BOOK III

# UGI UTILITIES, INC. – GAS DIVISION

## BEFORE

## THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

**Information Submitted Pursuant to**

**Section 53.51 et seq of the Commission's Regulations**

**UGI GAS STATEMENT NO. 1 – CHRISTOPHER R. BROWN**
**UGI GAS STATEMENT NO. 2 – STEPHEN F. ANZALDO**
**UGI GAS STATEMENT NO. 3 – VIVIAN K. RESSLER**
**UGI GAS STATEMENT NO. 4 – KELLY A. BEAVER**
**UGI GAS STATEMENT NO. 5 – JOSEPH R. KOPALEK**

**UGI UTILITIES, INC. – GAS DIVISION – PA P.U.C. NOS. 7 & 7S**
**SUPPLEMENT NO. 6**

**DOCKET NO. R-2019-3015162**

**Issued: January 28, 2020** **Effective: March 28, 2020**

# UGI GAS STATEMENT NO. 1 – CHRISTOPHER R. BROWN

**BEFORE THE**
**PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Docket No. R-2019-3015162**

**UGI Utilities, Inc. – Gas Division**

**Statement No. 1**

**Direct Testimony of**
**Christopher R. Brown**

| | |
|---|---|
| **Topics Addressed:** | **Purpose of Testimony and Rate Filing Overview** |
| | **Need for Rate Relief** |
| | **Unification of Rates and Reporting** |
| | **UGI-1 Initiative and UNITE** |
| | **Tariff Changes** |
| | **Salaries and Wages Adjustments** |
| | **Test Year Sales and Revenues** |
| | **Revenue Allocation and Rate Design** |
| | **Interruptible Customer Competitive Analysis** |
| | **Management Performance** |

Dated: January 28, 2020

## I. INTRODUCTION AND QUALIFICATIONS

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

A. My name is Christopher R. Brown. My business address is 1 UGI Drive, Denver, PA 17517.

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

A. I am employed by UGI Utilities, Inc. ("UGI") as its Vice President and General Manager of Rates and Supply.

**Q. Please briefly describe your responsibilities in that capacity.**

A. As Vice President and General Manager of Rates and Supply, I am responsible for all rate, supply, and associated regulatory compliance activities for UGI Utilities, Inc. – Gas Division ("UGI Gas" or the "Company") and UGI Utilities, Inc. – Electric Division ("UGI Electric"). For the rates component, I oversee the areas of sales and revenue forecasting, tariff administration and compliance, Choice administration and compliance, rate administration, Section 1307(f) purchased gas cost ("PGC") filings, electric provider of last resort ("POLR") filings, Section 1307(e) filings, base rate cases, and UGI's energy management information technology systems. My supply responsibilities include oversight of supply procurement and contracting, gas and power scheduling, and tracking of interstate pipeline and wholesale power market activities that affect the Company's gas and power procurement costs. My regulatory compliance responsibilities cover a broad range of oversight and compliance for the state and federal jurisdictional activities of UGI. Prior to my role as Vice President and General Manager of Rates and Supply, I was

Senior Director of Operations for the UGI Gas South Region. In my current role, I report directly to the Chief Regulatory Officer.

**Q. What is your educational and professional background?**

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

**Q. Have you testified previously before this Commission?**

A. Yes. UGI Gas Exhibit CRB-1 contains a list of those proceedings.

## II. PURPOSE OF TESTIMONY AND RATE FILING OVERVIEW

**Q. Please describe the purpose of your testimony in this proceeding.**

A. My testimony addresses several points. First, I present an overview of the rate filing, including a brief explanation of the reasons for rate relief and an outline of the testimony of each witness in this proceeding. Second, I will describe the Company's ongoing efforts at unifying its tariff and reporting obligations. Third, I will summarize the recent successes accomplished through the UGI-1 and the UGI Next Information Technology Enterprise ("UNITE") initiatives. Fourth, I will discuss the Company's proposed changes to its tariff, which includes an enhancement to the line extension regulation. Fifth, I will discuss adjustments made to salaries and wages related to after-hours work performed by supervisors and updates to the Company's incentive compensation program. Sixth, I will address the development of annualized and normalized sales and revenues for the historic test year ended September 30, 2019 ("HTY"), the future test year ending September 30, 2020 ("FTY"), and the fully projected future test year ending September 30, 2021 ("FPFTY"). Seventh, I will describe the Company's proposed revenue allocation and rate design. Eighth, I will present an interruptible customer competitive analysis as agreed to in the Company's last base rate proceeding. Lastly, I will summarize the evidence of UGI Gas's successful management performance and how management performance should be recognized in this case.

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

A. Yes. In addition to UGI Gas Exhibit CRB-1 mentioned above, I am sponsoring the following exhibits:

- CRB-2: 15-year normal heating degree days;
- CRB-3: Normalized multi-year and 12-month ending trends of use per customer (residential and commercial heating);
- CRB-4: FPFTY Sales and Revenue Adjustments;
- CRB-5: FTY Sales and Revenue Adjustments;
- CRB-6: HTY Sales and Revenue Adjustments;
- CRB-7: FPFTY usage per customer detail by class;
- CRB-8: Rate NNS calculation;
- CRB-9: Rate MBS calculation; and
- CRB-10: Rider D – Merchant Function Charge (MFC).

I am also sponsoring UGI Gas Exhibit F, which is the tariff Supplement No. 6 to UGI Gas Pa. P.U.C. No. 7, as well as certain responses to the Commission's standard filing requirements, as indicated on the master list accompanying this filing, that were prepared by me or under my direction.

**Q. Please identify the other witnesses providing direct testimony on behalf of UGI Gas in this proceeding and the subject matter of their testimony.**

A. In addition to my testimony, the following witnesses are providing testimony in support of the Company's rate request:

**Stephen F. Anzaldo** (UGI Gas St. No. 2) serves as Director of Rates & Regulatory Planning for UGI Gas. He addresses UGI Gas's budgeting process; operating revenues and expenses; compliance with Section 1301.1 of the Public Utility Code; and the revenue requirement model supporting the Company's proposed rate increase (UGI Gas Exhibit A (Fully Projected)). Mr. Anzaldo also sponsors the revenue requirement models for the future and historic periods, UGI Gas Exhibit A (Future) and UGI Gas Exhibit A (Historic), respectively.

**Vivian K. Ressler** (UGI Gas St. No. 3) serves as Manager of Technical Accounting and Controls at UGI Gas. Ms. Ressler presents UGI Gas's rate base claim for the HTY, FTY, and FPFTY. Ms. Ressler also addresses accounting for information technology costs and budget adjustments associated with the Company's most recent PUC Management and Operations Audit.

**Kelly A. Beaver** (UGI Gas St. No. 4) is Vice President of Engineering and Operations Support. Ms. Beaver's testimony will address UGI Gas's operations and natural gas system, its Commission-approved Long-Term Infrastructure Improvement Plan

("LTIIP"), and the impact of the LTIIP and other initiatives on system performance, safety, and reliability.

**Joseph R. Kopalek** (UGI Gas St. No. 5) is Vice President of Environmental Health Safety and Training. Mr. Kopalek addresses the Company's ongoing efforts to improve safety and training at UGI. In this vein, Mr. Kopalek will discuss the progress of the Company's development of a centralized training center. Mr. Kopalek will also address UGI Gas's efforts and future plans to investigate and, where necessary, remediate sites in Pennsylvania where UGI Gas or corporate predecessors once owned and/or operated manufactured gas plants in connection with gas utility operations.

**Vicky Schappell** (UGI Gas St. No. 6) is Principal Analyst, Capital Planning. Ms. Schappell will address capital expenditures and capital planning, including those for UNITE Phase III Enterprise Performance Management ("UNITE Phase III-EPM").

**Paul R. Moul** (UGI Gas St. No. 7) is Managing Consultant of P. Moul & Associates, Inc. Mr. Moul presents expert testimony supporting the Company's claimed capital structure, cost of debt, cost of common equity and overall fair rate of return. Schedules and workpapers supporting Mr. Moul's findings are set forth in UGI Gas Exhibit B.

**Paul R. Herbert** (UGI Gas St. No. 8) is President of Gannett Fleming Valuation & Rate Consultants, LLC. Mr. Herbert prepared and sponsors UGI Gas's fully allocated cost of service study. This study is contained in UGI Gas Exhibit D.

**John F. Wiedmayer** (UGI Gas St. No. 9) is Project Manager at Gannett Fleming Valuation & Rate Consultants, LLC. Mr. Wiedmayer developed and supports UGI Gas's claim for annual depreciation expense and the accumulated depreciation reserve. His studies are presented in UGI Gas Exhibit C (Fully Projected), UGI Gas Exhibit C (Future) and UGI Gas Exhibit C (Historic).

**Nicole McKinney** (UGI Gas St. No. 10) is the Manager Tax and Regulatory Accounting at UGI Gas. Ms. McKinney addresses various tax issues, including the Company's claim for federal and state income taxes, taxes other than income taxes, the calculation of the accumulated deferred income taxes ("ADIT") offset to rate base, the repairs allowance and the calculation of a hypothetical consolidated tax savings adjustment as required by Section 1301.1 of the Public Utility Code.

## III. NEED FOR RATE RELIEF

**Q. Please discuss UGI Gas's proposed rate relief request and provide an overview of the Company's proposals in this proceeding.**

A. UGI Gas is requesting an increase in its annual base rate operating revenues of $74.6 million, or 8.5 percent on a total revenue basis, with a proposed effective date of March 28, 2020. The base rate increase requested in this filing utilizes a FPFTY ending September 30, 2021. In addition, UGI Gas also proposes in this proceeding to complete the transition to uniform distribution rates for Rates N/NT and Rate DS.

**Q. Has the Company evaluated the impact of its proposed rate increase on average customer bills generally?**

A. Yes. As shown on Table 1, below, the Company has evaluated the impact of its proposed rate increase on the average monthly bill of residential heating, commercial heating, and industrial customers.

**Table 1. Average Monthly Bill Impact**

**Average Residential Heating Customer Bill Impact**

| | Average Usage | Total Monthly Bill Impact: Current | Proposed | Increase (Decrease) | Total |
|---|---|---|---|---|---|
| All Customers | 73.5 Ccf | $ 81.54 | $ 90.22 | $ 8.68 | 10.6% |

**Average Commercial Heating Customer Bill Impact**

| | Average Usage | Total Monthly Bill Impact: Current | Proposed | Increase (Decrease) | Total |
|---|---|---|---|---|---|
| Former North | 28.7 Mcf | $ 251.83 | $ 273.05 | $ 21.22 | 8.4% |
| All Others | 28.7 Mcf | $ 262.21 | $ 273.05 | $ 10.84 | 4.1% |

**Average Industrial Customer Bill Impact**

| | Average Usage | Total Monthly Bill Impact: Current | Proposed | Increase (Decrease) | Total |
|---|---|---|---|---|---|
| Former North | 93.0 Mcf | $ 762.99 | $ 817.18 | $ 54.19 | 7.1% |
| All Others | 93.0 Mcf | $ 796.61 | $ 817.18 | $ 20.57 | 2.6% |

The average customer monthly bill impacts set forth in Table 1, above, are fair and reasonable because, as described in more detail below, UGI Gas will continue to have distribution rates that compare favorably to other Pennsylvania natural gas distribution companies, and on a total bill basis, inclusive of natural gas costs, our average customer bills are less than they were in 2008 when the costs of natural gas were high.

**Q. Why is UGI Gas seeking a rate increase at this time?**

A. UGI Gas continues to make substantial distribution system investments that are necessary to: continue the accelerated replacement of aging gas plant infrastructure; upgrade and improve system segments and modernize facilities; serve new residential and commercial customers; connect customers converting to natural gas; install and upgrade supporting information technology systems; and, ensure the safety of our employees, communities and our distribution system. These system improvements and investments require additional personnel and resources to implement them, and also to operate and maintain them. These investments are all necessary to grow and maintain a safe and reliable distribution system and provide quality customer service. As compared to pre-FPFTY gross plant levels, UGI Gas is projecting an increase of approximately $373 million in gross plant through the FPFTY. Based on this factor alone, UGI Gas's current rates will not provide it with a reasonable opportunity to earn its cost of capital on its increased rate base.

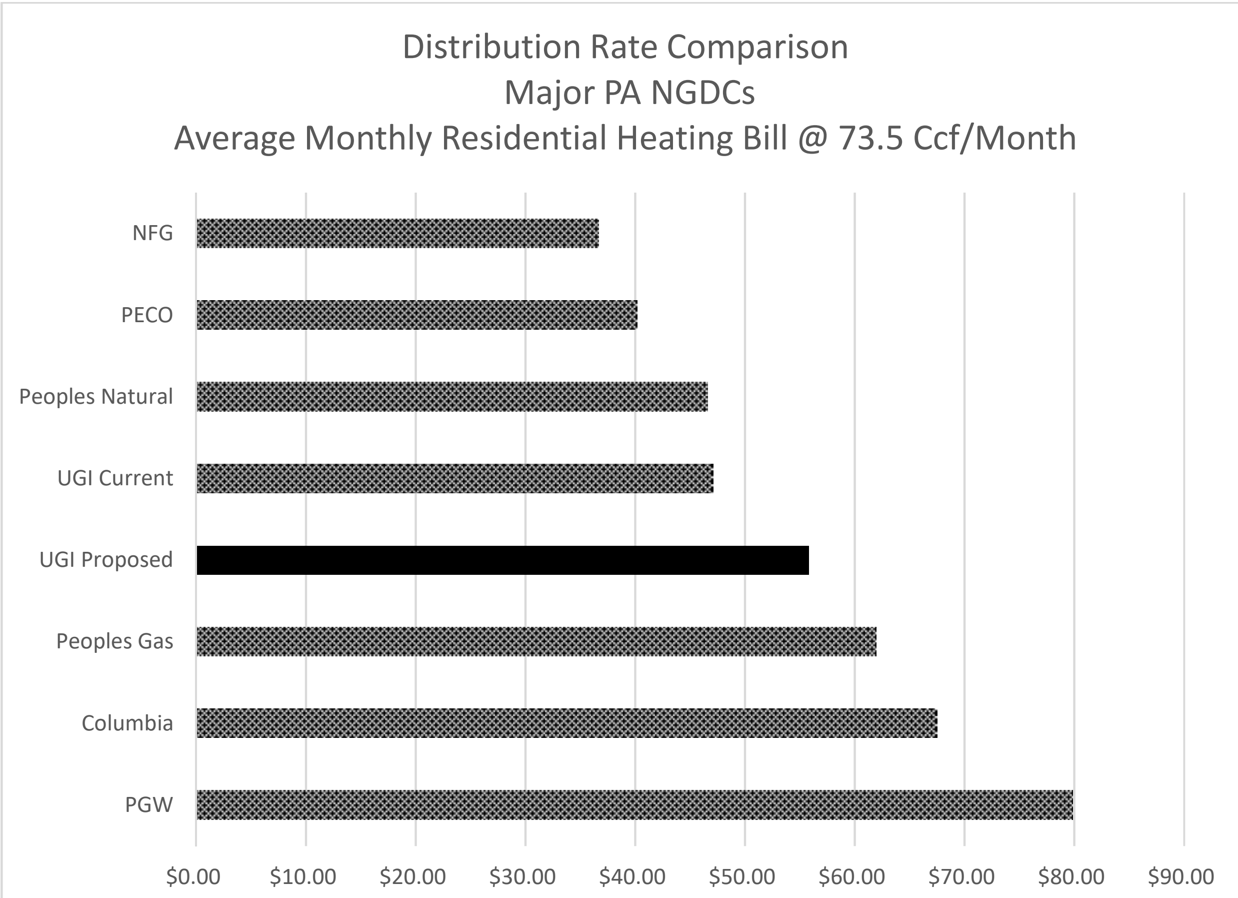
Other cost drivers adversely impact the Company's ability to earn a reasonable rate of return on its utility investment. Since its last base rate case in 2019, UGI Gas has adopted modest annual wage and salary adjustments and will continue to do so, where reasonable, and has experienced other general price increases for necessary products and services. There will also be costs related to planning for incremental increases in staffing levels associated with continued improvements in several areas, most notably, information technology, operations, and training. Although UGI Gas has made major strides toward integrating its operations and has seen stable customer growth over time, the Company's forecasted increases in operating and capital costs, along with experienced and anticipated changes in per customer usage, will prevent UGI Gas from having a reasonable opportunity to earn a fair rate of return on its investment at present rates.

Specifically, as reflected in UGI Gas Exhibit A (Fully Projected), Schedule A-1, UGI Gas's operations are projected to produce an overall return on rate base of 5.95%, which equates to a return on common equity of only 7.20% for the twelve months ending September 30, 2021. As explained by UGI Gas witness Paul R. Moul (UGI Gas St. No. 7), those returns are not adequate based on applicable financial analysis and the risks confronted by UGI Gas. Unless UGI Gas receives the requested rate relief, those returns will continue to decline and potentially jeopardize UGI Gas's ability to attract the capital needed to make system investments that support enhancing the reach and capacity of its distribution system and replacing older, obsolete facilities, systems and equipment, each of which is necessary to ensure continued system reliability, safety, and customer service performance.

**Q. How do UGI Gas's rates compare with other Pennsylvania utilities?**

A. A comparison of average residential heating bills, shown in Table 2 below, illustrates that UGI Gas's current distribution rates compare favorably to the rates of other major natural gas distribution companies in the Commonwealth, and will remain so, even at the full increase of proposed rates.

**Table 2. – Residential Heating Distribution Rate Comparison**




In considering UGI Gas's overall rates, it is also important to note that the Company has focused in recent years on a continued restructuring of its natural gas supply portfolios in order to maximize the benefits associated with the Commonwealth's shale gas supply resources, including a decreased cost for gas supply. Customer benefits associated with these activities are readily evident. Even with the rate changes proposed in this proceeding, the average residential heating customer bill will be 34% lower than they were at the peak of gas commodity prices in 2008. In summary, UGI Gas offers excellent service to customers at reasonable rates.

## IV. UNIFICATION OF RATES AND REPORTING

**Q. Has UGI Gas altered its rate structure, tariff and rate classes in recent years?**

A. Yes. Over the past few years, the Company has taken many steps toward unifying its rate structure, tariff, and rate classes. This effort was undertaken to both increase efficiencies within the Company as well as provide the Company's customers the same tariffed services at the same rates throughout the Company's service territory in Pennsylvania. The intra-company merger of 2018 was the first step in this process of unification.

**Q. Please describe the Company's recent merger of its prior natural gas distribution company subsidiaries.**

A. Prior to October 1, 2018, UGI Gas had two wholly-owned subsidiaries which were Commission-certificated natural gas distribution companies ("NGDCs"). Those subsidiaries were UGI Penn Natural Gas, Inc. ("UGI PNG") and UGI Central Penn Gas, Inc. ("UGI CPG"). On March 8, 2018, UGI Gas filed a petition with the Commission at Docket Nos. A-2018-3000381 *et al.* to approve the merger of UGI PNG and UGI CPG into UGI Utilities, Inc., and the subsequent operation of UGI Gas as three rate districts under the three former tariffs of UGI Gas, UGI PNG and UGI CPG. The Commission approved a settlement of this proceeding in an Order entered on September 20, 2018. The merger was completed on October 1, 2018 and UGI Gas commenced operations under the three-rate district structure described above with (a) three sets of base rates; (b) three gas supply portfolios; (c) three PGC rates; (d) three sets of rules applicable to Natural Gas Suppliers ("NGSs") serving Choice and Non-Choice customers; and (e) three tariffs.

This successful merger positioned the Company to then move forward with further harmonization of tariffs and rates.

**Q. Please describe those efforts to harmonize its tariff offerings and rate schedules after the 2018 merger.**

A. In January 2019, the Company filed for a base rate increase at Docket No. R-2018-3006814 ("2019 Rate Case"). In that proceeding, the Company proposed to operate under a single uniform tariff with uniform residential and commercial base rates and associated surcharges and riders across its system.

**Q. Was the Company's proposal to unify rates in the 2019 Rate Case approved?**

A. In very large part, yes. The Company's proposal to unify rates was approved by the Commission in an Opinion and Order entered October 4, 2019, with the exception of the unification of Rates N/NT and Rate DS for the former North Rate District. This resulted in rate unification for over 97% of all UGI Gas customers and permitted the Company to follow a two-step process to unify Rates N/NT and Rate DS in the former North Rate District.

**Q. Please describe the two-step process to unify Rates N/NT and Rate DS that was approved by the Commission as part of the 2019 Rate Case.**

A. For Step 1, upon the effective date of new rates in the 2019 Rate Case, the Commission approved a twelve (12) percent increase to Rates N/NT North Rate District rates and a twenty (20) percent increase to Rate DS North Rate District rates, with Rates N/NT and

Rate DS South and Central Rate Districts set uniformly by class to recover the remaining N/NT and DS revenue requirements, respectively. As part of Step 2, the Company was permitted to propose full uniform rates for these two rate classes in the Company's next general rate proceeding, which the Company is proposing herein.

**Q. What is the Company's proposal in this proceeding with respect to Rates N/NT and Rate DS?**

A. The Company proposes to take the second and final step to merge Rates N/NT and Rate DS by merging the rates in place for the geographic footprint of the former North Rate District with those of the former Central and South Rate Districts. The Company's proposal for rate design for DS and N/NT customers is described in more detail in the section of my testimony on Revenue Allocation and Rate Design.

**Q. What impact will the establishment of unified Rates N/NT and Rate DS have on customer rates?**

A. Table 3 below provides a summary of the bill impact for Rates N/NT and Rate DS customers if the Company's proposal is approved by the Commission.

**Table 3. Average N/NT and DS Monthly Bill Impact***

| | Rate N/NT | Rate DS |
|---|---|---|
| Former South & Central Rate Districts | 3.6% | -1.9% |
| Former North Rate District | 8.1% | 9.2% |
| Unified | 4.6% | 0.8% |

*Note: Rate NT and DS includes a proxy for gas costs based upon the current PGC rate to provide for a total average bill comparison.

**Q. What additional actions does the Company propose in this proceeding to unify its tariff and processes?**

A. Given the full rate uniformity proposed in this filing, the Company also proposes to discontinue maintaining separate financial data required to support the filing of separate quarterly and annual earnings reports by former rate district.

**Q. Why does the Company currently file separate earnings reports by the now former UGI rate districts?**

A. In the 2018 Merger Proceeding, the Commission ordered UGI Gas to continue to file quarterly earnings reports for each of the three UGI rate districts because the Company continued to have separately tariffed Distribution System Improvement Charge ("DSIC") and distribution charges at that time. However, the Commission noted that the "requirement to file quarterly and annual earnings reports for each of the three UGI natural gas entities may become unnecessary in the future; but that will be determined when the three districts' rates become uniform." (Merger Order, entered September 20, 2018 at p. 4).

**Q. Why is it appropriate for the Company to discontinue the filing of quarterly and annual earnings reports by now former UGI rate districts at this time?**

A. The Company's rate district structure was eliminated in the 2019 Rate Case with 97% unification as noted above. The only vestige of that structure is the separate distribution charges for Rates N/NT and Rate DS for former North Rate District customers. After the unification of those rates in this proceeding, the Company's distribution rates will be completely uniform. The filing of three separate earnings reports based on rate districts no longer in existence, and the separate accounting that must be maintained to generate these separate reports, would be labor-intensive and would not produce useful information. In addition, the Company no longer maintains separate DSICs for the former rate districts, and therefore separate earnings reports are not necessary.

**Q. What benefits have been realized since the institution of a single tariff, and the unification of most of the rate classes in the 2019 Rate Case?**

A. From a customer perspective, eliminating separate rate districts has facilitated improved customer offerings, service, and communications. With respect to program offerings, one notable example is that customers in the former Central Rate District who did not have access to the Energy Efficiency and Conservation Program ("EE&C") available to South and North Rate District customers now can participate in those same energy efficiency programs. With respect to customer service, UGI Gas's customer service representatives are now trained on one tariff and one set of tariff rates in lieu of three, providing for more efficient and effective training and greater customer support. This has resulted in UGI Gas achieving an 86% Grade of Service for 2019. Customer bill inserts, customer notices, and Company press releases are additional examples of communication items that are now uniformly communicated to customers in lieu of separate rate district versions. Moreover, unified PGC rates now provide UGI Gas's customers with a unified price-to-compare across the UGI Gas territory.

NGSs on the UGI Gas system also have benefited from a unified price-to-compare, as well as a unified purchase of receivables program, and now have the capability to expand their service offerings in uniform fashion across the entire UGI Gas territory. NGSs can also benefit from the Company's expanded capacity release program. Prior to the 2019 Rate Case, there was no capacity release available for the former Central Rate District non-choice transportation programs. The Company now also provides capacity release for Rate DS as well as an optional capacity release for Rates LFD and XD on a Company-wide basis. Another advantage to NGSs is the common set of delivery standards to UGI Gas's system for the Choice program, and effective on November 1, 2020 for the non-Choice transportation program.

From an operational and administrative perspective, UGI Gas is benefiting from the reduced administrative burden associated with no longer having to separately manage and comply with the regulatory reporting and other requirements for three separate service territories and rate districts. The elimination of most of the triplicate rate district reporting and filing requirements has already reduced the overall time associated with these activities and the overall number of proceedings that the Company files with the Commission today. This reduction in filings benefits not only the Company but also the Commission and other parties to those proceedings. While the consolidated tariff and rates have only just recently been implemented, the Company is already reducing redundancies and duplicative reporting. The elimination of the separate earnings reports proposed in this case will further reduce redundancies.

The Company's customers, suppliers, regulators, and stakeholders are currently experiencing the benefit of consolidation; and these benefits are expected to continue into the future.

## V. <u>UGI-1 INITIATIVE AND UNITE</u>

**Q. Please describe UGI Gas's UGI-1 initiative.**

A. UGI-1 is a company-wide improvement initiative focused on harmonizing and improving the performance of people, tools and processes. UGI Gas has a history of pursuing excellent performance for customers, employees and shareholders. UGI Gas has been building on this past performance to achieve even higher levels of performance by equipping employees for future success and by improving communications throughout the organization. The previously mentioned merger of the UGI divisions, as well as the consolidation of rate districts in the 2019 Rate Case, are significant steps in the UGI-1 initiative to further drive efficiency and consistency across the Company.

**Q. What additional improvements are being implemented as part of the UGI-1 initiative?**

A. There are several improvements planned, including: (a) Phase III of the UNITE technology improvement project; (b) improved management of company-owned buildings and grounds, including a voluntary initiative to become certified at Company locations under Occupational Safety and Health Administration's ("OSHA") Voluntary Protection Programs ("VPP"); (c) continued execution of the Company's betterment and replacement program through its LTIIP; (d) the development and continuation of a safety improvement program in coordination with DuPont Sustainable Solutions, a globally recognized expert in safety; and (e) enhancement and expansion of employee development and training offerings.

**Q. Do the Company's changes implemented as part of the UGI-1 initiative benefit customers?**

A. Yes. UGI-1 has already established and implemented a number of common information systems, tools, equipment types, and uniform work management and performance platforms to support UGI's operations. This has allowed, and will continue to allow, UGI Gas to become more efficient and effective in performing all aspects of its business, including handling calls from customers, performing billing and related activities, constructing new distribution facilities, operating and maintaining its gas distribution and transmission systems, and its response to and management of emergency situations.

**Q. Please provide some examples of the infrastructure and safety benefits that are being derived from the UGI-1 initiative.**

A. As discussed further in the direct testimony of Kelly A. Beaver, UGI Gas Statement No. 4, and Joseph R. Kopalek, UGI Gas Statement No. 5, UGI Gas's common set of initiatives in workplace safety, as well as its LTIIP, have begun to bear fruit in terms of achieving improved safety based on measurable performance criteria. UGI Gas recently began its Second LTIIP, which has a unified approach to infrastructure replacement and betterment for the entire UGI Gas service territory, unlike the Initial LTIIP which had distinct replacement goals and budgets by former rate districts. During the five-year term of the Second LTIIP (2020-2024), UGI Gas will invest approximately $1.3 billion on infrastructure improvements, building off an already-successful LTIIP program that has realized material reductions to the number of hazardous and non-hazardous leaks. As explained in Mr. Kopalek's testimony, the Company's standardized approach to training and safety culture, and in particular, its development of a centralized training center and creation of a safety and health management system, will ensure that all Company employees share common values regarding safety and are trained in a consistent manner throughout the Company's service territory.

**Q. What is the UNITE initiative?**

A. The UNITE initiative is an effort to modernize and harmonize the Company's information technology systems.

**Q. Please explain the improvements that the Company has made as part of UNITE.**

A. The Company has completed two phases of UNITE to date. Phase I of UNITE replaced and updated UGI Gas's core, non-financial computer systems, and included the replacement of two legacy Customer Information Systems ("CIS") with a new, modern system. Having a common CIS has enabled UGI Gas to benefit from a common set of processes and has increased the capabilities for UGI Gas to offer enhanced services, such as online web-based services, which increase the options for interacting with the Company and the efficiency of customer contacts. UNITE Phase I went live in September 2017 and since that time, UGI Gas has seen a 44% increase in electronic payments, and customers with portal profiles have increased by 71%. Online payments and enrollment in the portal directly benefit customers by reducing the customer effort needed to access and pay bills.

Phase II of UNITE replaced the Company's Oracle Enterprise Resource Planning ("ERP") system with SAP's ERP Solution. SAP is a market leader in enterprise application software. This system replacement encompassed key business activities such as: Procure to Invoice (Supply Chain Process), Invoice to Pay (Accounts Payable Process), Acquire to Retire (Plant Accounting Process) and Record to Report (General Ledger Process). UNITE Phase II also included a concurrent project by implementing SAP's Fieldglass solution, which has improved UGI Gas's contractor billing process. UNITE Phase II went live in July 2019.

**Q. Please describe the Company's current phase of the UNITE effort.**

A. The Company's current UNITE effort is UNITE Phase III-EPM, which, as described in more detail in the direct testimony of Vicky Schappell, UGI Gas Statement No. 6, will result in streamlined capital forecasting and management processes. UNITE Phase III-EPM and future UNITE initiatives are being designed to: reduce operational risks related to maintaining outdated legacy applications; improve operational capabilities with new "scalable" technology platforms; standardize and reduce the number of duplicate systems and processes across UGI Gas; and improve business information and decision making. UNITE Phase III-EPM specifically will replace the Company's homegrown 4CAP database, which has limited functionality for tracking the full lifecycle of capital projects, with the SAP PowerPlan Capital Budgeting and Forecasting application.

## VI. TARIFF CHANGES

**Q. What tariff changes are being proposed in this case?**

A. Apart from the proposed rate schedule changes, a complete list of tariff modifications can be found in the List of Changes Made by the Supplement section in UGI Gas Exhibit F – Proposed Supplement No. 6 to UGI Gas Tariff Nos. 7 and 7S. Two of the more significant changes to the proposed tariff are:

- The proposal to move Rates N/NT and Rate DS to uniform distribution rates on the effective date of new rates established in this proceeding.
- The modification of the language in Rule 5 – Extension Regulation, Section 5.1, Obligation to Extend or Expand.

The proposed tariff changes noted above are discussed in detail in my testimony.

**Q. Please explain the Company's current Line Extension Regulation.**

A. The extension regulation is outlined in Section 5 of the Company's tariff. The Company extends facilities to customers wishing to convert to natural gas if the investment in facilities is warranted by the annual base revenue to be derived from the extension. Currently, the costs of extending or expanding facilities beyond the Company's allowable investment amount are paid by the applicant as a contribution in aid of the construction of mains and/or service lines to serve the applicant requesting service. The requested extension must also not adversely impact service to existing customers in order for the Company to extend service to a new applicant.

**Q. Why is the Company proposing changes to the line extension regulation?**

A. The Company proposes to enhance its line extension regulation and modify Section 5.1 "Obligation to Extend or Expand" of its tariff in order to reduce or eliminate the up-front extension contribution to make line extensions more affordable for customers who wish to convert to natural gas. With the abundance of low cost natural gas produced from Marcellus Shale right here in Pennsylvania, this is a great opportunity to further expand the availability of natural gas to those residents of the Commonwealth who currently are unable to benefit from natural gas service. Additionally, as Company experience shows, many converting customers are replacing less-efficient and less-environmentally friendly fuel sources (such as oil) as part of conversion to natural gas, resulting in significant energy efficiency use gains as well as significant reductions in carbon emissions.

**Q. Can you please summarize the changes that the Company is proposing?**

A. The Company proposes to eliminate or reduce the contribution amount required by applicants if the following conditions are met: (1) the service location is directly accessible by an existing or proposed UGI Gas main (non-high pressure), which would be extended by no more than 150 feet; (2) the service line required to serve the applicant is no more than 150 feet; (3) the customer will utilize natural gas as their primary heating source and be served under Rates R, RT, N, or NT; (4) construction for the new main and service line does not require the crossing of private property or right of way or pose a complex construction condition or require unusual permitting requirements. The precise language proposed is set forth in Section 5.1(b)(1)-(4) of UGI Gas Exhibit F – Proposed Tariff. Extensions not meeting all of the above criteria would base the customer contribution on the investment amounts required beyond those permitted by the construction conditions in Section 5.1(b)(1)-(4) or the allowable investment amount currently specified in the tariff under Section 5.1(a) and 5.2, whichever is more beneficial to the customer.

**Q. Please provide an example of how these incremental costs would be calculated.**

A. Yes. For an applicant who requires a 175-foot main extension (greater than the allowance of 150 feet), the contribution would be based on the incremental 25 feet of main and would be calculated based on the estimated cost per foot to install the entire main times the incremental 25 feet to determine the incremental cost to charge the customer. If the estimated cost to install the main was $50 per foot, the customer would have to pay a $1,250 ($50/foot times 25 feet) contribution to help fund the project.

As another example, if there was a complex obstruction in the path of the proposed main extension, like a drainage culvert, the customer would be required to pay the additional estimated construction costs associated with that obstruction. If crossing the drainage culvert increased the construction costs of the project by $5,000, the customer would be required to pay the $5,000 of incremental costs (assuming all of the other conditions are met).

**Q. What if multiple customers in the same area requested service, how would your proposed changes apply?**

A. The allowances outlined are applied on a per prospective customer basis, so to the extent multiple customers apply for a line extension, the allowance would multiply accordingly.

For example, if three neighboring homes apply for gas service, UGI Gas would install up to 450 feet of main to serve those three properties without charging a contribution.

**Q. Please explain how the Company's proposed revisions to its line extension regulations will operate with respect to the Company's Growth Extension Tariff ("GET Gas").**

A. The Company is not proposing to modify its GET Gas tariff language. Rather the proposed change will greatly simplify the line extension rules and will be available to those applicants who are not located in a GET project area or area that may not meet the GET Gas pilot criteria.

## VII. SALARIES AND WAGES ADJUSTMENTS

**Q. Is the Company making any adjustments to Salaries and Wages not included in the FPFTY budget?**

A. Yes, Schedule D-9 includes total salary and wage increase adjustments of $1.1 million. The first adjustment shown on Schedule D-9 is for improving the competitiveness of compensation paid to UGI Gas Operations Supervisors who are required to be on call for emergency response purposes. This adjustment is an increase of $314,000. The second adjustment of $784,000 shown on Schedule D-9 is for enhancements being made to the Company's Management Incentive Plan, again for competitive concerns.

**Q. Please describe the Company's proposal to improve the compensation structure for Operations Supervisors who are required to be available for emergency response.**

A. The Company requires that a certain percentage of its operations employees be on call after normal working hours for emergency responses purposes. Currently, non-exempt field employees are compensated on a per diem basis to be on call. This compensation is justified because whether or not an employee is actually called to work, the fact that they are ready to be deployed impacts their ability to engage in other activities outside of work. If those field employees are called to work, they are further compensated for their hours worked. However, Operations Supervisors, who are salaried exempt employees, are only compensated for actual hours worked when they are on call. These supervisors are paid an equivalent straight time rate, calculated from their annual salary, for hours worked. In order to address comparable equity concerns between supervision and field personnel, the Company is changing the supervisor compensation structure to include a per diem for being on call.

Q. **Why is the Company making this change?**

A. The Company is making this change to align supervisory on call pay with the non-exempt field employee on call pay structure which is also more typical of industry practice. Additionally, the Company has had Operations Supervisors move on to other roles within the Company or other opportunities outside UGI Gas, partly due to on call considerations and the current compensation structure associated with this role.

**Q. What is the Company planning to change with regards to supervisor on-call compensation?**

A. The Company is planning to provide a fixed on-call per diem for supervisors in addition to the hourly pay for actual hours worked if called upon to physically respond to an emergency or unplanned event. The fixed per diem would be $40 per day for weekdays and $50 per day for weekends, or $300 for a full week. The Company normally has 10 supervisors on call at any given time across its service territory, which results in an annual forecasted cost of $156,000. This amount is reflected on Line 1 on Schedule D-9 as a FPFTY adjustment. The Company is planning on makings these changes towards the end of the FTY.

**Q. Are there any other changes to emergency response compensation that the Company is making?**

A. Yes. Throughout the year, there may be larger emergency response events that require after-hours supervisory and management support beyond that of a single on-call supervisor. UGI Gas is modifying the formal compensation structure for the after-hours supervisory or management support needed during these larger scale emergencies beyond a single supervisor who is on call for that geographic area. The Company will compensate additional management support during these events on a straight time hourly basis, similar to the on-call supervisor, for any hours worked beyond the normal work schedule. The Company estimates that this change will increase expenditures annually by $158,400; as included in Line 1 on Schedule D-9.

**Q. Please explain the adjustment on Line 2 on Schedule D-9.**

A. Yes, the $784,000 listed on Line 2 on Schedule D-9 reflects the additional incentive compensation related to planned changes the Company is making to its Management Incentive Plan.

**Q. Please explain the changes to the Management Incentive Plan.**

A. Effective for Fiscal Year 2021, the Company is expanding the incentive plan to include additional position levels within the organization that were not previously in the incentive plan, as well as enhancing targeted incentive payments to middle management roles previously included in the plan. Specifically, exempt supervisor, analyst, and administrators have been added to the incentive plan. Additionally, targeted incentive compensation payouts for Senior Supervisor, Manager, Principal Leader, and other Senior Analyst roles are being increased. The adjustment on Line 2 of Schedule D-9 is the estimated impact of these changes to the operating expenses of the Company for Fiscal Year 2021.

**Q. Why is the Company making these changes to incentive compensation?**

A. The changes to the plan were made after a review of overall compensation for the positions was conducted, to maintain the competitiveness of the Company's compensation package for these positions. Further, these changes align and reward employee efforts that support the provision of safe and reliable distribution service to the customers and communities that we serve, support superior customer service and contribute to the healthy growth and profitability of the Company.

## VIII. TEST YEAR SALES AND REVENUE

**Q. Please explain the process for developing the Company's Fiscal Year 2021 sales and revenue budgets.**

A. The sales and revenue budgets were a joint effort of the marketing and revenue accounting departments, with the marketing department providing customer growth and attrition information by customer class along with specific large commercial and industrial sales and revenue budget projections. The revenue accounting department developed projections for budgeted usage per customer for core customer classes, total calculated sales and total calculated revenues. In developing sales and revenues, the Vice President, Marketing and Customer Relations, with input and assistance from other marketing employees, budgets the number of customers by class. Various factors are considered in developing customer budgets, including: the trend in losses and conversions to and from other energy sources; the level of applications and inquiries for service; new construction activity; current and projected economic factors; and the costs of competing fuels. The usage per customer reflected in the 2021 budget was the same as that used for the 2020 budget and specifically does not incorporate use per customer conservation trends related to the residential class. Normalized budget use per customer values were developed based on a simple regression of 24 months of actual use per customer data and then normalized based on normal heating degree days. Planned budgeted numbers of customers and usage per customer for these customer classes are then combined to produce planned budgeted sales. Sales are allocated by month, and appropriate rates are applied to derive budgeted revenues. Sales and revenues related to large contract customer classes are developed by the marketing department on a customer specific basis using customer input where appropriate. As discussed in the testimony of

Stephen F. Anzaldo, UGI Gas Statement No. 2, the derivation of the 2021 planned budget reflects a forecast that will subsequently be updated during calendar year 2020 as part of the normal annual budget process. This process is conducted several months prior to the start of the new fiscal year and finalized prior to the beginning of the new fiscal year.

**Q. Please explain how the Company's FPFTY sales and revenues were developed.**

A. FPFTY sales and revenues were developed by annualizing and normalizing the Company's 2020 fiscal year planned sales and revenue budgets. Where similar adjustments are made, the methodology applied to develop normalized FPFTY use per customer, FTY use per customer, and HTY use per customer adjustments to budget values is the same for all three periods in order to present sales and revenue on a ratemaking basis. A summary of projected use per customer by class for the FPFTY, FTY, and HTY are included in UGI Gas Exhibit CRB-7. The projected Residential Heating use per customer was established for Rate R/RT-Heating per the UGI Gas model detailed in SDR-RR-11. Since, over time, switching occurs on a regular basis between Rates R (retail service) and RT (transportation service), the regression analysis was performed on a total Rate R/RT basis in order to eliminate potential switching impacts which could distort use per customer analyses. I provide more detail on this regression analysis below where I discuss the Company's "Adjustment for Normalized & Annualized Use/Customer." Weather normalized sales for Rate RT-Heating customers were then utilized to derive the separate Rate RT-Heating and Rate R-Heating use per customer values from the combined Rate R/RT use per customer value.

Actual sales were normalized for Rate R-General and Rate RT-General in total in order to project combined Rate R/RT-General use per customer in total. Weather normalized sales for Rate RT-General were then utilized to derive the separate Rate RT-General and Rate R-General customer values from the combined Rate R/RT-General use per customer value.

The projected Commercial Heating use per customer was established on a combined total basis for Rates N/NT/DS-Heating per the UGI Gas model regression techniques detailed in SDR-RR-11. Given that, over time, switching occurs on a regular basis between Rates N (retail service), NT (transportation service) and DS (transportation service), the regression analysis was performed on a total Rates N/NT/DS basis in order to eliminate potential switching impacts which could distort use per customer analyses. I provide more detail on this regression below where I discuss the Company's "Adjustment for Normalized & Annualized Use/Customer." Weather normalized sales for Rate NT-Commercial Heating customers and budgeted sales for Rate DS-Commercial Heating were then utilized to derive the separate Rate NT-Commercial Heating, Rate N-Commercial Heating and Rate DS-Commercial Heating use per customer values from the combined Rates N/NT/DS-Commercial Heating use per customer value.

Actual sales were normalized for Rate N-Commercial General, Rate NT-Commercial General and Rate DS-Commercial General in order to project combined Rates N/NT/DS-Commercial General use per customer in total. Weather normalized sales for Rate NT-Commercial General and budgeted sales for Rate DS-Commercial General were then utilized to derive the separate Rate NT-Commercial General, Rate N-

Commercial General and Rate DS-Commercial General use per customer values from the combined Rates N/NT/DS-Commercial General use per customer value.

Combined actual sales were normalized for Rate N-Industrial, Rate NT-Industrial and Rate DS-Industrial in order to project combined Rates N/NT/DS-Industrial use per customer in total. Weather normalized sales for Rate NT-Industrial and budgeted sales for Rate DS-Industrial were then utilized to derive the separate Rate NT-Industrial, Rate N-Industrial and Rate DS-Industrial use per customer values from the combined Rates N/NT/DS-Industrial use per customer value.

**Q. How was temperature accounted for in developing sales and revenue forecasts?**

A. The Company's FPFTY sales and revenue forecasts reflect annual normal heating degree days of 5,687. This annual normal heating degree day calculation is derived from a composite sales weighted value (by system demand) of each of the Company's former rate districts, and the respective normal heating degree values (North 6,019, Central 6,297, South 5,214). Normal heating degree days are defined based upon an average over a fifteen-year period and are updated every five years. UGI Gas Exhibit CRB-2 provides the supporting calculation of the annual normal heating degree days.

**Q. Is the use of average temperature data for a fifteen-year period consistent with the methodology used for calculating normal heating degree days in the previous base rate cases of UGI Gas's rate districts?**

A. Yes. The Company has consistently used a fifteen-year period methodology in the six most recent gas base rate cases that the Company or its former subsidiaries have filed.

**Q. Please describe the adjustments made to the budget for the twelve months ending September 30, 2021 to develop FPFTY sales and revenues.**

A. A summary of all adjustments made to the 2021 budget in order to develop FPFTY sales is shown on UGI Gas Exhibit CRB-4(a). Detail for each of these adjustments is provided on subsequent worksheets labeled 4(b) through 4(l). In total, these adjustments reflect a decrease to sales of 1,447 MMcf and a decrease to revenue of $45.299 million, inclusive of PGC revenues.

**Q. Please explain the "Adjustment for Customer Changes" shown on UGI Gas Exhibit CRB-4(a).**

A. The "Adjustment for Customer Changes" annualizes customer counts to anticipated end-of-test-year levels based on the Company's most recent forecast for the FPFTY. In particular, this adjustment includes a net decrease of 1,213 residential heating customers from budgeted levels to anticipated end-of-test-year levels and a net decrease of 97 non-residential heating customers from budgeted levels to anticipated end-of-FPFTY levels on September 30, 2021.

**Q. How were these adjustments calculated?**

A. UGI Gas Exhibit CRB-4(b) provides the calculation of the associated sales and revenue adjustments for the stated customer counts. In total, this adjustment decreases sales by 251 MMcf and decreases projected revenues by $5.565 million, inclusive of PGC revenues. Additional detail for column (9) of UGI Gas Exhibit CRB-4(b) can be found on UGI Gas Exhibit CRB-4(b)(1), which provides a breakout of customer data for large transportation customer classes.

**Q. Please explain the adjustment titled "Adjustment for Customer/Contract Changes – Large Transport and Interruptible Detail" as shown on UGI Gas Exhibit CRB-4(b)(1)).**

A. The adjustments for large transportation customers were developed by UGI Gas marketing personnel following their review of individual large customer accounts and market segments. It reflects annualizing anticipated increases or reductions from original Fiscal Year 2021 budget levels in the sales and revenues for these accounts.

**Q. Please explain your next adjustment, "Adjustment for Normalized & Annualized Use/Customer" shown on UGI Gas Exhibit CRB-4(a).**

A. The "Adjustment for Normalized & Annualized Use/Customer" normalizes and annualizes Residential Heating and Commercial Heating usage per customer to projected end-of-test-year levels based on a multi-year regression analysis of actual usage and degree day information. Specifically, in developing usage per customer projections for the Residential Heating rate groups (Rates R and RT), the Company utilized an econometric regression model that incorporates four independent variables: (1) use per customer; (2) heating degree days; (3) lagged heating degree days; and (4) weighted time trend. While use per customer and heating degree days capture weather related usage factors, which can then be used to project normalized and annualized customer usage under normal weather conditions, the time trend variable of this regression captures non-weather trends that underlie changes in usage per customer over time, such as conservation. These trends can be varied, but as a comprehensive variable, "trend" will capture the impacts of conservation, including but not limited to: (1) regular appliance replacements; (2) accelerated appliance replacements; (3) high-efficiency appliance installations; (4) setback thermostat installations; (5) modifications to new and existing buildings that are designed to decrease energy consumption; and (6) changes in consumer usage behavior due to other economic influences. Given the number of variables that can influence customer usage over time, and the difficulty in identifying, quantifying and tracking all variables over time, a trend variable is used to provide a comprehensive indicator of usage trends, which can then be used to forecast for a future period. Additionally, the trend variable is weighted by heating degree days to reflect a "weighted trend" which more accurately reflects that the impacts of these trends are directly related to usage during heating time periods.

For the Residential Heating groups of Rates R and RT, the multi-year period regression methodology is the same base method the Company has utilized in prior rate cases, updated for the use of a common data set period of October 2003 through September 2019, as October 2003 is the earliest common data set available for the entire service territory.

For Commercial Heating rate groups, the Company utilized the same regression method as presented in UGI Gas's 2019 Rate Case. Specifically, to forecast the Commercial Heating rate group use per customer, the Company utilized three variables: (1) use per customer; (2) heating degree days; and (3) lagged heating degree days. For the Commercial Heating groups of Rates N, NT and DS, the Company used the period of

October 2012 through September 2019, when a common rate structure existed for the three rate districts.

The forecasts for end-of-FPFTY use per customer are generated using the regression results along with a projection of regression variable inputs including normal annual heating degree days and, where applicable, a weighted trend variable. The results are presented in summary on UGI Gas Exhibit CRB-4(a) and in detail on UGI Gas Exhibit CRB-4(c). In total, the result is a net sales decrease, from fiscal 2021 budget, of 996 MMcf, and a net revenue decrease, from fiscal 2021 budget, of $11.20 million, inclusive of PGC revenues. Additional detail for column (9) of UGI Gas Exhibit CRB-4(c) can be found on UGI Gas Exhibit CRB-4(c)(1), which provides a breakout of customer data for large transportation customer classes.

**Q. Why did UGI Gas utilize a multi-year regression period?**

A. The 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. This methodology is consistent with that utilized in the last five base rate cases of UGI Gas and its predecessor entities.

**Q. Has UGI Gas compared the results of the multi-year regression method to develop normalized usage for Residential Heating and Commercial Heating customer groups with any other normalization method?**

A. Yes. Please see UGI Gas Exhibits CRB-3(a) and CRB-3(b) which contain use per customer graphs that illustrate both the results of the multi-year normalized regression method I have explained above ("Normalized Multi-year") and a short-term normalized ("Normalized 12 Months ended") value for the same groups of Residential Heating and Commercial Heating customers. The short-term normalized values are computed via a simple determination of temperature sensitive load each month. As can be seen from these graphs, short-term trend fluctuations of the "Normalized 12 months ended" line occur in certain periods, but consistently revert to the long-term "Normalized Multi-year" trend which has been used to forecast FPFTY use per customer values. This provides clear support for the use of the multi-year regression method.

**Q. Please explain the "Adjustment for PGC" shown on UGI Gas Exhibit CRB-4(a).**

A. The "Adjustment for PGC" shown in summary on UGI Gas Exhibit CRB-4(a) annualizes FPFTY PGC revenues using the PGC rate in effect as of December 1, 2019. UGI Gas Exhibit CRB-4(d) provides the calculations for these adjustments. This adjustment decreases PGC revenues for the FPFTY by $33.4 million.

**Q. Please explain the following three adjustments shown in summary on UGI Gas Exhibit CRB-4(a): "Adjustment for MFC," "Adjustment for USP," and "Adjustment for GPC."**

A. The Adjustment for MFC annualizes the Company's Merchant Function Charge ("MFC") revenues for the FPFTY based on the MFC surcharge rates in effect as of December 1, 2019. The MFC Adjustment decreases projected revenues by $519,000.

The Adjustment for USP annualizes the Company's Universal Service Program ("USP") surcharge revenues for the FPFTY based on the USP Rider rate in effect as of December 1, 2019. The Adjustment for USP also updates the sales volume for CAP customers in the USP Revenue calculation with end of Fiscal Year 2019 data in comparison to the budgeted sales volume for CAP customers, which was calculated using end of Fiscal Year 2018 data. The USP adjustment increases revenues by $3.9 million.

The Adjustment for GPC annualizes the Gas Procurement Cost ("GPC") revenues to reflect the volume variance to the original Fiscal Year 2021 planned budget. The GPC adjustment decreases revenues by $123,000. Additional details for these three adjustments are provided on UGI Gas Exhibit CRB-4(e), UGI Gas Exhibit CRB-4(f), and UGI Gas Exhibit CRB-4(g) respectively.

**Q. Please explain "Adjustment for Excess Take Revenues" as shown on UGI Gas Exhibit CRB-4(a).**

A. The "Adjustment for Excess Take" detailed in UGI Gas Exhibit CRB-4(h) reflects the assumption that large transportation customers will evaluate new service elections and will make the necessary adjustments to avoid Excess Take penalties in the FPFTY year. The Excess Take adjustment reduces revenue by $1.7 million.

**Q. Please explain the "Adjustment for EEC Rider" on UGI Gas Exhibit CRB-4(a).**

A. The "Adjustment for EEC Rider" annualizes the revenue from the EEC Rider. This adjustment increases revenues by $4.9 million and is shown on UGI Exhibit CRB-4(i).

**Q. Please explain the "Adjustment for EEC Conservation Impact" on UGI Gas Exhibit CRB-4(a).**

A. The "Adjustment for EEC Conservation Impact" annualizes the impact to revenues from UGI Gas's ongoing EE&C program and associated reduced energy consumption as a result of measures implemented as part of the EE&C program. This adjustment decreases revenues by $1.6 million and can be seen on UGI Gas Exhibit CRB-4(j).

**Q. Please explain the "Adjustment for GET Gas" on UGI Gas Exhibit CRB-4(a).**

A. The "Adjustment for GET Gas" annualizes GET Gas revenues to reflect end of year conditions. The revised revenues were developed by annualizing the projected GET Gas surcharge payments at the end of the FPFTY. This adjustment decreases revenues by $234,000. The adjustment is due to the Company's decrease of the GET Gas surcharge as a result of the settlement of the 2019 Rate Case and is shown on UGI Gas Exhibit CRB-4(k).

**Q. Please explain the "Adjustment for GDE" on UGI Gas Exhibit CRB-4(a).**

A. The "Adjustment for GDE" annualizes Rider Gas Delivery Enhancement ("GDE") revenue based on current rate district rates as compared to the budgeted rate district revenues. This adjustment increases revenues by $192,000 and is shown on UGI Gas Exhibit CRB-4(l).

**Q. Do the adjusted FPFTY revenues exclude revenues related to off-system sales and non-jurisdictional revenue?**

A. Yes.

**Q. Do the FPFTY revenues include revenues currently recovered through the DSIC?**

A. No, FPFTY present rate revenues do not include DSIC charge revenues since the DSIC was set to zero with implementation of rates approved in the 2019 Rate Case.

## IX. <u>DEVELOPMENT OF SALES AND REVENUE FOR THE FTY AND HTY</u>

**Q. How were normalized and annualized sales and revenue determined for the FTY?**

A. Budgeted sales and revenues serve as the starting point for the development of the normalized and annualized FTY sales and revenues, as shown in UGI Gas Exhibit CRB-5. All of the adjustments that were made in the development of the FPFTY sales and revenues were also made in the development of the FTY sales and revenues, with the exception of the adjustment for the EEC Conservation Impact that is contained in the FPFTY, but not the FTY. In addition, the normalized and annualized FTY sales and revenues include adjustments to remove one month of the State Tax Adjustment

Surcharge ("STAS"), DSIC, and Tax Cuts and Jobs Act ("TCJA") Rider that had been included in the budget.

**Q. How were normalized and annualized sales and revenue determined for the HTY?**

A. Historic sales and revenues serve as the starting point for the development of the normalized and annualized HTY sales and revenues shown in UGI Gas Exhibit CRB-6. All of the adjustments that were made in the development of the FPFTY were also made in the development of the HTY, with the exception of the adjustments for the EEC Rider, the EEC Conservation Impact, and the GDE Rider.

## X. REVENUE ALLOCATION AND RATE DESIGN

**Q. What is UGI Gas's ratemaking philosophy for revenue allocation and rate design?**

A. The Company's ratemaking goal is to implement reasonable rates that recover its cost of doing business. Revenue allocation and rate design are generally developed to reflect reasonable movement toward class cost of service and to be competitive with prices of alternate energy sources, including bypass. UGI Gas's rates and rate design seek to promote and achieve efficient utilization of the Company's facilities and natural gas supplies.

**Q. What factors has the Company considered in establishing its rate structure?**

A. The Company considered cost of service, rate of return, and relative rate of return compared to the system average rate of return as the primary factors in determining revenue allocation and rate design and has specifically pursued rate uniformity and gradualism principals in establishing this process. In measuring cost of service, the

Company relied on the cost of service study prepared by Company witness Paul R. Herbert (UGI Gas Statement No. 8).

**Q. What were the Company's goals for revenue allocation?**

A. The Company's goals for revenue allocation are two-fold. First, the Company wants to materially move all classes towards the system average rate of return. Second, the Company wanted to complete the unification of the DS and N/NT rate classes for the former North and South/Central Rate Districts.

**Q. How did you arrive at the revenue allocation proposal included in this rate case?**

A. The Company first looked at unifying the Rate DS classes in the former North Rate District with those from the former South and Central Rate Districts. In accomplishing this goal, the resulting impact to the Rate DS class in the former North Rate District was identified as a limiting factor. As the total system average increase in distribution rates proposed in this case is 12.7%, the increase to this Rate DS group was limited to two times (2x) the system average increase, or 25.4%. Limiting the increase by a maximum of two times the overall increase in distribution rates has been a practice used in past rate cases in order to limit the overall impact to any one particular customer group affected by the overall rate increase, otherwise known as gradualism. After establishing the two times maximum increase for the former North Rate District DS class, the distribution rates for the former South and Central Rate DS class was then decreased by 4.4% in order to achieve uniformity across the entire Rate DS class. These collective changes to Rate DS resulted in a total revenue allocation of approximately $700,000.

Next, the Company looked to allocate the remaining increase proposed in this case (approximately $73.9 million) to the Rate R/RT and Rate N/NT classes by an amount which would have each class moved by an equivalent percentage towards the system average rate of return. As part of this process, the Company also unified the former North Rate N/NT class rates with the former South and Central N/NT class rates as a rate design element when doing this last step in the revenue allocation. Finally, given that Rates LFD, XD and IS have relative rates of return that are all well above system average, the Company is proposing no incremental revenue allocation to these rate classes.

**Q. Please summarize the final revenue allocation proposed by the Company in this case.**

A. Below is a summary of the proposed allocation of the $74.6 million increase proposed in this case, shown by rate class:

| | |
|---|---|
| Rates R/RT | $61.2 million |
| Rates N/NT | $12.6 million |
| Rate DS | $0.7 million |
| Rate LFD | $0.0 million |
| Rate XD | $0.0 million |
| Rate IS | $0.0 million |

**Q. Can you please describe the changes in the relative rate of return by rate class, that result from the revenue allocation described above?**

A. Table 4 below shows the percentage increase in distribution revenue, excluding gas costs, as well as summarizes the changes in relative rates of return by rate class. The percentage movement towards the system average rate of return is also included in the table data.

**Table 4. – Percent Increase, Relative Rate of Return ("ROR") and Change in Relative ROR**

| Rate | Percent increase (without gas costs) | Relative ROR-present rates | Relative ROR-proposed rates | Change in relative ROR | Percent movement in relative ROR toward unity ROR |
|---|---|---|---|---|---|
| R/RT | 18.7% | 0.54 | 0.76 | 0.22 | 48% |
| N/NT | 9.8% | 1.31 | 1.16 | 0.15 | -48% |
| DS | 2.1% | 1.91 | 1.44 | 0.47 | -52% |
| LFD | 0 | 2.17 | 1.58 | 0.59 | -50% |
| XD | 0 | 2.16 | 1.58 | 0.58 | -50% |
| IS | 0 | 2.78 | 2.03 | 0.75 | -42% |
| Total | 12.7% | 1.0 | 1.0 | 1.0 | |

Under this proposal, the Company achieves its goals of both moving all rate classes towards the system average rate of return and achieving rate uniformity for both the Rates N/NT and Rate DS customer groups.

**Q. Please describe the impacts related to revenue allocation and rate design for the residential Rate R customer group.**

A. As evidenced by the cost of service study presented by Mr. Herbert, under present rates, the residential Rate R customer group (Rates R and RT) is producing a return of 3.23%, as compared to a system average return of 5.95%. This translates to a relative rate of return of 0.54 compared to the system average. In allocating revenues, the Company proposes to allocate $61.2 million of the revenue increase to the Rate R customer group in order to move it closer toward cost of service. This increase will result in an overall return of 6.07% for the Rate R customer group, compared to the proposed system average of 7.95%, and a relative rate of return of 0.76.

As to rate design, the Company is proposing a Rate R customer charge of $19.95 per month, as compared to the current charge of $14.60 per month, to better reflect the customer costs per bill of $32.34 as identified within the cost of service study presented in UGI Gas Exhibit D. This approximate 30% movement toward the customer cost per bill reflects the Company's consideration of customer bill impacts and applies the ratemaking principal of gradualism.

**Q. Please describe the impacts related to revenue allocation and rate design for the small commercial Rate N customer group.**

A. For the small commercial Rate N customer group (Rates N and NT), current rates are producing a return of 7.77% with a relative rate of return 1.31. UGI Gas proposes to allocate $12.6 million of the revenue increase to the Rate N customer group. This increase will result in an overall return of 9.20% or a relative rate of return of 1.16.

As to rate design, the Company is proposing a Rate N customer group customer charge of $30.00 per month, as compared to the current charge of $23.50 per month, to better reflect the customer costs per bill of $53.07 as identified within the cost of service study presented in UGI Gas Exhibit D. This movement toward the direct customer cost per bill increases the current customer charge by 27.6% and reflects the Company's consideration of customer bill impacts and applies the ratemaking principal of gradualism.

**Q. Please describe the impact of the revenue allocation and rate design for Rate DS.**

A. For Rate DS, the applicable transportation rate for small to medium sized customers, current rates are producing a return of 11.37%, with a relative rate of return of 1.91. The Company proposes to allocate approximately $700,000 of the revenue increase to the Rate DS customers in order to increase the Rate DS customers in the former North Rate District and decrease rates for the former South and Central Rate District customers in order to achieve unity in this customer group. These adjustments in rates will result in an overall class return of 11.47% or a relative rate of return of 1.44.

As to rate design, the Company is proposing to maintain the current Rate DS customer charge of $260.00 per month. The $260.00 per month is supported by the customer costs per bill for Rate DS of $302.67 as identified within the cost of service study presented in UGI Gas Exhibit D.

**Q. Is the Company proposing any change to the rate assessed under Rate NNS (No Notice Service)?**

A. Yes. Rate NNS is a daily balancing service offered by the Company. It provides an alternate election of a daily balancing tolerance for transportation customers, allowing a customer to optionally elect a balancing tolerance greater than the standard basic balancing provided by the Company. A customer is able to make a Rate NNS election up to its DFR (Daily Firm Requirement) contract demand level and pay only for the level chosen. The Company is proposing to update the tariffed NNS rate to reflect current cost elements, while retaining the methodology used to develop the current rate.

**Q. How was the proposed NNS rate developed?**

A. The charge for providing service under Rate NNS is a monthly charge established using the Company's cost of interstate storage that can be utilized for balancing excess or shortfall requirements on the Company system. UGI Gas Exhibit CRB-8 shows the calculation of the Rate NNS charges, which were developed based on the same methodology used in the Company's last base rate case. The proposed NNS rate is $0.1460 per Mcf/d of an elected daily no notice allowance ("NNA") tolerance quantity. This compares to a current rate of $0.4880 per Mcf/d of elected NNA.

**Q. Will the Company continue to credit the revenues received from Rate NNS to PGC Rates?**

A. Yes, revenues from Rate NNS will continue to be credited to the PGC Rates as part of the Company's annual 1307(f) proceeding.

**Q. Please describe Rate MBS (Monthly Balancing Service).**

A. Rate MBS is a monthly balancing service offered by the Company. Service under Rate MBS allows transportation imbalances of up to 10% for the month to be carried forward in the customer's MBS account for delivery of excess deliveries, or receipt of shortfalls, in subsequent months.

**Q. Has the Company proposed any changes to the Rate MBS rates?**

A. Yes. UGI Gas Exhibit CRB-9 provides the basis for the MBS rate calculation. As a result of the settlement in the Company's 2019 Rate Case, storage demand charges are included in the calculation on a 100% load factor basis, and the MBS rate is updated annually on December 1st each year, using 12 months of data ending in September, for the average monthly imbalance utilized in development of the rate. The MBS rates most recently updated for December 1, 2019 are: $0.0254/Mcf for Rates DS and IS; $0.0147/Mcf for Rate LFD; and $0.0151/Mcf for Rate XD. Under the Company's proposal, the MBS rates will be: $0.0197/Mcf for Rates DS and IS; $0.0111/Mcf for Rate LFD; and $0.0106/Mcf for Rate XD.

**Q. Will the Company continue to credit the revenues received from Rate MBS to PGC Rates?**

A. Yes, revenues from Rate MBS will continue to be credited to the PGC as part of the Company's annual 1307(f) proceeding.

**Q. Please describe the GPC.**

A. The GPC recovers costs associated with gas procurement that were unbundled from base rates.

**Q. Is the Company proposing to update its GPC in this proceeding?**

A. No. The Company proposes to continue the $0.0660/Mcf blended rate that was approved in the Company's 2019 Rate Case.

**Q. Please describe the MFC.**

A. The MFC is equal to the fixed percentage of purchased gas costs that are expected to be uncollectible.

**Q. Is the Company proposing to update its MFC in this proceeding?**

A. Yes. The Company is updating the percentages for the MFC rates to reflect the actual uncollectible expense for the last three years. Based on this updated data, the residential MFC will be 2.17%, and the MFC for the commercial class will be 0.28%. Please see UGI Gas Exhibit CRB-10 for additional details.

**Q. Please describe the USP Rider.**

A. The USP Rider recovers those costs associated with the provision of universal service offerings approved by the Commission in the Company's Universal Service and Energy Conservation Plan.

**Q. Is the Company proposing any changes to the USP Rider?**

A. Yes. The Company's current USP Rider calculation takes into consideration that if average customer participation in the Customer Assistance Program ("CAP") exceeds 19,672, recovery of actual expenses above that FPFTY enrollment is reduced by 9.2%, as agreed to in the 2019 Rate Case. The purpose of this mechanism is to account for anticipated reductions in uncollectible expense as CAP participation increases. As the FPFTY budget assumed a CAP enrollment figure of 25,297 at the end of FPFTY, the

Company is proposing to update the 19,672 threshold enrollment with a 25,297 threshold in this calculation.

## XI. INTERRUPTIBLE CUSTOMER COMPETITIVE ANALYSIS

**Q. In the 2019 Rate Case settlement, the Company agreed to prepare a competitive alternative analysis for each interruptible customer with alternate fuel capability; has the Company prepared such an analysis?**

A. Yes, it has. In accordance with the settlement provision, the competitive alternative analysis includes twelve (12) months of historical usage, the date the analysis was completed, and a reasonable proxy cost on an equivalent BTU basis the customer would incur to utilize the alternative fuel based on published index prices for the alternative fuel. The competitive analysis for each customer also includes a listing of actual interruptions with dates and duration. As the analysis contains highly confidential customer information, the Company will make it available to the public advocates during the discovery process once an appropriate protective agreement is in place.

## XII. MANAGEMENT EFFECTIVENESS AND PERFORMANCE

**Q. What actions has UGI Gas taken that reflect superior management performance?**

A. UGI Gas has focused on a number of areas to enhance and improve the quality and effectiveness of its service in recent years that reflect superior management performance. These management efforts include: (1) unification of the Company’s Tariff; (2) infrastructure improvements made pursuant to the Company’s LTIIP; (3) investments in safety; (4) excellent customer service; (5) IT modernization; (6) Environmental and Social Governance; and (7) Community Engagement.

**Q. What are the realized benefits of Tariff Unification?**

A. As discussed above, and as proposed in this case, UGI Gas will have fully unified its three legacy gas utilities into a single entity, bringing the benefits of efficiency, simplicity, cost savings and economies of scale to all of its customers. The unified structure will improve customer service on a going forward basis. Unification has required a years-long effort by management over a half dozen individual rate cases to provide the benefits of unification to customers and other impacted entities. One example of a direct benefit to customers is the availability of the Company's EE&C Plan, a comprehensive portfolio of energy efficiency and conservation programs that was designed to assist customers in saving energy through various cost-effective measures, to all UGI Gas customers. Since November 1, 2019, a significant number of former Central Rate District customers have participated in the EE&C program. Another example of a direct benefit is the consolidated PGC and price-to-compare, the purchase of receivables program, and uniform choice transportation rules across the UGI Gas service territory.

**Q. What infrastructure improvements has the Company experienced?**

A. As further explained in the testimony of Kelly A. Beaver, UGI Gas has an aggressive accelerated infrastructure replacement plan focused on replacing all remaining cast-iron and bare steel mains. UGI Gas already is a leader in the Commonwealth, as its distribution system has the highest percentage of contemporary mains. As shown in UGI Gas's Second LTIIP, filed on August 21, 2019 at Docket No. P-2019-3012337 and approved on December 19, 2019, the Company projects that it will eliminate all cast-iron mains by 2027 and all bare steel mains by 2038 (assuming the current rate of replacement continues into the future with the necessary regulatory approvals), reflecting further acceleration of bare steel replacement from the 2041 date committed to in UGI Gas's Initial LTIIP. The Company's infrastructure improvement statistics, exemplified by its reduction of leaks and cast iron breaks, is a direct result of this aggressive accelerated infrastructure replacement plan.

**Q. Please describe the Company's investments in Safety Culture Development and Training.**

A. The Company is in the process of constructing a state of the art training center in Berks County, which will be the heart of the Company's training programs and provide real-life and simulated training scenarios to ensure that our personnel are providing customers, communities and first-responders with enhanced service in the field. The Company has also been developing and implementing numerous safety improvement initiatives to reduce injuries and motor vehicle accidents, as further explained in the testimony of Joseph R. Kopalek. These initiatives include pursuing OSHA Voluntary Protection Plan certification of Company facilities, the "Making a Difference" safety program, use of Fleetmatics fleet management tool to improve driver safety, DriveCAM selective driver monitoring to record and review incidents or close-calls, Smith Driving School training, establishing safety teams to improve driver safety and a Safety Culture Transformation Program in collaboration with the DuPont safety group focused on fostering a safety culture across the Company. This latter effort has led to our "I'll be there" safety branding program.

**Q. Please describe the Company's achievements in providing superior customer service.**

A. UGI has been recognized by many industry experts for its excellent customer service. Including 2019, UGI finished in first or second place in the J.D. Power award for customer satisfaction among utilities in each of the last eight years and won the J.D. Power #1 in Customer Satisfaction award a total of seven times (2003, 2004, 2005, 2006, 2007, 2013 and 2014) since UGI was first included in the survey in 2003 by J.D. Power. Most recently, UGI was among 40 utility companies nationwide that were named a 2019 "Customer Champion" based on the Cogent Syndicated Utility Trusted Brand & Customer Engagement™ Residential study from Escalent, a human behavior and analytics firm. The Escalent survey ranked UGI as the #1 natural gas utility in the East Region Utility Brand group and among the East Region, UGI had the highest Engaged Customer Relationship index score of all utilities.

**Q. Please describe the Company's efforts at modernizing processes and Information Technology.**

A. As described earlier in my testimony, Phase I and Phase II of the UNITE Project to upgrade the Company's CIS and ERP system have been implemented and the Company is now focused on UNITE Phase III-EPM, which will begin a long-term process of upgrading the Company's capital management systems. The Company has spent the last five years dedicating significant time and resources to modernize its information systems in order to increase its operating efficiency and to provide its customers with better service.

**Q. Please describe the Company's engagement in environmental and social governance.**

A. The Company is committed to environmental stewardship and social consciousness. The Company encourages energy efficiency through its voluntary EE&C programs, has successfully converted more than 100,000 coal and fuel oil customers to more environmentally-friendly natural gas, has connected service to new natural gas generating facilities that, in part, have enabled the Commonwealth to substantially lessen its reliance on electric generation produced by more carbon-intensive fuels such as coal and oil, and proposes, in this case, to further encourage the adoption of environmentally-friendly natural gas through its proposed line extension revisions, which will waive the customer contribution for customers whose properties are within 150 feet of an existing gas main. Additionally, UGI Gas has over 100 compressed natural gas fueled vehicles as part of its fleet, which provide significant reductions in carbon emissions, and the Company's cast iron and bare steel replacement activities have resulted in lowering methane emissions. With respect to social governance, the Company has continued its efforts to contract with Minority, Women and Disabled Owned Businesses ("Diversity Spend"). For 2019, Total Diversity Spend by the Company is in excess of $40 million.

**Q. Please describe the Company's community engagement efforts.**

A. Each year UGI Gas invests more than $1.0 million to support education improvement programs across the Company's service territory. UGI Gas also supports: childhood literacy; enhanced "STEM" (science, technology, engineering and math) curriculum in elementary schools; funding for technical training programs for high school students; and programs that provide support and mentoring for women and minority engineering students. UGI Gas employees also commit significant personal time and resources to support community initiatives. UGI Gas's employees are eligible for 16 paid hours of volunteer time per year per the Company's volunteer policy. For example, 688 UGI Gas employees donated more than 61,000 hours combined of work and personal time to assist their communities in 2018. UGI Gas employees also donated personal funds to better their communities. More than 1,000 employees contributed a total of more than $356,000 combined as part of the Company's 2019 United Way campaign. Combined with corporate contributions and retiree contributions, total support provided to United Way agencies serving communities in the UGI Gas service territory in 2019 totaled approximately $700,000. The Company was recently acknowledged for its community outreach and social involvement by the Harrisburg Regional Chamber of Commerce and the Capital Region Economic Development Corporation ("CREDC"), which awarded UGI the 2019 Catalyst Award for Corporate Citizen of the Year. The Chamber and CREDC noted the Company's dedication to childhood literacy, career awareness, STEM programming, community development, disaster response, and the Company's support for environmentally friendly projects.

**Q. What do the Company's efforts in the above-referenced areas demonstrate?**

A. UGI Gas believes that the management efforts described above, and the other improvements described by the UGI Gas witnesses in this proceeding, as well as the Company's provision of safe and reliable service at reasonable rates, demonstrate UGI Gas's commitment to safety, community partnership, and the provision of excellent customer service. In total, these efforts support an additional upward adjustment of

0.20% to the Company's equity return in recognition of its management effectiveness, which is included in the 10.95% equity return requested in this proceeding.

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

A. Yes, it does.

**UGI GAS EXHIBIT CRB-1**

# CHRISTOPHER R. BROWN

## VICE PRESIDENT AND GENERAL MANAGER, RATES AND SUPPLY

**UGI Utilities, Inc.**

| | |
|---|---|
| Vice President and General Manager, Rates and Supply (Denver, Pa.) | May 2019 - Present |
| Sr. Director- Operations South Region (Reading, Pa.) | July 2015- May 2019 |
| Manager - Operations (Reading, Pa.) | July 2013 – July 2015 |
| Director- Central Services (Reading, Pa.) | October 2010 – July 2013 |
| Manager – Strategy Processes and Implementation (Reading, Pa.) | February 2010 – October 2010 |
| Manager – Customer Accounting Services (Reading, Pa.) | May 2009 – February 2010 |
| Marketing Manager – East Region (Allentown, Pa.) | April 2008 – May 2009 |

**Amerigas Propane, Inc.**

| | |
|---|---|
| Market Manager (Stroudsburg, Pa.) | June 2005 to April 2008 |

**UGI Utilities, Inc.**

| | |
|---|---|
| Supervisor – Gas Supply and Transportation (Reading, Pa.) | September 2003 – June 2005 |
| Distribution Superintendent (Harrisburg, Pa.) | September 2001 – September 2003 |
| Staff Engineer – Commercial Marketing (Reading, Pa.) | September 1999 – September 2001 |
| New Business Engineer (Allentown, Pa.) | June 1997 – September 1999 |

**Education**

**MBA,** Lebanon Valley College, Annville, Pa.
**BS,** Civil Engineering, Lehigh University, Bethlehem, Pa.

**Previous testimony provided before the Pennsylvania Public Utility Commission:**

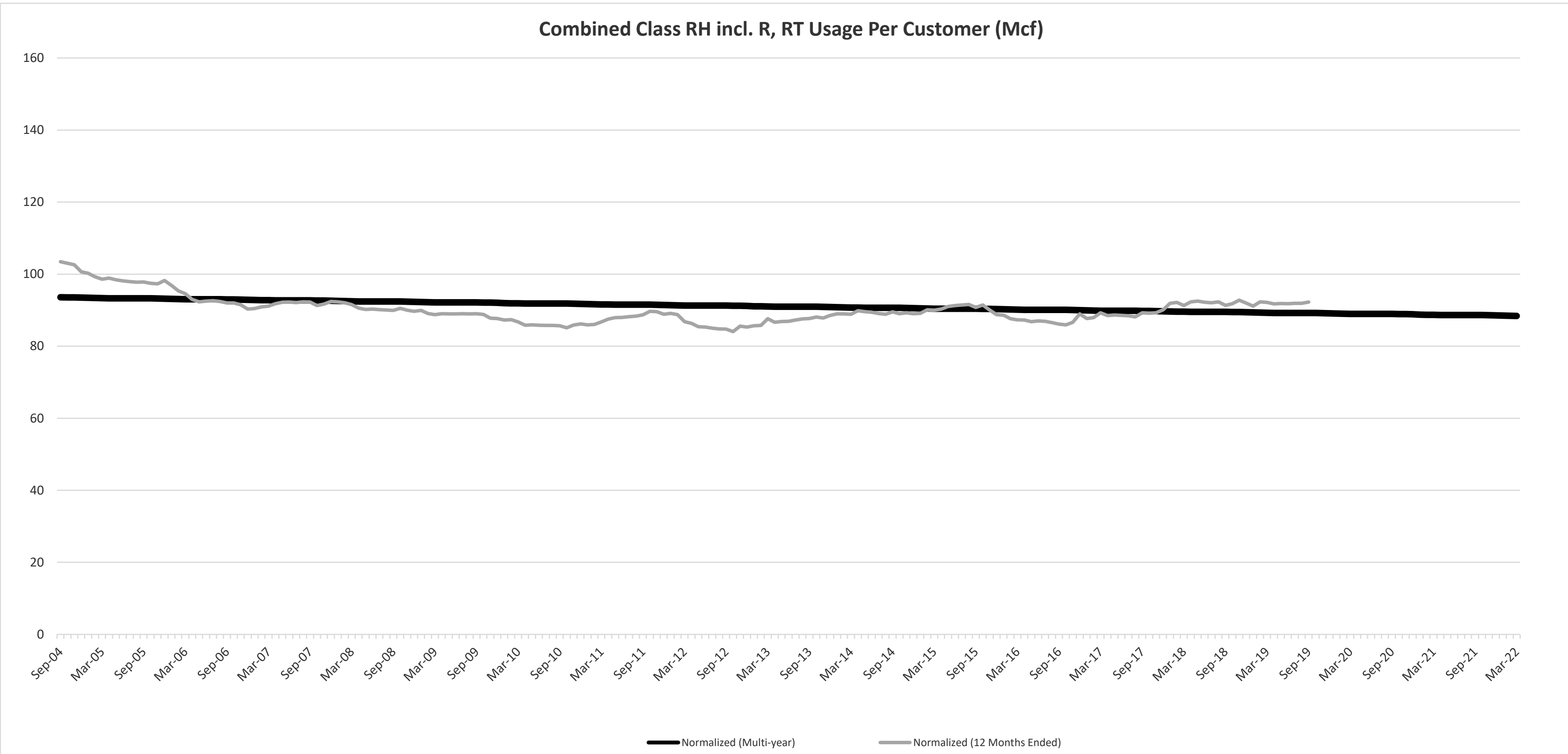
| | |
|---|---|
| Docket No. R-00050539 | UGI Utilities Inc. - Annual 1307(f) Filing |
| Docket No. C-2015-2516051 | Centre Park Historic District v. UGI Utilities, Inc. |
| Docket No. C-2016-2530475 | City of Reading v. UGI Utilities, Inc. |

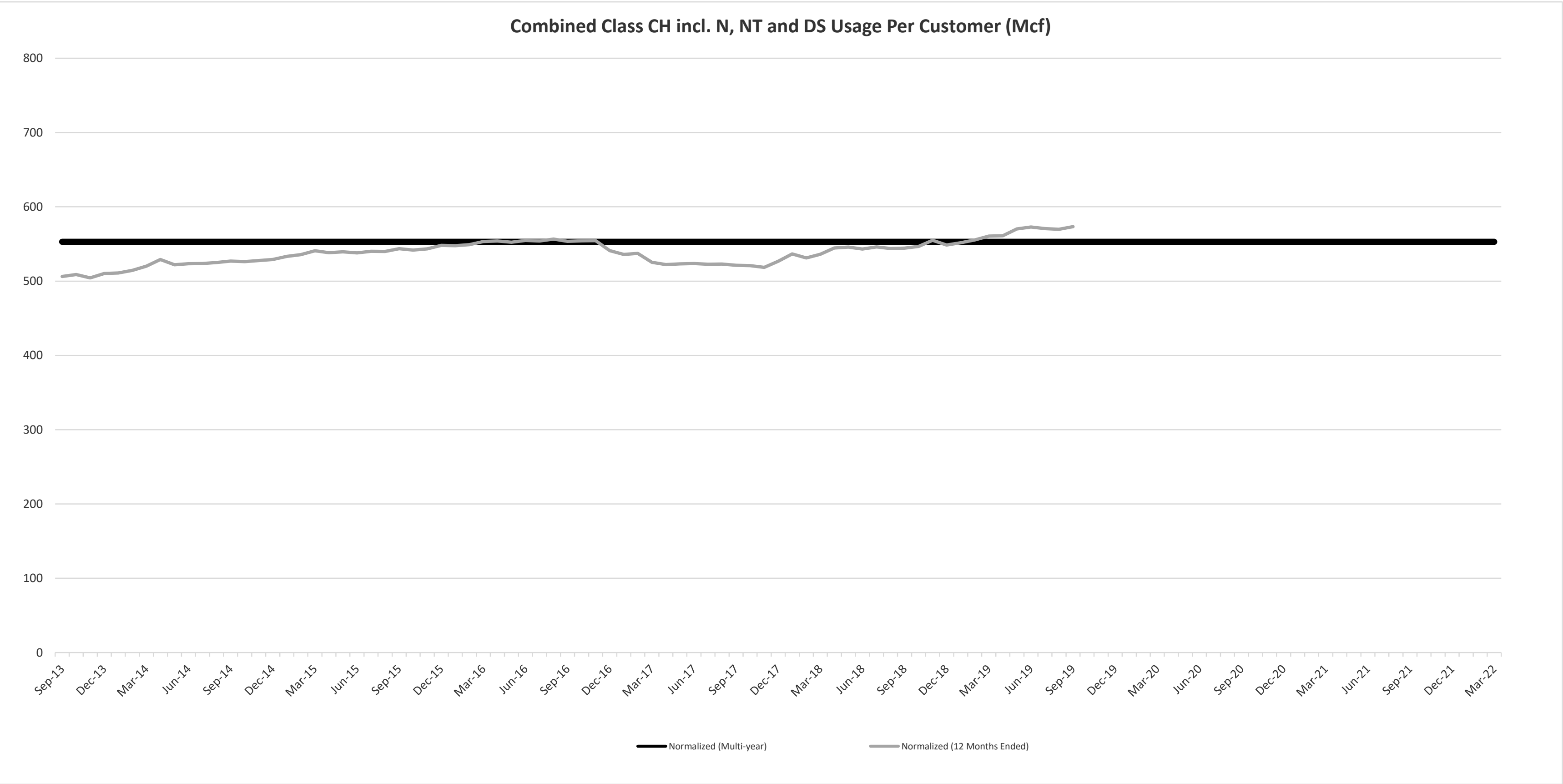
**UGI GAS EXHIBIT CRB-2**

**UGI Utilities, Inc. - Gas Divison**
**15 Year Normal Heating Degree Days (2000-2014)**

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 15 Year Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Jan** | 1,174 | 1,134 | 922 | 1,302 | 1,360 | 1,220 | 892 | 999 | 1,052 | 1,295 | 1,160 | 1,253 | 1,003 | 1,049 | 1,312 | 1,142 |
| **Feb** | 922 | 921 | 812 | 1,089 | 986 | 941 | 947 | 1,180 | 977 | 928 | 1,016 | 958 | 816 | 976 | 1,116 | 972 |
| **Mar** | 627 | 907 | 737 | 808 | 738 | 945 | 778 | 827 | 821 | 775 | 629 | 839 | 488 | 886 | 979 | 786 |
| **Apr** | 460 | 439 | 421 | 481 | 440 | 378 | 392 | 554 | 372 | 420 | 326 | 416 | 439 | 428 | 468 | 429 |
| **May** | 154 | 163 | 239 | 242 | 98 | 269 | 186 | 144 | 277 | 180 | 154 | 126 | 73 | 179 | 153 | 176 |
| **Jun** | 43 | 30 | 26 | 75 | 53 | 16 | 45 | 23 | 18 | 41 | 26 | 22 | 39 | 21 | 14 | 33 |
| **Jul** | 10 | 13 | 2 | 0 | 1 | 0 | 1 | 13 | 0 | 15 | 4 | 1 | 1 | 4 | 11 | 5 |
| **Aug** | 22 | 0 | 8 | 3 | 21 | 1 | 6 | 22 | 15 | 16 | 8 | 11 | 7 | 12 | 13 | 11 |
| **Sep** | 171 | 139 | 59 | 73 | 60 | 35 | 124 | 73 | 81 | 119 | 68 | 75 | 111 | 144 | 99 | 95 |
| **Oct** | 374 | 356 | 447 | 457 | 418 | 353 | 429 | 223 | 469 | 442 | 385 | 401 | 337 | 328 | 304 | 381 |
| **Nov** | 735 | 503 | 710 | 576 | 629 | 601 | 554 | 741 | 723 | 572 | 670 | 559 | 786 | 774 | 760 | 660 |
| **Dec** | 1,224 | 841 | 1,073 | 1,001 | 1,007 | 1,123 | 814 | 1,008 | 1,018 | 1,057 | 1,164 | 845 | 855 | 1,013 | 910 | 997 |
| **Totals** | 5,915 | 5,446 | 5,456 | 6,106 | 5,811 | 5,883 | 5,167 | 5,806 | 5,824 | 5,861 | 5,610 | 5,505 | 4,955 | 5,816 | 6,137 | 5,687 |

# UGI GAS EXHIBIT CRB-3(a) – CRB-3(b)


Combined Class RH incl. R, RT Usage Per Customer (Mcf)
160
140
120
100
80
60
40
20
0
Sep-04
Mar-05
Sep-05
Mar-06
Sep-06
Mar-07
Sep-07
Mar-08
Sep-08
Mar-09
Sep-09
Mar-10
Sep-10
Mar-11
Sep-11
Mar-12
Sep-12
Mar-13
Sep-13
Mar-14
Sep-14
Mar-15
Sep-15
Mar-16
Sep-16
Mar-17
Sep-17
Mar-18
Sep-18
Mar-19
Sep-19
Mar-20
Sep-20
Mar-21
Sep-21
Mar-22
Normalized (Multi-year)
Normalized (12 Months Ended)


Combined Class CH incl. N, NT and DS Usage Per Customer (Mcf)
800
700
600
500
400
300
200
100
0
Sep-13
Dec-13
Mar-14
Jun-14
Sep-14
Dec-14
Mar-15
Jun-15
Sep-15
Dec-15
Mar-16
Jun-16
Sep-16
Dec-16
Mar-17
Jun-17
Sep-17
Dec-17
Mar-18
Jun-18
Sep-18
Dec-18
Mar-19
Jun-19
Sep-19
Dec-19
Mar-20
Jun-20
Sep-20
Dec-20
Mar-21
Jun-21
Sep-21
Dec-21
Mar-22
Normalized (Multi-year)
Normalized (12 Months Ended)

**UGI GAS EXHIBIT CRB-4(a) – CRB-4(l)**

UGI Utilities Inc.- Gas Division
Fully Projected Future Test Year 2021 Sales and Revenues
Summary of Adjustments

| | Sales (000's) MCF | Revenues ($000's) | Margin ($000's) | Reference |
|---|---|---|---|---|
| Budget 2021 | 337,008 | 915,293 | 567,956 | |
| Adjustment for Customer/Contract Changes | (251) | (5,565) | (4,520) | UGI Utilities, Inc.- Gas Division-Exhibit CRB-4(b)/(b)(1) |
| Adjustment for Normalized & Annualized Use/Customer | (996) | (11,196) | (3,767) | UGI Utilities, Inc.- Gas Division-Exhibit CRB-4(c) |
| Adjustment for PGC | | (33,375) | 0 | UGI Utilites, Inc.- Gas Division-Exhibit CRB-4(d) |
| Adjustment for MFC | | (519) | (519) | UGI Utilites, Inc.- Gas Division-Exhibit CRB-4(e) |
| Adjustment for USP | | 3,934 | 0 | UGI Utilites, Inc.- Gas Division-Exhibit CRB-4(f) |
| Adjustment for GPC | | (123) | (123) | UGI Utilites, Inc.- Gas Division-Exhibit CRB-4(g) |
| Adjustment for Excess Take | | (1,700) | (1,700) | UGI Utilites, Inc.- Gas Division-Exhibit CRB-4(h) |
| Adjustment for EEC Rider | | 4,910 | | UGI Utilites, Inc.- Gas Division-Exhibit CRB-4(i) |
| Adjustment for EEC Conservation Impact | (200) | (1,623) | (758) | UGI Utilites, Inc.- Gas Division-Exhibit CRB-4(j) |
| Adjustment for GET Gas | | (234) | (234) | UGI Utilites, Inc.- Gas Division-Exhibit CRB-4(k) |
| Adjustment for GDE | | 192 | 0 | UGI Utilites, Inc.- Gas Division-Exhibit CRB-4(l) |
| Fully Projected Future Test Year 2021 | 335,561 | 869,994 | 556,335 | |

UGI Gas Exhibit CRB-4(b)

**UGI Utilities Inc.- Gas Division**
**Fully Projected Future Test Year Period- 12 Months Ended September 30, 2021**
**( $ in Thousands )**

**Adjustment for Customer/Contract Changes**

| Line # | Description | [ 1 ] Rate R Residential-Non Htg | [ 2 ] Rate R Residential-Htg | [ 3 ] Rate RT RT | [ 4 ] Rate N Commercial-Non Htg | [ 5 ] Rate N Commercial-Htg | [ 6 ] Rate N Industrial | [7] Rate NT NT Total | [ 8 ] Rate DS DS Total * | [ 9 ] Rates LFD, XD, IS Transport-Other ** | [ 10 ] Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FPFTY Revenues (Unadjusted) | $ 9,100 | $ 511,280 | $ 40,663 | $ 9,717 | $ 156,060 | $ 7,099 | $ 51,119 | $ 33,837 | $ 96,417 | $ 915,293 |
| 2 | FPFTY PGC Revenues | $ (2,489) | $ (246,836) | $ (1,929) | $ (5,126) | $ (85,899) | $ (4,129) | $ (721) | (64) | (144) | (347,337) |
| 3 | FPFTY Revenues net of PGC - Margin (Unadjusted) | $ 6,610 | $ 264,444 | $ 38,734 | $ 4,591 | $ 70,162 | $ 2,971 | $ 50,399 | $ 33,773 | $ 96,273 | $ 567,956 |
| 4 | FPFTY Average Effective Customers (Unadjusted) | 27,541 | 493,346 | 79,396 | 4,077 | 46,374 | 631 | 18,505 | 1,510 | 936 | 672,316 |
| 5 | FPFTY Average Annual Margin Per Customer (L3 / L4 or Weighted Value by District) | $ 0.240 | $ 0.536 | $ 0.488 | $ 1.111 | $ 1.381 | $ 4.703 | $ 2.724 | $ 22.366 | $ 102.856 | $ 0.845 |
| 6 | FPFTY Customers (Fully Adjusted) | 26,808 | 492,133 | 79,396 | 4,066 | 46,277 | 604 | 18,505 | 1,510 | 936 | 670,235 |
| 7 | Change in Customers during FPFTY (L6 - L4) | (733) | (1,213) | - | (11) | (97) | (27) | - | - | - | (2,081) |
| 8 | Annualization of Margin ( L5 * L7) | $ (176) | $ (650) | $ - | $ (13) | $ (134) | $ (128) | $ - | $ - | $ (3,420) | $ (4,520) |
| 9 | Average Annual Revenue Per Customer (Unadjusted) (L1 / L4 or Weighted Value by District) | $ 0.330 | $ 1.036 | $ 0.512 | $ 2.369 | $ 3.240 | $ 11.215 | $ 2.762 | $ 22.409 | $ 103.010 | $ 1.361 |
| 10 | Annualization of Total FPFTY Revenue ( L7 * L9) | $ (242) | $ (1,257) | $ - | $ (27) | $ (313) | $ (306) | $ - | $ - | $ (3,420) | $ (5,565) |
| 11 | Annualization Adjustment for FPFTY PGC Revenues ( L10 - L8) | $ (66) | $ (607) | $ - | $ (14) | $ (180) | $ (178) | $ - | $ - | $ - | $ (1,045) |
| 12 | Total FPFTY UPC (Unadjusted) - MCF | 16.40 | 90.90 | 82.60 | 238.90 | 351.90 | 1,242.10 | 706.80 | 6,889.00 | | |
| 13 | Annualization Adjustment for FPFTY Sales - MMCF (L7 * L12)/1000 | (12) | (110) | - | (3) | (34) | (34) | - | - | (59) | (251) |

Notes:
* Adjustments for Rates DS are by customer and not in aggregate
** Column [9] further detailed on UGI Gas Exhibit CRB-4(b)(1)

**UGI Utilities Inc.- Gas Division**
**Fully Projected Future Test Year Period- 12 Months Ended September 30, 2021**
**( $ in Thousands )**

**Adjustment for Customer/Contract Changes**
**Large Transport and Interruptible Detail**

| Line # | Description | [ 1 ] LFD | [ 2 ] XD-F | [ 3 ] XD-I | [ 4 ] IS | [ 5 ] TOTAL |
|---|---|---|---|---|---|---|
| 1 | FPFTY Revenues (Unadjusted) | $ 39,562 | $ 32,371 | $ 1,534 | $ 22,951 | $ 96,417 |
| 2 | FPFTY PGC Revenues | (144) | - | - | - | (144) |
| 3 | FPFTY Revenues net of PGC - Margin (Unadjusted) | $ 39,418 | $ 32,371 | $ 1,534 | $ 22,951 | $ 96,273 |
| 4 | FPFTY Average Effective Customers (Unadjusted) | 505 | 54 | 54 | 323 | 936 |
| 5 | FPFTY Average Annual Margin Per Customer ( L3 / L4 ) | $ 78.055 | $ 599.454 | $ 28.402 | $ 71.056 | $ 102.856 |
| 6 | FPFTY Customers (Fully Adjusted) | 508 | 54 | 54 | 320 | 936 |
| 7 | Change in Customers during FPFTY (L6 - L4) | 3 | - | - | (3) | 0 |
| 8 | Annualization of Margin | $ 137 | $ (2,514) | $ 3 | $ (1,045) | $ (3,420) |
| 9 | Average Annual Revenue Per Customer ( L1 / L4 ) | $ 78.340 | $ 599.454 | $ 28.402 | $ 71.056 | $ 103.010 |
| 10 | Annualization of Total FPFTY Revenue | $ 137 | $ (2,514) | $ 3 | $ (1,045) | $ (3,420) |
| 11 | Annualization of FPFTY PGC Revenues ( L10 - L8 ) | $ - | $ - | $ - | $ - | $ - |
| 12 | Total FPFTY UPC (Unadjusted) - MCF | | | | | |
| 13 | Annualization Adjustment for FPFTY Sales - MMCF | 54 | - | - | (112) | (59) |

**UGI Utilities Inc.- Gas Division**
**Fully Projected Future Test Year Period- 12 Months Ended September 30, 2021**
**( $ in Thousands )**

**Adjustment for Normalized & Annualized Use/Customer**

| Line # | Description | [ 1 ] Rate R Residential-Non Htg | [ 2 ] Rate R Residential-Htg | [ 3 ] Rate RT RT | [ 4 ] Rate N Commercial-Non Htg | [ 5 ] Rate N Commercial-Htg | [ 6 ] Rate N Industrial | [7] Rate NT NT Total | [ 8 ] Rate DS DS Total | [ 9 ] Rates LFD, XD, IS Transport-Other | [ 10 ] Reconciliation Adj. * | [ 11 ] Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FPFTY (Unadjusted) Use/Customer ("UPC") - MCF | 16.40 | 90.90 | 82.60 | 238.90 | 351.90 | 1,242.10 | 706.80 | 6,889.00 | | | |
| 2 | FPFTY UPC (Fully Adjusted) - MCF | 16.40 | 88.40 | 84.60 | 270.50 | 344.90 | 1,115.00 | 725.60 | 6,889.00 | | | |
| 3 | Change in UPC - MCF ( L2 - L1) | 0.00 | (2.50) | 2.00 | 31.60 | (7.00) | (127.10) | 18.80 | 0.00 | | | |
| 4 | FPFTY Customers (Fully Adjusted) | 26,808 | 492,133 | 79,396 | 4,066 | 46,277 | 604 | 18,505 | 1,510 | 936 | - | 670,235 |
| 5 | Annualization Adjustment for Sales - MMCF (L3 * L4)/1000) | - | (1,230) | 159 | 128 | (324) | (77) | 348 | - | - | - | (996) |
| 6 | Total Revenue Adjustment (L8 + L10+L12+L14+L16+L18+L20) | $ - | $ (11,125) | $ 677 | $ 1,052 | $ (2,641) | $ (632) | $ 1,188 | $ - | $ - | $ 285 | $ (11,196) |
| 7 | Total Unit Revenue Adjustment (L6 / L5) | $ - | $ 9.0421 | $ 4.2647 | $ 8.1881 | $ 8.1541 | $ 8.2185 | $ 3.4108 | $ - | $ - | | |
| 8 | Distribution Margin Adjustment (L5 * L9) | $ - | $ (4,658) | $ 601 | $ 444 | $ (1,108) | $ (268) | $ 1,173 | $ - | $ - | | $ (3,816) |
| 9 | Distribution Unit Rate (Rate N/NT Weighted Value by District) | $ 3.7861 | $ 3.7861 | $ 3.7861 | $ 3.4543 | $ 3.4202 | $ 3.4846 | $ 3.3683 | $ - | $ - | | |
| 10 | PGC Revenue (L5 * L11) | $ - | $ (5,758) | $ - | $ 601 | $ (1,516) | $ (360) | $ - | $ - | $ - | $ 114 | $ (6,919) |
| 11 | PGC Unit Rate | $ 4.6801 | $ 4.6801 | | $ 4.6801 | $ 4.6801 | $ 4.6801 | | | | | |
| 12 | EE&C Revenue Adjustment (L5 * L13) | $ - | $ (276) | $ 36 | $ 5 | $ (14) | $ (3) | $ 15 | $ - | $ - | | $ (237) |
| 13 | EE&C Unit Rate | $ 0.2245 | $ 0.2245 | $ 0.2245 | $ 0.0425 | $ 0.0425 | $ 0.0425 | $ 0.0425 | $ - | $ - | | |
| 14 | USP Revenue Adjustment (L5 * L15) | $ - | $ (313) | $ 40 | $ - | $ - | $ - | $ - | $ - | $ - | | $ (272) |
| 15 | USP Unit Rate | $ 0.2541 | $ 0.2541 | $ 0.2541 | $ - | $ - | $ - | $ - | $ - | $ - | | |
| 16 | MFC Revenue/Margin Adjustment (L5 * L17) | $ - | $ (120) | | $ 1 | $ (4) | $ (1) | $ - | $ - | $ - | | $ (123) |
| 17 | MFC Unit Rate | $ 0.0973 | $ 0.0973 | | $ 0.0112 | $ 0.0112 | $ 0.0112 | $ - | $ - | $ - | | |
| 18 | DSIC Revenue/Margin Adjustment (L8 + L12 + L14 + L16) * L19 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | $ - |
| 19 | DSIC Unit Rate | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | |
| 20 | TCJA Revenue/Margin Adjustment (L8 + L16) * L21 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | $ - |
| 21 | TCJA Unit Rate | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | |
| 22 | Total Margin Adjustment (L8 + L16 + L18 + L20) | $ - | $ (4,778) | $ 601 | $ 445 | $ (1,112) | $ (269) | $ 1,173 | $ - | $ - | $ 172 | $ (3,767) |
| 23 | Total Unit Margin Adjustment (L22 / L5) | $ - | $ 3.8834 | $ 3.7861 | $ 3.4655 | $ 3.4315 | $ 3.4959 | $ 3.3683 | $ - | $ - | | |

Notes:
* Column (10) Adjustment reflective of interdependent relationship of sequential adjustment impacts.

**UGI Utilities Inc.- Gas Division**
**Fully Projected Future Test Year Period- 12 Months Ended September 30, 2021**
**( $ in Thousands )**

**Adjustment for PGC**

| | OCT 2020 | NOV 2020 | DEC 2020 | JAN 2021 | FEB 2021 | MAR 2021 | APR 2021 | MAY 2021 | JUN 2021 | JUL 2021 | AUG 2021 | SEP 2021 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Original Budget PGC Rate FPFTY | $5.2064 | $5.2064 | $5.2064 | $5.2064 | $5.2064 | $5.2064 | $5.2064 | $5.2064 | $5.2064 | $5.2064 | $5.2064 | $5.2064 | |
| FPFTY PGC Rate | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | |
| PGC Rate Variance | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | |
| Total PGC Volumes | 3,722 | 6,743 | 10,260 | 12,460 | 10,380 | 8,540 | 4,343 | 2,174 | 1,183 | 1,010 | 1,010 | 1,589 | 63,414 |
| PGC Revenue Adjustment | ($1,959) | ($3,549) | ($5,400) | ($6,558) | ($5,463) | ($4,495) | ($2,286) | ($1,144) | ($623) | ($532) | ($532) | ($836) | ($33,375) |

**UGI Utilities Inc.- Gas Division**
**Fully Projected Future Test Year Period- 12 Months Ended September 30, 2021**
**( $ in Thousands )**

**Adjustment for MFC**

| | OCT 2020 | NOV 2020 | DEC 2020 | JAN 2021 | FEB 2021 | MAR 2021 | APR 2021 | MAY 2021 | JUN 2021 | JUL 2021 | AUG 2021 | SEP 2021 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PGC Rate Variance - Rate R (Weighted Value by District) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | |
| PGC Rate Variance - Rate N (Weighted Value by District) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | |
| Total PGC Volumes-Rate R | 2,653 | 4,849 | 7,393 | 8,978 | 7,477 | 6,150 | 3,103 | 1,519 | 791 | 663 | 663 | 1,089 | |
| Total PGC Volumes-Rate N | 1,069 | 1,894 | 2,867 | 3,483 | 2,903 | 2,390 | 1,240 | 655 | 392 | 347 | 347 | 499 | |
| Total PGC Volumes | 3,722 | 6,743 | 10,260 | 12,460 | 10,380 | 8,540 | 4,343 | 2,174 | 1,183 | 1,010 | 1,010 | 1,589 | 63,414 |
| Rate R % (Weighted Value by District) | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | |
| Rate N % (Weighted Value by District) | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | |
| MFC Rate R Adj Rate | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | |
| MFC Rate N Adj Rate | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | |
| Rate R Revenue Variance | ($29) | ($53) | ($81) | ($98) | ($82) | ($67) | ($34) | ($17) | ($9) | ($7) | ($7) | ($12) | |
| Rate N Revenue Variance | ($1) | ($2) | ($4) | ($4) | ($4) | ($3) | ($2) | ($1) | ($0) | ($0) | ($0) | ($1) | |
| Total Revenue Variance | ($30) | ($55) | ($85) | ($103) | ($86) | ($70) | ($36) | ($17) | ($9) | ($8) | ($8) | ($13) | ($519) |

**UGI Utilities Inc.- Gas Division**
**Fully Projected Future Test Year Period- 12 Months Ended September 30, 2021**
**( $ in Thousands )**

**Adjustment for USP**

| | OCT 2020 | NOV 2020 | DEC 2020 | JAN 2021 | FEB 2021 | MAR 2021 | APR 2021 | MAY 2021 | JUN 2021 | JUL 2021 | AUG 2021 | SEP 2021 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Original FPFTY Budget USP Calculation | $511 | $933 | $1,420 | $1,722 | $1,435 | $1,181 | $596 | $290 | $149 | $125 | $125 | $207 | $8,694 |
| Correct FPFTY Budget USP Calculation | $509 | $930 | $1,415 | $1,716 | $1,430 | $1,177 | $594 | $289 | $149 | $124 | $124 | $207 | $8,662 |
| Variance to correct Original FPFTY Budget Calculation | ($2) | ($3) | ($5) | ($6) | ($5) | ($4) | ($2) | ($1) | ($1) | ($0) | ($0) | ($1) | ($32) |
| | | | | | | | | | | | | | |
| Original FPFTY Budget USP Rate | $0.1743 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | |
| FPFTY USP Rate | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | |
| USP Rate Variance | $0.0798 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | |
| Total Rate R Volumes | 3,047 | 5,568 | 8,475 | 10,279 | 8,564 | 7,047 | 3,558 | 1,734 | 891 | 743 | 743 | 1,237 | 51,886 |
| Total Rate R excl CAP Volumes | 2,919 | 5,333 | 8,117 | 9,845 | 8,203 | 6,750 | 3,408 | 1,660 | 854 | 712 | 712 | 1,185 | 49,698 |
| USP Rate Revenue Variance | $233 | $426 | $648 | $786 | $655 | $539 | $272 | $133 | $68 | $57 | $57 | $95 | $3,966 |
| | | | | | | | | | | | | | |
| Total Revenue Variance | $231 | $422 | $643 | $779 | $649 | $534 | $270 | $131 | $68 | $56 | $56 | $94 | $3,934 |

**UGI Utilities Inc.- Gas Division**
**Fully Projected Future Test Year Period- 12 Months Ended September 30, 2021**
**( $ in Thousands )**

**Adjustment for GPC**

| | OCT 2020 | NOV 2020 | DEC 2020 | JAN 2021 | FEB 2021 | MAR 2021 | APR 2021 | MAY 2021 | JUN 2021 | JUL 2021 | AUG 2021 | SEP 2021 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GPC Rate | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | |
| Volume Variance to Original FPFTY Budget | (110) | (199) | (303) | (367) | (306) | (252) | (128) | (63) | (33) | (28) | (28) | (45) | (1,864) |
| Revenue Variance | ($7) | ($13) | ($20) | ($24) | ($20) | ($17) | ($8) | ($4) | ($2) | ($2) | ($2) | ($3) | ($123) |

**UGI Utilities Inc.- Gas Division**
**Fully Projected Future Test Year Period- 12 Months Ended September 30, 2021**
**( $ in Thousands )**

## Adjustment for Excess Take Revenues

| | | |
|---|---|---|
| Excess Take (MMCF) | | (283) |
| $/MCF | $ | 6.00 |
| Excess Take Revenue/Margin | $ | (1,700) |

**UGI Utilities Inc.- Gas Division**
**Fully Projected Future Test Year Period- 12 Months Ended September 30, 2021**
**( $ in Thousands )**

**Adjustment for EEC Rider**

| | OCT 2020 | NOV 2020 | DEC 2020 | JAN 2021 | FEB 2021 | MAR 2021 | APR 2021 | MAY 2021 | JUN 2021 | JUL 2021 | AUG 2021 | SEP 2021 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Original Budget FPFTY R/RT Rate | 0.1264 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | |
| FPFTY R/RT Rate | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | |
| R/RT Rate Variance | 0.0981 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | |
| R/RT Rate Volumes | 3,047 | 5,568 | 8,475 | 10,279 | 8,564 | 7,047 | 3,558 | 1,734 | 891 | 743 | 743 | 1,237 | 51,886 |
| R/RT Revenue Adjustment | $ 299 | $ 546 | $ 831 | $ 1,008 | $ 840 | $ 691 | $ 349 | $ 170 | $ 87 | $ 73 | $ 73 | $ 121 | $ 5,090 |
| | | | | | | | | | | | | | |
| Original Budget FPFTY N/NT Rate | 0.0551 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | |
| FPFTY N/NT Rate | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | |
| N/NT Rate Variance | (0.0126) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | |
| N/NT Rate Volumes | 1,973 | 3,318 | 4,798 | 5,693 | 4,841 | 4,071 | 2,246 | 1,232 | 741 | 653 | 653 | 945 | 31,164 |
| N/NT Revenue Adjustment | $ (25) | $ (42) | $ (60) | $ (72) | $ (61) | $ (51) | $ (28) | $ (16) | $ (9) | $ (8) | $ (8) | $ (12) | $ (393) |
| | | | | | | | | | | | | | |
| Original Budget FPFTY DS Rate | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | |
| FPFTY DS Rate | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | |
| DS Rate Variance | - | - | - | - | - | - | - | - | - | - | - | - | |
| DS Rate Volumes | 559 | 926 | 1,436 | 1,840 | 1,679 | 1,385 | 793 | 475 | 344 | 300 | 303 | 361 | 10,402 |
| DS Revenue Adjustment | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | | | | | | | | | | | | | |
| Original Budget FPFTY LFD Rate | 0.0007 | 0.0007 | 0.0007 | 0.0007 | 0.0007 | 0.0007 | 0.0007 | 0.0007 | 0.0007 | 0.0007 | 0.0007 | 0.0007 | |
| FPFTY LFD Rate | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | |
| LFD Rate Variance | 0.0096 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | |
| LFD Rate Volumes | 1,715 | 2,023 | 2,315 | 2,573 | 2,300 | 2,114 | 1,780 | 1,590 | 1,439 | 1,389 | 1,435 | 1,498 | 22,171 |
| LFD Revenue Adjustment | $ 16 | $ 19 | $ 22 | $ 25 | $ 22 | $ 20 | $ 17 | $ 15 | $ 14 | $ 13 | $ 14 | $ 14 | $ 213 |
| | | | | | | | | | | | | | |
| Total Revenue Adjustment | $ 291 | $ 524 | $ 793 | $ 961 | $ 801 | $ 660 | $ 338 | $ 170 | $ 92 | $ 78 | $ 78 | $ 124 | $ 4,910 |

**UGI Utilities Inc.- Gas Division**
**Fully Projected Future Test Year Period- 12 Months Ended September 30, 2021**
**( $ in Thousands )**

**Adjustment for EE&C Conservation Impact**

**EE&C Plan (Version 1/15/2019)**

***Yearly Gas Savings by Rate Class 2020 - 2035 (Cumulative MMBtus)***

| Rate Class Description | *Fiscal Year* 2020 | 2021 | 2022 | 2023 | 2024 | MMBTU 5 Year Average | BTU | MCF 5 Year Average | Customers FY21 Retail Htg & Choice Htg | EE&C UPC Conservation Adj |
|---|---|---|---|---|---|---|---|---|---|---|
| Residential (R/RT) | 145,463 | 157,325 | 171,179 | 175,233 | 176,395 | 165,119 | 1.037 | 159,168 | 567,393 | **(0.3)** |
| Nonresidential (N/NT) | 29,620 | 38,139 | 45,037 | 50,308 | 50,308 | 42,682 | 1.036 | 41,180 | 63,987 | **(0.6)** |
| **Total** | **175,083** | **195,464** | **216,217** | **225,540** | **226,703** | **207,802** | | **200,348** | **631,380** | |

| Line # | Description | [ 1 ] Rate R Residential-Htg | [ 2 ] Rate RT Residential Htg-RT | [ 3 ] Rate N Commercial-Htg | [ 4 ] Rate NT Commercial Htg-NT | [ 5 ] Rate N Industrial | [ 6 ] Rate NT Industrial -NT | [ 7 ] Total |
|---|---|---|---|---|---|---|---|---|
| 1 | FPFTY Use/Customer ("UPC") (Fully Adjusted) - MCF | 88.4 | 88.3 | 344.9 | 700.1 | 1,115.0 | 2,194.4 | |
| 2 | FPFTY UPC (Fully Adjusted-Incl EE&C Impact) - MCF | 88.1 | 88.0 | 344.3 | 699.5 | 1,114.4 | 2,193.8 | |
| 3 | Change in UPC -MCF | (0.3) | (0.3) | (0.6) | (0.6) | (0.6) | (0.6) | |
| 4 | End of Year FPFTY Customers | 492,133 | 75,260 | 46,277 | 16,627 | 604 | 479 | 631,380 |
| 5 | Annualization Adjustment for Sales - MMCF<br>(L3 * L4) / 1000 | (138) | (21) | (30) | (11) | (0) | (0) | (200) |
| 6 | Total Revenue Adjustment<br>(L10 + L12 + L14 + L22) | $ (1,248) | $ (90) | $ (243) | $ (37) | $ (3) | $ (1) | $ (1,623) |
| 7 | Total Unit Revenue Adjustment<br>(L6 / L5) | 9.0421 | 4.2647 | 8.1541 | 3.4907 | 8.2162 | 3.5398 | 8.1001 |
| 8 | Distribution Margin Adjustment<br>(L5 * L9) | $ (523) | $ (80) | $ (102) | $ (37) | $ (1) | $ (1) | $ (744) |
| 9 | Distribution Unit Rate<br>(Rates N, DS Weighted Value by District) | $ 3.7861 | $ 3.7861 | $ 3.4202 | $ 3.4482 | $ 3.4824 | $ 3.4973 | |
| 10 | PGC Revenue<br>(L5 * L11) | $ (646) | $ - | $ (139) | $ - | $ (2) | $ - | $ (787) |
| 11 | PGC Unit Rate | $ 4.6801 | | $ 4.6801 | | $ 4.6801 | | |
| 12 | EE&C Revenue Adjustment<br>(L5 * L13) | $ (31) | $ (5) | $ (1) | $ (0) | $ (0) | $ (0) | $ (37) |
| 13 | EE&C Unit Rate | $ 0.2245 | $ 0.2245 | $ 0.0425 | $ 0.0425 | $ 0.0425 | $ 0.0425 | |
| 14 | USP Revenue Adjustment<br>(L5 * L15) | $ (35) | $ (5) | | | | | $ (40) |
| 15 | USP Unit Rate | $ 0.2541 | $ 0.2541 | | | | | |
| 16 | MFC Revenue/Margin Adjustment<br>(L5 * L17) | $ (13) | | $ (0) | | $ (0) | | $ (14) |
| 17 | MFC Unit Rate | $ 0.0973 | | $ 0.0112 | | $ 0.0112 | | |
| 18 | DSIC Revenue/Margin Adjustment<br>(L8 + L12 + L14 + L16) * L19 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 19 | DSIC Unit Rate | $ - | $ - | $ - | $ - | $ - | $ - | |
| 20 | TCJA Revenue/Margin Adjustment<br>(L8 + L16) * L21 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 21 | TCJA Unit Rate | $ - | $ - | $ - | $ - | $ - | $ - | |
| 22 | Total Margin Adjustment<br>(L8 + L16 + L18 + L20) | $ (536) | $ (80) | $ (102) | $ (37) | $ (1) | $ (1) | $ (758) |
| 23 | Total Unit Margin Adjustment<br>(L22 / L5) | $ 3.8834 | $ 3.7861 | $ 3.4315 | $ 3.4482 | $ 3.4936 | $ 3.4973 | |

**UGI Utilities Inc.- Gas Division**
**Fully Projected Future Test Year Period- 12 Months Ended September 30, 2021**
**( $ in Thousands )**

**Adjustment for GET Gas Surcharge**

| | | |
|---|---|---|
| Original Budget FPFTY Revenue | $ | 399 |
| FPFTY Revenue | $ | 165 |
| GET Gas Revenue Adjustment | $ | (234) |

**UGI Utilities Inc.- Gas Division**
**Fully Projected Future Test Year Period- 12 Months Ended September 30, 2021**
**( $ in Thousands )**

**Adjustment for GDE Rider**

| | OCT 2020 | NOV 2020 | DEC 2020 | JAN 2021 | FEB 2021 | MAR 2021 | APR 2021 | MAY 2021 | JUN 2021 | JUL 2021 | AUG 2021 | SEP 2021 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Original Budget FPFTY DS Rate | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | |
| FPFTY DS Rate | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | |
| DS Rate Variance | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | |
| DS Rate Volumes | 559 | 926 | 1,436 | 1,840 | 1,679 | 1,385 | 793 | 475 | 344 | 300 | 303 | 361 | 10,402 |
| DS Revenue Adjustment | $ 3 | $ 5 | $ 8 | $ 11 | $ 10 | $ 8 | $ 5 | $ 3 | $ 2 | $ 2 | $ 2 | $ 2 | $ 61 |
| Original Budget FPFTY LFD Rate | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | |
| FPFTY LFD Rate | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | |
| LFD Rate Variance | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | |
| LFD Rate Volumes | 1,715 | 2,023 | 2,315 | 2,573 | 2,300 | 2,114 | 1,780 | 1,590 | 1,439 | 1,389 | 1,435 | 1,498 | 22,171 |
| LFD Revenue Adjustment | $ 10 | $ 12 | $ 14 | $ 15 | $ 14 | $ 12 | $ 10 | $ 9 | $ 8 | $ 8 | $ 8 | $ 9 | $ 131 |
| Total Revenue Adjustment | $ 13 | $ 17 | $ 22 | $ 26 | $ 23 | $ 21 | $ 15 | $ 12 | $ 11 | $ 10 | $ 10 | $ 11 | $ 192 |

UGI GAS EXHIBIT CRB-5(a) – CRB-5(n)

UGI Utilities Inc.- Gas Division
Future Test Year 2020 Sales and Revenues
Summary of Adjustments

| | Sales (000's) MCF | Revenues ($000's) | Margin ($000's) | Reference |
|---|---|---|---|---|
| Budget 2020 | 336,533 | 909,411 | 564,855 | |
| Adjustment for Customer/Contract Changes | (237) | (4,666) | (3,740) | UGI Utilities, Inc.- Gas Division-Exhibit CRB-5(b)/(b)(1) |
| Adjustment for Normalized & Annualized Use/Customer | (2,495) | (22,854) | (9,427) | UGI Utilities, Inc.- Gas Division-Exhibit CRB-5(c) |
| Adjustment for PGC | | (30,738) | 0 | UGI Utilites, Inc.- Gas Division-Exhibit CRB-5(d) |
| Adjustment for MFC | | (479) | (479) | UGI Utilites, Inc.- Gas Division-Exhibit CRB-5(e) |
| Adjustment for USP | | 3,872 | 0 | UGI Utilites, Inc.- Gas Division-Exhibit CRB-5(f) |
| Adjustment for GPC | | (188) | (188) | UGI Utilites, Inc.- Gas Division-Exhibit CRB-5(g) |
| Adjustment for Excess Take | | (1,700) | (1,700) | UGI Utilites, Inc.- Gas Division-Exhibit CRB-5(h) |
| Adjustment for STAS | | 50 | 50 | UGI Utilites, Inc.- Gas Division-Exhibit CRB-5(i) |
| Adjustment for EEC Rider | | 4,970 | | UGI Utilites, Inc.- Gas Division-Exhibit CRB-5(j) |
| Adjustment for GET Gas | | (171) | (171) | UGI Utilites, Inc.- Gas Division-Exhibit CRB-5(k) |
| Adjustment for DSIC Revenues | | (2,068) | (2,068) | UGI Utilites, Inc.- Gas Division-Exhibit CRB-5(l) |
| Adjustment for TCJA | | 2,148 | 2,148 | UGI Utilites, Inc.- Gas Division-Exhibit CRB-5(m) |
| Adjustment for GDE | | 192 | 0 | UGI Utilites, Inc.- Gas Division-Exhibit CRB-5(n) |
| Future Test Year 2020 | 333,801 | 857,780 | 549,281 | |

**UGI Utilities Inc.- Gas Division**
**Future Period- 12 Months Ended September 30, 2020**
**( $ in Thousands )**

**Adjustment for Customer/Contract Changes**

| Line # | Description | [ 1 ] Rate R Residential-Non Htg | [ 2 ] Rate R Residential-Htg | [ 3 ] Rate RT RT | [ 4 ] Rate N Commercial-Non Htg | [ 5 ] Rate N Commercial-Htg | [ 6 ] Rate N Industrial | [7] Rate NT NT Total | [ 8 ] Rate DS DS Total * | [ 9 ] Rates LFD, XD, IS Transport-Other ** | [ 10 ] Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FTY Revenues (Unadjusted) | $ 9,501 | $ 506,287 | $ 40,806 | $ 9,770 | $ 153,941 | $ 7,410 | $ 51,739 | $ 33,842 | $ 96,115 | $ 909,411 |
| 2 | FTY PGC Revenues | $ (2,635) | $ (244,964) | $ (1,980) | $ (5,153) | $ (84,606) | $ (4,305) | $ (723) | (54) | (136) | (344,556) |
| 3 | FTY Revenues net of PGC - Margin (Unadjusted) | $ 6,867 | $ 261,323 | $ 38,826 | $ 4,617 | $ 69,335 | $ 3,106 | $ 51,015 | $ 33,788 | $ 95,979 | $ 564,855 |
| 4 | FTY Average Effective Customers (Unadjusted) | 28,891 | 483,700 | 79,450 | 4,088 | 45,218 | 648 | 18,505 | 1,510 | 936 | 662,945 |
| 5 | FTY Average Annual Margin Per Customer (L3 / L4 or Weighted Value by District) | $ 0.238 | $ 0.548 | $ 0.489 | $ 1.112 | $ 1.331 | $ 4.833 | $ 2.757 | $ 22.375 | $ 102.556 | $ 0.852 |
| 6 | FTY Customers (Fully Adjusted) | 28,187 | 482,476 | 79,450 | 4,076 | 45,155 | 626 | 18,505 | 1,510 | 936 | 660,921 |
| 7 | Change in Customers during FTY (L6 - L4) | (704) | (1,224) | - | (12) | (63) | (22) | - | (0) | 0 | (2,024) |
| 8 | Annualization of Margin ( L5 * L7) | $ (167) | $ (671) | $ - | $ (13) | $ (84) | $ (105) | $ - | $ (1) | $ (2,699) | $ (3,740) |
| 9 | Average Annual Revenue Per Customer (Unadjusted) (L1 / L4 or Weighted Value by District) | $ 0.329 | $ 1.040 | $ 0.514 | $ 2.327 | $ 2.920 | $ 11.495 | $ 2.796 | $ 22.411 | $ 102.701 | $ 1.372 |
| 10 | Annualization of Total FTY Revenue ( L7 * L9) | $ (232) | $ (1,274) | $ - | $ (27) | $ (183) | $ (249) | $ - | $ (1) | $ (2,699) | $ (4,666) |
| 11 | Annualization Adjustment for FTY PGC Revenues ( L10 - L8) | $ (64) | $ (603) | $ - | $ (14) | $ (100) | $ (145) | $ - | $ (0) | $ - | $ (926) |
| 12 | Total FTY UPC (Unadjusted) - MCF | 16.50 | 92.70 | 84.20 | 240.80 | 358.60 | 1,267.20 | 717.70 | 6,894.30 | | |
| 13 | Annualization Adjustment for FTY Sales - MMCF (L7 * L12)/1000 | (12) | (113) | - | (3) | (23) | (27) | - | (0) | (59) | (237) |

Notes:
* Adjustments for Rates DS are by customer and not in aggregate
** Column [9] further detailed on UGI Gas Exhibit CRB-5(b)(1)

**UGI Utilities Inc.- Gas Division**
**Future Period- 12 Months Ended September 30, 2020**
**( $ in Thousands )**

**Adjustment for Customer/Contract Changes**
**Large Transport and Interruptible Detail**

| Line # | Description | [ 1 ] LFD | [ 2 ] XD-F | [ 3 ] XD-I | [ 4 ] IS | [ 5 ] TOTAL |
|---|---|---|---|---|---|---|
| 1 | FTY Revenues (Unadjusted) | $ 39,530 | $ 32,182 | $ 1,511 | $ 22,892 | $ 96,115 |
| 2 | FTY PGC Revenues | (136) | - | - | - | (136) |
| 3 | FTY Revenues net of PGC - Margin (Unadjusted) | $ 39,394 | $ 32,182 | $ 1,511 | $ 22,892 | $ 95,979 |
| 4 | FTY Average Effective Customers (Unadjusted) | 505 | 54 | 54 | 322 | 936 |
| 5 | FTY Average Annual Margin Per Customer ( L3 / L4 ) | $ 77.945 | $ 595.970 | $ 27.982 | $ 70.990 | $ 102.556 |
| 6 | FTY Customers (Fully Adjusted) | 508 | 54 | 54 | 320 | 936 |
| 7 | Change in Customers during FTY (L6 - L4) | 3 | - | - | (2) | 0 |
| 8 | Annualization of Margin | $ 137 | $ (2,182) | $ (3) | $ (651) | $ (2,699) |
| 9 | Average Annual Revenue Per Customer ( L1 / L4 ) | $ 78.214 | $ 595.970 | $ 27.982 | $ 70.990 | $ 102.701 |
| 10 | Annualization of Total FTY Revenue | $ 137 | $ (2,182) | $ (3) | $ (651) | $ (2,699) |
| 11 | Annualization of FTY PGC Revenues ( L10 - L8 ) | $ - | $ - | $ - | $ - | $ - |
| 12 | Total FTY UPC (Unadjusted) - MCF | | | | | |
| 13 | Annualization Adjustment for FTY Sales - MMCF | 54 | - | - | (112) | (59) |

**UGI Utilities Inc.- Gas Division**
**Future Period- 12 Months Ended September 30, 2020**
**( $ in Thousands )**

**Adjustment for Normalized & Annualized Use/Customer**

| Line # | Description | [ 1 ] Rate R Residential-Non Htg | [ 2 ] Rate R Residential-Htg | [ 3 ] Rate RT RT | [ 4 ] Rate N Commercial-Non Htg | [ 5 ] Rate N Commercial-Htg | [ 6 ] Rate N Industrial | [ 7 ] Rate NT NT Total | [ 8 ] Rate DS DS Total | [ 9 ] Rates LFD, XD, IS Transport-Other | [ 10 ] Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FTY (Unadjusted) Use/Customer ("UPC") - MCF | 16.50 | 92.70 | 84.20 | 240.80 | 358.60 | 1,267.20 | 717.70 | 6,894.30 | | |
| 2 | FTY UPC (Fully Adjusted) - MCF | 16.40 | 88.80 | 84.60 | 269.20 | 339.70 | 1,185.10 | 725.60 | 6,894.30 | | |
| 3 | Change in UPC - MCF<br>( L2 - L1) | (0.10) | (3.90) | 0.40 | 28.40 | (18.90) | (82.10) | 7.90 | 0.00 | | |
| 4 | FPFTY Customers (Fully Adjusted) | 28,187 | 482,476 | 79,450 | 4,076 | 45,155 | 626 | 18,505 | 1,510 | 936 | 660,921 |
| 5 | Annualization Adjustment for Sales - MMCF<br>(L3 * L4)/1000) | (3) | (1,882) | 32 | 116 | (853) | (51) | 147 | - | - | (2,495) |
| 6 | Total Revenue Adjustment<br>(L8 + L10+L12+L14+L16+L18+L20) | $ (25) | $ (17,014) | $ 136 | $ 948 | $ (6,958) | $ (423) | $ 484 | $ - | $ - | $ (22,854) |
| 7 | Total Unit Revenue Adjustment<br>(L6 / L5) | $ 9.0421 | $ 9.0421 | $ 4.2647 | $ 8.1880 | $ 8.1530 | $ 8.2289 | $ 3.2928 | $ - | $ - | |
| 8 | Distribution Margin Adjustment<br>(L5 * L9) | $ (11) | $ (7,124) | $ 120 | $ 400 | $ (2,918) | $ (179) | $ 477 | $ - | $ - | $ (9,235) |
| 9 | Distribution Unit Rate<br>(Rate N/NT Weighted Value by District) | $ 3.7861 | $ 3.7861 | $ 3.7861 | $ 3.4541 | $ 3.4191 | $ 3.4901 | $ 3.2503 | $ - | $ - | |
| 10 | PGC Revenue<br>(L5 * L11) | $ (13) | $ (8,806) | $ - | $ 542 | $ (3,994) | $ (241) | $ - | $ - | $ - | $ (12,513) |
| 11 | PGC Unit Rate | $ 4.6801 | $ 4.6801 | | $ 4.6801 | $ 4.6801 | $ 4.6801 | | | | |
| 12 | EE&C Revenue Adjustment<br>(L5 * L13) | $ (1) | $ (422) | $ 7 | $ 5 | $ (36) | $ (2) | $ 6 | $ - | $ - | $ (443) |
| 13 | EE&C Unit Rate | $ 0.2245 | $ 0.2245 | $ 0.2245 | $ 0.0425 | $ 0.0425 | $ 0.0425 | $ 0.0425 | $ - | $ - | |
| 14 | USP Revenue Adjustment<br>(L5 * L15) | $ (1) | $ (478) | $ 8 | $ - | $ - | $ - | $ - | $ - | $ - | $ (471) |
| 15 | USP Unit Rate | $ 0.2541 | $ 0.2541 | $ 0.2541 | $ - | $ - | $ - | $ - | $ - | $ - | |
| 16 | MFC Revenue/Margin Adjustment<br>(L5 * L17) | $ (0) | $ (183) | $ - | $ 1 | $ (10) | $ (1) | $ - | $ - | $ - | $ (192) |
| 17 | MFC Unit Rate | $ 0.0973 | $ 0.0973 | | $ 0.0112 | $ 0.0112 | $ 0.0112 | $ - | $ - | $ - | |
| 18 | DSIC Revenue/Margin Adjustment<br>(L8 + L12 + L14 + L16) * L19 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 19 | DSIC Unit Rate | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | |
| 20 | TCJA Revenue/Margin Adjustment<br>(L8 + L16) * L21 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 21 | TCJA Unit Rate | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | |
| 22 | Total Margin Adjustment<br>(L8 + L16 + L18 + L20) | $ (11) | $ (7,307) | $ 120 | $ 401 | $ (2,928) | $ (180) | $ 477 | $ - | $ - | $ (9,427) |
| 23 | Total Unit Margin Adjustment<br>(L22 / L5) | $ 3.8834 | $ 3.8834 | $ 3.7861 | $ 3.4654 | $ 3.4304 | $ 3.5013 | $ 3.2503 | $ - | $ - | |

**UGI Utilities Inc.- Gas Division**
**Future Period- 12 Months Ended September 30, 2020**
**( $ in Thousands )**

**Adjustment for PGC**

| | OCT 2019 | NOV 2019 | DEC 2019 | JAN 2020 | FEB 2020 | MAR 2020 | APR 2020 | MAY 2020 | JUN 2020 | JUL 2020 | AUG 2020 | SEP 2020 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Original Budget PGC Rate FPFTY (Weighted Value by District) | $4.9576 | $4.9573 | $5.2064 | $5.2064 | $5.2064 | $5.2064 | $5.2064 | $5.2064 | $5.2064 | $5.2064 | $5.2064 | $5.2064 | |
| FPFTY PGC Rate | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | $4.6801 | |
| PGC Rate Variance | ($0.2775) | ($0.2772) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | |
| Total PGC Volumes | 3,878 | 6,612 | 10,535 | 12,481 | 10,300 | 8,087 | 4,389 | 2,234 | 1,189 | 996 | 1,039 | 1,626 | 63,367 |
| PGC Revenue Adjustment | ($1,076) | ($1,833) | ($5,545) | ($6,569) | ($5,421) | ($4,256) | ($2,310) | ($1,176) | ($626) | ($524) | ($547) | ($856) | ($30,738) |

**UGI Utilities Inc.- Gas Division**
**Future Period- 12 Months Ended September 30, 2020**
**( $ in Thousands )**

**Adjustment for MFC**

| | OCT 2019 | NOV 2019 | DEC 2019 | JAN 2020 | FEB 2020 | MAR 2020 | APR 2020 | MAY 2020 | JUN 2020 | JUL 2020 | AUG 2020 | SEP 2020 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PGC Rate Variance - Rate R (Weighted Value by District) | ($0.2822) | ($0.2823) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | |
| PGC Rate Variance - Rate N (Weighted Value by District) | ($0.2657) | ($0.2641) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | ($0.5263) | |
| Total PGC Volumes-Rate R | 2,770 | 4,758 | 7,598 | 9,000 | 7,425 | 5,826 | 3,139 | 1,565 | 797 | 655 | 686 | 1,119 | |
| Total PGC Volumes-Rate N | 1,108 | 1,854 | 2,937 | 3,481 | 2,875 | 2,260 | 1,249 | 669 | 392 | 341 | 352 | 507 | |
| Total PGC Volumes | 3,878 | 6,612 | 10,535 | 12,481 | 10,300 | 8,087 | 4,389 | 2,234 | 1,189 | 996 | 1,039 | 1,626 | 63,367 |
| Rate R % (Weighted Value by District) | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | 2.08% | |
| Rate N % (Weighted Value by District) | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | 0.24% | |
| MFC Rate R Adj Rate | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | ($0.01) | |
| MFC Rate N Adj Rate | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | ($0.00) | |
| Rate R Revenue Variance | ($16) | ($28) | ($83) | ($99) | ($81) | ($64) | ($34) | ($17) | ($9) | ($7) | ($8) | ($12) | |
| Rate N Revenue Variance | ($1) | ($1) | ($4) | ($4) | ($4) | ($3) | ($2) | ($1) | ($0) | ($0) | ($0) | ($1) | |
| Total Revenue Variance | ($17) | ($29) | ($87) | ($103) | ($85) | ($67) | ($36) | ($18) | ($9) | ($8) | ($8) | ($13) | ($479) |

**UGI Utilities Inc.- Gas Division**
**Future Period- 12 Months Ended September 30, 2020**
**( $ in Thousands )**

**Adjustment for USP**

| | OCT 2019 | NOV 2019 | DEC 2019 | JAN 2020 | FEB 2020 | MAR 2020 | APR 2020 | MAY 2020 | JUN 2020 | JUL 2020 | AUG 2020 | SEP 2020 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Original FTY Budget USP Calculation | $607 | $918 | $1,463 | $1,731 | $1,429 | $1,122 | $605 | $300 | $151 | $123 | $129 | $214 | $8,791 |
| Correct FTY Budget USP Calculation | $605 | $914 | $1,458 | $1,724 | $1,423 | $1,117 | $602 | $299 | $150 | $123 | $129 | $213 | $8,759 |
| Variance to correct Original FTY Budget Calculation | ($2) | ($3) | ($5) | ($6) | ($5) | ($4) | ($2) | ($1) | ($1) | ($0) | ($0) | ($1) | ($32) |
| | | | | | | | | | | | | | |
| Original Budget USP Rate FTY- (Weighted Value by District) | $0.1980 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | $0.1743 | |
| FTY USP Rate- (Weighted Value by District) | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | $0.2541 | |
| USP Rate Variance | $0.0561 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | $0.0798 | |
| Total Rate R Volumes | 3,191 | 5,477 | 8,731 | 10,329 | 8,526 | 6,694 | 3,608 | 1,792 | 901 | 735 | 772 | 1,275 | 52,031 |
| Total Rate R excl CAP Volumes | 3,056 | 5,246 | 8,362 | 9,893 | 8,166 | 6,411 | 3,456 | 1,716 | 863 | 704 | 740 | 1,221 | 49,836 |
| USP Rate Revenue Variance | $171 | $419 | $667 | $790 | $652 | $512 | $276 | $137 | $69 | $56 | $59 | $97 | $3,905 |
| | | | | | | | | | | | | | |
| Total Revenue Variance | $169 | $415 | $662 | $783 | $646 | $508 | $274 | $136 | $68 | $56 | $59 | $97 | $3,872 |

**UGI Utilities Inc.- Gas Division**
**Future Period- 12 Months Ended September 30, 2020**
**( $ in Thousands )**

**Adjustment for GPC**

| | OCT 2019 | NOV 2019 | DEC 2019 | JAN 2020 | FEB 2020 | MAR 2020 | APR 2020 | MAY 2020 | JUN 2020 | JUL 2020 | AUG 2020 | SEP 2020 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GPC Rate | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | $0.0660 | |
| Volume Variance to Original FTY Budget | (176) | (297) | (471) | (557) | (460) | (362) | (198) | (103) | (56) | (47) | (49) | (75) | (2,851) |
| Revenue Variance | ($12) | ($20) | ($31) | ($37) | ($30) | ($24) | ($13) | ($7) | ($4) | ($3) | ($3) | ($5) | ($188) |
| | (12) | (20) | (31) | (37) | (30) | (24) | (13) | (7) | (4) | (3) | (3) | (5) | (188) |

**UGI Utilities Inc.- Gas Division**
**Future Period- 12 Months Ended September 30, 2020**
**( $ in Thousands )**

**Adjustment for Excess Take Revenues**

| | | |
|---|---|---|
| Excess Take (MMCF) | | (283) |
| $/MCF | $ | 6.00 |
| Excess Take Revenue/Margin | $ | (1,700) |

**UGI Utilities Inc.- Gas Division**
**Future Period- 12 Months Ended September 30, 2020**
**( $ in Thousands )**

**Adjustment for STAS**

| | Unadjusted FTY TOTAL | Adjusted FTY TOTAL | Revenue Adjustment Total |
|---|---|---|---|
| Residential-Non Htg | (0) | 0 | 0 |
| Residential-Heating | (22) | 0 | 22 |
| Residential-RT | (1) | 0 | 1 |
| Total R/RT | (24) | 0 | 24 |
| Commercial-Non Htg | (1) | 0 | 1 |
| Commercial- Htg | (7) | 0 | 7 |
| Commercial-NT | (2) | 0 | 2 |
| Industrial | (0) | 0 | 0 |
| Industrial-NT | (0) | 0 | 0 |
| Total N/NT | (10) | 0 | 10 |
| Total DS | (4) | - | 4 |
| Total LFD | (6) | - | 6 |
| Total XD-F | (4) | - | 4 |
| Total Interruptible | (3) | - | 3 |
| Grand Total | (50) | 0 | 50 |

**UGI Utilities Inc.- Gas Division**
**Future Period- 12 Months Ended September 30, 2020**
**( $ in Thousands )**

**Adjustment for EEC Rider**

| | OCT 2019 | NOV 2019 | DEC 2019 | JAN 2020 | FEB 2020 | MAR 2020 | APR 2020 | MAY 2020 | JUN 2020 | JUL 2020 | AUG 2020 | SEP 2020 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Original Budget FTY R/RT Rate- (Weighted Value by District) | 0.1244 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | 0.1264 | |
| FTY R/RT Rate- (Weighted Value by District) | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | 0.2245 | |
| R/RT Rate Variance | 0.1001 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | 0.0981 | |
| R/RT Rate Volumes | 3,191 | 5,477 | 8,731 | 10,329 | 8,526 | 6,694 | 3,608 | 1,792 | 901 | 735 | 772 | 1,275 | 52,031 |
| R/RT Revenue Adjustment | $ 319 | $ 537 | $ 856 | $ 1,013 | $ 836 | $ 657 | $ 354 | $ 176 | $ 88 | $ 72 | $ 76 | $ 125 | $ 5,111 |
| | | | | | | | | | | | | | |
| Original Budget FTY N/NT Rate- (Weighted Value by District) | 0.0445 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | 0.0551 | |
| FTY N/NT Rate- (Weighted Value by District) | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | 0.0425 | |
| N/NT Rate Variance | (0.0020) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | (0.0126) | |
| N/NT Rate Volumes | 2,057 | 3,278 | 4,935 | 5,726 | 4,831 | 3,899 | 2,280 | 1,268 | 747 | 648 | 670 | 969 | 31,309 |
| N/NT Revenue Adjustment | $ (4) | $ (41) | $ (62) | $ (72) | $ (61) | $ (49) | $ (29) | $ (16) | $ (9) | $ (8) | $ (8) | $ (12) | $ (373) |
| | | | | | | | | | | | | | |
| Original Budget FTY DS Rate-(Weighted Value by District) | (0.0191) | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | |
| FTY DS Rate-(Weighted Value by District) | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | |
| DS Rate Variance | 0.0195 | - | - | - | - | - | - | - | - | - | - | - | |
| DS Rate Volumes | 560 | 928 | 1,438 | 1,842 | 1,681 | 1,386 | 793 | 475 | 344 | 300 | 303 | 361 | 10,411 |
| DS Revenue Adjustment | $ 11 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 11 |
| | | | | | | | | | | | | | |
| Original Budget FTY LFD Rate-(Weighted Value by District) | (0.0041) | 0.0007 | 0.0007 | 0.0007 | 0.0007 | 0.0007 | 0.0007 | 0.0007 | 0.0007 | 0.0007 | 0.0007 | 0.0007 | |
| FTY LFD Rate-(Weighted Value by District) | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | 0.0103 | |
| LFD Rate Variance | 0.0144 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | 0.0096 | |
| LFD Rate Volumes | 1,715 | 2,025 | 2,321 | 2,583 | 2,309 | 2,120 | 1,785 | 1,590 | 1,439 | 1,389 | 1,435 | 1,498 | 22,209 |
| LFD Revenue Adjustment | $ 25 | $ 19 | $ 22 | $ 25 | $ 22 | $ 20 | $ 17 | $ 15 | $ 14 | $ 13 | $ 14 | $ 14 | $ 221 |
| | | | | | | | | | | | | | |
| Total Revenue Adjustment | $ 351 | $ 515 | $ 817 | $ 966 | $ 798 | $ 628 | $ 342 | $ 175 | $ 93 | $ 77 | $ 81 | $ 127 | $ 4,970 |

**UGI Utilities Inc.- Gas Division**
**Future Period- 12 Months Ended September 30, 2020**
**( $ in Thousands )**

**Adjustment for GET Gas Surcharge**

| | | |
|---|---|---|
| Original Budget FTY Revenue | $ | 294 |
| FTY Revenue | $ | 124 |
| GET Gas Revenue Adjustment | $ | (171) |

# UGI Utilities Inc.- Gas Division
## Future Period- 12 Months Ended September 30, 2020
## ( $ in Thousands )

## Adjustment for DSIC

| | Unadjusted FTY TOTAL | Adjusted FTY TOTAL | Revenue Adjustment Total |
|---|---|---|---|
| RES. G | 26 | 0 | (26) |
| H | 966 | 0 | (966) |
| SUBTOTAL R | 992 | 0 | (992) |
| RT | 159 | 0 | (159) |
| TOTAL | 1,152 | 0 | (1,152) |
| COM. G | 19 | 0 | (19) |
| H | 262 | 0 | (262) |
| SUBTOTAL C-N | 281 | 0 | (281) |
| NT | 183 | 0 | (183) |
| DS | 103 | 0 | (103) |
| IS | 41 | 0 | (41) |
| XD-F | 7 | 0 | (7) |
| XD-I | 4 | 0 | (4) |
| LFD | 50 | 0 | (50) |
| TOTAL | 668 | 0 | (668) |
| IND. | 13 | 0 | (13) |
| SUBTOTAL I-N | 13 | 0 | (13) |
| NT | 15 | 0 | (15) |
| DS | 28 | 0 | (28) |
| IS | 40 | 0 | (40) |
| XD-F | 51 | 0 | (51) |
| XD-I | 3 | 0 | (3) |
| LFD | 98 | 0 | (98) |
| TOTAL | 248 | 0 | (248) |
| GRAND TOTAL | 2,068 | 0 | (2,068) |

**UGI Utilities Inc.- Gas Division**
**Future Period- 12 Months Ended September 30, 2020**
**( $ in Thousands )**

**Adjustment for TCJA**

| | Unadjusted 2020 TOTAL | Adjusted 2020 TOTAL | Revenue Adjustment Total |
|---|---|---|---|
| RES. G | (28) | 0 | 28 |
| H | (934) | 0 | 934 |
| SUBTOTAL R | (962) | 0 | 962 |
| RT | (132) | 0 | 132 |
| TOTAL | (1,094) | 0 | 1,094 |
| COM. G | (21) | 0 | 21 |
| H | (249) | 0 | 249 |
| SUBTOTAL C-N | (270) | 0 | 270 |
| NT | (194) | 0 | 194 |
| DS | (88) | 0 | 88 |
| IS | (38) | 0 | 38 |
| XD-F | (9) | 0 | 9 |
| XD-I | (4) | 0 | 4 |
| LFD | (63) | 0 | 63 |
| TOTAL | (667) | 0 | 667 |
| IND. | (13) | 0 | 13 |
| SUBTOTAL I-N | (13) | 0 | 13 |
| NT | (15) | 0 | 15 |
| DS | (27) | 0 | 27 |
| IS | (61) | 0 | 61 |
| XD-F | (150) | 0 | 150 |
| XD-I | (4) | 0 | 4 |
| LFD | (116) | 0 | 116 |
| TOTAL | (386) | 0 | 386 |
| GRAND TOTAL | (2,148) | 0 | 2,148 |

**UGI Utilities Inc.- Gas Division**
**Future Period- 12 Months Ended September 30, 2020**
**( $ in Thousands )**

**Adjustment for GDE Rider**

| | OCT 2019 | NOV 2019 | DEC 2019 | JAN 2020 | FEB 2020 | MAR 2020 | APR 2020 | MAY 2020 | JUN 2020 | JUL 2020 | AUG 2020 | SEP 2020 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Original Budget FTY DS Rate | 0.0166 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | |
| FTY DS Rate | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | |
| DS Rate Variance | 0.0049 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | |
| DS Rate Volumes | 560 | 928 | 1,438 | 1,842 | 1,681 | 1,386 | 793 | 475 | 344 | 300 | 303 | 361 | 10,411 |
| DS Revenue Adjustment | $ 3 | $ 5 | $ 8 | $ 11 | $ 10 | $ 8 | $ 5 | $ 3 | $ 2 | $ 2 | $ 2 | $ 2 | $ 61 |
| | | | | | | | | | | | | | |
| Original Budget FTY LFD Rate | 0.0176 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | 0.0058 | |
| FTY LFD Rate | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | 0.0117 | |
| LFD Rate Variance | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | 0.0059 | |
| LFD Rate Volumes | 1,715 | 2,025 | 2,321 | 2,583 | 2,309 | 2,120 | 1,785 | 1,590 | 1,439 | 1,389 | 1,435 | 1,498 | 22,209 |
| LFD Revenue Adjustment | $ 10 | $ 12 | $ 14 | $ 15 | $ 14 | $ 13 | $ 11 | $ 9 | $ 8 | $ 8 | $ 8 | $ 9 | $ 131 |
| | | | | | | | | | | | | | |
| Total Revenue Adjustment | $ 13 | $ 17 | $ 22 | $ 26 | $ 24 | $ 21 | $ 15 | $ 12 | $ 11 | $ 10 | $ 10 | $ 11 | $ 192 |

**UGI GAS EXHIBIT CRB-6(a) – CRB-6(i)**

UGI Utilities Inc.- Gas Division
Historic Year 2019 Sales and Revenues
Summary of Adjustments

| | Sales (000's) MCF | Revenues ($000's) | Margin ($000's) | Reference |
|---|---|---|---|---|
| Actual 2019 | 293,763 | 829,536 | 515,858 | |
| Adjustment for Customer/Contract Changes | (91) | (1,099) | (733) | UGI Utilities, Inc.- Gas Division-Exhibit CRB-6(b)/(b)(1) |
| Adjustment for Normalized & Annualized Use/Customer | (2) | (4,513) | 40 | UGI Utilities, Inc.- Gas Division-Exhibit CRB-6(c) |
| Adjustment for PGC | | 16,310 | 0 | UGI Utilites, Inc.- Gas Division-Exhibit CRB-6(d) |
| Adjustment for MFC | | 250 | 250 | UGI Utilites, Inc.- Gas Division-Exhibit CRB-6(e) |
| Adjustment for USP | | 1,214 | 0 | UGI Utilites, Inc.- Gas Division-Exhibit CRB-6(f) |
| Adjustment for GPC | | (67) | (67) | UGI Utilites, Inc.- Gas Division-Exhibit CRB-6(g) |
| Adjustment for Excess Take | | (1,298) | (1,298) | UGI Utilites, Inc.- Gas Division-Exhibit CRB-6(h) |
| Adjustment for GET Gas | | 64 | 64 | UGI Utilites, Inc.- Gas Division-Exhibit CRB-6(i) |
| Historic Year 2019 | 293,670 | 840,398 | 514,115 | |

**UGI Utilities Inc.- Gas Division**
**Historic Period- 12 Months Ended September 30, 2019**
**( $ in Thousands )**

**Adjustment for Customer/Contract Changes**

| Line # | Description | [ 1 ] Rate R Residential-Non Htg | [ 2 ] Rate R Residential-Htg | [ 3 ] Rate RT RT | [ 4 ] Rate N Commercial-Non Htg | [ 5 ] Rate N Commercial-Htg | [ 6 ] Rate N Industrial | [7] Rate NT NT Total | [ 8 ] Rate DS DS Total | [ 9 ] Rates LFD, XD, IS Transport-Other * | [ 10 ] Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HTY Revenues (Unadjusted) | $ 7,684 | $ 449,737 | $ 33,953 | $ 7,621 | $ 136,224 | $ 6,780 | $ 48,838 | $ 43,577 | $ 95,121 | $ 829,536 |
| 2 | HTY PGC Revenues | $ (2,289) | $ (214,169) | $ (2,025) | $ (3,983) | $ (73,781) | $ (3,873) | $ (642) | (10,602) | (2,313) | (313,677) |
| 3 | HTY Revenues net of PGC - Margin (Unadjusted) | $ 5,395 | $ 235,568 | $ 31,928 | $ 3,638 | $ 62,442 | $ 2,907 | $ 48,196 | $ 32,976 | $ 92,808 | $ 515,858 |
| 4 | HTY Average Effective Customers (Unadjusted) | 26,648 | 478,918 | 79,865 | 3,351 | 44,809 | 674 | 18,475 | 1,499 | 914 | 655,154 |
| 5 | HTY Average Annual Margin Per Customer (L3 / L4 or Weighted Value by District) | $ 0.203 | $ 1.553 | $ 0.663 | $ 0.692 | $ 1.483 | $ 4.193 | $ (3.107) | $ 23.283 | $ 101.542 | $ 0.787 |
| 6 | HTY Customers (Fully Adjusted) | 26,124 | 478,516 | 80,062 | 3,360 | 44,815 | 669 | 18,467 | 1,485 | 918 | 654,416 |
| 7 | Change in Customers during HTY (L6 - L4) | (524) | (402) | 197 | 9 | 6 | (5) | (8) | (14) | 4 | (738) |
| 8 | Annualization of Margin ( L5 * L7) | $ (106) | $ (624) | $ 131 | $ 6 | $ 8 | $ (21) | $ 25 | $ (336) | $ 183 | $ (733) |
| 9 | Average Annual Revenue Per Customer (Unadjusted) (L1 / L4 or Weighted Value by District) | $ 0.289 | $ 2.119 | $ 0.693 | $ 1.638 | $ 8.879 | $ 9.644 | $ (3.065) | $ 31.684 | $ 104.073 | $ 1.266 |
| 10 | Annualization of Total HTY Revenue ( L7 * L9) | $ (152) | $ (852) | $ 137 | $ 15 | $ 51 | $ (49) | $ 25 | $ (457) | $ 183 | $ (1,099) |
| 11 | Annualization Adjustment for HTY PGC Revenues ( L10 - L8) | $ (45) | $ (228) | $ 6 | $ 9 | $ 42 | $ (28) | $ (0) | $ (121) | $ - | $ (365) |
| 12 | Total HTY UPC (Unadjusted) - MCF | 16.10 | 188.96 | 102.65 | 134.44 | (1,378.09) | 1,059.78 | 187.15 | 7,171.37 | | |
| 13 | Annualization Adjustment for HTY Sales - MMCF (L7 * L12)/1000 | (8) | (76) | 20 | 1 | (8) | (5) | (2) | (103) | 90 | (91) |

Notes:

* Column [9] further detailed on UGI Gas Exhibit CRB-6(b)(1)

**UGI Utilities Inc.- Gas Division**
**Historic Period- 12 Months Ended September 30, 2019**
**( $ in Thousands )**

**Adjustment for Customer/Contract Changes**
**Large Transport and Interruptible Detail**

| Line # | Description | [ 1 ] LFD | [ 2 ] XD-F | [ 3 ] XD-I | [ 4 ] IS | [ 5 ] TOTAL |
|---|---|---|---|---|---|---|
| 1 | HTY Revenues (Unadjusted) | $ 38,389 | $ 30,827 | $ 2,635 | $ 23,270 | $ 95,121 |
| 2 | HTY PGC Revenues | (895) | (586) | (443) | (389) | (2,313) |
| 3 | HTY Revenues net of PGC - Margin (Unadjusted) | $ 37,494 | $ 30,241 | $ 2,192 | $ 22,881 | $ 92,808 |
| 4 | HTY Average Effective Customers (Unadjusted) | 495 | 53 | 56 | 310 | 914 |
| 5 | HTY Average Annual Margin Per Customer ( L3 / L4 ) | $ 75.766 | $ 571.530 | $ 39.209 | $ 73.739 | $ 101.542 |
| 6 | HTY Customers (Fully Adjusted) | 501 | 54 | 56 | 307 | 918 |
| 7 | Change in Customers during HTY (L6 - L4) | 6 | 1 | 0 | (3) | 4 |
| 8 | Annualization of Margin | $ 149 | $ - | $ - | $ 34 | $ 183 |
| 9 | Average Annual Revenue Per Customer ( L1 / L4 ) | $ 77.575 | $ 582.598 | $ 47.124 | $ 74.994 | $ 104.073 |
| 10 | Annualization of Total HTY Revenue | $ 149 | $ - | $ - | $ 34 | $ 183 |
| 11 | Annualization of HTY PGC Revenues ( L10 - L8 ) | $ - | $ - | $ - | $ - | $ - |
| 12 | Total HTY UPC (Unadjusted) - MCF | | | | | |
| 13 | Annualization Adjustment for HTY Sales - MMCF (L12 * L7)/1000 | 84 | - | - | 6 | 90 |

UGI Utilities Inc.- Gas Division
Historic Period- 12 Months Ended September 30, 2019
( $ in Thousands )



**Adjustment for Normalized & Annualized Use/Customer**

| Line # | Description | [ 1 ] Rate R Residential-Non Htg | [ 2 ] Rate R Residential-Htg | [ 3 ] Rate RT RT | [ 4 ] Rate N Commercial-Non Htg | [ 5 ] Rate N Commercial-Htg | [ 6 ] Rate N Industrial | [ 7 ] Rate NT NT Total | [ 8 ] Rate DS DS Total | [ 9 ] Rates LFD, XD, IS Transport-Other | [ 10 ] Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HTY (Unadjusted) Use/Customer ("UPC") - MCF | 16.10 | 89.80 | 81.80 | 244.60 | 345.70 | 1,199.10 | 705.80 | 7,018.80 | | |
| 2 | HTY UPC (Fully Adjusted) - MCF | 16.40 | 89.10 | 84.60 | 249.70 | 331.60 | 1,250.40 | 725.20 | 7,204.60 | | |
| 3 | Change in UPC - MCF ( L2 - L1) | 0.30 | (0.70) | 2.80 | 5.10 | (14.10) | 51.30 | 19.40 | 185.80 | | |
| 4 | HTY Customers (Fully Adjusted) | 26,124 | 478,516 | 80,062 | 3,360 | 44,815 | 669 | 18,467 | 1,485 | 918 | 654,416 |
| 5 | Annualization Adjustment for Sales-MMCF (L3*L4)/1000 (District Weighted) | 9 | (299) | 229 | 18 | (623) | 34 | 354 | 275 | - | (2) |
| 6 | Total Revenue Adjustment (L8 + L10+L12+L14+L16+L18+L20) | $ 85 | $ (2,465) | $ 791 | $ 147 | $ (5,277) | $ 291 | $ 1,188 | $ 726 | $ - | $ (4,513) |
| 7 | Total Unit Revenue Adjustment (L6/L5) | $ 9.0015 | $ 8.2544 | $ 3.4516 | $ 8.0833 | $ 8.4654 | $ 8.5717 | $ 3.3583 | $ 2.6380 | $ - | |
| 8 | Distribution Margin Adjustment (L5 *L9) | $ 32 | $ (641) | $ 710 | $ 59 | $ (2,099) | $ 118 | $ 1,172 | $ 726 | $ - | $ 77 |
| 9 | Distribution Unit Rate (Weighted Value by District) | $ 3.3396 | $ 2.1459 | $ 3.0974 | $ 3.2390 | $ 3.3675 | $ 3.4815 | $ 3.3123 | $ 2.6408 | $ - | |
| 10 | PGC Revenue (L5*L11) | $ 49 | $ (1,688) | $ - | $ 87 | $ (3,138) | $ 171 | $ - | $ - | $ - | $ (4,519) |
| 11 | PGC Unit Rate (Weighted Value by District) | $ 5.1954 | $ 5.6515 | | $ 4.7894 | $ 5.0349 | $ 5.0246 | | | | |
| 12 | EE&C Revenue Adjustment (L5*L13) | $ 1 | $ (66) | $ 38 | $ 1 | $ (27) | $ 1 | $ 17 | $ (0) | $ - | $ (36) |
| 13 | EE&C Unit Rate (Weighted Value by District) | $ 0.1482 | $ 0.2204 | $ 0.1645 | $ 0.0345 | $ 0.0441 | $ 0.0373 | $ 0.0482 | $ - | $ - | |
| 14 | USP Revenue Adjustment (L5*L15) | $ 2 | $ (40) | $ 40 | $ - | $ - | $ - | $ - | $ - | $ - | $ 1 |
| 15 | USP Unit Rate (Weighted Value by District) | $ 0.1865 | $ 0.1356 | $ 0.1737 | $ - | $ - | $ - | $ - | $ - | $ - | |
| 16 | MFC Revenue/Margin Adjustment (L5*L17) | $ 1 | $ (36) | $ - | $ 0 | $ (10) | $ 1 | $ - | $ - | $ - | $ (44) |
| 17 | MFC Unit Rate (Weighted Value by District) | $ 0.0216 | $ 0.0212 | $ - | $ 0.0027 | $ 0.0031 | $ 0.0030 | $ - | $ - | $ - | |
| 18 | DSIC Revenue/Margin Adjustment (L8+L12+L14+L16)*L19 | $ 2 | $ (11) | $ 36 | $ 3 | $ (100) | $ 6 | $ 51 | $ 33 | $ - | $ 19 |
| 19 | DSIC Unit Rate (Weighted Value by District) | $ 0.0482 | $ 0.0146 | $ 0.0457 | $ 0.0509 | $ 0.0469 | $ 0.0534 | $ 0.0430 | - | #DIV/0! | |
| 20 | TCJA Revenue/Margin Adjustment (L8+L16)*L21 | $ (2) | $ 17 | $ (32) | $ (3) | $ 98 | $ (6) | $ (52) | $ (33) | $ - | $ (12) |
| 21 | TCJA Unit Rate (Weighted Value by District) | $ (0.0472) | $ (0.0250) | $ (0.0455) | $ (0.0491) | $ (0.0465) | $ (0.0502) | $ (0.0443) | - | #DIV/0! | |
| 22 | Total Margin Adjustment (L8+L16+L18+L20) | $ 33 | $ (671) | $ 713 | $ 59 | $ (2,111) | $ 119 | $ 1,171 | $ 726 | $ - | $ 40 |
| 23 | Total Unit Margin Adjustment (L22/L5) | $ 3.4713 | $ 2.2470 | $ 3.1133 | $ 3.2594 | $ 3.3864 | $ 3.5098 | $ 3.3102 | - | $ - | |

**UGI Utilities Inc.- Gas Division**
**Historic Period- 12 Months Ended September 30, 2019**
**( $ in Thousands )**

**Adjustment for PGC**

| | OCT 2018 | NOV 2018 | DEC 2018 | JAN 2019 | FEB 2019 | MAR 2019 | APR 2019 | MAY 2019 | JUN 2019 | JUL 2019 | AUG 2019 | SEP 2019 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PGC Rate HTY - (Weighted Value by District) | $4.9474 | $4.9793 | $4.3973 | $4.4029 | $4.3897 | $4.8777 | $4.8332 | $4.8790 | $5.0222 | $5.0439 | $5.0227 | $4.8756 | |
| September HTY PGC Rate- (Weighted Value by District) | $4.8941 | $4.9177 | $4.9323 | $4.9378 | $4.9226 | $4.9153 | $4.8770 | $4.9141 | $4.9136 | $4.9312 | $4.9146 | $4.8756 | |
| PGC Rate Variance | ($0.0533) | ($0.0616) | $0.5350 | $0.5349 | $0.5329 | $0.0376 | $0.0438 | $0.0351 | ($0.1086) | ($0.1126) | ($0.1082) | $0.0000 | |
| Total PGC Volumes | 3,370 | 7,701 | 9,144 | 12,075 | 10,147 | 8,459 | 3,500 | 1,912 | 1,136 | 975 | 929 | 1,243 | 60,592 |
| PGC Revenue Adjustment | ($180) | ($474) | $4,893 | $6,459 | $5,408 | $318 | $153 | $67 | ($123) | ($110) | ($101) | $0 | $16,310 |

**UGI Utilities Inc.- Gas Division**
**Historic Period- 12 Months Ended September 30, 2019**
**( $ in Thousands )**

**Adjustment for MFC**

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2018 | 2018 | 2018 | 2019 | 2019 | 2019 | 2019 | 2019 | 2019 | 2019 | 2019 | 2019 | |
| | 2,462 | 5,782 | 6,548 | 8,594 | 7,344 | 5,990 | 2,436 | 1,357 | 782 | 660 | 629 | 881 | |
| PGC Rate Variance - Rate R (Weighted Value by District) | ($0.0403) | ($0.0463) | $0.5363 | $0.5371 | $0.5327 | $0.0407 | $0.0492 | $0.0396 | ($0.1104) | ($0.1150) | ($0.1071) | $0.0000 | |
| PGC Rate Variance - Rate N (Weighted Value by District) | ($0.0887) | ($0.1075) | $0.5319 | $0.5295 | $0.5334 | $0.0300 | $0.0314 | $0.0240 | ($0.1046) | ($0.1076) | ($0.1104) | $0.0000 | |
| Total PGC Volumes-Rate R | 2,462 | 5,782 | 6,548 | 8,594 | 7,344 | 5,990 | 2,436 | 1,357 | 782 | 660 | 629 | 881 | |
| Total PGC Volumes-Rate N | 908 | 1,919 | 2,597 | 3,481 | 2,804 | 2,469 | 1,065 | 554 | 354 | 316 | 301 | 362 | |
| Total PGC Volumes | 3,370 | 7,701 | 9,144 | 12,075 | 10,147 | 8,459 | 3,500 | 1,912 | 1,136 | 975 | 929 | 1,243 | 60,592 |
| Rate R % (Weighted Value by District) | 2.07% | 2.07% | 2.07% | 2.08% | 2.06% | 2.07% | 2.06% | 2.07% | 2.07% | 2.08% | 2.07% | 2.04% | |
| Rate N % (Weighted Value by District) | 0.28% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.28% | 0.28% | 0.28% | 0.28% | 0.28% | 0.28% | |
| MFC Rate R Adj Rate | ($0.00) | ($0.00) | $0.01 | $0.01 | $0.01 | $0.00 | $0.00 | $0.00 | ($0.00) | ($0.00) | ($0.00) | $0.00 | |
| MFC Rate N Adj Rate | ($0.00) | ($0.00) | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | ($0.00) | ($0.00) | ($0.00) | $0.00 | |
| Rate R Revenue Variance | ($4.061) | ($10.323) | $72.871 | $96.070 | $80.894 | $3.832 | $1.962 | $0.839 | ($1.890) | ($1.662) | ($1.475) | $0.000 | |
| Rate N Revenue Variance | ($0.429) | ($1.035) | $4.311 | $5.749 | $4.693 | $0.103 | $0.049 | $0.015 | ($0.133) | ($0.122) | ($0.119) | $0.000 | |
| Total Revenue Variance | ($4) | ($11) | $77 | $102 | $86 | $4 | $2 | $1 | ($2) | ($2) | ($2) | $0 | $250 |

**UGI Utilities Inc.- Gas Division**
**Historic Period- 12 Months Ended September 30, 2019**
**( $ in Thousands )**

**Adjustment for USP**

| | OCT 2018 | NOV 2018 | DEC 2018 | JAN 2019 | FEB 2019 | MAR 2019 | APR 2019 | MAY 2019 | JUN 2019 | JUL 2019 | AUG 2019 | SEP 2019 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USP Rate HTY- (Weighted Value by District) | $0.2142 | $0.2125 | $0.1732 | $0.1718 | $0.1756 | $0.2062 | $0.2121 | $0.2059 | $0.2163 | $0.2139 | $0.2180 | $0.2228 | |
| September HTY USP Rate- (Weighted Value by District) | $0.2196 | $0.2173 | $0.2157 | $0.2143 | $0.2179 | $0.2173 | $0.2233 | $0.2170 | $0.2153 | $0.2129 | $0.2170 | $0.2228 | |
| USP Rate Variance | $0.0054 | $0.0048 | $0.0424 | $0.0425 | $0.0422 | $0.0111 | $0.0112 | $0.0111 | ($0.0010) | ($0.0010) | ($0.0010) | $0.0000 | |
| Total Rate R Volumes | 2,823 | 6,650 | 7,545 | 9,945 | 8,444 | 6,881 | 2,773 | 1,562 | 903 | 765 | 722 | 995 | 50,008 |
| Total Rate R excl CAP Volumes | 2,702 | 6,365 | 7,222 | 9,522 | 8,082 | 6,586 | 2,653 | 1,496 | 864 | 733 | 691 | 952 | 47,868 |
| USP Rate Revenue Variance | $15 | $30 | $306 | $404 | $341 | $73 | $30 | $17 | ($1) | ($1) | ($1) | $0 | $1,214 |
| | | | | | | | | | | | | | |
| Total Revenue Variance | $15 | $30 | $306 | $404 | $341 | $73 | $30 | $17 | ($1) | ($1) | ($1) | $0 | $1,214 |

**UGI Utilities Inc.- Gas Division**
**Historic Period- 12 Months Ended September 30, 2019**
**( $ in Thousands )**

**Adjustment for GPC**

| | OCT 2018 | NOV 2018 | DEC 2018 | JAN 2019 | FEB 2019 | MAR 2019 | APR 2019 | MAY 2019 | JUN 2019 | JUL 2019 | AUG 2019 | SEP 2019 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GPC Rate HTY- (Weighted Value by District) | 0.0686 | 0.0697 | 0.0697 | 0.0703 | 0.0699 | 0.0693 | 0.0676 | 0.0694 | 0.0702 | 0.0694 | 0.0686 | 0.0659 | |
| Volume Variance to HTY | (50) | (117) | (147) | (195) | (161) | (136) | (56) | (29) | (16) | (15) | (14) | (19) | (957) |
| Revenue Variance | ($3) | ($8) | ($10) | ($14) | ($11) | ($9) | ($4) | ($2) | ($1) | ($1) | ($1) | ($1) | ($67) |

**UGI Utilities Inc.- Gas Division**
**Historic Period- 12 Months Ended September 30, 2019**
**( $ in Thousands )**

**Adjustment for Excess Take Revenues**

| | | |
|---|---|---|
| Excess Take (MMCF) | | (216) |
| $/MCF | $ | 6.00 |
| Excess Take Revenue/Margin | $ | (1,298) |

**UGI Utilities Inc.- Gas Division**
**Historic Period- 12 Months Ended September 30, 2019**
**( $ in Thousands )**

## Adjustment for GET Gas Surcharge

| | | |
|---|---|---|
| HTY Revenue | $ | 150 |
| HTY Annualized Revenue | $ | 214 |
| GET Gas Revenue Adjustment | $ | 64 |

# UGI GAS EXHIBIT CRB-7(a) – CRB-7(c)

Detail for Usage per Customer for FPFTY by Class as shown on UGI Gas Exhibit CRB-4(c)

Residential Non-Heating

| | (1) UPC | (2) Fully Adj Cust | (3) Sales |
|---|---|---|---|
| Total | 16.6 | 30,944 | 513,670 |
| Rate R | 16.4 | 26,808 | 440,050 |
| Rate RT | 17.8 | 4,136 | 73,621 |

Residential Heating

| | (1) UPC | (2) Fully Adj | (3) Sales |
|---|---|---|---|
| Total | 88.4 | 567,393 | 50,157,541 |
| Rate R | 88.4 | 492,133 | 43,512,083 |
| Rate RT | 88.3 | 75,260 | 6,645,458 |
| | | | |
| Rate RT Total | 84.6 | 79,396 | 6,719,079 |

Commercial Non-Heating

| | (1) UPC | (2) Fully Adj Cust | (3) Sales |
|---|---|---|---|
| Total | 366.3 | 5,500 | 2,014,650 |
| Rate N | 270.5 | 4,066 | 1,099,936 |
| Rate NT | 525.3 | 1,399 | 734,895 |
| Rate DS | 5,137.7 | 35 | 179,820 |

Commercial Heating

| | (1) UPC | (2) Fully Adj Cust | (3) Sales |
|---|---|---|---|
| Total | 552.9 | 64,151 | 35,469,088 |
| Rate N | 344.9 | 46,277 | 15,959,456 |
| Rate NT | 700.1 | 16,627 | 11,640,563 |
| Rate DS | 6,310.4 | 1,247 | 7,869,069 |
| | | | |
| Rate Commercial NT Total | 686.5 | 18,026 | 12,375,457 |

Industrial

| | (1) UPC | (2) Fully Adj Cust | (3) Sales |
|---|---|---|---|
| Total | 3,110.7 | 1,311 | 4,078,128 |
| Rate N | 1,115.0 | 604 | 673,457 |
| Rate NT | 2,194.4 | 479 | 1,051,118 |
| Rate DS | 10,322.6 | 228 | 2,353,553 |
| | | | |
| Rate NT Total | 725.6 | 18,505 | 13,426,575 |
| | | | |
| Rate DS Total | 6,889.0 | 1,510 | 10,402,441 |

Detail for Usage per Customer for FTY by Class as shown on UGI Gas Exhibit CRB-5(c)

Residential Non-Heating

| | (1) UPC | (2) Fully Adj Cust | (3) Sales |
|---|---|---|---|
| Total | 16.6 | 32,377 | 537,458 |
| Rate R | 16.4 | 28,187 | 462,876 |
| Rate RT | 17.8 | 4,190 | 74,582 |

Residential Heating

| | (1) UPC | (2) Fully Adj Cust | (3) Sales |
|---|---|---|---|
| Total | 88.7 | 557,736 | 49,471,183 |
| Rate R | 88.8 | 482,476 | 42,825,725 |
| Rate RT | 88.3 | 75,260 | 6,645,458 |

| | | | |
|---|---|---|---|
| Rate RT Total | 84.6 | 79,450 | 6,720,040 |

Commercial Non-Heating

| | (1) UPC | (2) Fully Adj Cust | (3) Sales |
|---|---|---|---|
| Total | 366.3 | 5,510 | 2,018,313 |
| Rate N | 269.2 | 4,076 | 1,097,449 |
| Rate NT | 525.3 | 1,399 | 734,895 |
| Rate DS | 5,313.4 | 35 | 185,969 |

Commercial Heating

| | (1) UPC | (2) Fully Adj Cust | (3) Sales |
|---|---|---|---|
| Total | 552.9 | 63,029 | 34,848,734 |
| Rate N | 339.7 | 45,155 | 15,337,232 |
| Rate NT | 700.1 | 16,627 | 11,640,563 |
| Rate DS | 6,311.9 | 1,247 | 7,870,939 |

| | | | |
|---|---|---|---|
| Rate Commercial NT Total | 686.5 | 18,026 | 12,375,457 |

Industrial

| | (1) UPC | (2) Fully Adj Cust | (3) Sales |
|---|---|---|---|
| Total | 3,110.7 | 1,333 | 4,146,563 |
| Rate N | 1,185.1 | 626 | 741,893 |
| Rate NT | 2,194.4 | 479 | 1,051,118 |
| Rate DS | 10,322.6 | 228 | 2,353,553 |

| | | | |
|---|---|---|---|
| Rate NT Total | 725.6 | 18,505 | 13,426,575 |
| Rate DS Total | 6,894.3 | 1,510 | 10,410,461 |

Detail for Usage per Customer for HTY by Class as shown on UGI Gas Exhibit CRB-6(c)

Residential Non-Heating

| | (1) UPC | (2) Fully Adj Cust | (3) Sales |
|---|---|---|---|
| Total | 16.6 | 30,246 | 502,084 |
| Rate R | 16.4 | 26,079 | 427,911 |
| Rate RT | 17.8 | 4,167 | 74,173 |

Residential Heating

| | (1) UPC | (2) Fully Adj Cust | (3) Sales |
|---|---|---|---|
| Total | 89.0 | 554,411 | 49,342,579 |
| Rate R | 89.1 | 478,516 | 42,641,051 |
| Rate RT | 88.3 | 75,895 | 6,701,529 |
| Rate RT Total | 84.6 | 80,062 | 6,775,701 |

Commercial Non-Heating

| | (1) UPC | (2) Fully Adj Cust | (3) Sales |
|---|---|---|---|
| Total | 366.3 | 4,789 | 1,754,211 |
| Rate N | 249.7 | 3,347 | 835,895 |
| Rate NT | 525.3 | 1,421 | 746,451 |
| Rate DS | 8,184.0 | 21 | 171,864 |

Commercial Heating

| | (1) UPC | (2) Fully Adj Cust | (3) Sales |
|---|---|---|---|
| Total | 552.9 | 62,631 | 34,628,680 |
| Rate N | 331.6 | 44,815 | 14,859,870 |
| Rate NT | 700.1 | 16,570 | 11,600,657 |
| Rate DS | 6,555.5 | 1,246 | 8,168,153 |
| Rate Commercial NT Total | 686.3 | 17,991 | 12,347,108 |

Industrial

| | (1) UPC | (2) Fully Adj Cust | (3) Sales |
|---|---|---|---|
| Total | 3,110.7 | 1,363 | 4,239,884 |
| Rate N | 1,250.4 | 669 | 836,503 |
| Rate NT | 2,194.4 | 476 | 1,044,534 |
| Rate DS | 10,820.4 | 218 | 2,358,847 |
| Rate NT Total | 725.2 | 18,467 | 13,391,643 |
| Rate DS Total | 7,204.6 | 1,485 | 10,698,864 |

**UGI GAS EXHIBIT CRB-8**

**UGI Utilities, Inc. - Gas Division**
**No Notice Service (NNS) Rate Calculation**

Storage Trip Cost ($/mcf) 0.1040

Weekend Load Reduction Factor (%) 17.0%

WELF = Weekend Load Factor
WD = Weekday Day Use = WE x (1 - WELF)
WE = Weekend Day Use
AVERAGE = Average Daily Use = [ (5 x WD) + (2 x WE) ] / 7

EQ #1 **WD = ( 1/(1 - WELF) ) * WE**
= ( 1/(1 - 0.17) ) * WE
WD = 1.20 * WE

EQ #2 **AVERAGE = [ (5 * WD) + (2 * WE) ] / 7**
Step 1 AVERAGE = [ 5 * ( (1/ (1 - WELF)) * WE )) + (2 * WE) ] / 7
= [5 * (1/(1 - WELF)) + 2 ] * WE ] / 7
= [5 * (1/(1 - 0.17)) + 2 ] * WE ] / 7
8.00 * WE / 7
Step 2 WE = 0.88 * AVERAGE

EQ #3 **Wkly Imbalance = 5 x ( WD - AVERAGE ) + 2 ( AVERAGE - WE )**
= ( 5 * WD ) - ( 3 * AVERAGE) - (2 * WE)
= ( 5 * ( 1/(1-WELF) * WE ) - (3 * AVERAGE) - (2 * WE)
= [ ( 5 * (1/(1-WELF)) + 2 ) * WE ] - (3 * AVERAGE)
= [ ( 5 * (1/(1-0.17)) + 2 ) * WE ] - (3 * AVERAGE)
4.00 * WE - ( 3 * AVERAGE)
0.52 * AVERAGE

EQ #4 **Unit Cost Calculation ($/mcf)**
= [ ( Wkly Imbalance) / ( 7 * AVERAGE) ] * STORAGE TRIP COST
= [ ( 0.52 x Average) / ( 7 x AVERAGE) ] x 0.104
0.07 x 0.104
0.0073

EQ #5 **Per Unit of Demand Calculation ($/mcf per month)**
= Unit Cost Demand x 20 days
= 0.0073 x 20
0.1460

**UGI GAS EXHIBIT CRB-9**

**UGI Utilities, Inc. - Gas Division**
**Monthly Balancing Service (MBS) Rate Calculation**

| | | |
|---|---|---|
| Average Capacity Charge for Storage ($/mcf) | 0.6360 | (A) |
| Anticipated Average Monthly Imbalance % | 2.0608% | (B) |

Load Factors & MBS Rate Calculation

| Rate | Load Factor | |
|---|---|---|
| DS | 25.6% | (C) |
| LFD | 57.9% | (C) |
| XD Firm | 59.9% | (C) |
| Transportation System Average | 49.5% | (D) |

MBS Rate Formula
E = [ ( A / D ) - ( ( A / D ) * C ) ] * B

| Rate | MBS Rate ($/mcf) | |
|---|---|---|
| DS | 0.0197 | (E) |
| LFD | 0.0111 | (E) |
| XD Firm | 0.0106 | (E) |

# UGI GAS EXHIBIT CRB-10

**UGI Utilities, Inc. - Gas Division**
**Rider D - Merchant Function Charge (MFC) Calculation**

| | | Rate R/RT | Rate N/NT |
|---|---|---|---|
| Total Uncollectible Revenue Requirement | $ 13,654,244 | | |
| Allocator 1/ | | 94.25% | 4.65% |
| Uncollectible Revenue Requirement | | $ 12,869,125 | $ 634,922 |
| Total Proposed Revenue | | $ 593,530,783 | $ 224,769,405 |
| MFC % 2/ | | 2.17% | 0.28% |

1/ The allocator is based on a 3-year average of uncollectible expenses.
2/ The MFC will be applied to bills of customers in Rate Schedules R & N only.

# UGI GAS STATEMENT NO. 2 – STEPHEN F. ANZALDO

**BEFORE THE**
**PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Docket No. R-2019-3015162**

**UGI Gas Utilities, Inc. – Gas Division**

**Statement No. 2**

**Direct Testimony of**
**Stephen F. Anzaldo**

| | |
|---|---|
| **Topics Addressed:** | **Uniform Rate Structure and Riders** |
| | **Budget Process** |
| | **Revenue Requirement** |
| | **Operating Revenues and Expenses** |
| | **Compliance with Act 40 of 2016** |

Dated: January 28, 2020

## I. INTRODUCTION

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

A. My name is Stephen F. Anzaldo. My business address is 1 UGI Drive, Denver, Pennsylvania 17517.

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

A. I am employed by UGI Utilities, Inc. ("UGI") as Director, Rates and Regulatory Planning. UGI is a wholly-owned subsidiary of UGI Corporation ("UGI Corp."). UGI has two operating divisions, the Electric Division ("UGI Electric") and the Gas Division ("UGI Gas" or the "Company"), each of which is a public utility regulated by the Pennsylvania Public Utility Commission ("Commission" or "PUC").

**Q. What are your responsibilities as Director, Rates and Regulatory Planning?**

A. I have overall responsibility for UGI Gas and UGI Electric rate and regulatory filings before federal and state regulatory commissions, as well as the central coordination of regulatory planning. In this capacity, I report directly to the Vice President and General Manager of Rates and Supply of UGI. On behalf of the Rates Department, I am responsible for budgeting/financial planning for UGI, which is a joint effort with the Rates Department (preparing the revenue and margin budgets) and the Financial Planning and Analysis Department (preparing the operating and capital budgets).

**Q. What is your educational background?**

A. I received an undergraduate degree in Accounting from St. Joseph's University and a Master's Degree in Business Administration from St. Joseph's University. I am also a Certified Public Accountant in the Commonwealth of Pennsylvania.

**Q. Please describe your professional experience.**

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

**Q. Have you testified previously before this Commission?**

A. Yes. UGI Gas Exhibit SFA-1 contains a list of those proceedings. Additional exhibits that I am sponsoring are described below.

## II. PURPOSE OF TESTIMONY

**Q. What is the purpose of your testimony?**

A. I am providing testimony on behalf of UGI Gas in support of the Company's proposed revenue requirement. First, I explain the uniform rate structure that was achieved in the Company's last base rate case ("2019 Base Rate Case") (Part III).[1] Second, I provide an overview of the Company's principal accounting exhibits for the historic year ended September 30, 2019 ("HTY"), future year ending September 30, 2020 ("FTY") and the fully projected future test year ending September 30, 2021 ("FPFTY") (Part IV). Third, I explain UGI Gas's budgeting processes (Part V). Fourth, I present UGI Gas's ratemaking presentation for the FPFTY, including its revenues and operating expenses

[1] *Pennsylvania Public Utility Commission (et al.) v. UGI Utilities, Inc. – Gas Division*, Docket No. R-2018-3006814 (the "2019 Base Rate Case").

claims, and certain pro forma adjustments (Part VI). The Company's rate proposal in this case is predicated on its FPFTY exhibit, which demonstrates the need for a revenue increase of $74.6 million. I will also address the Company's compliance with Act 40 of 2016 (Part VII).

**Q. Mr. Anzaldo, are you sponsoring any exhibits in this proceeding?**

A. Yes. In addition to UGI Gas Exhibit SFA-1 mentioned above, I am sponsoring UGI Gas Exhibit A (Fully Projected), UGI Gas Exhibit A (Future), and UGI Gas Exhibit A (Historic). Other Company witnesses present testimony in support of various portions of these exhibits, including rate base (Vivian K. Ressler, UGI Gas St. 3), operating revenue (Christopher R. Brown, UGI Gas St. 1), fair rate of return (Paul R. Moul, UGI Gas St. 7), depreciation expense (John F. Wiedmayer, UGI Gas St. 9), and taxes (Nicole M. McKinney, UGI Gas St. 10). I am also sponsoring certain responses to the Commission's standard filing requirements as indicated on the master list accompanying this filing.

## III. UNIFORM RATE STRUCTURE AND RIDERS

**Q. Prior to the 2019 Base Rate Case, did the Company have consolidated and uniform distribution and purchased gas cost rates?**

A. No.

**Q. Please explain the rate structure that was approved by the Commission in the Company's 2019 Base Rate Case.**

A. In that proceeding, the Company proposed a consolidated revenue requirement and a uniform rate structure to more accurately reflect that its former rate districts were now operated under common management, common practices/procedures, common financing and common systems. UGI Gas witness Christopher R. Brown provides testimony (UGI St. 1) with additional detail/background on the rate unification process. The Commission's Opinion and Order (entered on October 4, 2019) in the 2019 Base Rate Case at Docket No. R-2018-3006814 approved the Company's proposal to consolidate its revenue requirement and to move most rate classes to uniform distribution and purchased gas cost rates. The Company's proposal in this proceeding to complete the rate unification process is also presented by Mr. Brown (UGI Gas St. 1).

## IV. OVERVIEW OF PRINCIPAL ACCOUNTING EXHIBITS

**Q. Please describe the principal accounting exhibits used to support UGI Gas's claims in this proceeding.**

A. UGI Gas Exhibit A (Fully Projected) provides the calculation of the revenue requirement for the FPFTY, including principal accounting exhibits, rate base claims, revenue at present rates, operating expense claims, taxes and certain *pro forma* adjustments. The FPFTY information is derived from UGI Gas's operating and capital budgets for the 12-month period ending September 30, 2021. UGI Gas Exhibit A (Future) is the principal accounting exhibit for the FTY, including certain *pro forma* adjustments. The future year information is derived from UGI Gas's operating and capital budgets for the 12-month period ending September 30, 2020. UGI Gas Exhibit A (Historic) is the principal accounting exhibit for the HTY, with appropriate ratemaking adjustments. The historic year information is derived from the book accounting data for the 12-month period ended September 30, 2019. The future and historic schedules are provided as a benchmark for comparison with the fully projected claim, which, as explained above, is the basis for UGI Gas's proposed revenue increase of $74.6 million.

**Q. Please provide an overview of UGI Gas's principal accounting exhibits.**

A. As noted above, UGI Gas's claims in this case are based on UGI Gas Exhibit A (Fully Projected). This presentation is comprised of four sections:

Section A summarizes UGI Gas's requested *pro forma* rate base, revenues, and expenses at present rates and the calculation of its requested revenue increase.

Section B includes basic accounting data extracted from UGI Gas's financial, accounting, operating and capital budgets, and other records. This data includes a balance sheet, a statement of net operating income and test year revenues, a schedule of expense items by cost element, and a tax expense calculation. Also included are schedules showing UGI Gas's embedded cost of debt, year-end capital structure and overall claimed rate of return.

Section C provides the elements of UGI Gas's rate base claim and how each element of that claim is derived. UGI Gas's rate base includes utility plant in service, gas storage inventory, cash working capital, materials and supplies inventory, and offsets for accumulated depreciation, accumulated deferred income taxes, and customer deposits.

Section D presents UGI Gas's revenues and expenses on a *pro forma* ratemaking basis. Necessary adjustments to budgeted levels of expense items and revenues are summarized in Schedules D-1 through D-2 and detailed in the remaining schedules. The resulting FPFTY expense and revenue levels are shown on

Schedule D-3 and were used to establish UGI Gas's *pro forma* income at present and proposed rates as set forth in Schedule A-1.

**Q. What information is included in UGI Gas Exhibits A (Historic) and A (Future)?**

A. UGI Gas Exhibits A (Historic) and A (Future) follow the format of UGI Gas Exhibit A (Fully Projected), but reflect data for the fiscal year ended September 30, 2019, and the fiscal year ending September 30, 2020, respectively. This information is provided to comply with the Commission's filing requirements and provides a basis for comparing the FPFTY claims with actual and projected results from the HTY and FTY.

**Q. What are the data sources for the UGI Gas Exhibit A (Future) and UGI Gas Exhibit A (Historic)?**

A. This data is derived from UGI Gas's books and records, and capital and operating budgets. UGI Gas Exhibit A (Future) is based on adjusted budgeted data for the FTY. UGI Gas Exhibit A (Historic) is based on adjusted experienced data for the HTY.

## V. <u>BUDGETING PROCESS</u>

**Q. Please explain UGI Gas's budgetary preparation and approval process.**

A. UGI Gas's fiscal year begins on October 1 and ends on September 30 of the following year. Preparation of the UGI Gas Operating Budget for the subsequent fiscal year begins during the spring, *i.e.*, the budget for the October 1, 2019 through September 30, 2020 fiscal year was prepared in the spring and summer of 2019. The revenue portion of the budget is prepared jointly by the Marketing and the Financial Planning and Analysis Departments. This process is discussed in further detail by Mr. Brown (UGI Gas St. 1).

Concurrently, the expense portion of the Operating Budget is prepared. Employee levels are reviewed, and appropriate staffing levels are set for the upcoming fiscal year. Operating and maintenance expenses are developed by each functional manager based upon a review of trends, monthly expenditure patterns, and new or changed programs. The expenses developed by each functional manager are submitted for review and approval by senior management. UGI Gas expenses are then consolidated with charges from affiliated companies, pursuant to Commission-approved affiliate interest agreements, to develop the budgeted Statement of Operations. The final Operating Budget is then submitted to the President and Chief Executive Officer of the Company for his review and approval, and to the Company's Board of Directors for its review and approval. Each element of the UGI Gas Operating Budget is formulated by personnel responsible for that aspect of the operation. The first and primary use of the Operating Budget is as a working tool for the management and planning of the business.

The UGI Gas Capital Budget is prepared in conjunction with the Operating Budget in a similar fashion. Additional information concerning the factors considered in establishing the UGI Gas Capital Budget is provided in the direct testimony of Vicky A. Schappell (UGI Gas St. 6). The Capital Budget is also approved by the Company's Board of Directors.

UGI Gas also has instituted a process for establishing an Operating Budget and a Capital Budget for an additional fiscal year in the future, *i.e.*, the FPFTY. This process is the same as outlined above as related to the development of revenue, expense and capital budgets. However, the starting point for the FPFTY is the FTY budget. Additional projections are also made for emergent new business and changes in other capital expenditures based on past experience and current trends.

**Q. Please explain how expenses from affiliated companies are treated to develop the budgeted Statement of Operations.**

A. UGI Gas incurs costs for services provided by UGI Corp., and other affiliated companies, in accordance with affiliated interest arrangements authorized by the Commission. All costs that can be identified as pertaining exclusively to an operating unit are billed directly to that unit. For UGI Corp., those costs that cannot be directly associated with the operation of an individual operating unit are allocated to the various companies benefiting from the service by a formula internally referred to as the Modified Wisconsin Formula ("MWF"). The MWF achieves an equitable distribution of common expenses based on the relative activity and size of each operating unit to the total of all operating units.

**Q. Do you believe that the charges incurred by UGI Gas under these agreements are reasonably determined?**

A. Yes. These arrangements, and the methods used to allocate the costs to the companies receiving services, have been reviewed by the Commission during various management audits of the Company. These methods are contained within the Company's Cost Allocation Manual ("CAM").

**Q. How is the budget information (developed through the above-described process) used to support UGI Gas's requested revenue increase?**

A. This budget information is the starting point for UGI Gas's claims and is adjusted as appropriate to reflect new information gained since the completion of the budgeting process and through application of other appropriate ratemaking principles.

## VI. <u>FULLY PROJECTED FUTURE TEST YEAR</u>

**Q. How is your discussion of UGI Gas's FPFTY revenue requirement presentation organized?**

A. In Section VI.A., I present a summary of UGI Gas's FPFTY revenue requirement. In Section VI.B., I discuss UGI Gas's proposed rate base. In Section VI.C., I explain the determination of UGI Gas's revenues and operating expenses, depreciation, taxes other than income taxes, income taxes, and the gross revenue conversion factor.

### A. FULLY PROJECTED FUTURE TEST YEAR REVENUE REQUIREMENT

**Q. How were the *pro forma* revenue increase and revenues at proposed rates established?**

A. This calculation is shown at a summary level on Schedule A-1, column 4 of UGI Gas Exhibit A (Fully Projected). Lines 1-9 summarize the *pro forma* measure of value (rate base). Lines 10-20 show *pro forma* revenues at present rates, *pro forma* expenses, taxes at present rates, *pro forma* net operating income at present rates, and the calculated rate of return at present rates. Lines 21-23 show the increase in net operating income required to permit UGI Gas to earn its required overall rate of return of 7.95%. Application of the

Gross Revenue Conversion Factor ("GRCF") on line 24 establishes the revenue increase shown on line 25 needed to generate that net operating income. Column 4 of Schedule A-1 shows the level of the revenue increase and the increase in expenses associated with the revenue increase. Column 5 of Schedule A-1 shows the revenue, expenses, and rate base at proposed rates, as well as the resulting rate of return of 7.95%.

**Q. What is the overall requested increase in revenue?**

A. The overall requested increase in revenue is $74.6 million. This represents the difference between the *pro forma* FPFTY revenue requirement of $950.842 million and the annual level of operating revenues of $876.291 million under existing rates. These figures are shown on line 13 of Schedule A-1 of UGI Gas Exhibit A (Fully Projected).

## B. FULLY PROJECTED FUTURE TEST YEAR RATE BASE

**Q. With reference to UGI Gas Exhibit A (Fully Projected), please discuss how the Company's specific rate base items are determined.**

A. UGI Gas's rate base presentation is shown in UGI Gas Exhibit A (Fully Projected), Schedule C-1. Schedule C-1 summarizes the UGI Gas rate base values for the FPFTY. Column 1 indicates the schedule upon which the calculation of each of the rate base elements is found. Columns 3 and 5 show the amounts at present and proposed rates, respectively. UGI Gas's total FPFTY rate base claim is $2.617 billion. Please see the direct testimony of Vivian K. Ressler (UGI Gas St. 3) for a discussion of the rate base components.

### C. REVENUES AND EXPENSES

**Q. How were revenues at present rates determined?**

A. Revenues at present rates were determined by adjusting the budgeted revenues to reflect the anticipated change in the number of customers, the projected change in existing customer usage, the roll-in of revenues from the Distribution System Improvement Charge ("DSIC"), and other *pro forma* annualizing and normalizing ratemaking adjustments. The net effect of these adjustments is shown in UGI Gas Exhibit A (Fully Projected), Schedule D-5, and is discussed in the direct testimony of Christopher R. Brown (UGI Gas St. 1).

**Q. Please provide an overview of UGI Gas's principal accounting exhibits relative to operating expense claims.**

A. UGI Gas's principal accounting exhibit is UGI Gas Exhibit A (Fully Projected), which includes a presentation for the FPFTY. Section D of UGI Gas Exhibit A (Fully Projected) presents UGI Gas's claims and necessary adjustments to budgeted levels of expense items and revenues. The *pro forma* adjustments related to expense are summarized in Schedules D-3, D-4 and D-6 through D-34. These expense adjustments are used, in part, to derive UGI Gas's *pro forma* income at present and proposed rates as set forth in Schedule D-1.

UGI Gas Exhibits A (Historic) and A (Future) follow the format of UGI Gas Exhibit A (Fully Projected) but reflect data for the appropriate test years ending September 30, 2019 and 2020, respectively. This information is provided in an effort to comport the FPFTY data with the Commission's filing requirements and provides a basis for comparing the FPFTY claims with prior results.

**1. Summary**

**Q. Please describe Schedule D-1 of UGI Gas Exhibit A (Fully Projected).**

A. Schedule D-1 presents a summary income statement that includes UGI Gas's claimed gas revenues, expenses, and taxes at present and proposed rate levels. The direct testimony of Christopher R. Brown (UGI Gas St. 1) addresses the presentation of *pro forma* revenues, adjustments thereto, and the supporting schedules. Schedule D-1 also shows the proposed revenue increase of $74.6 million on line 5 in column 2.

**Q. What is the level of net income at proposed rates?**

A. As shown on column 3, line 21, this amount is $208.029 million. This represents a $52.192 million increase from the level under current rates ($155.837 million), as shown on line 21 in column 1 of Schedule D-1.

**Q. Please describe Schedule D-2.**

A. Schedule D-2 shows the development of the various line items found on Schedule D-1. Column 2 contains the Company's budgeted level of revenues and expenses for the 12-month period ending September 30, 2021. Column 3 shows adjustments to the column 2 figures, where applicable, to reflect various annualization and/or normalization adjustments. Column 4 is the sum of columns 2-3. The amount of the revenue increase and related expenses are shown in column 5 with the resulting revenues and expenses at proposed rates shown in column 6.

**Q. Are there schedules showing the derivation of the adjustments shown in Schedule D-2, column 3?**

A. Yes. The derivation of the various column 3 revenue adjustments is included in UGI Gas Exhibit A (Fully Projected) in summary fashion on Schedule D-3, page 1, lines 1-14, and then listed by individual adjustment on Schedule D-5. Customer charge and distribution rate revenue adjustments for each customer class are shown on lines 1-5 of Schedule D-3. Gas Cost revenue adjustments for each customer class are shown on lines 6-10 and details of other revenue adjustments are shown on lines 11-14 of Schedule D-3. Details for each revenue adjustment are shown in Schedules D-5 (including supporting Schedule D-5A) and are discussed in the direct testimony of witness Christopher R. Brown (UGI Gas St. 1). Regarding *pro forma* expenses, the derivation of the various adjustments are summarized individually on pages 1-2 of Schedule D-3, lines 16-55. The details for these adjustments are found in Schedules D-4 and D-6 through D-31.

### 2. Operating Expense

**Q. How were the claimed operating expenses for the FPFTY determined?**

A. *Pro forma* FPFTY expenses are based on the budgeted level of expenses as a starting point. The budgeted data, by FERC account, was then adjusted in accordance with Commission precedent and generally accepted ratemaking principles to reflect a normal, ongoing level of operations. Schedules supporting those adjustments are found in UGI Gas Exhibit A (Fully Projected), Section D.

**Q. Does UGI Gas budget its operating expenses by FERC account?**

A. Yes, it does. UGI Gas budgets its operating expenses both by FERC account and by General Ledger account, such as salaries and wages, employee benefits, rent, etc. This is shown in Schedule B-4 and is the starting point to determine the FPFTY adjusted operating expenses shown on Schedule D-3.

**Q. Were each of the *pro forma* adjustments reflected on Schedule D-3 also charged to an appropriate FERC account?**

A. Yes. Each *pro forma* adjustment was calculated based on the appropriate cost element and then distributed to FERC accounts directly or by using the ratio used to distribute the budgeted cost for that element.

**Q. Does Schedule D-3 depict the *pro forma* expense adjustments using FERC accounts?**

A. Yes. These *pro forma* expense adjustments are presented by major FERC account category. These adjustments are also shown in the Section D summary schedules.

**Q. Schedule D-3 to UGI Gas Exhibit A (Fully Projected) shows an adjustment to Gas Costs in column 4. Please discuss this adjustment.**

A. The detail for this adjustment is shown in Schedule D-6. This adjustment is designed to decrease purchased gas cost expense by the same amount of the gas cost revenue adjustment recommended in the direct testimony of Christopher R. Brown (UGI Gas St. 1) and as shown on Schedule D-5, column 4, lines 7-12. UGI Gas recovers its gas costs on a dollar for dollar basis with no profit through an automatic adjustment clause mechanism pursuant to Section 1307(f) of the Public Utility Code. Therefore, the reduction in purchased gas costs of $42.128 million equals the reduction in gas cost revenue as recommended by Mr. Brown. Thus, the purchased gas cost expense has no effect on net operating income.

**Q. Please discuss the Salaries and Wages adjustment shown on Schedule D-7 in the amount of $1.107 million.**

A. Schedule D-7, Col. 4 shows a $1.107 million increase to budgeted salaries and wages to reflect end of FPFTY operating conditions. This adjustment annualizes payroll expense and is distributed among the various cost accounts. Page 2 of Schedule D-7 shows the development of this adjustment.

**Q. Please describe the annualization adjustment.**

A. This adjustment annualizes the effect of wage increases for unionized, exempt and non-exempt employees that will take place during the FPFTY. Schedule D-7, page 2, line 2 reflects the increase percentages for each classification of employee. Lines 3 through 5 indicate the percentage of the year for which the salaries and wages increases are not reflected in the budget.

**Q. How did you determine the split of the budgeted salaries among the various employee classifications shown on Schedule D-7?**

A. The split of the budgeted salaries among the various classifications shown on Schedule D-7, page 1, was determined using the allocations of labor for Operating and

Maintenance expense in the budget. These employee groupings are the same groupings utilized in developing the labor budget. These categories were used in UGI Gas's budgeting process for the operating expense portion of salaries and wages.

**Q. Please describe any other salary and wage adjustments shown on Schedule D-7?**

A. Schedule D-7, Col. 2 shows an adjustment to salaries and wages in the amount of $1.757 million. The first adjustment in Col. 2, line 4 in the amount of $1.098 million is presented on Schedule D-9 and represents adjustments for Emergency Response Supervisor Compensation and an adjustment to reflect revisions to the 2021 Incentive Bonus Plan. Both of these adjustments are discussed in more detail in the direct testimony of Christopher R. Brown (UGI Gas St. 1). The second adjustment in Col. 2, line 8 in the amount of $659,000 is presented on Schedule D-17 and represents seven (7) new positions added to support implementation of some of the recommendations outlined in the recent Management and Efficiency Audit. This adjustment is discussed further in the testimony of Vivian K. Ressler (UGI Gas St. 3).

**Q. What adjustments are shown on Schedule D-8?**

A. As the Company has in past rate cases, the three adjustments shown in Schedule D-8 are designed to reconcile past Environmental Remediation expense rate recoveries with actually incurred costs and to recover a projected annual level of Environmental Remediation expense. These costs are incurred in connection with UGI Gas's obligations under three Consent Order Agreements ("the COAs") with the Pennsylvania Department of Environmental Protection. The Company's remediation activities under the COAs are discussed in the testimony of Joseph R. Kopalek (UGI Gas St. 5).

**Q. Please describe the first of the three remediation expense adjustments shown on Schedule D-8.**

A. The first adjustment is intended to provide the Company with normalized ratemaking recovery of ongoing annual cash expenditures primarily to remediate former manufactured gas plant ("MGP") sites in accordance with the COAs. This is the amount the Company anticipates it will spend in the FPFTY in accordance with the COAs. The annual amount is based on taking the average of the last three years of cash expenditures for remediation expense under the COAs ($5.154 million), less the amount budgeted by the Company ($4.188 million), or $966,000. As the amount budgeted is the normalized amount UGI recovered in the most recent previous base rate case, it does not properly reflect the amount we are likely to incur during the FPFTY. As a result, as in past cases, the Company has chosen to normalize the expenditure based on our recent actual experience.

**Q. Please describe the second of the three adjustments shown in Schedule D-8.**

A. The second adjustment shows that the Company's annual amortization of the principal balance of under-recovered MGP expense, approved in the 2019 Base Rate Case, matches the amount budgeted for that item. In the 2019 Base Rate Case, the Company was authorized to amortize $8.103 million over a 5-year period, or $1.62 million per year. By the time rates are established in this proceeding, one year of that amortization period will have expired. Therefore, the remaining balance (*i.e.*, $6.482 million) will be amortized over the remaining 4-year period. At the same time, the Company budgeted the same annual amount (*i.e.*, $1.621 million) for expense purposes. Accordingly, no additional funds are needed for this item.

**Q. How is the amount to be amortized in the second remediation expense adjustment determined?**

A. This calculation is shown on Schedule D-8, at lines 7-12. The unrecovered expenditures (line 9) represents the actual difference between: (a) the amount approved for recovery in the last rate case; and (b) the Company's budgeted amount. As the amount of the annual amortization has been budgeted at the same level, no adjustment is necessary.

**Q. Please discuss the third calculation at the bottom of Schedule D-8 entitled Environmental #3.**

A. This calculation appears on Schedule D-8, lines 13-17. It shows that the Company under recovered its MGP remediation expense incurred since the last rate case, by comparing the actual fiscal year 2019 remediation costs with the normalized level authorized in 2019 Base Rate Case. The unrecovered expenditures (line 15) will be recovered over a one-year amortization period through fiscal year 2022 as that is the period over which the principal amount accrued and the period of time until the Company's next base rate case.

**Q. Which ratemaking amount is used to determine the future years' costs subject to reconciliation in the next rate case?**

A. That amount is the annual amount derived from the first of the two adjustments in Schedule D-8, or $5.154 million, which is the normalized amount indicative of our experience over the past three years. Any future years' variance of actual annual expenditures from that figure, whether it represents annual spending of less than or greater than that amount, will be credited to customers (in the case of an overcollection) or recovered from customers (in the case of an undercollection).

**Q. Please discuss Schedule D-10, which shows an adjustment for Rate Case Expense.**

A. Lines 1 through 3 show the rate case expense UGI Gas expects to incur in this case $1.077 million. That amount is then normalized over a one-year period reflecting the expected period between future base rate case filings. The rate case expense is incurred in the FTY, but is not budgeted in the FPFTY. The FPFTY budget, therefore, was increased by $1.077 million to reflect a normal annual level of rate case expense. We believe that UGI Gas will make another rate case filing within a year of the conclusion of this base rate proceeding, given the significant capital investments the Company is anticipating for the year following the FPFTY.

**Q. Please elaborate on the Company's anticipated need for another rate case approximately one year from now.**

A. In this case, the Company's total projected capital investment for the FPFTY period is $373 million. Moreover, the Company anticipates an increase to capital investments for the year following the FPFTY. While some of these investments relate to growth and are self-funding, approximately $300 million relate to infrastructure and IT modernization investments and will require commensurate, timely, rate recovery. All else being equal, a $100 million increase in gross plant alone equals an $11 million deficiency in revenue, thus, triggering the need for rate relief.

**Q. What is the nature of the adjustment shown in Schedule D-11 for Uncollectible Accounts Expense?**

A. Schedule D-11 adjusts the budgeted uncollectible accounts expense to reflect an average charge-off ratio. Lines 1 through 4 of Schedule D-11 develop this adjustment by showing a ratio that represents the three-year average rate of uncollectible accounts expense for the fiscal years 2017 to 2019. This ratio is used to adjust the amount of uncollectible expense in the budget to conform to the three-year average. The resulting 1.546 percent ratio shown on line 4 in column 5 is applied on line 7 to the *pro forma* revenues at present rates to calculate the *pro forma* uncollectible accounts expense of $13.528 million shown in column 4 on line 7. This results in an increase in the level of uncollectible accounts expenses for the FPFTY from the budgeted amount of $12.603 million as shown on line 5. The 1.546 percent figure is then applied to determine the level of uncollectible accounts expense at *pro forma* proposed rates through the gross revenue conversion factor, as shown in column 3, line 2 of Schedule D-35.

**Q. Please explain the adjustment in the amount of $1.718 million shown on Schedule D-14.**

A. The adjustment shown on Schedule D-14 reflects an update of estimated pension expense prepared after the budget was finalized. The updated pension expense estimate is based on a more recent actuarial calculation than was used in the budget and reflects the cash to be contributed to the plan in the FPFTY. The amounts reflected in the calculation for the pension adjustment include those directly attributable to the UGI Gas pension in addition to the portion of the UGI Corporate Center expense and the pension expense allocated to UGI Gas.

**Q. Please discuss the *pro forma* adjustment on Schedule D-15 for Injuries and Damages.**

A. The amount of expense incurred for injuries and damages in any one year can vary based on the quantity and severity of the claims. The budgeted amount for injuries and damages, $493,000, is shown on line 5 of Schedule D-15. This amount was compared to the three-year average of injuries and damages expenses of $407,000 calculated on lines 1-4 to arrive at a decrease in injuries and damages expense of $86,000 as shown on line 6.

Q. **Please discuss the *pro forma* adjustment on Schedule D-15 for Membership Fees.**

A. The Company budgeted the full amount of the anticipated expenses for the American Gas Association and the Energy Association of Pennsylvania in membership expenses. A portion of these industry association fees relate to lobbying activities and are excluded from UGI Gas's membership expense claim. The amounts on lines 7 and 8 of Schedule D-15 represent the percentage of expenses for lobbying activities based on the HTY applied to the budgeted expenses for each organization. Line 9 on Schedule D-15 shows the total adjustment to remove lobbying expenses and other non-allowable expenses in the amount of $28,000. Otherwise, these memberships provide the Company and its customers with operational, customer service, and other service related benefits.

**Q. Please discuss the Customer Accounts Expense Adjustment.**

A. This adjustment includes a component to recover unbudgeted interest on customer deposits.

**Q. The Customer Accounts Expense Adjustment shown on Schedule D-15 shows a $1.003 million cost item for Interest on Customer Deposits at line 10. Please explain.**

A. The Company is required to pay interest on Customer Deposits it holds in accordance with its tariff requirements. As this is a typical business expense, the Company has added this amount to its expense claim that is otherwise not reflected in the operations budget. It is calculated by using the average level of customer deposits anticipated for the FPFTY (*i.e.*, $22.290 million) times the required interest rate (4.50 percent) anticipated for the FPFTY, as published by the Pennsylvania Department of Revenue and as required under the Company's tariff.

**Q. Please discuss the *pro forma* adjustment on Schedule D-16 for Universal Service expense.**

A. This adjustment normalizes the amount of Universal Services program expense recovered through the Company's USP Rider based on the level of the Universal Service Rider charge effective at the time of the Company's filing in this matter. The USP Rider recovers the Company's Customer Assistance Program ("CAP") Credits, Pre-Program Arrearages, third party administrator expense, LIURP expense, and administrative costs associated with its Project Share program. The Company's claim represents the ongoing normalized level of costs based on anticipated levels of CAP program participation. This adjustment increases the Company's budgeted expense by $2.921 million, to align the Company's current Universal Service Rider charge. As the USP Rider is a fully reconcilable rider, the USP adjustment assures that expenses related to the existing rider are aligned with revenues and no impact related to USP flows through to the revenue requirement calculation.

**Q. Please explain the adjustment for Management Efficiency Audit Implementation as shown on Schedule D-17.**

A. The first part of the adjustment shown on Line 3 reflects a $659,000 salary and wage increase attributable to seven (7) new unbudgeted positions added during the FTY (FY 2020) to assist in the implementation of some of the recommendations reflected in the recent Management Efficiency Audit ("MEA"). The amount on Line 4 represents the employee benefits in the amount of $236,000 calculated on these new positions at a fully-loaded rate of 38 percent. The second part of this adjustment in the amount of $465,000 shown on Lines 5-8 represent the additional operating expenses required for MEA implementation. These adjustments are discussed in more detail in the testimony of Vivian K. Ressler (UGI Gas St. 3).

**Q. Please explain the adjustment for Energy Efficiency and Conservation ("EE&C") Programs shown on Schedule D-19.**

A. The first part of the adjustment shown on Line 3 reflects a $307,000 cost reduction related to the Company's EE&C Program to reflect the updated 2021 program costs, which are lower than budgeted program costs. The second part of the adjustment reflects an additional expense adjustment in the amount of $1.048 million. As with the USP Rider adjustment discussed earlier in my testimony, this adjustment aligns the amount of EE&C expense with the EE&C Rider charge (based on the level of the EE&C Rider charges effective at the time of the Company's filing in this matter). Christopher R. Brown (UGI Gas St. 1) provides the detailed calculation of the FPFTY EE&C Rider revenue. As the EE&C Rider is a fully reconcilable rider, the EE&C adjustment assures that expenses related to the existing rider are aligned with revenues and no impact related to EE&C flows through to the revenue requirement calculation.

### 3. Depreciation Expense

**Q. How was the level of depreciation expense for the FPFTY determined?**

A. UGI Gas's depreciation study is set forth in UGI Gas Exhibit A (Fully Projected) and shows the determination of *pro forma* depreciation expense. This study uses the FPFTY plant in service and the applicable depreciation rates, service lives, and procedures. A summary of the budgeted depreciation expense and adjustments thereto is found in UGI

Gas Exhibit A (Fully Projected), Schedule D-21, and is further explained in the direct testimony of John F. Wiedmayer (UGI Gas St. 9).

**Q. Please describe the depreciation expense adjustments shown on Schedule D-21.**

A. UGI Gas witness Mr. Wiedmayer (UGI Gas St. 9) presents the depreciation analysis that serves as the foundation of the depreciation adjustment. The adjustment for depreciation expense of $6.361 million set forth on Schedule D-21, page 2, column 3, line 64, annualizes budgeted FPFTY depreciation expense to calculate an entire year's worth of depreciation on plant in service (as of the end of the FPFTY). This schedule also shows an increase to the net negative salvage amortization of $22,000. The total annualized depreciation expense for the FPFTY, net of costs charged to clearing accounts and net salvage amortization, is $112.511 million (as shown on Schedule D-3, page 2, column 13, line 54).

#### 4. Taxes other than Income Taxes

**Q. Please describe the taxes other than income adjustments shown on Schedule D-31.**

A. Schedule D-31 contains the details for taxes other than income adjustments. The adjustments to the payroll tax expenses on lines 4-6 are calculated by multiplying the ratio of tax expense to payroll expense included in the FPFTY budget by the amount of the payroll adjustment derived in Schedule D-7. This produces an adjustment to the amount of social security, Federal Unemployment Tax ("FUTA") and State Unemployment Tax ("SUTA") expense in the amount of $212,000. The calculation of these adjustments is shown in more detail on Schedule D-32. The other components of this schedule are supported in the testimony of Nicole M. McKinney (UGI Gas St. 10).

### 5. Income Taxes

**Q. What is the purpose of Schedules D-33 and D-34?**

A. These schedules show the derivation of the Company's pro forma income tax expense claim, including the normalization of the effects of accelerated tax depreciation, as discussed in the direct testimony of Nicole M. McKinney (UGI Gas St. 10).

### 6. Gross Revenue Conversion Factor

**Q. What is the purpose of Schedule D-35?**

A. Schedule D-35 shows the calculation of the Gross Revenue Conversion Factor used on Schedule A-1 to calculate the level of revenues required to achieve the net operating income required to generate the rate of return supported by the direct testimony of Paul R. Moul (UGI Gas St. 7). These additional revenues are required to recognize that uncollectible accounts expense vary with the level of revenue, and to recognize the additional state and federal income taxes attributable to the proposed rate increase.

## VII. ACT 40 REQUIREMENTS

**Q. Mr. Anzaldo, are you familiar with Section 1301.1 of the Public Utility Code, which is otherwise known as Act 40 of 2016?**

A. Yes, I am. The legislation, among other things, eliminated the use of consolidated tax savings adjustments for setting rates for public utilities in Pennsylvania. It requires a utility to demonstrate that it shall use at least 50 percent of what otherwise would have been the revenue requirement associated with a consolidated tax savings adjustment to support reliability or infrastructure related to the rate-base eligible capital investment and that the other 50 percent shall be used for general corporate purposes. My understanding is predicated in part on the advice of counsel.

**Q. Has the Company calculated what would have been the ratemaking level of a consolidated tax savings adjustment for UGI Gas prior to the enactment of Section 1301.1 of the Public Utility Code?**

A. Yes, Company witness Nicole McKinney presents such a calculation in her testimony (UGI Gas St. 10). As of October 1, 2018, UGI Penn Natural Gas, Inc. ("PNG") and UGI Central Penn Gas, Inc. ("CPG") merged into UGI Utilities, Inc. – Gas Division. As such, the Company's consolidated taxable income was $0. Based on Ms. McKinney's calculation of the net negative taxable income of the three merged entities, the amount of consolidated tax savings adjustment applicable to UGI Gas would have been $0.

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

A. Yes, it does.

**UGI GAS EXHIBIT SFA-1**

Stephen F. Anzaldo
Director – Rates and Regulatory Planning

Work Experience

| | |
|---|---|
| 2015 – current | Director – Rates and Regulatory Planning<br>UGI Utilities, Inc., Denver, PA |
| 2011 – 2013 | Director – FP&A, Mid-Atlantic Region<br>American Water Works Company, Inc., Hershey, PA |
| 2009 – 2011 | Vice President - Finance<br>Pennsylvania American Water Inc., Hershey, PA |
| 2006 – 2009 | Treasurer<br>Aqua America Inc., Bryn Mawr, PA |
| 2004 – 2006 | Assistant Treasurer<br>Aqua America Inc., Bryn Mawr, PA |
| 1996 – 2003 | Accounting Manager<br>Trigen-Philadelphia Energy Corp., Philadelphia., PA |
| 1991 – 1996 | Financial Planning Manager<br>Trigen-Philadelphia Energy Corp., Philadelphia., PA |
| 1985 – 1991 | Corporate Accountant<br>General Waterworks Corporation, King of Prussia, PA |
| 1983 – 1985 | Certified Public Accountant<br>Cogen, Sklar, Levick & Company, Bala Cynwyd, PA |
| 1981 - 1983 | Certified Public Accountant<br>Morris J. Cohen & Company, Philadelphia, PA |

Previous Testimony

| | |
|---|---|
| Default Service Plan: | Docket Nos. P-2016-2543523, G-2016-2543527 |
| UGI Electric Base Rate Case: | Docket No. R-2017-2640058 |
| UGI Gas Base Rate Case: | Docket No. R-2018-3006814 |
| UGI Electric DSIC Petition: | Docket No. P-2017-2619834 |

Education

MBA - Finance from St. Joseph's University, 1998
B.S. in Accounting from St. Joseph's University, 1981
Certified Public Accountant - Commonwealth of Pennsylvania

**UGI GAS STATEMENT NO. 3 – VIVIAN K. RESSLER**

**BEFORE THE**
**PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Docket No. R-2019-3015162**

**UGI Utilities, Inc. – Gas Division**

**Statement No. 3**

**Direct Testimony of**
**Vivian K. Ressler**

| | |
|---|---|
| **Topics Addressed:** | **Accounting for Historic Costs**<br>**Rate Base Claim**<br>**Accounting for Information Technology Costs**<br>**Adjustments for Management Efficiency Audit** |

Dated: January 28, 2020

**I.** **<u>INTRODUCTION</u>**

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

A. My name is Vivian K. Ressler. My business address is 1 UGI Drive, Denver, Pennsylvania 17517.

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

A. I am employed by UGI Utilities, Inc. ("UGI") as Manager of Technical Accounting and Controls. UGI is a wholly-owned subsidiary of UGI Corporation ("UGI Corp."). UGI has two operating divisions, the Electric Division ("UGI Electric") and the Gas Division ("UGI Gas" or the "Company"), each of which is a public utility regulated by the Pennsylvania Public Utility Commission ("Commission" or "PUC").

**Q. What are your responsibilities as Manager of Technical Accounting and Controls?**

A. I have responsibility for the Sarbanes-Oxley ("SOX") controls (design and testing) and application of accounting guidance for UGI. My duties also include the coordination of these functions with UGI's Controller and Chief Financial Officer as well as financial accounting and reporting personnel at UGI Corp.

**Q. Please describe your educational background and work experience.**

A. My full educational background and work experience are set forth in my resume attached as UGI Gas Exhibit VKR-1.

**Q. What is the purpose of your testimony?**

A. I am providing testimony on behalf of UGI Gas in support of the Company's rate case accounting methodology. First, I will explain UGI Gas's accounting processes, which were used to develop the actual book accounting results used in the Company's historic test year ended September 30, 2019 ("HTY") (Part II).[1] Second, I will present the Company's claim for rate base for the FPFTY (Part III). Third, I will explain the accounting for certain Information Technology costs (Part IV). Finally, I will explain certain budget adjustments that the Company is making in response to recommendations set forth in the Company's most recent Management and Operations Audit. (Part V).

**Q. Ms. Ressler, are you sponsoring any exhibits in this proceeding?**

A. Yes. In addition to UGI Gas Exhibit VKR-1, I am sponsoring those portions of UGI Gas Exhibit A (Fully Projected), UGI Gas Exhibit A (Future) and UGI Gas Exhibit A (Historic) that address rate base and certain adjustments to rate base and operating expenses discussed later in my testimony. I am also sponsoring certain responses to the Commission's standard filing requirements as indicated on the master list accompanying this filing.

## II. ACCOUNTING PROCESS AND HISTORIC COSTS

**Q. How are the accounting records of UGI Gas maintained?**

A. The accounting records of UGI Gas are kept in accordance with generally accepted accounting principles ("GAAP") and the FERC's Uniform System of Accounts as

[1] The future test year ending September 30, 2020 ("FTY") and fully projected future test year ending September 30, 2021 ("FPFTY") budgets are discussed in the direct testimony of Stephen F. Anzaldo (UGI Gas St. No. 2).

required under the provisions of 52 Pa. Code § 59.42. The Company also maintains a continuing property records system in accordance with the requirements of 52 Pa. Code § 59.47.

**Q. Are the books and records of UGI Gas subject to audit?**

A. Yes. The books and records of UGI Gas are audited by the Company's internal auditors. In addition, UGI Gas's books and records are included in Company-wide audits of UGI Utilities, Inc., performed by its external auditor, Ernst & Young, LLP. They are also subject to audit by the PUC.

**Q. Do the continuing property records of UGI Gas reflect the original cost value of property?**

A. Yes, they do. UGI Gas's plant in service, plant additions, retirements, and book adjustments have been recorded on an original cost basis in accordance with GAAP and the Uniform System of Accounts requirements.

**Q. What process does UGI Gas follow to assure that property reflected in its plant accounts is in service?**

A. UGI Gas requires field personnel to create a record when property is placed into service or retired. The information from these records is then transferred through accounting entries into the appropriate UGI Gas plant property accounts, subject to review by authorized individuals who must approve the entries and further review by internal and external auditors.

**Q. How was the Company's accounting process used in preparing the Company's filing?**

A. The above-described accounting process was used to prepare the principal accounting exhibits that support UGI Gas's claim in this proceeding. As discussed in the direct testimony of Company witnesses Christopher R. Brown (UGI Gas St. No. 1) and Stephen F. Anzaldo (UGI Gas St. No. 2), the Company's claim is based on the FPFTY. The accounting data for the FPFTY was derived from UGI Gas's operating and capital budgets for the 12 months ending September 30, 2021, as shown in UGI Gas Exhibit A (Fully Projected). The accounting data for the HTY and FTY was derived from UGI Gas's books and records, and capital and operating budgets for the 12 months ending September 30, 2019 and September 30, 2020, respectively. UGI Gas Exhibit A (Future) is based on adjusted budgeted data for the FTY. UGI Gas Exhibit A (Historic) is based on adjusted experienced data for the HTY.

## III. FULLY PROJECTED FUTURE TEST YEAR RATE BASE

**Q. With reference to UGI Gas Exhibit A (Fully Projected), please discuss how the Company's specific rate base items are determined.**

A. UGI Gas's rate base presentation is shown in UGI Gas Exhibit A (Fully Projected), Schedule C-1. Schedule C-1 summarizes the UGI Gas rate base values for the FPFTY. Column 1 indicates the schedule upon which the calculation of each of the rate base elements is found. Columns 3 and 5 show the amounts at present and proposed rates, respectively. UGI Gas's total FPFTY rate base claim is $2.6 billion. Except where otherwise noted, I will describe each of these rate base elements in greater detail below.

## A. UTILITY PLANT IN SERVICE

**Q. Please explain how UGI Gas determined its FPFTY rate base value for plant in service.**

A. UGI Gas's claim for utility plant in service represents the sum of the closing plant balances as of September 30, 2019, and budgeted plant additions for the years ending September 30, 2020 and September 30, 2021, less budgeted FTY and FPFTY plant retirements. The direct testimony of Company witness Vicky A. Schappell (UGI Gas St. No. 6) discusses the capital addition planning process and the basis for the plant additions in the FTY and FPFTY.

**Q. Please describe Schedule C-2 to UGI Gas Exhibit A (Fully Projected).**

A. This schedule includes 9 pages and presents UGI Gas's FPFTY claim of $4.32 billion for used and useful gas utility plant in service, as shown on page 2, column 2, line 64. Gas utility plant enables UGI Gas to provide safe and reliable gas service to its customers.

**Q. How was the gas utility plant in service amount of $4.32 billion shown on Schedule C-2, page 2, column 2, line 64 determined?**

A. As noted above, this amount is based on the *pro forma* balance as of September 30, 2021. The amount includes: (1) utility plant in service as of September 30, 2019 and (2) budgeted capital expenditures expected to close to plant for the 12-month periods ending September 30, 2020 and 2021, less plant retirements during the same period.

**Q. Please describe what information is shown on Schedule C-2, page 3.**

A. This information provides a summary of UGI Gas's *pro forma* claim for utility plant in service by service category. Column 2 shows the FPFTY ending balances based on the budget; column 3 shows the net effect of the various plant adjustments, if any; and column 4 provides the adjusted FPFTY plant in service.

**Q. What information is included on Schedule C-2, pages 4-7?**

A. Columns 2 and 3 on these pages show the gas plant in service balances for 2020 and 2021 based on the budget, plus the amount of plant additions budgeted as of the end of the FPFTY. Column 5 provides the ending FPFTY plant balance.

**Q. Where is the information for FPFTY and FTY retirements shown?**

A. Pages 8-9 of Schedule C-2 provide actual and projected plant retirements. Retirements for most plant accounts were projected by plant account by applying the average retirement rate, as a percent of additions, for the five years 2015 through 2019, to the FPFTY and FTY plant additions. For certain General Plant accounts subject to amortization accounting, retirements are recorded when a vintage is fully amortized. For these accounts, all units are retired per books when the vintage is fully amortized.

## B. ACCUMULATED DEPRECIATION

**Q. Please explain how UGI Gas determined its rate base value for accumulated depreciation.**

A. UGI Gas started with accumulated depreciation as of September 30, 2019, added the budgeted level of depreciation expense for the FTY and FPFTY, and calculated the impact of the FTY and FPFTY plant retirements and a provision for net salvage as shown on Schedule C-3. The depreciation rates and test year expense levels are discussed in the direct testimony of John F. Wiedmayer (UGI Gas St. No. 9), with the underlying FPFTY depreciation analysis provided in UGI Gas Exhibit A (Fully Projected).

**Q. Please describe UGI Gas's accumulated depreciation claim.**

A. UGI Gas's accumulated depreciation claim is shown on Schedule C-3 of UGI Gas Exhibit A (Fully Projected). This schedule, containing 11 pages, presents the accumulated provision for depreciation as of September 30, 2021, distributed among the various FERC accounts. The total amount for accumulated depreciation, $1.160 billion, is summarized on pages 1-2 of this schedule. That amount also is reflected on line 2 of the measure of value summary on Schedule C-1.

Page 3 of Schedule C-3 shows the *pro forma* FPFTY level of accumulated depreciation distributed to the various plant categories. Pages 4-5 show the details of the accumulated depreciation by FERC account for fiscal year 2020 and 2021 based on budget. Pages 6-7 show the cost of removal by FERC account. Pages 8-9 show the negative net salvage amortization by FERC account. Pages 10-11 include the salvage amounts for the FPFTY. All of these amounts are included in the FPFTY accumulated depreciation calculations. The amortization of negative net salvage was calculated using a 5-year amortization schedule in accordance with Commission precedent.

**Q. Are there adjustments to the budgeted amounts for accumulated depreciation?**

A. Yes. The accumulated depreciation calculation appears on page 3, lines 1-7, of Schedule C-3. Specifically, it represents the sum of the prior period's balance for each plant category plus current year depreciation expense adjustments (which appears in column 2). The adjustments (in column 3) include other changes to accumulated depreciation (e.g., primarily retirements) and the final balance of accumulated depreciation is shown in column 4. These adjustments are shown by FERC account in column 4 on Schedule C-3, pages 4 and 5. The total accumulated depreciation amount of $1.160 billion appears on line 8, column 4, of Schedule C-3 (page 3).

### C. CASH WORKING CAPITAL

**Q. Please explain how UGI Gas determined its rate base value for cash working capital ("CWC").**

A. CWC is the capital requirement arising from the difference between (1) the lag in the receipt of revenue for rendering service and (2) the lag in the payment of cash expenses incurred to provide that service, as shown in Schedule C-1. A detailed analysis of UGI Gas's CWC requirements is provided in Schedule C-4.

**Q. What data is shown on page 2 of Schedule C-4?**

A. Page 2 summarizes the derivation of UGI Gas's revenue collection lag and overall expense payment lag. The total revenue lag days *(i.e.*, 57.65) are shown on line 1 and the expense lag days are shown for each component on lines 3-5, which amount to 32.71 (on line 7). The net lag in the collection of revenue is 24.94 days as shown on line 8. This number is then multiplied by the average daily operating expense balance on line 9 to arrive at a base cash working capital amount for Operation and Maintenance ("O&M") expense of $37.958 million (on line 10). The average daily expense balance of $1.522 million shown on line 9 is determined by dividing the total *pro forma* annual operating expenses, excluding uncollectible accounts expense, of $555.451 million, as shown on line 6 of column 2, by the number of days in a year, or 365. I will describe the other components of the CWC claim when I discuss the related schedules.

**Q. Please describe the revenue lag calculation shown on Schedule C-4, page 3.**

A. The Company's calculation for the total revenue lag days of 57.65 (line 23) is comprised of several steps. First, the Company divided the annual revenue billed during the year (line 18, column 3) by the average month-end accounts receivable balances for the thirteen months ended September 30, 2019 (line 17, column 2). This resulted in an accounts receivable turnover rate of 8.84 (line 19, column 4), which is equivalent to 41.29 lag days (line 20, column 5) (*i.e.*, 365 divided by 8.84 accounts receivable turnover rate). As shown on lines 20-23, the payment portion of the revenue lag is added to: (1) the 1.15 day lag between the meter reading day and the day bills are sent out and recorded as revenue and accounts receivable by the Company (appearing on line 21); and (2) the 15.21 midpoint lag factor, which is the time from the mid-point of the service period until the meter reading date (appearing on line 22). This calculation results in a total revenue lag of 57.65 days.

**Q. How was the mid-point of the service period calculated?**

A. The mid-point of the service period is equal to the number of days in an average service month (365 days divided by 12, or 30.42 days) divided by two (15.21 days).

**Q. How were the payroll expense lag days for the CWC claim calculated?**

A. This calculation is shown on page 4 of Schedule C-4, lines 1-6. The payroll amounts shown there reflect the payroll for the FPFTY, which is shown on Schedule D-7. The lag periods for union and non-union payroll are shown separately on page 4 of Schedule C-4, lines 1-2, based on a bi-weekly pay period. The lag days are calculated based on 14 days in the pay period divided by 2 (for an average) with a 5 day payroll processing time period added, resulting in a 12 day lag period.

**Q. How were the lag days associated with the purchased gas costs shown on Schedule C-4, page 4, line 8 calculated?**

A. This calculation is shown on page 6 of Schedule C-4, and is based on a review of gas purchases during the 12-month period of October 2018 through September 2019. The total dollar amount of gas purchased during this period was $403.880 million (on line 13). The average payment lag was calculated by dividing the total dollar days for purchased gas costs (or $15,910.729 million) by the total dollar amount of gas purchased (or $403.880 million), which equals 39.39 days (on line 14). The payment lag was determined using the midpoint of the service period for each of the payments and the payment date for each, averaged over the 12-month study period.

**Q. How was the Other O&M Expenses payment lag days, shown on Schedule C-4, page 4, line 22, calculated?**

A. The calculation for the Other O&M Expenses payment lag days is shown on page 5 of Schedule C-4. The average payment lag for all remaining expenses was derived from data over twelve months (October 2018 – September 2019), as shown in more detail on page 5 of Schedule C-4. A summary list of all cash disbursements during each of these months was used. The summary list was created using a format that includes the payee, the invoice date, the amount of the disbursement, the date the payment was made and other data associated with the disbursements. As shown on Schedule C-4, page 5, lines 1-24, columns 1 and 2, each month's listing contained numerous cash disbursements. Once the raw payment data was assembled, the dollar days (in column 3) were determined by multiplying the amount of the disbursement by either (i) the number of days from invoice date until bank clearance for wire and Automated Clearing House ("ACH") payments, or (ii) the number of days from the invoice date until check date, plus seven days for payments made by check. Disbursements were eliminated if they were included in another calculation (*e.g.*, gas commodity purchases), capital items, and other non-expense amounts. The lag days of 31.87 (column 4, line 25) for Other Disbursements is calculated on Schedule C-4, page 4, line 22 and brought forward to Schedule C-4, page 2, column 3, line 5.

**Q. Please explain how the interest payment amount (for working capital) on line 2 of Schedule C-4, page 1, was determined.**

A. The calculation of this amount is shown on Schedule C-4, page 7. This calculation measures the lag associated with the payment of interest on outstanding debt. The *pro forma* annual interest expense shown on line 4 (*i.e.*, $55.113 million) is divided by 365 to obtain the daily interest expense of $151,000 shown on line 5 of page 7. That amount is then multiplied by the net payment lag (*i.e.*, 33.6 days), resulting in a reduction to the working capital allowance of $5.073 million, as shown on line 9 of page 7. This amount is then included on page 1, line 2, of Schedule C-4.

**Q. How is the tax payment lag for the working capital requirement calculated for the payments shown on page 1, line 3, of Schedule C-4?**

A. The tax payment lag calculation (for the working capital requirement) is shown on page 8 to Schedule C-4. Separate tax payment lag calculations (for the working capital requirement) are made for federal income tax, state income tax, PA Property Tax and PURTA. Each of these calculations is based on anticipated FPFTY tax payments and an April 1 mid-point of annual service. The result for each of these components is shown and summed in column 10 to derive the net working capital allowance for tax payments of $3.261 million.

**Q. How was the working capital allowance for pre-payments derived?**

A. That amount is calculated on page 9 of Schedule C-4 and represents the thirteen-month average of the actual pre-paid amounts for each month ended from September 2018 through September 2019 (*i.e.*, $80.408 million). The 13-month average of total actual pre-paid amounts during that period is $6.185 million.

**Q. What is the total amount of the Company's CWC claim?**

A. UGI Gas's claim for CWC is $42.331 million. This amount is shown on Schedule C-4, page 1, line 5; Schedule C-1, line 4; and on Schedule A-1, line 4.

## D. GAS STORAGE INVENTORY

**Q. Please explain how the rate base value for gas storage inventory was determined.**

A. Gas stored underground represents gas volumes stored in facilities or in storage fields owned by interstate pipeline or storage companies with whom UGI Gas contracts for capacity. As is typical for most natural gas distribution systems, UGI Gas purchases storage gas throughout the year for use primarily during the winter heating season. Specifically, the Company pays its gas storage bills on a monthly basis once the gas is procured in the same way that its pays for gas procured from other sources. Storage inventory is a physical asset that is included in the Company's rate base claim in the same manner as materials and supplies inventory. UGI Gas's claim for gas storage inventory is based on a 13-month average book value for the period ending September 2019 as shown on Schedule C-5. The average monthly gas inventory balance for the FPFTY is $23.026 million, as shown on Schedule C-5, line 16. This amount is also used in Schedule C-1, line 5 and Schedule A-1, line 5.

### E. ACCUMULATED DEFERRED INCOME TAXES (“ADIT”) AND EXCESS DEFERRED FEDERAL INCOME TAXES (“EDFIT”)

**Q. Please explain how the rate base values for ADIT and EDFIT are calculated.**

A. The Company’s determination of its rate base values for ADIT (including EDFIT) is shown on Schedule C-6 and is discussed in the direct testimony of Nicole M. McKinney (UGI Gas St. No. 10).

### F. CUSTOMER DEPOSITS

**Q. Please explain how the rate base value for customer deposits is calculated.**

A. The customer deposit offset is $22.290 million as shown on Schedule C-1, line 7 and on Schedule A-1, line 7. The balance at the end of the HTY was used to determine the rate base offset for customer deposits.

### G. MATERIALS AND SUPPLIES INVENTORY

Q. **What is the rate base claim for materials and supplies inventory?**

A. UGI Gas maintains various materials and supplies in inventory for use in its operations. Its claim for those items is $14.601 million, as shown on Schedule C-1, line 8, and is based on the average inventory for the 13-month period ending September 30, 2019. This amount represents the balance at the end of the HTY as shown on Schedule C-8, line 16. This value is also shown on Schedule A-1, line 8. The Company will update this average during the course of this proceeding.

## IV. <u>CAPITAL TREATMENT OF CERTAIN INFORMATION TECHNOLOGY COSTS</u>

**Q. Has the Commission previously permitted the Company to capitalize information technology costs?**

A. Yes. In 2017, the Company received Commission approval in the UGI Penn Natural Gas, Inc. ("PNG") base rate proceeding at Docket No. R-2016-2580030 to capitalize the costs incurred to prepare databases for cloud-based services. In 2018, the Company similarly received Commission approval in the UGI Electric base rate proceeding at Docket No. R-2017-2640058 to capitalize implementation costs related to cloud-based information assets.[2]

In the 2018 UGI Electric Rate Case, the Company was also permitted to capitalize preliminary-stage project costs and business and technology reengineering costs associated with Phase II of the UGI's Next Information Technology Enterprise ("UNITE") system replacement project.

In the 2019 Gas Rate Case at Docket No. R-2018-3006814, the Company received Commission approval to capitalize Hypercare costs associated with the UNITE Phase II project. Hypercare is a term for post-implementation support following the deployment of an information technology project. It ensures that a newly implemented computer system or function operates as planned.

[2] While ASU 2018-15 (which was issued in August 2018) provides accounting guidance to expense certain preliminary-implementation and post-implementation project stage costs, the Commission allowed the Company to capitalize such costs in the 2018 Electric Rate Case and the 2019 Gas Rate Case.

**Q. Is the Company seeking similar approval to capitalize information technology costs in the current case?**

A. Yes. The Company continues to capitalize costs associated with information technology projects as permitted by the Commission in the cases discussed above. Specifically, the Company is capitalizing cloud computing costs incurred during preliminary project and post-implementation project stages. Additionally, the Company is capitalizing certain business and technology reengineering costs (that occur during the application development stage) as well as Hypercare costs which are incurred in the 3 months post implementation. As previously stated, the Commission has allowed these kinds of information technology costs to be capitalized (in the UGI rate cases discussed above). For this case, the Company's budgeted information technology costs appear within Exhibit A (Future) and Exhibit A (Fully Projected).

## V. MANAGEMENT AUDIT ADJUSTMENTS (SCHEDULE D-17)

**Q. When did the Commission conduct its most recent Management and Operations Audit of UGI Gas?**

A. The Commission's Bureau of Audits began its onsite review of the Company's management and operations functions on August 28, 2018 ("Management Audit" or "Audit"). The Bureau of Audits issued its Audit Report with findings and recommendations on November 14, 2019 in Docket Nos. D-2018-3002234, D-2018-3002235 and D-2018-3002236.

**Q. What specific improvement areas from the Audit Report will you be discussing in your testimony?**

A. I will discuss the Audit Report as it relates to Customer Service, Emergency Preparedness, Executive Management, and Gas Operations. More specifically, I will discuss adjustments to the Company's operating expense budget for the FPFTY associated with the Company's Implementation Plan needed to carry out certain recommendations in the Audit Report. UGI Gas is making these budget adjustments because the Audit Report recommendations (and associated Implementation Plan) were issued after the Company's operating expense budget was prepared.

**Q. What is the total amount of the Management Audit adjustment that the Company is seeking in the case?**

A. The total amount of the Management Audit adjustment is $1.360 million. The total adjustment appears on Exhibit A (Fully Projected), Schedule D-17, line 9. Each aspect of this adjustment specific to Customer Service, Emergency Preparedness, Executive Management and Gas Operations is discussed in further detail below.

### A. CUSTOMER SERVICE

**Q. What finding and recommendation did the Audit Report make regarding the Company's Customer Service activities?**

A. The Audit Report found that the Company's long-term residential accounts receivable balance significantly increased between 2017 and 2018. *See* Audit Report, pp. 90-91. The increase primarily resulted from a slowing of collection activities, as a result of the Company's implementation of its new customer information system ("CIS") (between

September 2017 and April 2018). It was recommended that the Company reduce long-term accounts receivable balances. Audit Report, p. 96.

**Q. Please describe the Company's Implementation Plan as it relates to these items.**

A. The Company developed, in part, the following cross-departmental processes (that are the subject of the underlying adjustment):

1) <u>Expanded LIHEAP Enrollment Program</u> – The Company's Universal Services department directly engages customers who may qualify for LIHEAP by way of public outreach events in targeted locations.

2) <u>Expanded CAP Enrollments</u> – The Universal Services department increases CAP enrollments to qualifying customers.

These initiatives are targeted to increase enrollments in the Company's LIHEAP and CAP programs. Doing so will lower energy bills for participating low-income customers and increase the likelihood of bill payments.

**Q. What budget adjustment is the Company making for these Implementation Plan items?**

A. To fulfil these Implementation Plan items, UGI Gas will hold public outreach events for low-income customers. The events will be advertised to draw customer attendance. Company call center representatives will travel to the events and engage customers for possible enrollment in applicable low-income programs. The annual costs to advertise and market these events and for UGI employees to travel to the events are expected to be

$65,000.[3] UGI Gas plans to increase its third party Financial Call Center representative support, so UGI Gas call center agents may attend these outreach events. The annual cost to increase third party Financial Call Center support is expected to be $250,000.[4] Additionally, the Company will hire resources to increase CAP enrollments. The annual cost to hire these resources is expected to be $125,000.[5] Accordingly, it will cost the Company $440,000 in the FPFTY to perform these activities and achieve the specific Customer Service goal set forth in the Implementation Plan (see Schedule D-17, column 2; the sum of lines 5-7). The Company expects to incur these costs annually, in each year beyond the FPFTY to continue meeting the Customer Service goal set forth in the Implementation Plan.

## B. EMERGENCY PREPAREDNESS

**Q. What findings and recommendations did the Audit Report make regarding the Company's Emergency Preparedness activities?**

A. The Audit Report recommended various improvements to the Company's security protocols (e.g., oversight, resources, standards, and plans (Physical Security Plan ("PSP") and Business Continuity Plan ("BCP")).

**Q. Please describe the Company's Implementation Plans related to these items.**

A. The Company agreed to provide additional oversight over the Company's physical security standards. Also, the Company committed to update its PSP and BCP plans to

[3] See Schedule D-17, line 6, column 2.
[4] See Schedule D-17, line 5, column 2.
[5] See Schedule D-17, line 7, column 2.

include relevant physical security efforts and protocols for reviewing and testing the revised plan, including risk assessments, security policies, procedures and standards. Additionally, the Company committed to document risk analyses, perform vulnerability assessments, and conduct penetration testing at identified operations centers and field assets, including the periodic use of an external consultant for such testing.

**Q. What budget adjustment is the Company making for these Implementation Plan items?**

A. To fulfil these Implementation Plan items, UGI Gas will need to hire: (1) two full time equivalent ("FTE") employees for greater oversight and business continuity; and (2) a consultant to assist with improving the Company's standards, plans and assessments and conduct periodic testing. The annual cost of the two FTE employees (*i.e.*, $255,355) is based on the mid-point of the salary range for positions at the levels required, plus a bonus based on a percentage of salary (under the Company's incentive compensation program for 2021) and a benefit rate of 38% (which rate is consistent with the Company's other budgeting calculations).[6] The annual cost of the consultant is estimated to be $25,000.[7] Accordingly, it will cost the Company $280,355 in the FPFTY to perform these activities and achieve these specific Emergency Preparedness goals set forth in the Implementation Plan.

[6] The two employees and associated salary amount of $255,355 is part of the Total Salary and Wages (column 3, line 3) and Employee Benefits (column 3, line 4) in Schedule D-17. The costs are for two of the seven employee additions considered in Schedule D-17.

[7] See Schedule D-17, line 8, column 2.

### C. EXECUTIVE MANAGEMENT

**Q. What findings and recommendations did the Audit Report make regarding the Company's Executive Management activities?**

A. The Audit Report found that the Company needs greater coordinated processes for reviewing and updating its procedures and policies Company-wide, including Financial Management, Emergency Preparedness, Materials Management and Human Resources policies and procedures. It was recommended that the Company centralize how it manages, reviews and updates its policies and procedures.

**Q. Please describe the Company's Implementation Plan related to these items.**

A. The Company committed to centralizing its policy management practices and establishing requirements for periodic reviews and updates of policies and procedures. To implement this plan, the Company will need to hire three dedicated employees (a manager and two analysts) to organize and administer the necessary management functions. With these resources, the Company plans to create: (1) a centralized location for maintaining policies; (2) a standard format for policies; and (3) a tracking, update and approval process. The annual cost of the three dedicated employees (*i.e.*, $406,112) is based on the mid-point of the salary range for positions at the levels required, plus a bonus based on a percentage of salary (under the Company's incentive compensation program for 2021) and a benefit rate of 38% (which rate is consistent with the Company's other budgeting calculations).[8]

[8] The three employees and associated salary amount of $406,112 is part of the Total Salary and Wages (column 3, line 3) and Employee Benefits (column 3, line 4) in Schedule D-17. The costs are for three of the seven employee additions considered in Schedule D-17.

**Q. What budget adjustment is the Company making for these Implementation Plan items?**

A. It will cost the Company $406,112 in the FPFTY to perform these activities and achieve the specific Executive Management goals set forth in the Implementation Plan.

**D. GAS OPERATIONS**

Q. **What finding and recommendation did the Audit Report make regarding the Company's Gas Operations activities?**

A. The Audit Report found that the Company needed to improve its third-party damages and its collection rate for damage claims in the former UGI North Rate District.

**Q. Please describe the Company's Implementation Plan related to this item.**

A. The Company will make efforts to reduce its third-party damages rate and to increase its damage collections in the former UGI North Rate District. The Company will create a monthly report detailing third-party damages by operating center and continue its damage prevention and public awareness initiatives (targeting areas with performance gaps). To improve its damage collection rate and reduce the overall damage rate, the Company plans to hire two dedicated business analysts to focus on these functions. The annual cost of the two dedicated business analysts (*i.e.*, $232,804) is based on the mid-point of the salary range for positions at the levels required, plus a bonus based on a percentage of salary (under the Company's incentive compensation program for 2021) and a benefit rate of 38% (which rate is consistent with the Company's other budgeting calculations).[9]

**Q. What budget adjustment is the Company making to meet the goals of its Gas Operations plans?**

A. It will cost the Company $232,804 in the FPFTY to perform these activities and achieve the specific Gas Operations goals set forth in the Implementation Plan.

## VI. CONCLUSION

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

A. Yes, it does.

[9] The two employees and associated salary amount of $232,804 is part of the Total Salary and Wages (column 3, line 3) and Employee Benefits (column 3, line 4) in Schedule D-17. The costs are for two of the seven employee additions considered in Schedule D-17.

**UGI GAS EXHIBIT VKR-1**

# Vivian Ressler, CPA

## PROFESSIONAL EXPERIENCE

**UGI Utilities, Inc. – Denver, Pennsylvania**
**Manager – Technical Accounting and Controls** June 2018 – Present

- Manage the SOX internal control design and testing processes, including coordination with Corporate Accounting Policy and Controls, Internal Audit, and IT Security departments
- Design the Company's accounting policies to align with standards for U.S. GAAP and regulatory requirements
- Coordinate external audit, initiating a significant improvement in timeliness of auditor assistance requests
- Implement revised internal control structures in support of system deployments
- Work with legal and rates departments on Combined Gas Rate Cases, including schedule preparation and review, revenue requirements, and response to interrogatories

**The Bon Ton Stores, Inc. – York, Pennsylvania**
**Departmental Vice President – Corporate Accounting** May 2014 – May 2018

- Coordinated with various departments to ensure an accurate monthly close process
- Directed and supervised three accountants responsible for inventory accounting, capital spending, and financial reporting (including SEC reporting)
- Reviewed and completed accounting for the Company's 250+ property leases
- Assisted the legal department with SEC filings (8-Ks, proxy statements) and stock compensation program
- Coordinated implementation of new GAAP accounting guidance

**Trout, Ebersole & Groff, LLP – Lancaster, Pennsylvania**
**Supervisor – Attest Services** May 2012 – May 2014

- Provided attest services to small and medium-sized businesses and governmental organizations
- Drafted financial statements for clients

**BI-LO, LLC – Greenville, South Carolina**
**Senior Manager – Corporate Accounting and Tax** November 2007 – May 2012

- Coordinated the financial reporting function for a chain of 200+ grocery stores
- Produced monthly comprehensive financial reports for senior management
- Projected the company's cash flow needs by creating working capital projections
- Directed and supervised four financial analysts who assisted with the above functions

**Deloitte & Touche, LLP – Greenville, South Carolina**
**Senior Manager – Audit Services** September 1998 – October 2007

- Provided audit services for middle-market and large businesses (including several SEC companies)
- Coordinated multi-national audit engagements
- Served as a human resources counselor and trainer for staff professionals

## EDUCATION

Bob Jones University (Greenville, South Carolina) – Bachelor of Science Degree, Professional Accounting

**UGI GAS STATEMENT NO. 4 – KELLY A. BEAVER**

**BEFORE THE**
**PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Docket No. R-2019-3015162**

**UGI Utilities, Inc. – Gas Division**

**Statement No. 4**

**Direct Testimony of**
**Kelly A. Beaver**

| | |
|---|---|
| **Topics Addressed:** | **System Operations** |
| | **System Reliability and Safety** |

Dated: January 28, 2020

## I. INTRODUCTION

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

A. My name is Kelly A. Beaver. My business address is 1 UGI Drive, Denver, Pennsylvania 17517.

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

A. I am employed as Vice President Engineering and Operations Support by UGI Utilities, Inc. ("UGI"). UGI is a wholly-owned subsidiary of UGI Corporation ("UGI Corp."). UGI has two operating divisions, the Electric Division ("UGI Electric") and the Gas Division ("UGI Gas" or the "Company"), each of which is a public utility regulated by the Pennsylvania Public Utility Commission ("Commission" or "PUC").

**Q. Please describe your educational background and work experience.**

A. They are set forth in my resume attached as UGI Gas Exhibit KAB-1 to my testimony.

**Q. What are your responsibilities as Vice President Engineering and Operations Support?**

A. As Vice President Engineering and Operations Support, I am UGI's senior executive accountable for administering the Company's transmission and distribution system integrity programs (*e.g.*, leak survey, corrosion control, Geographic Information System ("GIS") mapping, network analysis, safety, DIMP[1], TIMP[2] and technical training).

[1] Distribution Integrity Management Program.
[2] Transmission Integrity Management Program.

Additionally, I oversee accelerated infrastructure replacement initiatives, customer growth opportunities, capacity constraint improvements and major installation projects.

**Q. What is the purpose of your testimony?**

A. I am providing testimony on behalf of UGI Gas. My testimony will address the Company's natural gas system operations.

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

A. Yes, I am sponsoring UGI Gas Exhibit KAB-1. I am also sponsoring certain responses to the Commission's standard filing requirements as indicated on the master list accompanying the Company's filing.

## II. NATURAL GAS SYSTEM OPERATIONS

**Q. Please provide an overview of the Company's distribution system prior to October 1, 2018.**

A. Prior to October 1, 2018, UGI Gas owned two subsidiaries which were Commission-certificated natural gas distribution companies ("NGDCs"). Those subsidiaries were UGI Penn Natural Gas, Inc. ("UGI PNG") and UGI Central Penn Gas, Inc. ("UGI CPG"). On March 8, 2018, UGI Gas, UGI PNG and UGI CPG filed a petition with the Commission to merge into UGI Gas, and to thereafter operate as a single NGDC (with three rate districts adopting the three former tariffs of UGI Gas, UGI PNG and UGI CPG, respectively).[3] The merger was completed on October 1, 2018 (by Commission order), and UGI Gas commenced operations under the three-rate district structure described above.

**Q. Please describe the Company's three rate districts, which resulted from the Merger.**

A. As a result of the Merger, UGI Gas became the UGI South Rate District; UGI-PNG became the UGI North Rate District; and UGI-CPG became the UGI Central Rate District. While the North Rate District largely consisted of rural communities, the primary urban portions of the service territory consisted of Wilkes-Barre, Scranton, and Williamsport. The South Rate District was split into two non-contiguous regions: a primary and secondary region. The primary region spanned twelve counties: Franklin, Cumberland, York, Dauphin, Lebanon, Lancaster, Berks, Chester, Montgomery, Lehigh, Bucks, and Northampton. It also included five of Pennsylvania's ten largest cities: Allentown, Bethlehem, Harrisburg, Lancaster and Reading, along with the attendant suburban communities. The secondary region spanned four counties: Schuylkill, Luzerne, Carbon, and Monroe and largely consisted of rural communities with Hazleton being the largest city in that area. The Central Rate District had a largely rural, non-

[3] *See Joint Application of UGI Utilities, Inc., UGI Penn Natural Gas, Inc. and UGI Central Penn Gas, Inc. for All of the Necessary Authority, Approvals, and Certificates of Public Convenience for (1) an Agreement and Plan of Merger; (2) the Merger of UGI Penn Natural Gas, Inc. and UGI Central Penn Gas, Inc. into UGI Utilities, Inc.; (3) the initiation by UGI Utilities, Inc. of natural gas service in all territory in this Commonwealth where UGI Penn Natural Gas, Inc. and UGI Central Penn Gas, Inc. do or may provide natural gas service; (4) the abandonment by UGI Penn Natural Gas, Inc. of all natural gas service in this Commonwealth; (5) the abandonment by UGI Central Penn Gas, Inc. of all natural gas service in this Commonwealth; (6) the adoption by UGI Utilities, Inc. of UGI Penn Natural Gas, Inc.'s and UGI Central Penn Gas, Inc.'s Existing Tariffs and their Application within New Service and Rate Districts of UGI Utilities, Inc. Corresponding to their Existing Service Territories as UGI North and UGI Central, respectively; (7) the adoption by UGI Utilities, Inc. of its Existing Tariff to be applied to a New UGI South Service and Rate District; (8) Where Necessary, Associated Affiliated Interest Agreements; and (9) any Other Approvals Necessary to Complete the Contemplated Transaction*, Docket Nos. A-2018-3000381, A-2018-3000382 and A-2018-3000383 (Opinion and Order entered September 20, 2018).

contiguous service territory that encompassed all or parts of 37 counties in northeastern, central, and northwestern Pennsylvania.

**Q. Does the Company still operate under the three-rate district model?**

A. No. On January 28, 2019, UGI Gas filed a base rate case at Docket No. R-2018-3006814 ("2019 Base Rate Case") in which it proposed to unify rates, policies, and tariff rules across the entire service territory (as described further in the direct testimony of UGI Gas witness, Christopher R. Brown (UGI Gas Statement No. 1)). On October 4, 2019, the Commission entered an Opinion and Order, which approved a unified rate structure (except Rates N/NT and Rate DS – as described in the 2019 Base Rate Case Settlement). Effective, October 11, 2019, UGI Gas began operating under a single tariff and service territory.

**Q. Please describe UGI Gas's current service territory.**

A. UGI Gas's current service territory includes all of the counties that formerly comprised the Company's North, Central and South Rate Districts, as specified in the Company's Gas Tariff, UGI Gas – PA. P.U.C. No. 7, which was filed at Docket No. R-2018-3006814 and became effective on October 11, 2019.

**Q. How many operations centers and support facilities does UGI Gas have?**

A. UGI Gas has a total of thirty five (35) operations centers and support facilities split between the former North, South, and Central Rate Districts. Several of the operations centers, such as Lehigh, Harrisburg, Middletown, Lewistown, Port Allegany, and Wilkes-

Barre, also act as regional training facilities. There is also a stand-alone training facility in Reading.

**Q. How does UGI Gas staff its operations?**

A. As of September 30, 2019, UGI Gas had a total of 1,631 full-time employees. In addition, UGI Gas benefits from management and support services provided by its parent company UGI Corp. (*e.g.*, insurance, legal, treasury operations, and corporate governance). Moreover, UGI Corp. employees provide various management and support services to both of the Company's Electric and Gas Divisions (*e.g.*, finance and accounting, payroll, supply, rates, purchasing, fleet, marketing, administrative duties, customer service, credit and collection, and information technology).

## III. SYSTEM RELIABILITY AND SAFETY

**Q. Please describe the physical composition of UGI Gas's distribution system.**

A. UGI Gas provides natural gas service to 664,929 customers (as of December 31, 2019) in Pennsylvania through a system consisting of approximately 12,022 miles of gas distribution mains and 308 miles of natural gas transmission mains (as of December 31, 2018).[4] Due to its long-term operation, the Company's distribution system includes a mixture of pipeline materials indicative of the industry's technological advancement over time. Cast iron mains can be found in the oldest parts of the system. The industry then transitioned to bare steel and wrought iron piping, which were prevalent until the 1960s. The first generation of plastic piping was introduced in the early 1970s. Materials

[4] Per 2018 U.S. Department of Transportation Report reflecting mileage on December 31, 2018.

installed since the 1970s include polyethylene ("PE") and coated steel piping. Overall, the UGI Gas system consists of approximately 90% contemporary materials, which UGI Gas defines as cathodically-protected steel and plastic.

**Q. Please discuss the steps the Company is taking to improve and enhance its distribution system.**

A. UGI Gas has been identifying and repairing, improving, or replacing its distribution infrastructure on an accelerated basis through a Commission-approved Long Term Infrastructure Improvement Plan ("LTIIP"). More specifically, on December 12, 2013, each of the three predecessor UGI NGDCs filed Petitions for approval of LTIIPs at Docket Nos. P-2013-2398833, P-2013-2397056 and P-2013-2398835 (hereinafter collectively referred to as "Initial LTIIP" or "LTIIP"). In them, the Company identified its plan to replace all of its cast iron main over the 13-year period ending in February 2027 and all of its bare steel and wrought iron main over the 28-year period ending September 2041.[5] The property repaired and replaced through the LTIIP meets the requirements for recovery in a Distribution System Improvement Charge ("DSIC") and are therefore "DSIC-eligible." The Commission approved the LTIIP at Docket No. P-2013-2398833 in an Order entered on July 31, 2014, and the LTIIPs at Docket Nos. P-2013-2397056 and P-2013-2398835 in Orders entered on September 11, 2014.[6] On June

[5] The Initial LTIIP also included other categories of infrastructure repair and replacement work, such as replacing gas service lines and moving indoor meters and regulators to outside locations on a planned basis (as appropriate) in conjunction with the replacement of the mains to which they are connected.

[6] Petitions to modify the Initial LTIIPs were filed on behalf of the former UGI NGDCs on February 29, 2016, which reflected additional accelerated capital spending that met the Commission's threshold for a major plan modification. The Modified LTIIPs were approved by Commission Order on June 30, 2016. As described in the petitions, and in the Commission Order, the significant increase in investment was driven by the need to accelerate non-main

15, 2018, the Company filed a Petition to extend the Initial LTIIP for an additional year (to December 31, 2019).[7] The Extension Petition was approved through an Opinion and Order, which was entered on August 2, 2018.

**Q. Has UGI Gas met its DSIC-eligible main replacement goals set by its Initial LTIIP?**

A. Yes. As described in UGI Gas's Initial LTIIP, the former UGI Gas rate districts had a combined total annual goal of replacing 64 miles of cast iron and bare steel mains. Between 2014 and 2019, the Company expects to exceed its six-year aggregate replacement goals by replacing 388.7 miles of main versus the 380 miles projected. Figure 1 below shows the replacement figures for UGI Gas main during the term of the Initial LTIIP.

**Figure 1. Forecasted versus actual Main Replacement**

| | 2014 (in miles) | 2015 (in miles) | 2016 (in miles) | 2017 (in miles) | 2018 (in miles) | 2019 (in miles)* | Total |
|---|---|---|---|---|---|---|---|
| UGI Gas Forecast | 62 | 62 | 64 | 64 | 64 | 64 | 380 |
| UGI Gas Actual | 62.6 | 67.4 | 67.3 | 65.1 | 62.3 | 64 | 388.7 |

*Calendar year 2019 data will be available in March of 2020.

**Q. How has UGI Gas's actual DSIC-eligible capital investment trended over the past six years?**

infrastructure replacement, including system reliability improvements, service replacements, and mandated relocations of utility facilities.

[7] The Extension Petition was filed to avoid a scenario in which the Company would have to file three new LTIIPs after the Merger proceeding was initiated but before the Merger was approved (*i.e.*, before it was known if one consolidated LTIIP filing would suffice post-merger).

A. UGI Gas's capital investments have, in general, exceeded its forecasts, which necessitated UGI Gas to file Modified LTIIPs in 2016 that were applicable to all three rate districts. Figure 2 shows the actual DSIC-eligible capital-spend from 2014 through 2019.

**Figure 2. DSIC-eligible capital spend**

| Former Rate Districts | 2014 ($ millions) | 2015 ($ millions) | 2016 ($ millions) | 2017 ($ millions) | 2018 ($millions) | 2019* ($millions) |
|---|---|---|---|---|---|---|
| **North** | $20.3 | $26.7 | $32.8 | $37.6 | $45.3 | $42.2 |
| **South** | $52.1 | $61.6 | $72.0 | $95.7 | $101.2 | $115.0 |
| **Central** | $5.6 | $17.9 | $25.4 | $18.8 | $23.6 | $30.3 |
| **Total** | **$78** | **$106.2** | **$130.2** | **$152.1** | **$170.1** | **$187.5** |

*Calendar year 2019 actual results will be included as part of the Annual Asset Optimization Plan filing in March of 2020.

**Q. Please summarize the overall success achieved by the Initial LTIIP.**

A. As of December 31, 2018, the remaining mileage of cast iron and bare steel/wrought iron mains for each of the Company's former rate districts is set forth in Figure 3 below:

**Figure 3. Miles of Distribution Main as of December 31, 2018**

| | North | | South | | Central | | UGI Gas | |
|---|---|---|---|---|---|---|---|---|
| **Material** | **Miles** | **Percent of Total** | **Miles** | **Percent of Total** | **Miles** | **Percent of Total** | **Miles** | **Percent of Total** |
| **Unprotected bare steel** | 66 | 2.5% | 187 | 3.3% | 451 | 12.2% | 704 | 5.9% |
| **Unprotected coated steel** | 145 | 5.6% | 112 | 1.9% | 81 | 2.2% | 338 | 2.8% |
| **Protected bare steel** | 41 | 1.6% | 108 | 1.9% | 49 | 1.3% | 198 | 1.6% |
| **Protected coated steel** | 746 | 28.8% | 1,640 | 28.6% | 701 | 19.0% | 3,087 | 25.7% |
| **Cast iron** | 15 | 0.5% | 193 | 3.4% | 0 | 0.0% | 208 | 1.7% |
| **Wrought iron** | 58 | 2.2% | - | 0.0% | 2 | 0.0% | 60 | 0.5% |
| **Plastic** | 1,525 | 58.8% | 3,485 | 60.9% | 2,415 | 65.3% | 7,425 | 61.8% |
| **Other** | 0 | 0.0% | 2 | 0.0% | 0 | 0.0% | 2 | 0.0% |
| **Total** | 2,596 | 100.0% | 5,727 | 100% | 3,699 | 100.0% | 12,022 | 100.0% |

As a result of the Initial LTIIP, the Company has removed from service 44% of its total cast iron mains and 16% of its total bare steel/wrought iron mains that existed at the beginning of the Initial LTIIP period.

**Q. Describe the Company's plans to continue meeting its infrastructure replacement targets after the expiration of the Initial LTIIP (on December 31, 2019)?**

A. On August 21, 2019, UGI Gas filed a Petition seeking approval of its Second Long Term Infrastructure Improvement Plan ("Second LTIIP").[8] On December 19, 2019, the Commission issued an Opinion and Order, approving the Second LTIIP, which stated:

> The Commission has reviewed UGI's Second LTIIP, and any resulting comments. The Commission finds that UGI has met its burden of proof by demonstrating that its Second LTIIP contain measures to ensure that the projected annual expenditures are cost-effective, specify the manner in which they accelerate or maintain an accelerated rate of infrastructure repair, improvement, or replacement, are sufficient to ensure and maintain adequate, safe, reliable, and reasonable service, and meet the requirements of 52 Pa. Code §121.3(a). Accordingly, UGI's Second LTIIP is approved. (Opinion and Order at 20).

The Second LTIIP builds off of the significant acceleration in the rate of infrastructure repairs, improvements and replacements (including the accelerated replacement of cast iron and bare steel pipe) that was achieved by the Initial LTIIP and will reflect further acceleration thereof.

During the five-year term of the Second LTIIP (2020-2024), UGI Gas will invest approximately $1.3 billion in infrastructure improvements that will strengthen and modernize distribution facilities serving customers throughout the Company's service territory. With these investments, the Company anticipates replacing 344 total miles of

[8] *See Petition of UGI Utilities, Inc. – Gas Division for Approval of its Second Long Term Infrastructure Improvement Plan*, Docket No. P-2019-3012337 (Petition filed on August 21, 2019).

cast iron, bare steel, and wrought iron main. Continuing UGI Gas's infrastructure replacement program (as set forth in the Second LTIIP) will allow the Company to provide safe and reliable service both now and into the future. These replacements will make the system safer, more reliable, and easier to operate.

Q. **What DSIC-eligible main replacement goals has the Company set forth in its Second LTIIP?**

A. Absent unforeseen circumstances, the Second LTIIP should allow the Company to replace all of its cast iron main in advance of February 2027, and replace all of its bare steel main in advance of September 2041, which are the deadlines identified in the Initial LTIIP. While UGI Gas will maintain the cast iron replacement deadline reflected in the Initial LTIIP (*i.e.*, by 2027), the pace of acceleration reflected in the Second LTIIP may allow the Company to complete its replacement activities in advance of this deadline. Moreover, at the rate of bare steel replacement reflected in the Second LTIIP, and continued into the future with necessary regulatory approvals, the Company will be on pace to replace all bare steel mains by 2038.[9] Figure 4 below provides the total miles of main that the Company plans to replace during each year of the Second LTIIP. It is anticipated that UGI Gas will replace approximately 66 miles of combined cast iron and bare steel main in 2020. The specific allocation of mileage between cast iron and bare

[9] For any given intermediate period, the sequence of projects and amount of specific facilities to be addressed may be adjusted in response to changing conditions. A variety of factors intrinsic to the natural gas distribution business may cause these changes to occur. These factors include, but are not limited to, state and municipal relocation projects, other private construction projects, system upgrades due to pressure requirements, regulatory changes, and legislative changes.

steel main replacement will vary annually depending on annual risk evaluations and project-specific considerations.

**Figure 4. Miles of Main To Be Replaced During the Second LTIIP (2020-2024)**

| Year | Cast Iron, Bare Steel, and Wrought Iron Pipe Replacement Plan (Miles) |
|---|---|
| 2020 | 66 |
| 2021 | 68 |
| 2022 | 70 |
| 2023 | 70 |
| 2024 | 70 |
| Total | 344 |

**Q. What DSIC-eligible capital investment projection has the Company made in its Second LTIIP?**

A. Figure 5, below, provides a projection of total annual expenditures for the Second LTIIP period (2020 through 2024). In total, the Company plans to invest approximately $1.3 billion in infrastructure improvements during the term of the Second LTIIP.

**Figure 5. Second LTIIP Planned Annual Expenditures 2020-2024**

| Fiscal Year | Capital Investment UGI Gas Division ($MM) |
|---|---|
| 2020 Projected | $215.0 |
| 2021 Projected | $235.0 |
| 2022 Projected | $260.0 |
| 2023 Projected | $270.0 |
| 2024 Projected | $285.0 |

**Q. Does UGI Gas have a projection of its DSIC-eligible capital spend for the future test year ("FTY") and the fully projected future test year ("FPFTY")?**

A. Yes. Fiscal year 2020 capital spending is forecasted to be $394.1 million, with $230.6 million of that projected capital spend being DSIC-eligible, through the end of the FTY when new rates established in this case are expected to take effect. The fiscal year 2021 capital spending is forecasted to be $398.9 million, of which $252.8 million meets the definition of DSIC-eligible capital in the Company's Second LTIIP.

**Q. Please discuss UGI Gas's efforts to reduce system leaks.**

A. UGI Gas monitors safety and reliability indicators for its natural gas distribution system over time to evaluate corrosion and leak resolution performance, track emergency response, and pursue damage prevention – all of which will drive improvements in employee and public safety. As a part of its DIMP,[10] UGI Gas regularly re-assesses all system risks and leak trends to determine if additional or accelerated actions are required to further reduce system leaks. UGI Gas also expects that the investment targets established in its Second LTIIP will provide customers with significant improvements in safety and reliability (*e.g.*, reduced leaks). The proposed Second LTIIP investments have been identified and prioritized on a risk basis in accordance with UGI Gas's DIMP and TIMP[11] plans. Risk based prioritization helps ensure that the projects that deliver the most significant risk reductions are addressed first. As the investment plan progresses, customer benefits will manifest over time in terms of reduced leakage rates, fewer main breaks, and fewer unplanned customer interruptions. Additionally, it is expected that the amount of lost and unaccounted for gas due to system leakage and measurement inaccuracy will be reduced as leaks are eliminated and meters are replaced.

[10] 49 C.F.R. § 192.1007.

[11] 49 C.F.R. §§ 195.450 and 195.452.

**Q. How does UGI Gas classify leaks?**

A. UGI Gas uses a standardized leak classification system consistent with general industry protocols. Specifically, underground leaks are classified as 'A,' 'B,' and 'C.' Class 'C' leaks are deemed hazardous and repaired immediately. Class 'B' leaks may become hazardous if otherwise not repaired, and they are scheduled for repairs within 12 months and not to exceed 15 months. Class 'A' leaks are deemed non-hazardous and are monitored for changes in severity. Figure 6, below, shows the total number of hazardous 'C' leaks repaired during calendar years 2015 through 2019 and reflects an overall 40% decrease in hazardous leaks (as a result of LTIIP projects).

**Figure 6. Total Hazardous 'C' Leaks Repaired (2015-2019)**

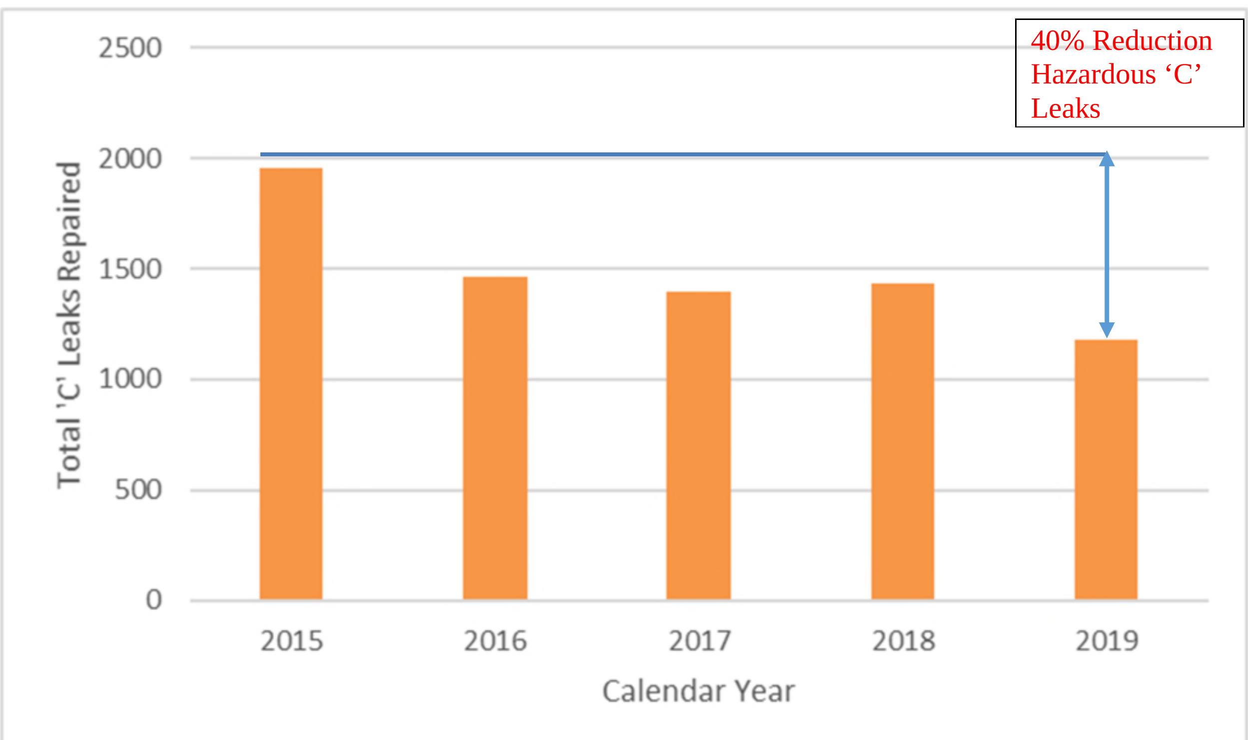
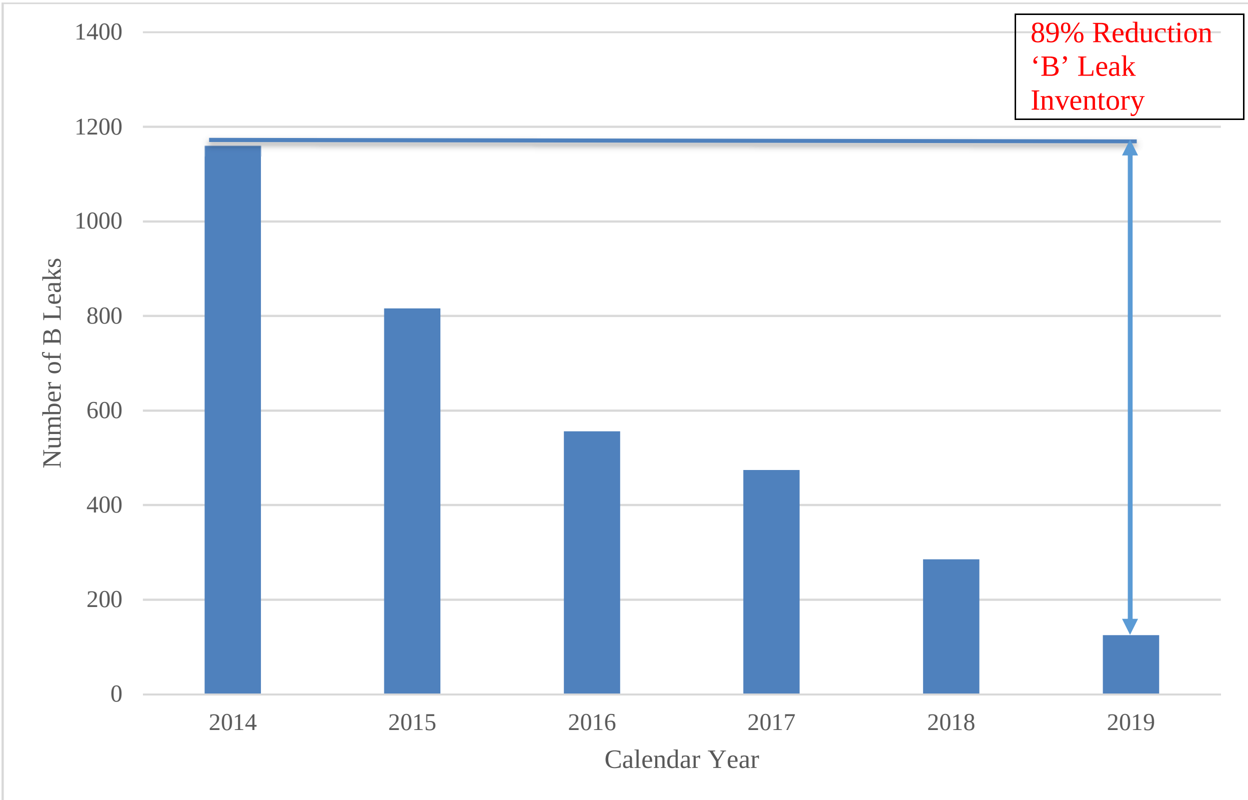


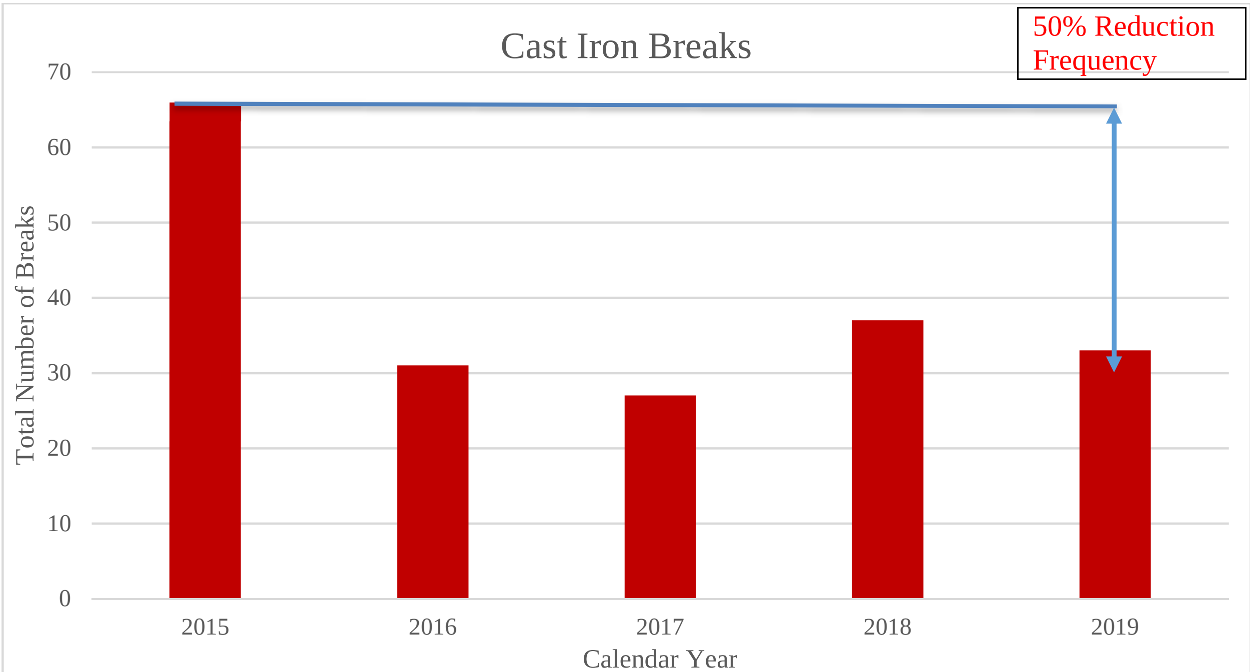
Figure 7, below, shows the total number of 'B' leaks between 2014 and 2019 and reflects an overall 89% reduction in 'B' leaks (as a result of LTIIP projects).

**Figure 7. B Leak Inventory (2014-2019)**




The Company expects that its Second LTIIP will further improve these leak reductions as more vintage pipe is replaced. Figure 8 below shows the reduction in the number of cast iron breaks since 2015. There has been an overall 50% reduction in break frequency since 2015. The reduction in breakage also demonstrates that the Company has been prudent in prioritizing replacement of those pipe segments with the greatest propensity of failure.

**Figure 8. Cast Iron Breaks (2015-2019)**




**Q. How is UGI Gas's performance in the area of emergency response rate?**

A. UGI Gas performs very well in the timeliness of responding to emergency notifications/calls. For the year ended September 30, 2019, 98.5% of the time, a first responder arrived on the premises within 45 minutes of receipt of an emergency call. UGI Gas's performance is better than industry averages and is attributable to factors such as staffing levels and after-hours coverage. I also note that UGI Gas sets performance goals on a 45-minute response, which is more stringent than the acceptable odor response time established by the Commission's Safety Division.[12]

[12] The Commission's Bureau of Audits issued a Management and Operations Audit Report of the Company in October 2019 (at Docket Nos. D-2018-3002234, D-2018-3002235 and D-2018-3002236), which stated:

> The PUC Gas Safety Division defines acceptable emergency dispatch and response times as 15 minutes and 60 minutes, respectively. However, UGI has established a more stringent 45-minute emergency response key performance indicator of 97.8%. (Audit Report, p. 41).

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

A. Yes, it does.

**UGI GAS EXHIBIT KAB-1**

# Kelly A. Beaver

*453 Township Line Road | Elverson | PA | 19520 | 610.223.9803| kellyann1010@hotmail.com*


## QUALIFICATION SUMMARY

Well respected executive professional with 17 years of experience in the energy industry.
Strong leadership skills with ability to identify and cultivate next-generation leaders
Extensive experience in organizational structure alignment and transformation.
Highly adaptable, well versed and embracing and managing change.
Focuses on continuous improvement for business processes and capital allocation.
Substantial experience with formal presentations to customers, Board of Directors and regulatory entities.

## PROFESSIONAL EXPERIENCE

**Vice President – Engineering & Operations Support,** UGI UTILITIES, INC., Reading, PA 2017-present

- Leads a team of 180 individuals responsible for designing and executing UGI's Accelerated Pipeline Replacement Programs including a capital budget of $275MM to ensure safe, reliable, and cost effective natural gas utility service
- Accountable for Operations Support functions including transmission and distribution system integrity programs, leak survey, corrosion, GIS and mapping, network analysis, safety and technical training
- Oversees major pipeline and metering and regulation projects to accommodate customer growth and alleviate capacity constraints in the distribution system including evaluation of alternative supply options including LNG, CNG, and renewable natural gas

**Executive Sponsor –Safety Culture Transformation Program,** UGI UTILITIES, INC., Reading, PA 2018-present

- Provides leadership and strategic direction for UGI's Safety Culture Transformation Program
- Manages the partnership with DuPont Sustainable Solutions to deliver program results
- Responsible for creating and maintaining relationship with Union leadership for 13 different labor unions in UGI's territory
- Improved UGI's safety culture and delivered a 45% reduction in preventable motor vehicle accidents and 25% reduction in OSHA recordable injuries

**Vice President – Supply & Gas Control Operations,** UGI UTILITIES, INC., Reading, PA 2014-2017

- Led a team of 25 individuals responsible for the acquisition and delivery of ~$800MM of natural gas and electric supplies for over 700,000 customers in PA and MD
- Oversaw the Central Gas Control operations group that monitors and evaluates the utilities gas distribution system to ensure safe and reliable service to customers
- Responsible for the analysis and negotiation of major gas and electric purchases, transportation and exchange agreements with producers, pipeline companies, and other marketing firms
- Coordinated various required federal and state regulatory filings and maintains relationships with various regulatory agencies
- Focus on alignment of team member's responsibilities to improve productivity and work environment

**Executive Sponsor – UNITE Project,** UGI UTILITIES, INC., Reading, PA 2015-2017

- Provided leadership and strategic direction for UNITE (UGI's Next Information Technology Enterprise) Project; phase 1 involved the replacement of UGI's Customer Information System
- Oversaw the project management team of close to 100 employees from UGI and the system integration partner, Deloitte; including off-shore resources

**Director – Supply & Asset Optimization,** UGI ENERGY SERVICES, INC., Wyomissing, PA 2009-2014

- Led a team of 12 people that optimized natural gas and propane assets through detailed market analysis contributing to a budget of $60MM in pre-tax income annually
- Responsible for all commodity purchasing, 160 BCF of natural gas and 8 MM gallons of propane annually
- Developed and sold products and services utilizing LNG and propane-air peaking assets to long sales cycle customers such as utilities
- Developed pricing strategies and marketing programs for numerous natural gas retail markets and customer segments
- Key member of the evaluation and transition team for the acquisition of EQT Energy's natural gas marketing business in 2014

**Manager – Supply & Asset Optimization,** UGI ENERGY SERVICES, INC., Wyomissing, PA 2008-2009

- Led a team of 9 people responsible for a budget of $10MM of annual pre-tax income derived from daily and monthly natural gas commodity trading and natural gas asset optimization
- Managed high-level, detailed, analytical projects to evaluate storage, transportation and peaking assets including natural gas storage and LNG peaking assets
- Responsible for $18MM of annual pre-tax income through the dispatch of 4 peaking facilities

**Staff Engineer – Assets & Wholesale Services,** UGI ENERGY SERVICES, INC., Wyomissing, PA 2006-2008

- Member of a team responsible for a budget of $7MM of annual pre-tax income derived from daily and monthly natural gas commodity trading
- Developed the system engineering for a 220,000 gallon per day propane-air peaking facility with a capital expenditure of $10MM and estimated annual gross margin of $2.6MM
- Responsible for tracking hedging positions and recording profit & loss associated with transactions

**Engineer I/II,** UGI UTILITIES, INC., Reading, PA 2002-2006

- Analyzed market for interstate pipeline capacity and storage to meet long term demand forecasting
- Operated linear programming models to optimize 35 BCF of annual supply purchases based on lowest cost
- Designed approximately 25 natural gas piping systems annually, each serving between 50 and 250 customers across 6 counties in Pennsylvania
- Project manager for the installation of distribution systems with capital expenditures of $750,000 annually
- Member of team that evaluated the assets of Shanghai LPG Management Co., Ltd. for potential acquisition

## CAREER DEVELOPMENT

CENTER FOR CREATIVE LEADERSHIP, *Leading for Organizational Impact: Looking Glass Experience - November 2010*

UGI UNIVERSITY GRADUATE, June 2007

LEADERSHIP BERKS GRADUATE, 2004

## EDUCATION

UNIVERSITY OF PENNSYLVANIA – THE WHARTON SCHOOL, Philadelphia, PA
***Business Essentials for Executives Program – November 2016***

SAINT JOSEPH'S UNIVERSITY, Philadelphia, PA
***Master of Business Administration - May 2006***

LEHIGH UNIVERSITY, Bethlehem, PA
***Bachelor of Science in Industrial Engineering – June 2002***

## ACTIVITIES

Corporate Executive Board Member for the Franklin Institute, Board Member for Big Vision Foundation, Council Member for Berks County Women2Women, International Equestrian Competitor, Member of the United States Equestrian Federation, United Way Leadership Giver

# UGI GAS STATEMENT NO. 5 – JOSEPH R. KOPALEK

**BEFORE THE**
**PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Docket No. R-2019-3015162**

**UGI Utilities, Inc. – Gas Division**

**Statement No. 5**

**Direct Testimony of**
**Joseph R. Kopalek**

| | |
|---|---|
| **Topics Addressed:** | **New Safety Initiatives**<br>**Environmental Program, Remediation Costs, and Sustainability Initiatives** |

Dated January 28, 2020

## I. INTRODUCTION

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

A. My name is Joseph R. Kopalek. My business address is 1 UGI Drive, Denver, Pennsylvania 17517.

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

A. I am employed as Vice President of Environmental Health and Safety ("EHS") and Training by UGI Utilities, Inc. ("UGI"). UGI is a wholly-owned subsidiary of UGI Corporation ("UGI Corp."). UGI has two operating divisions, the Electric Division ("UGI Electric") and the Gas Division ("UGI Gas" or the "Company"), each of which is a public utility regulated by the Pennsylvania Public Utility Commission ("Commission" or "PUC").

**Q. Please describe your educational background and work experience.**

A. They are set forth in my resume attached as UGI Gas Exhibit JRK-1 to my testimony.

**Q. What are your responsibilities as Vice President EHS and Training?**

A. As VP of EHS and Training, I oversee the Company's environmental group, which provides environmental services to the Company's operational and engineering departments in the form of environmental monitoring, permitting, and reporting. One large responsibility of the environmental group is the management of the Company's environmental remediation program for former manufactured gas plant sites. The environmental group is also tasked with assessing and implementing environmental sustainability initiatives. I also oversee the Company's safety group, which provides support for safety compliance, reporting, training, and the development of a safety culture. With respect to technical training, I oversee the Company's technical training, which includes operator qualifications. In this role, I am responsible for the development and construction of a centralized operational training center.

**Q. Have you presented testimony in proceedings before a regulatory agency?**

A. No.

**Q. What is the purpose of your testimony?**

A. I am providing testimony on behalf of UGI Gas. In my testimony, I will address the following topics: (1) new safety initiatives; (2) new training initiatives; and (3) the environmental program and remediation expenses.

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

A. Yes, I am sponsoring UGI Gas Exhibit JRK-1.

## II. <u>SAFETY INITIATIVES</u>

**Q. What programs does UGI Gas have in place regarding employee, customer, and system safety?**

A. Safety performance is now and will always remain a fundamental imperative at UGI. UGI has several continuing safety initiatives in place to further develop its safety culture and drive sustainable improvements in safety performance. One such program is the UGI Making a Difference Safety Incentive Program, which rewards employees for supporting safety culture through actions such as demonstrating positive safety behaviors, leading safety meetings, reporting safety issues, or participating in safety education.

The Company is also in its fourth fiscal year of working on compliance with the Voluntary Protection Plan ("VPP") program of the United States Occupational Health and Safety Administration ("OSHA"). VPP compliance focuses on both physical facility improvements as well as the implementation of a safety and health management system ("SHMS"), which is a continuous improvement process and framework that reduces hazards and prevents incidents.

**Q. How is the Company addressing the physical facility improvement aspect of VPP compliance?**

A. Across its service territory, the Company has identified 54 separate "facilities" that are being evaluated under the VPP process. Over the past four years the Company has fully completed 19 of those facilities. "Completion" entails the evaluation of such facilities and all physical upgrades to make them VPP compliant. In FY 2019, the Company surpassed its forecasted VPP completion goal of seven facilities by completing, and making ready for OSHA VPP inspection, nine facilities.

VPP also requires monthly inspections of all facilities - those completed and not completed – by Company staff. Uncompleted facilities are inspected to determine what measures are needed to make them VPP compliant and completed facilities are inspected to ensure that they remain VPP compliant. These monthly inspections are conducted by staff based out of those facilities. Each of those facilities is then evaluated once in every 12-month period by a Company team external to that facility to determine both needed improvements and ensure maintenance of VPP compliance. In FY 2019, each of the Company's 54 facilities underwent a monthly inspection. Each of those 54 facilities are also on target to receive the 12-month external inspection. For FY 2020, evaluations and facility upgrades will continue; however, the Company is also increasing its focus on the development and implementation of the SHMS component of VPP compliance.

**Q. How is the Company addressing the SHMS aspect of VPP compliance?**

A. As I mentioned above, the SHMS is a continuous improvement process. It can also be thought of an organizational framework to manage and reduce health and safety hazards. As an initial step toward developing the SHMS, in 2019, the Company assembled a process improvement team for the implementation of the VPP program across the entire Company. This team is charged with developing the budget, scope, and schedule needed to achieve VPP status. Company management recently met and approved a multi-year VPP implementation plan based on the recommendation of the VPP process improvement team. The implementation plan approves a governance structure and full time personnel additions, and authorized acquisition of a safety management software program to track data, including incidents, near misses, and lessons learned.

**Q. What other ongoing safety programs does the Company have?**

A. Other ongoing safety programs and tools include Smith driver training; the 24-hour Triage Nurse Hotline; the Fleetmatics fleet management tool that generates a driver safety score utilizing GPS technology; and DriveCAM selective driver monitoring.

**Q. Has the Company recently launched any new safety initiatives?**

A. Yes. There are two relatively recent safety-related initiatives that the Company is undertaking: (1) the driver safety process improvement team, which was launched in March of 2019; and (2) the Safety Culture Transformation Program, which is in its second year.

**Q. Please describe the driver safety process improvement team.**

A. The driver safety process improvement team was charged with evaluating the Company's use of in-vehicle tools to improve driver safety. The team evaluated some tools that the Company currently employees, such as Fleetmatics and Drive-Cam technology, as well as other tools that provide real-time feedback on driver safety that are not currently used by the Company. The team developed a set of recommendations as a result of this evaluation that it presented to Company management in October of 2019.

**Q. Is the Company modifying its driver safety program as a result of these recommendations?**

A. Yes. The Company will implement a vehicle certification program, which will require drivers to have more in-depth knowledge of the specific make and model of each vehicle that they operate on the job. A safe driving committee will also be established to help evaluate driver incidents to determine if corrective action, such as retraining, is needed. Another recommendation that the Company is adopting is a pilot program that will employ an external trainer for UGI Gas's commercial driver licensed ("CDL") drivers that will supplement the Company's existing in-house driver training program.

**Q. Please describe the Safety Culture Transformation Program ("SCTP").**

A. In 2018, UGI launched an initiative to transform its safety culture in partnership with DuPont Sustainable Solutions ("DSS"). The first stage of this project was a safety culture assessment, which began in July of 2018, to develop a safety culture baseline. This initial assessment included documentation review, focus group interviews at 10 field operating centers, and Company-wide administration of the DuPont Safety Perception Survey™. DSS reviewed with Company personnel the Company's current safety programs, and separate workshops were held with UGI leadership and key safety personnel to train on the techniques and strategies for developing effective safety messaging and training.

Based on the initial assessment, the Company and DSS embarked upon the SCTP, which officially launched the week of December 3, 2018, with five Company-wide presentations to introduce the program and the release of the Company's new internal safety vision statement "I'll be there." The SCTP is an ongoing endeavor. The Company is still in Phase I of the initiative, with costs projected through 2021. The first phase of the program, which continues through the FPFTY, consists of three work streams: (1) Governance - Operational Rigor and Managing Process; (2) Expanding Safety Leadership Capabilities; and (3) Branding and Communication to Advance the Culture. The culmination of this initial phase will produce a functional SHMS that will manage all of the Company's other safety programs, as well as non-programmatic areas such as: (1) Safety Leadership Training; (2) Communication and Branding; (3) Operational Staffing and Evaluation; and (4) Safety Rules and Procedures. Technical Training, which was previously under this initiative, will now be its own stand-alone program.

**III. <u>TRAINING INITIATIVES.</u>**

**Q. What training initiatives is the Company undertaking?**

A. The Company is undertaking the development of a centralized training facility, hiring additional training FTEs as recommended by its process improvement team, continuing its safety culture transformation program, and, as I mentioned earlier in my testimony, launching a driver training pilot.

**Q. Please explain the Company's project to create a centralized training facility.**

A. Since early 2017, UGI Gas has been planning to build a centralized training facility located in Berks County. The Company closed on the purchase of the land for the training center on January 17, 2020. The state-of-the art training facility will include an approximately 60,000 square foot training center, a "safety town" for real-life outdoor training inclusive of natural gas fire training, corrosion training, and leak pinpointing and investigation. There will also be a separate welding and tapping center. The interior of the training center will include offices, meeting rooms, a safety lab, several lecture rooms, a service lab, a metering and regulation lab, and a computer lab. Classrooms and laboratories are designed for four primary training deliverables: (1) safety; (2) construction and maintenance; (3) measurement and regulation; and (4) utility service.

**Q. When will the training center be placed into service?**

A. The training center will be placed into service in phases beginning at the end of fiscal year 2020 through the beginning of calendar year 2021.

**Q. What is the anticipated cost of the Training Center?**

A. The anticipated capital cost of this project is $34 million, which includes the actual cost for land acquisition, site improvements, and construction. The cost of site improvements and construction are based on facility construction bids, which in turn were based on detailed scaled architectural drawings of the proposed training center.

**Q. What process did the Company go through to evaluate the location and design of this new training facility?**

A. As mentioned above, the Company has been investigating the development of a centralized training center since early 2017. A cross-functional team of Company representatives from Safety, Training, Engineering, Operations, and Human Resources have visited and reported back on the training facilities of other regulated utility companies, such as Atmos Energy, Dominion East Ohio ("Dominion"), Columbia Gas of Pennsylvania ("Columbia"), and Washington Gas Light. These Company representatives conducted visits of the Dominion and Columbia facilities accompanied by the architect that the Company engaged for its training center, so that the architect would benefit from seeing the existing training centers in operation. In addition to conducting site visits, the Company received and reviewed detailed plans of certain of these facilities. The determination of the Company's functional needs for this training facility were based on these site visits, plan reviews, and discussions with colleagues within and outside the utility industry, as well as internal discussions within UGI Gas. UGI Gas was fortunate to locate the Berks County property, as that location is conveniently located near some of the major routes traversing the service territory.

**Q. Why does the Company believe that a centralized training center is needed?**

A. A centralized training center is necessary to provide consistency of training for new and existing employees throughout the organization and to provide a depth of training not currently available with the Company's existing facilities. The Company does have regional training centers; however, these centers grew organically over time as a result of the Company's acquisition of smaller utilities and then, more recently, mid-sized gas utilities. The Company's existing training centers are appropriate for routine training and provide opportunities for employees to do web-based and computerized training, as well as table top exercises, and they will continue to serve UGI Gas in that capacity. However, consistent with the Company's goal for enhancing its safety performance, more sophisticated state-of-the-art training facilities are needed (*e.g.*, a robust leak simulation field). This will enable more access to live gas training and real-world equipment to improve employee performance and confidence when they are working in the field. The planned training facility will provide those opportunities.

A large, centralized training center also will permit a large cross section of UGI Gas employees to train together. The Company's current training facilities lack sufficient capacity to train large groups of employees. Because the Company is a product of mergers and acquisitions, it is especially important to train employees from different regions together to reinforce a consistent culture and promote standardized materials and practices. The Company has sized the proposed training facility to permit large-scale training.

Lastly, UGI Gas expects to make the facility available for emergency responder training as a means of improving coordination between the Company and emergency response agencies.

## IV. ENVIRONMENTAL

### A. Environmental Remediation Program

**Q. Please discuss environmental management at UGI Gas.**

A. The environmental group at UGI Gas is focused on three main activities: (1) the investigation and remediation of environmental impacts related to historical operations; (2) environmental compliance activities, such as permitting and operational improvements; and (3) sustainability and methane reduction activities.

**Q. Please describe the Company's investigation and remediation of environmental impacts related to historical operations.**

A. From the late 1800s through the mid-1900s, UGI and its predecessors owned and operated a number of manufactured gas plants ("MGPs") that, prior to the general availability of natural gas, generated gas from other fuel stocks for residential, commercial, and industrial customer use. In Pennsylvania, this process generally used coal as a fuel stock. Some constituents of coal tars and other residues of the manufactured gas process are today considered hazardous substances under state and federal environmental laws. Historically, UGI Gas operated its environmental remediation programs under three consent orders and agreements ("COA") with PaDEP. UGI Gas and its former corporate subsidiaries, UGI Penn Natural Gas, Inc. ("UGI PNG") and UGI Central Penn Gas, Inc. ("UGI CPG"), were each parties to separate COAs with

PaDEP. The UGI Gas COA was executed in 2016 and will terminate on October 1, 2031. UGI CPG and UGI PNG were merged into UGI Gas effective October 1, 2018 and their former service territories operated through a North and Central Rate District. The Central and North COAs were amended concurrently with the merger to (i) substitute UGI Gas as a party and (ii) extend the term of both COAs to December 31, 2020. Each of these COAs obligates the Company to either meet an annual minimum environmental spend commitment or complete a sufficient number of environmental activities to achieve a minimum annual point total. The annual minimum spend for the UGI Gas COA and the North and Central COAs is $2.5, $1.1, and $1.75 million, respectively or $5.35 in the aggregate.

**Q. What types of costs does UGI Gas incur with respect to addressing MGP site conditions?**

A. UGI Gas incurs costs attributed to site investigations, remediation, and site restoration as well as related PaDEP oversight costs. Costs may also be incurred to obtain an environmental covenant at the site to prevent certain uses of the site, and costs associated with transferring the site to a third party (such as with a dedication for public use) once the site has been restored. Costs may also be incurred to purchase a property to secure access to investigate and remediate. Additionally, expert and legal costs are sometimes incurred in interactions with insurance carriers or other potentially responsible parties to ensure that UGI Gas's customers are only paying their equitable share of investigation and remediation costs. Costs may be incurred to implement PaDEP workplans if the Company faces opposition to the investigation or remediation of the site. Costs may also be incurred to recover compensation under historical insurance policies to offset the costs that would otherwise be recovered from customers.

**Q. What is UGI Gas's projected spending on the MGP program?**

A. UGI Gas's average aggregate annual spending over the past three years is $5.154 million, as shown below in Table 4. As the Company is still operating under three separate COAs, the costs have been provided on a per-COA and combined basis.

| Table 4. Environmental Spend Per Year | |
|---|---|
| **Year** | **Total** |
| 2017 | $6,134,000 |
| 2018 | $4,219,000 |
| 2019 | $5,108,000 |
| Total | $15,461,000 |
| **Average** | $5,154,000 |

This amount is used in the calculation of the environmental adjustment shown in UGI Gas Exhibit A, Schedule D-8, as discussed in the direct testimony of Mr. Stephen F. Anzaldo (UGI Gas St. No. 2).

**Q. Why does environmental spend vary from the minimum environmental spend set by the COA?**

A. While the Company uses the environmental minimum spend as a benchmark for budgeting, actual costs may exceed the minimum in certain years due to PaDEP requirements, changing environmental standards, and site-specific issues such as sensitive habitat and concentration of contaminants. Additionally, since environmental spending is benchmarked by rate district, it constrains the geographic focus of UGI Gas's environmental spending, leading to underspending in certain years. In years when the Company is unable to make its minimum spend commitments, it can avail itself of an alternative compliance pathway under each COA that permits the Company to use banked points for remedial work completed in past years.

**Q. What is UGI Gas's goal for restoration of the MGP sites?**

A. UGI Gas strives to restore each site for beneficial reuse that becomes an asset to the Company or the community. Because these MGP sites are located within the Company's existing service territory, restoration of the sites for beneficial reuse, whether in the form of urban redevelopment or the creation of a new public space, directly benefits UGI Gas's customers.

### B. Emissions Reductions Programs

**Q. How does UGI Gas quantify the environmental impact of its operations?**

A. In addition to the programs discussed in Mr. Brown's testimony (e.g., oil to gas conversion, EE&C, etc.) (UGI Gas Statement No. 1) that reduce emissions, UGI Gas has been a partner in the United States Environmental Protection Agency's ("EPA") voluntary Natural Gas STAR program since its inception. Natural Gas STAR provides a framework to encourage partner companies to implement methane emissions reducing technologies and practices and document their voluntary emission reduction activities. On March 30, 2016, UGI Gas joined with 32 other natural gas utilities to launch the EPA's Natural Gas STAR Methane Challenge Program. As a founding member of the STAR Methane Challenge, UGI Gas has committed to making and tracking emissions reductions.  Participation in this program includes a commitment to replace infrastructure at a rate that reduces methane emissions by three percent a year.

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

A. Yes, it does.

# UGI GAS EXHIBIT JRK-1

# Joseph R. Kopalek

## Vice President, Environmental, Health and Safety

*jkopalek@ugi.com* *484-387-9933 · Dallas, PA 18612*

**Summary**

Executive management professional with extensive leadership experience in operations, maintenance, and construction of natural gas facilities. Proven track record in construction and project management that includes pipelines, compression, dehydration, regulation and measurement. Skilled in executing strategies and policies in compliance with government codes, permitting and regulations and continuous improvement in operations.

**Areas of Expertise include:**

| | | |
|---|---|---|
| Operational Management | Pipeline Integrity | Team Building |
| Budget Development | Customer Service | Environmental & Safety |
| Regulatory Compliance | Leadership Development | Natural Resource Permitting |
| Construction management | Asset evaluation | Project development |
| Project management | Union negotiations | |

**Professional Experience**

**UGI Utilities – Wilkes-Barre, PA – May 2019 to Present**

**Vice President – Environmental, Health and Safety**

Lead multiple departments in Environmental, Safety and training to achieve objectives of the company. This includes decreased OSHA Incident Rates, Automotive Incident Rates and lost work hour cases. Working on instituting a Safety Culture Program with the assistance of Dupont Safety Solutions. Recent results have shown a 25% decrease in OSHA Incident Rate and 45% decrease in Automotive Incident Rates. In addition, technical training is supported in this group of departments. Working on re-vamping operator qualification training and evaluation and building a new centralized training center. Progress to date is completion of re-organization of Departments Plan, completion of three Safety process improvement teams and revamping of operator qualifications to align with ASME B31Q. During the past 6 months retained dual role over Operations and new role as VP of EHS.

**UGI UTILITIES · Wilkes-Barre, Pennsylvania · 2015-2019(May)**

A major natural gas and electric utility company that delivers energy to customers in Pennsylvania and Maryland.

Senior Director**, North Region** Field Operations

Lead natural gas distribution and transmission business in North Pennsylvania, with an emphasis on ensuring safe, reliable service while achieving regulatory compliance. Manage construction of infrastructure replacement projects including collaborating with engineering and gas operations with an emphasis on efficiency. Develop capital budgets and Operations budgets to support continuing maintenance and construction needs. Manage workforce training and development. Direct response to gas emergencies including large system outages, leaks, and other operational issues.

# Joseph R. Kopalek

Key Accomplishments:

Lead pipeline compliance and regulatory efforts including oversight of integrity management.

Direct and train field staff in recognizing and applying process improvements and best practices, leading to revenue optimization and enhanced productivity.

Responsible for managing and developing strategic leadership for operations, including prioritization of numerous key initiatives to meet company deliverables. Includes improved operational expense metrics and safety.

Lead management of large capital construction program that includes upgrade of existing system and new business pipeline projects.

Decrease non-emergency overtime by 10% over the 2015 to 2019-time frame.

**CRESTWOOD MIDSTREAM · Charleston, West Virginia · 2013-2015**

A multi-billion-dollar mid-stream partnership that owns and operates midstream assets.

Vice -president**, Operations - North East Region**

Provide leadership for start-up midstream assets associated with new natural gas midstream services. Oversee asset construction that includes pipeline, separation, measurement, regulation, compressors, and dehydration facilities. Supervised the project management and operations teams during build out and subsequent operation of gathering assets to ensure safe, timely, and reliable operations. Managed multi- million-dollar capital and operations budgets to guarantee corporate profitability. Developed relations with local officials, stakeholders, and customers to promote synergy and mitigate concerns.

Key Accomplishments:

Leadership of all federal regulated (FERC and PHMSA) natural gas storage and transmission assets in New York and Pennsylvania.

Develop assets, evaluate acquisitions and executive support of key customers for natural gas gathering systems.

Applied outstanding project management skills to allocate material, personnel, and financial resources in executing corporate projects and programs.

**NICOR GAS, AN AGL RESOURCES COMPANY** · Naperville, Illinois · 2012-2013

Largest natural gas (only) distribution company in the United States.

Manager of Storage and Peaking

Led and managed the AGL Resource Storage and Peaking department, including oversight of the operational management of storage field and transmission line assets. Championed operations, maintenance, compliance and construction efforts for high pressure aquifer storage fields and transmission pipeline facilities.

Key Accomplishments:

Directed regulatory compliance in gas control projects, commercial operations, and storage field maintenance.

Led professional development of frontline supervisors in business management and safety.

# Joseph R. Kopalek

**COLUMBIA GAS TRANSMISSION · Charleston, West Virginia · 2008-2012**

A natural gas pipeline, storage and midstream company.

Regional Director of Operations

Provided strategic management and direction of interstate pipeline and storage procedures. Led operations, maintenance, and construction efforts for high pressure aquifer storage fields and transmission pipeline facilities. Maintained the regional operations budget and personnel leadership of over 200 field employees. Developed midstream field operations.

Key Accomplishments:

> Increased safety, reliability, and integrity of large interstate natural gas transmission systems, including 26 compressor stations, 17 storage fields, and over 7,500 miles of pipeline.
>
> Responsible for significantly reducing in overtime, while maintaining completion of compliance tasks.
>
> Redeveloped assets to create a midstream-focused business within the Marcellus Shale to support major regional natural gas producers and gas processing interests.
>
> Lead pipeline integrity management from the operations perspective for company- wide improvement initiative.

**COLUMBIA GAS TRANSMISSION · Dundee, New York · 1995-2008**

A natural gas pipeline and natural gas storage systems company.

Field Operations Manager

Managed operations for the interstate pipeline systems including the compressor and storage facilities for six states. Managed an operations budget of $7 million per year, led compliance effort and continuous improvement programs.

Key Accomplishments:

> Led Corporate Safety Steering Committee and was a member of the Corporate Environmental Management Council.
>
> Additional experience as Field Operations Front Line Supervisor and Environmental Technician for Columbia Gas Transmission, an Environmental consulting role for McFarland-Johnson and Wehran Envirotech, Inc.

**Education**

**Master of Arts in Organizational Management**

***University of Phoenix | Remote (Graduated with Honors)***

**Bachelor of Science** (Biological Sciences and Geography, completed double major)

***BINGHAMTON UNIVERSITY | Binghamton, New York***

**Other Training**

UGI University Leadership Program
NiSource Executive Leadership Program
OSHA General Industry & Construction Training
PHMSA and State Pipeline Safety and Compliance Training
Environmental Compliance & Natural Resource Permitting