected Future Test Year Annualized FY 23" in the last column shown on page 8 of UGI SDR-RR-11(a). The value of 87.9625 Mcf represents the normalized annualized usage as of March 31, 2023. By way of further response, for the end of any specific month listed in the first column of the referenced page 8, the normalized annualized usage for such month can be determined by summing the 6 months of "1 Month UPC" data up to such specific month and the 6 months following such specific month; this represents the use of a mid-period convention in determining UPC.

This projection of data is needed in order to properly annualize customer usage for conditions existing at the end of the FPFTY for all customers in the residential class. Specifically, in order to establish use per customer as of the end of the FPFTY, or as of September 30, 2023, the company utilized a mid-period convention in order to capture the full annualized impacts related to customer conservation activities through that date. As September 30, 2023, is the middle of the annual period ending March 31, 2024, the projected annualized value for use per customer for that 12-month period would represent the annualized rate of use for those customers existing as of September 30, 2023.

A single customer example will help demonstrate this mid-point convention use in calculating usage per customer. For example, assume the 12-month history of an individual customer's actual gas usage for a twelve month period ending on September 30, 2023, totals 85 Mcf and is reflective of the customer's usage of their then-existing 80% efficient heating equipment during the 2022-2023 heating

UGI Utilities, Inc. - Gas Division
Docket No. R-2021-3030218
UGI Gas 2022 Base Rate Case
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I&E-RS-14-D (Continued)

season (the season ending March of 2023). If that customer installs a new, 95% efficient heating system in July of 2023, the customer's annual projected usage will drop to 71.5 Mcf per year as of the day the new system is installed in July. (85 Mcf use x 0.80 old furnace efficiency = 68 Mcf heat requirement; 68 Mcf heat requirement/0.95 new furnace efficiency = 71.5 Mcf use) The Company's method captures this new, lower usage resulting from an installation prior to the end of the FPFTY and is appropriate to include in an annualization.

B. Yes. Please see the response to A above.

Prepared by or under the supervision of: Sherry A. Epler

I&E Exhibit No. 4
Schedule 2

UGI Utilities, Inc. - Gas Division
Residential Service - Rate Schedules R & RT
Calculation of the Effect of Proposed Rates
12-Months Ending September 30, 2023

Line No.	Description	Number of Bills	Pro Forma Consumption Mcf	Current Rate	Current Revenue	Proposed Rate	Proposed Revenue	Proposed Revenue Change	% Change
		(A)	(B)	(C)	(D)	(E)	(F)	(G)	
1	**Non-Heating** Customer Charge	272,784		$ 14.60	$ 3,982,646	$ 19.95	$ 5,442,041	$ 1,459,394	
2	**Non Heating** Distribution Charges		435,108	$ 4.1104	$ 1,788,468	$ 4.9996	$ 2,175,366	$ 386,898	
3	**Heating** Customer Charge	7,120,800		$ 14.60	$ 103,963,680	$ 19.95	$ 142,059,960	$ 38,096,280	
4	GET Gas Customer Charge	5,988		$ 28.25	$ 169,164	$ 28.25	$ 169,164	$ -	
5	**Heating** Distribution Charges		51,571,875	$ 4.1104	$ 211,981,035	$ 4.9996	$ 257,838,746	$ 45,857,711	
		Average							
6	**Increase in Usage per Customer - Post FPFTY**	0.1307	77,061	$ 4.1104	$ 316,752	$ 4.9996	$ 385,274		
7	**Company Claim**	87.8318	51,571,875	$ 4.1104	$ 211,981,035	$ 4.9996	$ 257,838,746		
8	**Total Heating**	87.9625	51,648,936	$ 4.1104	$ 212,297,787	$ 4.9996	$ 258,224,020		
9	State Tax Adjustment Surcharge (STAS) - Rider A			0.00%	$ -	0.00%	$ -	$ -	
10	**Increase in Usage per Customer - Post FPFTY**		65,862	$ 6.2767	$ 413,399	$ 6.2767	$ 413,399		
11	Purchased Gas Costs (PGC) - Rider B	0.85468	45,375,042	$ 6.2767	$ 284,805,526	$ 6.2767	$ 284,805,526	$ -	
12			45,440,904		$ 285,218,925		$ 285,218,925		
13	Merchant Function Charge (MFC) - Rider D		45,375,042	2.17%	$ 6,180,280	2.27%	$ 6,465,085	$ 284,806	
14	Adjustment		65,862		8,971		9,384		
15	I&E MFC		45,440,904	2.17%	$ 6,189,251	2.27%	$ 6,474,470		
16	Gas Procurement Charge (GPC) - Rider E		45,375,042	$ 0.0660	$ 2,994,753	$ 0.0660	$ 2,994,753	$ -	
17	Adjustment		65,862		4,347		4,347		
18	I&E GPC		45,440,904	$ 0.0660	$ 2,999,100	$ 0.0660	$ 2,999,100		
19	Universal Service Program (USP) - Rider F	0.92736	49,233,290	$ 0.3562	$ 17,536,898	$ 0.3562	$ 17,536,898	$ -	
20	Adjustment		(932,631)		(332,203)		(332,203)		
21	I&E USP		48,300,659	$ 0.3562	$ 17,204,695	$ 0.3562	$ 17,204,695		
22	Energy Efficiency & Conservation Rider (EEC) - Rider G		52,006,983	$ 0.2077	$ 10,801,850	$ 0.2077	$ 10,801,850	$ -	
23	Adjustment		77,061		16,006		16,006		
24	I&E EEC		52,084,044	$ 0.2077	$ 10,817,856	$ 0.2077	$ 10,817,856		
25	Distribution System Improvement Charge (DSIC) - Rider I			5.00%	$ 17,969,939	0.00%	$ -	$ (17,969,939)	
26	Adjustment		-		694		-		
27	I&E DSIC		-	5.00%	$ 17,970,632	0.00%	$ -	$ (17,970,632)	
28	**Company Claim**	**7,393,584**	**52,006,983**		**$ 662,174,239**		**$ 730,289,390**		
29	**I&E Adjustment**		**77,061**		**$ 427,964**		**$ 496,207**		
30	**Total - Rates R/RT**	**7,393,584**	**52,084,044**		**$ 662,602,203**		**$ 730,785,596**	**$ 68,183,393**	**10.3%**
31	Purchased Gas Costs				$ (284,805,526)		$ (284,805,526)		
32	Total Distribution Costs				$ 377,796,677		$ 445,980,070		

Regression Results:	
	0.819457 Constant
	0.000517 HDD-1
	0.013939 HDD
	-0.00034 Trend

	Normal Degree Days (HDD)	Normal Degree Days for Prior Month (HDD-1)	HDD Weighted Trend		1 Month UPC	12 Months Ended UPC
Oct-03	350	83	4		5.7397	
Nov-03	672	350	7		10.3648	
Dec-03	952	672	10		14.4329	
Jan-04	1,120	952	12		16.9186	
Feb-04	962	1,120	10		14.8036	
Mar-04	805	962	8		12.5342	
Apr-04	414	805	4		7.0044	
May-04	164	414	2		3.3187	
Jun-04	30	164	0		1.3222	
Jul-04	0	30	0		0.8350	
Aug-04	16	0	0		1.0424	
Sep-04	83	16	1	FY04	1.9843	90.3008
Oct-04	350	83	4		5.7396	90.3007
Nov-04	672	350	8		10.3645	90.3004
Dec-04	952	672	11		14.4325	90.3000
Jan-05	1,120	952	13		16.9182	90.2995
Feb-05	962	1,120	11		14.8032	90.2991
Mar-05	805	962	9		12.5338	90.2988
Apr-05	414	805	5		7.0042	90.2986
May-05	164	414	2		3.3186	90.2986
Jun-05	30	164	0		1.3222	90.2986
Jul-05	0	30	0		0.8350	90.2986
Aug-05	16	0	0		1.0424	90.2986
Sep-05	83	16	1	FY05	1.9843	90.2985
Oct-05	350	83	4		5.7394	90.2984
Nov-05	672	350	8		10.3642	90.2981
Dec-05	952	672	12		14.4322	90.2977
Jan-06	1,120	952	14		16.9177	90.2973
Feb-06	962	1,120	12		14.8028	90.2969
Mar-06	805	962	10		12.5335	90.2965
Apr-06	414	805	5		7.0041	90.2964
May-06	164	414	2		3.3185	90.2963
Jun-06	30	164	0		1.3222	90.2963
Jul-06	0	30	0		0.8350	90.2963
Aug-06	16	0	0		1.0424	90.2963
Sep-06	83	16	1	FY06	1.9843	90.2962
Oct-06	350	83	5		5.7393	90.2961
Nov-06	672	350	9		10.3639	90.2958
Dec-06	952	672	13		14.4318	90.2954
Jan-07	1,120	952	16		16.9173	90.2950
Feb-07	962	1,120	13		14.8024	90.2946
Mar-07	805	962	11		12.5332	90.2943
Apr-07	414	805	6		7.0039	90.2941
May-07	164	414	2		3.3185	90.2940
Jun-07	30	164	0		1.3222	90.2940
Jul-07	0	30	0		0.8350	90.2940
Aug-07	16	0	0		1.0424	90.2940
Sep-07	83	16	1	FY 07	1.9842	90.2940
Oct-07	350	83	5		5.7391	90.2938
Nov-07	672	350	10		10.3637	90.2936
Dec-07	952	672	14		14.4314	90.2932
Jan-08	1,120	952	17		16.9168	90.2927
Feb-08	962	1,120	15		14.8021	90.2923
Mar-08	805	962	12		12.5328	90.2920
Apr-08	414	805	6		7.0037	90.2918
May-08	164	414	3		3.3184	90.2918
Jun-08	30	164	0		1.3222	90.2917
Jul-08	0	30	0		0.8350	90.2917
Aug-08	16	0	0		1.0424	90.2917
Sep-08	83	16	1	FY 08	1.9842	90.2917
Oct-08	350	83	6		5.7390	90.2916
Nov-08	672	350	11		10.3634	90.2913
Dec-08	952	672	15		14.4310	90.2909
Jan-09	1,120	952	18		16.9164	90.2904
Feb-09	962	1,120	16		14.8017	90.2900
Mar-09	805	962	13		12.5325	90.2897
Apr-09	414	805	7		7.0036	90.2895

Regression Results:	
0.819457	Constant
0.000517	HDD-1
0.013939	HDD
-0.00034	Trend

	Normal Degree Days (HDD)	Normal Degree Days for Prior Month (HDD-1)	HDD Weighted Trend		1 Month UPC	12 Months Ended UPC
May-09	164	414	3		3.3183	90.2895
Jun-09	30	164	1		1.3222	90.2895
Jul-09	0	30	0		0.8350	90.2895
Aug-09	16	0	0		1.0424	90.2895
Sep-09	83	16	1	FY 09	1.9842	90.2894
Oct-09	350	83	6		5.7388	90.2893
Nov-09	672	350	12		10.3631	90.2890
Dec-09	952	672	17		14.4306	90.2886
Jan-10	1,120	952	20		16.9159	90.2882
Feb-10	962	1,120	17		14.8013	90.2878
Mar-10	805	962	14		12.5322	90.2874
Apr-10	414	805	7		7.0034	90.2873
May-10	164	414	3		3.3182	90.2872
Jun-10	30	164	1		1.3221	90.2872
Jul-10	0	30	0		0.8350	90.2872
Aug-10	16	0	0		1.0424	90.2872
Sep-10	83	16	2	FY 10	1.9841	90.2872
Oct-10	350	83	6		5.7387	90.2870
Nov-10	672	350	12		10.3628	90.2867
Dec-10	952	672	18		14.4302	90.2863
Jan-11	1,120	952	21		16.9154	90.2859
Feb-11	962	1,120	18		14.8009	90.2855
Mar-11	805	962	15		12.5319	90.2852
Apr-11	414	805	8		7.0032	90.2850
May-11	164	414	3		3.3182	90.2849
Jun-11	30	164	1		1.3221	90.2849
Jul-11	0	30	0		0.8350	90.2849
Aug-11	16	0	0		1.0424	90.2849
Sep-11	83	16	2	FY 11	1.9841	90.2849
Oct-11	350	83	7		5.7386	90.2847
Nov-11	672	350	13		10.3626	90.2845
Dec-11	952	672	19		14.4298	90.2841
Jan-12	1,120	952	22		16.9150	90.2836
Feb-12	962	1,120	19		14.8005	90.2832
Mar-12	805	962	16		12.5315	90.2829
Apr-12	414	805	8		7.0030	90.2827
May-12	164	414	3		3.3181	90.2827
Jun-12	30	164	1		1.3221	90.2826
Jul-12	0	30	0		0.8350	90.2826
Aug-12	16	0	0		1.0424	90.2826
Sep-12	83	16	2	FY 12	1.9841	90.2826
Oct-12	350	83	7		5.7384	90.2825
Nov-12	672	350	14		10.3623	90.2822
Dec-12	952	672	20		14.4294	90.2818
Jan-13	1,120	952	24		16.9145	90.2813
Feb-13	962	1,120	20		14.8001	90.2809
Mar-13	805	962	17		12.5312	90.2806
Apr-13	414	805	9		7.0029	90.2805
May-13	164	414	4		3.3180	90.2804
Jun-13	30	164	1		1.3221	90.2804
Jul-13	0	30	0		0.8350	90.2804
Aug-13	16	0	0		1.0424	90.2804
Sep-13	83	16	2	FY 13	1.9840	90.2803
Oct-13	350	83	8		5.7383	90.2802
Nov-13	672	350	15		10.3620	90.2799
Dec-13	952	672	21		14.4291	90.2795
Jan-14	1,120	952	25		16.9141	90.2791
Feb-14	962	1,120	22		14.7997	90.2787
Mar-14	805	962	18		12.5309	90.2783
Apr-14	414	805	9		7.0027	90.2782
May-14	164	414	4		3.3180	90.2781
Jun-14	30	164	1		1.3221	90.2781
Jul-14	0	30	0		0.8350	90.2781
Aug-14	16	0	0		1.0424	90.2781
Sep-14	83	16	2	FY 14	1.9840	90.2781
Oct-14	350	83	8		5.7381	90.2779
Nov-14	672	350	16		10.3617	90.2776

Regression Results:		
	0.819457	Constant
	0.000517	HDD-1
	0.013939	HDD
	-0.00034	Trend

	Normal Degree Days (HDD)	Normal Degree Days for Prior Month (HDD-1)	HDD Weighted Trend		1 Month UPC	12 Months Ended UPC
Dec-14	952	672	22		14.4287	90.2773
Jan-15	1,120	952	26		16.9136	90.2768
Feb-15	962	1,120	23		14.7993	90.2764
Mar-15	805	962	19		12.5305	90.2761
Apr-15	414	805	10		7.0025	90.2759
May-15	164	414	4		3.3179	90.2758
Jun-15	30	164	1		1.3221	90.2758
Jul-15	0	30	0		0.8350	90.2758
Aug-15	16	0	0		1.0423	90.2758
Sep-15	83	16	2	FY 15	1.9840	90.2758
Oct-15	350	83	9		5.7380	90.2756
Nov-15	672	350	16		10.3615	90.2754
Dec-15	952	672	23		14.4283	90.2750
Jan-16	1,120	952	28		16.9132	90.2745
Feb-16	962	1,120	24		14.7989	90.2741
Mar-16	805	962	20		12.5302	90.2738
Apr-16	414	805	10		7.0024	90.2736
May-16	164	414	4		3.3178	90.2736
Jun-16	30	164	1		1.3221	90.2736
Jul-16	0	30	0		0.8350	90.2736
Aug-16	16	0	0		1.0423	90.2735
Sep-16	83	16	2	FY 16	1.9839	90.2735
Oct-16	350	83	9		5.7378	90.2734
Nov-16	672	350	17		10.3612	90.2731
Dec-16	952	672	25		14.4279	90.2727
Jan-17	1,120	952	29		16.9127	90.2722
Feb-17	962	1,120	25		14.7985	90.2719
Mar-17	805	962	21		12.5299	90.2715
Apr-17	414	805	11		7.0022	90.2714
May-17	164	414	4		3.3178	90.2713
Jun-17	30	164	1		1.3221	90.2713
Jul-17	0	30	0		0.8350	90.2713
Aug-17	16	0	0		1.0423	90.2713
Sep-17	83	16	2	FY 17	1.9839	90.2712
Oct-17	350	83	9		5.7377	90.2711
Nov-17	672	350	18		10.3609	90.2708
Dec-17	952	672	26		14.4275	90.2704
Jan-18	1,120	952	30		16.9122	90.2700
Feb-18	962	1,120	26		14.7981	90.2696
Mar-18	805	962	22		12.5296	90.2693
Apr-18	414	805	11		7.0020	90.2691
May-18	164	414	5		3.3177	90.2690
Jun-18	30	164	1		1.3220	90.2690
Jul-18	0	30	0		0.8350	90.2690
Aug-18	16	0	0		1.0423	90.2690
Sep-18	83	16	2	FY 18	1.9838	90.2690
Oct-18	350	83	10		5.7376	90.2688
Nov-18	672	350	19		10.3606	90.2685
Dec-18	952	672	27		14.4271	90.2682
Jan-19	1,120	952	32		16.9118	90.2677
Feb-19	962	1,120	27		14.7977	90.2673
Mar-19	805	962	23		12.5292	90.2670
Apr-19	414	805	12		7.0019	90.2668
May-19	164	414	5		3.3176	90.2667
Jun-19	30	164	1		1.3220	90.2667
Jul-19	0	30	0		0.8350	90.2667
Aug-19	16	0	0		1.0423	90.2667
Sep-19	83	16	2	FY 19	1.9838	90.2667
Oct-19	350	83	10		5.7374	90.2665
Nov-19	672	350	20		10.3604	90.2663
Dec-19	952	672	28		14.4267	90.2659
Jan-20	1,120	952	33		16.9113	90.2654
Feb-20	962	1,120	28		14.7973	90.2650
Mar-20	805	962	24		12.5289	90.2647
Apr-20	414	805	12		7.0017	90.2645
May-20	164	414	5		3.3176	90.2645
Jun-20	30	164	1		1.3220	90.2645

Regression Results:		
	0.819457	Constant
	0.000517	HDD-1
	0.013939	HDD
	-0.00034	Trend

	Normal Degree Days (HDD)	Normal Degree Days for Prior Month (HDD-1)	HDD Weighted Trend		1 Month UPC	12 Months Ended UPC	
Jul-20	0	30	0		0.8350	90.2645	
Aug-20	16	0	0		1.0423	90.2644	
Sep-20	83	16	3	FY 20	1.9838	90.2644	
Oct-20	350	83	11		5.7373	90.2643	
Nov-20	672	350	20		10.3601	90.2640	
Dec-20	952	672	29		14.4263	90.2636	
Jan-21	1,120	952	34		16.9109	90.2632	
Feb-21	962	1,120	30		14.7969	90.2628	
Mar-21	805	962	25		12.5286	90.2624	
Apr-21	414	805	13		7.0015	90.2623	
May-21	164	414	5		3.3175	90.2622	
Jun-21	30	164	1		1.3220	90.2622	
Jul-21	0	30	0		0.8350	90.2622	
Aug-21	16	0	1		1.0423	90.2622	
Sep-21	83	16	3	FY 21	1.9837	90.2621	
Oct-21	350	83	11		5.7371	90.2620	
Nov-21	672	350	21		10.3598	90.2617	
Dec-21	952	672	30		14.4259	90.2613	
Jan-22	1,120	952	36		16.9104	90.2609	
Feb-22	962	1,120	31		14.7966	90.2605	
Mar-22	805	962	26		12.5282	90.2602	Historic Test Year Annualized FY 21
Apr-22	414	805	13		7.0014	90.2600	
May-22	164	414	5		3.3174	90.2599	
Jun-22	30	164	1		1.3220	90.2599	
Jul-22	0	30	0		0.8350	90.2599	
Aug-22	16	0	1		1.0423	90.2599	
Sep-22	83	16	3	FY 22	1.9837	90.2599	
Oct-22	350	83	11		5.7370	90.2597	
Nov-22	672	350	22		10.3596	90.2595	
Dec-22	952	672	31		14.4256	90.2591	
Jan-23	1,120	952	37		16.9100	90.2586	
Feb-23	962	1,120	32		14.7962	90.2582	
Mar-23	805	962	27		12.5279	90.2579	Future Test Year Annualized FY 22
Apr-23	414	805	14		7.0012	90.2577	
May-23	164	414	5		3.3174	90.2576	
Jun-23	30	164	1		1.3220	90.2576	
Jul-23	0	30	0		0.8350	90.2576	
Aug-23	16	0	1		1.0423	90.2576	
Sep-23	**83**	**16**	**3**	**FY 23**	**1.9837**	**90.2576**	**Fully Projected Future Test Year FY 23**
Oct-23	350	83	12		5.7368	90.2575	
Nov-23	672	350	23		10.3593	90.2572	
Dec-23	952	672	33		14.4252	90.2568	
Jan-24	1,120	952	38		16.9095	90.2563	
Feb-24	962	1,120	33		14.7958	90.2559	
Mar-24	805	962	28		12.5276	90.2556	Fully Projected Future Test Year Annualized FY 23

UGI Utilities, Inc. - Gas Division
Residential Service - Rate Schedules R & RT
Calculation of the Effect of Proposed Rates
12-Months Ending September 30, 2023

Line No.	Description	Number of Bills (A)	Pro Forma Consumption Mcf (B)	Current Rate (C)	Current Revenue (D)	Proposed Rate (E)	Proposed Revenue (F)	Proposed Revenue Change (G)	% Change
1	**Non-Heating** Customer Charge	272,784		$ 14.60	$ 3,982,646	$ 19.95	$ 5,442,041	$ 1,459,394	
2	**Non Heating** Distribution Charges		435,108	$ 4.1104	$ 1,788,468	$ 4.9996	$ 2,175,366	$ 386,898	
3	**Heating** Customer Charge	7,120,800		$ 14.60	$ 103,963,680	$ 19.95	$ 142,059,960	$ 38,096,280	
4	GET Gas Customer Charge	5,988		$ 28.25	$ 169,164	$ 28.25	$ 169,164	$ -	
5	**Heating** Distribution Charges		51,571,875	$ 4.1104	$ 211,981,035	$ 4.9996	$ 257,838,746	$ 45,857,711	
		Average							
6	**Increase in Usage per Customer - Post FPFTY**	2.4438	1,440,867	$ 4.1104	$ 5,922,539	$ 4.9996	$ 7,203,758		
7	**Company Claim**	87.8138	51,571,875	$ 4.1104	$ 211,981,035	$ 4.9996	$ 257,838,746		
8	**Total Heating**	90.2576	53,012,742	$ 4.1104	$ 217,903,574	$ 4.9996	$ 265,042,505		
9	State Tax Adjustment Surcharge (STAS) - Rider A			0.00%	$ -	0.00%	$ -	$ -	
10	**Increase in Usage per Customer - Post FPFTY**		1,231,480	$ 6.2767	$ 7,729,631	$ 6.2767	$ 7,729,631		
11	Purchased Gas Costs (PGC) - Rider B	0.85468	45,375,042	$ 6.2767	$ 284,805,526	$ 6.2767	$ 284,805,526	$ -	
12			46,606,522		$ 292,535,158		$ 292,535,158		
13	Merchant Function Charge (MFC) - Rider D		45,375,042	2.17%	$ 6,180,280	2.27%	$ 6,465,085	$ 284,806	
14	Adjustment		1,231,480		167,733		175,463		
15	I&E MFC		46,606,522	2.17%	$ 6,348,013	2.27%	$ 6,640,548		
16	Gas Procurement Charge (GPC) - Rider E		45,375,042	$ 0.0660	$ 2,994,753	$ 0.0660	$ 2,994,753	$ -	
17	Adjustment		1,231,480		81,278		81,278		
18	I&E GPC		46,606,522	$ 0.0660	$ 3,076,030	$ 0.0660	$ 3,076,030		
19	Universal Service Program (USP) - Rider F	0.92736	49,233,290	$ 0.3562	$ 17,536,898	$ 0.3562	$ 17,536,898	$ -	
20	Adjustment		332,108		118,297		118,297		
21	I&E USP		49,565,398	$ 0.3562	$ 17,655,195	$ 0.3562	$ 17,655,195		
22	Energy Efficiency & Conservation Rider (EEC) - Rider G		52,006,983	$ 0.2077	$ 10,801,850	$ 0.2077	$ 10,801,850	$ -	
23	Adjustment		1,440,867		299,268		299,268		
24	I&E EEC		53,447,850	$ 0.2077	$ 11,101,118	$ 0.2077	$ 11,101,118		
25	Distribution System Improvement Charge (DSIC) - Rider I			5.00%	$ 17,969,939	0.00%	$ -	$ (17,969,939)	
26	Adjustment		-		329,456		-		
27	I&E DSIC		-	5.00%	$ 18,299,394	0.00%	$ -	$ (18,299,394)	
28	**Company Claim**	**7,393,584**	**52,006,983**		**$ 662,174,239**		**$ 730,289,390**		
29	**I&E Adjustment**		**1,440,867**		**$ 14,648,202**		**$ 15,607,695**		
30	**Total - Rates R/RT**	**7,393,584**	**53,447,850**		**$ 676,822,441**		**$ 745,897,085**	**$ 69,074,643**	**10.2%**
31	Purchased Gas Costs				$ (284,805,526)		$ (284,805,526)		
32	Total Distribution Costs				$ 392,016,915		$ 461,091,558		

UGI Utilities, Inc. - Gas Division
Docket No. R-2021-3030218
UGI Gas 2022 Base Rate Case
Responses to I&E (RS-24 thru 27)
Delivered on March 28, 2022

I&E-RS-27

Request:

Reference the $1,998,000 of other miscellaneous revenue shown on UGI Gas Book 9, Schedule E, page 4.

A. Provide the top five sources of miscellaneous revenue.

B. Describe how this $1,998,000 was determined and provide the supporting documents and rationale for projecting $1,998,000.

C. In the last base rate case at Docket R-2019-3015162, the Company projected $47,000 of other miscellaneous revenue. Provide the rationale for the large increase since the last case.

D. Provide the monthly amount of other miscellaneous revenue received each month from October 2018 through February 2022.

Response:

A. In the FPFTY, the top sources are:

1. Reconnect fees - $580,000
2. Returned check fees - $338,000
3. POR Admin Fee - $72,000
4. Other - $4,000
5. Turn-on charges - $1,000

The other miscellaneous revenue inadvertently included the company share portion of off-system sales that should be reflected below the line for ratemaking purposes in an amount of $1,003,000. Accordingly, the $1,998,000 other miscellaneous revenue will be adjusted downward by $1,003,000 to $995,000 at an appropriate time during this proceeding.

B. The miscellaneous revenue was budgeted using a monthly three-year average. Please see Attachment I&E-RS-27(B).

UGI Utilities, Inc. - Gas Division
Docket No. R-2021-3030218
UGI Gas 2022 Base Rate Case
Responses to I&E (RS-24 thru 27)
Delivered on March 28, 2022

I&E-RS-27 (Continued)

C. The adjusted miscellaneous revenue of $995,000 in the request includes revenue from accounts 488 and 495, which totaled $971,000 in the company's last base rate case at Docket No. R-2019-3015162.

D. Please see Attachment I&E-RS-27(D).

Prepared by or under the supervision of: Tracy A. Hazenstab

UGI Utilities, Inc. - Gas Division
Other Miscellaneous Revenue - Budget Support
($ in thousands)

	FY18	FY19	FY20	FY21	FY23 - Budget*	Notes
October	$ 34	$ 235	$ 204	$ 29	$ 156	Average FY19, 20, 21
November	44	141	133	29	$ 101	Average FY19, 20, 21
December	28	44	57	45	$ 49	Average FY19, 20, 21
January	34	51	60	47	$ 53	Average FY19, 20, 21
February	33	45	54	51	$ 50	Average FY19, 20, 21
March	36	48	49	51	$ 49	Average FY19, 20, 21
April	98	193	34	59	$ 95	Average FY19, 20, 21
May	141	143	27	205	$ 125	Average FY19, 20, 21
June	114	67	24	246	$ 112	Average FY19, 20, 21
July	82	52	24	N/A	$ 53	Average FY18, 19, 20
August	110	89	22	N/A	$ 73	Average FY18, 19, 20
September	130	79	29	N/A	$ 79	Average FY18, 19, 20
Total	$ 884	$ 1,186	$ 715	$ 763	$ 995	

*Calculated using a monthly 3-year average.

**July - September 2021 data was not used in the budgeting process as it was not available at the time of calculation.

Attachment I&E-RS-27(D)
T. A. Hazenstab
Page 1 of 1

UGI Utilities, Inc. - Gas Division
Actual Other Miscellaneous Revenue
($ in thousands)

	FY19	FY20	FY21	FY22
October	$ 235	$ 204	$ 29	$ 236
November	141	133	29	235
December	44	57	45	67
January	51	60	47	64
February	45	54	51	64
March	48	49	51	
April	193	34	59	
May	143	27	205	
June	67	24	246	
July	52	24	185	
August	89	22	174	
September	79	29	228	
Total	$ 1,186	$ 715	$ 1,350	$ 666

*Includes returned check fees, turn on charges, reconnect fees and other fees

2008 - 2009 PURCHASED GAS COST RATES
PERCENTAGE INCREASES
CALCULATED PER THE OFFICE OF TRIAL STAFF

	T.W. PHILLIPS (Mcf) Residential	NFG (Mcf)	PGW (Mcf) (1)	COLUMBIA (Mcf)	PEOPLES (Mcf)	EQUITABLE (Mcf)	UGI CP (Dth)	UGI (Mcf) PGC-1	UGI PENN (Mcf)	PECO (Mcf)
PGC 2008 1307-f Rates										
PGC Rate In Effect Prior To Annual Review										
Approved rate	$ 11.1773	$ 10.8642	$ 13.0236	$ 15.9395	$ 15.8944	$ 16.46	$ 12.7949	$ 13.2610	$ 11.6820	$ 13.1553
Rates per Annual Review + 4th Quarterly PGC 2008										
Date rates effective	Aug 1, 2008	Aug 1, 2008	Sep 1, 2008	Oct 1, 2008	Oct 1, 2008	Oct 1, 2008	Dec 1, 2008	Dec 1, 2008	Dec 1, 2008	Dec 1, 2008
Approved rate	$ 12.8933	$ 15.6622	$ 12.6527	$ 13.1362	$ 11.8010	$ 14.45	$ 11.6268	$ 10.8186	$ 11.1873	$ 10.1340
Rate increase/(decrease)	$ 1.7160	$ 4.7980	$ (0.3709)	$ (2.8033)	$ (4.0934)	$ (2.01)	$ (1.1681)	$ (2.4424)	$ (0.4947)	$ (3.0213)
Percentage Increase/(decrease)	15.4	44.2	(2.8)	(17.6)	(25.8)	(12.2)	(9.1)	(18.4)	(4.2)	(23.0)
1st Quarterly										
Date rates effective	Nov 1, 2008	Nov 1, 2008	Jan 1, 2009	Jan 1, 2009	Jan 1, 2009	Jan 1, 2009	Mar 1, 2009	Mar 1, 2009	Mar 1, 2009	Mar 1, 2009
Approved rate	$ 11.5724	$ 11.8311	$ 10.7007	$ 11.5744	$ 10.6628	$ 13.07	$ 9.6198	$ 9.8844	$ 10.3977	$ 8.5973
Rate increase/(decrease)	$ (1.3209)	$ (3.8311)	$ (1.9520)	$ (1.5618)	$ (1.1382)	$ (1.38)	$ (2.0070)	$ (0.9342)	$ (0.7896)	$ (1.5367)
Percentage Increase/(decrease)	(10.2)	(24.5)	(15.4)	(11.9)	(9.6)	(9.6)	(17.3)	(8.6)	(7.1)	(15.2)
2nd Quarterly										
Date rates effective	Feb 1, 2009	Feb 1, 2009	Mar 1, 2009	Apr 1, 2009	Apr 1, 2009	Apr 1, 2009	June 1, 2009	June 1, 2009	June 1, 2009	June 1, 2009
Approved rate	$ 9.5232	$ 10.5313	$ 8.4192	$ 7.6561	$ 8.8739	$ 9.51	$ 8.2398	$ 9.8844	$ 10.3977	$ 7.0864
Rate increase/(decrease)	$ (2.0492)	$ (1.2998)	$ (2.2815)	$ (3.9183)	$ (1.7889)	$ (3.56)	$ (1.3800)	$ -	$ -	$ (1.5109)
Percentage Increase/(decrease)	(17.7)	(11.0)	(21.3)	(33.9)	(16.8)	(27.2)	(14.4)	0.0	0.0	(17.6)
3rd Quarterly										
Date rates effective	May 1, 2009	May 1, 2009	June 1, 2009	July 1, 2009	July 1, 2009	July 1, 2009	Sep 1, 2009	Sep 1, 2009	Sep 1, 2009	Sep 1, 2009
Approved rate	$ 7.1266	$ 9.3880	$ 7.1815	$ 5.7345	$ 7.0040	9.51	$ 6.8720	$ 9.8844	$ 10.3977	$ 7.0864
Rate increase/(decrease)	$ (2.3966)	$ (1.1433)	$ (1.2377)	$ (1.9216)	$ (1.8699)	$ -	$ (1.3678)	$ -	$ -	$ -
Percentage Increase/(decrease)	(25.2)	(10.9)	(14.7)	(25.1)	(21.1)	0.0	(16.6)	0.0	0.0	0.0
Quarterly										
Date rates effective										
Approved rate										
Rate increase/(decrease)										
Percentage Increase/(decrease)										

2007 - 2008 PURCHASED GAS COST RATES
PERCENTAGE INCREASES
CALCULATED PER THE OFFICE OF TRIAL STAFF

	T.W. PHILLIPS	NFG	PGW	COLUMBIA	PEOPLES	EQUITABLE	PPL	UGI	UGI PENN	PECO
	(Mcf)	(Mcf)	(Mcf)	(Mcf)	(Mcf)	(Mcf)	(Dth)	(Mcf)	(Mcf)	(Mcf)
	Residential		(1)					PGC-1		
PGC 2007 1307-f Rates										
PGC Rate In Effect Prior To Annual Review										
Approved rate	$ 8.6918	$ 9.5156	$ 10.7251	$ 9.6377	$ 9.8564	$ 11.27	$ 10.1196	$ 11.4847	$ 10.3757	$ 10.5897
Rates per Annual Review + 4th Quarterly PGC 2006										
Date rates effective	Aug 1, 2007	Aug 1, 2007	Sep 1, 2007	Oct 1, 2007	Oct 1, 2007	Oct 1, 2007	Dec 1, 2007	Dec 1, 2007	Dec 1, 2007	Dec 1, 2007
Approved rate	$ 8.6576	$ 10.7211	$ 10.1108	$ 10.2488	$ 9.6720	$ 11.81	$ 9.2574	$ 11.2370	$ 10.2420	$ 10.0462
Rate increase/(decrease)	$ (0.0342)	$ 1.2055	$ (0.6143)	$ 0.6111	$ (0.1844)	$ 0.54	$ (0.8622)	$ (0.25)	$ (0.13)	$ (0.5435)
Percentage Increase/(decrease)	(0.4)	12.7	(5.7)	6.3	(1.9)	4.8	(8.5)	(2.2)	(1.3)	(5.1)
1st Quarterly										
Date rates effective	Nov 1, 2007	Nov 1, 2007	Dec 1, 2007	Jan 1, 2008	Jan 1, 2008	Jan 1, 2008	Mar 1, 2008	Mar 1, 2008	Mar 1, 2008	Mar 1, 2008
Approved rate	$ 8.9469	$ 10.3375	$ 10.5779	$ 10.2488	$ 9.5314	$ 11.81	$ 9.9747	$ 11.7870	$ 10.6620	$ 11.1009
Rate increase/(decrease)	$ 0.2893	$ (0.3836)	$ 0.4671	$ -	$ (0.1406)	$ -	$ 0.7173	0.55	0.42	$ 1.0547
Percentage Increase/(decrease)	3.3	(3.6)	4.6	0.0	(1.5)	0.0	7.8	4.9	4.1	10.5
2nd Quarterly										
Date rates effective	Feb 1, 2008	Feb 1, 2008	Mar 1, 2008	Apr 1, 2008	Apr 1, 2008	Apr 1, 2008	June 1, 2008	June 1, 2008	June 1, 2008	June 1, 2008
Approved rate	$ 9.5364	$ 10.0774	$ 10.7226	$ 11.6959	$ 12.4390	$ 13.97	$ 11.0103	$ 13.2610	$ 11.6820	$ 14.0615
Rate increase/(decrease)	$ 0.5895	$ (0.2601)	$ 0.1447	$ 1.4471	$ 2.9076	$ 2.16	$ 1.0356	$ 1.47	$ 1.02	$ 2.9606
Percentage Increase/(decrease)	6.6	(2.5)	1.4	14.1	30.5	18.3	10.4	12.5	9.6	26.7
3rd Quarterly										
Date rates effective	May 1, 2008	May 1, 2008	June 1, 2008	July 1, 2008	July 1, 2008	July 1, 2008	Sep 1, 2008	Sep 1, 2008	Sep 1, 2008	Sep 1, 2008
Approved rate	$ 11.1773	$ 10.8642	$ 13.0236	$ 15.9395	$ 15.8944	16.46	$ 12.7949	$ 13.2610	$ 11.6820	$ 13.1553
Rate increase/(decrease)	$ 1.6409	$ 0.7868	$ 2.3010	$ 4.2436	$ 3.4554	2.49	1.78	-	-	(0.91)
Percentage Increase/(decrease)	17.2	7.8	21.5	36.3	27.8	17.8	16.2	0.0	0.0	(6.4)
Quarterly										
Date rates effective										
Approved rate										
Rate increase/(decrease)										
Percentage Increase/(decrease)										

2021 - 2022 Purchased Gas Cost Rates
Percentage Increase/Decrease
Compiled by the Bureau of Investigation & Enforcement

	NFG (Mcf)	PGW (Mcf)	Columbia Gas (Dth)	Peoples Gas Co. (Mcf) Residential	Peoples Natural Gas Co. (Mcf)	UGI Gas Division (Mcf) PGC-1	PECO Gas (Rates GR/CAP) (Mcf)
PGC 1307(f) Rates							
PGC Rate In Effect Prior To Annual Review							
Approved rate	$ 3.8520	$ 3.5700	$ 3.8512	$ 4.0174	$ 3.9015	$ 5.1283	$ 4.0245
Rates per Annual Review + 4th Quarterly PGC 2020							
Date rates effective	Aug 1, 2021	Sep 1, 2021	Oct 1, 2021	Oct 1, 2021	Oct 1, 2021	Dec 1, 2021	Dec 1, 2021
Approved rate	$ 5.0214	$ 4.8745	$ 5.7280	$ 4.8841	$ 5.6401	$ 6.2767	$ 6.2265
Rate increase/(decrease)	$ 1.1694	$ 1.3045	$ 1.8768	$ 0.8667	$ 1.7386	$ 1.1484	$ 2.2020
Percentage Increase/(decrease)	30.4%	36.5%	48.7%	21.6%	44.6%	22.4%	54.7%
1st Quarterly							
Date rates effective	Nov 1, 2021	Dec 1, 2021	Jan 1, 2022	Jan 1, 2022	Jan 1, 2022	Mar 1, 2022	Mar 1, 2022
Approved rate	$ 6.3617	$ 6.0100	$ 5.4943	$ 4.7820	$ 5.2882	$ 6.2767	$ 5.8156
Rate increase/(decrease)	$ 1.3403	$ 1.1355	$ (0.2337)	$ (0.1021)	$ (0.3519)	$ -	$ (0.4109)
Percentage Increase/(decrease)	26.7%	23.3%	-4.1%	-2.1%	-6.2%	0.0%	-6.6%
2nd Quarterly							
Date rates effective	Feb 1, 2022	Mar 1, 2022	Apr 1, 2022	Apr 1, 2022	Apr 1, 2022	June 1, 2022	June 1, 2022
Approved rate	$ 6.0807	$ 5.6123	$ 5.6572	$ 5.2937	$ 5.4084		
Rate increase/(decrease)	$ (0.2810)	$ (0.3977)	$ 0.1629	$ 0.5117	$ 0.1202		
Percentage Increase/(decrease)	-4.42%	-6.62%	2.96%	10.70%	2.27%		
3rd Quarterly							
Date rates effective	May 1, 2022	June 1, 2022	July 1, 2022	July 1, 2022	July 1, 2022	Sep 1, 2022	Sep 1, 2022
Approved rate							
Rate increase/(decrease)							
Percentage Increase/(decrease)							
Quarterly							
Date rates effective							
Approved rate							
Rate increase/(decrease)							
Percentage Increase/(decrease)							

2020 - 2021 PURCHASED GAS COST RATES
PERCENTAGE INCREASE/DECREASE
COMPILED BY THE BUREAU OF INVESTIGATION & ENFORCEMENT

	NFG (Mcf)	PGW (Mcf)	Columbia Gas (Dth)	Peoples Gas Co. (TWP) (Mcf) Residential	Peoples Natural Gas Co. (Peoples & Equitable) (Mcf)	UGI Gas Division (Mcf) PGC-1	PECO Gas (Rates GR/CAP) (Mcf)
PGC 1307(f) Rates							
PGC Rate In Effect Prior To Annual Review							
Approved rate	$ 3.5685	$ 3.6124	$ 3.2562	$ 2.7595	$ 2.4178	$ 4.3631	$ 4.4374
Rates per Annual Review + 4th Quarterly PGC 2020							
Date rates effective	Aug 1, 2020	Sep 1, 2020	Oct 1, 2020	Oct 1, 2020	Oct 1, 2020	Dec 1, 2020	Dec 1, 2020
Approved rate	$ 3.6981	$ 3.4107	$ 3.4004	$ 3.4398	$ 3.2784	$ 4.2426	$ 3.7356
Rate increase/(decrease)	$ 0.1296	$ (0.2017)	$ 0.1442	$ 0.6803	$ 0.8606	$ (0.1205)	$ (0.7018)
Percentage Increase/(decrease)	3.6%	-5.6%	4.4%	24.7%	35.6%	-2.8%	-15.8%
1st Quarterly							
Date rates effective	Nov 1, 2020	Dec 1, 2020	Jan 1, 2021	Jan 1, 2021	Jan 1, 2021	Mar 1, 2021	Mar 1, 2021
Approved rate	$ 4.0135	$ 3.8484	$ 3.8512	$ 2.8672	$ 2.8189	$ 4.2426	$ 3.9773
Rate increase/(decrease)	$ 0.3154	$ 0.4377	$ 0.4508	$ (0.5726)	$ (0.4595)	$ -	$ 0.2417
Percentage Increase/(decrease)	8.5%	12.8%	13.3%	-16.6%	-14.0%	0.0%	6.5%
2nd Quarterly							
Date rates effective	Feb 1, 2021	Mar 1, 2021	Apr 1, 2021	Apr 1, 2021	Apr 1, 2021	June 1, 2021	June 1, 2021
Approved rate	$ 3.8520	$ 3.4687	$ 3.8512	$ 3.0107	$ 3.3535	$ 4.4594	$ 3.6811
Rate increase/(decrease)	$ (0.1615)	$ (0.3797)	$ -	$ 0.1435	$ 0.5346	$ 0.2168	$ (0.2962)
Percentage Increase/(decrease)	-4.02%	-9.87%	0.00%	5.00%	18.96%	5.11%	-7.45%
3rd Quarterly							
Date rates effective	May 1, 2021	June 1, 2021	July 1, 2021	July 1, 2021	July 1, 2021	Sep 1, 2021	Sep 1, 2021
Approved rate	$ 3.8520	$ 3.5700	$ 3.8512	$ 4.0174	$ 3.9015	$ 5.1283	$ 4.0245
Rate increase/(decrease)	$ -	$ 0.1013	$ -	$ 1.0067	$ 0.5480	$ 0.6689	$ 0.3434
Percentage Increase/(decrease)	0.00%	2.92%	0.00%	33.44%	16.34%	15.00%	9.33%
Quarterly							
Date rates effective							
Approved rate							
Rate increase/(decrease)							
Percentage Increase/(decrease)							

I&E Statement No. 5
Witness: Esyan A. Sakaya

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Direct Testimony

of

Esyan A. Sakaya

Bureau of Investigation and Enforcement

Concerning:

Rate Base
Utility Plant in Service
Annual Depreciation
Accumulated Depreciation Expense
Reporting Requirements

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INTRODUCTION

Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?

A. My name is Esyan A. Sakaya. My business address is 400 North Street, Harrisburg, PA 17120.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Pennsylvania Public Utility Commission ("Commission") in the Bureau of Investigation and Enforcement ("I&E") as a Fixed Utility Valuation Engineer.

Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?

A. My education and professional background are set forth in Appendix A, which is attached.

Q. PLEASE DESCRIBE THE ROLE OF I&E IN RATE PROCEEDINGS.

A. I&E is responsible for protecting the public interest in proceedings before the Commission. The I&E analysis in this proceeding is based on its responsibility to represent the public interest. This responsibility requires the balancing of the interests of ratepayers, the regulated utility, and the regulated community as a whole.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to evaluate UGI Utilities, Inc. - Gas Division's ("UGI" or "Company") request for an annual increase in operating revenue of approximately $82,700,000 using the Fully Projected Future Test Year ("FPFTY") ending September 30, 2023 (UGI Gas Book No. 1, p. 6). My testimony will address issues related to plant in service, proposed rate base, annual depreciation expense, accumulated depreciation, and reporting requirements.

Q. DOES YOUR TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 5 contains schedules relating to my testimony.

RATE BASE

Q. WHAT IS RATE BASE?

A. Rate base is the depreciated original cost of a utility's investment in plant a utility has in place to serve customers plus other additions and deductions that the Commission determines to be necessary in order to keep the utility operating and providing safe and reliable service to its customers.

Q. HOW IS THE DEPRECIATED ORIGINAL COST OF PLANT-IN-SERVICE AT THE END OF THE TEST YEAR DETERMINED?

A. The depreciated original cost is equal to the original cost of the utility plant-in-service that is projected to be used and useful in the provision of service to the customers, less the depreciation reserve as adjusted by other items such as salvage value and removal costs. The FPFTY depreciated original cost claimed by the Company in this proceeding for UGI is $3,723,465,000 (UGI Book V, Ex. A - Fully Projected, Sch. C-1, ln.3). The $3,723,465,000 is based upon $5,042,025,000 of original cost less

$1,318,560,000 of accumulated depreciation (UGI Book V, Ex. A - Fully Projected, Sch. C-1, ln. 1-2 and I&E Ex. No. 5, Sch. 1, column B, p-. 1 lines 1, 2 and 4.

Q. WHAT OTHER ADDITIONS AND DEDUCTIONS TO THE DEPRECIATED ORIGINAL COST OF UTILITY PLANT ARE ALLOWED?

A. Some of the additions to the depreciated original cost of a company's investment in utility include materials and supplies, gas inventory, and cash working capital. Some of the deductions include deferred income taxes and customer deposits.

The claimed additions to the Company's depreciated original cost are as follows:

1. Materials and Supplies;
2. Working Capital;
3. Gas Inventory;

The deductions to the depreciated original cost are:

1. ADIT;
2. Customer Deposits.

Q. WHAT IS THE COMPANY'S CLAIM FOR RATE BASE FOR THE FPFTY?

A. The Company claims a FPFTY rate base, identified as Total Measure of Value, of $3,169,023,000 (UGI Book V, Ex. A - Fully Projected, Sch. C-1, ln. 9 and I&E Ex. No. 5, Sch. 1, column B, p. 1, line 12).

Q. WHAT RATE BASE DO YOU RECOMMEND IN THIS PROCEEDING?

A. I recommend that rate base be reduced by $145,872,000 to $3,023,151 as a result of my recommended changes to the utility plant-in-service and the accumulated depreciation described below (I&E Ex. No. 5, Sch. 1, column C, p. 1, line 12).

UTILITY PLANT-IN-SERVICE

Q. WHAT IS UTILITY PLANT-IN-SERVICE?

A. Utility plant-in-service comprises all the utility's assets, including both intangible and tangible assets. For example, intangible assets include organization costs, franchise and consents costs, and land and land rights costs. Tangible assets include facilities and equipment. Utility plant-in-service reflects the original cost of the utility's assets before depreciation. UGI also includes a portion of shared corporate costs in its total utility plant in service claim (UGI Book 6, p. II-5).

Q. WHAT IS THE COMPANY'S CLAIMED UTILITY PLANT-IN-SERVICE AT THE END OF EACH TEST YEAR AND HOW MUCH NET PLANT IS PROJECTED TO BE ADDED IN THE FUTURE TEST YEAR AND FULLY PROJECTED FUTURE TEST YEAR?

A. The Company's utility plant-in-service claim for the FTY ending September 30, 2022 is $4,597,404,000 (UGI Ex. A - Future, Sch. C-1, ln. 1). The Company's utility plant-in-service claim for the FPFTY ending September 30, 2023 is $5,042,025,000 (UGI Ex. A - Fully Projected, Sch. C-1, ln. 1). The difference in these two amounts is the total net plant additions from the FTY to the FPFTY, of $444,621,000 ($5,042,025,000 - $4,597,404,000) (I&E Ex. No. 5, Sch. 2, column B, line 13 and column F line 13). The Company's utility plant in service claim for the HTY ending

September 30, 2021 was $4,247,028,000 (UGI Ex A – HTY, Sch. C-1, line 1). The difference between the HTY and the FTY, is $350,376,000 ($4,597,404,000 - $4,247,028,000) (I&E Ex. No. 5, Sch. 2, column B, line 13 and I&E Ex. No. 5, Sch. 4, column D, line 17).

Q. WHAT DO YOU RECOMMEND REGARDING UTILITY PLANT-IN-SERVICE IN THIS PROCEEDING?

A. I recommend that the Company's FPFTY projected plant be reduced by $137,649,000 (I&E Ex. No. 5, Sch. 2, column G, line 13).

Q. WHAT IS THE BASIS FOR YOUR $137,649,000 REDUCTION TO PLANT IN SERVICE?

A. I determined that over the last two base rate cases at Dockets R-2018-3006814 and R-2019-3015162, the Company failed to place into service all the plant projected in those cases. Since rates in those cases were based upon the plant at the end of the FPFTY, this allowed the Company to receive a return on plant not placed into service that established rates in those cases.

Q. HOW DID YOU DETERMINE THE $137,649,000 REDUCTION TO PLANT IN SERVICE IN THIS CASE?

A. As described below, the $137,649,000 was determined by calculating the average percentage of gas plant and common plant projected to be placed into service in the last two base rate cases, then applying those percentage to the corresponding gas and common plant projected to be placed into service in this case. This methodology assumes the Company will only complete a percentage of plant projected to be completed in this case.

Q. WHAT AMOUNT OF FPFTY PLANT WAS PROJECTED TO BE PLACED INTO SERVICE IN THE 2018 CASE?

A. In the 2018 base rate case, the Company projected that it would have $3,950,991,000 of total plant in service by the end of the FPFTY in that case, which was September 30, 2020.[1] This $3,950,991,000 is comprised of $3,726,871,000 of gas plant in service and $224,120,000 of UGI's share of common plant (I&E Ex. No. 5, Sch. 4, p. 1, column B, lines 7 and 14).

Q. WHAT AMOUNT OF FPFTY PLANT WAS ACTUALLY PLACED INTO SERVICE AS OF SEPTEMBER 30, 2020 AND WHAT WAS THE DIFFERENCE BETWEEN THAT AMOUNT AND THE AMOUNT PROJECTED TO BE PLACED INTO SERVICE?

A. The total plant in service as of September 30, 2020 was $3,891,210,000 comprised of $3,665,076,000 of gas plant and $226,134,000 of the gas division's share of common plant (I&E Ex. No. 5 Sch 4, p. 1, column D, lines 7 and 14). The difference between the FPFTY projected plant in service in the 2018 case to the actual amount of plant in service shows that UGI placed $59,781,000 less plant into service than it projected

[1] UGI Gas Book 6, p. II-6, column 4 at Docket R-2018-3006814.

($3,950,991,000 – $3,891,210,000) (I&E Ex. No. 5, Sch. 4, p. 1, column C, line 17). Accordingly, the Company only completed 82.0% (I&E Ex No. 5, Sch 4, p. 1 column C, lines 18-20) of projected FPFTY total plant.

Q. DID YOU DETERMINE THE PERCENTAGE OF GAS PLANT ACTUALLY PLACED INTO SERVICE COMPARED TO GAS PLANT PROJECTED TO BE PLACED INTO SERVICE IN THE 2018 CASE?

A. Yes. In the 2018 rate case, the Company projected it would have $3,726,871,339 of gas plant in service as of September 30, 2020. However, the Company's actual gas plant in service was only $3,665,076,106 as of that date. This is a difference of $61,795,233 (I&E Ex. No. 5, Sch. 4, p. 1, column C, line 7). In the 2018 case, the Company projected it would add $317,833,525 of gas plant in the FPFTY (I&E Ex. No. 5, Sch. 4, p. 1, column B, line 8). Comparing these two amounts indicates that the Company only completed 80.56% (($317,833,525 - $61,795,233) / $317,833,525) of projected FPFTY gas plant (I&E Ex. No. 5, Sch. 4, p. 1, column C, lines 8-9).

Q. DID YOU DETERMINE THE PERCENTAGE OF COMMON PLANT ACTUALLY PLACED INTO SERVICE COMPARED TO COMMON PLANT PROJECTED TO BE PLACED INTO SERVICE IN THE 2018 CASE?

A. Yes. The Company projected it would have $224,119,817 of common plant in service as of September 30, 2020, in the 2018 base rate case. However, the Company's actual common plant in service was $226,134,102. This is a difference of $2,014,284 (I&E Ex. No. 5, Sch. 4, p. 1, column C, line 14). In the 2018 case, the

Company projected it would install $15,075,391 of common plant in the FPFTY (I&E Ex. No. 5, Sch. 4, p. 1, column C, line 15). Comparing these two amounts indicates that the Company completed 113.36% (($2,014,284 + $15,075,391) / $15,075,391) of projected common FPFTY plant (I&E Ex. No. 5, Sch. 4, p. 1, column C, lines 15-16).

Q. WHAT AMOUNT OF TOTAL PLANT WAS PROJECTED TO BE PLACED INTO SERVICE IN THE FPFTY IN THE 2019 BASE RATE CASE?

A. In the 2019 base rate case, the Company projected that it would have $4,324,364,000 of total plant in service in the FPFTY ending September 30, 2021.[2] This $4,324,364,000 is comprised of $4,051,159,000 of gas plant in service and $273,205,000 of the gas division's share of common plant (I&E Ex. No. 5, Sch. 4, p. 2, column B, lines 7 and 14).

Q. WHAT AMOUNT OF TOTAL PLANT WAS ACTUALLY PLACED INTO SERVICE IN THE FPFTY AND WHAT WAS THE DIFFERENCE BETWEEN THESE AMOUNTS?

A. The total plant in service as of September 30, 2021 was $4,247,028,000 comprised of $4,007,295,000 of gas plant and $239,733,000 of the gas division's share of common plant (I&E Ex. No. 5 Sch 4, p. 2, column D, lines 7 and 14). Accordingly, UGI placed $77,336,000 ($4,324,364,000 – $4,247,028,000) less plant in service than

[2] UGI Gas Book 6, p. II-5, column 4 at Docket R-2019-3015162.

projected in the 2019 base rate case (I&E Ex. No. 5, Sch. 4, p. 2, columns B to D, line 17).

Q. BREAKING THAT TOTAL PLANT DOWN EVEN FURTHER, WHAT AMOUNT OF GAS PLANT AND COMMON PLANT PROJECTED IN THE 2019 RATE CASE WAS ACTUALLY PLACED INTO SERVICE?

A. Comparing the gas plant projected to be placed into service for the FPFTY in the 2019 case with the actual gas plant placed into service indicates that the Company only completed 86.83% of projected FPFTY gas plant (I&E Ex. No. 5, Sch. 4, p. 2, column B, lines 7-9). Comparing the common plant projected to be placed into service with the actual common plant placed into service indicated that the Company completed 21.98% of projected common FPFTY plant (I&E Ex. No. 5, Sch. 4, p. 2, column C, lines 15-16).

Q. WHAT IS THE AVERAGE PERCENT OF PLANT COMPLETED IN THE LAST TWO BASE RATE CASES?

A. The average percent of gas plant completed in the last two base rate cases was approximately 83.69% and the average common plant completed in the last two base rate cases was approximately 67.67% (I&E Ex No. 5, Sch. 3, column B, lines 3 and 6).

Q. IN THE CURRENT RATE CASE, HOW MUCH GAS AND COMMON PLANT DOES THE COMPANY PROJECT IT WILL ADD IN THE FTY?

A. The Company is projecting it will add $382,709,152 of gas plant in the FTY and have $27,393,337 of corresponding retirements (UGI Gas Book 7, p. V-10). The Company also projects it will add $15,694,645 of common plant in the FTY and have $20,634,175 of corresponding retirements (UGI Gas Book 7, p. V-11).

Q. HOW MUCH OF THE PROJECTED FTY GAS AND COMMON PLANT ADDITIONS DO YOU RECOMMEND BE ALLOWED?

A. Given that the Company's average gas plant completed in the last two base rate cases was approximately 83.69% and the average common plant completed in the last two base rate cases was approximately 67.67%, I recommend that those percentages be applied to the Company's plant addition claims in this proceeding.

This recommendation results in an allowance of $320,305,000 ($382,709,152 X 0.83694) of FTY gas plant. I also applied the approximately 83.69% factor to the gas plant retirements to recommend that only $22,927,000 ($27,393,337, X 0.83694) of retirements be reflected. Similarly, applying the 67.67% to FTY common plant, results in an allowance of $10,620,000 ($15,694,645 X 0.67669). I also applied the approximately 67.67% factor to the retirements to recommend that only $13,963,000 ($20,634,175 X 0.67669) of retirements be reflected (I&E Ex. No. 5, Sch 3, column B, lines 3 and 6).

Q. BASED ON YOUR RECOMMENDATION ABOVE, WHAT TOTAL ADJUSTMENT DO YOU RECOMMEND FOR THE PROJECTED FTY GAS AND COMMON PLANT ADDITIONS?

A. This recommendation reduced projected FTY total plant in service by $56,343,000 (I&E Ex. No. 5, Sch. 2, column C, line 13).

Q. HOW MUCH GAS AND COMMON PLANT DOES THE COMPANY PROJECT IT WILL ADD IN THE FPFTY?

A. The Company is projecting it will add $413,027,000 of gas plant in the FPFTY and have $23,722,000 of corresponding retirements (UGI Gas Book 6, p. II-9). The Company also projects it will add $63,400,000 of common plant in the FPFTY and have $8,240,000 of corresponding retirements (UGI Gas Book 6, p. II-10).

Q. HOW MUCH OF THE PROJECTED FPFTY GAS AND COMMON PLANT ADDITIONS DO YOU RECOMMEND BE ALLOWED?

A. I recommend that only approximately 83.69% of projected FPFTY gas plant be included in plant in service or $345,679,000 ($413,026,743 X 0.83694). I also applied the 83.69% factor to the gas plant retirements to recommend that only $19,896,000 ($23,771,977, X 0.83694) of retirements be reflected. I also recommend that only approximately 67.67% of projected FPFTY common plant be included in plant in service or $42,902,000 ($63,400,078 X 0.67669). I also applied the approximately 67.67% factor to the retirements to recommend that only $5,576,000 ($8,239,512 X 0.67669) of retirements be reflected.

Q. BASED ON YOUR RECOMMENDATION ABOVE, WHAT TOTAL ADJUSTMENT DO YOU RECOMMEND FOR THE PROJECTED FPFTY GAS AND COMMON PLANT ADDITIONS?

A. After considering additions, and retirements for gas and common plant, I recommend projected FPFTY total plant in service be reduced by $81,305,845 (I&E Ex. No. 5, Sch. 2, p. 2, column D, line 6).

Q. WHAT IS YOUR TOTAL ADJUSTMENT TO PLANT IN SERVICE FOR BOTH THE FTY AND FPFTY?

A. The total adjustment to plant in service is $137,649,000 (I&E Ex. No. 5, Sch. 1, p. 1, column C, line 1).

Q. WHAT DID THE COMPANY CLAIM CONCERNING THE AMOUNT OF PLANT COMPLETED OVER THE PAST FIVE YEARS?

A. The Company claims that it completed 98.0% of plant budgeted over the past 5 years (UGI Book 3, Exhibit VAS-2).

Q. DO THE COMPANY'S BUDGETED AMOUNTS ON EXHIBIT VAS-2 CORRELATE WITH WHAT THE COMPANY CLAIMED IN THE RECENT BASE RATE CASE?

A. No. In the 2019 case, the Company projected it would add $405,430,000 in 2021.[3]

[3] UGI Book 6 page II-10, Docket R-2019-3015162

However, as shown on VAS-2 the "budgeted" additions for 2021 are only $389,008,000. Furthermore, even UGI's response in standard data requirements for budget to actual capital expenditures reflect 93% actual completion in 2019, 85% actual completion in 2020, and 89% actual completion in 2021.[4] It is unclear how UGI reports a 98% completion of plant budgeted with this response in the standard data requirements.

Q. IS COMPARING THE COMPANY'S PERCENT OF BUDGETED PLANT COMPLETED A VALID COMPARISON?

A. No. As described above, the Commission should only consider the actual plant in service compared to the amount of plant claimed in the prior rate cases. The Company's "budgeted" plant amounts can be adjusted over time and may not reflect what was claimed in past cases. On the other hand, the Company's FPFTY plant amounts cannot be changed which is why that should be used for comparison. Moreover, the FPFTY amounts from the prior two cases are what the Company actually sought to recover from ratepayers and are a more accurate comparison to what it is seeking to recover in this proceeding.

[4] UGI Book II, Attachment SDR-RR-15

Q. ARE YOU CONCERNED THAT UTILIZING THE 2020 AND 2021 PANDEMIC ERA DATA IN PERFORMING YOUR ANALYSIS WILL UNDERSTATE THE COMPANY'S COMPLETION RATE IN THIS FTY AND FPFTY?

A. No. I anticipate that supply chain difficulties, hiring difficulties, and availability of outside contractors that have been an outcome of the Covid-19 pandemic will persist through the FTY and FPFTY. My average completion rate for gas plant additions of 83.69% in this proceeding reflects my expectation of ongoing construction issues related to the pandemic.

<u>ACCUMULATED DEPRECIATION</u>

Q. WHAT IS ACCUMULATED DEPRECIATION?

A. Accumulated depreciation is the total of all prior depreciation expense plus other adjustments such as cost of removal and salvage. Accumulated depreciation reduces the value of the original cost of the plant placed into service and thus reduces rate base.

Q. IF THE COMMISSION ACCEPTS YOUR ADJUSTMENTS TO PLANT IN SERVICE SHOULD ACCUMULATED DEPRECIATION ALSO BE ADJUSTED?

A. Yes. As described below, reducing plant in service in the FTY and FPFTY reduces the accumulated depreciation that would be associated with these plant additions and reduced retirements of existing plant.

Q. WHAT ADJUSTMENT TO ACCUMULATED DEPRECIATION DO YOU RECOMMEND IF THE COMMISSION ACCEPTS YOUR ADJUSTMENTS TO PLANT IN SERVICE?

A. Accumulated depreciation should be increased from $1,315,560,000 by $8,223,000 to $1,326,783,000 (I&E Ex. No. 5, Sch. 1, p. 1, columns C and D, line 2). The accumulated depreciation by account is shown on I&E Ex. No. 5. Sch. 5, pp. 1-2, column F, lines 1-134).

Q. HOW DID YOU DETERMINE THE $1,326,783,000 ACCUMULATED DEPRECIATION FOR THE FPFTY?

A. After reducing the plant in service in the FTY as described above I recalculated the annual depreciation expense for the FTY. The recalculated annual depreciation expense was then brought forward to determine the accumulated depreciation at the beginning of the FPFTY. Then I continued the same adjustments in the FPFTY to calculate the accumulated depreciation in the FPFTY to arrive at the $1,326,783,000 (I&E Ex. No. 5, Sch. 5, p. 2, column F, line 134).

ANNUAL DEPRECIATION EXPENSE

Q. WHAT IS ANNUAL DEPRECIATION EXPENSE?

A. Depreciation is the loss of value of a utility's assets used and useful in the provision of utility service due to usage, passage of time, etc. The National Association of Regulatory Utility Commissioners defines annual depreciation expense as the annual cost associated with the diminution in the usefulness of an asset over time.

Depreciation expense is the way the return of a utility's investment is captured in rates and is generally computed by dividing the original cost of an asset by its expected useful life or by multiplying the original cost by the annual accrual rate.

Q. WHAT IS UGI'S CLAIMED ANNUAL DEPRECIATION AND AMORTIZATION EXPENSE FOR THE FTY?

A. UGI's claimed annual depreciation expense for the FPFTY ending September 30, 2023 is $114,735,000 ($106,728,000 + $8,007,000) (UGI Book V – Combined FTY, Sch. D-1, line 15). The Company determined its annual depreciation expense claim for the FTY by taking the calculated annual depreciation expense plus the amortization of net salvage and subtracted an amount charged to clearing accounts as shown on UGI Book V – Combined FTY, Sch. D-21, lines 64-66.

Q. WHAT IS UGI'S CLAIMED ANNUAL DEPRECIATION AND AMORTIZATION EXPENSE FOR THE FPFTY?

A. UGI's claimed annual depreciation expense for the FPFTY ending September 30, 2023 is $133,908,000 ($127,824,000 + $6,084,000) (UGI Book V - Combined FPFTY, Sch. D-1, line 15) and (I&E Ex. No. 5, Sch. 1, p. 2, column B, line 1). The Company determined its annual depreciation expense claim for the FPFTY by taking the calculated annual depreciation expense plus the amortization of net salvage as shown on UGI Book V – Combined FPFTY, Sch. D-21, lines 64-66.

Q. WHAT ANNUAL DEPRECIATION EXPENSE DO YOU RECOMMEND FOR THE FPFTY?

A. I recommend that the $133,908,000 of annual depreciation expense be reduced by $3,666,000 to $130,242,000 (I&E Ex. No. 5, Sch. 1, p. 2, column C and D, line 1).

Q. HOW DID YOU DETERMINE THE $130,242,000 OF ANNUAL DEPRECIATION EXPENSE FOR THE FPFTY?

A. The $130,242,000 is based on my recommendation to reduce FTY and FPFTY gas and common plant additions as described above for the FPFTY, the determination of the $130,242,000 of annual depreciation expense is shown on I&E Ex. No 5, Sch. 5, p. 2, column I, line 134.

Q. DID YOU APPLY THE SAME DEPRECIATION RATE BY ACCOUNT THE COMPANY DID TO PROJECT THE ANNUAL DEPRECIATION EXPENSE BY ACCOUNT IN THE FPFTY?

A. Yes. The annual depreciation rates on I&E Ex. No. 5, Sch. 5, columns H that I used to calculate the $130,242,000 depreciation expense are the same annual depreciation rates used by the Company in the original filing (UGI Volume 6, p. II-3 to 5).

<u>FTY AND FPFTY REPORTING</u>

Q. WHAT AMOUNT OF ADDITIONAL NET PLANT WILL BE ASSOCIATED WITH THE INCLUSION OF THE FTY ENDING SEPTEMBER 30, 2022 FOR UGI?

A. The Company's projected addition net plant for the FTY ending September 30, 2022 is $398,404,000 (UGI Book V, FTY Sch. C-2, line 64).

Q. WHAT AMOUNT OF ADDITIONAL NET PLANT WILL BE ASSOCIATED WITH THE INCLUSION OF THE FPFTY ENDING SEPTEMBER 30, 2023 FOR UGI?

A. The Company's projected plant additions for the FPFTY ending September 30, 2023 is $476,632,000 (UGI Book V, FPFTY Sch. C-2, line 64).

Q. DO YOU HAVE ANY RECOMMENDATIONS REGARDING PLANT ADDITIONS THAT UGI PROJECTS TO BE IN SERVICE DURING THE FTY ENDING SEPTEMBER 30, 2022 AND THE FPFTY ENDING SEPTEMBER 30, 2023?

A. Yes. I recommend that the Company provide the Commission's Bureau of Investigation and Enforcement and the Office of Consumer Advocate with an update to UGI Book 5 - Sch. C-2, no later than January 2, 2023, which should include actual capital expenditures, plant additions, and retirements by month from October 1, 2021 through September 30, 2022, and which should be filed under this docket number. I also recommend that the Company provide a similar update for actuals capital expenditures, plant additions, and retirements by month from October 1, 2022 through September 30, 2023, no later than January 2, 2024.

Q. WHY DO YOU RECOMMEND THAT UGI PROVIDE THESE UPDATES?

A. I&E believes that there is value in determining how accurately UGI projects investments in future facilities compared to the monthly actual investments and retirements that are made by the end of the FTY and FPFTY. With the use of the

FTY and FPFTY, UGI is not able to guarantee any of the projected plant additions it proposes will be completed and placed into service. Therefore, requiring the Company to provide updates of the "actual" investment and retirements by month compared to the projections used in setting rates using the FPFTY will enable the Commission to evaluate the Company's projections used to determine rates in future rate cases.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

ESYAN A. SAKAYA
PROFESSIONAL EXPERIENCE AND EDUCATION

EDUCATION:

National Association of Regulatory Utility Commissioners, Clearwater, FL
Utility Rate School; Utility Rate Making Basics, October 2019

Society of Depreciation Professionals, Philadelphia, PA
Introduction to Depreciation; Depreciation Fundamentals, September 2019

Temple University, Philadelphia, PA
Bachelor of Science; Major in Engineering Technology, 2015

Community College of Philadelphia, Philadelphia, PA
Associate of Applied Science; Major in Construction Management Technology, 2011

Island School of Building Arts, Gabriola Island, BC-Canada
Certificate Graduate: Heavy Timber Construction Aug 2002-Nov 2002

Solar Energy International, Carbondale, CO
Certificate Graduate: Basic and Advanced Photovoltaic Design, April 2002-May 2002

EXPERIENCE:

12/2018-Present

Pennsylvania Public Utility Commission-Harrisburg, PA

Fixed Utility Valuation Engineer- Assist in engineering related studies related to valuation, depreciation, cost of service, quality of service as they apply to regulated utilities. Contribute in evaluating, contrasting and conducting performance analyses in distinctive sections of valuation engineering and rate structure involving valuation concepts, original cost, rate base, fixed capital costs, inventory processing, excess capacity, cost of service, and rate design. Provide expert testimony in rate related utility cases.

4/2018-12/2018

Pennsylvania Department of Transportation-Harrisburg, PA

Photogrammetry Technician I- Created three-dimensional mapping layouts of natural and man-made features from stereoscopic images on a computer workstation. Assisted in the field placement of ground based surveyed control-points prior to aerial photography acquisition. Provided field support in the use of laser scans for comprehensive digital surveying data. Operated global positioning satellite surveying equipment to obtain accurate geodetic coordinates of pre-established benchmarks.

8/2017-4/2018

Pennoni and Associates. Consulting Engineers-King of Prussia, PA

Construction Inspector-Provided quality assurance in the onsite material testing of concrete, soils, and asphalt. Read and interpreted construction drawings and specifications of materials and components. Completed daily reports regarding project progress to engineers, project managers/superintendents, contractors and clients.

TESTIMONY SUBMITTED:

I have assisted and/or submitted testimony in the following proceedings:

No.	Case
1.	UGI Gas Utilities - Gas Division, Docket Number: R-2018-3006814
2.	Newtown Artesian Water Company, Docket Number: R-2018-3006904
3.	Pittsburgh Wastewater, Docket Number: M-2018-2640803
4.	PAWC Purchase of Steelton, Docket Number: A-2019-3006814
5.	Philadelphia Gas Works, Docket Number: R-2019-3009016 - 3007636
6.	Community Utilities Water, Docket Number: R-2019-3008947
7.	Aqua Purchase of Cheltenham, Docket Number: A-2019-3008491
8.	UGI NORTH, Docket Number: R-2019-3009647
9.	UGI CENTRAL, Docket Number: R-2019-3009647
10.	UGI SOUTH, Docket Number: R-2019-3009647
11.	Twin Lakes Utilities, Docket Number: R-2019-3010958
12.	Penn Power Company, Docket: P-2019-3012628
13.	UGI Gas Utilities, Docket Number: R-2019-3015162
14.	National Fuel and Gas Distribution, Docket Number: R-2020-3015251
15.	Columbia Gas of Pennsylvania, Docket: R-2020-3018993 -3018835
16.	Duquesne Light Company, Docket Number: P-2020-3019522
17.	PA American Water Company, Docket R-2020-3019369 – 310937
18.	Bethlehem Water Company, Docket R-2020-3020256
19.	Audubon Water Company, Docket: R-2020-3020919
20.	Twin Lakes Utilities, Docket: P-2020-3020914
21.	Pike County Light and Power-Gas, Docket: R-2020-3022134
22.	Pike County Light and Power-Electric, Docket: R-2020-3022135
23.	Duquesne Light Company, Docket Number: R-2021-3024750
24.	Community Utilities Water, Docket Number: R-2021-3025206
25.	Community Utilities Wastewater, Docket Number: R-2021-3025206
26.	Hanover Municipal Water Works, Docket Number: R-2021-3026116
27.	Aqua Pennsylvania, Inc, Docket R-2021-3027385 – 3027386
28.	Aqua Purchase of Willistown, Docket Number: A-2021-3027268
29.	National Fuel and Gas Distribution, Docket Number: R-2022-3030235

I&E Exhibit No. 5
Witness: Esyan A. Sakaya

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

**Exhibits to Accompany the
Direct Testimony**

of

Esyan A. Sakaya

Bureau of Investigation and Enforcement

Concerning:

**Rate Base
Utility Plant in Service
Annual Depreciation
Accumulated Depreciation Expense
Reporting Requirements**

UGI Utilities Inc. - Gas Division
Docket No. R-2021-3030218
RATE BASE
($1000)
Twelve Months Ending September 30, 2023

Line No.	Description	Company	Adjustments	I&E
	(A)	(B)	(C)	(D)
1	Plant	$5,042,025	-$137,649	$4,904,376
2	Accumulated Depreciation	-$1,318,560	-$8,223	-$1,326,783
3				
4	**Net Plant In Service**	$3,723,465	-$145,872	$3,577,593
	Additions			
5	Working Capital	$62,148	$0	$62,148
6	Gas Inventory	$17,813	$0	$17,813
7	Materials And Supplies	$15,707	$0	$15,707
8	**Total Additions**	$95,668	$0	$95,668
	Deductions			
9	ADIC	$628,510	$0	$628,510
10	Customer Deposits	$21,600	$0	$21,600
11	**Total Deductions**	$650,110	$0	$650,110
12	Total Rate Base	$3,169,023	-$145,872	$3,023,151

UGI Utilities Inc. - Gas Division
Docket No. R-2021-3030218
Annual Depreciation Expense
($1000)
Twelve Months Ending September 30, 2023

Line No.	Description	Company	Adjustment	I&E
	(A)	(B)	(C)	(D)
1	Depreciation Expense	$133,908	-$3,666	$130,242

I&E Exhibit No. 5
Schedule 2
Page 1 of 2

I&E Exhibit No. 5
Schedule 2

UGI Utilities Inc. - Gas Division
Docket No. R-2021-3030218
Comparison of 2022 Plant In Service

Twelve Months Ending September 30, 2022

Line No.	Description	2022 Projection	Difference	I&E 2022 Recommended
	(A)	(B)	(C)	(D)
	Gas Plant			
1	Production Plant	$1,183,155	$0	$1,183,155
2	Storage Plant	$0	$0	$0
3	Transmission Plant	$50,093,995	$0	$50,093,995
4	Distribution Plant	$4,083,609,054	-$55,319,367	$4,028,289,687
5	General Plant	$208,105,841	-$2,621,047	$205,484,794
6	Non Depreciable Plant	$19,619,037	$0	$19,619,037
7	**Total Gas Plant**	$4,362,611,082	-$57,940,414	$4,304,670,668
	Other Utility Plant			
8	Common	$42,470,773	-$596,127	$41,874,645
9	Information Service	$194,373,930	$2,183,269	$196,557,199
10	Less - Reading Service Center	-$206,048	$0	-$206,048
11	Less - Empire Yard	-$1,845,796	$9,856	-$1,835,940
12	**Total Other Utility Plant**	$234,792,858	$1,596,998	$236,389,857
13	Total Plant In Service	$4,597,403,940	-$56,343,415	$4,541,060,525

UGI Utilities Inc. - Gas Division
Docket No. R-2021-3030218
Comparison of 2023 Plant In Service

Twelve Months Ending September 30, 2023

Line No.	Description	2023 Projection	Difference	I&E 2023 Recommended
	(E)	(F)	(G)	(H)
	Gas Plant			
1	**Production Plant**	$1,183,155	$0	$1,183,155
2	**Storage Plant**	$0	$0	$0
3	**Transmission Plant**	$50,093,995	$0	$50,093,995
4	**Distribution Plant**	$4,441,646,071	-$113,700,884	$4,327,945,187
5	**General Plant**	$239,323,590	-$7,711,413	$231,612,177
6	**Non Depreciable Plant**	$19,619,037	$0	$19,619,037
7	**Total Gas Plant**	$4,751,865,848	-$121,412,297	$4,630,453,551
	Other Utility Plant			
8	**Common**	$42,474,912	-$597,466	$41,877,446.8
9	**Information Service**	$208,384,638	-$2,346,533	$206,038,105.1
10	**Computer System - Unite**	$41,177,032	-$13,312,946	$27,864,086.0
11	**Less - Empire Yard**	-$1,877,110	$19,980	-$1,857,129.1
12	**Total Other Utility Plant**	$290,159,473	-$16,236,964	$273,922,509
13	**Total Rate Base**	$5,042,025,321	-$137,649,262	$4,904,376,059

UGI Utilities Inc. - Gas Division
Docket No. R-2021-3030218
Comparison of 2023 Plant ADDITIONS

Twelve Months Ending September 30, 2023

		Plant	Retirements	Net Plant
	(A)	(B)	(C)	(D)
1	Company Gas Plant Additions	$413,026,749	-$23,771,977	$389,254,772
2	Company Common Plant Additions	$63,400,078	-$8,239,512	$55,160,566
3	Company Net Plant	$476,426,827	-$32,011,489	$444,415,338
4	I&E Gas Plant Adjustment	$67,348,141	-$3,876,259	$63,471,883
5	I&E Common Plant Adjustment	$20,497,879	-$2,663,917	$17,833,962
6	I&E Net Adjustment	$87,846,021	-$6,540,175	**$81,305,845**
7	I&E Gas Plant Additions	$345,678,608	-$19,895,718	$325,782,889
8	I&E Common Plant Additions	$42,902,199	-$5,575,595	$37,326,604
9	I&E Net Plant	$388,580,806	-$25,471,314	$363,109,493

UGI Utilities Inc. - Gas Division
Docket No. R-2021-3030218
Average Gas and Common Plant Completed

Twelve Months Ending September 30, 2020 and 2021

	Description		Percentages
	(A)		(B)
1	2020 'Percent Gas Plant Placed Into Service		80.557%
2	2021 'Percent Gas Plant Placed Into Service		86.832%
3	**Average Percentatge Gas Plant Placed Into Service**		**83.694%**
4	2020 Percent Common Gas Plant Placed Into Service		113.361%
5	2021 Percent Common Gas Plant Placed Into Service		21.976%
6	**Average Percentatge Common Plant Placed Into Service**		**67.669%**

UGI Utilities Inc. - Gas Division
Docket No. R-2021-3030218
Comparison of 2020 Plant In Service

Twelve Months Ending September 30, 2020

Line No.	Description	2020 Projection in 2018 Case	Difference	2020 Actual
	(A)	(B)	(C)	(D)
	Gas Plant			
1	Production Plant	$1,183,155	$0	$1,183,155
2	Storage Plant	$0	$0	$0
3	Transmission Plant	$49,522,043	$204,187	$49,726,230
4	Distribution Plant	$3,468,356,838	-$22,159,870	$3,446,196,968
5	General Plant	$196,178,952	-$44,546,812	$151,632,140
6	Non Depreciable Plant	$11,630,351	$4,707,262	$16,337,613
7	**Total Gas Plant**	$3,726,871,339	-$61,795,233	$3,665,076,106
8	Net Gas Plant Additions projected in last FPFTY		$317,833,525	
9	**Percent Gas Plant Placed Into Service**		**80.56%**	
	Other Utility Plant			
10	Common	$39,443,505	$991,279	$40,434,784
11	Information Service	$184,875,292	$1,027,644	$185,902,936
12	Less - Reading Service Center	-$198,980	-$4,639	-$203,619
13	Less - Empire Yard	$0	$0	$0
14	**Total Other Utility Plant**	$224,119,817	$2,014,284	$226,134,102
15	Net Common Plant Additions projected in last FPFTY		$15,075,391	
16	**Percent Common Gas Plant Placed Into Service**		**113.36%**	
17	Total Plant In Service	$3,950,991,156	-$59,780,948	$3,891,210,208
18	Claimed Net Total Plant Additions		$332,909,007	
19	Amount Completed		$273,128,059	
20	Percent Completed		82.0%	

UGI Utilities Inc. - Gas Division
Docket No. R-2021-3030218
Comparison of 2021 Plant In Service

Twelve Months Ending September 30, 2021

Line No.	Description	2021 Projection in 2019 Case	Difference	2021 Actual
	(A)	(B)	(C)	(D)
	Gas Plant			
1	Production Plant	$1,183,155	$0	$1,183,155
2	Storage Plant	$0	$0	$0
3	Transmission Plant	$49,641,201	$452,794	$50,093,995
4	Distribution Plant	$3,774,952,348	-$30,601,016	$3,744,351,332
5	General Plant	$213,069,763	-$21,022,015	$192,047,748
6	Non Depreciable Plant	$12,312,173	$7,306,864	$19,619,037
7	**Total Gas Plant**	$4,051,158,640	-$43,863,373	$4,007,295,267
8	Net Gas Plant Additions projected in last FPFTY		$333,095,498	
9	**Percent Gas Plant Placed Into Service**		**86.83%**	
	Other Utility Plant			
10	Common	$33,827,540	$6,799,406	$40,626,946
11	Information Service	$241,477,301	-$40,350,502	$201,126,799
12	Less - Reading Service Center	-$192,696	-$13,352	-$206,048
13	Less - Empire Yard	-$1,906,934	$91,624	-$1,815,310
14	**Total Other Utility Plant**	$273,205,211	-$33,472,824	$239,732,387
15	Net Common Plant Additions projected in last FPFTY		$42,900,534	
16	**Percent Common Gas Plant Placed Into Service**		**21.98%**	
17	Total Plant In Service	$4,324,363,851	-$77,336,197	$4,247,027,654

I&E Exhibit No. 5
Schedule 5

UGI UTILITIES, INC. - GAS DIVISION

TABLE 1. ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AT SEPTEMBER 30, 2023

Line		ACCOUNT (A)	Percent Gas (B)	PROBABLE RETIREMENT YEAR (C)	SURVIVOR CURVE (D)	ORIGINAL COST (E)	BOOK RESERVE (F)	FUTURE BOOK ACCRUALS (G)	CALCULATED ACCRUAL RATE (H)	CALCULATED ACCRUAL AMOUNT (I)
	GAS PLANT									
	PRODUCTION PLANT									
1	305	MANUFACTURED GAS PLANT SITE REMEDIATION			FULLY ACCRUED*	$0	$69,118	-$69,118	0.0000	$0
2	325.2	PRODUCING LEASEHOLDS			55 - S0.5	$163,100	$162,135	$965	0.0202	$33
3	325.4	RIGHTS-OF-WAY			60 - R1	$30,277	$29,717	$560	0.0595	$18
4	328	FIELD MEASURING AND REGULATING STATION STRUCTURES			LLY ACCRUED	$1,263	$1,263	$0	0.0000	$0
5	329	OTHER STRUCTURES			LLY ACCRUED	$44,785	$44,783	$2	0.0000	$0
6	330	PRODUCING GAS WELLS - WELL CONSTRUCTION			LLY ACCRUED	$18,209	$18,209	$0	0.0000	$0
7	331	PRODUCING GAS WELLS - WELL EQUIPMENT			LLY ACCRUED	$24,441	$24,441	$0	0.0000	$0
8	332	FIELD LINES			47 - L0	$750,689	$726,792	$23,897	0.1263	$948
9	334	FIELD MEASURING AND REGULATING STATION EQUIPMENT			24 - O3	$89,725	$85,373	$4,352	0.4269	$383
10	335	DRILLING AND CLEANING EQUIPMENT			30 - S0.5	$49,604	$49,503	$101	0.0323	$16
11	337	OTHER EQUIPMENT			LLY ACCRUED	$11,062	$11,062	$0	0.0000	$0
12	TOTAL PRODUCTION PLANT					$1,183,155	$1,222,396	-$39,241		$1,398
13	STORAGE PLANT									
14	352.01	WELL CONSTRUCTION			FULLY ACCRUED*	$0	-$35,934	$35,934	0.0000	$0
15	TOTAL STORAGE PLANT					$0	-$35,934	$35,934		$0
16	TRANSMISSION PLANT									
17	365.2	RIGHTS-OF-WAY			70 - R4	$868,160	$548,463	$319,697	1.3211	$11,469
18	366	STRUCTURES AND IMPROVEMENTS			30 - R1	$162,216	$147,551	$14,665	0.6917	$1,122
19	367	MAINS			70 - R3	$39,074,497	$22,345,709	$16,728,788	1.1570	$452,102
20	369	MEASURING AND REGULATING STATION EQUIPMENT			49 - R2	$6,152,338	$4,059,205	$2,093,133	1.4635	$90,040
21	370	COMMUNICATION EQUIPMENT			23 - R0.5	$3,486,136	$2,244,418	$1,241,718	2.8049	$97,784
22	371	OTHER EQUIPMENT			35 - R2.5	$140,637	$130,718	$9,919	0.7637	$1,074
23	371.1	TESTING EQUIPMENT			20 - R3	$210,011	$157,623	$52,388	2.3399	$4,914
24	TOTAL TRANSMISSION PLANT					$50,093,995	$29,633,687	$20,460,308		$658,505
25										
26	DISTRIBUTION PLANT									
27	374.2	RIGHTS-OF-WAY			75 - R3	$3,544,569	$1,427,055	$2,117,514	1.2913	$45,770
28	375	STRUCTURES AND IMPROVEMENTS			50 - S0.5	$5,554,376	$3,342,999	$2,211,377	1.5283	$84,890
29	376.1	MAINS - PRIMARILY STEEL			73 - R2.5	$644,569,968	$196,493,533	$448,076,435	1.5101	$9,733,889
30	376.2	MAINS - CAST IRON		09-2027	65 - R1	$1,577,960	-$102,300	$1,680,260	29.7332	$469,177
31	376.3	MAINS - PLASTIC			67 - R3	$1,671,473,255	$309,319,372	$1,362,153,883	1.6646	$27,823,470
32	376.5	MAINS - PRIMARILY WROUGHT IRON		09-2041	70 - R1	$279,892	$220,085	$59,807	2.2458	$6,286
33	376.7	REG AFUDC			5 - SQ	$1,322,088	$662,477	$659,611	19.9566	$263,844
34	378	MEASURING AND REGULATING STATION EQUIPMENT - GENERAL			47 - S0	$177,861,470	$29,000,750	$148,860,720	3.0327	$5,393,962
35	379	MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE			45 - R2	$25,635,909	$9,033,448	$16,602,461	2.3585	$604,615
36	380	SERVICES			46 - S1	$1,430,996,244	$425,613,438	$1,005,382,806	2.4875	$35,596,439
37	381	METERS			35 - R2	$158,148,754	$58,762,220	$99,386,534	3.1193	$4,933,183
38	381.1	METERS - ERTS			17 - S3	$23,249,327	$19,970,658	$3,278,669	2.1988	$511,217
39	382	METER INSTALLATIONS			46 - S1	$106,829,279	$38,295,147	$68,534,132	2.3765	$2,538,841
40	383	HOUSE REGULATORS			46 - S1	$10,706,008	$7,113,487	$3,592,521	1.3686	$146,521
41	384	HOUSE REGULATOR INSTALLATIONS			46 - S1	$18,879,888	$9,353,262	$9,526,626	1.9820	$374,203
42	385	INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT			45 - R2	$39,907,546	$18,366,646	$21,540,900	2.0478	$817,227
43	386.0	OTHER PROPERTY ON CUSTOMERS PREMISES			46 - S1	$68,824	-$84,503	$153,327	13.5403	$9,319
44	386.1	OTHER PROPERTY ON CUSTOMERS PREMISES - FARM TAPS			45 - R2	$953,218	$678,603	$274,615	1.5061	$14,356
45	386.2	OTHER PROPERTY ON CUSTOMERS PREMISES - GAS LIGHTS			25 - R3	$24,705	$24,705	$0	0.0000	$0
46	387	OTHER EQUIPMENT			35 - R2.5	$4,871,243	$3,034,574	$1,836,669	2.0411	$99,425
47	387.1	OTHER EQUIPMENT - GRAPHIC DATA BASE			25 - SQ	$1,490,664	$1,473,072	$17,592	0.2802	$4,177
48	TOTAL DISTRIBUTION PLANT					$4,327,945,187	$1,131,998,727	$3,195,946,459		$89,470,811
49										
50	GENERAL PLANT									
51	390.1	STRUCTURES AND IMPROVEMENTS					RB-40			
52		LANCASTER SERVICE BUILDING		06-2026	80 - R1.5	$5,254,319	$3,571,842	$2,060,749	13.4036	$704,267
53		READING SERVICE BUILDING		06-2030	80 - R1.5	$19,125,095	$12,666,794	$6,633,042	5.1863	$991,886
54		BETHLEHEM SERVICE BUILDING		03-2050	80 - R1.5	$19,494,034	$2,586,057	$18,970,342	3.9515	$770,299
55		LEBANON SERVICE BUILDING		06-2027	80 - R1.5	$2,074,577	$1,832,154	$250,900	3.2487	$67,397
56		STONE RIDGE SERVICE BUILDING		06-2059	80 - R1.5	$5,515,549	$1,591,809	$4,015,164	2.3661	$130,503
57		GAS TRAINING CENTER		09-2071	80 - R1.5	$30,805,088	$1,886,603	$29,496,801	2.6227	$807,915
58		EMPIRE YARD - MAJOR STRUCTURES		12-2047	80 - R1.5	$12,065,358	$6,202,351	$5,940,109	2.2271	$268,713
59		EMPIRE YARD - MINOR STRUCTURES		03-2022	80 - R1.5	$2,219,511	$2,219,511	$0	0.0000	$0
60		ARCHBALD		12-2052	80 - R1.5	$6,136,509	$2,321,455	$3,934,987	2.4363	$149,503
61		BLOOMSBURG		12-2059	80 - R1.5	$1,378,395	$449,492	$928,903	2.1693	$29,901
62		STROUDSBURG DISTRICT OFFICE		06-2033	80 - R1.5	$795,453	$505,629	$295,344	3.8825	$30,884

63		PORT ALLEGANY OPERATIONS CENTER	06-2042	80	- R1.5	$2,104,562	$1,096,404	$1,094,736	2.9002	$61,036
64		POTTSVILLE METER SHOP	06-2049	80	- R1.5	$976,282	$513,077	$463,205	2.0241	$19,761
65		LEHIGHTON OPERATIONS CENTER	08-2073	80	- R1.5	$1,912,687	$45,714	$2,239,619	2.9591	$56,598
66		OTHER STRUCTURES		40	- R2	$17,763,804	$6,548,244	$11,616,625	2.5648	$455,605
67	390.1	STRUCTURES AND IMPROVEMENTS		VARIOUS**		$127,621,222	$44,037,136	$87,940,526	3.7077	$4,544,268
68	391.1	OFFICE FURNITURE AND EQUIPMENT - FURNITURE		20	- SQ	$4,956,507	$1,241,216	$3,715,291	5.7319	$284,103
69	391.2	OFFICE FURNITURE AND EQUIPMENT - EQUIPMENT		10	- SQ	$193,318	$66,837	$126,481	9.8773	$19,095
70	391.3	OFFICE FURNITURE AND EQUIPMENT - COMPUTER EQUIPMENT		5	- SQ	$239,478	$164,547	$74,931	47.8477	$114,585
71	391.4	OFFICE FURNITURE AND EQUIPMENT - SOFTWARE				$713,925	$671,739	$42,186	0.0000	$0
72	392.1	TRANSPORTATION EQUIPMENT - SEDANS AND SUV'S		8	- L2.5	$4,173,940	$1,315,381	$2,858,559	14.2580	$595,122
73	392.2	TRANSPORTATION EQUIPMENT - SMALL PICK-UPS AND CARGO VANS		10	- L2.5	$32,201,329	$9,324,009	$22,877,320	11.6490	$3,751,146
74	392.3	TRANSPORTATION EQUIPMENT - LARGE PICK-UPS AND UTILITY VEHICLES		12	- L3	$3,712,512	$1,184,630	$2,527,882	8.9376	$331,809
75	392.4	TRANSPORTATION EQUIPMENT - LARGE TRUCKS AND DUMP TRUCKS		12	- L3	$5,734,131	$1,796,682	$3,937,449	8.9076	$510,776
76	392.5	TRANSPORTATION EQUIPMENT - TRAILERS		15	- L2	$2,631,546	$776,926	$1,854,620	7.6273	$200,715
77	393	STORES EQUIPMENT		20	- SQ	$17,607	$7,199	$10,408	4.7368	$834
78	394	TOOLS, SHOP AND GARAGE EQUIPMENT		20	- SQ	$39,138,142	$14,249,079	$24,889,063	5.1748	$2,025,311
79	395	LABORATORY EQUIPMENT		20	- SQ	$437,779	$134,257	$303,522	5.0475	$22,097
80	396	POWER OPERATED EQUIPMENT		15	- L2	$6,570,611	$2,887,895	$3,682,716	6.8020	$446,936
81	397	COMMUNICATION EQUIPMENT		10	- SQ	$925,676	$495,444	$430,232	11.7898	$109,136
82	398	MISCELLANEOUS EQUIPMENT		15	- SQ	$2,344,454	$1,210,508	$1,133,946	7.9097	$185,440
83	**TOTAL GENERAL PLANT**					**$231,612,177**	**$79,563,485**	**$156,405,132**		**$13,141,370**
84										
85	**TOTAL DEPRECIABLE GAS PLANT**					**$4,610,834,514**	**$1,242,382,360**	**$3,372,808,592**		**$103,272,084**
86										
87	**NONDEPRECIABLE PLANT**									
88	**TOTAL NONDEPRECIABLE PLANT**					**$19,619,037**				
89										
90	**TOTAL GAS PLANT**					**$4,630,453,551**				
91										
92	**OTHER UTILITY PLANT**									
93										
94	**COMMON PLANT**									
95	301	ORGANIZATION (NONDEPRECIABLE)				$138,964				
96	389.1	LAND AND LAND RIGHTS - LAND (NONDEPRECIABLE)				$6,947,108				
97	390.1	STRUCTURES AND IMPROVEMENTS	01-2069	70	- R1	$34,121,694	$3,940,817	$30,180,877	2.7720	$945,838
98	390.2	STRUCTURES AND IMPROVEMENTS - LEASED PROPERTY				$0	$0	$0	0.0000	$0
99	391	OFFICE FURNITURE AND EQUIPMENT - FURNITURE		20	- SQ	$4,362,964	$1,240,166	$3,122,798	5.3252	$232,336
100	391.1	OFFICE FURNITURE AND EQUIPMENT - EQUIPMENT		5	- SQ	$1,398,843	$755,741	$643,102	20.1552	$281,939
101	392.1	TRANSPORTATION EQUIPMENT - CARS		7	- L2.5	$71,637	$71,637	$0		$0
102	398	MISCELLANEOUS EQUIPMENT		10	- SQ	$27,967	$7,091	$20,876	11.4850	$3,212
103	**TOTAL COMMON PLANT**					**$47,069,177**	**$6,015,452**	**$33,967,653**		**$1,463,324**
104										
105	**TOTAL COMMON PLANT ALLOCATED TO GAS DIVISION - 88.97%**	**88.97%**				**$41,877,447**	**$5,351,948**	**$30,825,846**		**$1,301,920**
106										
107	**INFORMATION SERVICES (IS)**									
108	390.1	STRUCTURES AND IMPROVEMENTS - NEW READING DATA CENTER	09-2073	80	- R1.5	$2,706,761	$5,200	$2,701,561	3.1705	$85,817
109	391	OFFICE FURNITURE AND EQUIPMENT - FURNITURE		20	- SQ	$16,957	$8,740	$8,217	8.6473	$1,466
110	391.1	OFFICE FURNITURE AND EQUIPMENT - EQUIPMENT		5	- SQ	$15,197,288	$11,037,936	$4,159,352	17.4673	$2,654,555
111	391.2	OFFICE FURNITURE AND EQUIPMENT - SOFTWARE				$0				$0
112		SUCCESS FACTORS	09-2024	SQUARE		$2,803,866	$2,076,802	$727,064	25.9308	$727,064
113		UNITE ERP	09-2034	SQUARE		$10,695,816	$2,359,182	$8,336,634	7.0857	$757,876
114	391.2	OFFICE FURNITURE AND EQUIPMENT - SOFTWARE		SQUARE		$13,499,682	$4,435,984	$9,063,698		$1,484,940
115	391.3	OFFICE FURNITURE AND EQUIPMENT - SYSTEM DEV. COSTS - 10 YEARS		10	- SQ	$59,757,267	$19,521,425	$40,235,842	10.3329	$6,174,649
116	391.4	OFFICE FURNITURE AND EQUIPMENT - SYSTEM DEV. COSTS - 15 YEARS		15	- SQ	$133,558,198	$50,293,216	$83,264,982	6.7390	$9,000,539
117	**TOTAL INFORMATION SERVICES**					**$224,736,153**	**$85,302,501**	**$139,433,652**		**$19,401,966**
118										
119	**TOTAL INFORMATION SERVICES ALLOCATED TO GAS DIVISION - 91.68%**	**91.68%**				**$206,038,105**	**$78,205,333**	**$127,832,772**		**$17,787,723**
120										
121	391.4	OFFICE FURNITURE AND EQUIPMENT - SYSTEM DEV. COSTS - 15 YEARS - UNITE ADC		15	- SQ	$27,864,086	$1,945,443	$25,918,643	6.5707	$1,830,870
122										
123	**EMPIRE YARD BUILDING**									
124	390.1	STRUCTURES AND IMPROVEMENTS	12-2047	80	- R1.5	$14,209,098	$8,429,910	$5,779,188	1.8830	$267,551
125										
126	**LESS EMPIRE BUILDING ALLOCATED TO ELECTRIC DIVISION - 13.07%**	**13.07%**				**$1,857,129**	**$1,101,789**	**$755,340**		**$34,969**
127										
128	**TOTAL OTHER UTILITY PLANT ALLOCATED TO ALL GAS DIVISIONS**					**$273,922,509**	**$84,400,934**	**$183,821,921**		**$20,885,543**
129										
130	**TOTAL PLANT IN SERVICE**					**$4,904,376,059**	**$1,326,783,295**	**$3,556,630,513**		**$124,157,627**
131										
132	AMORTIZATION OF NEGATIVE NET SALVAGE									$6,083,750
133										
134	**GRAND TOTAL**					**$4,904,376,059**	**$1,326,783,295**	**$3,556,630,513**		**$130,241,377**

* ACCOUNTS 305 AND 352.01 HAVE NO REMAINING DEPRECIATION ACCRUALS. THE FUTURE ACCRUALS SHOWN ARE RELATED TO THE AMORTIZATION OF NEGATIVE NET SALVAGE.
** SURVIVOR CURVES FOR ACCOUNT 390.1 ARE INTERIM SURVIVOR CURVES.INDIVIDUAL BUILDINGS ARE LIFE SPANNED.

I&E Statement No. 6
Witness: Jessalynn Heydenreich
NON-PROPRIETARY

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Direct Testimony

of

Jessalynn Heydenreich

Bureau of Investigation & Enforcement

Concerning:

PIPELINE REPLACEMENT COSTS
SYSTEM LEAK REDUCTION

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INTRODUCTION

Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.

A. My name is Jessalynn Heydenreich. I am a Fixed Utility Valuation Engineer in the Pipeline Safety Division of the Pennsylvania Public Utility Commission's (Commission) Bureau of Investigation and Enforcement (I&E). My business address is Pennsylvania Public Utility Commission, 400 North Street, Harrisburg, PA 17120.

Q. WHAT IS YOUR EDUCATIONAL AND EMPLOYMENT EXPERIENCE?

A. I attended the Pennsylvania State University and earned a Bachelor of Science Degree in Mechanical Engineering in 2003. I joined the Pennsylvania Public Utility Commission's Pipeline Safety Division in October 2015.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to address UGI Utilities, Inc. - Gas Division's (UGI or Company) pipeline replacement costs, particularly restoration costs, associated with the replacement of mains.

Q. DOES YOUR TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 6 contains schedules relating to my testimony.

Q. PLEASE DESCRIBE THE ROLE OF I&E IN RATE PROCEEDINGS.

A. I&E is responsible for protecting the public interest in proceedings before the Commission. The I&E analysis in proceeding is based on its responsibility to represent the public interest. This responsibility requires the balancing of the interests of ratepayers, the regulated utility, and the regulated community as a whole.

Q. HAVE YOU REVIEWED THE DIRECT TESTIMONY OF UGI WITNESS MR. ANGSTADT AS IT RELATES TO UGI'S PLAN TO REPLACE CAST IRON AND BARE STEEL PIPELINES?

A. Yes. I have reviewed Mr. Angstadt's direct testimony as it relates to UGI's plan to replace cast iron and bare steel pipelines.[1] Replacement and betterment infrastructure projects are chosen for inclusion in the capital budget using a risk-based prioritization process.[2] Mr. Angstadt summarizes UGI's risk-based prioritization process used to evaluate the replacement of cast iron and bare steel pipelines. Mr. Angstadt states that UGI's cast iron and bare steel mains are more susceptible to failure than other pipe materials. Mr. Angstadt also references UGI's Long Term Infrastructure Improvement Plan (LTIIP) to prioritize projects for its' capital budget. UGI uses a risk-based prioritization process Distribution

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[1] UGI Statement No. 9, pp. 10, ln 8-15.
[2] UGI Statement No. 9, p. 9-10.

Integrity Management Program (DIMP) to determine which pipelines should be replaced.

Q. WHAT FEDERAL AND STATE REGULATIONS CONTROL UGI'S PIPELINE REPLACEMENT?

A. UGI is mandated to implement a DIMP under Chapter 49 CFR 192 Subpart P – Gas Distribution Pipeline Integrity Management (IM) of the Code of Federal Regulations. Additionally, utilities, like UGI, which are seeking to continue a previously-approved DSIC mechanism, are required to submit an LTIIP pursuant to 52 Pa Code §121.1 and §121.3.

Q. WHY MUST A NATURAL GAS DISTRIBUTION COMPANY COMPLY WITH THE DIMP REGULATIONS?

A. The Pipeline and Hazardous Material Safety Administration (PHMSA) created DIMP regulations to reduce the number of U.S. Department of Transportation (U.S. DOT) Reportable Incidents.[3] DIMP is a performance based regulatory program required of gas distribution operators and is driven by risk management.

[3] A PHMSA Reportable Incident is defined by the following events: (1) An event that involves a release of gas from a pipeline, or of liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG facility, and that results in one or more of the following consequences:(i) A death, or personal injury necessitating in-patient hospitalization;(ii) Estimated property damage of $50,000 or more, including loss to the operator and others, or both, but excluding cost of gas lost;(iii) Unintentional estimated gas loss of three million cubic feet or more;(2) An event that results in an emergency shutdown of an LNG facility. Activation of an emergency shutdown system for reasons other than an actual emergency does not constitute an incident;.(3) An event that is significant in the judgment of the operator, even though it did not meet the criteria of paragraphs (1) or (2) of this definition.

Q. WHY MUST A NATURAL GAS DISTRIBUTION COMPANY FILE AN LTIIP?

A. A natural gas distribution company must submit an LTIIP for Commission approval to be eligible to recover the reasonable and prudently incurred costs regarding the repair, improvement, and replacement of eligible property from the Distribution System Improvement Charge (DSIC). The LTIIP must show the acceleration of the replacement of aging infrastructure by the utility and be sufficient to ensure and maintain adequate, efficient, safe, reliable, and reasonable service to customers.[4]

Q. WHAT ARE THE REQUIREMENTS OF A DIMP?

A. DIMP requires gas distribution pipeline operators to:

1. Demonstrate knowledge of the gas distribution system;
2. Identify threats;
3. Evaluate and rank risks;
4. Identify and implement measures to address risk;
5. Measure performance, monitor results and evaluate effectiveness;
6. Evaluate and improve the DIMP;
7. Report results.

[4] See 52 Pa. Code § 121.1.

DIMP requirements include the identification of threats to pipeline facilities and the requirement for operators to create plans to mitigate and reduce the risks caused by those threats. UGI uses a risk-based prioritization process to select pipelines for replacement. UGI determines pipeline replacements by managing the risk ranking of the different aspects of the pipeline and then replacing the pipe based on the highest risk ranking.

Q. WHAT ARE THE REQUIREMENTS OF AN LTIIP?

A. The LTIIP must include the following elements:

1. Identification of types and age of eligible property owned and operated by the utility for which it is seeking DSIC recovery.
2. An initial schedule for planned repair and replacement of eligible property.
3. A general description of location of eligible property.
4. A reasonable estimate of quantity of eligible property to be improved or repaired.
5. Projected annual expenditures and means to finance the expenditures.
6. A description of the manner in which infrastructure replacement will be accelerated and how repair, improvement, or replacement will ensure and maintain adequate, efficient, safe, reliable, and reasonable service to customers.

7. A workforce management and training program designed to ensure that the utility will have access to a qualified workforce to perform work in a cost-effective, safe, and reliable manner.
8. A description of a utility's outreach and coordination activities with other utilities, Department of Transportation and local governments regarding the planned maintenance/construction projects and roadways that may be impacted by the LTIIP.

The LTIIP must address only the specific property eligible for DSIC recovery.[5]

Q. WHAT ARE THE COMMON MITIGATION MEASURES FOR HIGH RISK PIPELINE SEGMENTS?

A. The industry's common mitigation measure to reduce pipeline risk is to replace the highest risk pipelines first. As a company replaces the pipelines calculated to be at the highest risk, the total system risk should be reduced. The overall risk of the asset group will reduce as the riskiest pipeline is replaced, if enough pipe is replaced in that asset group annually to overcome the increasing risks on other segments within that group.

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[5] See 52 Pa. Code § 121.3.

Q. SHOULD PIPELINE REPLACEMENT MITIGATION MEASURES BE BASED ON LTIIP OR DIMP?

A. Pipeline replacement, which includes high risk cast iron and bare steel should be based on DIMP. The LTIIP is a forward-looking plan for the replacement of DSIC eligible assets. Overall, pipeline replacement should be risk based and, thus, driven by DIMP.

<u>RESTORATION COSTS</u>

Q. WHAT IS INCLUDED IN UGI's PIPELINE REPLACEMENT COSTS?

A. UGI's capital costs include Contractor, Material, Other, Restoration, Labor, Equipment, and Overhead.

Q. ARE THE PIPELINE REPLACEMENT COSTS INCREASING?

A. Yes. UGI's pipeline replacement costs are increasing. {**BEGIN PROPRIETARY**}

{**END PROPRIETARY**}

Q. DOES THE TOTAL COST FOR PIPELINE REPLACEMENT INCLUDE THE COSTS ASSOCIATED WITH SERVICE LINE REPLACEMENT?

A. No. {**BEGIN PROPRIETARY**} {**END PROPRIETARY**}

[6]

[7]

Q. WHAT PORTION OF UGI'S PIPELINE REPLACEMENT COSTS ARE INCREASING AT THE GREATEST RATE PER MILE?

A. The largest increase in pipeline replacement is associated with the restoration costs per mile. {**BEGIN PROPRIETARY**} {**END PROPRIETARY**}

Q. WHAT ARE UGI'S FORECASTED PIPELINE REPLACEMENT GOALS?

A. Pipeline replacement goals for 2022, 2023 and 2024[8] are known to be at least 70 miles per year, which is representative of the actual pipeline replacement rate of 76 miles in fiscal year 2021. Beyond Fiscal Year 2024, UGI's pipeline replacement goals will be determined in a new LTIIP filed with the Commission.

Q. HAS THE COMPANY COMMENTED ON THE INCREASING RESTORATION COSTS?

A. Yes. UGI indicated in the response to I&E-PS-29, that it is continuing efforts to lower restoration costs with a strategy focused on three main areas: municipal outreach, project aggregation, and installation technology.

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[8] See UGI Statement No. 9, p 10, ln 8-15.

Q. IN YOUR OPINION, WILL UGI'S RESTORATION COSTS PER MILE INCREASE IN 2022 AND THROUGH 2024?

A. Yes. {**BEGIN PROPRIETARY**}

[9] See Exhibit No. 6, Schedule No. 2.

[10] See Exhibit No. 6, Schedule No. 1.

{**END PROPRIETARY**}

Q. DO INCREASING RESTORATION COSTS NEGATIVELY IMPACT UGI'S CAPITAL SPENDING ON PIPELINE REPLACEMENT PROJECTS?

A. Yes. {**BEGIN PROPRIETARY**}

{**END PROPRIETARY**}

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Q. WHEN CAPITAL IS UTILIZED FOR MORE ANCILLARY SPENDING SUCH AS RESTORATION COSTS, DO THOSE ADDED COSTS REDUCE THE FUNDS AVAILABLE FOR PIPELINE REPLACEMENT?

A. Yes. The increasing restoration costs divert funds from UGI's pipeline replacement projects. The fewer projects UGI can complete in a year equates to less risky pipe being replaced, which slows the desired reduction in total pipeline risk. The less money UGI spends on restoration costs, the more funds it has for pipeline replacement.

Q. DO YOU HAVE ANY RECOMMENDATIONS REGARDING RESTORATION COSTS?

A. Yes. I recommend that UGI continue to take affirmative steps to reduce restoration costs through efforts including, but not limited to, coordinating pipe replacement projects with other street projects and replacing pipe using trenchless construction techniques where technically and economically feasible. I also recommend UGI produce by March 2023 for FY 2022 pipeline replacements and annually thereafter for subsequent years and discuss the results of the audits of the restoration costs for its 10 largest projects in the prior three years, identifying costs incurred in excess of the Pennsylvania Department of Transportation restoration standards including: paving, shoulders, sidewalks, etc., and permitting fees.

LEAK IDENTIFICATION

Q. PLEASE DESCRIBE HOW UGI CLASSIFIES LEAKS ON ITS SYSTEM?

A. UGI assigns grades to leaks on its system according to the severity of the leaks. These assignments include Class 'A', 'B', and 'C'. Class 'C' leaks are deemed hazardous and repaired immediately. Class 'B' leaks may become hazardous if otherwise not repaired and are scheduled for repair within twelve (12) months, not to exceed fifteen (15) months. Class 'A' are deemed non-hazardous leaks.

Q. HOW HAVE UGI'S LEAKS TRENDED FROM 2017 TO 2021?

A. In response to I&E-PS-15, the Company provided historic leak information. {**BEGIN PROPRIETARY**}

{**END PROPRIETARY**}

Q. DO YOU HAVE A RECOMMENDATION REGARDING UGI'S LEAKS?

A. Yes. I recommend UGI perform a root cause analysis to determine why the increase in total number of leaks found in 2021 does not correlate with removing 60 miles of risky pipeline in 2020. Further, I recommend UGI present the findings

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of said analysis to I&E Pipeline Safety, including any corrective actions the Company takes, no later than September 30, 2022.

Q. WHY DO YOU RECOMMEND UGI COMPLETE A ROOT CAUSE ANALYSIS REGARDING THE UPWARD TREND OF LEAKS ON ITS SYSTEM?

A. The increase of UGI's leaks in the last year is concerning given the amount of priority pipe the Company has been replacing. [14] Theoretically, as risky pipes are replaced, the number of leaks should go down, which is not the case here. A root cause analysis would be a good investment of ratepayers' money given the threats leaks pose to life and property.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes

[14] See Exhibit No. 6, Schedule No. 3 (Proprietary).

I&E Exhibit No. 6
Witness: Jessalynn Heydenreich
NON-PROPRIETARY

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Exhibits to Accompany

the

Direct Testimony

of

Jessalynn Heydenreich

Bureau of Investigation & Enforcement

Concerning:

PIPELINE REPLACEMENT COSTS
SYSTEM LEAK REDUCTION

I&E Exhibit No. 6
Schedule No. 1
Witness: Jessalynn Heydenreich
PROPRIETARY

I&E Exhibit No. 6
Schedule No. 2
Witness: Jessalynn Heydenreich
PROPRIETARY

I&E Exhibit No. 6
Schedule No. 3
Witness: Jessalynn Heydenreich
PROPRIETARY

I&E Statement No. 1-R
Witness: Zachari Walker

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Rebuttal Testimony

of

Zachari Walker

Bureau of Investigation & Enforcement

Concerning:

LOW-INCOME USAGE REDUCTION PROGRAM

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INTRODUCTION OF WITNESS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Zachari Walker, and my business address is Pennsylvania Public Utility Commission, 400 North Street, Harrisburg, PA 17120.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Pennsylvania Public Utility Commission (Commission) in the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial Analyst.

Q. ARE YOU THE SAME ZACHARI WALKER WHO IS RESPONSIBLE FOR THE DIRECT TESTIMONY CONTAINED IN I&E STATEMENT NO. 1 AND THE SCHEDULES IN I&E EXHIBIT NO. 1?

A. Yes.

Q. DOES YOUR REBUTTAL TESTIMONY INCLUDE AN ACCOMPANYING EXHIBIT?

A. Yes. I&E Exhibit No. 1-R contains schedules that support my rebuttal testimony.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to address the direct testimony of (1) Office of Consumer Advocate (OCA) witness Roger D. Colton[1] concerning his recommended increase to UGI Utilities, Inc. – Gas Division's (UGI or Company)

[1] OCA Statement No. 4 (Corrected), pp. 4-43.

Low Income Usage Reduction Program (LIURP) budget by $524,450;[2] (2) Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania (CAUSE-PA) witness Harry S. Geller[3] concerning his recommended $352,008 increase to the Company's LIURP budget;[4] and (3) the Commission on Economic Opportunity (CEO) witness Eugene M. Brady[5] concerning his recommended $750,000 increase to the Company's LIURP budget.[6]

RESPONSE TO OCA WITNESS ROGER D. COLTON

Q. SUMMARIZE OCA WITNESS ROGER D. COLTON'S TESTIMONY REGARDING UGI'S LIURP BUDGET.

A. Mr. Colton recommended the Company's LIURP include a new incremental component to provide investments to confirmed low-income customers as part of the process of converting those customers to natural gas and resulting in an increase of $524,450 to the Company's LIURP budget.[7]

Q. WHAT IS THE BASIS FOR MR. COLTON'S RECOMMENDATION?

A. Mr. Colton opines that if UGI redirected a portion of its existing LIURP budget to serving gas conversion customers it would result in no net gain.[8] He calculates his recommended addition to the Company's LIURP budget using the 85 confirmed low-income gas conversions in 2021 and the calculated 2019 average UGI LIURP cost per

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2 OCA Statement No. 4 (Corrected), p. 21.
3 CAUSE-PA Statement No. 1, pp. 26-35.
4 CAUSE-PA Statement No. 1, p. 29.
5 CEO Statement No. 1, pp. 7-12.
6 CEO Statement No. 1, p. 8.
7 OCA Statement No. 4 (Corrected), p. 21.
8 OCA Statement No. 4 (Corrected), p. 21.

job of $6,170[9] producing his recommended increase of $524,450 to the Company's current LIURP budget.

Q. DO YOU AGREE WITH MR. COLTON'S RECOMMENDATION?

A. No. While Mr. Colton's recommendation is well-intentioned, it is inappropriate to consider such a significant increase in the LIURP budget in this base rate case proceeding.

Q. WHAT IS YOUR RECOMMENDATION?

A. I recommend that no increase to the budgeted LIURP amount be allowed.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. In response to CAUSE-PA-I-14, UGI has shown it was unable to exhaust its LIURP budget in the four most recent historic years other than exhausting it one time for the North District in 2018.[10] Additionally, Mr. Colton does not provide adequate support for how this incremental component ensures UGI will exhaust its existing LIURP budgeted funds.

<u>RESPONSE TO CAUSE-PA WITNESS HARRY GELLER</u>

Q. SUMMARIZE MR. GELLER'S TESTIMONY CONCERNING UGI'S LIURP BUDGET.

A. First, Mr. Geller asserts that UGI's LIURP is not operating at a rate sufficient to

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9 OCA Statement No. 4 (Corrected), pp. 20-21.
10 I&E Exhibit No. 1-R, Schedule 1.

fulfill the estimated need for comprehensive usage reduction services within a reasonable amount of time, citing UGI's most recent LIURP needs assessment results of 25 years to serve estimated need in UGI's former South District and 40 years to serve estimated need in UGI's former North District.[11] Additionally, he acknowledges UGI has failed to exhaust its existing LIURP budget.[12] In response to the aforementioned issues, he recommends UGI reduce its LIURP minimum usage threshold for households at or below 150% federal poverty level[13] and he recommends UGI increase its annual LIURP budget by a percentage equal to or greater than the average residential bill impact of any approved residential rate increase.[14] His recommendation results in an increase of $352,008 to the Company's current total LIURP budget of $3,705,350.[15]

Q. DO YOU AGREE WITH MR. GELLER THAT THE COMPANY SHOULD INCREASE ITS LIURP BUDGET BY $352,008 IN THIS PROCEEDING?

A. No, in part. First, I accept Mr. Geller's recommendation that UGI should continue its 2020 LIURP program year modification which lowered its LIURP minimum usage threshold to reflect the average usage of residential customers for customers at or below 150% of the Federal Poverty Level[16] to provide increased opportunity for UGI to exhaust its LIURP budgeted funds. Secondly, there is an error in Mr. Geller's calculation of the proposed LIURP budget increase which I will address next.

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[11] CAUSE-PA Statement No. 1, p. 26.
[12] CAUSE-PA Statement No. 1, p. 27.
[13] CAUSE-PA Statement No. 1, p. 27.
[14] CAUSE-PA Statement No. 1, p. 27.
[15] CAUSE-PA Statement No. 1, p. 29.
[16] CAUSE-PA Statement No. 1, p. 28.

Finally, while his recommendation is well-intentioned, it is inappropriate to consider such an increase in the LIURP budget in this base rate proceeding.

Q. PLEASE ADDRESS MR. GELLER'S CALCULATION ERROR RELATED TO THE COMPANY'S LIURP BUDGET.

A. Mr. Geller cites UGI's response to CAUSE-PA IV-3 as the source of the Company's current total LIURP budget, stating a total of $3,705,350.[17] However, the resulting sum of the three district values provided in response to CAUSE-PA IV-3 is correctly calculated as $3,714,350 ($1,641,100 + $1,363,050 + $710,200).[18] Based on this correction, Mr. Geller's resulting recommended LIURP budget increase based on the residential rate increase percentage of 9.5%[19] would be $352,863 ($3,714,350 x 0.095).

Q. WHAT DO YOU RECOMMEND?

A. Even with the corrected calculation, Mr. Geller's recommendation should be denied and no change to the budget amount be allowed. As mentioned above, I accept Mr. Geller's suggestion that UGI should continue its 2020 LIURP program year modification which lowered its LIURP minimum usage threshold to reflect the average usage for residential customers at or below 150% of the Federal Poverty Level potentially providing increased opportunities for LIURP funds to be utilized.

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[17] CAUSE-PA Statement No. 1, p. 29.
[18] I&E Exhibit No. 1-R, Schedule 2.
[19] CAUSE-PA Statement No. 1, p. 29, line 11.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. Mr. Geller admits that UGI has historically underspent its LIURP budget in each of the aforementioned former districts as evidenced by over $1 million unspent LIURP funds in 2021.[20] In essence he acknowledges UGI has failed to exhaust its existing LIURP budget.[21] This is visible by UGI's unused LIURP budgeted funds totaling $497,576 ($530,531 -$32,955)[22] in 2018; $891,529 ($753,712 + $137,547)[23] in 2019; $2,736,866 ($1,497,368 + $884,099 + $355,399)[24] in 2020; and $1,010,389 ($354,796 + $490,140 + $165,453) in 2021.[25] Given that UGI has not historically spent is LIURP funds and that Mr. Geller provides no support that UGI would be able to exhaust an increased LIURP budget, his recommendation should be denied.

<u>RESPONSE TO CEO WITNESS EUGENE BRADY</u>

Q. SUMMARIZE MR. BRADY'S TESTIMONY CONCERNING UGI'S LIURP BUDGET.

A. Mr. Brady states the Company estimates at the current funding level it would take 25 years to meet the LIURP need of the South District and 40 years to meet the LIURP need of the North District. In response, he recommends the annual funding for LIURP be increased by $750,000.[26]

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20 I&E Exhibit No. 1-R, Schedule 1.
21 CAUSE-PA Statement No. 1, p. 27.
22 I&E Exhibit No. 1-R, Schedule 1.
23 I&E Exhibit No. 1-R, Schedule 1.
24 I&E Exhibit No. 1-R, Schedule 1.
25 I&E Exhibit No. 1-R, Schedule 1.
26 CEO Statement No. 1, p. 8.

Q. WHAT IS THE BASIS FOR MR. BRADY'S RECOMMENDATION?

A. Mr. Brady refers to the Company's needs assessment stating there are approximately 10,000 low-income customers in need for LIURP services in two of the three prior UGI gas districts. Next, he states the Company's plan is to complete 481 LIURP jobs per year across its service territory and opines a good target would be complete an additional 100 jobs per year across the Company's service territory. Using a rounded LIURP job cost of $7,500 per job, the result would be an overall increase of $750,000 in additional funding required to complete the additional 100 LIURP jobs.

Q. DO YOU AGREE WITH MR. BRADY'S RECOMMENDATION?

A. No.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDED DISALLOWANCE OF MR. BRADY'S PROPOSAL?

A. While Mr. Brady's recommendation is well-intentioned, it is inappropriate to consider increasing the LIURP budget in the instant proceeding. The Company has shown that it is unable to exhaust the existing budget,[27] and Mr. Brady has not provided support indicating that the Company would be able to utilize the increased amount.

Q. DO YOU HAVE ANY ADDITIONAL OVERALL COMMENTS REGARDING YOUR RECOMMENDATION TO DENY THESE PROGRAM INCREASES IN THIS PROCEEDING?

A. Yes. While my positions to the three witnesses above have specifically related to the

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[27] I&E Exhibit No. 1-R, Schedule 1.

witnesses' failure to provide support for UGI's ability to utilize the additional funding, it is important to note that these program costs are directly assessed to other ratepayers. In the current economic climate with natural gas commodity costs climbing and overall inflation costing consumers substantially more in day-to-day necessities, implementing increases to these programs with no certainty of the Company's ability to utilize these additional funds is unreasonable. Furthermore, the ongoing supply chain and workforce issues may impede the Company's ability to utilize even the currently designated LIURP budget. From both perspectives, I find it unreasonable to impose additional costs to other ratepayers for this program in this proceeding.

<u>RECENT COMMISSION ORDERS</u>

Q. ARE THERE ANY RECENT COMMISSION DECISIONS THAT SUPPORT YOUR RECOMMENDATIONS AS EXPLAINED ABOVE?

A. In the recent PECO Energy Company – Gas Division proceeding the Commission did not consider CAUSE-PA's proposals relating to CAP and other universal service program issues within the context of the base rate proceeding because they would be more properly considered in its USECP proceeding.[28] The Commission referenced last year's Columbia Gas of Pennsylvania, Inc. (Columbia Gas) proceeding[29] in which it concluded, "that energy burdens should not be considered separately from other parts of the Company's CAP and universal service programs but should be considered

[28] *PA PUC v. PECO Energy Company – Gas Division*, Docket No. R-2020-3018929, pp. 195-196 (Order Entered June 22, 2021).

[29] *PA PUC v. Columbia Gas of Pennsylvania, Inc.*, Docket No. R-2020-3018835 (Order Entered February 19, 2021).

as part of the Company's entire universal service plan, including the need for changes and associated costs."[30] It should be noted that in last year's Columbia Gas proceeding the Commission rejected a similar proposal related to the Health and Safety Pilot Program from CAUSE-PA.[31] In that proceeding the Commission agreed with the Administrative Law Judge's recommended decision denying any change to the pilot program until its effectiveness can be evaluated.[32]

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

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30 *PA PUC v. PECO Energy Company – Gas Division*, Docket No. R-2020-3018929, p. 195 (Order Entered June 22, 2021).

31 *PA PUC v. Columbia Gas of Pennsylvania, Inc.*, Docket No. R-2020-3018835, pp. 160-161 and 173-174 (Order Entered February 19, 2021).

32 *PA. PUC v. Columbia Gas of Pennsylvania, Inc.*, Docket No. R-2020-3018835, p. 174 (Order Entered February 19, 2021).

I&E Exhibit No. 1-R
Witness: Zachari Walker

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Exhibit to Accompany

the

Rebuttal Testimony

of

Zachari Walker

Bureau of Investigation and Enforcement

Concerning:

LOW-INCOME USAGE REDUCTION PROGRAM

UGI Utilities, Inc. - Gas Division
Docket No. R-2021-3030218
UGI Gas 2022 Base Rate Case
Responses to CAUSE PA Set I (1 thru 26)
Delivered on March 4, 2022

CAUSE-PA-I-14

Request:

Please indicate for each year for the past three years, whether:

a. UGI Gas exhausted its LIURP budget;

b. If such budget was not exhausted, indicate the number of dollars not spent;

c. UGI's three gas divisions exhausted its LIURP budget;

d. If such budget was not exhausted, indicate the number of dollars not spent;

e. If UGI's LIURP budget was exhausted, indicate the number of LIURP applicants that did not receive LIURP services despite having been found to be LIURP eligible;

Response:

a. UGI Gas only exhausted its LIURP budget in 2018 for the North District.

b.

	2018	2019	2020	2021
South	$530,531	$753,712	$1,497,368	$354,796
North	$(32,955)	$137,547	$884,099	$490,140
Central	$- 0	$- 0	$355,399	$165,453

c. - d. See the response to CAUSE-PA-I-14-b.

e. Not Applicable.

Prepared by or under the supervision of: Daniel V. Adamo

UGI Utilities, Inc. - Gas Division
Docket No. R-2021-3030218
UGI Gas 2022 Base Rate Case
Responses to CAUSE-PA Set IV (1 thru 14)
Delivered on April 14, 2022

CAUSE-PA IV-3

Request:

What is UGI's currently projected annual LIURP budget for 2022-2025?

Response:

2022 - 2025 LIURP Budget by Geographic Territory:

SOUTH - $1,641,100
NORTH - $1,363,050
CENTRAL - $710,200

Prepared by or under the supervision of: Daniel V. Adamo

I&E Statement No. 1-SR
Witness: Zachari Walker

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Surrebuttal Testimony

of

Zachari Walker

Bureau of Investigation and Enforcement

Concerning:

OPERATING AND MAINTENANCE EXPENSES

TAXES

LOW-INCOME USAGE REDUCTION PROGRAM

CASH WORKING CAPITAL

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INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Zachari Walker, and my business address is Pennsylvania Public Utility Commission, 400 North Street, Harrisburg, PA 17120.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Pennsylvania Public Utility Commission (Commission) in the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial Analyst.

Q. ARE YOU THE SAME ZACHARI WALKER WHO SUBMITTED I&E STATEMENT NO. 1, I&E EXHIBIT NO. 1, I&E STATEMENT NO. 1-R, AND I&E EXHIBIT NO. 1-R?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of UGI Utilities, Inc. – Gas Division (UGI Gas or Company) witnesses Christopher R. Brown (UGI Gas Statement No. 1-R), Tracy A. Hazenstab (UGI Gas Statement No. 2-R), Vivian K. Ressler (UGI Gas Statement No. 3-R, and Daniel V. Adamo (UGI Gas Statement No. 12-R). Additionally, I respond to the rebuttal testimony of the Coalition for Affordable Utility Services and Energy Efficiency in

Pennsylvania (CAUSE-PA) witness Harry Geller (CAUSE-PA Statement No. 1-R).

Q. DOES YOUR SURREBUTTAL TESTIMONY INCLUDE AN ACCOMPANYING EXHIBIT?

A. Yes. I&E Exhibit No. 1-SR contains schedules that support my surrebuttal testimony. Additionally, I refer to my direct testimony and its accompanying exhibit (I&E Statement No. 1 and I&E Exhibit No. 1) and my rebuttal testimony (I&E Statement No. 1-R) in this surrebuttal testimony.

<u>OPERATING AND MAINTENANCE EXPENSE ADJUSTMENTS</u>

Q. PLEASE SUMMARIZE THE COMPANY'S REQUESTED REVENUE INCREASE.

A. In rebuttal testimony, UGI Gas explained that it believed it could now justify an increase of $87,619,000[1] for the Fully Projected Future Test Year (FPFTY) ending September 30, 2023. However, because the notice to customers indicated UGI Gas was requesting an increase of $82.7 million, it would not be possible for the Company's revenue increase to exceed this amount. Therefore, the UGI Gas actual requested increase remains $82.7 million.

[1] UGI Gas Exhibit A – FFPTY REBUTTAL, Schedule D-2.

Q. PLEASE SUMMARIZE YOUR ADJUSTMENTS AS CONTAINED IN THIS SURREBUTTAL TESTIMONY.

A. The following table summarizes my recommended adjustments to the Company's rebuttal position:

	UGI Gas Claim	I&E Recommended Allowance	I&E Adjustment
O&M Expenses:			
Employee Activity Costs	$588,226	$217,935	($370,291)
Advertising Expense	$1,901,541	$1,016,363	($885,178)
Membership Dues	$1,115,404	$930,926	($184,478)
Payroll Expense	$82,237,000	$80,929,432	($1,307,568)
Employee Benefits Expense	$22,021,935	$21,671,786	($350,149)
Total O&M Adjustments			**($3,097,664)**
Taxes:			
Payroll Taxes	$6,870,000	$6,760,818	($109,182)
Total Tax Adjustments			**($109,182)**
Rate Base:			
Cash Working Capital	$61,697,000	$60,684,000	($1,060,000)
Total Rate Base Adjustments			**($1,060,000)**

SUMMARY OF I&E OVERALL UPDATED POSITION

Q. WHAT IS I&E'S TOTAL UPDATED RECOMMENDED REVENUE REQUIREMENT?

A. I&E's total recommended revenue requirement for UGI Gas is $1,101,304,000.[2] This recommended revenue requirement represents an increase of $25,923,000 to the I&E-adjusted present rate revenues of $1,075,381,000. This total

[2] This amount includes base customer charges, gas cost revenue and other operating revenues like the Company's filing format shown on UGI Gas Schedule A-1.

recommended allowance incorporates my adjustments made in this testimony to O&M expenses, taxes, and cash working capital (CWC), and those recommended adjustments made in the surrebuttal testimony of I&E witnesses Anthony Spadaccio,[3] Brian LaTorre,[4] Ethan Cline,[5] and Esyan Sakaya.[6]

An updated calculation of I&E's recommended revenue requirement is shown below:

UGI UTILITIES INC. - GAS DIVISION		**TABLE I**			
R-2021-3030218		**INCOME**	**SUMMARY**		
($ in Thousands)					
	9/30/23	INVESTIGATION & ENFORCEMENT			
	Proforma	[--]			
	Present Rates	Adjustments	Present Rates	Allowances	Proposed
	$	$	$	$	$
Operating Revenue	1,061,721	13,660	1,075,381	25,923	1,101,304
Deductions:					
O&M Expenses	689,057	2,750	691,807	427	692,234
Depreciation	124,782	-3,494	121,288		121,288
Taxes, Other	13,524	-109	13,415	0	13,415
Income Taxes:					
Current State	3,844	1,748	5,592	2,547	8,139
Current Federal	14,080	3,308	17,388	4,819	22,207
Deferred Taxes	20,732	0	20,732		20,732
ITC	-324	0	-324		-324
Total Deductions	865,695	4,203	869,898	7,793	877,691
Income Available	196,026	9,457	205,483	18,130	223,613
Measure of Value	3,176,596	-154,799	3,021,797	0	3,021,797
Rate of Return	6.17%		6.80%		7.40%

[3] I&E Statement No. 2-SR.
[4] I&E Statement No. 3-SR.
[5] I&E Statement No. 4-SR.
[6] I&E Statement No. 5-SR.

EMPLOYEE ACTIVITY COSTS

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR EMPLOYEE ACTIVITY COSTS.

A. I recommended an allowance of $217,935 or a reduction of $370,291 ($588,226 - $217,935) to the Company's claim.[7] This recommendation is based on the historic year 2019 level expense inflated to the FPFTY equivalent due to the 2019 data representing the most recent known and measurable data prior to the effects of the pandemic. Given that we are still in the midst of the pandemic, it is not possible to know how many employees would be willing to gather at an optional Company picnic; therefore, the Company's claim is not prudent.

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. UGI Gas witness Vivian Ressler disagrees with my recommendation.

Q. SUMMARIZE MS. RESSLER'S RESPONSE.

A. Ms. Ressler cites UGI Gas witness Christopher R. Brown's direct testimony which states the Company has experienced an increase in voluntary turnover. She states that the labor market is tight, and the Company believes spending a modest amount of money on activities can increase employee job satisfaction and therein

[7] I&E Statement No. 1, pp. 5-7.

employee retention. Finally, she opines the investment is insignificant compared to the cost of recruiting and training replacement employees.[8]

Q. DO YOU AGREE WITH MS. RESSLER'S ASSERTIONS?

A. No.

Q. WHAT IS YOUR RESPONSE?

A. Ms. Ressler did not cite data to support her claim of cost savings, nor the Company's position on employee job satisfaction and employee retention deriving from Company-sponsored activities. Additionally, she did not provide data to support that at least a majority of UGI Gas employees would be willing to attend an optional Company picnic.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR EMPLOYEE ACTIVITY COSTS?

A. No. The Company has the burden of proof to provide adequate support that the expenses claimed are incurred for the provision of safe and reliable gas service. It is my opinion that adequate support was not provided regarding the cost of employee activity costs claimed. Therefore, I have no changes to my

[8] UGI Gas Statement No. 3-R, pp. 40-41.

recommended allowance of $217,935 or a reduction of $370,291 ($588,226 - $217,935) to the Company's claim.

<u>COVID-19 RELATED UNCOLLECTIBLE ACCOUNTS EXPENSE</u>

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR COVID-19 RELATED UNCOLLECTIBLE ACCOUNTS EXPENSE.

A. I accepted UGI Gas' total deferral claim of $1,503,000 for the 2020 and 2021 excess COVID-19 related uncollectible accounts, as well as the 10-year amortization period as approved by the Commission as part of the settlement in the UGI Gas 2020 base rate proceeding. However, I recommended that the Company should not be allowed to continue recording a regulatory asset for ongoing COVID-19 related incremental uncollectible costs after the effective date of new rates for the instant proceeding. This recommendation is based on COVID-19 related uncollectible accounts expenses being included in the forward-looking routine uncollectible accounts expense. As a result, allowing the Company to continue deferring these costs past the effective date of new rates in this proceeding would allow for redundant recovery of the COVID-19 related uncollectible accounts since they are already built into the routine uncollectible accounts percentage for the FPFTY calculation.[9]

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[9] I&E Statement No. 1, pp. 10-11.

Additionally, in the 2020 Joint Petition for Unopposed Settlement – UGI Gas et al., page 21, item 49, the Company agreed not to continue accumulating COVID-19 related costs beyond the effective date of new rates for the instant proceeding.

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. UGI Gas witness Vivian Ressler disagrees with my recommendation.

Q. SUMMARIZE MS. RESSLER'S RESPONSE.

A. Ms. Ressler states the Company would not continue to recover incremental uncollectible expense above the existing $12.81 million cap after the implementation of new rates for the instant proceeding, but would defer, for future recovery, costs in excess of the uncollectible accounts amount included in the new rates of the instant proceeding. She contests the Company did not relinquish its right to request an extension to the period of time to continue accumulating and deferring costs above the normalized level until the effective date of the Company's next base rate filing. Additionally, she states the Company has continued to experience higher than normal delinquency rates on COVID-related payment arrangements citing customers on these arrangements continue to carry balances that are higher than they were prior to the Commission's March 13, 2020 Emergency Order. Next, she cites inflationary factors causing the commodity cost of gas to increase opining this will likely cause the Company to incur additional incremental expenses above those embedded in rates. Then, she explains the Company's plan to defer and amortize incremental uncollectible costs in detail which includes deferral of costs in excess of an updated uncollectible accounts expense amount of $18.0 million until the next base rate filing. Finally, she proposes the Company be allowed to recover for ratemaking purposes the previously mentioned excess costs over a three-year amortization period, without interest.[10]

Q. WHAT IS YOUR RESPONSE TO MS. RESSLER'S ASSERTIONS?

A. In the current COVID-19 climate higher uncollectible accounts expense is the new normal and will be so for an undetermined amount of time moving forward. Thus, it is important to reflect the higher percentage in routine uncollectible accounts (as the Company has done) and cease the continued deferral of the excess uncollectible accounts expense past the effective date of new rates in the instant proceeding. It should be noted that in future base rate cases, the routine uncollectible percentage will be developed based on an average of three years of historic data which ensures the Company will recover higher amounts on an ongoing basis if this trend for higher uncollectible accounts expense continues. Thus, there is no need for a continued deferral of differences.

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10 UGI Gas Statement No.3-R, p. 59.

The statement in the previous base rate case Settlement Agreement as stated in my direct testimony[11] most assuredly does not include verbiage that allows the Company to continue to accumulate COVID-19 related costs beyond the effective date of new rates for the instant proceeding. In summary, the continued accumulation, deferral, and ultimately amortization of COVID-19 related costs should not continue past the effective date of new rates in the instant proceeding.

Furthermore, Ms. Ressler's reference to ongoing inflationary factors potentially causing future increased uncollectible accounts is outside of the scope of the COVID-19 permitted deferrals originally authorized by the Commission. There is no basis to allow the Company to accrue increases in uncollectible expenses resulting from ongoing economic conditions unrelated to the pandemic in a regulatory asset account as changes in the economy and customer reaction to those changes are part of the normal cost of doing business. As I mentioned previously, these transient changes will be covered in the changing uncollectible percentage embedded in rates in future base rate filings and, at some point, it is likely that the embedded rate may even exceed the uncollectible percentage the Company would experience in a subsequent rate year.

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[11] I&E Statement No. 1, pp. 11-12.

Q. IF THE COMMISSION DECIDES TO ALLOW CONTINUED DEFERRAL OF COVID-19 RELATED UNCOLLECTIBLE ACCOUNTS, IN THIS INSTANCE IN EXCESS OF THE $18 MILLION PER YEAR CLAIM, SHOULD THE REQUESTED THREE-YEAR AMORTIZATION PERIOD (WITHOUT INTEREST) BE GRANTED?

A. No. It is inappropriate to grant an amortization period for an unknown amount to begin amortization in a future proceeding for COVID-19 related uncollectible accounts in excess of the claimed $18 million amount. I agree, if the Commission approves the Company's request, the amortization should occur without interest; however, until the actual amount would become known and be verifiable, it is not appropriate to assign a recovery period. An immaterial amount may allow for a shorter recovery period, and to the contrast, a very large deferral might require a longer recovery period.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR COVID-19 RELATED UNCOLLECTIBLE ACCOUNTS EXPENSE?

A. No. I continue to recommend that the deferral of COVID-19 related uncollectible accounts expense be disallowed upon the effective date of new rates in the instant proceeding. I further clarify my position to include a recommended denial for the deferral of any increase in uncollectible expense that may occur unrelated to the COVID-19 pandemic, which it appears that the Company now wants to recover as well.

ADVERTISING EXPENSE

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR ADVERTISING EXPENSE.

A. I recommended an allowance of $1,016,363 or a reduction of $885,178 ($1,901,541 - $1,016,363) to the Company's advertising expense claim. This recommendation was based on images provided that merely promote the Company's image without promoting the benefits of domestic natural gas. Consequently, I recommended the other advertising programs in the amount of $885,178 be disallowed for ratemaking purposes as these programs are not necessary to ensure safe and reliable gas service.[12]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. UGI Gas witness Vivian Ressler disagrees with my recommendation.

Q. SUMMARIZE MS. RESSLER'S RESPONSE.

A. Ms. Ressler states the images which solely depict the image of the Company's logo are not able to visually show the opportunities afforded to Company personnel as a benefit of the Company's sponsorships. She further states these opportunities allow Company personnel to raise awareness of natural gas as an option by developing relationships and discussing the benefits of natural gas with

[12] I&E Statement No. 1, p. 13.

non-affiliated attendees. Finally, she opines that these sponsorships are key to attracting additional customers which reduces the overall revenue requirement that is borne by each individual customer.[13]

Q. DO YOU AGREE WITH MS. RESSLER'S ASSERTIONS?

A. No.

Q. WHAT IS YOUR RESPONSE?

A. Ms. Ressler did not provide data supporting her assertion that additional customers would be obtained this way and would reduce the overall cost per customer, nor did she provide data showing how many additional customers are directly gained from these sponsorships.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR ADVERTISING EXPENSE?

A. No. The Company has the burden of proof to provide adequate support that the expenses claimed are incurred for the provision of safe and reliable gas service. As to the matter of advertising expense, the support is not adequate and thus I continue to recommend an allowance of $1,016,363 or a reduction of $885,178 ($1,901,541 - $1,016,363) to the Company's FPFTY advertising expense claim.

[13] UGI Gas Statement No. 3-R, pp. 44-45.

MEMBERSHIP DUES

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR MEMBERSHIP DUES.

A. I recommended the disallowance of claims for numerous organizations where the Company has not provided adequate support for the necessity of ensuring safe and reliable gas service resulting in a decrease of $153,998 to the Company's membership dues claim, or an allowance of $961,406 ($1,115,404 - $153,998).[14]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. UGI Gas witness Vivian Ressler disagrees with my recommendation.

Q. SUMMARIZE MS. RESSLER'S RESPONSE.

A. First, Ms. Ressler stated that the Company misidentified the organization that uses the acronym "CREDC." Due to the nature of the organizations for which I recommended to disallowance in my direct testimony, she includes the additional $30,480 with my adjustment. She states she will address my proposed adjustment as if it were a total of $184,478 ($153,998 + $30,480).[15]

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14 I&E Statement No. 1, pp. 14-15.

15 UGI Gas Statement No. 3-R, pp. 49-50.

Q. DO YOU HAVE ANY CONCERNS WITH MS. RESSLER'S ASSUMPTION REGARDING YOUR PROPOSED ADJUSTMENT?

A. No. If the organization was properly identified, I agree that I would have included it in my recommended adjustment.

Q PLEASE CONTINUE SUMMARIZING MS. RESSLER'S RESPONSE.

A. Ms. Ressler states the membership in economic development corporations like the PA Chamber of Business & Industry and the PA Economy League allow the Company to grow its customer base. She explains these organizations work with large commercial companies who are making site selections and by being a member of these organizations, the Company can proactively work with these potential customers to promote the benefits of natural gas for their energy needs. She opines this can also lead to opportunities for the Company to encourage new industrial and commercial customers to select sites that are near existing gas mains. Finally, she opines without membership and active involvement in these organizations, the Company would miss out on potential commercial customer growth which would result in higher costs passed along to residential customers.[16]

Q. WHAT IS YOUR RESPONSE TO MS. RESSLER'S ASSERTION?

A. Ms. Ressler did not provide data to support the claim that additional industrial and

[16] UGI Gas Statement No. 3-R, p. 51.

commercial customers would result in a reduction of costs passed along to residential customers. Furthermore, the Company has not adequately supported this expense's necessity to ensure safe and reliable gas service to its existing customers. Therefore, expenses associated with the organizations mentioned in my direct testimony[17] and the Capital Region Economic Development Company ($30,480) should be disallowed.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR MEMBERSHIP DUES?

A. Yes. As corrected in the Company's rebuttal testimony,[18] I recommend the disallowance of an additional $30,480 from the Company's claim, which is directly attributed to the previously misidentified organization, Capital Region Economic Development Company. This misidentification resulted in a misinterpretation of the organization's necessity to ensure safe and reliable gas service. My updated recommendation is an allowance of $930,926 ($1,115,404 - $184,478), or a decrease of $184,478 ($153,998 + $30,480) to the Company's FPFTY membership dues claim.

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17 I&E Statement No. 1, pp. 14-15.
18 UGI Gas Statement No. 3-R, p. 49.

INTEREST ON CUSTOMER DEPOSITS

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR INTEREST ON CUSTOMER DEPOSITS.

A. I recommended an allowance of $648,000, or a reduction of $324,000 ($972,000 - $648,000) to the Company's claim.[19] My recommendation was based on the current interest rate for Title 72 taxes of 3% for 2021 and 2022 and thus resulted in my recommended allowance of $648,000 ($21,600,000[20] x 3.00%).

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. UGI Gas witness Tracy Hazenstab accepts my recommendation to use the current interest rate of 3.00% for Title 72 taxes to calculate the FPFTY expense claim for interest on customer deposits.[21]

Q. DID THE COMPANY MAKE ANY CHANGES TO ITS CLAIM FOR CUSTOMER DEPOSITS?

A. Yes. Per UGI Gas Exhibit A – FPFTY REBUTTAL, Schedule C-7, the Company's updated claim based on a 13-month period ended April 2022 results in an updated claim of $21,434,000 for customer deposits.

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19 I&E Statement No. 1, p. 16.
20 UGI Gas Statement No. 2, p. 21.
21 UGI Gas Statement No. 2-R, p. 12.

Q. DID THE COMPANY CARRY THIS THROUGH IN ITS CALCULATION FOR THE UPDATED CLAIM FOR INTEREST ON CUSTOMER DEPOSITS?

A. No. However, the difference would be immaterial (approximately $5,000), and I am not arguing this point for that reason.

Q. WHAT IS THE COMPANY'S UPDATED CLAIM?

A. The Company's updated claim is $648,000 ($21,600,000[22] x 3.00%)[23] based on the original claim for customer deposits multiplied by my recommended 3.00% rate.

PAYROLL EXPENSE

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR PAYROLL EXPENSE.

A. I recommended an allowance of $80,677,324, or a reduction of $2,251,676 ($82,929.000 - $80,677,324) to the Company's FPFTY payroll expense claim. This recommendation was based on an employee vacancy adjustment, produced by averaging fiscal year 2019, 2020, and 2021 historic vacancy rates, for unfilled positions included in the Company's claim using a vacancy rate of 2.74% to determine 47 vacant positions based on the average.[24] Finally, I multiplied the

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22 UGI Gas Statement No. 2, p. 21.
23 UGI Gas Exhibit A – FPFTY REBUTTAL, Schedule D-15.
24 I&E Statement No. 1, pp. 18-20.

average annual payroll of $47,908 to determine my recommended adjustment of $2,251,676.[25]

This was necessary because it is unreasonable to assume that 100% full staffing of all budgeted positions during the FPFTY.[26] Additionally, I noted that due to the COVID-19 pandemic, the Company may continue to face challenges keeping all positions filled and that there will always be a certain number of normal vacancies due to retirements, resignations, transfers, etc., on a day-to-day operating basis and that there will always be search and placement time in filling such vacancies.[27] Removing this savings from base rates is appropriate to avoid an unreasonable impact to ratepayers.

Q. DID THE COMPANY MAKE ANY CHANGES TO ITS CLAIM?

A. Yes. The Company updated its claim in rebuttal testimony.

Q. WHAT IS THE COMPANY'S UPDATED CLAIM?

A. UGI Gas updated its FPFTY payroll expense claim from $82,929,000 to $82,237,000.[28]

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[25] I&E Statement No. 1, p. 19.
[26] I&E Statement No. 1, p. 19.
[27] I&E Statement No. 1, p. 20.
[28] UGI Gas Exhibit A – FPFTY REBUTTAL, Sch. D-7, p. 1.

Q. WHAT WAS THE BASIS FOR THE COMPANY'S UPDATED CLAIM?

A. Ms. Hazenstab states the Company accepts OCA witness Mugrace's adjustment of $779,368 to reduce payroll expense for 17 speculative positions that are not yet filled.[29]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. UGI Gas witness Tracy Hazenstab disagrees with my recommendation.

Q. SUMMARIZE MS. HAZENSTAB'S RESPONSE.

A. Ms. Hazenstab criticizes my adjustment opining it is biased due to COVID-19 impacting the Company's ability to hire new employees in fiscal year 2020 (FY20). Finally, she suggests removing FY20 which would lower the vacancy rate down to 1.59%.[30]

Q. WHAT IS YOUR RESPONSE TO MS. HAZENSTAB'S ASSERTION?

A. I am willing to accept Ms. Hazenstab's assertion that 2020 did heavily weight the average vacancy rate; however, upon further review it appears the reason is due to the unordinary increase in budgeted positions beginning in January 2020.[31] Due to the anomaly of budgeted positions in fiscal year 2020 and the extraordinary hiring circumstances as evidenced in the actual employees the Company held during this

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[29] UGI Gas Statement No. 2-R, p. 13.
[30] UGI Gas Statement No. 2-R, pp. 13-14.
[31] I&E Exhibit No. 1, Schedule 11, p. 3.

period, I will accept the suggestion to lower the vacancy rate to 1.59% by removing the inconsistent data.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR PAYROLL EXPENSE?

A. Yes. I agree with the Company's acceptance of OCA's recommendation to eliminate 17 unfilled, speculative positions from the FPFTY; however, I continue to recommend a modified vacancy adjustment to the Company's updated claim. I am updating my recommendation with the FY20 data removed resulting in an average employee vacancy rate of 1.59% [(2.63% + 0.54%) ÷ 2]. My updated recommendation reflects a reduction of $1,307,568 ($82,237,000 x 1.59%) to the Company's updated FPFTY payroll expense claim, or an allowance of $80,929,432 ($82,237,000 - $1,307,568).

This adjustment continues to be necessary given there will still be a routine level of ongoing vacancies to the adjusted payroll claim as discussed above and in my direct testimony even after the removal of 17 speculative FPFTY positions.

<u>**EMPLOYEE BENEFITS**</u>

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR EMPLOYEE BENEFITS.

A. I recommended an allowance of $21,510,994, or a reduction of $606,000 to the Company's FPFTY employee benefits claim based on an employee vacancy adjustment to payroll expense of 2.74%. The 2.74% vacancy rate was applied to the Company's employee benefits claim.[32]

Q. DID THE COMPANY MAKE ANY CHANGES TO ITS CLAIM?

A. Yes.

Q. WHAT IS THE COMPANY'S UPDATED CLAIM?

A. As calculated based on the response to I&E-RE-32,[33] the Company's updated claim is $22,021,935 ($22,117,000 - $95,065[34]) when accounting for the acceptance of OCA witness Mr. Mugrace's adjustment.

Q. DID ANY WITNESSES ADDRESS YOUR RECOMMENDATION?

A. Yes. UGI Gas witness Tracy Hazenstab disagrees with my recommendation and UGI Gas witness Vivian Ressler addresses an update to the Company's claim.

Q. SUMMARIZE MS. HAZENSTAB'S RESPONSE.

A. Ms. Hazenstab states the Company disagrees with my recommendation as it is derivative of my proposed adjustment to the projected FPFTY employee headcount. Additionally, she points to Ms. Ressler's testimony which addresses a

[32] I&E Statement No. 1, pp. 21-22.
[33] I&E Exhibit No. 1, Sch. 13, p. 2.
[34] UGI Gas Statement No. 2-R, p. 14.

related three-year normalization recommendation made by OCA witness Mr. Mugrace.[35]

Q. SUMMARIZE MS. RESSLER'S REBUTTAL TESTIMONY REGARDING EMPLOYEE BENEFITS.

A. Ms. Ressler addresses OCA witness Mr. Mugrace's recommendation to normalize medical and dental costs over a three-year period from 2021-2023. She asserts his reasons do not support that his adjustment is reasonable or appropriate; however, she cites his overall headcount reduction and states the Company has reflected the reduction in its adjustment to employee benefits expense – medical and dental costs. The adjustment results in a reduction of $95,065 to the Company's pre-rebuttal FPFTY employee benefits claim.[36]

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION?

A. Yes. I am updating my recommendation to reflect my updated payroll vacancy adjustment by applying the 1.59% vacancy rate to the Company's updated claim for employee benefits. This results in a reduction of $350,149 ($22,021,935 x 1.59%) to the Company's updated claim or an allowance of $21,671,786 ($22,021,935 - $350,149).

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[35] UGI Gas Statement No. 2-R, p. 14 and UGI Gas Statement No. 3-R, pp. 37-39.
[36] UGI Gas Statement No. 3-R, pp. 37-39.

PAYROLL TAXES

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR PAYROLL TAXES.

A. I recommended an allowance of $6,738,985, or a reduction of $188,015 ($6,927,000 - $6,738,985) to the Company's FPFTY claim based on the total payroll expense adjustment of $2,251,676 and calculated by applying the Company's payroll tax rate of 8.35%.[37]

Q. DID THE COMPANY UPDATE ITS CLAIM?

A. Yes.

Q. WHAT IS THE COMPANY'S UPDATED CLAIM?

A. The Company's updated claim for payroll tax expense is $6,870,000. This is due to the Company's acceptance of OCA witness Mr. Mugrace's proposed elimination of 17 speculative FPFTY positions, which produces a corresponding payroll tax expense reduction of $57,000.[38]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. No. However, since UGI Gas witness Tracy Hazenstab disagrees with my payroll

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[37] I&E Statement No. 1, pp. 22-23.
[38] UGI Gas Statement No. 2-R, p. 15.

expense recommendation, it is safe to assume she disagrees with my payroll tax expense recommendation.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION?

A. Yes. My updated recommendation for payroll tax expense is calculated by applying the Company's payroll tax rate of 8.35% to my updated payroll expense adjustment of $1,307,568. This produces an updated recommended reduction of $109,182 ($1,307,568 x 0.0835) to the Company's updated claim of $6,870,000, or an updated allowance of $6,760,818 ($6,870,000 - $109,182).

<u>PROPOSED ADDITIONAL PAYROLL EXPENSE</u>

Q. DID THE COMPANY ADDRESS ADDITIONAL EXPENSES RELATED TO PAYROLL COSTS?

A. Yes. UGI Gas witness Christopher R. Brown mentioned that since the original base rate filing was assembled the Company has decided to prepare an enhanced merit program to be rolled out later this year in response to increased turnover and increased inflation.[39]

Q. WHAT IS THE PROJECTED COST OF THIS PROGRAM?

A. UGI Gas witness Brown indicates an additional two percent pay increase to non-

[39] UGI Gas Statement No. 1-R, pp. 4-5.

union personnel would result in an additional $960,000 in FPFTY operating expense after the Company's acceptance of OCA's adjustment for the removal of 17 positions.[40]

Q. IS THE COMPANY CLAIMING AN ADDITIONAL $960,000 IN ITS FPFTY PAYROLL CLAIM?

A. No. However, the Company is asking the Commission to consider adding an additional $960,000 for merit increases to offset any further downward adjustments to payroll in this proceeding.[41]

Q. DO YOU AGREE THAT THE COMPANY SHOULD BE ALLOWED TO INTRODUCE A NEW PAYROLL PROPOSAL IN REBUTTAL TESTIMONY?

A. No. In its filing, the Company already made a claim for a compensation benchmarking adjustment relying on data provided by the American Gas Association.[42] Those planned adjustments increased the Company's FPFTY claim by $1.2 million,[43] and I did not argue against that claim. I disagree that it should be necessary to increase merit pay increases from three percent to five percent in the FPFTY given that salaries are already being adjusted in response to this

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40 UGI Gas Statement No. 1-R, p. 5.
41 UGI Gas Statement No. 1-R, pp. 5-6.
42 UGI Gas Statement No. 1, p. 27.
43 UGI Gas Exhibit A – Fully Projected, Schedule D-9.

industry study. To do both would be imprudent and burdensome to ratepayers. Thus, I disagree with Mr. Brown that the Commission should consider tacking on additional non-union pay increases to offset any further downward adjustments in this proceeding. Awarding extra pay increases to non-union workers on top of adjusted salaries would be very inappropriate given that UGI Gas plans to make base rate filings on a regular frequency and has not even allowed itself to view the impact of the upward pay adjustments already claimed.

<u>CASH WORKING CAPITAL</u>

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR CWC.

A. I recommended an allowance of $61,313,000, or a reduction of $835,000 ($62,148,000 - $61,313,000) to the Company's claim.[44] My recommendation includes modification of the Company's claim based on my recommended adjustments to O&M expenses as discussed in I&E's direct testimony.

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. UGI Gas witness Tracy Hazenstab disagrees with my CWC recommendation based on the Company's disagreement with my recommended adjustments to individual O&M expenses.

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[44] I&E Statement No. 1, p. 24.

Q. WHAT IS THE COMPANY'S UPDATED CWC CLAIM?

A. UGI Gas updated its FPFTY CWC claim from $62,148,000 to $61,697,000.[45]

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No. However, I have an update to my recommendation for CWC. As stated in my direct testimony, all O&M expense adjustments that are cash-based expense claims are included when determining the Company's overall CWC requirement. Therefore, CWC was adjusted to reflect these recommended adjustments. To reflect the I&E recommended adjustments, I modified the Company's electronic CWC file as shown on UGI Gas Book V, Schedule C-4, pp. 1, 2, 3, and 7, for each recommended adjustment.

Q. SUMMARIZE WHERE EACH OF THE I&E RECOMMENDED O&M EXPENSE ADJUSTMENTS ARE REFLECTED IN THE CWC COMPUTATION.

A. **Expense Lag Days - Payroll:**

I recommended a payroll expense adjustment of ($1,307,568) in the Expense Lag - Payroll, which is reflected as reduction to line 3 of the Company's Exhibit A – Fully Projected, Schedule C-4, p. 2 as shown in I&E modified Schedule C-4.[46]

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45 UGI Gas Statement No. 2-R, p. 16.

46 I&E Exhibit No. 1-SR, Schedule 1, p. 2, line 3.

Expense Lag Days – Purchased Gas Costs:

Mr. Cline recommended a purchased gas expense increase of $7,221,028, which is reflected as an addition in the FPFTY purchased gas costs of $404,384,000 ($397,163,000 + $7,221,028) in the Purchased Gas Costs Expense Lag Days calculation.[47]

Expense Lag Days – Other Expenses:

Mr. LaTorre and I recommended the following expense adjustments in the Expense Lag Days - Other Expenses as an overall decrease of $3,273,252 of the Company's Exhibit A – Fully Projected, Schedule C-4, p. 2 as shown in I&E modified Schedule C-4:[48]

Other Expenses	**Reduction**
Employee Activity Costs	$370,291
Advertising Expense	$885,178
Membership Dues	$184,478
Rate Case Expense	$422,000
Environmental Remediation Expense	$930,800
OSHA/Emergency Temporary Standard Compliance Costs	$21,174
Employee Benefits Expense	$350,149
Payroll Taxes	$109,182
Total	**$3,273,252**

[47] I&E Exhibit No. 1-SR, Schedule 1, p. 2, line 4.
[48] I&E Exhibit No. 1-SR, Schedule 1, p. 2, line 5.

Revenue Lag Calculations:

Mr. Cline recommended an adjustment to increase present rate revenue by $13,659,652 and is reflected as an addition in the total account receivable amount of $1,304,898,652 ($1,327,239,000 + $13,659,652) and in the total sales revenue of $857,931,652 ($844,272,000 + $13,659,652) in the Revenue Lag calculation.[49]

Interest Payment Lag Calculations:

Mr. Sakaya recommended an adjustment to rate base of $153,739,000 ($137,539,000 + $16,200,000), which is reflected as a reduction to rate base resulting in an updated total of $3,022,857,000 ($3,176,596,000 - $153,739,000) in the Interest Payments Lag calculation.[50]

Q. BASED ON THE ABOVE TESTIMONY, WHAT IS YOUR UPDATED RECOMMENDED ALLOWANCE FOR CWC?

A. Based on reflecting all of I&E's recommended adjustments as discussed above, my updated recommendation for CWC is an allowance of $60,637,000, or a reduction of $1,060,000 ($61,697,000 - $60,637,000) to the Company's updated claim.[51]

[49] I&E Exhibit No. 1-SR, Schedule 1, p. 3, lines 15 and 18.
[50] I&E Exhibit No. 1-SR, Schedule 1, p. 4, line 1.
[51] I&E Exhibit No. 1-SR, Schedule 1, p. 1, line 5.

Q. DOES YOUR RECOMMENDED ALLOWANCE REPRESENT A FINAL RECOMMENDED ALLOWANCE FOR CWC?

A. No. All adjustments to the Company's claims for revenues, expenses, taxes, and rate base must be consistently brought together in the Administrative Law Judge's Recommended Decision and again in the Commission's Final Order. This process, which is known as iteration, effectively prevents the determination of a precise calculation until such time as all adjustments have been made to the Company's claim.

<u>LOW INCOME USAGE REDUCTION PROGRAM (LIURP)</u>

Q. SUMMARIZE YOUR RECOMMENDATION IN REBUTTAL TESTIMONY FOR LIURP.

A. In my rebuttal testimony, I stated the recommendations of CAUSE-PA witness Harry S. Geller, OCA witness Roger D. Colton, and CEO witness Eugene M. Brady which advocated to increase the Company's LIURP budget should be denied because the Company has been unable to exhaust its budget as it stands, and the witnesses have failed to show how the Company's would utilize the additional funding.[52]

[52] I&E Statement No. 1-R.

Q. DID ANY WITNESSES' REBUTTAL TESTIMONY CONFLICT WITH YOUR RECOMMENDATION?

A. Yes. CAUSE-PA witness Harry S Geller's rebuttal testimony conflicts with my recommendation.

Q. SUMMARIZE MR. GELLER'S RESPONSE.

A. Mr. Geller states the Company's LIURP budget should be increased in line with OCA witness Mr. Colton's recommendation which would expand UGI Gas' LIURP budget by $1.425 million and include incremental LIURP investments of $524,450.[53]

Q. DID ANY WITNESS' RECOMMENDATION ALIGN WITH YOUR REBUTTAL TESTIMONY?

A. Yes. UGI Gas witness Daniel V. Adamo puts forth rebuttal testimony in line with mine on this topic.

Q. SUMMARIZE MR. ADAMO'S RESPONSE AS IT RELATES TO YOUR RECOMMENDATION.

A. Mr. Adamo states that the LIURP budget should be addressed in the Company's next universal service proceeding where a needs assessment would be completed

[53] CAUSE-PA Statement No. 1-R, pp. 6-7.

to help determine the appropriate budget level, and he states that Mr. Colton is making a recommendation on an annual LIURP spending level of $2.1 million but the Company already has an approved budget of approximately $3.7 million.[54] Similarly, he disagrees with Mr. Geller's and Mr. Brady's recommendations for LIURP.[55]

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR UGI GAS' LIURP BUDGET?

A. No. I continue to recommend any increase to the annual funding for LIURP be disallowed.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

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[54] UGI Gas Statement No. 12-R, p. 30.
[55] UGI Gas Statement No. 12-R, pp. 31-32.

I&E Exhibit No. 1-SR
Witness: Zachari Walker

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Exhibit to Accompany

the

Surrebuttal Testimony

of

Zachari Walker

Bureau of Investigation and Enforcement

Concerning:

OPERATING AND MAINTENANCE EXPENSES

TAXES

LOW-INCOME USAGE REDUCTION PROGRAM

CASH WORKING CAPITAL

UGI Utilities, Inc. - Gas Division
Before the Pennsylvania Public Utility Commission
Fully Projected Future Period - 12 Months Ended September 30, 2023
($ in Thousands)

Schedule C-4
Witness: V. K. Ressler
Page 1 of 9

Working Capital

***I&E Modified**

Line No	Description	[1] Fully Projected FTY 9-30-23	[2] Reference
1	Working Capital for O & M Expense	$ 51,091	C-4, Page 2
2	Interest Payments	(4,853)	C-4, Page 7
3	Tax Payment Lag Calculations	4,351	C-4, Page 8
4	Prepaid Expenses	10,047	C-4, Page 9
5	Total Cash Working Capital Requirements	$ 60,637	

UGI Utilities, Inc. - Gas Division
Before the Pennsylvania Public Utility Commission
Fully Projected Future Period - 12 Months Ended September 30, 2023
($ in Thousands)

Schedule C-4
Witness: V. K. Ressler
Page 2 of 9

***I&E Modified**

Summary of Working Capital

Line #	Description	Reference [1]	Test Year Expenses [2]		Factor [3]	Number of (Lead) / Lag Days [4] [2] * [3]	Totals [5]
	WORKING CAPITAL REQUIREMENT						
1	REVENUE LAG DAYS	Page 3					60.91
2	EXPENSE LAG DAYS	Page 4					
3	Payroll	Sch D-7	$ 80,929	*	12.00	$ 971,147	
4	Purchased Gas Costs	Sch D-6	404,384	*	39.85	16,116,522	
5	Other Expenses	L 19 - L 2 to L 4	182,568		27.08	4,943,935	
6	Total	Sum (L 3 to L 5)	$ 667,881			$ 22,031,604	
7	O & M Expense Lag Days	L6, C 4 / C 2					32.99
8	Net (Lead) Lag Days	L 1 - L 7					27.92
9	Operating Expenses Per Day	L 6, C 2 / 365					$ 1,830
10	Working Capital for O & M Expense	L 8 * L 9					$ 51,091
11	Interest Payments	Page 7					(4,853)
12	Tax Payment Lag Calculations	Page 8					4,351
13	Prepaid Expenses	Page 9					10,047
14	Total Working Capital Requirement	Sum (L 10 to L 13)					$ 60,637
15	Pro Forma O & M Expense		$ 684,476	*			
	Less:						
16	Uncollectible Expense		16,595				
17	Sub-Total		16,595				
18	Pro Forma Cash O&M Expense		$ 667,881				

UGI Utilities, Inc. - Gas Division
Before the Pennsylvania Public Utility Commission
Fully Projected Future Period - 12 Months Ended September 30, 2023
($ in Thousands)

Schedule C-4
Witness: V. K. Ressler
Page 3 of 9

***I&E Modified**

Revenue Lag

Line No.	Description	[1] Reference Or Factor	[2] Accounts Receivable Balance End of Month	[3] Total Monthly Sales Page 2	[4] A/R Turnover [3] / [2]	[5] Days Lag 365 / [4]
1	Annual Number of Days					365
2	September, 2020		$ 52,950			
3	October		$ 61,679	$ 41,665		
4	November		$ 72,123	$ 55,297		
5	December, 2020		$ 106,368	$ 100,676		
6	January, 2021		$ 140,439	$ 126,612		
7	February		$ 164,061	$ 130,900		
8	March		$ 153,427	$ 128,921		
9	April		$ 133,479	$ 74,513		
10	May		$ 116,982	$ 48,952		
11	June		$ 100,284	$ 39,572		
12	July		$ 87,161	$ 31,323		
13	August		$ 76,062	$ 33,489		
14	September, 2021		$ 62,224	$ 32,352		
15	Total	Sum L 2 to L 14	$ 1,340,899 *			
16	Number of Months	13				
17	Average Acct Rec Balance	L 15 / L 16	$103,146			
18	Total Sales for Year	Sum L 2 to L 14		$ 857,932 *		
19	Acct Rec Turnover Ratio	L 18 / L 17			8.32	
20	Collection Lag Day Factor	L 1 / L 19				43.87
21	Meter Read Lag Factor					1.83
22	Midpoint Lag Factor		365 /	12 /	2 =	15.21
23	Total Revenue Lag Days	Sum L 20 to L 22				**60.91**

UGI Utilities, Inc. - Gas Division
Before the Pennsylvania Public Utility Commission
Fully Projected Future Period - 12 Months Ended September 30, 2023

Schedule C-4
Witness: V. K. Ressler
Page 7 of 9

Interest Payments

***I&E Modified**

		[1]	[2]	[3]	[4]
Line No.	Description	Reference Or Factor	# of Days	# of Days	Total
1	Measure of Value at September 30, 2023	Sch C-1			* $ 3,022,857
2	Long-term Debt Ratio	Sch B-6			44.91%
3	Embedded Cost of Long-term Debt	Sch B-6			4.30%
4	Pro forma Interest Expense	L 1 * L 2 * L 3			$ 58,375
5	Daily Amount	L 4 / L 5 [2]	365		$ 160
6	Days to mid-point of interest payments			91.25	
7	Less: Revenue Lag Days	Page 3		60.91	
8	Interest Payment lag days	L 7 - L 6			(30.3)
9	Total Interest for Working Capital	L 5 * L 8			$ (4,853)

I&E Statement No. 2-SR
Witness: Anthony Spadaccio

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Surrebuttal Testimony

of

Anthony Spadaccio, CRRA

Bureau of Investigation & Enforcement

Concerning:

Rate of Return

TABLE OF CONTENTS

INTRODUCTION OF WITNESS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Anthony Spadaccio. My business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Pennsylvania Public Utility Commission (Commission) in the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial Analyst.

Q. ARE YOU THE SAME ANTHONY SPADACCIO WHO IS RESPONSIBLE FOR THE DIRECT TESTIMONY CONTAINED IN I&E STATEMENT NO. 2 AND THE SCHEDULES IN I&E EXHIBIT NO. 2?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to address statements made in the rebuttal testimonies of UGI Utilities, Inc. – Gas Division (UGI Gas or Company) witnesses Christopher R. Brown (UGI Gas Statement No. 1) and Paul R. Moul (UGI Gas Statement No. 6-R) and the Pennsylvania Office of Consumer Advocate (OCA) witness David J. Garrett (OCA Statement 2R) regarding rate of return topics including the cost of common equity and the overall fair rate of return, which will be applied to the Company's rate base.

Q. DID THE COMPANY PROVIDE AN UPDATE TO ITS RATE OF RETURN?

A. Yes. The Company provided an update to its cost of long-term debt. The Company is now requesting a cost of long-term debt of 4.30% to reflect the cost of new issues of senior notes in May, July, and October 2022. The Company's update to its cost of long-term debt is an increase of 0.32% (4.30% - 3.98%) to its initial claim of 3.98%.[1] This results in an increase to the Company's overall requested rate of return from 7.96% to 8.10%. Below is the Company's updated rate of return claim:

UGI UTILITIES, INC. - GAS DIVISION
Summary of Cost of Capital

Type of Capital	Ratio	Cost Rate	Weighted Cost
UGI Utilities, Inc. - Gas Division			
Long-Term Debt	44.88%	4.30%	1.93%
Common Equity	55.12%	11.20%	6.17%
Total	100.00%		8.10%

[1] UGI Gas Statement No. 6-R, p. 13, lines 1-10.

SUMMARY OF MR. GARRETT'S REBUTTAL TESTIMONY

Q. SUMMARIZE MR. GARRETT'S RESPONSE IN REBUTTAL TESTIMONY TO YOUR RECOMMENDATIONS MADE IN DIRECT TESTIMONY.

A. Mr. Garrett takes issue with the growth rates I employ in my Discounted Cash Flow (DCF) analysis as well as the Equity Risk Premium (ERP) used in my Capital Asset Pricing Model (CAPM) analysis.[2]

Q. WHAT IS MR. GARRETT'S SPECIFIC CRITICISM REGARDING YOUR DCF ANALYSIS?

A. Mr. Garrett opines that the results of my DCF analysis are unreasonably high caused by the growth rate inputs I use. He claims that I rely on short-term growth rates as opposed to long-term growth rates resulting in unsustainable growth rate estimates. Mr. Garrett further reasons that it is near impossible to increase earnings by 10% year after year for decades. Finally, he argues that U.S. GDP growth should be viewed as a limiting factor on long-term growth for individual companies as it avoids the circular reference problem of short-term analysts' growth rates.[3]

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[2] OCA Statement 2R, p. 1, lines 17-19.
[3] OCA Statement 2R, p. 2, ln. 8 through p. 3, ln. 21.

Q. HOW DO YOU RESPOND TO MR. GARRETT'S CRITICISMS OF YOUR DCF ANALYSIS?

A. First, it should be noted, in the context of recommending an appropriate return on equity and overall rate of return, I&E's role is to perform an unbiased analysis using current and reputable sources. In determining an appropriate growth rate for my DCF analysis, I relied upon the forecasted earnings estimates from Value Line, Yahoo! Finance, Zacks, and Morningstar.[4] These resources are trusted and used industry wide, including by most Company, advocate, and Commission witnesses who submit rate of return testimony. Other than Mr. Garrett, I do not recall another witness that does not give at least some consideration or weighting to these forecasted growth estimates.

Next, the estimates I use from the sources listed above are five-year growth forecasts which are not short-term, nor are they intended to be viewed as sustainable for decades. This time period is reasonable as it covers the Fully Projected Future Test Year (FPFTY) and rate case filing frequency of many utilities.

Additionally, using U.S. GDP growth as Mr. Garrett suggests ignores the strength of the DCF, which is its company and/or industry specific inputs. Also, it does not combat the circularity issue he mentions. With regulation in general, and specifically the use of proxy groups of similarly situated companies, and use of

[4] I&E Exhibit No. 2, Schedule 5.

generally accepted cost of equity models, there will always be some degree of circularity.

Finally, the Commission has repeatedly confirmed I&E's DCF methodology for determining a fair return on common equity. Specifically, in the 2020 Columbia Gas rate case, the Commission agreed with the ALJ's recommendation to use I&E's cost of equity methodology, which included using five-year growth estimates in the DCF analysis.[5]

Q. WHAT IS MR. GARRETT'S SPECIFIC CRITICISM REGARDING YOUR CAPM ANALYSIS?

A. Mr. Garrett notes that the result of my CAPM analysis is considerably higher than his own. He opines that the reason my CAPM result is overestimated is due to the ERP, which he argues is the single most important metric used to assess market risk and the cost of equity.[6]

Q. HOW DO YOU RESPOND TO MR. GARRETT'S CRITICISMS OF YOUR CAPM ANALYSIS?

A. To an extent, I agree with Mr. Garrett. I believe the differences in our applications of the CAPM illustrate just how subjective the inputs of this cost of equity model can be. For example, I agree with Mr. Moul that Mr. Garrett's implied total

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[5] *Pa. PUC v. Columbia Gas of Pennsylvania, Inc.;* Docket No. R-2020-3018835 (Order Entered February 19, 2021). *See generally* Disposition of Cost of Common Equity.

[6] OCA Statement No. 6R, p. 4, ln. 1through p. 6, ln. 2.

market return of 7.90% is nowhere near actual market returns of the past few years.[7] Additionally, like Mr. Moul, I question the sources he uses to determine the ERP, which include "expert surveys" from IESE Business School. When determining the overall market return and ERP, I am hesitant to set aside analysis from well-known and reputable financial institutions such as Morningstar, Barron's, and Value Line in favor of more obscure sources, for instance, school surveys.

In direct testimony, I thoroughly discuss the disadvantages of the CAPM and explain why the DCF is the superior model.[8] In the end, as I explain below, I do not base my recommendation on the CAPM, I simply provide the results as a comparison.

SUMMARY OF MR. MOUL'S REBUTTAL TESTIMONY

Q. SUMMARIZE MR. MOUL'S RESPONSE IN REBUTTAL TESTIMONY TO YOUR RECOMMENDATIONS MADE IN DIRECT TESTIMONY.

A. Mr. Moul disputes my recommendations regarding an appropriate proxy group, my reliance on and application of the DCF method, the DCF growth rate, and disallowance of his leverage adjustments to the DCF and beta of his CAPM. Further, Mr. Moul disagrees with the appropriate risk-free rate to use and my exclusion of a size adjustment in my CAPM analysis, my disagreement with his

7 UGI Gas Statement No. 6-R, p. 28, lines 1-4.
8 I&E Statement No. 2, p. 17, ln. 5 through p. 18, ln. 13.

use of the Risk Premium (RP) and Comparable Earnings (CE) methods, and my recommended disallowance of additional basis points for management performance. Finally, Mr. Moul opines that the Commission-determined Distribution System Improvement Charge (DSIC) rates should serve as the bare minimum cost of equity in this proceeding.

PROXY GROUP

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR PROXY GROUP.

A. Mr. Moul simply claims that I erroneously omitted New Jersey Resources Corp. and Southwest Gas Holdings, Inc. from my proxy group. He offers no further discussion refuting my reasoning to omit these two companies.[9]

Q. PLEASE REITERATE WHY YOU ELIMINATED NEW JERSEY RESOURCES CORP. AND SOUTHWEST GAS HOLDINGS, INC. FROM YOUR PROXY GROUP.

A. As explained in my direct testimony, both companies, New Jersey Resources Corp. and Southwest Gas Holdings, Inc. were excluded for not meeting my criterion that 50% or more of revenues must be generated from regulated gas utility operations. Again, this criterion is important because revenues represent the percentage of cash flow a company receives from each business line related to

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[9] UGI Gas Statement No. 6-R, p. 2, lines 11-13.

providing a good or service. If less than 50% of revenues come from the gas distribution sector, the companies are not comparable to the subject utility as they do not provide a similar level of regulated business.[10]

Q. DO YOU HAVE ANY CHANGES TO YOUR PROXY GROUP?

A. No. For the reasons discussed above, the percentage of revenue is an appropriate criterion. As New Jersey Resources Corp. and Southwest Gas Holdings, Inc. include an insufficient percentage of regulated gas revenues, they should not be included in the proxy group and compared to UGI Gas.

<u>DISCOUNTED CASH FLOW</u>

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR DCF ANALYSIS.

A. Mr. Moul agrees that results of a DCF analysis should be given weight, but he asserts that use of multiple methods provides a superior foundation to determine the cost of equity. He compares the DSIC rate determined by the Commission in the Quarterly Earnings Summary Reports to the rates calculated using market data. He further disagrees with my results based on the outcomes of certain individual companies and disputes my growth rate analysis. Finally, Mr. Moul disagrees with my recommendation to reject his leverage adjustment.[11]

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[10] I&E Statement No. 2, p. 9, lines 1-12.
[11] UGI Gas Statement No. 6-R, p. 13, ln. 11 through p. 23, ln. 6.

<u>EXCLUSIVE USE OF THE DCF</u>

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR USE OF THE DCF.

A. Mr. Moul asserts that the use of more than one method provides a superior foundation for the cost of equity determination. He claims that the use of more than one method will capture the multiplicity of factors that motivate investors to commit their capital to a particular enterprise.[12]

Q. WERE ANY METHODS OTHER THAN THE DCF EMPLOYED IN YOUR ANALYSIS?

A. Yes. Although my recommendation was based on the results of my DCF analysis, I also employed the CAPM as a comparison. For the reasons discussed in my direct testimony, the DCF method is the most reliable.[13] Although no one method can capture every factor that influences an investor, including the results of methods less reliable than the DCF does not make the end result more reliable or more accurate. In direct testimony, I cited several cases that illustrate the methodology I employed is consistent with the methodology historically used by the Commission in base rate proceedings as recently as 2017, 2018, 2020, and 2021.[14]

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[12] UGI Gas Statement No. 6-R, p. 13, lines 15-20.
[13] I&E Statement No. 2, p. 16, ln. 1 through p. 17, ln. 3.
[14] I&E Statement No. 2, p. 15, lines 11-17.

Q. ARE THERE ANY RECENT COMMISSION ORDERS THAT DEVIATE FROM THIS PRACTICE?

A. Yes. The Commission recently indicated in the 2022 Aqua Pennsylvania, Inc. (Aqua) rate case order that its method "for determining Aqua's ROE shall utilize both I&E's DCF and CAPM methodologies"[15] and that "I&E's DCF and CAPM produce a range of reasonableness for the ROE…"[16], thus deviating from prior Commission practice.

Q. SHOULD THE COMMISSION'S USE OF THE CAPM AS A CEILING FOR A "RANGE OF REASONABLENESS" APPLY IN THIS INSTANT PROCEEDING?

A. No. In my direct testimony I explain more fully why the CAPM should not be used as a primary method and continue to express those concerns in this proceeding as to why it should only be used as a comparison to, not a check of the DCF. Thus, I disagree with a method that provides the CAPM comparable weight to the DCF method.[17]

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[15] *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 154 (Order entered May 16, 2022).

[16] *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 178 (Order entered May 16, 2022).

[17] I&E Statement No. 2, p. 17, ln. 5 through p. 18, ln. 13.

DSIC RATES

Q. SHOULD THE COMMISSION CONSIDER THE AUTHORIZED DSIC RATE ESTABLISHED IN THE QUARTERLY EARNINGS SUMMARY REPORTS AS AN APPROPRIATE MEASURE TO DETERMINE THE COST OF EQUITY IN THIS PROCEEDING?

A. No. Mr. Moul's comparison between the I&E recommended return on equity in this proceeding and the Company's DSIC rate is misguided. My understanding is that the DSIC rate is designed to encourage its use and to incentivize accelerated pipeline replacement and infrastructure upgrades to bring aging infrastructure closer to meeting safety and reliability requirements in between base rate filings. To suggest the cost of equity must be at or above the DSIC rate in this base rate proceeding is inappropriate and not in the public interest. Additionally, the DSIC rate establishes a benchmark above which a utility company is considered "overearning" for use of the DSIC mechanism. As such, the DSIC rate should not serve as a proper measurement of a subject utility's cost of equity in a base rate proceeding since the DSIC rate is routinely higher than any return on equity approved in such base rate proceedings. In fact, 66 Pa. C.S. § 1358(b)(3) states the following:

> The distribution system improvement charge shall be reset at zero if, in any quarter, data filed with the commission in the utility's most recent annual or quarterly earnings report show that the utility will earn a rate of return that would exceed the allowable rate of return used to calculate its fixed costs under the distribution system improvement charge.

Finally, the DSIC mechanism serves to lower a utility's risk because it reduces the lag time in the recovery of a company's capital outlays. DSIC spending requires preapproval of eligible plant via a Long-Term Infrastructure Improvement Plan so there is little question as to the prudence of those expenditures.

Q. ARE THERE ANY INSTANCES YOU ARE AWARE OF WHERE THE COMMISSION GRANTED A RETURN ON EQUITY THAT WAS HIGHER THAN THE MOST RECENTLY PUBLISHED DSIC RATE?

A. Yes. In the recent Aqua base rate case the Commission awarded that company a return on equity of 10.00%,[18] which was higher than the most recently published DSIC rate for water and wastewater utilities of 9.80%.[19] While this report is based on a period ended September 30, 2021, this DSIC rate is still in effect as the Commission has published no DSIC rates since this report was made public in January 2022.

[18] *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 178 (Order entered May 16, 2022).

[19] PA Public Utility Commission, Bureau of Technical Utility Services Report on the Quarterly Earnings of Jurisdictional Utilities for the Year Ended September 30, 2021, approved at Public Meeting on January 13, 2022 at Docket No. M-2021-3030045.

Q. ARE THERE ANY POTENTIAL PROBLEMS WITH AWARDING A RETURN ON EQUITY THAT IS EQUAL TO OR HIGHER THAN THE DSIC RATE?

A. Yes. First off, it removes incentive for utilities to use the DSIC mechanism between rate filings and may encourage the more frequent filing of base rate cases. Secondly, it may encourage litigation as opposed to settlement of cases, since companies may improperly believe this is the new norm. And finally, it may set companies up to quickly land in an over-earnings status and preclude them from being able to utilize the DSIC mechanism at all.

Therefore, in my opinion, the DSIC rate should generally be an incentive rate that is higher than a return on equity percentage granted in a rate proceeding, and I am anticipating that the recent Commission decision is not indicative of "the new normal."

Q. WERE THERE ANY SPECIAL CIRCUMSTANCES THAT CAUSED THE COMMISSION'S GRANTED RETURN ON EQUITY TO EXCEED THAT OF THE MOST RECENTLY AVAILABLE DSIC RATE FOR AQUA?

A. Yes. The Commission granted 25 basis points for management effectiveness,[20] which caused the return on equity of 9.75% to go up to 10.00% thereby exceeding

[20] *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 178 (Order entered May 16, 2022).

the currently effective DSIC rate of 9.80% for water and wastewater. I will address management performance is a separate section of testimony below.

EVALUATING THE DCF BASED ON INDIVIDUAL RESULTS

Q. SUMMARIZE MR. MOUL'S RESPONSE IN REBUTTAL TESTIMONY REGARDING THE RESULTS OF YOUR DCF.

A. Mr. Moul explains that when some results are unreasonable on their face, the reliability of or the witness' application of that method must be questioned. He points to the results of two companies in my proxy group and claims that they fall into the category of unreasonableness. Mr. Moul attempts to support his theory by arguing that the spread between the cost of debt and the cost of equity is 6.75%.[21]

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S ATTEMPT TO DISAGGREGATE YOUR RESULTS?

A. Mr. Moul derives his suggested 6.75% spread from his RP analysis.[22] However, I have refuted the use of the RP method both in my direct testimony,[23] and later in this testimony, as it is an inferior method for calculating the cost of common equity. Further, the 9.92% result of my DCF analysis offers a 5.62% margin over the undisputed 4.30% updated cost of debt (9.92% - 4.30% = 5.62%). My recommended cost of equity is more than double, or 231% higher that the

[21] UGI Gas Statement No. 6-R, p. 15, ln. 16 through p. 16, ln. 7.
[22] UGI Gas Statement No. 6, p. 41, lines 10-12.
[23] I&E Statement No. 2, p. 13, ln. 7 through p. 19, ln. 6.

Company's cost of debt, which I certainly believe satisfies Mr. Moul's statement that, "It is a fundamental tenet of finance that the cost of equity must be higher than the cost of debt by a meaningful margin to compensate for the higher risk associated with a common equity investment."[24]

GROWTH RATE

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR GROWTH RATES.

A. Mr. Moul argues that I should have removed the "unduly low" growth rate of One Gas Inc. from my proxy group average. He suggests that had I done this and excluded One Gas Inc.'s accompanying dividend yield from my analysis, my DCF result would have increased from 9.92% to 10.23% (3.39% dividend yield + 6.84% growth rate).[25]

Q. DO YOU AGREE WITH MR. MOUL'S RECALCULATION OF YOUR DCF RESULTS BASED ON THE REMOVAL OF ONE GAS INC. DUE TO WHAT HE DEEMS TO BE AN UNREASONABLY LOW GROWTH RATE?

A. No. Mr. Moul removes this company from my analysis simply because he believes its growth rate and corresponding DCF result are too low. His

[24] UGI Gas Statement No. 6-R, p. 15, ln. 22 through p. 16, ln. 2.
[25] UGI Gas Statement No. 6-R, p. 17, lines. 5-15.

recalculation results in a DCF that is 31 basis points (10.23% - 9.92%) higher than my recommendation, yet still 97 basis points (11.20% - 10.23%) below his cost of equity recommendation.

Mr. Moul's decision to remove One Gas Inc. only serves to inflate the DCF result as his argument lacks objective rationale and defeats the purpose of using a proxy group. Mr. Moul himself states, "The principal purpose of assembling a barometer group is to avoid relying on data for a single company that may not be representative and to thereby smooth out any abnormalities".[26] This acknowledgement is counterintuitive to his suggestion to remove One Gas Inc. from my analysis. Ironically, and worth noting, Mr. Moul employs One Gas Inc. in his own proxy group and analysis.

<u>LEVERAGE ADJUSTMENT</u>

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING HIS LEVERAGE ADJUSTMENT.

A. First, Mr. Moul states that credit rating agencies do not measure the market-required cost of equity for a company, nor are they concerned with how it is applied in the rate-setting context. Rather, the credit rating agencies are only concerned with the interests of lenders and the timely payment of principal and interest by companies. Then, Mr. Moul questions my references to prior

[26] UGI Gas Statement No. 6-R, p. 15, lines 16-18.

Commission orders. Finally, Mr. Moul disagrees with my claim that investors base their decisions on the book value of a company's debt and equity.[27]

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S REBUTTAL TESTIMONY CONCERNING CREDIT RATING AGENCIES?

A. Mr. Moul has actually supported my argument that his proposed leverage adjustment is not needed by stating that the credit rating agencies are only concerned with the timely payment of principal and interest by utilities. Mr. Moul's stated need for the leverage adjustment is based on his assertion that the difference between the book value capital structure and his market value capital structure poses a financial risk difference.[28]

Financial risk does relate to the capital structure of a company, but it is created by the financing decisions (the use of debt or equity) and the amount of leverage or debt with which a company chooses to finance its assets. Financial risk and the book value capital structure of a company are represented in the financial statements, which are part of what is evaluated by rating agencies. Mr. Moul agrees with me that credit rating agencies use a company's booked debt obligations, found in the financial statements, in their analysis to assess financial risk and determine creditworthiness.[29]

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[27] UGI Gas Statement No. 6-R, p. 20, ln. 16 through p. 22, ln. 19.
[28] UGI Gas Statement No. 6, p. 33, lines 3-10.
[29] UGI Gas Statement No. 6-R, p. 20, lines 17-20.

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY ON YOUR REFERENCE TO PRIOR COMMISSION ORDERS.

A. Mr. Moul refers to the discussion in my direct testimony about five recent cases where the Commission has rejected a "leverage adjustment." He explains that even though the Commission declined to make a "leverage adjustment" in a prior Aqua Pennsylvania case, it does not invalidate its use. Further, he states, "Notably, the Commission did not repudiate the leverage adjustment in the Aqua case, but instead arrived at an 11.00% return on equity for Aqua by including a separate return increment for management performance."[30] Next, Mr. Moul claims that the adjustment proposed in the City of Lancaster case was much different than what he proposes in this case. Then, regarding UGI Electric, Mr. Moul acknowledges the Commission granted a "management performance increment," not a leverage adjustment when arriving at the allowed equity return. As for the Columbia Gas case, Mr. Moul concedes that the Company accepted I&E's return on equity recommendation which did not include a leverage adjustment or addition of points for management performance. Finally regarding the PECO Gas case, he argues that the Commission arrived at an equity return on the higher side without a leverage adjustment, therefore no adjustment was warranted.[31]

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[30] UGI Gas Statement No. 6-R, p. 21, lines 6-8.
[31] UGI Gas Statement No. 6-R, p. 21, lines 1-26.

Q. WHAT IS YOUR RESPONSE TO MR. MOUL REGARDING THE REFERENCED PRIOR COMMISSION ORDERS IN YOUR DIRECT TESTIMONY?

A. In this proceeding, Mr. Moul is recommending a 95-basis point "leverage adjustment." To be clear, the Commission did in fact refuse to accept the leverage adjustment in the Aqua case by stating "…we reject the ALJ's recommendation to allow a 65 basis point leverage adjustment."[32] The management performance points awarded to Aqua were case-specific and in no way related to the proposed leverage adjustment. Regarding the City of Lancaster case, the Commission did not reject the leverage adjustment based on the manner in which it was calculated, but rather, the Commission stated, "…the ALJ's recommendation is in error as any adjustment to the results of the market based DCF as we have previously adopted are unnecessary and will harm ratepayers."[33] Regarding the UGI Electric case, the Commission concluded that "…an artificial adjustment in this proceeding is unnecessary and contrary to the public interest. Accordingly, we decline to include a leverage adjustment in our calculation of the DCF cost of equity."[34] Regarding the most recent Columbia Gas case, the Commission stated,

> … we have adopted the ALJ's recommendation to use I&E's DCF methodology utilizing I&E's dividend yield of 3.34% and growth rate of 6.52%. As noted above, the ALJ did not specify a recommended cost of equity for Columbia in their

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[32] *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket No. R-00072711, pp. 38-39 (Order entered July 31, 2008).

[33] *Pa. PUC v. City of Lancaster – Bureau of Water*; Docket No. R-2010-2179103, p. 101 (Order entered July 14, 2011).

[34] *Pa. PUC v. UGI Utilities, Inc. – Electric Division;* Docket No. R-2017-2640058, pp. 93-94 (Order entered October 25, 2018).

> Recommended Decision. However, we note that I&E's methodology results in an ROE of 9.86%.[35]

The ALJ's Recommended Decision stated the following:

> The ALJ agrees with BIE's reasoning that Columbia Gas' calculated return on equity was flawed for five reasons: (1) the weights given to the results of the Company's CAPM, RP, and CE analyses; (2) certain aspects of Columbia's discussion of risk; (3) Columbia Gas' application of the DCF including the forecasted growth rate and leverage adjustment used; (4) Columbia's inclusion of a size adjustment, reliance on the 30-year Treasury Bond for the risk- free rate, and the use of a double-adjusted *beta* in the CAPM analysis; and (5) the Company's request for an additional 20 basis points for "strong management performance" is unjustified.[36]

While the Company accepted I&E's DCF return without regard to the leverage adjustment or management performance in the last base rate case, in the Recommended Decision, the ALJ clearly rejected the Company's proposed leverage adjustment and the Commission agreed with the ALJ's Recommended Decision.

Finally, in the PECO Energy – Gas Division case, the Commission stated,

> … we have adopted the ALJ's recommendation to use I&E's DCF methodology and to use I&E's CAPM calculation as a check on the reasonableness of the DCF determined cost of equity. Therefore, we shall adopt the ALJ's recommended 10.24% cost of equity. In our view, this is an appropriate cost of equity for PECO given the record developed in this proceeding.[37]

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[35] *Pa. PUC v. Columbia Gas of Pennsylvania*; Inc. Docket No. R-2020-3018835, p. 141 (Order entered February 19, 2021).

[36] *Pa. PUC v. Columbia Gas of Pennsylvania*; Inc. Docket No. R-2020-3018835, Recommended Decision, pp. 184-185.

[37] *Pa. PUC v. PECO Energy Company – Gas Division*. Docket No. R-2020-3018929, p. 171 (Order entered June 22, 2021).

In the Recommended Decision, the ALJ agreed with I&E's recommended cost of equity which did not include a leverage adjustment.[38]

Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S ASSERTION THAT INVESTORS DO NOT BASE THEIR DECISIONS ON BOOK VALUE, BUT RATHER THE RETURN THEY EXPECT TO EARN ON THE DOLLARS THEY INVEST?

A. Investors purchase securities such as stocks at market value as opposed to book value. In doing so, they accept the returns and associated risks implied by market prices. However, financial statements, which are based on book values, show the entire true financial position of a company which provide the foundation for investment and financing decisions. For example, financial institutions such as banks lend money based on actual book values and not the current price of a stock. Further, almost all financial ratios used in financial analysis utilize at least one book value variable from either the income statement or the balance sheet.

Mr. Moul's assertion that investors are unconcerned with the book value debt or "some accounting value of little relevance to them"[39] of a utility is unsupported. Clearly an investor takes the financial risk of the utility into consideration when determining a required return. In addition, the market capitalization information included in Value Line's reports and discussed by Mr.

[38] *Pa. PUC v. PECO Energy Company – Gas Division*. Docket No. R-2020-3018929, Recommended Decision, p. 215.
[39] UGI Gas Statement No. 6-R, p. 22, lines 11-13.

Moul is not the same as market value capital structure. Market capitalization refers to the number of shares outstanding multiplied by the current price. A market value capital structure refers to the ratio of market debt to market equity, which, to my knowledge, is not included in Value Line's reports. Therefore, Mr. Moul's contention that Value Line includes market capitalization data does not offer any support for his leverage adjustment.

Q. HAS YOUR RECOMMENDATION CHANGED FROM DIRECT TESTIMONY REGARDING MR. MOUL'S LEVERAGE ADJUSTMENT?

A. No. For the reasons discussed above, I continue to recommend that Mr. Moul's 95-basis point leverage adjustment be rejected.

<u>INFLATION</u>

Q. DOES THE DCF ADEQUATELY FACTOR IN RECENT INFLATIONARY TRENDS?

A. Yes. My DCF calculation includes a spot stock price when determining the dividend yield and analysts who generate forecasted earnings growth rates almost certainly take inflation into consideration as well, therefore, it contains the most up-to-date projected information of any model. Therefore, Mr. Brown's assertion that "the Commission should consider the overall economic climate and these inflationary pressures…when deciding the merits of the Company's requested base rate increase,"[40] are adequately covered by use of the DCF as a primary model for determining an appropriate return on equity.

CAPITAL ASSET PRICING MODEL

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR APPLICATION OF THE CAPM.

A. Mr. Moul opines that my CAPM analysis understates the cost of equity for a few reasons, including my use of the yield on 10-year Treasury Notes for my risk-free rate, failure to use leverage adjusted betas, and rejection of his size adjustment.[41] Each of these topics are discussed in more detail below.

RISK-FREE RATE

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR USE OF THE YIELD ON THE 10-YEAR U.S. TREASURY NOTE.

A. Mr. Moul claims that by using the 10-year Treasury Note, I introduced a systematic understatement of CAPM returns that can be traced to extraordinary monetary policy actions to deal with the recession created by the pandemic. He opines that his use of the yield on a 30-year U.S. Treasury Bond is more appropriate than my use of the yield on a 10-year Treasury Note because 30-year

[40] UGI Gas Statement No. 1-R, p. 6.
[41] UGI Gas Statement No. 6-R, p. 23, lines 10-12.

bonds are “more a reflection of investor sentiment of their required returns…” and are also less susceptible to Federal policy actions.[42]

Q. DO YOU AGREE WITH MR. MOUL THAT USING THE YIELD OF A 30-YEAR U.S. TREASURY BOND IS MORE APPROPRIATE DUE TO A LONGER-TERM BOND BEING LESS SUSCEPTIBLE TO FEDERAL POLICY ACTIONS?

A. No. As explained in my direct testimony,[43] I chose the 10-year Treasury Note as it balances the short-comings of the short-term T-Bill and the 30-year Treasury Bond. Although long-term Treasury Bonds have less risk of being influenced by federal policies, they have substantial maturity risk associated with the market risk. In addition, long-term treasury bonds bear the risk of unexpected inflation. As such, my choice of a 10-year Treasury Note is more appropriate. Additionally, as mentioned in my direct testimony, the Commission has recently agreed with I&E and recognized the 10-year Treasury Note as the superior measure of the risk-free rate of return.[44]

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[42] UGI Gas Statement No. 6-R, p. 23, ln. 24 through p. 24, ln. 10.
[43] I&E Statement No. 2, p. 23, ln. 12 through p. 24, ln. 2.
[44] *Pa. PUC v. UGI Utilities, Inc. – Electric Division,* Docket No. R-2017-2640058, p. 99 (Order entered October 25, 2018).

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR CALCULATION OF THE RISK-FREE RATE USED IN THE CAPM FORMULA.

A. Mr. Moul opines that I have incorrectly given the same weight to the yield on the 10-year Treasury Note for the second quarter of 2022 as I do for the entire five-year period encompassing 2023 to 2027. He then recalculates the risk-free rate by averaging the 10-year Treasury yield forecasts by year from 2022 through 2027 to increase my calculated risk-free rate of 2.35% to 2.80%.[45]

Q. DO YOU AGREE WITH MR. MOUL'S ANALYSIS OF YOUR RISK-FREE RATE?

A. No. Mr. Moul's new calculation proposes to give equal weight to each separate year from 2022 to 2027. The flaw with this approach is that the further out into the future one forecasts, the less reliable and more speculative the estimates become; therefore, to give the less reliable estimates equal weight would not be sensible. It is more appropriate to weight the quarters and years as I have done in my direct testimony.[46] My calculation provides a more accurate estimation of the risk-free rate during the FPFTY, as the further out one forecasts, the less reliable the information becomes.

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[45] UGI Gas Statement No. 6-R, p. 24, ln. 11 through p. 25, ln. 1.
[46] I&E Exhibit No. 2, Schedule 8.

LEVERAGED ADJUSTED BETAS

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING THE USE OF LEVERAGED ADJUSTED BETAS.

A. Mr. Moul simply claims that I failed to use leveraged adjusted betas.[47] He does not offer an explanation beyond what he argued in his direct testimony.

Q. IS THE USE OF "LEVERAGED ADJUSTED BETAS" IN CAPM ANALYSIS APPROPRIATE?

A. No. Mr. Moul's adjustment only serves to inflate the result of his CAPM analysis which I have discussed in greater detail in my direct testimony.[48] Value Line is a well-known and trusted source that both investors and the Commission rely upon, therefore, it is not necessary to make any type of adjustment to the Value Line betas.

SIZE ADJUSTMENT

Q. SUMMARIZE YOUR DIRECT TESTIMONY REGARDING A SIZE ADJUSTMENT.

A. In direct testimony, I stated that Mr. Moul's 102-basis point CAPM size adjustment is unnecessary because none of the technical literature he cited in his direct testimony supporting investment adjustments related to the size of a

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[47] UGI Gas Statement No. 6-R, p. 23, lines 11-12.
[48] I&E Statement No. 2, p. 43, ln. 23 through p. 44, ln. 16.

company is specific to the utility industry. In addition, I presented an article by Dr. Annie Wong that demonstrates there is no need to make an adjustment for the size of a company in utility rate regulation. Further, I noted that the Commission has recently rejected the application of a size adjustment to the CAPM cost of equity calculation where it agreed that the same literature the Company cites is not specific to the utility industry.[49]

Q. SUMMARIZE MR. MOUL'S RESPONSE IN REBUTTAL TESTIMONY REGARDING A SIZE ADJUSTMENT.

A. Mr. Moul states that enormous changes have occurred in the industry since the article "Utility Stocks and the Size Effect: An Empirical Analysis" by Dr. Annie Wong was published. He also references the Fama/French study, "The Cross-Section of Expected Stock Returns," to illustrate that his size adjustment is a separate factor from beta that helps explain systematic risk and returns. Additionally, Mr. Moul opines that external factors, such as loss of larger customers and unexpected changes in expenses, can affect the financial performance of a small company. Finally, he acknowledges that in the 2020 PECO Energy – Gas Division rate case (at Docket No. R-2020-3018929), both the ALJs and the Commission determined that an adjustment for size was not necessary in utility rate regulation.[50]

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[49] I&E Statement No. 2, p. 45, ln. 5 through p. 46, ln. 3.
[50] UGI Gas Statement No. 6-R, p. 25, ln. 6 through p. 27, ln. 3.

Q. DOES THE TIME WHICH HAS ELAPSED SINCE AN ARTICLE WAS WRITTEN NECESSARILY INVALIDATE ITS RESULTS?

A. No. Although Mr. Moul states that enormous changes have occurred in the industry since the 1960s, he presents no evidence that these "changes" have caused the need for a size adjustment. To the contrary, Dr. Wong's study demonstrated that one does *not* need to be made in the regulated utility industry. As stated in my direct testimony, absent any credible article to refute Dr. Wong's findings, Mr. Moul's size adjustment to his CAPM results should be rejected.

Q. DOES THE FAMA/FRENCH STUDY REFUTE DR. WONG'S ARTICLE?

A. No. As stated in my direct testimony, Dr. Wong's article presents evidence that although a size effect may exist for industrial stocks, it does not exist for utility stocks. As the Fama/French study is not specific to utility stocks, it does not demonstrate that a size effect exists in the utility industry. In addition, the size effect that exists for industrial stocks varies to such an extent that it is difficult to predict. The difficulty in predicting the effect of size is demonstrated in the variance from year to year of the measurement of difference between the annual returns on the large and small-capitalization stocks of the NYSE/AMEX/NASDAQ in the Ibbotson *Stocks, Bonds, Bills & Inflation: 2015 Yearbook*. As stated on page 100 of the SBBI Yearbook,

> While the largest stocks actually declined in 2001, the smallest stocks rose more than 30%. A more extreme case occurred in the depression-recovery year of 1933, when the difference between the first and 10th decile returns was far more

> substantial. The divergence in the performance of small- and large- cap stocks is evident. In 30 of the 89 years since 1926, the difference between the total returns of the largest stocks (decile 1) and the smallest stocks (decile 10) has been greater than 25 percentage points.

Page 109 states,

> In four of the last 10 years, large-capitalization stocks (deciles 1-2 of NYSE/AMEX/NASDAQ) have outperformed small-capitalization stocks (deciles 9-10). This has led some market observers to speculate that there is no size premium. But statistical evidence suggests that periods of underperformance should be expected.

Page 112 states,

> Because investors cannot predict when small-cap returns will be higher than large-cap returns, it has been argued that they do not expect higher rates of return for small stocks.

Q. ARE MR. MOUL'S CONCERNS REGARDING THE IMPACT OF LOSING LARGE CUSTOMERS OR UNEXPECTED INCREASES IN EXPENSES VALID?

A. No. Regulated utility companies have the option to file a base rate case to address declining revenues and to recover the increasing costs of doing business in addition to emergency rate relief provisions for large unforeseen impacts. In contrast, non-utility businesses that may be significantly impacted by events of this nature due to small operating size do not have these opportunities. Further, while a smaller utility may pay higher prices for services and materials just due to volume buying power, the actual costs are part of the revenue requirement presented by that company, so to increase the return to account for the potential size disadvantage would only further unfairly burden ratepayers who are already likely paying higher utility bills to recover the higher operating costs.

Q. WHAT IS YOUR RECOMMENDATION REGARDING MR. MOUL'S SIZE ADJUSTMENT?

A. I continue to recommend that his use of the 1.02% size adjustment be disallowed in calculating the CAPM.

Q. MR. MOUL HAS RECALCULATED YOUR CAPM RESULTS.[51] DO YOU AGREE WITH HIS RECALCULATION?

A. No. Mr. Moul's recalculation is incorrect for a couple of reasons. As stated in both my direct testimony and above, he used an inaccurate risk-free rate and an unnecessary size adjustment. Because of these factors, the recalculation of my CAPM results as Mr. Moul illustrates is unreliable and unnecessary.

Q. DO YOU HAVE ANY ADDITIONAL COMMENTS REGARDING YOUR CAPM ANALYSIS?

A. Yes. My recommend cost of equity is primarily based upon my DCF analysis for the reasons explain above and in my direct testimony. I present a CAPM analysis to the Commission for comparison, not recommendation purposes as the inputs are highly subjective, and other than beta, not company or industry specific. Again, it

[51] UGI Gas Statement No. 6-R, p. 25, lines 2-5.

has traditionally been the preference of the Commission to view both the DCF and CAPM analysis in base rate proceedings.

INFLATION

Q. IS IT NECESSARY TO EMPLOY THE CAPM WITH EQUAL WEIGHT TO THE DCF WHEN DETERMINING A SPECIFIC RETURN ON EQUITY DUE TO RECENT INFLATIONARY TRENDS?

A. No. My use of the DCF as a primary method in determining an appropriate return on equity sufficiently takes this into consideration. As mentioned above, the DCF includes a spot stock price in the dividend yield calculation and analysts who generate forecasted earnings growth almost certainly take inflation into consideration as well, so it contains the most up-to-date projected information of any model. In other words, the inputs of the DCF capture all known economic factors, including inflation.

RISK PREMIUM

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING THE RISK PREMIUM METHOD.

A. Mr. Moul opines that the RP approach should be given serious consideration because it is straight-forward, understandable, and uses a company's own borrowing rate. He claims it provides a direct and complete reflection of a utility's risk and return. Mr. Moul also states that I make an unfounded assertion that the RP method does not measure the current cost of equity as directly as the DCF.[52]

Q. DO YOU AGREE WITH MR. MOUL THAT THE RP METHOD PROVIDES A DIRECT AND COMPLETE REFLECTION OF A UTILITY'S RISK AND RETURN?

A. No. The RP method produces an indirect measure when compared to the DCF method.

Q. PLEASE COMMENT ON THE INDIRECT MEASURE OF THE RP METHOD VERSUS THE MORE DIRECT MEASURE OF THE DCF METHOD.

A. Mr. Moul claims my statement, that the Risk Premium method does not measure the current cost of equity as directly as the DCF, is without foundation. In my direct testimony, I have clearly illustrated how the two measures are different.[53] The main reason is that the RP method determines the rate of return on common equity indirectly by observing the cost of debt and adding to it an equity risk premium. The DCF measures equity more directly through the stock information (using equity information), whereas the RP method measures equity indirectly using debt information.

52 UGI Gas Statement No. 6-R, p. 28, ln. 5 through p. 29, ln. 19.
53 I&E Statement No. 2, p. 13, ln. 17 through p. 19, ln. 6.

COMPARABLE EARNINGS

Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING THE CE METHOD.

A. Mr. Moul claims that using the CE method satisfies the comparability standard established in the *Hope* case. Additionally, he states, "the financial community has expressed the view that the regulatory process must consider the returns that are being achieved in the non-regulated sector to ensure that regulated companies can compete effectively in the capital markets."[54]

Q. DO YOU BELIEVE THAT THE COMPANIES USED BY MR. MOUL IN HIS CE METHOD ANALYSIS ARE COMPARABLE TO UGI GAS?

A. No. As explained in my direct testimony,[55] the companies in Mr. Moul's analysis are not utilities, and therefore, are too disparate to be used in a CE analysis. For example, the criteria Mr. Moul uses to choose the companies in his CE group results in the selection of companies such as Altria Group Inc. (Tobacco), Bio-Techne Corp. (Biotechnology), CVS Caremark Corp. (Retail/Pharmacy), Intuit Inc, (Computer Software), Monster Beverage Corp. (Beverage), Quest Diagnostics Inc. (Medical Services), Toro Co. (Machinery), and Western Union Co. (Financial Services) just to name few.[56] All these companies operate in industries very different from a utility company and operate under varying degrees of regulation.

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[54] UGI Statement No. 6-R, p. 30, lines 5-11.
[55] I&E Statement No. 2, p. 26, ln. 13 through p. 27, ln. 5.
[56] UGI Gas Exhibit B, Schedule 14.

Also, a large majority, if not all the companies Mr. Moul uses in his analysis, are not monopolies as utilities largely are. This means that they have significantly more competition and would require a higher return for the added risk. Further, the CE method should be excluded because it is entirely subjective as to which companies are comparable and it is debatable whether historical accounting returns are representative of the future.

MANAGEMENT PERFORMANCE POINTS

Q. SUMMARIZE THE COMPANY'S REBUTTAL TESTIMONY REGARDING MANAGEMENT PERFORMANCE POINTS.

A. Mr. Moul continues to advocate for 20 additional basis points to the cost of equity as he believes UGI Gas has performed in an exemplary manner. He points to Mr. Brown's testimony[57] for support.

Mr. Brown acknowledges my position that UGI Gas should not be rewarded for doing what the Company is legally required to do, and that the savings resulting from true management effectiveness are available to be passed on to shareholders. He suggests that I disagree with Pennsylvania law, specifically 66 Pa. C.S. § 523 which gives the Commission the ability to consider management performance. Additionally, he cites to UGI Electric's 2017 rate case where the Commission granted additional basis points for management performance. Mr.

[57] UGI Gas Statement No. 6-R, p. 30, ln. 12 through p. 31, ln. 1.

Brown argues that UGI Gas has similar types of programs to UGI Electric, and he recaps the achievements discussed in his direct testimony.[58]

Q. WHAT IS YOUR RESPONSE TO THE COMPANY'S REBUTTAL TESTIMONY REGARDING THE CONSIDERATION OF ADDITIONAL BASIS POINTS FOR MANAGEMENT PERFORMANCE?

A. As discussed in greater detail in my direct testimony,[59] I maintain that UGI Gas, or any utility company for that matter, should not reap additional rewards for programs funded by ratepayers or for meeting their obligations under 66 Pa C.S.A. §1501.

Also, while I am aware that under 66 Pa C.S.A. §523 the Commission shall consider a utility's performance, it is not mandatory that the Commission grant additional points. Moreover, I continue to assert that for any company, true strong management performance is earning a higher return through its efficient use of resources and cost cutting measures. The greater net income resulting from cost savings and true efficiency in management and operations is available to be passed on to shareholders. Additionally, it is nonsensical to support the idea that since ratepayers fund the initiatives and accomplishments Mr. Brown mentions, ratepayers should then in turn fund a higher equity return for UGI Gas' investors.

[58] UGI Gas Statement No. 1-R, p. 6, ln. 18 through p. 14, ln. 1.
[59] I&E Statement No. 2, p. 47, ln. 9 through p. 50, ln. 7.

Q. ARE YOU AWARE OF ANY OTHER COMPANIES THAT HAVE RECEIVED ADDITIONAL BASIS POINTS IN RECOGNITION OF MANAGEMENT PERFORMANCE?

A. Yes. Most recently, the Commission awarded Aqua an addition of 25 basis points for its management performance efforts.[60] However, it is important to recognize that this addition was based specifically on Aqua rescuing troubled water and wastewater systems at the Commission's request. In this proceeding, the Commission stated the following: [61]

> We specifically recognize Aqua's efforts and willingness to quickly provide emergency aid to various water and wastewater systems that needed substantial improvement. Aqua has often provided this emergency aid on short notice and at the request of the Commission or other parties to protect the public from egregious health and safety threats and to protect the Commonwealth's drinking water resources from catastrophic damage.

Q. DOES THE COMMISSION'S PAST ISSUANCE OF ADDITIONAL EQUITY POINTS TO RECOGNIZE MANAGEMENT PERFORMANCE MEAN THAT UGI GAS SHOULD ALSO RECEIVE AN ADJUSTED RETURN ON EQUITY?

A. No. The issuance of equity points to recognize management performance must always be done on a case by case basis. The situation in the Aqua case as discussed above was very specific to the Company rescuing troubled water and

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[60] *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 168-173 (Order entered May 16, 2022).

[61] *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, p. 169 (Order entered May 16, 2022).

wastewater systems and preventing health and safety concerns regarding drinking water. This scenario does not apply to UGI Gas. Further, the example Mr. Brown provides, the 2017 UGI Electric rate case, is irrelevant to the determination of whether UGI Gas should be granted additional basis points to its cost of equity for management performance. Management performance is something that is very specific to each individual utility. Therefore, what the Commission has historically decided in this regard, and the management performance of other utilities, has no bearing on whether UGI Gas should receive a higher return on equity to recognize its management performance. Notably however, in the 2017 UGI Electric case, which was decided in a pre-pandemic climate when ratepayers were not faced with the current levels of inflation, the Commission awarded the Company a nominal five additional basis points for management effectiveness. Additionally, since Mr. Brown makes the argument that the management performance of UGI Gas is comparable to that of UGI Electric, the implication that UGI Gas should receive much more than what UGI Electric was awarded is unreasonable.

Q. DO YOU HAVE ANY ADDITIONAL COMMENTS CONCERNING THE COMPANY'S CLAIM REGARDING MANAGEMENT PEFORMANCE?

A. Yes. While I am aware of the rising costs of capital due to the after-effects of the pandemic and the increasing levels of inflation, I believe it is important not to over burden ratepayers.

Notably, in recognition of recent inflation, I&E is not disputing the updated increase in the cost of long-term debt as presented above.

Further, my 9.92% recommended cost of equity based on the DCF model is higher than the average Commission-granted return on equity for all natural gas utilities across the country since 2012.[62] In addition, as mentioned in my direct testimony, a report issued by Regulatory Research Associates, a group within S&P Global Market Intelligence,[63] illustrates that UGI Gas' 11.20% requested return on equity is 99 basis points higher (almost one full percentage point higher) than the average return on equity request of 10.21% of all pending gas utility rate cases as of March 10, 2022. So, as the economy is in decline, UGI Gas is requesting a record return on equity to apply to its equity heavy capital structure. It should be noted that strong stock market performance does not always equate to strong economic performance.

Finally, and perhaps most importantly, most of the programs Mr. Brown discusses are ultimately *funded by ratepayers* and any savings resulting from cost cutting measures would likely be offset by the addition of basis points for management performance as ratepayers would have to fund those additional costs as well. This defeats the purpose of efforts to reduce costs to benefit ratepayers.

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[62] https://www.capitaliq.spglobal.com/web/client?auth=inherit&overridecdc=1&#industry/statisticsAndGraphs (Accessed May 24, 2022).

[63] Regulatory Research Associates, "Major energy utility cases in progress in the US, Quarterly update on pending rate cases," *S&P Global Market Intelligence*, March 16, 2022.

Q. HAS YOUR RECOMMENDATION REGARDING THE COMPANY'S REQUEST FOR ADDITIONAL BASIS POINTS FOR MANAGEMENT PERFORMANCE CHANGED?

A. No. I continue to recommend that any additional basis points for management performance be rejected.

OVERALL RATE OF RETURN

Q. HAS YOUR OVERALL RATE OF RETURN RECOMMENDATION CHANGED FROM YOUR DIRECT TESTIMONY?

A. Yes. While I continue to support my calculated 9.92% cost of common equity, I have updated my overall rate of return recommendation to reflect the Company's updated cost of long-term debt.

Q. WHAT IS YOUR OVERALL RATE OF RETURN RECOMMENDATION?

A. I recommend the following rate of return for UGI Gas:

I&E
Summary of Cost of Capital

Type of Capital	Ratio	Cost Rate	Weighted Cost
	UGI Utilities, Inc. - Gas Division		
Long-Term Debt	44.88%	4.30%	1.93%
Common Equity	55.12%	9.92%	5.47%
Total	100.00%		7.40%

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

I&E Statement No. 3-SR
Witness: Brian J. LaTorre

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Surrebuttal Testimony

of

Brian J. LaTorre

Bureau of Investigation and Enforcement

Concerning:

OPERATING & MAINTENANCE EXPENSES

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INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Brian LaTorre. My business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Pennsylvania Public Utility Commission (Commission) in the Bureau of Investigation and Enforcement (I&E) as a Fixed Utility Financial Analyst.

Q. ARE YOU THE SAME BRIAN LATORRE WHO SUBMITTED TESTIMONY IN I&E STATEMENT NO 3. AND I&E EXHIBIT NO. 3?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of UGI Utilities, Inc. – Gas Division (UGI Gas or Company) witnesses Tracy A. Hazenstab (UGI Statement No. 2-R), and Vivian K. Ressler (UGI Statement No. 3-R).

Q. DOES YOUR SURREBUTTAL TESTIMONY INCLUDE AN EXHIBIT?

A. No. However, I do refer to my direct testimony.[1]

SUMMARY OF RECOMMENDED ADJUSTMENTS

Q. PLEASE SUMMARIZE YOUR RECOMMENDED ADJUSTMENTS AS EXPLAINED IN THIS SURREBUTTAL TESTIMONY.

A. The following table summarizes my updated recommended adjustments to the O&M expense claims under my purview. These recommended adjustments are reflected in the overall I&E recommended revenue requirement presented by I&E witness Zachari Walker[2] in this proceeding.

	Updated Company Claim	**Updated I&E Recommended Allowance**	**I&E Adjustment**
O&M Expenses:			
Rate Case Expense	$1,055,000	$633,000	($422,000)
2020 and 2021 Environmental Remediation Expense	$2,327,000	$1,396,200	($930,800)
OSHA/Emergency Temporary Standard Compliance Costs	$52,934	$31,760	($21,174)
Total O&M Expense Adjustments			**($1,373,974)**

RATE CASE EXPENSE

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR RATE CASE EXPENSE.

A. I recommended that the Company's rate case expense be normalized over a period

[1] I&E Statement No. 3.
[2] I&E Statement No. 1-SR.

of 20 months, resulting in an annual expense of $633,000 [($1,055,000 ÷ 20 months) x 12 months], or a reduction of $422,000 ($1,055,000 - $633,000) to the Company's claim. My recommendation was based on the Company's base rate case filing history since 2017 [3] in contrast to the Company's claimed one-year normalization period, which is based on when the Company expects to file its next rate case.[4]

Q. DID ANY COMPANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. Company witness Tracy A. Hazenstab[5] responded to my recommendation for rate case expense.

Q. SUMMARIZE MS. HAZENSTAB'S RESPONSE.

A. Ms. Hazenstab disagrees with using historical base rate case frequency as a predictor of the frequency of future base rate cases. Ms. Hazenstab opines that the Company's expectation that it will file another base rate case in a year is based upon an assessment of future capital requirements and system improvements as outlined in the Company's Long-Term Infrastructure Improvement Plan (LTIIP), in addition to rising inflation, capital cost rates, and a higher risk associated with the rate of return. Additionally, Ms. Hazenstab states that the Columbia Gas 2020

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[3] I&E Statement No. 3, pp. 4-5.
[4] UGI Gas Statement No. 1, pp. 9-10.
[5] UGI Gas Statement No. 2-R, p. 9.

and PECO Gas 2021 cases I cited in my direct testimony are distinguishable from the instant case due to circumstances surrounding the COVID-19 pandemic.[6] Finally, Ms. Hazenstab refutes my calculation of the frequency of past base rate cases, arguing that the Company's most recent base rate proceeding was subject to a one-year settlement stay-out clause that prohibited the Company from making a base rate filing until January 2, 2022, which added a year to the period the UGI Gas could not make a filing.

Q. WHAT OTHER UTILITY DID MS. HAZENSTAB REFERENCE THAT RECEIVED APPROVAL FOR A NORMALIZATION PERIOD BASED ON SPECULATION OF A FUTURE FILING?

A. In her rebuttal testimony, Ms. Hazenstab states that I disregarded the fact that the reliance upon historic rate case filing frequency was rejected by the Commission in Pa. PUC v. UGI Utilities, Inc. – Electric Division, Docket No. R-2017-2640058 (Order entered Oct. 25, 2018) (UGI Electric 2018). In UGI Electric 2018, I&E recommended a five-year normalization period based on historic filing frequency as opposed to UGI Electric's three-year normalization period based on speculation of a future base rate filing. In UGI Electric 2018, UGI Electric had last filed a rate case in 1996, 22 years prior. In addition, UGI Electric had its LTIIP approved

[6] UGI Gas Statement No. 2-R, p. 9-11.

between the 1996 rate case and the 2018 rate case, which significantly increased capital spending.

Q. HOW DOES THE UGI ELECTRIC 2018 FILING DIFFER FROM THE INSTANT PROCEEDING?

A. UGI Gas has a more frequent and recent filing history, which provides more support for the use of historic filing frequency. Additionally, UGI Gas had already been subject to its second LTIIP at the time of its last proceeding.[7] These two factors distinguish UGI Electric 2018 from the instant case. Thus, I continue to recommend use of a historic filing frequency to determine a normalization period for UGI Gas.

Q. DO YOU AGREE WITH MS. HAZENSTAB THAT BOTH COLUMBIA GAS 2020 AND PECO GAS 2021 ARE DISTINGUISHIBLE FROM THE INSTANT CASE?

A. No. However, because this is a legal argument, it will be further addressed in the I&E briefs by the I&E prosecutor.

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[7] Petition of UGI Utilities, Inc. – Gas Division for Approval of its Second Long Term Infrastructure Improvement Plan, Docket No. P-2019-3012337 (Opinion and Order entered Dec. 19, 2019).

Q. DO YOU AGREE WITH MS. HAZENSTAB THAT THE ONE-YEAR STAY-OUT CLAUSE FROM THE PRIOR PROCEEDING SHOULD BE FACTORED INTO THE CALCULATION OF FILING FREQUENCY?

A. No. While it may be true that UGI Gas was subject to a one-year stay-out clause in its prior proceeding[8], this one-year period should not be excluded when calculating UGI Gas's historic filing frequency of base rate cases. By agreeing to the one-year stay-out clause, UGI Gas made an affirmative decision not to file a rate case. It is appropriate to include the one-year period as part of the historic filing frequency because UGI Gas was in control of the timeframe for when it could file.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION?

A. No. I continue to recommend an allowance of $633,000, or a reduction of $422,000 ($1,055,000 - $633,000) to the Company's annual rate case expense claim.

<u>UNRECOVERED ENVIRONMENTAL REMEDIATION EXPENSE</u>

Q. SUMMARIZE YOUR RECOMMENDATIONS IN DIRECT TESTIMONY FOR UNRECOVERED ENVIRONMENTAL REMEDIATION EXPENSE.

A. In my direct testimony, I made two recommendations concerning unrecovered

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[8] *PA PUC v. UGI Utilities, Inc – Gas Division* Docket No. R-2019-3015162, Order Entered October 8, 2020; Paragraph 9.

environmental remediation expense. First, I recommended that the Company be required to provide a full line-by-line account of the yearly amortizations of unrecovered environmental remediation expense in the next base rate case. Additionally, I recommended that unrecovered 2020 and 2021 environmental remediation expense be amortized over a five-year period resulting in an allowance of $465,400 or a reduction of $1,861,600 ($2,327,000 - $465,400) to the Company's claim. The five-year amortization period is based on the amortization period from the prior Opinion and Order as opposed to the Company's proposed one-year amortization period to align with the rate case amortization period.[9]

Q. DID ANY COMPANY WITNESS RESPOND TO YOUR RECOMMENDATIONS?

A. Yes. UGI Gas witness Vivian K. Ressler[10] responded to my recommendations.

Q. SUMMARIZE MS. RESSLER'S RESPONSE TO YOUR RECOMMENDATION THAT THE COMPANY BE REQUIRED TO PROVIDE A LINE-BY-LINE ACCOUNT OF YEARLY AMORTIZATIONS IN ITS NEXT RATE CASE.

A. Ms. Ressler agrees with my recommendation that the Company be required to

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[9] I&E Statement No. 3, pp. 9-11.
[10] UGI Gas Statement No. 3-R, p. 7.

provide a full line-by-line account of yearly amortizations of unrecovered environmental remediation expenses in its next base rate proceeding.[11] Additionally, Ms. Ressler prepared UGI Gas Exhibit VKR-2R to help explain how the Company has amortized under-recovered environmental remediation expense and agreed to provide a similar schedule in the next rate case filing.

Q. SUMMARIZE MS. RESSLER'S RESPONSE CONCERNING THE UNRECOVERED 2020/2021 ENVIRONMENTAL REMEDIATION EXPENSE AMORTIZATION PERIOD.

A. Ms. Ressler disagrees with my proposed five-year amortization period for unrecovered 2020/2021 environmental remediation costs. The Company selected a one-year amortization period because it anticipates that another rate case would be filed within the next year. Ms. Ressler asserts that a five-year recovery period represents a mismatch between the period in which costs are incurred and when they would be allowed to be recovered and would unfairly frustrate the Company's ability to timely recover the full amount of these expenses. Ms. Ressler further states that my recommendation based on prior case settlement should have no persuasive value in this proceeding. Ms. Ressler also opines that the Company has spent more than it has recovered in rates for each year since 2019, thereby adding to its regulatory asset under-recovery each year.[12]

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[11] UGI Gas Statement No. 3-R, pp. 8-9.
[12] UGI Gas Statement No. 3-R, pp. 9-13.

Q. WHAT IS YOUR RESPONSE TO MS. RESSLER?

A. Upon consideration of points made in her rebuttal testimony, I accept that the amortization period for the unrecovered 2020/2021 expense should be tied to the rate case normalization period, however as discussed above, I disagree with the Company's one-year rate case normalization period. I find persuasive Ms. Ressler's statement that a five-year amortization period for unrecovered 2020 and 2021 environmental remediation expenses would unfairly delay recovery of the full amount of these expenses. The Company has incurred expenditures for environmental remediation for each year since 2019, resulting in increases to its regulatory asset each year. Furthermore, I agree with the company that the three-year average of environmental expenditures of $5.171 million should be used as the budgeted amount in the FPFTY, and that differences between $5.171 million and actual expenditures should be deferred as a regulatory asset (where expenditures are greater than $5.171 million per year) or as a regulatory liability (where expenditures are less than $5.171 million per year).

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION?

A. Yes. I have adjusted my recommended amortization period to align with my recommended rate case expense normalization period of 20 months. This adjustment results in an annual allowance of $1,396,200 [($2,327,000 ÷ 20 months) x 12 months] or a reduction of $930,800 ($2,327,000 - $1,396,200) to the Company's claim.

Q. WHAT IS THE BASIS FOR YOUR UPDATED RECOMMENDATION?

A. Upon reviewing the Company's rebuttal testimony, I accept that it would make more sense to fully amortize this expense before the next base rate filing and have updated my recommendation accordingly.

OSHA/EMERGENCY TEMPORARY STANDARD (ETS) COMPLIANCE COSTS

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR OSHA/ETS COMPLIANCE COSTS.

A. First, I recommended that $1,830,066 be disallowed for OSHA/ETS compliance costs because the Company withdrew a majority of its claim after the U.S. Supreme Court overturned the Federal Mandate. Next, I recommended that the remaining OSHA/ETS compliance costs of $52,934 be amortized over a 20-month period resulting in an annual allowance of $31,760 [($52,934 ÷ 20 months) x 12].[13]

Q. DID ANY COMPANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. UGI Gas witness Vivian K. Ressler[14] responded to my recommendation.

13 I&E Statement No. 3, pp. 14-15.
14 UGI Gas Statement No. 3-R, pp. 42-43.

Q. SUMMARIZE MS. RESSLER'S RESPONSE IN REBUTTAL TESTIMONY.

A. Ms. Ressler accepts the disallowance of $1,830,066 due to the Company's withdrawal of a majority of its claim and recommends a one-year amortization period based on UGI Gas witness Ms. Hazenstab's recommended one-year rate case expense normalization period.[15]

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION?

A. No. I continue to recommend an allowance of $31,760, or a reduction of $21,174 ($52,934 - $31,760) to the Company's OSHA/ETS compliance costs in line with my recommended rate case expense normalization period.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

[15] UGI Gas Statement No. 3-R pp. 42-43.

I&E Statement No. 4-SR
Witness: Ethan H. Cline

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Surrebuttal Testimony

of

Ethan H. Cline

Bureau of Investigation and Enforcement

Concerning:

Test Year
Present Rate Revenue
Weather Normalization Adjustment
Average Bill Comparison
Scale Back of Rates

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INTRODUCTION

Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?

A. My name is Ethan H. Cline. My business address is 400 North Street, Harrisburg, PA 17120.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Pennsylvania Public Utility Commission (Commission) in the Bureau of Investigation and Enforcement (I&E) as a Fixed Utility Valuation Engineer.

Q. ARE YOU THE SAME ETHAN H. CLINE THAT SUBMITTED DIRECT TESTIMONY ON APRIL 20, 2022?

A. Yes. I submitted I&E Statement No. 4 and I&E Exhibit No. 4 on April 20, 2022.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to make corrections to my direct testimony and address the rebuttal testimony of UGI Utilities, Inc. - Gas Division ("UGI" or "Company") witnesses Christopher R. Brown at UGI Statement No. 1-R, Sherry A. Epler at UGI Statement No. 8-R, and John D. Taylor at UGI Statement No. 11-R. I will also address the rebuttal testimony of Office of

Consumer Advocate ("OCA") witness Jerome D. Mierzwa at OCA Statement No. 3R.

Q. DOES YOUR TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 4-SR contains schedules relating to my testimony.

<u>WEATHER NORMALIZATION ADJUSTMENT</u>

Q. WHAT DID YOU RECOMMEND REGARDING UGI'S PROPOSED WNA?

A. I recommended that UGI's WNA be approved on the condition that a 3% deadband is included. My recommendation maintains consistency with the Commission's previous ruling and with Columbia's existing WNA (I&E St. No. 4, p. 5).

Q. DID THE COMPANY AGREE WITH YOUR RECOMMENDATION?

A. No. The Company disagreed with my recommendation to apply a 3% deadband to the WNA (UGI St. No. 11-R, p. 3).

Q. WHAT REASON DID THE COMPANY PROVIDE FOR NOT AGREEING WITH YOUR RECOMMENDATION?

A. The Company claimed that my recommendation to include a 3% deadband is misplaced and not fully supported with evidence. First, UGI witness Taylor claimed that Commission's Order regarding Columbia Gas of Pennsylvania's ("Columbia") WNA, approving the WNA with a 3% deadband included, does not apply to UGI's proposed WNA. Second, he claimed that customer rates could not be subject to constant adjustment for normal weather variations in every billing cycle because UGI's WNA only applies to the months October through May. Third, Mr. Taylor stated that the primary intent of a WNA mechanism is to adjust for differences measured against normal weather, and he claimed that a deadband should not be included so that the WNA will be easier for customers to understand (UGI St. No. 11-R, pp. 2-3).

Q. DO YOU AGREE THAT SINCE UGI'S PROPOSED WNA IS ADJUSTED ON A MONTHLY BASIS RATHER THAN DAY-TO-DAY BASIS, THE COMMISSION'S RULING DOES NOT APPLY TO UGI'S WNA?

A. Not at all. Whether the adjustment is being made on a day-to-day basis or a monthly basis, the WNA is designed to adjust for variations in temperature and, as I stated on page 4 of I&E Statement No. 4, the Commission was clear in stating that there is no need to reconcile temperature variations that are part of normal business. Specifically, in the same Order (Docket No. R-2020-3018835, Order entered February 19, 2021, pp. 264-265), the Commission determined that the deadband was a reasonable provision because it allows for a range of what is considered "normal" weather in which the Company's Commission-approved rates would be applied without adjustment. In my opinion, this statement applies regardless of whether an adjustment is applied on a daily or monthly basis.

Q. PLEASE RESPOND TO THE COMPANY'S POSITION THAT CUSTOMERS CANNOT BE SUBJECT TO CONSTANT ADJUSTMENT BECAUSE THE PROPOSED WNA MECHANISM ONLY ADJUSTS BILLS ACROSS THE BILLING CYCLE DURING THE MONTHS OF OCTOBER THROUGH MAY.

A. Mr. Taylor appears to be playing semantics with this position. Natural gas heating customers, who would be subject to a WNA, would not have adjustments occur outside of the heating season of October through May because customers generally don't heat their homes or businesses outside of those months. As described in my direct testimony, without a deadband, customers would be subject to constant adjustment for normal weather variations is to illustrate that temperature naturally has variations and that "normal" weather should be a range rather than a single temperature point. As discussed above, the Commission determined a 3% deadband was reasonable in its Columbia Order.

Q. DO YOU AGREE THAT A DEADBAND ADDS AN ADDITIONAL LEVEL OF COMPLEXITY THAT CUSTOMERS WOULD NOT UNDERSTAND?

A. No. As has been established, both Columbia and Philadelphia Gas Works have established a WNA with a deadband and I am unaware of any problems regarding customers being able to understand their billing as a result of the WNA with a deadband. Additionally, Mr. Taylor did not provide any evidence that customers who pay bills under the deadbanded WNA have had problems understanding their bills. Therefore, this claim should be disregarded.

Q. DO YOU WISH TO CHANGE YOUR RECOMMENDATION?

A. No. For the reasons discussed above, I continue to recommend the proposed WNA be approved on the condition that a 3% deadband is included.

<u>PRESENT RATE REVENUE</u>

Q. WHAT AMOUNT PRESENT RATE REVENUE IS THE COMPANY REFLECTING FOR THE FPFTY ENDING SEPTEMBER 30, 2023?

A. UGI is reflecting approximately $1,062,721,000 of present rate revenue including gas costs, surcharges, and other operating revenues (UGI Ex. A FPFTY Rebuttal, Sch. D-1).

Q. DO YOU AGREE WITH THE CLAIMED $1,062,721,000 OF PRESENT RATE REVENUE FOR THE FPFTY?

A. No. As described below, I have determined that UGI has understated its present rate revenue in the FPFTY and I am recommending a revised increase of approximately $13,660,000 from $1,062,721,000 to $1,076,381,000. My recommendation is based on two adjustments to UGI's claimed $662,174,239 of present rate revenue (not including gas costs) in the FPFTY and a correction to my 15-year regression analysis as discussed below.

Q. WHAT IS THE BASIS OF YOUR TWO ADJUSTMENTS TO UGI'S PRESENT RATE REVENUE CLAIM IN THE FPFTY?

A. First, I will address the rate class R/RT heating customer usage decline reflected in the FPFTY that was projected beyond the end of the FPFTY. Second, I will address the overall regression analysis performed by UGI to project usage per R/RT heating customer to determine sales volumes.

<u>R/RT HEATING CUSTOMER USAGE DECLINE</u>

Q. DID YOU AGREE WITH THE CLAIMED $1,062,724,000 OF PRESENT RATE REVENUE FOR THE FPFTY IN YOUR DIRECT TESTIMONY?

A. No. As described in my direct testimony and below, I recommended two adjustments to UGI's claimed $1,062,724,000 of present rate revenue (I&E St. No. 4, pp. 6-22).

<u>R/RT HEATING CUSTOMER POST FPFTY USAGE DECLINE</u>

Q. HOW DID THE COMPANY PROJECT USAGE DECLINE IN THIS CASE?

A. The Company projected the usage per customer decline six months beyond the end of the FPFTY test year in UGI Book II, Attachment SDR-RR-11(a) to justify a lower average usage per residential heating customer during the FPFTY in the proof of revenue.

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS CONCERNING THE COMPANY'S "ANNUALIZATION" OF POST FPFTY USAGE DECLINES?

A. I recommended that the usage decline beyond the end of the FPFTY be rejected. There is no justification for allowing the level of usage projected at the end of the FPFTY to be "annualized" by projecting usage out to March 2024. The inclusion of such an "annualization" will benefit the Company to the detriment of customers (I&E St. No. 4, p. 12).

Q. WHAT AVERAGE USAGE PER R/RT CUSTOMER DID YOU RECOMMEND SO THAT THE POST FPFTY DECLINE IS ELIMINATED?

A. I recommended that the average usage per R/RT customer be increased by 0.1307 Mcf per customer per year (I&E Ex. No. 4, Sch. 2, line 5). This 0.1307 Mcf per customer per year was determined by subtracting the 87.9625 Mcf per customer at the end of the FPFTY from the 87.8318 Mcf per customer as of March 2024 as shown on UGI Book II, Attachment SDR-RR-11(a), page 9. (I&E St. No. 4, p. 12).

Q. HOW MUCH DID GAS VOLUMES INCREASE IF THE AVERAGE USAGE PER R/RT CUSTOMER IS INCREASED BY 0.1307 PER CUSTOMER PER YEAR?

A. As described in I&E St. No. 4, pp. 13, gas volumes increase by 77,061 Mcf (589,601 x 0.1307). This 142,926 Mcf of gas was determined by multiplying the 0.1307 per customer per year times 589,601 R/RT heating customers shown on UGI Book III, Exhibit SAE-7(a).

Q. WHAT INCREASE IN PRESENT RATE USAGE REVENUE DID YOU RECOMMEND IF THE AVERAGE USAGE PER R/RT HEATING CUSTOMER IS INCREASED BY 0.1307 MCF PER CUSTOMER PER YEAR?

A. As described in I&E St. No. 4, p. 13, present rate usage revenue increases by $316,752 (I&E Ex. No. 4, Sch. 2, line 6).

Q. IF THE COMMISSION ACCEPTS YOUR RECOMMENDATION TO REJECT THE POST FPFTY USAGE DECLINE, DID YOU ALSO RECOMMEND COMMENSURATE ADJUSTMENTS TO GAS COSTS AND SURCHARGES?

A. Yes. These adjustments are described on I&E St. No. 4, pp. 13-14.

Q. WHAT IS THE TOTAL INCREASE IN PRESENT RATE REVENUE IF THE COMMISSION ACCEPTS YOUR RECOMMENDATION TO INCREASE R/RT PRESENT USAGE RATE DISTRIBUTION VOLUME BY 77,061 MCF?

A. As stated on I&E St. No. 4, pp. 14-15, present rate revenue increases $427,964 (I&E Ex. No. 4, Sch. 2, line 29).

Q. DID THE COMPANY ADDRESS YOUR RECOMMENDATION TO REMOVE THE PROJECTED POST-FPFTY USAGE DECLINE FOR THE R/RT HEATING CLASS?

A. Yes. The Company believes that my recommendation should be rejected (UGI St. No. 8-R, p. 4-5).

Q. WHAT REASONS DOES THE COMPANY PROVIDE TO REJECT YOUR RECOMMENDATION TO REMOVE THE PROJECTED POST-FPFTY DECLINE?

A. The Company provided several reasons to reject my recommendation. First, the Company claims that its analysis does not incorporate post-FPFTY usage decline. Second, the Company argues that it is proper to incorporate post-FPFTY to annualize usage for the FPFTY using the annual period ending March 30, 2024. Third, the Company claims that its methodology incorporates usage reductions already in place at the end of the FPFTY and annualizes that impact. Finally, the

Company provided what it believes to be justification for projecting usage decline six months beyond the end of the FPFTY by attempting to capture customer heating equipment upgrades that occur in the FPFTY but prior to the next heating season.

Q. IS THE COMPANY'S TESTIMONY IN UGI STATEMENT NO. 8-R CONTRADICTORY REGARDING POST-FPFTY USAGE DECLINE?

A. Yes. On UGI Statement No. 8-R, page 3, lines 11-12, the Company indicates that it does not incorporate post-FPFTY usage decline; however, on line 21 of the same page, the Company stated that it "must project monthly use through the end of March 31, 2024 to develop an annualized value for us per customer." This is the exact opposite of the Company's statement that it does not incorporate post-FPFTY usage decline.

Q. IS THE COMPANY'S CLAIM THAT POST-FPFTY DECLINES SHOULD BE INCLUDED AS A NORMAL FPFTY RATEMAKING ADJUSTMENT VALID?

A. No. Post-FPFTY usage declines occur after the end of the FPFTY, not during the FPFTY; therefore, there is no sound ratemaking reason that data outside the test year data should be considered in a base rate proceeding.

Q. IS THE COMPANY'S CLAIM THAT REACHING BEYOND THE END OF THE FPFTY IS NECESSARY TO ANNUALIZE THE USAGE FOR CUSTOMERS AS OF SEPTEMBER 30, 2023 VALID?

A. No. The Company's claim is baseless. The Company's own analysis contradicts this unfounded claim. As shown on UGI Book II, Attachment SDR-RR-11(a), each monthly usage projection is a rolling average of the previous twelve months. Therefore, the Company's usage projection of 87.9625 Mcf per R/RT heating customer per year as of September 30, 2023 already includes the usage declines for each previous month of the FPFTY, including the FPFTY winter heating season. As such, the projected 87.8138 Mcf per R/RT heating customer as of March 31, 2024 should not be used to establish rates in this proceeding.

Q. DOES THIS CLEARLY SHOW HOW THE COMPANY'S EXAMPLE UNDERSTATES REVENUE IN THE FPFTY?

A. Yes. As shown on UGI Book II, Attachment SDR-RR-11(a), the Company's own usage projections in the FPFTY range from 88.1221 Mcf to 87.9625 Mcf per R/RT heating customer per year, which on average would be approximately 88.04 (88.1221 + 87.9625)/ 2)) Mcf in the FPFTY. Yet the Company erroneously believes that the usage per customer in the FPFTY should be annualized all the way down to 87.8138 Mcf per R/RT heating customer per year. If the Company's proposal is accepted, it will be permitted to base rates on a projected usage that is lower than its own projected usage and allow UGI to collect a revenue windfall.

Q. DOES THE EXAMPLE PROVIDED BY THE COMPANY IN WHICH A CUSTOMER INSTALLS A NEW FURNACE ACTUALLY SUPPORT YOUR RECOMMENDATION INSTEAD?

A. Yes, it does. The Company provided an example in which a customer installs a new furnace prior to the end of the FPFTY that are in place but not yet measured via observed and billed usage (UGI St. No. 8-R, p. 4). In this example, the Company believes the customer's usage <u>must</u> be annualized to capture the usage after September 30, 2023, beyond the end of the FPFTY. Under this scenario, the Company would bill that customer for 87.8138 Mcf of usage during the twelve months of the FPFTY. Thus, charging customers rates that anticipate expected post-FPFTY heating season conservation measures has the effect of penalizing customers for conservation efforts before those efforts are even undertaken.

Q. DID THE COMPANY PROVIDE ANY SUPPORT FOR ITS POSITION THAT WOULD CAUSE YOU TO CHANGE YOUR RECOMMENDATION?

A. No. I continue to believe that including post-FPFTY usage projections to determine use per customer is improper. Therefore, I continue to recommend that the inclusion of post-FPFTY projections in the usage per customer analysis be denied.

Q. DID THE COMPANY PROVIDE ANY VALID REASONS FOR INCLUDING POST FPFTY USAGE DECLINES WHEN DETERMINING THE USAGE AT THE END OF THE FPFTY?

A. No. Therefore, present rate revenue should be increased $427,964 from $662,174,239 to $662,602,203 (I&E St No. 4, p. 14).

<u>R/RT HEATING CUSTOMERS – REGRESSION ANALYSIS</u>

Q. WHAT IS THE SECOND ADJUSTMENT YOU RECOMMENDED TO THE COMPANY'S PROJECTED USAGE FOR R/RT HEATING CUSTOMERS?

A. As described on pages 14-22 of I&E Statement No. 4, my second recommendation addresses the use of 18 years of data to project usage per customer that is used to project the 87.8 Mcf per year of usage for the R/RT heating customer claimed by the Company.

Q. WHAT TIME PERIOD OF DATA DID YOU RECOMMEND IN THIS CASE TO PROJECT THE AVERAGE USAGE PER R/RT CUSTOMER?

A. I recommended the most recent 15-years of data as proposed in UGI's previous base rate case to project the average use per R/RT heating customer in this case. (I&E St. No. 4, p. 16).

Q. WHY DID YOU RECOMMEND THE USE OF 15 YEARS TO PROJECT THE AVERAGE USAGE PER R/RT CUSTOMER FOR THE FPFTY?

A. I recommended the use of 15-years of data for several reasons. First, a fifteen-year time period is consistent with the reasons UGI described for utilizing a multi-year regression period. Second, the 15-year time period is consistent with the time period used for the Company's weather normalization adjustment. Third, the Company has supported the use of 15-year time period for its regression analysis in its previous cases. Finally, I stated that I believed that usage and temperature data older than 15 years is not representative of recent usage trends on which to base the usage projection (I&E St. No. 4. pp. 16).

Q. WHAT IS THE TOTAL INCREASE IN PRESENT RATE REVENUE YOU RECOMMENDED AS A RESULT OF YOUR 15-YEAR REGRESSION ANALYSIS, INCLUDING ASSOCAITED CHANGES TO PURHCASED GAS AND OTHER SURCHARGES

A. I recommended present rate revenue increase by $14,648,202 from $662,174,239 to $676,822,441 (I&E Ex. No. 4, p. 21).

Q. DID THE COMPANY ADDRESS YOUR RECOMMENDATION TO USE A 15-YEAR PERIOD TO PROJECT R/RT HEATING CUSTOMER USAGE?

A. Yes. The Company stated that it does not agree with my proposed adjustment concerning the Company's regression analysis (UGI St. No. 8-R, pp. 5-6).

Q. DID THE COMPANY AGREE THAT YOUR ANALYSIS IS CONSISTENT WITH THE COMPANY'S REASONS FOR UTILIZING A MULTI-PERIOD REGRESSION ANALYSIS?

A. Yes. However, the Company did not agree with the rest of my rationale for using a 15-year regression period. (UGI St. No. 8-R, p. 6).

Q. WHAT RATIONALE DID THE COMPANY PROVIDE FOR REJECTING YOUR RECOMMENDATION TO UTILIZE 15 YEARS OF DATA TO PROJECT R/RT HEATING CUSTOMER USAGE?

A. First, the Company opposed the comparison of the time periods to determine weather normalization and use per customer (UGI St. No. 8-R, p. 6). Second, the Company disagreed with my assessment that the Company supported the use of 15-years for its regression analysis in its previous cases. Third, the Company stated that it is not aware of a regulatory "stale" standard that is appropriate for ratemaking and thus does not agree with my assertion that the fifteen-year period does not include data that is no longer representative of more recent trends UGI St. No. 8-R, p. 9).

Q. WHY DID THE COMPANY OPPOSE THE COMPARISON OF WEATHER NORMALIZATION AND USE PER CUSTOMER?

A. The Company opposed the comparison of weather normalization and use per customer because "the two factors require independent assessment which can then be utilized to support proper ratemaking design, claims and conclusion." (UGI St. No. 8-R, p. 7).

Q. DID YOU ACKNOWLEDGE THAT WEATHER NORMALIZATION AND USE PER CUSTOMER ARE DIFFERENT TYPES OF ANALYSES IN YOUR DIRECT TESTIMONY?

A. Yes. I stated on page 17 of I&E Statement No. 4 that the analyses performed to determine normalized temperatures and use per customer are different types of analyses.

Q. DOES ACKNOWLEDGING THAT WEATHER NORMALIZATION AND USE PER CUSTOMER ARE SEPARATE FACTORS NEGATE YOUR COMPARISON OF THE ASSESSMENT TIME PERIODS BETWEEN THE TWO FACTORS?

A. No. This acknowledgement does not erase the fact that the two factors are similar in that they each are based on highly variable sets of data analyzed over an extended period of time. That the Company uses a fifteen-year time period, rather than longer periods of 20- or 30-years, to normalize data as highly variable as weather shows that it is not necessary to use "all available data" to provide an accurate estimation of use per customer as the Company suggests.

Q. WHY DID THE COMPANY DISAGREE WITH YOUR ASSESSMENT THAT THE COMPANY SUPPORTED THE USE OF 15-YEARS FOR ITS REGRESSION ANALYSIS IN ITS PREVIOUS CASES?

A. The Company referred to the two cases following the 2019 UGI Gas merger case in which it used "all available common years" which amounted to 16 and 18 years of data. It further stated that this approach is used in an effort to smooth out transient aberrations that may occur year-to-year for various reasons and best capture long-term trends influencing use per customer. (UGI St. No. 8-R, pp. 7-8).

Q. DID THE COMPANY PROVIDE ANY EXPLANATION WHY CONTINUALLY ADDING YEARS TO ITS ANALYSIS IN SUBSEQUENT BASE RATE CASES IS NEEDED TO SMOOTH OUT "TRANSIENT YEAR-TO-YEAR ABERRATIONS AND CAPTURE LONG-TERM TRENDS"?

A. No. In its 2019 case, the use of 15-years was a sufficient data set to smooth out the transient year-to-year aberrations and capture long-term trends. The Company failed to provide any explanation or rationale for why the existence of additional data suddenly means that 15-years is no longer enough data to smooth out any aberrations or capture long-term trends.

Q. IS IT REASONABLE TO UTILIZE ALL AVAILABLE DATA TO PROJECT THE AVERAGE USAGE PER R/RT HEATING CUSTOMERS?

A. No. As I stated above, in the 2019 base rate case, the Company believed that using 15 years of data was "statistically valid." As described above, now the Company believed that using 16 years of data is "statistically valid." Furthermore, as I stated on page 18 of I&E Statement No. 4, the Company, in its 2019 case, also supported utilizing 15 years of data because the use of 15 years of data is recommended by the American Gas Association and the US Energy Information Association.

Q. DID THE COMPANY PROVIDE ANY SUPPORT FROM THE AMERICAN GAS (AGA) ASSOCIATION OR THE US ENERGY INFORMATION ASSOCIATION (US-EIA) TO SUPPORT USING 18 YEARS OF DATA?

A. No. The Company made no mention of the AGA or the US-EIA to support its current proposed used of 18-years in its direct or rebuttal testimony.

Q. DID THE COMPANY EXPLAIN WHY CONTINUALLY ADDING USAGE DATA TO ITS ANALYSIS IN EACH SUBSEQUENT BASE RATE CASE IS REASONABLE?

A. Yes. The Company stated that it is not aware of a regulatory "stale" standard that is appropriate for ratemaking and thus does not agree with my assertion that data older than 15-years is not representative of recent usage trends and is therefore stale. (UGI St. No. 8-R, p. 9).

Q. IS THE COMPANY'S REFERENCE TO A REGULATORY "STALE" STANDARD DISINGENUOUS?

A. Yes. While there is no written standard regarding the concept of stale data, in practice, the idea of not using data because it is stale is common in base rate cases. The Company does not use "all data available" when determining ratemaking items including, but not limited to, materials and supplies (determined using 13-months of data), forfeited discounts (determined using a three-year average of data), and weather normalization (determined using 15-years of data), because the data outside of the respective time periods is not indicative of current trends. As an example, if there were data from 30 years ago, I would assume that the Company would consider all of that data valid and useful for usage trend analysis.[1] This is simply inaccurate as 30 years of data would encompass large gains in efficiency developments for appliances and home heating technology and even changes in the heating quality of the gas with the introduction of shale gas inside that time period. These type of large magnitude changes impacting gas usage simply cannot be expected to recur going forward, so including the many years of

[1] This assumption is supported by the Company's reference to UGI Gas (former South Rate District) 2016 base rate case in which the Rate R/RT residential use per customer regression was based on a period of nearly 21 years of data. The use of 21 years of data was also opposed by I&E.

data that reduced customer usage due to significant changes should ultimately drop out of the trend analysis to assure that usage projection declines are not overstated going forward. Therefore, there is no justification for adding data simply because its available.

Q. WHAT DID THE COMPANY STATE REGARDING THE INTENT OF YOUR ANALYSIS?

A. On page 9 of UGI Statement No. 8-R, the Company stated that my approach "appears only intended to establish a result which would increase Rate R/RT residential heating use per customer and should be rejected." It supported this accusation by claiming that the data I referred to as stale is related to a downward trend in usage and that the several trends that were upwards in magnitude (2010-2011, 2012-2013, and 2016-2018, specifically) were not excluded.

Q. PLEASE RESPOND.

A. The Company's accusation is false and without merit. While the Company is correct that I could have recommended a five-year period to determine use per customer, I did not do this because, as I stated on I&E Statement No. 4, p. 17, "[a] fifteen-year period remains long enough to smooth out short-term variations and capture the underlying long-term use per customer trends while having the added benefit of not including data that is no longer representative of more recent trends." This statement is consistent with the Company's stated goal of "transient year-to-year aberrations and capture long-term trends" as discussed above. The Company's reference to upward trends in usage in 2010-2011, 2012-2013, and 2016-2018 are also false because, as UGI files additional rate cases over the years, those time periods will eventually no longer be included as they fall out of the data range that should be considered recent. It appears that the Company came to this conclusion and calls into question whether the reason the Company wants to include "all available data" is to smooth out aberrations, as it claims, or to ensure the higher usage in October 2003 is always included so that the use per customer trend decreases more and, thus, increases customer rates.

Q. WHAT DID THE COMPANY STATE REGARDING I&E'S USE PER CUSTOMER RECOMMENDATIONS IN PRIOR CASES?

A. Ms. Epler claimed that I&E's methodology for determining use per customer has varied in UGI Gas's most recent cases, claiming that I used a 5-year and 1-month period in the current case, a 15-year period in the 2020 UGI base rate case, and a 10-year regression period during the Company's 2019 base rate case. (UGI St. No. 8-R, p. 12).

Q. IS THE COMPANY'S DESCRIPTION OF I&E'S PRIOR RECOMMENDATIONS ACCURATE?

A. No. As I discuss below, the 5-year and 1-month analysis was provided in error and the correct 15-year analysis is described below. Though I was not the witness for the 2019 base rate case, I am aware that I&E proposed using a 10-year regression period in that case.

Q. IS THE COMPANY'S CRITICISM OF I&E'S PRIOR RECOMMENDATIONS VALID?

A. No. The time periods selected by I&E were based upon the specific circumstances of each case.

Q. DID THE COMPANY INTRODUCE ANY OTHER ISSUES WITH YOUR ANALYSIS?

A. Yes. On page 10 of UGI Statement No. 8-R, UGI witness Epler correctly indicated that the support for my analysis was based upon 61 months (or 5 years and one month) instead of 180 months (or 15-years) as I described in my direct testimony and above. Pages 11-12 of UGI Statement No. 8-R were dedicated to a discussion of the statistical analysis and P-values of the previous, incorrect, analysis. My intention in Direct Testimony was to use 15-years; however, UGI is correct that I utilized the incorrect time period in my analysis. As such, I would like to correct my recommendation so that it is based on a 15-year data set instead of 5-years and 1 month as I discuss below. For ease of reference, I will discuss this adjustment based on the Company's recommendation.

Q. WHAT IS THE UPDATED USAGE PER R/RT HEATING CUSTOMER THAT YOU ARE RECOMMENDING?

A. I recommend a projected average use per customer for the FPFTY ending September 30, 2023 of approximately 90.0968 Mcf per year (I&E Ex. No. 4-SR, Sch. 1, p. 4). As shown on I&E Exhibit No. 4-SR, Schedule 1, this use per customer is based on a regression analysis of 180 months, or 15-years. The regression results are shown on I&E Exhibit No. 4-SR, Schedule 2. This results in an increase of 2.283 (90.0968-87.8138) Mcf per R/RT customer per year.

Q. HOW MUCH DO GAS VOLUMES INCREASE IF THE AVERAGE USAGE PER R/RT CUSTOMER IS INCREASED BY 2.283 MCF PER CUSTOMER PER YEAR?

A. Gas volumes increase by 1,346,059 Mcf (589,601 X 2.283). This 1,346,059 Mcf of gas was determined by multiplying the 2.283 Mcf per customer per year times 589,601 R/RT heating customers shown on UGI Book III, Exhibit SAE-7(a).

Q. HOW MUCH DOES PRESENT RATE USAGE REVENUE INCREASE IF THE AVERAGE USAGE PER R/RT HEATING CUSTOMER IS INCREASED BY 2.283 MCF PER CUSTOMER PER YEAR?

A. If my recommendation to use the FPFTY average usage is approved, present rate usage revenue increases by $5,532,841 (I&E Ex. No. 4-SR, Sch. 3, line 6). This $5,532,841 of present rate R/RT revenue was determined by multiplying the

1,346,059 Mcf of gas described above times the present usage rate of $4.1104 per Mcf shown on UGI Book V, Exhibit E, p. 2. The result would be to increase the Company's claimed present rate revenue for residential customers by $5,532,841 from $662,174,239 to $667,707,080.

Q. IF THE COMMISSION ACCEPTS YOUR RECOMMENDATION TO INCREASE R/RT PRESENT USAGE RATE REVENUE BY $5,532,841 TO $667,707,080 SHOULD THERE BE A CORRESPONDING INCREASE IN PURCHASED GAS REVENUE AND EXPENSES?

A. Yes. Under present rates, the PGC volumes equal approximately 85.47% of total usage volumes (I&E Ex. No. 4-SR, Sch. 3, line 11, col. A). Therefore, increasing total R/RT sales volumes by 1,346,059 Mcf increases the PGC by 1,150,450 Mcf (1,346,059 Mcf X 0.8547) (I&E Ex. No. 4-SR, Sch. 3, line 10 col. B). This results in an increase in PGC revenue and expenses of $7,721,028 (1,150,450 Mcf X the $6.2767 per Mcf PGC rate) (I&E Ex. No. 4-SR, Sch. 3, line 10, col. D).

Q. IF THE COMMISSION ACCEPTS YOUR RECOMMENDATION TO INCREASE R/RT PRESENT USAGE RATE REVENUE BY $5,532,841 TO $667,707,080 SHOULD THERE BE A CORRESPONDING INCREASE IN OTHER SURCHARGES?

A. Yes. Since the following surcharges are based upon volumes or revenue, they would each increase if the Commission accepts my recommendation to eliminate the post FPFTY usage decline and 15-year regression analysis. Under present rates, the Merchant Function Charge will increase by $156,696 to $6,348,013 (I&E Ex. No. 4-SR, Sch. 3, line 14, col. 14). The Gas Procurement Charge will increase by $75,930 to $3,070,682 (I&E Ex. No. 4-SR, Sch. 3, line 17, col. D). The Universal Service Program rider will increase by $86,979 to $17,623,877 (I&E Ex. No. 4-SR, Sch. 3, line 20, col. D). The Energy and Conservation Efficiency Rider will increase by $279,576 to $11,081,427 (I&E Ex. No. 4-SR, Sch. 3, line 23, col. D).

Q. DOES YOUR RECOMMENDATION TO INCREASE USAGE PER R/RT HEATING CUSTOMER INCLUDE THE VOLUMES AND DOLLARS OF YOUR FIRST RECOMMENDATION CONCERNING POST FPFTY R/RT HEATING USAGES?

A. Yes. As I stated on page 21 of I&E Statement No. 4, the adjustments in my second recommendation are inclusive of the adjustment I described regarding the inclusion of post FPFTY usage data.

Q. DID YOUR UPDATED ANALYSIS PRODUCE A NEW SET OF P-VALUES?

A. Yes. As shown on I&E Exhibit No. 4-SR, Schedule 2, all of the P-values, except for X Variable 3 are below the 0.05 threshold.

Q. ACCORDING TO THE COMPANY, IS YOUR ANALYSIS "STATISTICALLY SIGNIFICANT"?

A. No. However, "statistical significance" should not be the only factor in determining whether a use per customer adjustment is reasonable. As I stated above, conditions that determine use per customer change over time and should no longer be considered representative of current trends. A 50-year regression analysis would likely produce a result that is "statistically significant," but it is not reasonable to assume that data and usage trends from the 1960's, 1970's, and 1980's is indicative of customer usage patterns in 2022 and 2023.

Q. WHAT IS THE TOTAL INCREASE IN PRESENT RATE REVENUE IF THE COMMISSION ACCEPTS YOUR RECOMMENDATION TO INCREASE R/RT PRESENT USAGE RATE DISTRIBUTION VOLUME BY 1,346,059 MCF?

A. Present rate revenue increases by $13,659,652 from $662,174,239 to $675,833,892 (I&E Ex. No. 4-SR, Sch. 3, line 29, col. D). This represents a decrease of $988,550 from the $676,822,441 present rate revenue recommendation shown on I&E Statement No. 4, p. 21 to $675,833,892. As stated above, including gas costs, this represents a revised increase of approximately $13,660,000 from $1,062,721,000 to $1,076,381,000.

<u>AVERAGE BILL COMPARISON</u>

Q. DID THE COMPANY MAKE ANY CLAIMS IN ITS DIRECT TESTIMONY REGARDING THE COMPARISON OF CURRENT RESIDENTIAL RATES TO HISTORIC RESIDENTIAL RATES?

A. Yes. On page 7 of UGI Statement No. 1, the Company claimed that "the Company's average customer bills are less than they were in 2008."

Q. IS THIS ARGUMENT PERSUASIVE?

A. No. As I stated in my Direct Testimony, his claim should be disregarded because it is unsupported and misleading because the comparison is driven largely by the Gas Cost Rate, which is outside of UGI's control (I&E St. No. 4, pp. 24-25).

Q. DID THE COMPANY RESPOND TO YOUR RECOMMENDATION?

A. Yes. The Company disagreed that the Gas Cost Rate should not be considered in the comparison of average bills in the context of a base rate case. The Company also disagreed with my statement that UGI has no control over the gas costs paid by UGI customers (UGI St. No. 1-R, pp. 14-15).

Q. WHY DOES UGI BELIEVE GAS COSTS SHOULD BE INCLUDED IN THE COMPARISON OF AVERAGE BILLS?

A. UGI witness Brown stated that the average bill comparison was focused on customer affordability, and, from that perspective, it is not logical to do a partial bill comparison because that is not how customers experience a gas bill. He further stated that this analysis shows a "data point showing that the customer's bill as a result of this case will still be within the range of their historic experience." (UGI St. No. 1-R, p. 14).

Q. DO YOU AGREE WITH THE STATEMENT THAT THE CUSTOMER'S BILL AS A RESULT OF THIS CASE WILL STILL BE WITHIN THE RANGE OF THE CUSTOMER'S HISTORIC EXPERIENCE?

A. No. This statement will only be accurate if the cost of gas does not increase, and gas costs to customers have increased substantially over just the past year. Furthermore, cherry picking the year 2008 when gas costs were at an all-time high to indicate cost stability is not how a consumer evaluates their month-to-month costs as monthly expenses from 14 years ago would be substantially different and incomparable to current costs and income. It would be illogical to assume that UGI bases its current budgets and cost expectations on conditions 14 years in the past, and it is equally illogical to do so and make this comparison on the utility customer's basis.

Q. HOW DOES MR. BROWN CLAIM THAT UGI IS ABLE TO CONTROL THE COST OF GAS?

A. On page 15 of UGI Statement No. 1-R, Mr. Brown lists a number of methods that UGI uses to control the cost of gas, none of which are able to be assessed or adjusted in the course of a base rate case. In fact, on March 1, 2021, the UGI gas rate was $4.2426 per Mcf, and as of March 1, 2022, the UGI gas rate is $6.2767 per Mcf, an increase of 47.9% in one year ($6.2767-$4.2426/$4.2426), which is hardly indicative of controlled gas costs.

Q. DO YOU AGREE WITH THE COMPANY THAT IT TAKES STEPS TO REDUCE GAS COSTS FOR CUSTOMERS?

A. Yes, but that is not the same thing as having control over the final cost of gas and the total cost of gas on the customer's bill. It should also be noted that the Company also takes steps to increase gas costs, such as including the cost of LNG and additional cost of capacity to increase supplies and reliably.

Q. DO THE METHODS OF AFFECTING THE COST OF GAS IN THE 1307(F) PURCHASED GAS COST FILING LISTED BY MR. BROWN GIVE UGI COMPLETE CONTROL OVER THE COST OF GAS?

A. No. The despite UGI's methods to affect it, the cost of gas is still controlled by the prices set by the natural gas suppliers, the natural gas market, and the need for capacity to deliver the gas to UGI on peak days which are not under the control of the Company.

Q. DO YOU WISH TO CHANGE YOUR RECOMMENDATION?

A. No. Providing customers an average bill comparison in the context of a base rate case that includes the cost of gas without mentioning the cost of gas and its effects on the average bill is misleading and I continue to recommend it be disregarded.

SCALE BACK OF RATES

Q. WHAT SCALE BACK METHODOLOGY DID YOU RECOMMEND FOR THE R/RT AND N/NT CLASSES?

A. I recommended that both the customer charge and usage rates be scaled back such that increase for each customer class is scaled back proportionally to the increase originally proposed by UGI based on the cost of service study that is ultimately approved.

Q. WHAT SCALE BACK METHODOLOGY DID YOU RECOMMEND FOR THE DS CLASS?

A. The DS customer charge was not increased under proposed rates, so it should not be included in any scale back. I recommended that the usage rates be scaled back but no lower than the present North / Central division usage rate of $2.930 per Mcf.

Q. WHAT SCALE BACK METHODOLOGY DID YOU RECOMMEND FOR THE LFD CLASS?

A. The LFD customer charge was not increased under proposed rate, so it should not be included in any scale back. I recommended that the usage rates be scaled back proportionally to reduce the revenue from this class.

Q. WHAT SCALE BACK METHODOLOGY DID YOU RECOMMEND FOR THE XD AND INTERRUPTIBLE CLASSES?

A. The customer charges and usage rates were not increased under proposed rate, so they should not be included in any scale back. I recommended that only the surcharges be for these competitive customers be adjusted.

Q. DID THE COMPANY ADDRESS YOUR RECOMMENDATIONS?

A. Not directly. However, UGI witness Epler, on page 27 of UGI Statement No. 8-R, stated that the increases by classes as proposed by the Company should be adjusted proportionate across all classes and that the scale back should only apply to the distribution charge portion of the Company's proposed rates, in contradiction of my recommendation to also scale back the customer charge, because it is supported by the customer cost analysis.

Q. DO YOU AGREE WITH THE COMPANY'S RECOMMENDATION?

A. No. As I stated in direct testimony and above, the customer charge should be included in the scale back of rates. Reducing the customer charge despite the support is consistent with Commission precedent in the UGI Utilities, Inc. – Electric base rate case at Docket No. R-2017-2640058 (I&E St. No. 4, pp.27-28).

The Company provided no evidence or rationale provided in this case for reversing the Commission's prior decision concerning customer charges in that case.

Q. DID ANY OTHER PARTIES ADDRESS YOUR SCALE BACK RECOMMENDATION?

A. Yes. OCA witness Mierzwa opposed my recommendation because it is based on the Company's cost of service study which used the Average and Excess methodology as opposed to the cost of service study he proposed which employs the Peak and Average methodology (OCA St. No. 2R, p. 3).

Q. DO YOU OPPOSE THE OCA'S RECOMMENDED PEAK AND AVERAGE COST OF SERVICE STUDY?

A. I did not perform an analysis of the OCA's Peak and Average cost of service study. However, in general, the Peak and Average methodology for performing a cost of service study is also reasonable. Therefore, I neither support nor oppose OCA's proposed cost of service study.

Q. DO YOU WISH TO CHANGE YOUR SCALE BACK RECOMMENDATION?

A. No. I continue to recommend that the customer charge and usage rates be scale back only for those rate classes that have a proposed increase. I would like to add, however, that this scale back should be based on whichever cost of service study that the Commission deems most reasonable in this case.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

I&E Exhibit No. 4-SR
Witness: Ethan H. Cline

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Exhibit to Accompany

the

Surrebuttal Testimony

of

Ethan H. Cline

Bureau of Investigation and Enforcement

Concerning:

Test Year
Present Rate Revenue
Weather Normalization Adjustment
Average Bill Comparison
Scale Back of Rates

Regression Results:		
	0.824844	Constant
	0.000543	HDD-1
	0.012899	HDD
	0.029024	Trend

	Normal Degree Days (HDD)	Normal Degree Days for Prior Month (HDD-1)	HDD Weighted Trend		1 Month UPC	12 Months Ended UPC
Oct-03	350	83	4		5.4862	
Nov-03	672	350	7		9.8800	
Dec-03	952	672	10		13.7513	
Jan-04	1,120	952	12		16.1232	
Feb-04	962	1,120	10		14.1319	
Mar-04	805	962	8		11.9760	
Apr-04	414	805	4		6.7292	
May-04	164	414	2		3.2159	
Jun-04	30	164	0		1.3102	
Jul-04	0	30	0		0.8411	
Aug-04	16	0	0		1.0363	
Sep-04	83	16	1	FY04	1.9309	86.4122
Oct-04	350	83	4		5.4983	86.4244
Nov-04	672	350	8		9.9034	86.4478
Dec-04	952	672	11		13.7844	86.4809
Jan-05	1,120	952	13		16.1623	86.5199
Feb-05	962	1,120	11		14.1654	86.5534
Mar-05	805	962	9		12.0040	86.5815
Apr-05	414	805	5		6.7437	86.5959
May-05	164	414	2		3.2216	86.6016
Jun-05	30	164	0		1.3113	86.6027
Jul-05	0	30	0		0.8411	86.6027
Aug-05	16	0	0		1.0369	86.6032
Sep-05	83	16	1	FY05	1.9338	86.6061
Oct-05	350	83	4		5.5105	86.6183
Nov-05	672	350	8		9.9268	86.6417
Dec-05	952	672	12		13.8176	86.6749
Jan-06	1,120	952	14		16.2013	86.7139
Feb-06	962	1,120	12		14.1989	86.7474
Mar-06	805	962	10		12.0320	86.7754
Apr-06	414	805	5		6.7581	86.7898
May-06	164	414	2		3.2273	86.7955
Jun-06	30	164	0		1.3123	86.7966
Jul-06	0	30	0		0.8411	86.7966
Aug-06	16	0	0		1.0375	86.7971
Sep-06	83	16	1	FY06	1.9367	86.8000
Oct-06	350	83	5		5.5227	86.8122
Nov-06	672	350	9		9.9502	86.8356
Dec-06	952	672	13		13.8507	86.8688
Jan-07	1,120	952	16		16.2403	86.9078
Feb-07	962	1,120	13		14.2324	86.9413
Mar-07	805	962	11		12.0601	86.9693
Apr-07	414	805	6		6.7725	86.9838
May-07	164	414	2		3.2330	86.9895
Jun-07	30	164	0		1.3133	86.9905
Jul-07	0	30	0		0.8411	86.9905
Aug-07	16	0	0		1.0380	86.9911
Sep-07	83	16	1	FY 07	1.9396	86.9940
Oct-07	350	83	5		5.5349	87.0061
Nov-07	672	350	10		9.9736	87.0296
Dec-07	952	672	14		13.8839	87.0627
Jan-08	1,120	952	17		16.2793	87.1017
Feb-08	962	1,120	15		14.2659	87.1352
Mar-08	805	962	12		12.0881	87.1633
Apr-08	414	805	6		6.7869	87.1777
May-08	164	414	3		3.2387	87.1834
Jun-08	30	164	0		1.3144	87.1844
Jul-08	0	30	0		0.8411	87.1844
Aug-08	16	0	0		1.0386	87.1850
Sep-08	83	16	1	FY 08	1.9425	87.1879
Oct-08	350	83	6		5.5471	87.2001
Nov-08	672	350	11		9.9970	87.2235
Dec-08	952	672	15		13.9171	87.2566
Jan-09	1,120	952	18		16.3183	87.2956
Feb-09	962	1,120	16		14.2994	87.3292
Mar-09	805	962	13		12.1161	87.3572
Apr-09	414	805	7		6.8013	87.3716

Regression Results:	
	0.824844 Constant
	0.000543 HDD-1
	0.012899 HDD
	0.029024 Trend

	Normal Degree Days (HDD)	Normal Degree Days for Prior Month (HDD-1)	HDD Weighted Trend		1 Month UPC	12 Months Ended UPC
May-09	164	414	3		3.2444	87.3773
Jun-09	30	164	1		1.3154	87.3784
Jul-09	0	30	0		0.8411	87.3784
Aug-09	16	0	0		1.0391	87.3789
Sep-09	83	16	1	FY 09	1.9453	87.3818
Oct-09	350	83	6		5.5593	87.3940
Nov-09	672	350	12		10.0204	87.4174
Dec-09	952	672	17		13.9502	87.4506
Jan-10	1,120	952	20		16.3573	87.4896
Feb-10	962	1,120	17		14.3329	87.5231
Mar-10	805	962	14		12.1442	87.5511
Apr-10	414	805	7		6.8158	87.5655
May-10	164	414	3		3.2501	87.5712
Jun-10	30	164	1		1.3165	87.5723
Jul-10	0	30	0		0.8411	87.5723
Aug-10	16	0	0		1.0397	87.5729
Sep-10	83	16	2	FY 10	1.9482	87.5757
Oct-10	350	83	6		5.5715	87.5879
Nov-10	672	350	12		10.0438	87.6113
Dec-10	952	672	18		13.9834	87.6445
Jan-11	1,120	952	21		16.3963	87.6835
Feb-11	962	1,120	18		14.3664	87.7170
Mar-11	805	962	15		12.1722	87.7450
Apr-11	414	805	8		6.8302	87.7595
May-11	164	414	3		3.2559	87.7652
Jun-11	30	164	1		1.3175	87.7662
Jul-11	0	30	0		0.8411	87.7662
Aug-11	16	0	0		1.0402	87.7668
Sep-11	83	16	2	FY 11	1.9511	87.7697
Oct-11	350	83	7		5.5837	87.7819
Nov-11	672	350	13		10.0672	87.8053
Dec-11	952	672	19		14.0165	87.8384
Jan-12	1,120	952	22		16.4353	87.8774
Feb-12	962	1,120	19		14.3999	87.9109
Mar-12	805	962	16		12.2003	87.9390
Apr-12	414	805	8		6.8446	87.9534
May-12	164	414	3		3.2616	87.9591
Jun-12	30	164	1		1.3186	87.9602
Jul-12	0	30	0		0.8411	87.9602
Aug-12	16	0	0		1.0408	87.9607
Sep-12	83	16	2	FY 12	1.9540	87.9636
Oct-12	350	83	7		5.5959	87.9758
Nov-12	672	350	14		10.0906	87.9992
Dec-12	952	672	20		14.0497	88.0324
Jan-13	1,120	952	24		16.4743	88.0714
Feb-13	962	1,120	20		14.4335	88.1049
Mar-13	805	962	17		12.2283	88.1329
Apr-13	414	805	9		6.8590	88.1473
May-13	164	414	4		3.2673	88.1530
Jun-13	30	164	1		1.3196	88.1541
Jul-13	0	30	0		0.8411	88.1541
Aug-13	16	0	0		1.0414	88.1546
Sep-13	83	16	2	FY 13	1.9569	88.1575
Oct-13	350	83	8		5.6081	88.1697
Nov-13	672	350	15		10.1140	88.1931
Dec-13	952	672	21		14.0828	88.2263
Jan-14	1,120	952	25		16.5133	88.2653
Feb-14	962	1,120	22		14.4670	88.2988
Mar-14	805	962	18		12.2563	88.3268
Apr-14	414	805	9		6.8734	88.3413
May-14	164	414	4		3.2730	88.3470
Jun-14	30	164	1		1.3207	88.3480
Jul-14	0	30	0		0.8411	88.3480
Aug-14	16	0	0		1.0419	88.3486
Sep-14	83	16	2	FY 14	1.9598	88.3515
Oct-14	350	83	8		5.6202	88.3636
Nov-14	672	350	16		10.1374	88.3871

Regression Results:	
0.824844	Constant
0.000543	HDD-1
0.012899	HDD
0.029024	Trend

	Normal Degree Days (HDD)	Normal Degree Days for Prior Month (HDD-1)	HDD Weighted Trend		1 Month UPC	12 Months Ended UPC
Dec-14	952	672	22		14.1160	88.4202
Jan-15	1,120	952	26		16.5523	88.4592
Feb-15	962	1,120	23		14.5005	88.4927
Mar-15	805	962	19		12.2844	88.5208
Apr-15	414	805	10		6.8879	88.5352
May-15	164	414	4		3.2787	88.5409
Jun-15	30	164	1		1.3217	88.5419
Jul-15	0	30	0		0.8411	88.5419
Aug-15	16	0	0		1.0425	88.5425
Sep-15	83	16	2	FY 15	1.9627	88.5454
Oct-15	350	83	9		5.6324	88.5576
Nov-15	672	350	16		10.1608	88.5810
Dec-15	952	672	23		14.1492	88.6141
Jan-16	1,120	952	28		16.5913	88.6531
Feb-16	962	1,120	24		14.5340	88.6867
Mar-16	805	962	20		12.3124	88.7147
Apr-16	414	805	10		6.9023	88.7291
May-16	164	414	4		3.2844	88.7348
Jun-16	30	164	1		1.3227	88.7359
Jul-16	0	30	0		0.8411	88.7359
Aug-16	16	0	0		1.0430	88.7364
Sep-16	83	16	2	FY 16	1.9656	88.7393
Oct-16	350	83	9		5.6446	88.7515
Nov-16	672	350	17		10.1842	88.7749
Dec-16	952	672	25		14.1823	88.8081
Jan-17	1,120	952	29		16.6304	88.8471
Feb-17	962	1,120	25		14.5675	88.8806
Mar-17	805	962	21		12.3404	88.9086
Apr-17	414	805	11		6.9167	88.9230
May-17	164	414	4		3.2901	88.9287
Jun-17	30	164	1		1.3238	88.9298
Jul-17	0	30	0		0.8411	88.9298
Aug-17	16	0	0		1.0436	88.9303
Sep-17	83	16	2	FY 17	1.9685	88.9332
Oct-17	350	83	9		5.6568	88.9454
Nov-17	672	350	18		10.2076	88.9688
Dec-17	952	672	26		14.2155	89.0020
Jan-18	1,120	952	30		16.6694	89.0410
Feb-18	962	1,120	26		14.6010	89.0745
Mar-18	805	962	22		12.3685	89.1025
Apr-18	414	805	11		6.9311	89.1170
May-18	164	414	5		3.2958	89.1227
Jun-18	30	164	1		1.3248	89.1237
Jul-18	0	30	0		0.8411	89.1237
Aug-18	16	0	0		1.0441	89.1243
Sep-18	83	16	2	FY 18	1.9714	89.1272
Oct-18	350	83	10		5.6690	89.1394
Nov-18	672	350	19		10.2310	89.1628
Dec-18	952	672	27		14.2486	89.1959
Jan-19	1,120	952	32		16.7084	89.2349
Feb-19	962	1,120	27		14.6345	89.2684
Mar-19	805	962	23		12.3965	89.2965
Apr-19	414	805	12		6.9455	89.3109
May-19	164	414	5		3.3016	89.3166
Jun-19	30	164	1		1.3259	89.3176
Jul-19	0	30	0		0.8411	89.3176
Aug-19	16	0	0		1.0447	89.3182
Sep-19	83	16	2	FY 19	1.9743	89.3211
Oct-19	350	83	10		5.6812	89.3333
Nov-19	672	350	20		10.2544	89.3567
Dec-19	952	672	28		14.2818	89.3898
Jan-20	1,120	952	33		16.7474	89.4289
Feb-20	962	1,120	28		14.6680	89.4624
Mar-20	805	962	24		12.4246	89.4904
Apr-20	414	805	12		6.9600	89.5048
May-20	164	414	5		3.3073	89.5105
Jun-20	30	164	1		1.3269	89.5116

Regression Results:		
	0.824844	Constant
	0.000543	HDD-1
	0.012899	HDD
	0.029024	Trend

	Normal Degree Days (HDD)	Normal Degree Days for Prior Month (HDD-1)	HDD Weighted Trend		1 Month UPC	12 Months Ended UPC	
Jul-20	0	30	0		0.8411	89.5116	
Aug-20	16	0	0		1.0453	89.5121	
Sep-20	83	16	3	FY 20	1.9771	89.5150	
Oct-20	350	83	11		5.6934	89.5272	
Nov-20	672	350	20		10.2778	89.5506	
Dec-20	952	672	29		14.3149	89.5838	
Jan-21	1,120	952	34		16.7864	89.6228	
Feb-21	962	1,120	30		14.7015	89.6563	
Mar-21	805	962	25		12.4526	89.6843	
Apr-21	414	805	13		6.9744	89.6987	
May-21	164	414	5		3.3130	89.7045	
Jun-21	30	164	1		1.3280	89.7055	
Jul-21	0	30	0		0.8411	89.7055	
Aug-21	16	0	1		1.0458	89.7061	
Sep-21	83	16	3	FY 21	1.9800	89.7090	
Oct-21	350	83	11		5.7056	89.7211	
Nov-21	672	350	21		10.3013	89.7445	
Dec-21	952	672	30		14.3481	89.7777	
Jan-22	1,120	952	36		16.8254	89.8167	
Feb-22	962	1,120	31		14.7350	89.8502	
Mar-22	805	962	26		12.4806	89.8783	Historic Test Year Annualized FY 21
Apr-22	414	805	13		6.9888	89.8927	
May-22	164	414	5		3.3187	89.8984	
Jun-22	30	164	1		1.3290	89.8994	
Jul-22	0	30	0		0.8411	89.8994	
Aug-22	16	0	1		1.0464	89.9000	
Sep-22	83	16	3	FY 22	1.9829	89.9029	
Oct-22	350	83	11		5.7178	89.9151	
Nov-22	672	350	22		10.3247	89.9385	
Dec-22	952	672	31		14.3813	89.9716	
Jan-23	1,120	952	37		16.8644	90.0106	
Feb-23	962	1,120	32		14.7685	90.0441	
Mar-23	805	962	27		12.5087	90.0722	Future Test Year Annualized FY 22
Apr-23	414	805	14		7.0032	90.0866	
May-23	164	414	5		3.3244	90.0923	
Jun-23	30	164	1		1.3301	90.0934	
Jul-23	0	30	0		0.8411	90.0934	
Aug-23	16	0	1		1.0469	90.0939	
Sep-23	**83**	**16**	**3**	**FY 23**	**1.9858**	**90.0968**	**Fully Projected Future Test Year FY 23**
Oct-23	350	83	12		5.7300	90.1090	
Nov-23	672	350	23		10.3481	90.1324	
Dec-23	952	672	33		14.4144	90.1656	
Jan-24	1,120	952	38		16.9034	90.2046	
Feb-24	962	1,120	33		14.8020	90.2381	
Mar-24	805	962	28		12.5367	90.2661	Fully Projected Future Test Year Annualized FY 23

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.992187643
R Square	0.984436318
Adjusted R Square	0.984171028
Standard Error	0.724679355
Observations	180

ANOVA

	df	*SS*	*MS*	*F*	*ignificance F*
Regression	3	5846.282	1948.761	3710.793	8.5E-159
Residual	176	92.42819	0.52516		
Total	179	5938.71			

	Coefficients	*andard Err*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*Ipper 95.0%*
Intercept	0.824844221	0.083456	9.883613	1.33E-18	0.660141	0.989547	0.660141	0.989547
X Variable 1	0.000542608	0.000233	2.325247	0.021199	8.21E-05	0.001003	8.21E-05	0.001003
X Variable 2	0.01289912	0.000402	32.10534	1.72E-75	0.012106	0.013692	0.012106	0.013692
X Variable 3	0.029024231	0.015242	1.904178	0.058518	-0.00106	0.059106	-0.00106	0.059106

I&E Exhibit No. 4-SR
Schedule 3

UGI Utilities, Inc. - Gas Division
Residential Service - Rate Schedules R & RT
Calculation of the Effect of Proposed Rates
12-Months Ending September 30, 2023

Line No.	Description	Number of Bills (A)	Pro Forma Consumption Mcf (B)	Current Rate (C)	Current Revenue (D)	Proposed Rate (E)	Proposed Revenue (F)	Proposed Revenue Change (G)	% Change
1	**Non-Heating** Customer Charge	272,784		$ 14.60	$ 3,982,646	$ 19.95	$ 5,442,041	$ 1,459,394	
2	**Non Heating** Distribution Charges		435,108	$ 4.1104	$ 1,788,468	$ 4.9996	$ 2,175,366	$ 386,898	
3	**Heating** Customer Charge	7,120,800		$ 14.60	$ 103,963,680	$ 19.95	$ 142,059,960	$ 38,096,280	
4	GET Gas Customer Charge	5,988		$ 28.25	$ 169,164	$ 28.25	$ 169,164	$ -	
5	**Heating** Distribution Charges		51,571,875	$ 4.1104	$ 211,981,035	$ 4.9996	$ 257,838,746	$ 45,857,711	
		Average							
6	**Increase in Usage per Customer - Post FPFTY**	2.283	1,346,059	$ 4.1104	$ 5,532,841	$ 4.9996	$ 6,729,757		
7	**Company Claim**	87.8138	51,571,875	$ 4.1104	$ 211,981,035	$ 4.9996	$ 257,838,746		
8	**Total Heating**	90.0968	52,917,934	$ 4.1104	$ 217,513,876	$ 4.9996	$ 264,568,503		
9	State Tax Adjustment Surcharge (STAS) - Rider A			0.00%	$ -	0.00%	$ -	$ -	
10	**Increase in Usage per Customer - Post FPFTY**		1,150,450	$ 6.2767	$ 7,221,028	$ 6.2767	$ 7,221,028		
11	Purchased Gas Costs (PGC) - Rider B	0.85468	45,375,042	$ 6.2767	$ 284,805,526	$ 6.2767	$ 284,805,526	$ -	
12			46,525,492		$ 292,026,554		$ 292,026,554		
13	Merchant Function Charge (MFC) - Rider D		45,375,042	2.17%	$ 6,180,280	2.27%	$ 6,465,085	$ 284,806	
14	Adjustment		1,150,450		156,696		163,917		
15	I&E MFC		46,525,492	2.17%	$ 6,336,976	2.27%	$ 6,629,003		
16	Gas Procurement Charge (GPC) - Rider E		45,375,042	$ 0.0660	$ 2,994,753	$ 0.0660	$ 2,994,753	$ -	
17	Adjustment		1,150,450		75,930		75,930		
18	I&E GPC		46,525,492	$ 0.0660	$ 3,070,682	$ 0.0660	$ 3,070,682		
19	Universal Service Program (USP) - Rider F	0.92736	49,233,290	$ 0.3562	$ 17,536,898	$ 0.3562	$ 17,536,898	$ -	
20	Adjustment		244,187		86,979		86,979		
21	I&E USP		49,477,477	$ 0.3562	$ 17,623,877	$ 0.3562	$ 17,623,877		
22	Energy Efficiency & Conservation Rider (EEC) - Rider G		52,006,983	$ 0.2077	$ 10,801,850	$ 0.2077	$ 10,801,850	$ -	
23	Adjustment		1,346,059		279,576		279,576		
24	I&E EEC		53,353,042	$ 0.2077	$ 11,081,427	$ 0.2077	$ 11,081,427		
25	Distribution System Improvement Charge (DSIC) - Rider I			5.00%	$ 17,969,939	0.00%	$ -	$ (17,969,939)	
26	Adjustment		-		306,601		-		
27	I&E DSIC		-	5.00%	$ 18,276,540	0.00%	$ -	$ (18,276,540)	
28	**Company Claim**	**7,393,584**	**52,006,983**		**$ 662,174,239**		**$ 730,289,390**		
29	**I&E Adjustment**		**1,346,059**		**$ 13,659,652**		**$ 14,557,188**		
30	**Total - Rates R/RT**	**7,393,584**	**53,353,042**		**$ 675,833,892**		**$ 744,846,578**	**$ 69,012,686**	**10.2%**
31	Purchased Gas Costs				$ (284,805,526)		$ (284,805,526)		
32	Total Distribution Costs				$ 391,028,365		$ 460,041,052		

I&E Statement No. 5-SR
Witness: Esyan A. Sakaya

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Surrebuttal Testimony

of

Esyan A. Sakaya

Bureau of Investigation and Enforcement

Concerning:

RATE BASE
UTILITY PLANT IN SERVICE
ANNUAL DEPRECIATION
ACCUMULATED DEPRECIATION

TABLE OF CONTENTS

INTRODUCTION

Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?

A. My name is Esyan A. Sakaya. My business address is 400 North Street, Harrisburg, PA 17120.

Q. ARE YOU THE SAME ESYAN A. SAKAYA THAT SUBMITTED DIRECT TESTIMONY ON APRIL 15, 2022?

A. Yes. I submitted I&E Statement No. 5 and I&E Exhibit No. 5.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to update and correct the recommendations and schedules contain in my direct testimony, address the rebuttal testimonies and exhibits of Vivian K. Ressler (UGI St. No. 3-R) regarding rate base, annual depreciation, and accumulated depreciation expense, and the rebuttal testimony of Vicky Schappell (UGI St. No. 5-R) concerning utility plant in service in relation to UGI Utilities, Inc. - Gas Division's ("UGI" or "Company") request for an annual increase in operating revenue of approximately $82,700,000 using the Fully Projected Future Test Year ("FPFTY") ending September 30, 2023.

Q. DOES YOUR SURREBUTTAL TESTIMONY INCLUDE AN EXHIBIT?

A. Yes, I&E Exhibit 5-SR will accompany my surrebuttal testimony. However, some exhibit references will be directed towards I&E Exhibit No. 5, which was the Exhibit to accompany my Direct Testimony identified as I&E Statement No. 5.

<u>RATE BASE – COMPANY REVISION</u>

Q. WHAT WAS THE COMPANY'S RATE BASE CLAIM IN THE INITIAL FILING?

A. The Company claimed a rate base of $3,169,023,000 (UGI Book V, Ex. A - Fully Projected, Sch. C-1, ln. 9 and I&E Ex. No. 5, Sch. 1, column B, p. 1, line 12).

Q. DID THE COMPANY REVISE ITS RATE BASE CLAIM IN REBUTTAL TESTIMONY?

A. Yes. The Company claimed a revised rate base of $3,176,596,000 in its Rebuttal Testimony, which is an increase of $7,573,000 ($3,176,596,000 -$3,169,023,000) over the claim in the original filing (UGI Gas - Exhibit A - FPFTY -Rebuttal, Schedule A-1, column 3, line 9).

Q. WHAT WAS THE BASIS FOR UGI'S $7,573,000 INCREASE IN RATE BASE?

A. UGI's adjusted rate base claims shown in UGI Exhibit A – FPFTY, Schedule C-1 were additions and subtractions to plant in service, accumulated depreciation, working capital, gas inventory, accumulated deferred income taxes, customer deposits, and materials and supplies. I will address the plant in service and accumulated depreciation below.

<u>UTILITY PLANT IN SERVICE – COMPANY REVISION</u>

Q. WHAT DID THE COMPANY INITIALLY CLAIM FOR UTILITY PLANT IN SERVICE AT THE END OF EACH TEST YEAR AND HOW MUCH NET PLANT WAS PROJECTED TO BE ADDED IN EACH TEST YEAR?

A. The Company's initial utility plant in service claim for the FTY ending September 30, 2022 was $4,597,404,000 (UGI Ex. A - Future, Sch. C-1, ln. 1). The Company's utility plant in service claim for the FPFTY ending September 30, 2023 is $5,042,025,000 (UGI Ex. A - Fully Projected, Sch. C-1, ln. 1). Accordingly, the total net plant additions from the FTY to the FPFTY is $444,621,000 ($5,042,025,000 - $4,597,404,000) (I&E Ex. No. 5, Sch. 2, column B, line 13 and column F line 13). The Company's utility plant in service claim for the HTY ended September 30, 2021 was $4,247,028,000 (UGI Ex A – HTY, Sch. C-1, line 1). Accordingly, the total net plant additions from the HTY to the FTY is $350,376,000 ($4,597,404,000 - $4,247,028,000) (I&E Ex. No. 5, Sch. 2, column B, line 13 and I&E Ex. No. 5, Sch. 4, column D, line 17).

Q. WHAT UTILITY PLANT IN SERVICE DID THE COMPANY CLAIM IN REBUTTAL TESTIMONY?

A. In rebuttal testimony, the Company claimed $5,041,354,000 of total utility plant in service for the FPFTY (UGI Gas Ex. A - FPFTY Rebuttal, Sch. C-1). This is a reduction of $671,000 ($5,042,025,000 - $5,041,354,000) and is shown on UGI Gas Ex. A - Rebuttal, Sch. C-2, page 3, Column 3, line 8.

Q. WHAT WAS THE BASIS FOR UGI'S $671,000 REDUCTION TO PLANT IN SERVICE?

A. UGI reduced the projected level of Mains by approximately $671,000 (UGI Gas Exhibit A - Rebuttal Schedule C-2 Column 4, line 40, page 5). The Company attributes this reduction in Mains to adjustments made in both the FTY and FPFTY to three projects that are estimated to be completed after the end of the FPFTY (UGI Gas Ex. VKR-1R).

ACCUMULATED DEPRECIATION – COMPANY REVISION

Q. WHAT ACCUMULATED DEPRECIATION DID THE COMPANY CLAIM IN THE ORIGINAL FILING?

A. In the original filing, the Company claimed $1,318,560 of accumulated depreciation as of September 30, 2023 (UGI Volume V, Sch. A-1, p. 1, line 2).

Q. WHAT ACCUMULATED DEPRECIATION DID THE COMPANY CLAIM IN REBUTTAL TESTIMONY?

A. In its rebuttal testimony, the Company lowered the accumulated depreciation to $1,318,079 as of September 30, 2023 (UGI Ex. A – Rebuttal, Sch. A-1, p. 1, line 2). This $481,000 reduction ($1,318,560 – $1,318,079) is the result of changes to the original cost of account 376 and 378 that impacted the annual depreciation expense, corrections to a service life for Allowance for Funds Used for Construction (AFUDC), and a re-allocation of depreciation expense to other UGI gas operations, (UGI FPFTY Rebuttal Ex. A, Sch. C-3, p. 5, lines 40-41).

I&E RATE BASE RECOMMENDATION – REVISION

Q. WHAT DID YOU RECOMMEND IN YOUR DIRECT TESTIMONY CONCERNING PLANT IN SERVICE?

A. In direct testimony, I recommended that UGI's rate base be reduced from $3,169,023,000 to $3,023,151,000, which was a reduction of $145,872,000 (I&E Ex. No. 5, Sch. 1, p. 1, line 12).

Q. DO YOU WISH TO REVISE YOUR RECOMMENDATION IN THIS SURREBUTTAL TESTIMONY?

A. Yes. After submitting my direct testimony, I became aware of an error in my calculation for the accumulated depreciation for 2023. Therefore, I recalculated the accumulated depreciation for 2023 and incorporated this correction into my revised recommendation described below. I have also incorporated the Company's revisions to plant in service and accumulated depreciation described above in my revised recommendation. My recommendation is to reduce the revised rate base of $3,176,596,000 to $3,022,865,000, which is a reduction of $153,740,000 (I&E Ex. No. 5-SR, Sch. 1, p. 1, columns D-F, line 12).

UTILITY PLANT IN SERVICE – I&E REVISION

Q. WHAT DID YOU RECOMMEND IN YOUR DIRECT TESTIMONY CONCERNING PLANT IN SERVICE?

A. In direct testimony, I recommended that UGI's $5,042,025,000 of plant in service be reduced to $4,904,376,000, which was a reduction $137,649,000 (I&E Ex. No. 5, Sch. 1, p. 1, line 1).

Q. WHAT REDUCTION TO PLANT IN SERVICE DO YOU NOW RECOMMEND?

A. As a result of the Company revising its projected plant in service, I now recommended that total plant in service be reduced by $137,539,000. This recommendation reduces the Company's rebuttal utility plant in service claim from $5,041,354,000 to $4,903,815,000 (I&E Ex. No. 5, Schedule 1-SR, p. 1, line 1, columns D-F). A breakdown of the adjustment for each plant category is shown on I&E Ex. No. 5-SR, Sch. 2, page 1. On page 1, the 2022 plant additions and adjustments are shown under columns A-D, and the plant additions and adjustments for both 2022 and 2023 are shown under columns E-H. The FPFTY alone is shown on I&E Ex. No. 5-SR, Sch. 2, page 2.

Q. WHAT WAS THE BASIS FOR YOUR RECOMMENDATION TO REDUCE PLANT IN SERVICE?

A. As stated in my direct testimony, in the last two rate cases the Company has a demonstrated history of over projecting plant relative to what has actually been placed in service (I&E St. No. 5, pp. 5-6). On average, during the 2018 and 2020 cases, the Company only completed 83.694% of FPFTY gas plant and 67.669% of FPFTY common plant (I&E Ex. No. 5, Sch. 3, lines 3 and 6).

Q. DID THE COMPANY DISAGREE WITH YOUR RECOMMENDATION TO REDUCE FTY AND FPFTY PLANT IN SERVICE PROJECTIONS?

A. Yes, for several reasons. First, the Company claims that the proper comparison is to budgeted plant additions and not plant projected in past rate cases and that I&E disregarded UGI's budgeting process. Second, the Company claims that the appropriate time to evaluate the proper comparison of plant placed into service is to compare 3 to 5 years. Third, the Company attempts to dispute the use of a two-year period during the Covid-19 pandemic. Fourth, the Company believes the Commission should consider inflation in this case when evaluating past performance. Fifth, the Company claims that my methodology does not take into considerations adjustments made in settlements. Sixth, the Company believes that I did not properly account for retirements. Seventh, the Company believes that I improperly separated gas plant and common plant in my analysis. Finally, the Company disputes that it earned a return on plant that it did not place into service (UGI St. No. 5-R, pp. 5-7).

Q. WHAT METHODOLOGY DID YOU USE IN YOUR FTY AND FPFTY PLANT PROJECTIONS?

A. The methodology I used is called "variance analysis." It is an accounting methodology that compares predicted and actual outcomes. The details of this analysis are described in my direct testimony and the results are summarized on I&E Ex. No. 5, Sch. 1, pp 1-2.

Q. WHAT IS VARIANCE AND HOW DOES IT APPLY TO UTILITY ACCOUNTING?

A. Variance in accounting is the difference between a forecasted amount and the actual amount (Forecast – Actual = Variance). As stated below, in the past two rate cases at

Dockets R-2018-3006814 and R-2020-3015162, UGI did not meet or exceed its initially forecast projections. The actuals for the past two rate cases were below forecast. Because of these inaccurate forecasts, the Company can unfairly pass its claimed plant additions to ratepayers through the established revenue requirement without placing the claimed plant into service.

Q. WHAT DID THE COMPANY CLAIM CONCERNING THE AMOUNT OF PLANT COMPLETED OVER THE PAST FIVE YEARS?

A. The Company claims that it completed 98.0% of plant budgeted over the past five years (UGI St. 5-R, p. 10 and Book 3, Exhibit VAS-2).

Q. SHOULD COMPANY "BUDGETED" AMOUNTS BE USED TO DETERMINE THE PERCENTAGE OF PLANT COMPLETED AS SUGGESTED BY THE COMPANY?

A. No, for several reasons. First, rates are not based upon "budgeted" plant additions, rates are based upon FTY and FPFTY plant claimed in base rate filings. They are two different things. In the 2019 base rate case, the Company projected it would add $405,430,000 in 2021.[1] However, as shown on UGI Ex. VAS-2 the "budgeted" additions for 2021 were only $389,008,000. Therefore, the Company is claiming, and potentially recovering, much more in base rate cases than what it is actually budgeting. Second, budgets can be adjusted as time progresses and there is no indication when the "budgeted" amounts on UGI Ex. VAS-2 were prepared or

[1] UGI Book 6, p. II-10, at Docket R-2019-3015162

adjusted. Finally, a review of a UGI's standard data requests for the last three rate cases at Dockets R-2018-3006814, R-2019-3015162 and R-2021-3030218 reflects a 93% actual completion in September of 2019 at Docket R-2018-3006814[2]. When comparing the plant claimed at Docket R-2018-3006814 to amount being claimed at Docket R-2019-3015162 only 85% actual plant was completed in September of 2020[3]. Finally, when comparing the actual plant placed into service from Docket R-2019-3015162 into Docket R-2021-3030218 only of 89% actual plant was completed in September of 2021.[4] Therefore, utilizing a variable changing "budget" amount for comparison instead of a fixed rate base claim is not valid and should be discarded for comparison purposes.

Q. IS COMPARING THE COMPANY'S PERCENT OF BUDGETED PLANT COMPLETED A VALID COMPARISON?

A. No. As described above, and in my direct testimony, the Commission should only consider the actual plant in service compared to the amount of plant claimed in the prior rate cases. The Company's "budgeted" plant amounts can be adjusted over time and may not reflect what was claimed in past cases. On the other hand, the Company's FPFTY plant projections amounts cannot be changed which is why that should be used for comparison. Moreover, the FPFTY amounts from the prior two cases are what the Company actually sought to recover from ratepayers and are a more accurate comparison to what it is seeking to recover in this proceeding.

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[2] UGI Book 2, SDR-RR-15, at Docket R-2018-3006814
[3] UGI Book 2, SDR-RR-15, at Docket R-2019-3015162
[4] UGI Book 2, SDR-RR-15, at Docket R-2021-3030128

Q. WHAT DID THE COMPANY CLAIM CONCERNING THE TIME PERIODS COVERED BY I&E'S ANALYSIS?

A. The Company believes my two-year analysis is not long enough to make the plant comparisons valid. In addition to this, UGI mentions past rate base cases of other companies that made use of a regulatory requirement that required a longer time period to justify plant additions (UGI St. No. 5-R, pp. 7-9).

Q. ARE THE COMPANY'S CONCERNS REGARDING THE SHORTER TIME PERIOD VALID?

A. No. I believe a two-year review is sufficient to evaluate the Company's success at meeting FPFTY projections. I am not aware of any minimum review period for comparing plant additions.

Q. DID THE COMPANY PROVIDE A LONGER COMPARISON OF FTY AND FPFTY PLANT IN SERVICE THAT WOULD DEMONSTRATE YOUR ANALYSIS IS UNRELIABLE?

A. No. If the Company had evidence that over the last three or more years or cases, that it actually installed all the projected FTY and FPFTY plant, it should have provided this analysis to support its allegation. However, the Company failed to provide this analysis, which leads me to believe that including more years would have produced similar results.

Q. WHAT ADDITIONAL TESTIMONY DOES THE COMPANY PROVIDE TO ATTEMPT TO SUPPORT ITS CLAIM THAT THREE YEARS IS THE ONLY VALID TIME PERIOD TO EVALUATE THE LEVEL OF PLANT INSTALLED?

A. The Company claims it is important that the 52 Pa Code 53.53 filing requirement requires a utility to provide a three-to-five-year comparison of measure of value to determine the reasonableness of the projected measure of value while making no reference to a two-year period comparison (UGI St. 5-R, pp. 8-9).

Q. SHOULD THE COMMISSION BASE ITS DETERMINATION OF PLANT IN SERVICE ON ONLY ONE FILING REQUIREMENT?

A. No, for two reasons. First, filing requirements simply describe what a utility must provide in a rate case. There is nothing in this filing requirement that limits, directs, or instructs the Commission that it must makes its decision based solely on this filing requirement. Second, as described above, if the Company had evidence to support its claim that over the past 5 years, it completed more plant than projected in the FTY or FPFTY, it should have provided it. Therefore, the claim that the Commission is somehow limited to the data originally provided in 52 Pa Code 53.53 is incorrect.

Q. WHAT DOES THE COMPANY CLAIM CONCERNING PANDEMIC DELAYS?

A. The Company believes my recommendation should be rejected because the time-period I evaluated includes time during the Covid-19 pandemic, and despite the pandemic, it still completed 98% of budgeted plant additions over the past five years (UGI St. No. 5-R, p. 10).

Q. WHY IS THIS ARGUMENT INVALID?

A. Again, the Company erroneously believes the Commission should compare "budgeted" plant additions to actual plant additions as opposed to those plant additions claimed for rate recovery in base rate cases. As described above, this comparison has no value and is substantially misleading relative to what the Company requested for inclusion in rates. To further respond, a review of current events in the news indicates that a continuation of supply chain difficulties, hiring difficulties, and availability of outside contractors as the result of the Covid-19 pandemic will persist through the FTY and FPFTY, which will continue to impact the Company's ability to complete plant addition projections.

Q. WHAT DOES THE COMPANY CLAIM CONCERNING INFLATION?

A. The Company claims that inflation has not been a factor in contracts up to the early part of 2022 but will be from now on. The Company states that the higher inflated contract costs are not included in the FTY or FPFTY plant projections but are now reasonably known and measurable (UGI St. No. 5-R, p. 11-12).

Q. DOES INFLATION OR THE POSSIBILITY OF INFLATION MATTER?

A. No. If inflation increases the unit cost of investments, UGI can still invest the original "budgeted" dollar amount, but less physical plant will be installed since the unit price will increase. Therefore, the Company's claim that somehow inflation negates the fact that they failed to invest in the level of FPFTY described in past rate cases is not valid. Since my analysis was based on dollars of plant claimed for addition in a rate case to dollars of plant actually added, the Company's attempt to relate the shortfall to inflation is without merit. In fact, the higher cost of materials and labor would have caused the Company to exceed its rate case projection if it had achieved the actual physical plant project completion it had claimed in its rate cases.

Q. WHAT DOES THE COMPANY CLAIM CONCERNING THE LEVEL OF PLANT IN RECENT CASES?

A. The Company believes that my recommendation is flawed because I did not consider that in both the 2019 and 2020 Gas Base Rate Cases, the Company reduced its initially filed total plant in service claims for the FPFTY downward, thus making it appear UGI was less successful in installing plant in service than it actually was (UGI St. No. 5-R, pp. 16-17).

Q. IS IT VALID TO ARGUE THAT MY METHODOLOGY IS FLAWED BECAUSE PLANT ACCOUNTS WERE ADJUSTED IN PAST CASES?

A. No. First, the Company made only de minimis charges to its plant addition projections during the rebuttal phases of the past two cases. Second, my recommendation was based upon the original filing because I could not anticipate future plant changes agreed to or proposed by the Company after the initial case was filed. In addition, as described above, I incorporated the most recent plant additions and plant in service claims to establish my revised surrebuttal recommendation.

Q. WHAT DOES THE COMPANY CLAIM CONCERNING THE LEVEL OF RETIREMENTS IN THE CALCULATION OF THE PLANT PROJECTIONS?

A. The Company believes that my methodology failed to properly account for all the projected retirements (UGI St. No. 5-R, pp. 18-19).

Q. IS THIS A VALID ARGUMENT?

A. No. First, my recommendation has been revised to properly account for retirements, cost of removal, and salvage. My response to UGI-II-1 indicated a correction was required, which as described above, is incorporated in my revised recommendation. Second, retirements were properly adjusted to account for the fact that if plant is not placed into service, retirements will not occur.

Q. WHAT DOES THE COMPANY CLAIM CONCERNING THE LEVEL OF GAS PLANT AND COMMON PLANT?

A. The Company believes that my methodology is flawed because I analyzed gas plant and common plant separately. The Company claims that my analysis is flawed because it does not budget plant that way, and recommends my methodology be changed to account for this (UGI St. No. 5-R, pp. 18-19).

Q. PLEASE EXPLAIN WHY YOU ANALYZED GAS PLANT AND COMMON PLANT SEPARATELY.

A. I analyzed gas plant and common plant separately because I determined the percentages of completed plant were different for each type of plant. In addition to this, the Company provided exhibits showing annual accumulated depreciation, along with a set of associated spreadsheets that provided a separate breakdown of gas and common plant. The fact that the Company doesn't "budget" plant additions this way is irrelevant. As described above, the amounts and how they are presented in a base rate case is what should be considered. Since the Company separates gas plant and common plant in rate cases, it is reasonable to separate gas plant and common plant when evaluating the percent completion rate for each type. Therefore, it is not necessary to revise my methodology and recalculate my recommendation as suggested by the Company (I&E Exhibit No. 5-SR, Sch. 2, p, 1).

Q. WHAT DOES THE COMPANY CLAIM CONCERNING RETURN ON PLANT NOT PLACED INTO SERVICE?

A. The Company believes that since the cases were "black box" settlements they did not earn the return they requested in those cases. Therefore, the Company believes that it is incorrect to assert that it earned a return based upon the projected additions in each case (UGI St. No. 5-R, pp. 22-23).

Q. PLEASE ADDRESS THE COMPANY'S ASSERTION THAT SINCE THESE CASES WERE SETTLED IT DID NOT EARN A RETURN BASED UPON PROJECTED ADDITIONS IN EACH CASE?

A. In a black box settlement, because it is unlikely that all parties could agree on the specific adjustments, the adjustments each party used to reach the agreed upon revenue requirement are not specified. Therefore, the FTY and FPFTY plant that was claimed is assumed to be embedded in the settlement as plant additions relate to provision of safe and reliable service, so even if the Company earned a lower rate of return than desired or claimed, that plant, which was presumed to be installed during the impending rate year, does earn a return. In fact, the DSIC implementation paragraph included in most settlements uses the Company's claimed FPFTY rate base as the DSIC trigger point, which reinforces my position that claimed plant remains intact, even in black box settlements.

<u>ACCUMULATED DEPRECIATION – I&E REVISION</u>

Q. WHAT DID YOU RECOMMEND IN YOUR DIRECT TESTIMONY CONCERNING ACCUMULATED DEPRECIATION?

A. I recommended that accumulated depreciation be increased from $1,318,560,000 to $1,326,783,000, which is an increase of $8,223,000 (I&E Ex. No. 5, Sch. 1, p. 1, line 2). The rational for increasing accumulated depreciation was provided on I&E St. No. 5, p. 14.

Q. DUE TO COMPANY AND I&E REVISIONS TO PLANT IN SERVICE, WHAT ADJUSTMENT TO ACCUMULATED DEPRECIATION DO YOU RECOMMEND IN SURREBUTTAL TESTIMONY?

A. As described above, after my direct testimony was filed, I discovered and error in my calculation. Correcting this error together with incorporating the Company's revisions described in its rebuttal testimony, results in me recommending that that the Company's revised accumulated depreciation be increased from $1,318,079,000 to

$1,334,279,000 which is an increase of $16,200,000 (I&E Ex. No. 5-SR, Sch. 1, p. 1, columns D, E, and F, line 2). The accumulated depreciation by account is shown on I&E Ex. No. 5-SR. Sch. 3, pp. 1-2 column F, lines 1-134).

Q. HOW DID YOU DETERMINE THE $1,334,279,000 ACCUMULATED DEPRECIATION FOR THE FPFTY?

A. After reducing the plant in service in the FTY as described above, I recalculated the annual depreciation expense for the FTY. The recalculated annual depreciation expense was then brought forward to determine the accumulated depreciation at the beginning of the FPFTY. Then I continued the same adjustments in the FPFTY to calculate the accumulated depreciation in the FPFTY to arrive at the $1,334,279 000 (I&E Ex. No. 5-SR, Sch. 3, column F, line 134, p. 2).

Q. IF THE COMMISSION ACCEPTS YOUR ADJUSTMENTS TO PLANT IN SERVICE, SHOULD ACCUMULATED DEPRECIATION ALSO BE ADJUSTED?

A. Yes. As described above, reducing plant in service in the FTY and FPFTY reduces the accumulated depreciation that would be associated with these plant additions and reduces retirements of existing plant.

<u>ANNUAL DEPRECIATION EXPENSE – I&E REVISION</u>

Q. WHAT DID YOU RECOMMEND IN YOUR DIRECT TESTIMONY CONCERNING ANNUAL DEPRECIATION EXPENSE?

A. I recommended that annual depreciation expense be reduced from $133,908,000 to

$130,242,000 which is a decrease of $3,666,000 (I&E Ex. No. 5, Sch. 1, p. 2, line 1). The rational for decreasing annual depreciation expense was provided in I&E St. No. 5, p. 15.

Q. DUE TO COMPANY AND I&E REVISIONS TO PLANT IN SERVICE, WHAT ADJUSTMENT TO ANNUAL DEPRECIATION EXPENSE DO YOU RECOMMEND IN SURREBUTTAL TESTIMONY?

A. I recommend that annual depreciation expense be decreased from $133,134,000 to $129,641,000. This is a reduction of $3,494,000 (I&E Ex. No. 5-SR, Sch. 1, p. 2, columns B, C and D, line 1). The annual depreciation expense by account is shown on I&E Ex. No. 5-SR. Sch. 3, p. 2, column D, line 1).

Q. HOW DID YOU DETERMINE THE $129,641,000 ANNUAL DEPRECIATION EXPENSE FOR THE FPFTY?

A. After adjusting the projected plant in service in the FTY and FPFTY as described above, I recalculated the annual depreciation expense for the FPFTY based upon the same service lives the Company used for each plant account to arrive at the $129,641,000 (I&E Ex. No. 5-SR, Sch. 3, pp. 1-2, column I, lines 1-134).

Q. IF THE COMMISSION ACCEPTS YOUR ADJUSTMENTS TO PLANT IN SERVICE, SHOULD ANNUAL DEPRECIATION EXPENSE ALSO BE ADJUSTED?

A. Yes. As described above, reducing plant in service in the FTY and FPFTY reduces the annual depreciation expense that would be associated with these plant additions and reduced retirements of existing plant.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

I&E Exhibit No. 5-SR
Witness: Esyan A. Sakaya

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

**Exhibits to Accompany the
Surrebuttal Testimony**

of

Esyan A. Sakaya

Bureau of Investigation and Enforcement

Concerning:

**RATE BASE
UTILITY PLANT IN SERVICE
ANNUAL DEPRECIATION
ACCUMULATED DEPRECIATION**

UGI Utilities Inc. - Gas Division
Docket No. R-2021-3030218
RATE BASE
($1000)
Twelve Months Ending September 30, 2023

Line No.	Description	Company Original Filing	Rebuttal Adjustments	Company Rebutal	I&E Adjustments	I&E
	(A)	(B)	(C)	(D)	(E)	(F)
1	Plant	$5,042,025	-$671	$5,041,354	-$137,539	$4,903,815
2	Accumulated Depreciation	-$1,318,560	$481	-$1,318,079	-$16,200	-$1,334,279
3						
4	**Net Plant In Service**	$3,723,465	-$190	$3,723,275	-$153,740	$3,569,535
	Additions					
5	Working Capital	$62,148	-$451	$61,697	$0	$61,697
6	Gas Inventory	$17,813	$7,281	$25,094	$0	$25,094
7	Materials And Supplies	$15,707	$852	$16,559	$0	$16,559
8	**Total Additions**	$95,668	$7,682	$103,350	$0	$103,350
	Deductions					
9	ADIC	$628,510	$85	$628,595	$0	$628,595
10	Customer Deposits	$21,600	-$166	$21,434	$0	$21,434
11	**Total Deductions**	$650,110	-$81	$650,029	$0	$650,029
12	**TOTAL RATE BASE**	$3,169,023	$7,573	$3,176,596	-$153,740	$3,022,856

UGI Utilities Inc. - Gas Division
Docket No. R-2021-3030218
Annual Depreciation Expense
($1000)
Twelve Months Ending September 30, 2023

Line No.	Description (A)	Company Original Filing	Rebuttal Adjustments	Company Rebutal (B)	Adjustment (C)	I&E (D)
1	Depreciation Expense	$133,908	-$773	$133,135	-$3,494	$129,641

I&E Exhibit No. 5-SR
Schedule 1
Page 2 of 2

UGI Utilities Inc. - Gas Division
Docket No. R-2021-3030218
Comparison of 2022 Plant In Service

Twelve Months Ending September 30, 2022

Line No.	Description	2022 Projection	Difference	I&E 2022 Recommended
	(A)	(B)	(C)	(D)
	Gas Plant			
1	Production Plant	$1,183,155	$0	$1,183,155
2	Storage Plant	$0	$0	$0
3	Transmission Plant	$50,093,995	$0	$50,093,995
4	Distribution Plant	$4,082,909,204	-$55,205,249	$4,027,703,955
5	General Plant	$208,105,842	-$2,621,048	$205,484,794
6	Non Depreciable Plant	$19,619,037	$0	$19,619,037
7	**Total Gas Plant**	$4,361,911,233	-$57,826,297	$4,304,084,936
	Other Utility Plant			
8	Common	$42,470,773	-$596,127	$41,874,645
9	Information Service	$194,373,930	$2,183,269	$196,557,199
10	Less - Reading Service Center	-$206,048	$0	-$206,048
11	Less - Empire Yard	-$1,845,796	$9,856	-$1,835,940
12	**Total Other Utility Plant**	$234,792,858	$1,596,998	$236,389,857
13	Total Plant In Service	$4,596,704,091	-$56,229,298	$4,540,474,793

UGI Utilities Inc. - Gas Division
Docket No. R-2021-3030218
Comparison of 2023 Plant In Service

Twelve Months Ending September 30, 2023

Line No.	Description	2023 Projection	Difference	I&E 2023 Recommended
	(E)	(F)	(G)	(H)
	Gas Plant			
1	**Production Plant**	$1,183,155	$0	$1,183,155
2	**Storage Plant**	$0	$0	$0
3	**Transmission Plant**	$50,093,995	$0	$50,093,995
4	**Distribution Plant**	$4,440,975,186	-$113,591,490	$4,327,383,696
5	**General Plant**	$239,323,590	-$7,711,413	$231,612,177
6	**Non Depreciable Plant**	$19,619,037	$0	$19,619,037
7	**Total Gas Plant**	$4,751,194,963	-$121,302,903	$4,629,892,060
	Other Utility Plant			
8	**Common**	$42,474,912	-$597,466	$41,877,446.8
9	**Information Service**	$208,384,638	-$2,346,533	$206,038,105.1
10	**Computer System - Unite**	$41,177,032	-$13,312,946	$27,864,086.0
11	**Less - Empire Yard**	-$1,877,110	$19,980	-$1,857,129.1
12	**Total Other Utility Plant**	$290,159,473	-$16,236,964	$273,922,509
13	**Total Rate Base**	$5,041,354,436	-$137,539,868	$4,903,814,568

I&E Exhibit No. 5-SR
Schedule 2
Page 1 of 2

UGI Utilities Inc. - Gas Division
Docket No. R-2021-3030218
Comparison of 2023 Plant ADDITIONS

Twelve Months Ending September 30, 2023

		Plant	Retirements	Net Plant
	(A)	(B)	(C)	(D)
1	Company Gas Plant Additions	$413,055,713	-$23,771,977	$389,283,736
2	Company Common Plant Additions	$63,400,078	-$8,239,512	$55,160,566
3	Company Net Plant	$476,455,791	-$32,011,489	$444,444,302
4	I&E Gas Plant Adjustment	$67,352,864	-$3,876,259	$63,476,606
5	I&E Common Plant Adjustment	$20,497,879	-$2,663,917	$17,833,962
6	I&E Net Adjustment	$87,850,744	-$6,540,175	**$81,310,568**
7	I&E Gas Plant Additions	$345,702,849	-$19,895,718	$325,807,130
8	I&E Common Plant Additions	$42,902,199	-$5,575,595	$37,326,604
9	I&E Net Plant	$388,605,047	-$25,471,314	$363,133,734

I&E Exhibit No. 5-SR
Schedule 2
Page 2 of 2

I&E Exhibit No. 5-SR
Schedule 3

UGI UTILITIES, INC. - GAS DIVISION

TABLE 1. ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AT SEPTEMBER 30, 2023

Line		ACCOUNT (A)	Percent Gas (B)	PROBABLE RETIREMENT YEAR (C)	SURVIVOR CURVE (D)	ORIGINAL COST (E)	BOOK RESERVE (F)	FUTURE BOOK ACCRUALS (G)	CALCULATED ACCRUAL RATE (H)	CALCULATED ACCRUAL AMOUNT (I)	
	GAS PLANT										
	PRODUCTION PLANT										
1	305	MANUFACTURED GAS PLANT SITE REMEDIATION			FULLY ACCRUED*	$0	$69,118	-$69,118	0.0000	$0	
2	325.2	PRODUCING LEASEHOLDS			55 - S0.5	$163,100	$162,135	$965	0.0202	$33	
3	0 325.4	RIGHTS-OF-WAY			60 - R1	$30,277	$29,717	$560	0.0595	$18	619.37
4	328	FIELD MEASURING AND REGULATING STATION STRUCTURES			LLY ACCRUED	$1,263	$1,263	$0	0.0000	$0	619.685
5	329	OTHER STRUCTURES			LLY ACCRUED	$44,785	$44,783	$2	0.0000	$0	
6	330	PRODUCING GAS WELLS - WELL CONSTRUCTION			LLY ACCRUED	$18,209	$18,209	$0	0.0000	$0	
7	331	PRODUCING GAS WELLS - WELL EQUIPMENT			LLY ACCRUED	$24,441	$24,441	$0	0.0000	$0	
8	332	FIELD LINES			47 - L0	$750,689	$726,792	$23,897	0.1263	$948	
9	334	FIELD MEASURING AND REGULATING STATION EQUIPMENT			24 - O3	$89,725	$85,373	$4,352	0.4269	$383	
10	335	DRILLING AND CLEANING EQUIPMENT			30 - S0.5	$49,604	$49,503	$101	0.0323	$16	
11	337	OTHER EQUIPMENT			LLY ACCRUED	$11,062	$11,062	$0	0.0000	$0	
12	TOTAL PRODUCTION PLANT					$1,183,155	$1,222,396	-$39,241		$1,398	
13	STORAGE PLANT										
14	352.01	WELL CONSTRUCTION			FULLY ACCRUED*	$0	-$35,934	$35,934	0.0000	$0	
15	TOTAL STORAGE PLANT					$0	-$35,934	$35,934		$0	
16	TRANSMISSION PLANT										
17	365.2	RIGHTS-OF-WAY			70 - R4	$868,160	$548,463	$319,697	1.3211	$11,469	
18	366	STRUCTURES AND IMPROVEMENTS			30 - R1	$162,216	$147,551	$14,665	0.6917	$1,122	
19	367	MAINS			70 - R3	$39,074,497	$22,345,709	$16,728,788	1.1570	$452,102	
20	369	MEASURING AND REGULATING STATION EQUIPMENT			49 - R2	$6,152,338	$4,059,205	$2,093,133	1.4635	$90,040	
21	370	COMMUNICATION EQUIPMENT			23 - R0.5	$3,486,136	$2,244,418	$1,241,718	2.8049	$97,784	
22	371	OTHER EQUIPMENT			35 - R2.5	$140,637	$130,718	$9,919	0.7637	$1,074	
23	371.1	TESTING EQUIPMENT			20 - R3	$210,011	$157,623	$52,388	2.3399	$4,914	
24	TOTAL TRANSMISSION PLANT					$50,093,995	$29,633,687	$20,460,308		$658,505	
25											
26	DISTRIBUTION PLANT										
27	374.2	RIGHTS-OF-WAY			75 - R3	$3,544,569	$1,427,055	$2,117,514	1.2913	$45,770	
28	375	STRUCTURES AND IMPROVEMENTS			50 - S0.5	$5,554,376	$3,342,999	$2,211,377	1.5283	$84,890	
29	376.1	MAINS - PRIMARILY STEEL			73 - R2.5	$644,569,968	$196,561,136	$448,008,832	1.5101	$9,733,889	
30	376.2	MAINS - CAST IRON		09-2027	65 - R1	$1,577,960	$95,389	$1,482,571	29.7332	$469,177	
31	376.3	MAINS - PLASTIC			67 - R3	$1,671,330,365	$310,744,131	$1,360,586,234	1.6646	$27,821,091	
32	376.5	MAINS - PRIMARILY WROUGHT IRON		09-2041	70 - R1	$279,892	$228,361	$51,531	2.2458	$6,286	
33	376.7	REG AFUDC			5 - SQ	$1,322,088	$201,067	$1,121,021	2.5000	$33,052	
34	378	MEASURING AND REGULATING STATION EQUIPMENT - GENERAL			47 - S0	$177,442,869	$29,540,709	$147,902,160	3.0327	$5,381,267	
35	379	MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE			45 - R2	$25,635,909	$9,033,448	$16,602,461	2.3585	$604,615	
36	380	SERVICES			46 - S1	$1,430,996,244	$427,815,980	$1,003,180,264	2.4875	$35,596,439	
37	381	METERS			35 - R2	$158,148,754	$59,011,320	$99,137,434	3.1193	$4,933,183	
38	381.1	METERS - ERTS			17 - S3	$23,249,327	$20,366,200	$2,883,127	2.1988	$511,217	
39	382	METER INSTALLATIONS			46 - S1	$106,829,279	$38,326,891	$68,502,388	2.3765	$2,538,841	
40	383	HOUSE REGULATORS			46 - S1	$10,706,008	$6,959,309	$3,746,699	1.3686	$146,521	
41	384	HOUSE REGULATOR INSTALLATIONS			46 - S1	$18,879,888	$9,261,373	$9,618,515	1.9820	$374,203	
42	385	INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT			45 - R2	$39,907,546	$18,360,798	$21,546,748	2.0478	$817,227	
43	386.0	OTHER PROPERTY ON CUSTOMERS PREMISES			46 - S1	$68,824	-$84,503	$153,327	13.5403	$9,319	
44	386.1	OTHER PROPERTY ON CUSTOMERS PREMISES - FARM TAPS			45 - R2	$953,218	$678,603	$274,615	1.5061	$14,356	
45	386.2	OTHER PROPERTY ON CUSTOMERS PREMISES - GAS LIGHTS			25 - R3	$24,705	$24,705	$0	0.0000	$0	
46	387	OTHER EQUIPMENT			35 - R2.5	$4,871,243	$3,034,574	$1,836,669	2.0411	$99,425	
47	387.1	OTHER EQUIPMENT - GRAPHIC DATA BASE			25 - SQ	$1,490,664	$1,473,072	$17,592	0.2802	$4,177	
48	TOTAL DISTRIBUTION PLANT					$4,327,383,696	$1,136,402,618	$3,190,981,079		$89,224,946	
49											
50	GENERAL PLANT										
51	390.1	STRUCTURES AND IMPROVEMENTS					RB-40				
52		LANCASTER SERVICE BUILDING		06-2026	80 - R1.5	$5,254,319	$3,571,842	$2,060,749	13.4036	$704,267	
53		READING SERVICE BUILDING		06-2030	80 - R1.5	$19,125,095	$12,666,794	$6,633,042	5.1863	$991,886	
54		BETHLEHEM SERVICE BUILDING		03-2050	80 - R1.5	$19,494,034	$2,586,057	$18,970,342	3.9515	$770,299	
55		LEBANON SERVICE BUILDING		06-2027	80 - R1.5	$2,074,577	$1,832,154	$250,900	3.2487	$67,397	
56		STONE RIDGE SERVICE BUILDING		06-2059	80 - R1.5	$5,515,549	$1,591,809	$4,015,164	2.3661	$130,503	
57		GAS TRAINING CENTER		09-2071	80 - R1.5	$30,805,088	$1,886,603	$29,496,801	2.6227	$807,915	
58		EMPIRE YARD - MAJOR STRUCTURES		12-2047	80 - R1.5	$12,065,358	$6,202,351	$5,940,109	2.2271	$268,713	
59		EMPIRE YARD - MINOR STRUCTURES		03-2022	80 - R1.5	$2,219,511	$2,219,511	$0	0.0000	$0	
60		ARCHBALD		12-2052	80 - R1.5	$6,136,509	$2,321,455	$3,934,987	2.4363	$149,503	
61		BLOOMSBURG		12-2059	80 - R1.5	$1,378,395	$449,492	$928,903	2.1693	$29,901	
62		STROUDSBURG DISTRICT OFFICE		06-2033	80 - R1.5	$795,453	$505,629	$295,344	3.8825	$30,884	

63		PORT ALLEGANY OPERATIONS CENTER	06-2042	80 - R1.5	$2,104,562	$1,096,404	$1,094,736	2.9002	$61,036
64		POTTSVILLE METER SHOP	06-2049	80 - R1.5	$976,282	$513,077	$463,205	2.0241	$19,761
65		LEHIGHTON OPERATIONS CENTER	08-2073	80 - R1.5	$1,912,687	$45,714	$2,239,619	2.9591	$56,598
66		OTHER STRUCTURES		40 - R2	$17,763,804	$6,548,244	$11,616,625	2.5648	$455,605
67	390.1	STRUCTURES AND IMPROVEMENTS		VARIOUS**	$127,621,222	$44,037,136	$87,940,526	3.7077	$4,544,268
68	391.1	OFFICE FURNITURE AND EQUIPMENT - FURNITURE		20 - SQ	$4,956,507	$1,253,283	$3,703,224	5.7319	$284,103
69	391.2	OFFICE FURNITURE AND EQUIPMENT - EQUIPMENT		10 - SQ	$193,318	$67,104	$126,214	9.8773	$19,095
70	391.3	OFFICE FURNITURE AND EQUIPMENT - COMPUTER EQUIPMENT		5 - SQ	$239,478	$258,382	-$18,904	47.8477	$114,585
71	391.4	OFFICE FURNITURE AND EQUIPMENT - SOFTWARE			$713,925	$671,739	$42,186	0.0000	$0
72	392.1	TRANSPORTATION EQUIPMENT - SEDANS AND SUV'S		8 - L2.5	$4,173,940	$1,334,238	$2,839,702	14.2580	$595,122
73	392.2	TRANSPORTATION EQUIPMENT - SMALL PICK-UPS AND CARGO VANS		10 - L2.5	$32,201,329	$9,464,742	$22,736,587	11.6490	$3,751,146
74	392.3	TRANSPORTATION EQUIPMENT - LARGE PICK-UPS AND UTILITY VEHICLES		12 - L3	$3,712,512	$1,198,397	$2,514,115	8.9376	$331,809
75	392.4	TRANSPORTATION EQUIPMENT - LARGE TRUCKS AND DUMP TRUCKS		12 - L3	$5,734,131	$1,818,146	$3,915,985	8.9076	$510,776
76	392.5	TRANSPORTATION EQUIPMENT - TRAILERS		15 - L2	$2,631,546	$785,931	$1,845,615	7.6273	$200,715
77	393	STORES EQUIPMENT		20 - SQ	$17,607	$7,199	$10,408	4.7368	$834
78	394	TOOLS, SHOP AND GARAGE EQUIPMENT		20 - SQ	$39,138,142	$14,354,412	$24,783,730	5.1748	$2,025,311
79	395	LABORATORY EQUIPMENT		20 - SQ	$437,779	$134,257	$303,522	5.0475	$22,097
80	396	POWER OPERATED EQUIPMENT		15 - L2	$6,570,611	$2,887,895	$3,682,716	6.8020	$446,936
81	397	COMMUNICATION EQUIPMENT		10 - SQ	$925,676	$500,635	$425,041	11.7898	$109,136
82	398	MISCELLANEOUS EQUIPMENT		15 - SQ	$2,344,454	$1,218,352	$1,126,102	7.9097	$185,440
83	**TOTAL GENERAL PLANT**				**$231,612,177**	**$79,991,850**	**$155,976,769**		**$13,141,370**
84									
85	**TOTAL DEPRECIABLE GAS PLANT**				**$4,610,273,023**	**$1,247,214,616**	**$3,367,414,849**		**$103,026,219**
86									
87	**NONDEPRECIABLE PLANT**								
88	**TOTAL NONDEPRECIABLE PLANT**				**$19,619,037**				
89									
90	**TOTAL GAS PLANT**				**$4,629,892,060**				
91									
92	**OTHER UTILITY PLANT**								
93									
94	**COMMON PLANT**								
95	301	ORGANIZATION (NONDEPRECIABLE)			$138,964				
96	389.1	LAND AND LAND RIGHTS - LAND (NONDEPRECIABLE)			$6,947,108				
97	390.1	STRUCTURES AND IMPROVEMENTS	01-2069	70 - R1	$34,121,694	$3,940,817	$30,180,877	2.7720	$945,838
98	390.2	STRUCTURES AND IMPROVEMENTS - LEASED PROPERTY			$0	$0	$0	0.0000	$0
99	391	OFFICE FURNITURE AND EQUIPMENT - FURNITURE		20 - SQ	$4,362,964	$1,242,489	$3,120,475	5.3252	$232,336
100	391.1	OFFICE FURNITURE AND EQUIPMENT - EQUIPMENT		5 - SQ	$1,398,843	$784,392	$614,451	20.1552	$281,939
101	392.1	TRANSPORTATION EQUIPMENT - CARS		7 - L2.5	$71,637	$71,637	$0		$0
102	398	MISCELLANEOUS EQUIPMENT		10 - SQ	$27,967	$7,091	$20,876	11.4850	$3,212
103	**TOTAL COMMON PLANT**				**$47,069,177**	**$6,046,425**	**$33,936,679**		**$1,463,324**
104									
105	**TOTAL COMMON PLANT ALLOCATED TO GAS DIVISION - 88.97%**	**88.97%**			**$41,877,447**	**$5,379,505**	**$30,825,846**		**$1,301,920**
106									
107	**INFORMATION SERVICES (IS)**								
108	390.1	STRUCTURES AND IMPROVEMENTS - NEW READING DATA CENTER	09-2073	80 - R1.5	$2,706,761	$5,200	$2,701,561	3.1705	$85,817
109	391	OFFICE FURNITURE AND EQUIPMENT - FURNITURE		20 - SQ	$16,957	$16,074	$883	8.6473	$1,466
110	391.1	OFFICE FURNITURE AND EQUIPMENT - EQUIPMENT		5 - SQ	$15,197,288	$12,843,439	$2,353,849	17.4673	$2,654,555
111	391.2	OFFICE FURNITURE AND EQUIPMENT - SOFTWARE			$0				$0
112		SUCCESS FACTORS	09-2024	SQUARE	$2,803,866	$2,076,802	$727,064	25.9308	$727,064
113		UNITE ERP	09-2034	SQUARE	$10,695,816	$2,359,182	$8,336,634	7.0857	$757,876
114	391.2	OFFICE FURNITURE AND EQUIPMENT - SOFTWARE		SQUARE	$13,499,682	$4,435,984	$9,063,698		$1,484,940
115	391.3	OFFICE FURNITURE AND EQUIPMENT - SYSTEM DEV. COSTS - 10 YEARS		10 - SQ	$59,757,267	$19,644,918	$40,112,349	10.3329	$6,174,649
116	391.4	OFFICE FURNITURE AND EQUIPMENT - SYSTEM DEV. COSTS - 15 YEARS		15 - SQ	$133,558,198	$51,233,724	$82,324,474	6.7390	$9,000,539
117	**TOTAL INFORMATION SERVICES**				**$224,736,153**	**$88,179,338**	**$136,556,814**		**$19,401,966**
118									
119	**TOTAL INFORMATION SERVICES ALLOCATED TO GAS DIVISION - 91.68%**	**91.68%**			**$206,038,105**	**$80,842,817**	**$125,195,287**		**$17,787,723**
120									
121	391.4	OFFICE FURNITURE AND EQUIPMENT - SYSTEM DEV. COSTS - 15 YEARS - UNITE ADC		15 - SQ	$27,864,086	$1,945,443	$25,918,643	6.5707	$1,830,870
122		Allocated to Other UGI Operations in Rebuttal	19.38%						-$354,742
123	**EMPIRE YARD BUILDING**								
124	390.1	STRUCTURES AND IMPROVEMENTS	12-2047	80 - R1.5	$14,209,098	$8,438,516	$5,770,582	1.8830	$267,551
125									
126	**LESS EMPIRE BUILDING ALLOCATED TO ELECTRIC DIVISION - 13.07%**	**13.07%**			**$1,857,129**	**$1,102,914**	**$754,215**		**$34,969**
127									
128	**TOTAL OTHER UTILITY PLANT ALLOCATED TO ALL GAS DIVISIONS**				**$273,922,509**	**$87,064,851**	**$181,185,561**		**$20,530,801**
129									
130	**TOTAL PLANT IN SERVICE**				**$4,903,814,568**	**$1,334,279,467**	**$3,548,600,410**		**$123,557,020**
131									
132	AMORTIZATION OF NEGATIVE NET SALVAGE								$6,083,750
133									
134	**GRAND TOTAL**				**$4,903,814,568**	**$1,334,279,467**	**$3,548,600,410**		**$129,640,770**

* ACCOUNTS 305 AND 352.01 HAVE NO REMAINING DEPRECIATION ACCRUALS. THE FUTURE ACCRUALS SHOWN ARE RELATED TO THE AMORTIZATION OF NEGATIVE NET SALVAGE.
** SURVIVOR CURVES FOR ACCOUNT 390.1 ARE INTERIM SURVIVOR CURVES.INDIVIDUAL BUILDINGS ARE LIFE SPANNED.

I&E Statement No. 6-SR
Witness: Jessalynn Heydenreich

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

UGI UTILITIES, INC. – GAS DIVISION

Docket No. R-2021-3030218

Surrebuttal Testimony

of

Jessalynn Heydenreich

Bureau of Investigation & Enforcement

Concerning:

PIPELINE REPLACEMENT COSTS
SYSTEM LEAK REDUCTION

Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.

A. My name is Jessalynn K. Heydenreich. I am a Fixed Utility Valuation Engineer in the Pipeline Safety Division of the Pennsylvania Public Utility Commission's ("Commission") Bureau of Investigation and Enforcement ("I&E"). My business address is Pennsylvania Public Utility Commission, 400 North Street, Harrisburg, PA 17120.

Q. ARE YOU THE SAME JESSALYNN K. HEYDENREICH WHO SUBMITTED DIRECT TESTIMONY ON BEHALF OF THE BUREAU OF INVESTIGATION AND ENFORCEMENT?

A. Yes. I submitted I&E Statement No. 6 and I&E Exhibit No. 6.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to address the rebuttal testimony of UGI Utilities – Gas Division ("UGI") witness Timothy J. Angstadt's testimony identified as UGI Statement No. 9-R concerning UGI's pipeline replacement costs and system leaks.

Q. PLEASE SUMMARIZE YOUR DIRECT TESTIMONY.

A. I stated in my direct testimony that restoration costs associated with pipeline replacement are increasing and mitigation of the increases were suggested.

Additionally, I discussed the system leak history and increase in documented leaks for 2021 and how that would pertain to the Distribution Integrity Management Program ("DIMP") to determine which pipelines should be replaced.

Q. DID MR. ANGSTADT ADDRESS YOUR DIRECT TESTIMONY IN HIS REBUTTAL TESTIMONY?

A. Yes. Mr. Angstadt replied to my direct testimony by stating UGI Utilities has plans going forward to reduce restoration costs of pipeline replacement, but he specifically disagrees with my representation that restoration costs have impacted pipeline replacement as UGI remain on track with its filed long term infrastructure improvement plan (UGI St. No. 9-R, pp. 8-10). Additionally, Mr. Angstadt stated that UGI utilizes varying leak survey intervals and due to the variability of leak rates in different assets, some year-to-year leak detection volatility is to be expected. (UGI St. No. 9-R, p. 11)

Q. DO YOU AGREE WITH MR. ANGSTADT THAT RESTORATION COSTS WILL NOT NEGATIVELY IMPACT PIPELINE REPLACEMENT RATES?

A. Not necessarily. Utilities do not have unlimited funds. The more money it costs to replace pipeline, which would include restoration costs, it follows that less pipeline can be replaced simply because utilities do not have unlimited funds. While it may not match dollar for dollar, I believe that if restoration costs continue to rise, it will necessarily follow that the utility will not be able to replace as much pipeline as it would at lower restoration costs.

Q. DO YOU HAVE ANY FURTHER COMMENTS REGARDING RESTORATION COSTS?

A. Yes. Mr. Angstadt stated the remaining cast iron and bare steel is in more urban areas and will incur higher replacement costs (UGI St. No 9-R at 6-7). I agree the replacement costs will increase and the rate of increase will likely exceed my previous calculations. This simply serves to illustrate the importance of UGI's efforts to reduce restoration costs associated with replacement of cast iron and bare steel pipelines.

Q. DID MR. ANGSTADT AGREE WITH ANY OF YOUR RECOMMENDATIONS RELATED TO RESTORATION COSTS?

A. Yes. Mr. Angstadt stated that UGI will continue its efforts to control restoration costs by coordinating projects where it can and using technology that will reduce restoration activities, as well as taking other actions to reduce restoration costs. In addition, UGI has agreed that it will prepare and submit an annual report to the Gas Safety Division on March 1 which will identify the ten most expensive restoration projects per year over the past three years with the corresponding cost breakdowns (UGI St. 9-R, p. 10).

Q. IS MR. ANGSTADT'S STATEMENT OF LEAK VOLATILITY DUE TO UGI'S VARIED INSPECTION SCHEDULE AN ADEQUATE EXPLANATION FOR THE INCREASE IN LEAKS IN 2021?

A. No. In UGI St. No 9-R, Figure 1, UGI indicates they repair fewer leaks annually as proof that the main replacement program is working; however, system improvement must include a decrease in new leaks, not just a decrease in the repair of existing leaks. Therefore, this figure is not illustrative of the total leaks on the pipeline system. Class 'A' and 'B' leaks are historically found during leak surveys, which have a variable inspection cycle by asset type. Class 'C', which are hazardous leaks, are generally found due to odor complaints and because of pipeline damage. An increase in the number of leaks in 2021 over 2020 may indicate that the riskiest pipeline in UGI's pipeline system has not been replaced.

Q. FOR PIPELINE ASSETS HAVING A LEAK INSPECTION CYCLE LESS FREQUENTLY THAN ONCE PER YEAR, WOULD DIMP ADDRESS THESE ASSETS ON AN ANNUAL BASIS?

A. Yes, pipeline assets are ranked annually by DIMP, with the goal of reducing risk to the pipeline system. Mr. Angstadt stated that there are variable inspection cycles for different asset types (UGI St. No. 9-R, p. 11). Pipeline assets are still evaluated annually in an effective DIMP to reduce pipeline system risk, regardless of the leak inspection cycle.

Q. WHAT WAS MR. ANGSTADT'S RESPONSE TO YOUR PROPOSAL THAT UGI COMPLETE A ROOT CAUSE ANALYSIS TO DETERMINE WHY LEAKS INCREASED FROM 2020 TO 2021?

A. Mr. Angstadt said that because the level of increase was small, he did not believe further analysis was necessary (UGI St. No. 9-R, p. 12).

Q. DO YOU CONTINUE TO RECOMMEND UGI COMPLETE A ROOT CAUSE ANALYSIS?

A. Yes. It is important to determine the cause of any increase in leaks even if it is a modest increase. Therefore, I continue to recommend UGI complete a root cause analysis.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	**Docket No. R-2021-3030218**
	:	
UGI Gas Division – Base Rate	:	
	:	

VERIFICATION OF ZACHARI WALKER

I, **Zachari Walker**, on behalf of the Bureau of Investigation and Enforcement, hereby verify that the **I&E Statement No. 1, I&E Exhibit No. 1, I&E Statement No. 1-R, I&E Exhibit No. 1-R, I&E Statement No. 1-SR,** and **I&E Exhibit No. 1-SR** were prepared by me or under my direct supervision and control.

Furthermore, the facts contained therein are true and correct to the best of my knowledge, information and belief and I expect to be able to prove the same if called to the stand at any evidentiary hearing held in this matter.

This Verification is made subject to the penalties of 18 Pa. C.S. § 4904 relating to unsworn falsification to authorities.

Signed in Harrisburg, Pennsylvania, this 1st day of June 2022.

/s/ Zachari Walker

Zachari Walker

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	**Docket No. R-2021-3030218**
	:	
UGI Gas Division – Base Rate	:	
	:	

VERIFICATION OF ANTHONY SPADACCIO

I, **Anthony Spadaccio**, on behalf of the Bureau of Investigation and Enforcement, hereby verify that the **I&E Statement No. 2, I&E Exhibit No. 2,** and **I&E Statement No. 2-SR,** were prepared by me or under my direct supervision and control.

Furthermore, the facts contained therein are true and correct to the best of my knowledge, information and belief and I expect to be able to prove the same if called to the stand at any evidentiary hearing held in this matter.

This Verification is made subject to the penalties of 18 Pa. C.S. § 4904 relating to unsworn falsification to authorities.

Signed in Camp Hill, Pennsylvania, this _1st_ day of June 2022.

/s/ Anthony Spadaccio
Anthony Spadaccio

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	**Docket No. R-2021-3030218**
	:	
UGI Gas Division – Base Rate	:	
	:	

VERIFICATION OF BRIAN LATORRE

I, **Brian LaTorre**, on behalf of the Bureau of Investigation and Enforcement, hereby verify that the **I&E Statement No. 3, I&E Exhibit No. 3,** and **I&E Statement No. 3-SR** were prepared by me or under my direct supervision and control.

Furthermore, the facts contained therein are true and correct to the best of my knowledge, information and belief and I expect to be able to prove the same if called to the stand at any evidentiary hearing held in this matter.

This Verification is made subject to the penalties of 18 Pa. C.S. § 4904 relating to unsworn falsification to authorities.

Signed in Harrisburg, Pennsylvania, this 1st day of June 2022.

/s/Brian LaTorre_________________

Brian LaTorre

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	**:**	
	:	
v.	**:**	**Docket No. R-2021-3030218**
	:	
UGI Gas Division – Base Rate	**:**	
	:	

VERIFICATION OF ETHAN CLINE

I, **Ethan Cline**, on behalf of the Bureau of Investigation and Enforcement, hereby verify that the **I&E Statement No. 4, I&E Exhibit No. 4, I&E Statement No. 4-SR,** and **I&E Exhibit No. 4-SR** were prepared by me or under my direct supervision and control.

Furthermore, the facts contained therein are true and correct to the best of my knowledge, information and belief and I expect to be able to prove the same if called to the stand at any evidentiary hearing held in this matter.

This Verification is made subject to the penalties of 18 Pa. C.S. § 4904 relating to unsworn falsification to authorities.

Signed in Harrisburg, Pennsylvania, this 1st day of June 2022.

*/s/ Ethan H. Cline*_

Ethan Cline

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	**:**	
	:	
v.	**:**	**Docket No. R-2021-3030218**
	:	
UGI Gas Division – Base Rate	**:**	
	:	

VERIFICATION OF ESYAN SAKAYA

I, **Esyan Sakaya**, on behalf of the Bureau of Investigation and Enforcement, hereby verify that the **I&E Statement No. 5, I&E Exhibit No. 5, I&E Statement No. 5-SR,** and **I&E Exhibit No. 5-SR** were prepared by me or under my direct supervision and control.

Furthermore, the facts contained therein are true and correct to the best of my knowledge, information and belief and I expect to be able to prove the same if called to the stand at any evidentiary hearing held in this matter.

This Verification is made subject to the penalties of 18 Pa. C.S. § 4904 relating to unsworn falsification to authorities.

Signed in Harrisburg, Pennsylvania, this _1st__ day of June 2022.

__/s/ Esyan Sakaya___________________

Esyan Sakaya

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	**Docket No. R-2021-3030218**
	:	
UGI Gas Division – Base Rate	:	
	:	

VERIFICATION OF JESSALYNN HEYDENREICH

I, **Jessalynn Heydenreich**, on behalf of the Bureau of Investigation and Enforcement, hereby verify that the **I&E Statement No. , I&E Exhibit No. 6,** and **I&E Statement No. 6-SR** were prepared by me or under my direct supervision and control.

Furthermore, the facts contained therein are true and correct to the best of my knowledge, information and belief and I expect to be able to prove the same if called to the stand at any evidentiary hearing held in this matter.

This Verification is made subject to the penalties of 18 Pa. C.S. § 4904 relating to unsworn falsification to authorities.

Signed in Harrisburg, Pennsylvania, this 1st day of June 2022.

Jessalynn Heydenreich

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No.: R-2021-3030218
	:	
UGI Utilities, Inc. – Gas Division Base Rates	:	

CERTIFICATE OF SERVICE

I hereby certify that I am serving the foregoing **Letter Regarding Pre-Served Testimony, Exhibits, and Verification Statements** on June 21, 2022, in the manner and upon the persons listed below:

Served via Electronic Mail Only

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