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July 2, 2018

Rosemary Chiavetta, Secretary
PA Public Utility Commission
Commonwealth Keystone Bldg.
400 North Street
Harrisburg, PA 17120

Re: Pa. Public Utility Commission
v.
UGI Utilities, Inc. – Electric Division
Docket No. R-2017-2640058

Dear Secretary Chiavetta:

Attached for electronic filing please find the Office of Consumer Advocate's Main Brief in the above-referenced proceeding.

Copies have been served per the attached Certificate of Service.

Respectfully submitted,

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Certificate of Service

*252946

CERTIFICATE OF SERVICE

Pennsylvania Public Utility Commission	:	
v.	:	Docket No. R-2017-2640058
UGI Utilities, Inc. – Electric Division	:	

I hereby certify that I have this day served a true copy of the following documents, the Office of Consumer Advocate's Main Brief, upon parties of record in this proceeding in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant), in the manner and upon the persons listed below:

Dated this 2nd day of July 2018.

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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2017-2640058
	:	
UGI Utilities, Inc. – Electric Division	:	

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I. INTRODUCTION

A. UGI Electric

UGI Utilities, Inc. – Electric Division (UGI Electric, UGI, UGI-E, or the Company) is engaged in the business of furnishing electric service to approximately 61,832 residential, commercial, and industrial customers in portions of Luzerne County and Wyoming County, Pennsylvania. The Company maintains over 1,200 miles of overheard and underground primary distribution lines, twelve distribution substations, and 49 distribution circuits. OCA St. 1 at 3.

On January 26, 2018, UGI Electric filed with the Public Utility Commission (Commission) Tariff – Electric Pa. P.U.C. Nos. 6 and 2S (Tariff Supplement Nos. 6 and 2S) to become effective on March 27, 2018. In its initial filing, UGI Electric proposed to increase rates by $9.254 million in annual operating revenues, or by 10.4% on an annual revenue basis.[1] UGI St. 1 at 3. On March 12, 2018, UGI Electric filed revisions to its direct case in which it updated its revenue requirement to reflect changes to the Federal tax law, the Tax Cuts and Jobs Act (TCJA), which reduced the corporate income tax rate to 21 percent. UGI St. 2SD at 2-3. The Company's updated revenue increase totaled $8.491 million. UGI St. 2 at 2. Subsequently, in Rebuttal Testimony, the Company further updated its revenue increase request to $8.092 million. UGI St. 2R at 5.

UGI Electric also proposes to increase its residential monthly customer charge from $5.50 to $14.00. UGI St. 8 at 16. Additionally, if the Company's proposal is approved in its entirety, the Company would be permitted to recover an 11.25% return on common equity, including 0.20% in recognition of "management effectiveness." UGI St. 5SD, Exh. PRM-2.

[1] Under the Company's initial proposal, a residential customer receiving default service from UGI Electric and using 1,000 kilowatt hours (kWh) per month would experience a monthly bill increase of 11.8%, from $112.28 to $125.56. UGI St. 1 at 3. In comparison, small commercial customers would experience no increase and industrial customers would experience an increase of only 1.4%. UGI St. 1 at 3.

B. History of the Proceedings

As detailed in Section I.A. above, on January 26, 2018, UGI Electric filed Tariff Supplement Nos. 6 and 2S.[2] On February 5, 2018, the Commission's Bureau of Investigation and Enforcement (I&E) filed a Notice of Appearance in this proceeding. On February 6, 2018, the OCA filed a Formal Complaint and Public Statement. On February 12, 2018, the Office of Small Business Advocate (OSBA) also filed a Formal Complaint.

On March 1, 2018, the Commission entered an Order by which it suspended Tariff Supplement Nos. 6 and 2S until October 27, 2018, pursuant to Section 1308(d) of the Public Utility Code, 66 Pa. C.S. § 1308(d), and initiated an investigation into the lawfulness, justness, and reasonableness of the rates, rules, and regulations contained therein. Subsequently, this matter was assigned to Administrative Law Judges (ALJs) Steven K. Haas and Andrew M. Calvelli.

On March 22, 2018, a Prehearing Conference was held and, on March 30, 2018, the ALJs issued a Scheduling Order. On April 18, 2018, in accordance with the procedural schedule, two "smart" Public Input Hearings were held. On April 26, 2018, the OCA filed the Direct Testimony of its witnesses: Lafayette K. Morgan, James S. Garren, Aaron L. Rothschild, Jerome D. Mierzwa, and Roger D. Colton. I&E and OSBA also filed Direct Testimony.[3] On May 25, 2018, the OCA, OSBA, and UGI filed Rebuttal Testimony. On June 7, 2018, the OCA, I&E, and OSBA filed Surrebuttal Testimony.[4] On June 11, 2018, UGI filed Rejoinder Testimony. On June 11, 2018, and June 12, 2018, evidentiary hearings were held. On June 20, 2018, the parties filed a Partial Stipulation Resolving Certain Contested Issues.

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[2] On March 12, 2018, the Company submitted Supplemental Direct Testimony and revised Exhibits.

[3] On June 8, 2018, UGI filed a Motion in Limine to Strike the Direct Testimony and Surrebuttal Testimony of I&E witness Joseph Kubas. On June 25, 2018, the ALJs issued an Order denying the Company's Motion.

[4] See supra, n. 2.

C. Legal Standards

UGI Electric bears the burden of proof to establish the justness and reasonableness of every element of its requested rate increase. In this regard, Section 315(a) of the Public Utility Code, 66 Pa. C.S. § 315(a), provides as follows:

> Reasonableness of rates – In any proceeding upon the motion of the Commission, involving any proposed or existing rate of any public utility, or in any proceedings upon the complaint involving any proposed increase in rates, the burden of proof to show that the rate involved is just and reasonable shall be upon the public utility.

66 Pa. C.S. § 315(a). The Commonwealth Court has interpreted this principle in stating that:

> Section 315(a) of the Public Utility Code, 66 Pa. C.S. § 315(a), places the burden of proving the justness and reasonableness of a proposed rate hike squarely on the utility. It is well-established that the evidence adduced by a utility to meet this burden must be substantial.

Lower Frederick Twp. v. Pa. P.U.C., 226-27, 409 A.2d 505, 507 (1980) (citations omitted) (emphasis added); see also Brockway Glass v. Pa. P.U.C., 437 A.2d 1067 (1981).

The Pennsylvania Supreme Court has stated that the party with the burden of proof has a formidable task to show that the Commission may lawfully adopt its position. Even where a party has established a prima facie case, the party with the burden must establish that "the elements of that cause of action are proven with substantial evidence which enables the party asserting the cause of action to prevail, precluding all reasonable inferences to the contrary." Burleson v. Pa. P.U.C., 461 A.2d 1234, 1236 (Pa. 1983) (Burleson). Thus, a utility has an affirmative burden to establish the justness and reasonableness of every component of its rate request.

The OCA notes that Pennsylvania law is clear that there is no similar burden for a party proposing an adjustment to a utility base rate filing. See e.g., Berner v. Pa. P.U.C., 116 A.2d 738 (1955) (Berner). In Berner, the Pennsylvania Supreme Court stated:

> [T]he appellants did not have the burden of proving that the plant additions were improper, unnecessary or too costly; on the contrary, that burden is, by statute, on the utility to demonstrate the reasonable necessity and cost of the installations and that is the burden which the utility patently failed to carry.

Id. at 744. The Commission recognizes this standard in its rate determinations. Pa. P.U.C. v. Equitable Gas Co., 57 Pa. PUC 423, 471 (1983); see also University of Pennsylvania v. Pa. P.U.C., 485 A.2d 1217 (1984). Thus, it is unnecessary for the OCA, or any challenger, to prove that UGI Electric's proposed rates are unjust, unreasonable, or not in the public interest. To prevail in its challenge, Pennsylvania law requires only that the OCA show how UGI Electric failed to meet its burden of proof.

Therefore, UGI Electric must affirmatively establish the reasonableness of every element of its claims and demonstrate that its proposed rates are just, reasonable, and in the public interest. In this Main Brief, the OCA will show that UGI Electric has failed to satisfy its statutory burden in the manners set forth below.

II. SUMMARY OF ARGUMENT

The OCA submits that UGI Electric has not met its burden of proof for a number of claims that the Company set forth in support of its revised request to increase revenue by $8.092 million. As noted above, the burden of proof applicable in this rate proceeding requires UGI Electric to show that its base rate increase request is just and reasonable. The OCA submits that UGI Electric has failed to make this showing. The Company's claim requires adjustments in the areas of accounting, rate of return, and rate structure/rate design. Based upon the testimony of the OCA's expert witnesses, the OCA submits that an overall distribution revenue increase of $2,137 is justified, based on a 6.75% overall rate of return. This reflects necessary adjustments to claims and a return on equity of 8.5% based on the stipulated capital structure. An increase in this amount allocated to customers as recommended by the OCA in this Main Brief results in rates that are just and reasonable. The OCA also makes other recommendations in support of just and reasonable rates that are consistent with Commission orders and Pennsylvania law. A summary of the OCA's adjustments are provided on Tables I and II, which are attached hereto as Appendix A.

A. Rate Base

OCA witness Morgan recommended adjustments to the Company's claim based on sound ratemaking principles. OCA witness Morgan's recommendations result in a cumulative downward adjustment to UGI Electric's proposed rate base in the amount of $22.067 million relative to the original filing as well as an additional downward adjustment of $10 million relative to the original filing is also appropriate due to the speculative nature of the Company's Electric Engineering & Operations Center proposal.

B. Expenses

OCA witness Morgan recommended adjustments to the Company's claimed expenses and, in particular, the OCA recommends that the Commission reject UGI Electric's adjustment to recover environmental remediation expense in its entirety and reduce O&M expense by $139,000, reduce the Company's storm damage expense by $161,000, reducing the employee additions cost to reflect the costs incurred during the FPFTY based on the date of employment and adjust the payroll expense accordingly. The OCA also recommends that the Commission approve the Company-Owned Services (COS) Transition Program expense provided that the Company is permitted only to recover program expenses and **not** permitted to terminate service.

C. Taxes

The OCA submits, *inter alia*, that UGI Electric must timely return 2018 tax savings resulting from the TCJA to customers via a surcharge mechanism or other mechanism, such as a one-time bill credit, consistent with the Commission orders addressing the impact of the TCJA. The OCA also submits that the Company's rate base should continue to be reduced by the amount of Excess Accumulated Deferred Income Taxes (EDIT) in the regulatory liability until the EDIT is return to ratepayers in accordance with normalization principles. The OCA also notes that, except for the treatment of EDIT, UGI Electric's rates resulting from this proceeding reflect the impact of the TCJA.

D. Fair Rate of Return

The OCA submits that UGI Electric failed to meet its burden of proof in support of its request for a return on equity of 11.25%. The OCA recommends that the Commission adopt the cost of capital recommendations of OCA witness Rothschild and allow the Company to earn a

8.5% return on common equity and a 6.75% overall return on its rate base based on the stipulated capital structure.

E. Rate Structure

OCA witness Mierzwa performed a reasonable and appropriate ACCOSS, which should be used as a guide for setting rates in this proceeding. Based on this ACCOSS as well as the principles of gradualism and basic fairness, OCA witness Mierzwa recommended a more appropriate revenue allocation that provides adequate progress toward the cost of service, while reflecting gradualism. The OCA submits that the Commission should adopt its proposed revenue allocation as well as the OCA's recommended monthly Residential customer charge of $8.00, which includes only the costs appropriate to be included in a customer charge, reflects gradualism, and avoids harm to low-income and low-use customers.

III. STIPULATION OF PARTIAL SETTLEMENT

Throughout the course of settlement discussions, the parties were able to reach an agreement on several issues raised in this proceeding. Accordingly, on June 20, 2018, the parties filed a Partial Stipulation Resolving Certain Contested Issues (Partial Stipulation). The parties have reached an agreement on the issues below in an effort to limit the scope of the contested issues before the ALJs in this proceeding. All issues not included in the Partial Stipulation have been reserved for litigation and will be addressed in Sections IV – XI of this Main Brief.

A. Capital Structure

As part of the Partial Stipulation, the OCA has agreed to accept the Company's capital structure. The Partial Stipulation provides as follows:

> 6. Capital Structure: The parties accept the capital structure proposed by the Company in the direct testimony of Paul R. Moul, UGI Electric, St. No. 5.

Partial Stipulation at 2. OCA witness Rothschild recommended adjustments to the Company's capital structure. See gen'ly OCA St. 3. The OCA submits that the Partial Stipulation reflects a compromise of several issues with each result within the range of possible outcomes of a fully litigated proceeding. The OCA supports this provision of the Partial Stipulation and submits that the agreed upon capital structure represents a reasonable compromise that is in the public interest.

B. Depreciation Rates

As part the Partial Stipulation, the OCA has agreed to accept the Company's as-filed deprecation rates. The Partial Stipulation provides as follows:

> 7. Depreciation Rates: For purposes of this Partial Stipulation, UGI Electric's as-filed depreciation rates are accepted.

Partial Stipulation at 2. OCA witness Garren suggested modifications to the Company's depreciation rates and, based on these modifications, OCA witness Morgan recommended

adjustments to the Company's depreciation expense. See gen'ly OCA St. 1, OCA St. 2. The OCA submits that the Partial Stipulation reflects a compromise of several issues with each result within the range of possible outcomes of a fully litigated proceeding. The OCA supports this provision of the partial stipulation and submits that the agreed upon depreciation rates represent a reasonable compromise that is in the public interest.

C. Electric Vehicle (EV) Rider

As part of Partial Stipulation, the Company has agreed to withdraw the proposed Rate EV. The Partial Stipulation provides as follows:

> 8. EV Rider: Rate EV is withdrawn at this time without prejudice to the Company's right to refile the EV Rider in a future rate case or in a separate proceeding at the Company's discretion.

Partial Stipulation at 2. OCA witness Mierzwa testified that there are a number of unresolved policy issues associated with the proposed Rate EV. See gen'ly OCA St. 4. The OCA's position was that it is not appropriate to address the Company's EV Rider when policy issues remain unaddressed by the Commission. The OCA supports this provision of the Partial Stipulation and submits that this provision promotes the conservation of administrative resources and costs.

D. Storm Expense Rider

As part of the Partial Stipulation, the Company has agreed to withdraw the proposed Storm Damage Expense Rider (SDER). The Partial Stipulation provides as follows:

> 9. Storm Expense: The Company will with draw the proposed Storm Expense Rider without prejudice to the Company's right to refile the Storm Expense Rider in a future rate case or to file with the Commission for deferral of any major storm expenses incurred on and after June 1, 2018.

Partial Stipulation at 3. OCA witness Mierzwa testified that the Company had not demonstrated the need for the proposed SDER and the SDER constitutes single-issue ratemaking and reflects

unsound regulatory policy. See gen'ly OCA St. 4. The OCA opposed the SDER. The OCA supports this provision of the partial stipulation and submits that it is in the public interest.

E. Pennsylvania Public Utility Realty Tax (PURTA)

As part of the Partial Stipulation, the Company has agreed that base rates will reflect $97,000 for PURTA obligations. The Partial Stipulation provides as follows:

> 10. Pennsylvania Public Utility Realty Tax (PURTA): Base rates established in this proceeding shall reflect $97,000 for PURTA obligations. Any future recalculations of the State Tax Adjustment Surcharge after the effective date of new rates in this proceeding shall also reflect this base amount unless and until a different tax obligation is established by the Pennsylvania Department of Revenue.

Partial Stipulation at 3. The OCA did not take a positon on the issue of PURTA in this proceeding. The OCA does not oppose this provision of the Partial Stipulation.

F. Universal Service Programs

As part of the Partial Stipulation, the parties agreed to resolve Universal Service Program issues raised in this proceeding. The Partial Stipulation provides as follows:

> 11. Universal Service Programs: For purposes of this Partial Stipulation, UGI Electric's Universal Service Program issues that were raised in this proceeding are resolved as follows:
>
> a) Customer Assistance Program ("CAP"): The Company agrees to use a base CAP participation of 2,448, which reflects the 12-month period ending December 2017, for purposes of applying a CAP credit and arrearage forgiveness credit offset to CAP costs collected through Rider C. The number of CAP participants shall be the average monthly number of CAP participants in the 12-month period for which costs are being reconciled.
>
> b) Self-Certification: UGI Electric will accept self-certification of low income status for purposes of identifying "confirmed low-income customers" in

the same way that self-certification is required to be accepted by the UGI gas affiliates.

c) Rider C: The Company will modify Rider C (proposed tariff page 42) to include the following italicized language: "CAP costs will be calculated to include 1) the projected CAP credit, 2) projected CAP customer application and administrative costs *paid to external agencies that would not have been incurred in the absence of CAP*; and . . ."

d) Budget Billing: The Company will allow year-round rolling enrollment for its budget billing program and shall modify related tariff language accordingly in its compliance filing.

e) Payment Plans: For customers completing payment plans, the Company will automatically retain the customer on budge billing unless the customer explicitly requests to be removed from budget billing.

Partial Stipulation at 4 (emphasis in original). OCA witness Colton recommended a number of modifications to the Company's Universal Service Programs. See gen'ly OCA St. 5. The OCA supports this provision of the Partial Stipulation and submits that this provision is in the public interest in that it will improve UGI Electric's CAP, budget billing program, and payment plans, align the Company's self-certification process with that of its affiliates, and ensure that its Universal Service Programs comply with the Commission's regulations and Pennsylvania law.

G. Miscellaneous Accounting Issues

As part of the Partial Stipulation, the parties have agreed to resolve certain accounting issues. The Partial Stipulation provides as follows:

> 12. Miscellaneous Accounting Issues: The Parties have agreed to resolve certain accounting issues presented by the Company in this proceeding in the direct testimony of UGI Electric witness Megan Mattern, UGI Electric Statement No. 4.

a) Cloud Based program: The Company shall be permitted to record the Cloud Based Implementation Costs, as described on pages 13-15 of the direct testimony of Megan Mattern, UGI Electric St. No. 4, as a capital asset and shall begin depreciation of the costs after the systems are placed in service.

b) UNITE Phase 2 Costs: The Company shall be permitted to capitalize the pre-implementation costs, as described on page 15 of the direct testimony of Megan Mattern, UGI Electric St. No. 4 and shall begin depreciation of the costs after the systems are placed in service.

Partial Stipulation at 4. The OCA did not take a positon on the accounting issues related to Cloud Based Programs or UNITE Phase 2 Costs in this proceeding. The OCA does not oppose these provisions of the Partial Stipulation.

IV. RATE BASE

A. Original Cost Utility Plant in Service

1. End of Year vs. Average Rate Base Methodology

Under Act 11 of 2012, an electric distribution company is permitted to develop electric distribution rates utilizing a fully projected future test year (FPFTY). In this case, UGI has utilized a FPFTY to establish the Company's cost of service for the period of October 1, 2018 through September 30, 2019. UGI St. 2 at 3.

In the Company's filing, UGI proposed rates based on the utilization of a fully projected future test year beginning October 1, 2018 and ending September 30, 2019. UGI St. 2 at 3. The Company filed its case on January 26, 2018. The Commission issued a suspension order on March 1, 2018 stating that the rates in this case will be suspended until October 27, 2018. Pa. PUC v. UGI Utilities, Inc. – Electric Division, Docket No. R-2017-2640058 (Order entered March 30, 2018).

UGI proposes to collect rates on October 27, 2018 that are based on the costs of plant in service projected for September 2019 one year later. OCA witness Morgan[5] explained how the Company is utilizing rate base to set rates in this proceeding, as follows:

> UGI-E's FPFTY cost of service is based upon an end of period basis. For instance, the Company's claim for utility plant in service is calculated using the closing plant balances as of September 30, 2017, and budgeted plant additions for the years ending September 30, 2018 (FTY) and September 30, 2019 (FPFTY), less budgeted FTY and FPFTY plant retirements. Similarly, for the accumulated depreciation, UGI-E started with accumulated depreciation as of

[5] OCA witness Morgan is an independent regulatory consultant focusing in the analysis of public utility operations, with particular emphasis on rate regulation. He has reviewed and analyzed utility rate filings, focusing primarily on revenue requirements, accounting, regulatory policy and cost recovery mechanisms throughout the country. Mr. Morgan was a Senior Regulatory Analyst with Exeter Associates from 1993 through 2010. Prior to his work with Exeter Associates, Mr. Morgan was a Senior Financial Analyst with Potomac Electric Power Company. Prior to that, Mr. Morgan was a Staff Accountant with the North Carolina Utilities Commission. OCA St. 1, Appendix A.

> September 30, 2017, added the budgeted level of depreciation expense for the FTY and FPFTY, and included the impact of the FTY and FPFTY plant retirements and a provision for net salvage to derive the end of period amount.

OCA St. 1 at 6. As OCA witness Morgan explained, UGI-E's filing calculated utility plant in service using the FPFTY balance of September 30, 2019, almost a full year after rates go into effect. Mr. Morgan further explained that, by utilizing the September 30, 2019 projected rate base, the Company's claim is overstated:

> Q. CAN YOU FURTHER EXPLAIN HOW UGI-E'S USE OF THE END OF THE FPFTY HAS OVERSTATED THE COMPANY'S RATE YEAR COST OF SERVICE?
>
> A. Yes. I will explain using the example of the inclusion of the projected plant in service as of September 30, 2019 in rate base and calculating depreciation expense based on the balance of plant in service as of September 30, 2019. If accepted, UGI-E's proposal would result in UGI-E earning a return, beginning on the first day of the rate year, on plant that will not be in service and, hence, will not be used and useful for up to one year later. Similarly, the Company would be allowed to recover a full year of depreciation expense on plant that will not be in service for the entire rate year.

OCA St. 1 at 7.

As OCA witness Morgan testified, prior to the passage of Act 11 and the utilization of a fully projected test year, the test year upon which rates were established ended at approximately the same time that new rates became effective. OCA St. 1 at 7. Under UGI-E's approach here, however, "Adjusting costs to end of rate year levels and beyond would result in UGI-E recovering costs from ratepayers that are in excess of the costs that will be incurred during the rate year." OCA St. 1 at 8. As part of that rate increase, the cost of capital on the Company's rate base will go into effect at the beginning of the year. For capital additions that are projected to be

added to rate base in the later portions of the year, costs will be included in rates at the beginning of the year.

Similarly, I&E witness Ethan Cline also testified that with no knowledge of when any of the Company's projected plant additions will actually be finished, allowing the Company to use the September 30, 2019 year-end plant-in-service as proposed by UGI could result in customers paying, for approximately eleven months, rates that include costs for projects and plant that are not in service and used or useful to those customers. I&E St. 3 at 7. I&E witness Cline summarized the impact of this issue on ratepayers, where he testified that, "Requiring customers to pay a return of and on plant investments that will not occur for almost one year does not produce just and reasonable rates for ratepayers." I&E St. 3 at 8.

The OCA submits that rates must be set based on the average rate base projected to be used and useful in the fully projected future test year. The average rate base measures the net investment in facilities to provide utility service over the course of the year, rather than as of a point in time as of the end of the year. It is internally consistent with the measurement of expenses, billing determinants, and income over the course of the year to use an average rate base. Using an average rate base properly matches the calculation of rate base with the other elements of the Company's revenue requirement and income in a given year.

OCA witness Morgan explained the proper approach to establishing rate base when using a FPFTY to set rates. Mr. Morgan testified as follows:

> Q. WHAT IS THE PROPER APPROACH TO DETERMINE REVENUE REQUIREMENTS FOR THE RATE YEAR?
>
> A. As noted previously, the use of a FPFTY is intended to allow rates to be set to recover the costs that will be incurred during the first year the rates are in effect. Accordingly, rate base should reflect the average balances of plant in service, accumulated depreciation, accumulated deferred income taxes and other elements. Similarly,

the amounts included for depreciation, wages and other expenses should be based on the costs that will be incurred during the rate year. Wages, for example, should reflect the wage rates in effect each month of the year, not the wage rates that will be in effect at the end of the year. Depreciation expense should reflect average levels of plant in service during the rate year.

OCA St. 1 at 8.

In effect, the use of a year-end rate base in the context of a FPFTY would allow the Company to earn a return on its net plant investment in advance of when such investment is actually made. The rates in this case will go into effect on October 27, 2018. Under the Company's proposal, the rates that go into effect at that time will reflect a rate base as of September 31, 2019, almost one year later. Throughout the whole rate year, customers would be paying rates that include a return on a rate base larger than the actual investment in facilities being used to provide service. Clearly, such a mismatch would be inappropriate.

Other jurisdictions have recognized the importance of utilizing an average rate base methodology in a fully projected future test year. The Illinois Commerce Commission squarely addressed this issue in a 2013, holding:

> The Commission finds that an average rate base methodology is more appropriate than a year end based calculation on the facts of the particular cases before us. The selection of an average rate base calculation take [sic] into account that investments are made throughout the test year, rather than the Companies' method of a year-end rate base **which inappropriately assumes, for rate setting purposes, that all investments are made at the beginning of the test year.**

Re North Shore Gas Company, ICC Docket Nos. 12-0511/0512 (cons.), pp. 26 (Order entered June 18, 2013).

In order to appropriately reflect the actual level of investments made by the Company in rates, OCA witness Morgan recommended the following adjustment:

> Q. WHAT ADJUSTMENTS ARE YOU PROPOSING TO MAKE TO UGI-E'S FILED CLAIM TO REFLECT AVERAGE RATE BASE DURING THE RATE YEAR?
>
> A. In its filing, UGI-E has reflected plant in service, accumulated depreciation, and accumulated deferred income taxes (ADIT) at the projected September 30, 2019 levels in determining its FPFTY rate base claim. As explained previously, including the end of rate year plant in service and related balances in rate base would result in UGI-E earning a return on a rate base that exceeds the Company's actual investment during the rate year. To reflect the Company's projected investment over the course of the first year the rates in this case will be in effect, I have adjusted plant in service, accumulated depreciation and ADIT included in rate base to reflect the average balances during the rate year.
>
> Q. HOW HAVE YOU CALCULATED THE AVERAGE BALANCES OF PLANT, ACCUMULATED DEPRECIATION AND ADIT?
>
> A. I have calculated the average balances of plant in service, accumulated depreciation and ADIT using the balances from September 30, 2018 and September 30, 2019 and averaging both.

OCA St. 1 at 8-9.

OCA witness Morgan presented the effect of his adjustment to reflect the average rate year balances of plant, accumulated depreciation and ADIT in Schedule LKM-4. The net effect of this adjustment is to reduce rate base by $10.953 million. OCA St. 1 at 9.

In rebuttal testimony, the Company argues that the average rate base methodology is appropriate. UGI St. 4-R at 3-7. In support of its claim, the Company notes that the rates will be in effect more than one year, so using an end of year rate base is "more" accurate than average rate base. UGI St. 4-R at 4. The Company further argues that prior to Act 11 of 2012, end of future test year balances were permitted for ratemaking purposes. UGI St. 4-R at 4. In addition, the Company argues that utilization of the end of year rate base better aligns with other ratemaking treatments. UGI St. 4-R at 4. Finally, the Company argues that the language of Act 11 supports

their year-end rate base claim. UGI St. 4-R at 5. The OCA submits that none of these arguments provide a valid rationale for the use of a year-end rate base that allows the Company to overcollect its revenue requirement.

OCA witness Morgan explained why each of these reasons for supporting the end of year rate base methodology proposed by the Company should be rejected as follows:

> [T]he length of time the new rates remain in effect is not a reason to use the end of period amounts that Ms. Mattern uses. The test year is selected by the Company and adjusted to derive a representative level of costs to provide service. As I explained in my direct testimony, the use of the average test year prevents the Company from recovering costs before those costs are incurred. Regarding the past practice of using end of period rate base, that practice was allowed because only a partially forecasted future test year was used, and that future test year ended at approximately the same time that rates were scheduled to take effect. Hence, the over collection problem was not a major concern. Finally, Ms. Mattern indicates the use of the average FPFTY balance makes the synchronization of rate base components complicated. The complexity of the calculation is not a reason use an improper method of calculating rate base.

OCA St. 1-S at 4.

Responding to the Company's assertion that rates will be in effect beyond the test year, I&E witness Cline also testified that the Company's position was contrary to Commission-accepted principles, as follows:

> Witness Mattern is incorrect in her assumption that the entire three- to five-year period that rates are in effect should be utilized to set base rates in this proceeding. Projection of revenues and expenses beyond the FPFTY has not been permitted by the Commission. Rates are not meant to be set so that the Company can recover the cost of projects outside of the FPFTY that were not included in base rates.

I&E St. 3SR at 4.

The Company further argues that the language of Act 11 "clearly contemplates that plant placed in service throughout the FPFTY may be included in rate base." UGI St. 4R at 5. The Company supports this assumption with the statutory language of Act 11, where the Act states:

> Notwithstanding section 1315 (relating to limitation on consideration of certain costs for electric utilities), the commission may permit facilities which are projected to be in service during the fully projected future test year to be included in the rate base.

66 Pa.C.S. §315(e). The OCA submits, however, that the language of Act 11 does not specify the manner by which plant projected to be in service is to be included in rates. More importantly, as both OCA witness Morgan and I&E witness Cline testified, the average rate base methodology permits a more accurate level of plant additions to be included ***during*** the test year. See, OCA St. 1 at 6-9; I&E St. 3 at 6-10.

The OCA submits that the reasons offered by the Company in support of utilizing an end of year rate base in the FPFTY do not justify requiring ratepayers to overpay the revenue requirement. The OCA submits that the average rate year balances of plant, accumulated depreciation and ADIT contained in Schedule LKM-4 should be adopted by the Commission, reducing rate base by $10.954 million.

2. Electrical Engineering and Operations Center

In its filing, the Company made a claim for $10 million for an Electric Engineering and Operations Center. UGI St. 3 at 16. In rebuttal testimony, the Company updated this claim, increasing the budgeted amount from $10 million to $17.3 million based on a "more comprehensive estimate" of expected costs. UGI St. 3-R at 17.

In his Surrebuttal Testimony, OCA witness Morgan recommended that the updated information demonstrated that the $17.3 million cost estimate was speculative and that the Company's Confidential UGI Electric Exhibit EWS-8 raises serious concerns about the

completion of the project during the FPFTY. OCA St. 1-S at 2. As a result, OCA witness Morgan recommended that the originally proposed estimate of $10 million included in his Direct Testimony should be removed from plant in service. OCA St. 1-S at 3.

In recommending that the costs of the Electrical Engineering and Operations Center be removed from the FPFTY, Mr. Morgan reviewed UGI Electric Confidential Exhibit EWS-8. As Mr. Morgan explained, the Company has not sufficiently demonstrated that the projected operations center will be in service in the FPFTY. <u>See</u> OCA St. 1-S at 2-3 (OCA witness Morgan confidential analysis of UGI Electric Exhibit EWS-8).

In rejoinder testimony, Company witness Sorber argues that the Company filed more, not less, information in support of the proposed new facility to substantiate its claim. UGI-E St. 3-RJ at 11. Mr. Sorber testified that the proposed facility was under "active" negotiations and that the Company had experience building new headquarters for its gas affiliate and that he was "confident" in the Company's ability to move into the new Electric Engineering & Operation Center prior to the end of the FPFTY. UGI-E St. 3-RJ at 11-12.

The OCA submits that Mr. Sorber's positive assessment of UGI-E's ability to begin utilizing the Electric Engineering & Operation Center prior to the end of the FPFTY is not sufficient to include the cost in rates. Under cross-examination, Mr. Sorber was asked how the Company updates budget estimates, and in response it became evident that the only preliminary budgeted amount modified in this proceeding was the Electric Engineering & Operation Center. Tr. at 99-104. The OCA submits that the Company has not followed any disciplined budgeting process in making the significant changes proposed here. Tr. at 99-105. Additionally, as of the date of the evidentiary hearing, there was no formal agreement to purchase the property and no contractors had been hired to do the remodeling and site preparations needed to complete the

Electric Engineering & Operation Center. Tr. at 105. As such, the OCA submits that the Company has not sufficiently demonstrated that the Electric Engineering & Operation Center will be in operation in the FPFTY and, therefore, an adjustment to the Company's claimed plant in service should be made to remove $17.3 million from plan in service in the FPFTY.

B. Accrued Depreciation

The OCA notes that a Partial Stipulation was reached on the issue of depreciation rates. See surpa, Section III.B; see Partial Stipulation at 2. UGI Electric based its rate year depreciation expense on the projected balance of plant at the end of the FPFTY (September 30, 2019). OCA St. 1 at 20. As OCA witness Morgan testified, however, the Company's annualized depreciation expense must be adjusted to account for the average rate base in the FPFTY. The average test year issue is discussed in Section VI.A.I. Mr. Morgan explained:

> By determining the annualized depreciation expense on the balance of plant in service as of the end of the fully projected test year, UGI-E has reflected a level of depreciation expense that will not begin to be incurred until after October 1, 2019 instead of the depreciation expense that will be incurred during the rate year ending September 30, 2019. When companies used a future test year that ended before rates went into effect, the use of end of FTY plant to calculate depreciation expense was appropriate in order to reflect the depreciation expense that would be recognized at the time rates went into effect. However, in this case, where UGI-E is now allowed to use a fully projected future test year, the use of end of rate year plant to calculate depreciation expense is no longer appropriate because doing so significantly overstates the depreciation expense that will be recognized during the rate year, and results in UGI-E earning in excess of its allowed rate of return.

OCA St. 1 at 20-21. The OCA submits that the Company should base its depreciation expense on average plant in service during the FPFTY.

C. Additions to Rate Base

1. Cash Working Capital

The OCA takes no position on this issue here. The OCA's position regarding the impact of Act 40 on Cash Working Capital is addressed in Section VII.C, below.

2. Materials and Supplies

The OCA takes no position on this issue.

D. Deductions from Rate Base

1. Accumulated Deferred Income Taxes (ADIT)

As discussed in Section IV.A.1 above, UGI Electric calculated the Accumulated Deferred Income Taxes (ADIT) at the projected September 30, 2019 levels, or end of year levels, in determining its FPFTY rate base claim. OCA St. 1 at 8. The OCA recommends, however, that the amount of ADIT deducted from the Company's rate base be calculated at the average balances during the rate year. OCA St. 1 at 9; see supra, Section IV.A.1.

Fundamentally, because utilities are required to include federal income taxes in rates on a normalized basis, the deferred portion of federal income tax expense is included in the utility revenue requirement as an expense. As these tax expenses are deferred rather than paid on a current basis, the deferred taxes are accumulated in an account referred to as ADIT. The ADIT amount represents funds that have been provided by ratepayers, but will not yet be paid by the Company. Accordingly, ADIT is treated as a reduction to rate base.

As OCA witness Morgan explained, because of his adjustment to the rate base claim of the Company to reflect average balances during the rate year rather than year end balance, the ADIT must be correspondingly adjusted. OCA St. 1 at 8. OCA witness Morgan adjusted the ADIT included in rate base to "reflect the average balances during the rate year." OCA St. 1 at 9. In doing so, OCA witness Morgan "calculated the average balances of . . . ADIT using the balances from September 30, 2018 and September 30, 2019 and averaging both." OCA St. 1 at 9. The

resulting amount of ADIT reflects UGI Electric's projected investment over the course of the first year that the rates will be in effect in this case so that the Company will not earn a return on rate base that exceeds its actual investment during the rate year. OCA St. 1 at 9.

The OCA submits that, for the reasons set forth above and in Section IV.A.1, the Commission should adopt the OCA's ADIT adjustment. See supra, Section IV.A.1. The OCA's net adjustment to rate base, including the ADIT adjustment (and plant in service and accumulated depreciation), is $10.953 million. OCA St. 1 at 9; see OCA St. 1, Schedule LKM-4.

2. Act 40

The OCA addresses the impact of Act 40 in Section VII.C, below.

3. Customer Deposits

The OCA takes no position on this issue.

E. Cloud Based Program

The OCA notes that a Partial Stipulation was reached on the issue of the Cloud Based Program. See surpa, Section III.G; see Partial Stipulation at 4.

F. Unite Phase 2 Costs

The OCA notes that a Partial Stipulation was reached on the issue of Unite Phase 2 costs. See surpa, Section III.G; see Partial Stipulation at 4.

G. Conclusion as to Rate Base

As discussed above, the Commission should modify the Company's rate base claim. OCA witness Morgan's recommended adjustments to UGI's proposed rate base resulted in a cumulative downward adjustment to UGI's proposed rate base in the amount of $22.067 million relative to the original filing. OCA St. 1, Sch. LKM-2. In addition, rate base should be adjusted downward by $10 million relative to the original filing, or $17.3 million compared to the Company's revised

request, due to the speculative nature of the proposed Electric Engineering & Operations Center. OCA St. 1S at 1-3.

V. REVENUES

In his Direct Testimony, OCA witness Morgan identified $158,000 of revenue resulting from the expansion of the primary underground distribution system in the Hanover Industrial Park that was not included in the FPFTY. OCA St. 1 at 15. Mr. Morgan made an adjustment of $158,000 to reflect the revenue associated with the upgrades serving the industrial park. OCA St. 1 at 16, Sch. LKM-7. In Rebuttal Testimony, UGI agreed that the FPFTY budget sales and revenues did not include the additional sales and revenues associated with the project. UGI St. 3-R at 16. The Company incorporated this adjustment in its revised revenue requirement request. UGI St. 2-R at 4; UGI revised Sch. D-5. The OCA presented no other total operating revenue adjustments in this proceeding. <u>See</u>, OCA St. 1, Sch. LKM-1.

VI. EXPENSES

A. Vegetation Management Expense

The OCA takes no positon on this issue.

B. Company Owned Services Program

UGI Electric's filing includes an expense claim for a proposed Company-Owned Service (COS) Transition Program. UGI St. 3 at 14. The Company's claim is derived from a new program designed to transition the ownership of "COS equipment" from UGI Electric to homeowners. UGI St. 3 at 15. UGI Electric witness Sorber described the COS equipment, as follows:

> As a result of a marketing program that ended in the early 1970s, UGI electric currently owns and maintains nearly 5,000 of these COS services, mainly residential services. These UGI Electric-owned facilities include the service entrance cable, meter socket, panel box, main breaker, and 240 volt breakers, of which some equipment is located inside the customers' homes.

UGI St. 3 at 15. The Company claims that the need to transition the COS equipment to homeowners arose from difficulty in UGI Electric's service technicians ability to gain access to equipment within the home for maintenance purposes. UGI St. 3 at 15. UGI Electric intends to send notices to affected customers and schedule the inspection and repair or replacement of COS equipment in order for the equipment to pass inspection by an electrical inspector. UGI St. 3 at 15. UGI Electric witness Sorber further explained:

> UGI Electric will utilize all regulatory options available, including its tariff right to potentially interrupt service until access is granted, to complete inspection of and repair or replacement of, as necessary, its COS equipment. Once the approved electrical inspector inspection is completed, the Company's former COS equipment will be deemed customer-owned equipment consistent with the terms of UGI Electric's tariff, and UGI Electric may further reinforce this status by having the customer execute a bill of sale for a nominal stated consideration.

UGI St. 3 at 15. The Company expects that this program will result in the transfer of 500 COS facilities per year for 10 years and a total cost of $4.544 million. UGI St. 3 at 15. The annual expense claim amount in this proceeding is $314,000. UGI St. 3 at 1.

The OCA does not oppose this program as it addresses a safety issue unique to UGI Electric. OCA St. 4 at 28. The OCA submits, however, that, as OCA witness Mierzwa noted in his Direct Testimony, "UGI should only be entitled to recover the expenses associated with the Program, and not profit in any way." OCA St. 4 at 28. Additionally, "[u]nder no circumstances should service be terminated under the Program," and "since the Program impacts nearly 10 percent of UGI's Residential customers, the Company should coordinate its efforts with the Commission's Bureau of Consumer Services and the OCA." OCA St. 4 at 28.

In his Rebuttal Testimony, UGI Electric witness Eric Sober clarified that "UGI Electric is not capitalizing any portion of the Company Owned Service Transition program" and that "the Company will not profit from this program." UGI St. 3R at 9. UGI Electric witness Sorber also noted that the Company "appreciates the suggestion . . . to coordinate the program with BCS and OCA" and is "hopeful this coordination and assistance will aid with customer acceptance and understanding of the need and potential benefits of this program." UGI St. 3R at 10. Lastly, UGI Electric witness Sorber stated that the Company "has the right to terminate service for failure to allow inspection of these facilities," although it does not desire to do so. UGI St. 3R at 10.

The OCA submits that the Commission should approve UGI Electric's expense claim for the COS Transition Program in order to address the unique safety issue presented by the COS equipment provided that the Company is permitted to recover only program expenses and is **not** permitted to terminate service in conjunction with the COS Transition Program.

C. Environmental Remediation Expense

In its filing, UGI Electric proposes an adjustment to allow the Company to recover environmental remediation expense associated with its site in Forty Fort, Pennsylvania. UGI St. 3 at 18; see UGI Exh. A, Schedule D-8. UGI Electric's claim is based on "a minor amount of ground remediation" to be undertaken as part of a "consolidated UGI Electric Operations and Engineering Center and relocation and sale of the existing UGI Electric warehouse property." UGI St. 3 at 1. 8. UGI Electric witness Sorber stated that the "cost is based on the typical environmental remediation that would be required for the type of surface contamination that we have identified or are considering at that location." Tr. at 106. UGI Electric witness Sorber further stated:

> Included in UGI Electric Exhibit A, Schedule D-8, is the estimated cost of $417,000 for the site remediation work that was not, because of timing, previously included in the Company's budget. In its filing, UGI Electric has proposed to amortize and recover this cost over a three-year period.

UGI St. 3 at 18. In other words, the Company proposes to amortize the environmental remediation costs at an annual cost of $139,000 for three years. OCA St. 1 at 16.

The OCA recommends that the environmental remediation expense for excavation, loading, transportation, and disposal services at UGI Electric's Forty Fort site be removed from the cost of service and submits that this expense should *not* be recovered as an expense from ratepayers. OCA St. 1 at 16, 17; see OCA St. 1, Schedule LKM-8. In particular, it is not appropriate to recover these remediation costs from ratepayers when UGI Electric intends to sell the property in FY2020. OCA St. 1 at 17; OCA St. 1S at 5. In his Direct Testimony, OCA witness Morgan explained:

> [I]t should be noted that the property where the proposed work is to occur is slated to be sold "sometime during FY2020."
>
> . . .

> Even though the sale of the land is scheduled to occur during FY2020, the Company claims that it plans to pay for the remediation during FY2019. The area where the remediation is scheduled to occur is primarily an indoor parking lot that is currently being used by Company vehicles. The work to be performed involves excavation and removing soil from an area that is expected to be a dirt floor.
>
> . . .
>
> Given that the property is being sold, I believe it is appropriate to recover the cost of the remediation [from] the sales proceeds rather than to pass those costs onto ratepayers.

OCA St. 1 at 16-17. As OCA witness Morgan concluded, "inclusion of the environmental remediation in base rates only serves to charge higher rates." OCA St. 1S at 5.

Moreover, UGI Electric should be required to reduce the gain on the land by the environmental remediation costs as the value of the land on the sale would decline without remediation. OCA St. 1 at 17. As OCA witness Morgan explained:

> The [C]ompany has not reflected a gain or a loss on this transaction in revenue requirement. In fact, the Company indicates that it does not record gains or losses on the sale of structures and improvements which are recorded as net salvage. With regard to the potential apportionment of part of the sale price to the land, the Company states that it does not have a current estimate on the potential gain or loss on the land.
>
> . . .
>
> Given the age of the property, a gain is likely to be recognized on the apportionment of the sales price to the land. It is appropriate to reduce the gain on the land by the remediation cost because without the remediation the value of the land on the sale would decline. Therefore, on Schedule LKM-8, I am recommending an adjustment to reduce O&M expenses by $139,000.

OCA St. 1 at 17.

UGI Electric witness Sorber implied in his Rebuttal Testimony that the sale of the property is not relevant to the recovery of the environmental remediation costs. UGI St. 3R at 4; OCA St. 1S at 5; UGI St. 3RJ at 5. UGI Electric witness Sorber stated, "Ultimate disposition of the property,

in my view, should have nothing to do with recovery of the environmental remediation cost." UGI St. 3R at 4. The OCA submits, however, that the sale of the property *is* relevant to the recovery of these remediation costs. Specifically, OCA witness Morgan explained:

> [I]t is very relevant to the recovery of these costs given the fact[s] of the situation. First, without the remediation, the sale of the property would be impaired. Hence, there is a direct correlation of the remediation and the salability of the property. Second, it is very unfair and improper to burden ratepayers with [th]is cost when, clearly, [it] can be recovered from the sale proceeds.

OCA St. 1S at 5.

Therefore, the OCA submits that the "remediation costs should be removed from the cost of service and not recovered from ratepayers." OCA St. 1 at 17. The OCA further submits that the Commission should accept the OCA's "adjustment to reduce the O&M expenses by a $139,000." OCA St. 1 at 17; see OCA St. 1, Schedule LKM-8.

D. Storm Damage Expense

In its filing, UGI Electric proposes an adjustment to recover storm damage expense. UGI St. 2 at 17; see UGI Exh. A, Schedule D-13. The Company's claim is based on the cost of what it refers to as "qualifying expenses from major storm events occurring during the period 2013 through 2017." UGI St. 2 at 17. These expenses total $1.773 million. UGI St 2 at 17. The Company proposes to normalize this amount over a 5-year period, which results in a storm damage expense of $275,000 per year after allocating a portion of the cost to transmission operations.[6] OCA St. 1 at 19. In particular, UGI Electric witness Anzaldo stated:

> To determine the amount of qualified storm expenses that will be recovered through base rate, the Company normalized these qualifying expenses over a five-year period with a portion allocated to transmission operations, which resulted in a total of $275,000 for

[6] In Rebuttal Testimony, UGI witness Anzaldo and UGI witness Lahoff noted that the Company proposes to increase the amount of storm damage expense to $301,000. UGI St. 2R at 4; UGI St. 8R at 22.

> storm expenses that will be recovered through base rates as shown in Schedule D-13.

UGI St. 2 at 17.

The OCA recommends that the amount of UGI Electric's claimed storm damage expense be reduced. OCA St. 1 at 20; see OCA St. 1, Schedule LKM-13. As OCA witness Morgan explained in his Direct Testimony:

> The data presented by the Company on which the adjustment is based show that qualified storms or storms of this magnitude are infrequent. The Company presented activity for the five-year period 2013 through 2017. During that period there were only two storms – one in 2014 and the other in 2017. It should be noted that there are two years between with no activity. Typically, a multi-year average is used to normalize storm expenses that occur frequently and that have a high degree of variability from one year to the next. The normalization is used to smooth out spikes and dips in the costs that occur from year to year.

OCA St. 1 at 19-20. OCA witness Morgan further noted that "the Company's attempt to include the 2014 storm cost should not be accepted." OCA St. 1 at 20. OCA witness Morgan explained that it serves to skew the costs upward" and "it has the effect of retroactive recovery of the 2014 storm costs since there are no other storm costs besides 2017 because of the infrequent storm occurrence." OCA St. 1 at 20. Accordingly, he recommended an "adjustment which reduces the storm expense by $161,000" to $114,000 annually. OCA St. 1 at 20. OCA witness Morgan noted that this "adjustment is based upon the five-year normalization of the 2017 storm cost of $570,000" and that the "five-year period is the normalization that was requested by the Company." | OCA St. 1 at 20.

The Company offered no response to OCA witness Morgan's recommendation to reduce the amount of storm damage expense. As such, the OCA submits that the Commission should

accept the OCA's adjustment, which reduces the Company's storm expense by $161,000 to an annualized level of $114,000. See OCA St. 1 at 20; OCA St. 1, Schedule LKM-13.

E. Rate Case Expense

The OCA takes no position on this issue.

F. Employee Expenses

1. Salaries and Wages Net of Employee Additions

The OCA addresses employee additions in Section VI.F.2 below.

2. Employee Additions

UGI Electric's filing includes an adjustment for the costs of three additional personnel that were not factored into the FPFTY budget. UGI St. 2 at 15; see UGI Exh. A, Schedule D-9. The Company claimed that these personnel will "support both the Company's distribution and transmission functions" and that each of the three positions "are expected to be filled by December 1, 2018." UGI St. 2 at 15; UGI St. 3 at 14. UGI witness Sorber described the positions, as follows:

> The first is for a General Manger (GM) position. This executive position will report to the UGI Utilities Inc. Chief Operating Officer, and have executive management responsibilities for UGI Electric including safety, reliability, budget, operations, engineering, construction, PJM, PUC and overall UGI Electric metrics and goals.
>
> . . .
>
> The second position is for a New Business Engineer. This positon will focus on both supporting commercial and industrial accounts and will provide engineering technology support.
>
> . . .
>
> The third positon is a senior position designated as a Business Support Engineer. This position will support UGI Electric in several key areas.

UGI St. 3 at 13-14. In its filing, the Company claimed that the cost of the three additional employees totals $494,000. UGI St. 2 15. The Company later indicated that this amount was incorrect and that the correct amount is $382,000.[7] OCA St. 1 at 17.

With regard to employee additions, the OCA recommends an adjustment to the payroll expense to reflect expected date of employment.[8] OCA St. 1 at 17-18; see OCA St. 1, Schedule LKM-9. As OCA witness Morgan explained:

> [T]the Company indicates that these positions are not expected to be filled until December 1, 2018. Earlier, I explained that under the FPFTY concept, the rate should be set to reflect the costs to be incurred during the rate year or the first year of the rate effective period. Therefore, I have adjusted the costs related to the additional employees to reflect the cost to be incurred during the FPFTY based on the expected date of employment.

OCA St. 1 at 17.

In his Rebuttal Testimony, UGI Electric witness Anzaldo rejected OCA witness Morgan's adjustment to prorate the amount claimed for the number of months that the positions will be in place during the FPFTY. UGI St. 2R at 9. UGI Electric witness Anzaldo claimed that "the Company has consistently adjusted its FPFTY expenses, revenues, and rate base to reflect end of test year conditions." UGI St. 2R at 9. As OCA witness Morgan explained, however:

> While reflecting costs at end of year levels may have been appropriate when revenue requirements were being established to reflect costs for a future test year that ended at the time rates would go into effect, adjusting costs to year end levels is not appropriate now that a FPFTY is being used to establish rates. Adjusting costs to end of rate year levels and beyond would result in UGI-E

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[7] In his Rebuttal Testimony, UGI Electric witness Anzaldo indicated that the Company corrected the original claim of $494,000 to $382,000 and noted that the "amount has been accepted by I&E and OCA." UGI St. 2R at 3, 7.

[8] OCA witness Morgan also recommended an adjustment to reflect the Company's incorrectly claimed amount of $494,000 to the corrected amount of $382,000. OCA St. 1 at 17-18. In his Rebuttal Testimony, however, UGI witness Anzaldo clarified that where the Company incorrectly claimed $494,000 was "not linked to the Revenue Requirement Model and did not impact the Company's proposed revenue increase." UGI St. 2R at 8. As such, the "revenue requirement was based on the $382,000." UGI St. 2R at 8.

recovering costs from ratepayers that are in excess of the costs that will be incurred during the rate year.

OCA St. 1 at 7-8. OCA witness Morgan further stated that "the amounts included for depreciation, wages, and other expenses should be based on the costs that will be incurred during the rate year." OCA St. 1 at 8.

Therefore, it is appropriate to adjust the costs related to the employee additions to reflect the costs incurred during the FPFTY based on the date of employment. OCA St. 1 at 17-18; see OCA St. 1, Schedule LKM-9.

3. Outside Services Employed

The OCA takes no positon on this issue.

4. Employee Activity Costs

The OCA takes no position on this issue.

5. Allocated Stock Options and Restricted Stock Awards

The OCA takes no position on this issue.

G. Depreciation Expense

The OCA notes that a Partial Stipulation was reached on the issue of depreciation. See surpa, Section III.B; see Partial Stipulation at 2.

H. Other Post-Employment Benefits (OPEB)

The OCA takes no position on this issue.

I. Conclusion as to Expenses

In addition to the expense adjustments detailed above, the OCA notes that it recommended additional expense adjustments, which UGI Electric has accepted, including adjustments to (1) pension expense, (2) payroll taxes, and (3) the Loomis Substation depreciation expense.

In particular, with regard to pension expense, OCA witness Morgan recommended that UGI Electric reflect the most recent capitalization ratio to derive the O&M expense, which was 34 percent. OCA St. 1 at 18; see OCA St. 1, Schedule LKM-11. UGI Electric witness Anzaldo noted that "the Company accept[ed] OCA's recommended adjustment to pension expense" and has adjusted the claim "from $73,000 to $24,000 to reflect a 34% capitalization ratio." UGI St. 2R at 4; see UGI Exh. A, Schedule D-14. As it pertains to payroll taxes, OCA witness Morgan recommended an adjustment to FICA taxes to reflect calculation errors, which resulted in a $50,000 reduction. OCA S. 1 at 18; see OCA St. 1, Schedule LKM-10. UGI Electric witness Anzaldo stated that the Company has reduced its original claim by $216,000, which includes the $50,000 reduction. UGI St. 2R at 3; see Exh. A, Schedule D-32. Lastly, with regard to the Loomis Substation depreciation expense, OCA witness Morgan recommended a depreciation expense adjustment of $19,000 to "remove the cost of the distribution circuit from Loomis Substation from rate base." OCA St. 1 at 15; see OCA St. 1, Schedule LKM-6. UGI Electric witness Anzaldo noted that the Company has accepted the OCA's reduction of $19,000. UGI St. 2R at 4.

While the Company's acceptance of these adjustments improves the accuracy and reasonableness of its claim, the OCA submits that additional modifications are necessary. Specifically, as discussed in Sections VI.C (Environmental Remediation Expense), VI.D (Storm Damage Expense), and VI.F.2 (Employee Additions) above, the OCA submits that the Commission should (1) reject the Company's adjustment to recover environmental remediation expense in its entirety and accept the OCA's adjustment to reduce O&M expense by $139,000, (2) accept the OCA's adjustment to reduce the Company's storm damage expense by $161,000, and (3) adjust the employee additions costs to reflect the costs incurred during the FPFTY based on the date of employment and adjust the payroll expense to reflect the date of employment.

See OCA St. 1, Schedule LKM-8; OCA St. 1, Schedule LKM-13, OCA St. 1, Schedule LKM-9. Further, the OCA submits that, as discussed in Section VI.B (Company Owned Services Program), above, the Commission should approve the COS Transition Program expense provided that UGI Electric is permitted only to recover program expenses and is *not* permitted to terminate service.

VII. TAXES

A. Tax Cuts and Jobs Act of 2017 (TCJA)

UGI Electric revised its initial filing to update the Company's revenue requirement request to reflect the impact of the TCJA. UGI St. SD at 2-3. While the Company's revised filing addresses the TCJA impacts from the date new rates go into effect forward, as OCA witness Morgan explained, the Company's revised filing failed to "reflect an adjustment or [include] a proposal to flow back the excess income tax collection from January 1, 2018 to the date the rates from this proceeding should go into effect." OCA St. 1 at 13.

The OCA submits that the 2018 tax savings resulting from the TCJA must be returned to ratepayers. OCA St. 1 at 14. As OCA witness Morgan stated:

> The current rates reflect higher tax rates that were in effect at the time those rates went into effect. For the entire year of 2018, the Company's tax liability will be determined based upon the 21 percent Federal income tax [rate]. Therefore, ratepayers are entitled to the tax savings as of January 1, 2018 to the date new rates from this proceeding are put into effect.

OCA St. 1 at 14. Accordingly, it is appropriate and necessary to "authorize the return of tax savings to ratepayers as soon as possible" in that, as a result of the tax rate reduction, existing rates are unjust and unreasonable. OCA St. 1 at 14.

On March 15, 2018, the Commission entered a Temporary Rates Order concerning the impact of the TCJA on rates. Tax Cuts and Jobs Act of 2017, Docket No. M-2018-2641242 (Order entered March 15, 2018) (March Order). In its March Order, the Commission found that "due to the substantial decrease in the federal corporate tax rate . . . it appears that **existing rates may be excessive and, therefore, no longer just and reasonable**." Id. at 3 (emphasis added).

Accordingly, the Commission established the current rates and riders of certain public utilities as "temporary rates pursuant to Section 1310(d) of the Public Utility Code" in order to

"maximize its authority to establish any negative surcharge, refund or other rate adjustment deemed to be necessary, just and reasonable to account for the tax rate reductions that became effective on January 1, 2018 pursuant to the TCJA." Id. Further, the Commission noted that some utilities have or will soon have pending base rate cases. In this regard, the Commission stated:

> The Commission recognizes that some utilities may be in the midst of (or will file shortly) a Section 1308(d) general rate increase proceeding. The statute provides, in relevant part, as follows:
>
> > The commission shall consider the effect of [the 7-month suspension period] in finally determining and prescribing the rates to be thereafter charged and collected by such public utility, except that the commission shall have no authority to prescribe, determine or fix, at any time during the pendency of a general rate increase proceeding or prior to a final determination of a general rate increase request, temporary rates as provided in section 1310, which rates may provide retroactive increases through recoupment.
>
> 66 Pa. C.S. § 1308(d). Accordingly, this order will not set temporary rates for public utilities that are presently in a pending Section 1308(d) general rate increase proceeding.

Id. at 4. The Commission also stated that it expects the utility and parties "in each such proceeding to address the effect of the federal tax rate reduction on the justness and reasonableness of the consumer rates charged during the term of the suspension period." Id. at 4-5.

On May 17, 2018, the Commission entered a second Temporary Rates Order. Tax Cuts and Jobs Act of 2017, Docket No. M-2018-2641242 (Order entered May 17, 2018) (May Order). In its May Order, the Commission concluded that it "is persuaded that the tax savings and associated reductions in utility revenue requirements should be flowed back to consumers on a current basis." Id. at 15. Specifically, the Commission determined:

> While ratemaking is generally *prospective* in nature, an exception to this rule applies in the case of expenses that are extraordinary,

> substantial and nonrecurring. In this regard, we agree with the OCA that the **TCJA tax savings represent "an extraordinary and substantial, non-recurring reduction in utility expenses** that should be treated outside of a general rate proceeding and flowed back to ratepayers." OCA Comments at 1 and 7. Therefore, in the Commission's judgment, there is no legal impediment to our present consideration of the substantial tax savings from the TCJA and we need not await a base rate case filing to address its effect on the justness and reasonableness of consumer rates.

Id. (emphasis (italics) in original, emphasis (bold) added, citation omitted).

Consistent with this determination, the Commission instructed utilities currently in a pending base rate case, as follows:

> [I]n lieu of any immediate action, we shall consolidate their temporary rates tariff filing with the pending Section 1308(d) proceeding for hearing and disposition. In this fashion, the parties will be able to address the issues identified by the Commission regarding the TCJA in the context of an overall review of the utilities' rates and rate structure.

Id. at 20 (emphasis added). In addition, the Commission instructed UGI Electric as follows:

> [T]he Commission expects the public utility and the parties in each such proceeding **to address the effect of the federal tax rate reduction on the justness and reasonableness of the consumer rates charged during the term of the suspension period, and, in particular, whether a retroactive surcharge or other measure is necessary to account for the tax rate changes that became effective on January 1, 2018.**
>
> We shall adopt this approach for each public utility which currently has a pending 1308(d) proceeding or currently plans to file such a case on or before August 1, 2018. The public utilities in the category are as follows:
>
> UGI Utilities, Inc. (Electric), Docket No. R-2017-2640058

Id. at 20-21 (emphasis added). Accordingly, in this proceeding, UGI Electric is required to account for the impact of the Federal income tax rate change on customer rates in 2018 and return those 2018 tax savings to customers. Id.

Nonetheless, UGI Electric witness McKinney claimed that returning the 2018 tax savings to customers constitutes single issue ratemaking. UGI St. 9R at 2; OCA St. 1S at 6. UGI Electric witness McKinney opined that "[t]o adjust rates in between rate cases for a single item . . . is unfair, and in [her] view poor public policy." UGI St. 9R at 2. OCA witness Morgan explained, however:

> The Federal income tax is such a major component of a utility's cost of service that any change in the tax rate has a significant impact on the utility. When there is a significant decrease in the tax rate, from 35% to 21%, or a 40% decrease in the tax rate, allowing the utility to retain the savings would result in a windfall to shareholders.

OCA St. 1S at 6. Further, OCA witness Morgan noted, and the Commission concluded, that "retaining savings would result in unjust rates." OCA St. 1S at 7; see March Order at 3. The Commission also concluded that retuning the 2018 tax savings to customers does **not** constitute single-issue ratemaking. May Order at 15. Extraordinary, substantial, nonrecurring expenses are the classic exception to single-issue or retroactive ratemaking claims. Popowsky v. Pa. PUC, 695 A.2d 448 (Pa. Commw. Ct. 1997) (Change in accounting standards imposed substantial expenses which could not have been anticipated at the time of prior base rate case.) Moreover, UGI Electric has already calculated the amount of 2018 tax savings to be returned at $212,677.[9] OCA St. 1 a t 14; UGI St. 9R at 2.

Therefore, the OCA submits that the Commission must require UGI Electric to implement a retroactive surcharge or other similar mechanism, such as one-time bill credit, to timely return the 2018 tax savings to customers consistent with its March Order and May Order.

B. Excess Accumulated Deferred Income Taxes (EDIT)

1. Impact of the TCJA on ADIT

[9] In response to discovery, the Company indicated that "the estimated tax savings was calculated by multiplying the effective tax rate pre- and post- enchantment of the TCJA against actual earnings before taxes for January - February 2018 plus budgeted earnings before taxes for March - September 30, 2018." OCA St. 1 at 14.

As noted in Section VII.A above, the TCJA affects the rates of regulated utilities by lowering the federal income tax expense to be included in rates. The decrease in the income tax rate also affects the deferred taxes recorded by regulated utilities. OCA St. 1 at 10.

Fundamentally, deferred taxes are included in a utility's revenue requirement at the existing income tax rate. Prior to the passage of the TCJA, the 35% tax rate was used to calculate both current and deferred income taxes. This inclusion assumed that when a utility eventually paid deferred taxes, they would be paid at the rate of 35%. Because the tax rate has now decreased to 21%, when deferred taxes are eventually paid, they will be paid at the lower rate of 21%.

Accordingly, the deferred tax balances that assumed taxes would be paid at the 35% tax rate are now overstated and UGI Electric must determine the amount of Excess Accumulated Deferred Income Taxes (EDIT) that were created as a result of the TCJA tax rate reduction. OCA St. 1 at 10. OCA witness Morgan explained:

> There are temporary differences in the deductions used to calculate the income taxes payable each year and the income tax expense reported for financial and ratemaking purposes. These differences cause the amount of current income tax[es] that are payable and the amount of income tax that is reported for financial reporting purposes to be different. Those temporary tax/ book differences create deferred income taxes. The annual deferred income taxes accumulate in the [ADIT] account until the temporary tax/ book differences reverse.
>
> . . .
>
> Over the past years, the ADIT has been calculated and accumulated based on the tax rate of 35%. However, under the TCJA, when these deferred taxes become payable, the utility will be required to pay these taxes at the new lower 21% income tax rate. The difference between the deferred taxes accumulated at 35% and the taxes that become payable at 21% are considered the "excess ADIT."

OCA St. 1 at 9-10.

The Company has acknowledged that the TCJA affects deferred taxes. UGI St. 9R at 3-4. Specifically, in her Rebuttal Testimony, UGI Electric witness McKinney noted that, the difference

in the ADIT balance from when it was at a 35% tax rate to its new 21% tax [rate], represents excess deferred federal income taxes." UGI St. 9R at 3-4. As discussed in Section VII.B.2 below, however, the Company's proposed treatment of this EDIT remains at issue.

2. UGI Electric's Proposed Treatment of EDIT

UGI Electric proposes to transfer Excess Accumulated Deferred Income Taxes (EDIT) from its ADIT account to a regulatory liability account. UGI St. 9R at 4. The Company also proposes to exclude these funds from rate base, thus increasing the rate base upon which depreciation expense and return is calculated for revenue requirement purposes. OCA St. 1 at 12.

The OCA does not object to the Company's proposal to transfer the EDIT from the ADIT account to a regulatory liability. OCA St. 1 at 11. As OCA witness Morgan stated, the "transfer of excess ADIT . . . recognizes that these funds are no longer deferred taxes that are due to the Federal government." OCA St. 1 at 11. OCA witness Morgan further noted that UGI Electric "acknowledges that the funds in the regulatory liability account should be returned to ratepayers using the Average Rate Assumption Method (ARAM)." OCA St. 1 at 11.

The OCA submits, however, that amount of the EDIT regulatory liability should be included in rate base. After the transfer to the regulatory liability account, the Company excluded the funds from rate base. OCA St. 1 at 11. The exclusion results in an increase in the rate base of approximately $11 million. OCA St. 1 at 13; see OCA St. 1 Schedule LKM-5. OCA witness Morgan explained why it is appropriate to include the regulatory liability in rate base, as follows:

> I believe these funds should continue to be included in rate base as a reduction because, even though they are being transferred from the ADIT account to a regulatory liability account, they have not fully shed the restriction of the tax laws, and I would argue that they also have not lost their character as part of Federal tax policy. Federal tax policy made accelerated depreciation available to companies as an incentive to finance expansion. Accelerated tax depreciation means that businesses write-off (depreciation) assets quicker and

> since depreciation reduces taxes, the tax savings is a source of funds to the business. That source of funds can be used to pay off financing for other general operational uses.
>
> According to the Company, the funds which now make up the regulatory liability account are primarily made up of amounts that were recorded as protected ADIT. Protected ADITs were, for the most part, derived from the use of accelerated tax depreciation. Under Code Sec. 167 and Code Sec. 168 of Federal tax regulations, regulatory commissions are restricted from flowing the tax benefits of protected ADIT to ratepayers faster than the turn around of those tax benefits. Similarly, even as they are now considered to be excess deferred taxes and transferred to a regulatory liability account, these funds are still restricted by the tax provision that now requires that they be flowed back to ratepayers using the ARAM. ARAM essentially restricts the flow back of the excess deferred taxes (the regulatory liability) before the tax benefits turn around. Consequently, even though they are now placed in an account by another name, they are still treated as protected ADIT and have not been fully returned to ratepayers.

OCA St. 1 at 11.

In her Rebuttal Testimony, UGI Electric witness McKinney claimed that, although "Commission precedent requires that amounts recorded as ADIT be deducted from rate base," "excess deferred income taxes are not ADIT but are 'excess' deferred taxes." UGI St. 9R at 9. UGI Electric witness McKinney further suggested "the regulated liability should be flowed through to customers through an amortization allowance without a return to customer on the unamortized balance." UGI St. 9R at 5.

As OCA witness Morgan explained, however, based on Federal tax policy, "just because the name of the account in which these funds are held has changed, ratepayers should not be penalized by not including the funds in the rate base given the funds are still restricted as if they were protected ADIT." OCA St. 1 at 13. OCA witness Morgan also explained:

> Even though the Company would like to characterize these funds as simply a regulatory liability, the fact is that the fuds are not simply a regulatory liability. If they were simply a regulatory liability, the

> Commission would be free to flow the funds back to ratepayers quicker than the ARAM. Instead, tax regulations still control these funds.

OCA St. 1 at 13.

Therefore, the OCA submits that amount of the EDIT regulatory liability should be reduced from rate base and that the Commission should reduce the Company's rate base by $10.876 million to reflect the inclusion of the regulatory liability. See OCA St. 1, Schedule LKM-5.

C. Act 40

In its filing, the Company addresses its treatment of consolidated tax savings relative to the requirements of Act 40 of 2016, 66 Pa. C.S 13 § 1301.1. UGI St. 2 at 23. Under Act 40, UGI is not required to adjust its revenue request to reflect the consolidated tax savings associated with filing taxes under its parent company. Prior to Act 40, ratepayers were only required to pay through rates the actual taxes paid by UGI Electric, not hypothetical taxes. City of Pittsburgh v. Pa. PUC, 128 A.2d 372, 387 (1956); Western Pennsylvania Water v. Pa. PUC, 422 A.2d 906, 909 (1980); Barasch v. Pa. PUC, 493 A.2d 653, 656 (1985). Act 40 eliminated this adjustment and now allows the Company to include in rates taxes in excess of what it will pay. Company witness McKinney testified that, accompanying these changes, Act 40 also requires a public utility seeking to change rates to demonstrate that it uses at least 50 percent of what would have been a consolidated tax expense adjustment under the law prior to Act 40 for reliability or infrastructure related capital investment and the other 50 percent must be used for general corporate purposes. UGI St. 9 at 8. Company witness Anzaldo testified that the consolidated tax savings revenue requirement would be $75,400. UGI St. 2 at 23. Mr. Anzaldo further claimed that, because both capital additions for reliability in the FPFTY and operating expense budget both well exceed the 50 percent use requirements of Act 40, the Company has complied with the law. UGI St. 2 at 23-24.

In his Direct Testimony, OCA witness Morgan explained that the Company's approach to calculating the use of consolidated tax savings did not comply with Act 40. Mr. Morgan testified as follows:

> Q. DID THE COMPANY COMPLY WITH ACT 40 OF 2016?
>
> A. No. With regard to the portion of Act 40 that requires the 50 percent of the calculated consolidated tax savings be earmarked to support reliability or infrastructure related to the rate-base eligible capital investment, the Company simply states that its rate base claim in this case exceeds the 50% of the consolidated tax savings. This does not show how it is used or benefit[s] ratepayers.

OCA St. 1 at 23.

The OCA submits that rate base should not grow and earn a return (i.e. shareholder profit) using ratepayer supplied funds, as is being proposed by UGI. The OCA further submits that rate base should grow only to the extent such growth is funded by investor supplied funds. To the extent that infrastructure-related rate base investment in a base rate case is being funded by ratepayer supplied funds, the investor return requirement should not grow. Act 40 was clear that though 2025, the former consolidated tax savings, which are now being paid for by ratepayers, were to be used to reduce other ratepayer obligations. To address the use of funds consistent with Act 40, OCA witness Morgan recommended as follows:

> Q. WHAT DO YOU CONCLUDE REGARDING THE 50% OF THE DIFFERENTIAL THAT ACT 40 REQUIRES BE USED TO SUPPORT RELIABILITY OF INFRASTRUCTURE RELATED TO RATE BASE ELIGIBLE CAPITAL INVESTMENT?
>
> A. The 50% of the differential should be used to offset rate base in this case. The rate base reduction supports infrastructure and reliability investment and reduces the burden of rate-base eligible capital investment on ratepayers.

OCA St. 1 at 24.

With regard to the use of 50 percent of consolidated tax saving being used for "general corporate purposes," OCA witness Morgan testified as follows:

> Q. WHAT DO YOU CONCLUDE ABOUT THE 50% OF THE DIFFERENTIAL TO BE USED FOR GENERAL CORPORATE PURPOSES?
>
> A. I conclude that the Company has no specific plans for and did not address how the 50% differential will be spent with regard to general corporate purposes. In Act 40, the use of savings related to general corporate purposes would typically include uses to support capital expenditures needed to execute utility business plans, paying off debt, funding construction projects, paying dividends, paying for maintenance and operating expenses, investment in utility plant in Pennsylvania and to provide a source of working capital. It should not result in a windfall or for the good fortune to the Company, but rather for the benefits of the Company's ratepayers.

OCA St. 1 at 24.

The OCA submits that UGI's "general corporate purpose" is to provide regulated electric utility distribution service in the Commonwealth of Pennsylvania. Act 40's "revenue use differential" for "general corporate purposes" should mean public utility purposes and uses that result in having some identifiable and quantifiable benefit to UGI ratepayers, rather than just resulting in a windfall to the Company. In keeping with this purpose, OCA witness Morgan recommended that the 50 percent differential for general corporate purposes be reflected as a source of non-investor-supplied funding for utility working capital. OCA St. 1 at 25.

In Rebuttal Testimony, Company witness Andalzo argues that, upon advice of counsel, Mr. Morgan's interpretation of Act 40's mandated use of tax savings does not have merit. UGI St. 2R at 12. As Mr. Morgan explained, however, his recommended application of Act 40, as detailed above, directly complies with the statute as quoted in Mr. Andalzo's Rebuttal Testimony. OCA St. 1S at 4. Act 40 specifies that the "Revenue Use" differential applies through 2025 (i.e.,

Subsection B shall no longer apply after December 31, 2025). The OCA submits that the Act requires that some net quantifiable benefit to Pennsylvania utility consumers be provided through 2025 to help offset the impact of the significant rate increases caused through the elimination of the traditional Pennsylvania consolidated tax savings adjustment for ratemaking purposes. The Act is clear that, in this transition, a benefit must still flow to ratepayers. 1 Pa. C.S § 1921(b) ("When the words of a statute are clear and free from all ambiguity, the letter of it is not be disregarded . . .").

Therefore, the OCA submits that Mr. Morgan's adjustments regarding the application of tax savings is consistent with Act 40 and should be adopted in this proceeding.

VIII. FAIR RATE OF RETURN

UGI-E seeks an 8.24% overall rate of return, including an 11.25% return on common equity. UGI-E St. 5-SD, Exh. PRM-2. The Company's proposed capital structure is 54.02% equity/45.98% debt. Id. The Company's proposed cost of capital claim is excessive, as both the testimony of OCA witness Aaron Rothschild and the following discussion demonstrate. Mr. Rothschild's testimony shows that a fair cost of common equity is 8.5%. OCA St. 3 at 2. As discussed below, Mr. Rothschild's recommendations make proper use of accepted financial theory and realistically reflect today's low capital cost environment.

The OCA submits that Mr. Rothschild has presented a reasonable cost of capital proposal that accurately portrays the current low cost capital environment and reflects reasonable returns for investors. The UGI-E, OCA and I&E proposals as presented in this matter are summarized below.

UGI-E presented the testimony of Paul R. Moul to support its rate of return request. The following summarizes the Company's request:

Capital Type	**Percent of Total (%)**	**Cost Rate (%)**	**Weighted Cost (%)**
Debt	45.98	4.69	2.16
Common Equity	54.02	11.25	6.08
Total	100		8.24

UGI-E St. 5-SD, Exh. PRM-2. UGI-E witness Moul has included adders to his cost of common equity determination in this matter, based on his "leverage" adjustment and an additional adder for UGI-E's "management performance." UGI-E St. 5 at 25-29, 41.

The OCA presented the testimony of Aaron L. Rothschild, an economic consultant specializing in utility regulation, to support its rate of return allowance. Importantly, as part of the proposed Partial Stipulation of several issues addressed in Section III.A of this Main Brief, the OCA has agreed to accept the Company's Capital Structure. See, Partial Stipulation at 2. Adopting the Company's Capital Structure, the OCA's weighted cost of capital is 6.75%:

Capital Type	**Percent of Total (%)**	**Cost Rate (%)**	**Weighted Cost (%)**
Debt	45.98	4.69	2.16
Common Equity	54.02	8.50	4.59
Total	100		6.75

OCA St. 3 at 2 (as modified by Partial Stipulation).

I&E presented the testimony of Anthony Spadaccio, Fixed Utility Financial Analyst with I&E to support its rate of return recommendation. The recommendation of I&E is as follows:

Capital Type	**Percent of Total (%)**	**Cost Rate (%)**	**Weighted Cost (%)**
Long-term Debt	45.98	4.69	2.16
Common Equity	54.02	8.62	4.66
Total	100		6.82

I&E St. 2, Exh. 2, Schedule 1.

The OCA submits that the Company's 11.25% cost of common equity request is well in excess of an objective assessment of investor market requirements in the current economic environment and should be rejected. As OCA witness Rothschild also testified, the additional return on equity (ROE) adders proposed by Mr. Moul are inappropriate, unnecessary and only

serve to inflate the Company's equity cost estimate, and if included in the cost of equity determination, will substantially increase costs for ratepayers. OCA St. 3 at 45, 53-56. The OCA opposes the inclusion of any of these ROE adders.

A. Rate of Return Standards

The law charges the Commission with the duty of protecting the rights of the public. City of Pittsburgh v. Pa. PUC, 126 A.2d 777, 785 (Pa. Super. 1956) (City of Pittsburgh II). As a general rule, a public utility, whose facilities and assets have been dedicated to public service, is entitled to *no more than* a reasonable opportunity to earn a fair rate of return on shareholder investment. Discussing rate of return, the City of Pittsburgh II court wrote that "[i]t is the function of the commission in fixing a fair rate of return to consider not only the interest of the utility but that of the general public as well. The commission stands between the public and the utility." Id.

Along with other factors, cost of capital is a part of all ratemaking determinations. Pa. PUC v. Philadelphia Suburban Water Co., 71 Pa. PUC 593, 623 (1989) (PSW 1989). The Commission has defined rate of return as:

> [T]he amount of money a utility earns, over and above operating expenses, depreciation expense, and taxes, expressed as a percentage of the legally established net valuation of utility property, the rate base. Included in the 'return' are interest on long-term debt, dividends on preferred stock, and earnings on common equity. In other words, the return is the money earned from operations which is available for distribution among the various classes of contributors of money capital.

PSW 1989, 71 Pa. PUC at 622-23, quoting Public Utility Economics, Garfield and Lovejoy, 116 (1964). Further, "[t]he return authorized must not be confiscatory, and must be based upon the evidence presented." PSW 1989, 71 Pa. PUC at 623, citing Pittsburgh v. Pa. PUC, 165 Pa. Super. 519, 69 A.2d 844 (1949).

A public utility with facilities and assets used and useful in the public service is entitled to no more than a reasonable opportunity to earn a fair rate of return on its investment. The United States Supreme Court established the standard with which to evaluate whether a rate of return is fair in Bluefield Waterworks & Improvement Co. v. Public Service Comm'n of West Virginia, 262 U.S. 679 (1923) (Bluefield), stating:

> The return should be reasonably sufficient to assure confidence in the financial soundness of the utility, and should be adequate, under efficient and economical management… to raise the money necessary for the proper discharge of public duties.

Bluefield, 262 U.S. at 693. The Court also said that allowed rates of return should reflect:

> [A] return on the value of the [utility's] property which it employs for the convenience of the public equal to that… being made at the same time… on investments in other business undertakings which are attended by corresponding risks and uncertainties.

Bluefield, 262 U.S. at 692. Twenty-one years later, the Court reviewed the issue of fair rate of return in Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944) (Hope). In Hope, the Court held a fair rate of return "should be commensurate with returns on investments in other enterprises having corresponding risks" while being sufficient "to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and attract capital." Hope, 320 U.S. at 603. The Court noted that "[t]he rate-making process under the Act, i.e., the fixing of 'just and reasonable' rates, involves a balancing of the investor and the consumer interests . . . and does not insure that the business shall produce net revenues." Id. The Court has also stated that consumers are obliged to rely upon regulatory commissions to protect them from excessive rates and charges. See Permian Basin Area Rate Cases, 390 U.S. 747, 794-95 (1968) (citing Atlantic Refining Co. v. Public Service Comm'n, 360 U.S. 378, 388 (1959)).

Finally, in Duquesne Light Co. v. Barasch, the Court stated:

> [W]hether a particular rate is 'unjust' or 'unreasonable' will depend to some extent on what is a fair rate of return given the risks under a particular rate setting system, and on the amount of capital upon which the investors are entitled to earn that return.

Duquesne Light Co. v. Barasch, 488 U.S. 299, 310 (1989). In determining a fair rate of return, this Commission has described its task as follows:

> A fair rate of return for a public utility, however, is not a matter which is to be determined by the application of a mathematical formula. It requires the exercise of informed judgment based upon an evaluation of the particular facts presented in each proceeding. There is no one precise answer to the question as to what constitutes the proper rate of return. The interests of the Company and its investors are to be considered along with those of the customers, all to the end of assuring adequate service to the public at the least cost, while at the same time maintaining the financial integrity of the utility involved.

Pa. PUC v. Pennsylvania Power Co., 55 Pa. PUC 552, 579 (1982). See also Pa. PUC v. National Fuel Gas Dist. Corp., 73 Pa. PUC 552, 603-605 (1990).

In the present matter, the OCA's recommended rate of return, including its 8.5% cost of common equity, represents a fair rate of return for the Company. The OCA's proposed rate of return will provide the Company's shareholders with a reasonable opportunity to earn a market-based return on their investment, will provide for the financial integrity of the Company and will protect ratepayers from excessive and unjustified rates.

B. Capital Structure

The OCA notes that a Partial Stipulation was reached on the issue of capital structure. See surpa, Section III.A; see Partial Stipulation at 2.

C. Cost of Long-Term Debt

The OCA has accepted the Company's embedded long term cost of debt of 4.69%. OCA St. 3 at 9.

D. Cost of Common Equity

1. Introduction

The OCA submits that the Company's request for an 11.25 % return on common equity is excessive, would result in a shareholder windfall at the expense of ratepayers and would result in rates that are unjust and unreasonable. As OCA witness Rothschild[10] testified, the current and near-term future economic outlook is one that includes a low cost of capital. OCA St. 3 at 10. The current economic conditions and outlook produce a favorable cost of equity environment for UGI. As will be discussed in the following sections, however, UGI-E witness Moul has artificially inflated his ROE recommendation in this matter through a variety of methods. The OCA submits that such unnecessary and unsupported "adjustments" should not be considered.

The following table summarizes the parties' findings based on the DCF methodology and the parties' subsequent ROE recommendations:

Party	DCF Results	Recommended ROE
UGI-E	9.48% [11]	11.25 %
OCA	7.93-8.31%	8.50%
OTS	8.62%	8.62%

Source: OCA St. 3 at 2, 37, 46; I&E St. 2 at 23 and I&E Exh. 2, Sch. 1.

Consistent with the testimony of Mr. Rothschild, the record in this case and the discussion that follows, the OCA submits that its 8.50% cost of common equity recommendation is just and reasonable and should be adopted by the Commission in this proceeding.

[10] Mr. Rothschild is a financial consultant specializing in cost of capital issues in utility regulation. He has 22 years of experience providing utility financial analysis. Mr. Rothschild has applied his expertise and testified in numerous proceedings before the Pennsylvania Public Utility Commission, over twenty other state public service commissions, and the Federal Energy Regulatory Commission. OCA St. 3 at 1.

[11] Mr. Moul's DCF result is 9.48% before adding 1.07% for a "leverage adjustment." OCA St. 3 at 46.

Considering these facts, it would be unreasonable to burden UGI's ratepayers with higher costs based on the Company's 11.25% ROE proposal. The Company's 11.25% cost of equity recommendation is considerably higher than return expectations published by major consulting firms, brokerage houses and market data publications. See, OCA St. 3 at 4-5. OCA witness Rothschild properly applied a DCF analysis in this proceeding to arrive at a reasonable rate of return that should be adopted here.

2. The Cost Of Capital In Today's Market Remains Low.

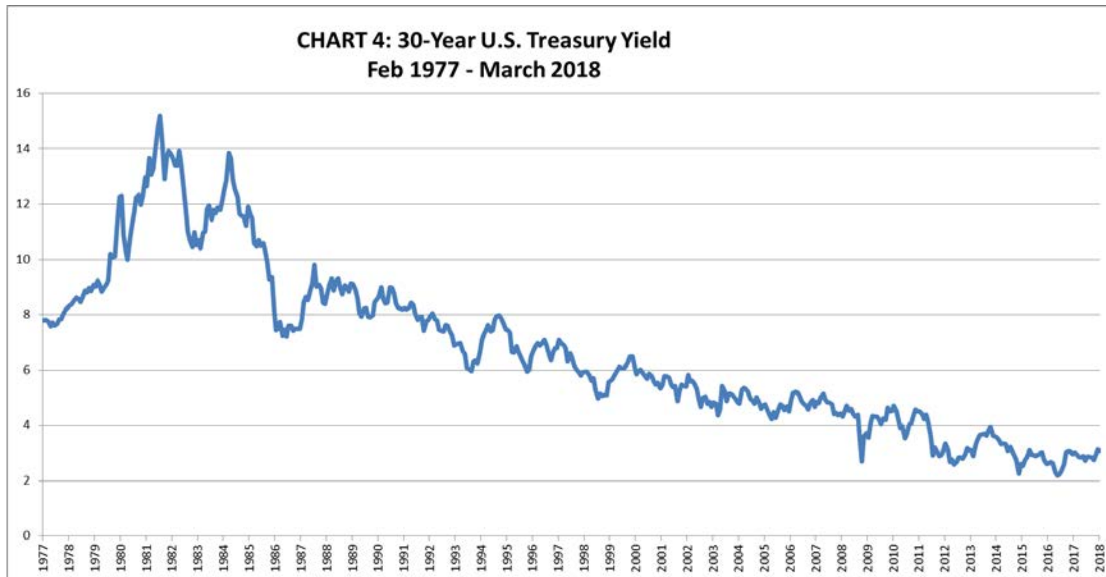
Of critical importance in this proceeding, OCA witness Rothschild explained that current market conditions support an 8.5% ROE. See, OCA St. 3 at 9-23. As Mr. Rothschild explained:

> We have been experiencing high stock prices, low unemployment, reasonable global growth, low bond yields, and low inflation expectations. According to a 2017 Wall Street Journal (WSJ) article "We're in what's increasingly being called a 'Goldilocks' economy." As I will explain below, despite increased market volatility at the end of 2017 and early 2018 the favorable times for raising capital (including for regulated electric utility companies) remain. The current capital markets indicate that an 8.50% return on equity for investing in a regulated utility like UGI Electric is conservative and arguably high. Equity investors are paying a higher price for earnings than the historical average, interest rates remain low by historical standards, and yield spreads are low (low yield spreads indicate a lower cost of equity) which indicates a lower cost of equity than the historical average. As discussed below, despite investor's increased volatility expectations, as indicated by the VIX index, all other major market indicators indicate that the cost of equity remains low.

OCA St. 3 at 9-10 (footnotes omitted).

Mr. Rothschild further explained that interest rates remain low by historical levels:

> As of March 31, 2018 the yield on the 30-Year U.S. Treasury bond is at 3.03%. As shown in Chart 4 below, yields on 30-year U.S. treasuries remain low by historical measures:



OCA St. 3 at 14-15.

The OCA submits that based on current market conditions Mr. Rothschild's recommendation of 8.5%, supported by his DCF analysis, is reasonable. The Company's proposed 11.25% ROE is unreasonable.

3. The OCA Has Derived Its Common Equity Cost Recommendations From The Commission's Preferred Method Of Setting Common Equity Cost Rates – The Discounted Cash Flow Model.

The testimony of OCA witness Rothschild clearly indicates that he developed a market-based cost of common equity recommendation using the DCF model, which is the method primarily relied upon by this Commission. In January 2004 in its Opinion and Order in Pa. PUC v. Pennsylvania American Water Company, the Commission wrote:

> Historically, we have primarily relied on the DCF methodology in arriving at our determination of the proper cost of common equity. We have, in many recent decisions, determined the cost of common equity primarily based upon the DCF method and informed judgment. *See Pennsylvania Public Utility Commission v. Philadelphia Suburban Water Company*, 71 Pa. PUC 593, 623-632 (1989); *Pennsylvania Public Utility Commission v. Western Pennsylvania Water Company*, 67 Pa. PUC 529, 559-570 (1988); *Pennsylvania Public Utility Commission v. Roaring Creek Water*

> *Company*, 150 PUR4th 449, 483-488 (1994); *Pennsylvania Public Utility Commission v. York Water Company,* 75 Pa. PUC 134, 153-167 (1991); *Pennsylvania Public Utility Commission v. Equitable Company*, 73 Pa. PUC 345-346 (1990). We determine that the DCF method is the preferred method of analysis to determine a market based common equity cost rate.

Pa. PUC v. Pennsylvania American Water Company, 99 Pa. PUC 38, 42 (2004) (PAWC 2004), aff'd on other grounds, Popowsky v. Pa. PUC, 868 A.2d 606 (Pa. Commw. Ct. 2004); accord Pa. PUC v. Aqua Pa, Inc., 99 Pa. PUC 204, 233 (2004). This Commission has stated that determining a fair rate of return is an exercise of informed judgment, based upon the facts of each case. Pa. PUC v. Pennsylvania Power Co., 55 Pa. PUC 552, 579 (1982). "The interests of the Company and its investors are to be considered along with those of the customers, all to the end of assuring adequate service to the public at the least cost, while at the same time maintaining the financial integrity of the utility involved." Pa. PUC v. Pennsylvania Power Co., 55 Pa. PUC at 579. In coming to this informed judgment, the Commission has stated on numerous occasions its preference to rely upon the DCF methodology over other methods such as the Risk Premium (RP) and Capital Asset Pricing Model (CAPM) in determining the rate of return. In PPL's 2012 and 2004 base rate case, the Commission reaffirmed its reliance upon the DCF method. Pa. PUC v. PPL Electric Utilities Corp., Docket No. R-2012-2290597 (Order entered December 28, 2012) (PPL 2012); Pa. PUC v. PPL Electric Utilities Corp., 237 P.U.R. 4th 419, 2004 Pa. PUC LEXIS 40 (December 2, 2004) (PPL 2004). The Commission additionally noted, however, that while it is not required, other methodologies can be used to check DCF results. PPL 2012 at 80.

The Commission should carefully review the DCF results submitted in this case and, in applying its informed judgment, consider current financial market conditions as it considers a reasonable cost of common equity for UGI.

4. Mr. Rothschild's Analysis Of The Cost Of Common Equity For Similar Risk Utility Operations Supports A Cost Of Equity Of 8.5%.

In this case, Mr. Rothschild conducted DCF and Capital Asset Pricing Model (CAPM) analyses. OCA St. 3 at 2. Mr. Rothschild primarily relied on the DCF method, using the CAPM method as a check, and has recommended an 8.50% return on common equity. OCA St. 3 at 2-3. Mr. Rothschild explained his methodology as follows:

> To arrive at my recommendations, I applied the Discounted Cash Flow Model ("DCF"), including a Constant Growth and Capital Asset Pricing Model ("CAPM") to the same proxy group of ten publically-traded electric utilities ("Electric Group") used by UGI Electric's cost of capital witness. Because the cost of equity is not a published figure like a bond yield, some interpretation is required to determine the appropriate market price. My cost of equity recommendation is based on my computation of what the market indicates investors require (return on investment) to provide capital to companies with comparable risk to UGI Electric. In my CAPM, I use current market data, which measures investors' expectations directly, instead of using interest rate forecasts and historical data. As Mr. Moul explains, "investors cannot purchase past earnings of a utility." My market-based perspective uses the forecasts represented in market prices, and when I incorporate published forecasts, I considered the evidence regarding the accuracy of how investors perceive them. This is superior to approaches that use "expert" forecasts instead of what the market expects as indicated by market data for the following two reasons: 1) the actual cost of equity UGI Electric will pay when they raise money will be determined by the market and not by financial publications and 2) evidence supports that predicting capital markets (e.g. interest rates, stock prices) is not done well.
>
> I determined that the cost of equity for the average company in the Electric Group is 8.50 %. This result is above the range of my Constant Growth and Non-Constant Growth DCF results which are between 7.10% and 8.31%. My CAPM result of 7.08% provides a check on the reasonableness of my DCF results.

OCA St. 3 at 2-3 (footnotes omitted).

In the PAWC 2004 case, the ALJ quoted the following description of the DCF model from a leading treatise on public utility rate making:

> The DCF method is derived from valuation theory, and rests on the premise that the market price of a stock is the present value of the future benefits of holding a stock. Those benefits are the future cash flows provided by holding the stock. They are, quite simply, the dividends paid and the proceeds from the ultimate sale of the stock. Since dollars to be received in the future are not worth as much as dollars received today, the cash flows must be discounted back to the present at the investor's required rate of return. The most basic form of this model assumes that dividends grow at a constant rate each year (g), and that the stock is held "forever". Since the stock is not sold, the only relevant contribution to its value is the dividends to be received. The basic theoretic difficulties are the assumption of a constant or fixed retention or payout rate and the assumption that dividends will grow at a constant "g" rate in perpetuity.
>
> The first point to remember in evaluating the growth rate is that it is not what a witness thinks the growth rate should be that matters. What matters is what investors expect the growth rate to be. The rate of return analyst is really trying to (or should be trying to) replicate the thinking of investors in developing their expectations regarding the growth in dividends. In all, the DCF method takes into account several factors important in the determination of the fair rate of return: (1) preferences of investors; (2) equity financing; (3) risk, and (4) inflation.

PAWC 2004, Docket No. R-00038304, R.D. at 65 (Nov. 26, 2003) quoting J. Bonbright, A. Danielsen & D. Kamerschen, Principles of Public Utility Rates 318 - 319 (2d ed. 1988).

a. Mr. Rothschild Uses The Same Proxy Group As UGI-E.

To estimate the cost of equity using the DCF method, a proxy (or barometer) group of similar companies is used. Mr. Rothschild utilized the ten U.S. electric utility companies, referred to as the Electric Group, used by Company Witness Mr. Moul as shown on schedule 3 page 2 of 2 of his direct testimony. OCA St. 3 at 25-26. The OCA submits that Mr. Rothschild's proxy group is reasonable and should be accepted for purpose of calculating the DCF in this matter.

b. Mr. Rothschild's DCF Results Are Reasonable.

To develop a reasonable return on equity, Mr. Rothschild utilized a constant growth DCF analysis and conducted a non-constant growth DCF as a check on his results. See, OCA St. 1 at

29-39. Mr. Rothschild explained how he implemented his constant growth DCF analysis in this case, as follows:

> The constant growth model is described by this equation k= D/P + g, where:
>
> k= cost of equity;
> D=Dividend rate; and
> P=Market price of stock.
>
> In the above equation:
>
> g=the growth rate, where g= br + sv;
> b=the earnings retention rate;
> r=rate of return on common equity investment;
> v=the fraction of funds raised by the sale of stock that increases the book value of the existing shareholders' common equity; and
> s=the rate of continuous new stock financing.
> The constant growth model is therefore correctly recognized to be:
> k=D/P + (br +sv)

OCA St. 3 at 28-29.

Mr. Rothschild noted that sufficient care must be taken to ensure that the growth rate, "g" is representative of constant sustainable growth. Mr. Rothschild further explained that, in order to obtain a credible constant growth DCF result, the mathematical relationship between earnings, dividends, book value and stock price must be respected. OCA St. 3 at 29. He noted that using earnings per share growth will result in an overstatement of the cost of equity if there also is an expectation of a lower dividend growth rate because the dividend yield portion of the constant growth form of the equation will be overstated. OCA St. 3 at 29-30. He noted that using the "br" approach (b=earnings retention rate x the rate of return on common equity investment), rather than an analysts earnings per share growth rate is reasonable because the "br" approach eliminates the mathematical error caused when there is an inconsistency between earnings per share growth and dividends per share growth expectations. OCA St. 3 at 30-31.

In order to address the inaccuracies that can result in a DCF analysis caused by forecasted differences between earnings per share (EPS) growth rate and the dividends per share growth rate, Mr. Rothschild quantified growth using the "br" + "sv" approach. OCA St. 3 at 31. Mr. Rothschild defined this approach as follows:

> 1. The retention rate "b" is the earnings retention ratio computed to be consistent with the dividend rate used in the D/P term of the constant growth DCF formula, and
>
> 2. It is recognized that at any point in time, the price investors are willing to pay for a company's stock relates to what earnings are expected at that time. The only relevant estimate of the return on equity "r" that should be used in the DCF formula is the one that investors expect to be on average earned at the time of the quantification of the stock price used in the DCF formula.

OCA St. 3 at 32. By following these two relatively simple guidelines, the accuracy of the DCF method will in most cases be highly dependent on the estimate for the value of the future expected return on book equity, "r." Id.

Mr. Rothschild addressed concerns that the "BR" approach to the constant growth DCF model improperly relies on the value of future expected return on book equity "r" to estimate what the earned return on equity should be. OCA St. 3 at 32. As he explained, these concerns are unfounded as follows:

> 1. The constant growth form of the equation using br is:
>
> $$k= D/P + (br + sv).$$
>
> In this equation, k is the variable for the cost of equity, and r is the future expected return on equity. The cost of equity, "k," is not the same variable as the future expected earned return on equity, "r." In fact, there often is a large difference between the two.
>
> 2. The correct value to use for "r" is the return on book equity expected by investors as of the time the stock price and dividend data is used to quantify the D/P term in the equation. Therefore, even if future events occur that may change what investors expect

for "r", the computation of the cost of equity "k" remains correct as of the time the computation was made.

> 3 The ability of a commission decision to influence future cash flow expectations is not unique to the retention growth approach to the DCF method. The five-year analysts' earnings per share growth rate is a computation that is directly influenced by what earnings per share will be in five years. A change in what analysts expect will be the allowed return on equity for earnings generated five years from now will change not only the expected earnings per share five years from now, but will also change the five year earnings per share growth rate.

OCA St. 3 at 32-33.

Utilizing this approach, Mr. Rothschild testified as follows:

> I have applied the constant growth form of the DCF model by staying true to the mathematically derived "k=D/P + (br + sv)" form of the DCF model. I have also taken care to fully allocate all future expected earnings to either future cash flow in the form of dividends ("D") or to retained earnings (the retention rate, "b"). This extra accuracy is obtained only when the retention rate "b" is derived from the values used for "D" and "r" rather than independently.

OCA St. 3 at 34.

To establish the dividend rate, Mr. Rothschild estimated next year's dividend rate by increasing the quarterly dividend rate by ½ of the current actual quarterly dividend rate. OCA St. 3 at 34. Mr. Rothschild obtained the stock price "P" used in his DCF analysis from the closing prices of the stocks on March 31, 2018. OCA St. 3 at 35. Mr. Rothschild further obtained an average stock price for the 12 months ending March 31, 2018 by averaging the high and low stock prices for the year. OCA St 3. at 35.

Mr. Rothschild established a value of "r" that is the value anticipated by investors to be maintained on average in the future. The average future return on equity forecast by Value Line on average for the Electric Group is 10.80%. OCA St. 3 at 36. The actual returns on equity earned on average by the Electric Group were 10.7% in 2015, 10.09% in 2016 and 13.10% in 2017. Based

on the combination of the forecast return on equity derived from the Zacks consensus, the recent historical actual earned returns and Value Line's forecast, Mr. Rothschild made the DCF growth computation using an 11.00% value of "r". OCA St. 3 at 37.

The results of this analysis indicated a cost of equity range of between 7.93% and 8.31% for the proxy group. OCA St. 3 at 37. Mr. Rothschild's 8.5% ROE recommendation is representative of market expectations and will provide ratepayers with just and reasonable rates and shareholders with a fair return; the Commission should rely upon his recommendation in this proceeding.

c. Mr. Rothschild's Non-Constant Growth DCF And CAPM Analysis Provide A Reasonable Check On His Recommendation.

To check the results of his constant growth DCF results, Mr. Rothschild conducted both a Non Constant Growth DCF and Capital Asset Pricing Model (CAPM) analysis. Mr. Rothschild used the non-constant growth form of the DCF as a check on his constant growth DCF calculations. OCA St. 3 at 37-39. The results of the non-constant growth DCF for the comparison group are 7.63%. OCA St. 3 at 39. The non-constant growth DCF accounts for growth rates that change over time. OCA St. 3 at 38. It is based on an estimate of each separate annual cash flow the investor expects to receive. Mr. Rothschild used Value Line's annual forecasts to arrive at the specific non-constant growth rates. Id. The non-constant growth method can measure the impact of variations in investor growth rate expectations while the constant growth method cannot. OCA St. 3 at 39.

Additionally, OCA witness Rothschild conducted a CAPM analysis as a check on his DCF results. See, OCA St. 3 at 40-43. As explained by Mr. Rothschild, CAPM is a theory about how expected return of stocks and capital assets are related. Mr. Rothschild compared the relationship of expected returns for the Electric Group to the overall market, finding that the proxy group had

a lower cost of equity than the overall market. OCA St. 3 at 40. The results of Mr. Rothschilds CAPM analysis produced a cost of equity recommendation of 7.08%. OCA St. 3 at 43.

The OCA submits that Mr. Rothschild's non-constant DCF result of 7.63% and CAPM recommendation of 7.08% confirms the validity of his constant growth DCF results.

5. Mr. Moul's Recommended ROE Is Flawed And Should Not Be Adopted.

a. Introduction

In this proceeding, both OCA witness Rothschild and Company witness Moul have performed various cost of equity analyses using the DCF and several other methodologies. Mr. Rothschild primarily relied on the DCF and used the other methods as a check on the DCF results. Accordingly, Mr. Rothschild's 8.50% ROE recommendation is well supported by his thorough, complete DCF analysis. Mr. Moul's recommendation, however, relies heavily on leverage adjustments, management performance bonuses and other adjustments. Mr. Rothschild summarized the Company's approach to establishing a recommended ROE as follows:

> Mr. Moul has recommended that the Company be allowed a return on equity of 11.25%. He calculated an overall cost of capital of 6.69% with an 8.86% cost of equity. See Schedule 1, page 1 of Mr. Moul's supplemental direct testimony. He arrived at his recommendation based upon his own versions of the Discounted Cash Flow ("DCF") Model, Risk Premium approach, Capital Asset Pricing Model ("CAPM Analysis") and the Comparable Earnings approach. Mr. Moul testified that, "… A single method can provide an incomplete measure of the cost of equity depending upon extraneous factors that may influence market sentiment…" Mr. Moul adds a leverage adjustment to his DCF result, a credit quality adjustment to his Risk Premium approach and the size adjustment to his CAPM method.

OCA St. 3 at 46 (footnote omitted).

b. Mr. Moul's DCF Results Are Overstated.

The Company's DCF analysis is substantially higher than the OCA and I&E DCF analysis. OCA witness Rothschild explained that the primary driver of Mr. Moul's high DCF results derive from the growth rate utilized in his study. OCA St. 1 at 47-49. As Mr. Rothschild explained, the five year earnings per share growth rate used by Mr. Moul does not accurately predict the cash flows (dividends and future stock sale proceeds) that investors expect when deciding whether to invest in a stock. See, OCA St. 3 at 51-53.

In response to this criticism, Company witness Moul argued that earnings per share forecasts must be given the greatest weight. UGI St. 5-R at 16. As OCA witness Rothschild explained, however:

> The five-year growth rates Mr. Moul uses are not the sustainable growth rates required by the constant growth DCF. Furthermore, a study conducted by McKinsey & Company in 2010 found that "analysts have been persistently over optimistic for the past 25 years with estimates ranging from 10 to 12 percent a year, compared with actual earnings growth." Even if equity analysts' forecasts are not upwardly biased, as discussed in my Direct Testimony, adding earnings per share growth forecasts to a dividend yield without considering the retention rate produces a flawed result.

OCA St. 3-S at 3 (footnote omitted). The OCA submits that Mr. Moul's DCF growth rate is not reasonable and overstates his DCF analysis.

c. Mr. Moul's Leverage Adjustment To His DCF Analysis Is Unsupported, Unreasonable and Should Not Be Adopted.

The OCA submits that no ROE-enhancing adder is needed or appropriate for UGI based on the facts of this matter. As OCA witness Rothschild testified:

> **Q. DOES MR. MOUL'S LEVERAGE ADJUSTMENT GO AGAINST ORIGNAL COST RATEMAKING?**
>
> A. Yes. Mr. Moul claims, "The need for the leverage adjustment arises when the results of the DCF model (k) are to be applied to a capital structure that is different than indicated by the market price (P)." In other words, Mr. Moul is saying that as a

> consequence of original cost ratemaking an upward adjustment is needed. When a company has a market to book value above 1, and is thus over earning, applying the correct rate of return to the book value could have downward pressure on the stock price. No matter what logic is applied to the reason for adding a value to the rate of return, the leverage adjustment distorts the natural market dynamic between a regulated utility's stock price and its allowed rate of return.

OCA St. 3 at 55-56 (footnote omitted). Unlike the Company, Mr. Rothschild provided support for his 8.5% cost of equity recommendation primarily based on the DCF model, including a full range of indicators of dividend yields and growth rates intended to reflect what investors actually use and consider.

Importantly, in the 2012 PPL rate proceeding, the Commission rejected Mr. Moul's proposed leverage adjustment. PPL 2012 at 91. In rejecting a leverage adjustment, the Commission stated:

> Based upon our analysis of the evidence of record, we are persuaded by the arguments of the OCA and I&E that PPL's requested leverage adjustment is not reasonable and should be denied. The fact that we have granted leverage adjustments in a few select cases in the past as noted by PPL does not mean that such adjustments are warranted in all cases. The award of such an adjustment is not precedential but discretionary with the Commission. In fact, the Commission has rejected leverage/financial risk adjustments that are similar to the one proposed by PPL in this proceeding. *See, e.g., Pa. PUC v. Aqua Pennsylvania, Inc.*, Docket No. R-00072711, at 38-39 (Order entered July 31, 2008). Moreover, in the context of our determination, *supra*, of a reasonable return on equity for PPL of 10.28%, **we conclude that there is no need to have an artificial upwards adjustment to compensate for any perceived risk related to PPL's market-to-book ratio.** Accordingly, we shall deny the Exceptions of PPL and adopt the ALJ's recommendation to reject PPL's requested leverage adjustment.

PPL 2012 at 91 (emphasis added).

Other state commissions have uniformly recognized this type of adjustment as unwarranted in their decisions. The D.C. Commission rejected such adjustment, reasoning as follows:

> [t]he record in this proceeding does not support WGL's prediction that, without such an adjustment, investors will sell their stocks. Investors know that the returns allowed by public service commissions are applied to book value/rate base. An adjustment of the type witness Olson recommends would provide excessive returns to the Company's shareholders at the expense of ratepayers.

In the Matter of the Application of Washington Gas Light Company, District of Columbia Division, for Authority to Increase Existing Rates and Charges for Gas Service, 2003 D.C. PUC LEXIS 220, *72 (2003); see also, West Virginia Public Service Comm'n v. West Virginia-American Water Works, 2004 W. Va. PUC LEXIS 6, *18 (2004). The Public Service Commission of the State of Missouri rejected a utility's argument for a market-to-book adjustment to the DCF-derived return on equity. In the Matter of St. Louis, Missouri, for Authority to File Tariffs to Increase Water Service Provided to Customers in the Missouri Service Area of the Company, 1998 Mo. PSC LEXIS 13, *17 (1988). In rejecting the adjustment, the Missouri Commission concluded that investors are aware that returns on equity for regulated utilities are "based on assets valued at original cost, and they take this factor into account in their investment decisions." Id. Finally, the Michigan Public Service Commission also rejected a market-to-book adjustment in excess of DCF results. See gen'ly In the Matter of the Application of Wisconsin Electric Power Company for Authority to Increase its Rates for the Sale of Electricity in Michigan, 2002 Mich. PSC LEXIS 294, *37-38 (2002).

The OCA submits that for the reasons just discussed, and taking the record as a whole, such an adjustment should not be considered in this matter.

d. The Company's Request For A Higher Cost Of Equity In Recognition Of Management Performance Is Without Merit.

The Company has requested that the Commission adopt a cost of equity for UGI-E, which includes an additional 20 basis points for what has been described as UGI-E's "management effectiveness."

UGI-E St. 5 at 3; UGI-E St. 5-SD at 7. The OCA opposes the Company's request for a higher equity cost rate. The Company's ratepayers have a right to receive safe and adequate service at rates which are just and reasonable. 66 Pa. C.S. §§ 1301, 1501. The OCA recognizes that the Public Utility Code allows the Commission to "consider, in addition to all other relevant evidence of record, the efficiency, effectiveness and adequacy of service of each utility when determining just and reasonable rates." 66 Pa. C.S. § 523(a). The evidence of record here, however, simply does not support UGI-E's request.

OCA witness Rothschild explained that a management bonus is not a factor for reasonable investment decision making, as follows:

> The cost of equity for UGI Electric should be based only on the return equity investors demand to invest in companies with similar risk to UGI Electric. Mr. Moul claims that his proposed return fulfills the standards established by the landmark *Hope* and *Bluefield* cases. However, charging consumers an additional return for management performance is inconsistent with the *Hope* and *Bluefield* cases. Furthermore, Mr. Moul presented no analysis on how he valued UGI Electric's claimed superior performance to be 20 basis points, nor is there any indication that Mr. Moul evaluated whether UGI Electric's performance is superior to, or more efficient, than those companies in the Electric Group.

OCA St. 3 at 45 (footnote omitted).

The OCA submits that the record in this matter does not support the award of an additional financial adder based on management performance. Accordingly, the Commission should reject UGI-E's request for an additional 20 basis point ROE adder.

e. <u>Mr. Moul's Reliance On Non-DCF Methodologies To Support His 11.25% Cost Of Equity Recommendation Should Be Disregarded.</u>

As discussed in detail above, this Commission primarily relies on the DCF method to establish reasonable common equity costs. Mr. Moul, however, has chosen to disregard this clear, long-established precedent and has sought to amplify his own DCF results by an overreliance on

other costing methodologies. The OCA submits that the Commission should give little, if any weight to Mr. Moul's Risk Premium, CAPM and Comparable Earnings (CE) analyses. The OCA submits that, consistent with Commission precedent, the DCF method should be the primary indicator for establishing a reasonable cost of common equity for UGI in this proceeding.

Mr. Rothschild provided a discussion of Mr. Moul's alternative costing methodologies and the shortcomings of each method as employed by Mr. Moul in this proceeding. See OCA St. 3 at 56-60. Mr. Moul's Risk Premium (RP) analysis calculates an equity risk premium on large company stocks over long-term corporate bonds based on historical data between 1926 and 2013. As OCA witness Rothschild explained, however, Mr. Moul's equity risk premium of 6.5% is out of line with market data and academic studies. OCA St. 3 at 56. Mr. Rothschild further testified that the historical risk premium for large company stocks is 4.6% with long-term government bond returns as the risk free rate. OCA St. 3 at 57.

Company witness Moul's CAPM analysis also overstates the Company's cost of equity by using an arithmetic average return that overstates the historical risk premium by 300 basis points. OCA St. 3 at 57. Mr. Moul further increased his CAPM results by adding a premium adder for the relative small size of UGI. Mr. Rothschild explained why this adder should be rejected as follows:

> Mr. Moul's premium adder for the relative small size of UGI Electric is unjustifiable. A proper analysis of the data from Ibbotson SBBI/Morningstar shows that size is a diversifiable risk and therefore does not impact the cost of equity. Professor Aswath Damodaran said the following regarding the supposed "small cap premium":
>
>> Even if you believe that small cap companies are more exposed to market risk than large cap ones, this is an extremely sloppy and lazy way of dealing with that risk, since risk ultimately has to come from

> something fundamental (and size is not a fundamental factor).

OCA St. 3 at 58 (footnote omitted).

Company witness Moul's Comparable Earnings analysis did not address the cost of equity at all. Rather, it considered the returns on book equity to a selection of non-regulated companies Mr. Moul believes to be of comparable risk to the Electric Group. OCA St. 3 at 59. As OCA witness Rothschild testified, the earned return on book equity is an entirely different concept from the cost of equity. Id.

E. Conclusion as to Rate of Return

For all of the foregoing reasons, the OCA submits that UGI-E has failed to meet its burden of proof in support of its request for this Commission to allow it the opportunity to earn a return on equity of 11.25%. The OCA recommends that this Commission adopt the cost of capital recommendations of Mr. Rothschild, and allow UGI-E the opportunity to earn an 8.5% return on common equity and a 6.75% overall return on its rate base.

IX. RATE STRUCTURE

A. Allocated Class Cost of Service Study

1. Introduction

In this proceeding, UGI Electric is proposing to allocate the revenue increase in a manner that the Company alleges is consistent with cost causation. UGI St. 8 at 13. The Company relied on the Allocated Class Cost of Service Study (ACCOSS) presented by Company witness John D. Taylor to make this determination. See, UGI St. 6. OSBA witness Robert Knecht generally agreed with the Company's methodology but offered technical corrections that were largely adopted by the Company. UGI St. 6-R at 28-29. The ACCOSS relied upon by the Commission provides the guide by which rate increases are allocated and care must be taken to ensure that it is conducted properly when setting rates.

The OCA presented the testimony of Jerome D. Mierzwa[12] to analyze the Company ACCOSS. Upon conducting his review, OCA witness Mierzwa noted several errors contained in Company witness Taylor's study. Upon correcting the classification errors presented by the Company, Mr. Mierzwa presented his results for use in guiding the allocation of revenues in this case.[13] OCA St. 4 at 19, Sch. JDM-1. For consistency purposes, OCA witness Mierzwa utilized the same classification methodologies he presented in his Direct Testimony to modify the

[12] OCA witness Mierzwa specializes in utility-related consulting services. Mr. Mierzwa worked for Natural Fuel Gas Distribution Corporation, where he conducted financial and statistical analyses related to market activity and state regulatory affairs. He later joined National Fuel Gas Supply Corporation's rate department, where he conducted utility cost of service and rate design analysis, expense and revenue requirement forecasting, and federal regulation activities, and prepared the Purchased Gas Adjustment filing and developed interstate pipeline and spot market gas price projections utilized in Section 1307(f) proceedings. OCA witness Mierzwa joined Exeter Associates, Inc. in 1990, became a principal in 1996, and later became Vice President. He specializes in evaluating gas purchasing practices of natural gas utilities, utility class cost of service and rate design analysis, the unbundling of utility services, and evaluation of customer choice natural gas transportation programs. OCA St. 4 at 1-2.

[13] OCA witness Mierzwa made minor modifications to his proposed ACCOSS in his Rebuttal testimony to reflect updated data provided by the Company. As Mr. Mierzwa explained, the modifications were insignificant and did not alter his recommended revenue allocation. OCA St. 4-R at 4-5.

Company's corrected ACCOSS presented in UGI St. 6-R. Mr. Mierzwa's final ACCOSS is presented in his Surrebuttal testimony. See, OCA St. 4S at 9, Sch. JDM-1S.

OCA witness Mierzwa explained that fully allocated cost studies attempt to assign 100% of jurisdictional costs of service among the various classes. OCA St. 4 at 4. In a typical ACCOSS, costs are first functionalized into broad categories, such as primary and secondary distribution and customer accounts and service. Costs are then classified as to whether they are demand-related, energy-related, customer-related or related to some other factor. OCA St. 4 at 5. Of particular concern here, OCA witness Mierzwa explained, is the manner in which primary and secondary distribution costs upstream of meters and service drops have been classified in the ACCOSS – with a significant share of these costs inappropriately classified as customer-related. Mr. Mierzwa presented testimony correcting for these flaws with the following results:

Table 1-S.
Comparison of Allocated Cost of Service Study Results

	Company		**OCA**	
Rate Class	**Rate of Return**	**Index**	**Rate of Return**	**Index**
Residential	(0.54%)	(0.14)	0.97%	0.26
General Service-1	(0.59)	(0.16)	3.78	1.01
General Service-4	23.23	6.19	13.87	3.70
Large Power	16.20	4.32	5.56	1.48
Lighting	21.02	5.61	17.33	4.62
Total:	**3.75%**	**1.00**	**3.75%**	**1.00**

OCA St. 4S at 9, Table 1-S.

The OCA submits that Mr. Mierzwa's modified ACCOSS, as detailed below, more closely adheres to cost causation. As a result, the OCA further submits that the Commission must consider the OCA's alternative study as a guide when setting rates in this proceeding.

2. <u>The Company's ACCOSS Improperly Estimated the Customer-Related Portion of Upstream Primary and Secondary Distribution Plant</u>.

The Company has classified primary and secondary distribution plant as both customer-related and demand-related. The OCA submits that primary and secondary distribution plant are demand-related investments, and as such, the Company's classification of these costs as partially customer-related is not reasonable. Additionally, the Company's method of determining customer-related primary and secondary distribution plan costs is flawed. The Company's ACCOSS utilized a "minimum system" approach, which hypothetically reconstructs the distribution system with the smallest size poles and conductors possible. OCA St. 4 at 7. Under this approach, the costs of the hypothetical system are deemed to be customer-related, and the remaining actual cost of the distribution system is deemed to be demand related. OCA St. 4 at 7. Company witness Taylor's minimum system approach resulted in the following customer/demand split of primary and secondary distribution plant:

Table 2.
Summary of Minimum System Study

	Customer-Related	**Demand-Related**
Primary Distribution Plant		
Account 364	27.34%	72.66%
Account 365	28.05	71.95
Account 367	29.03	70.97
Secondary Distribution Plant		
Account 364	25.58	74.42
Account 365	59.04	40.60
Account 367	59.87	40.13

OCA St. 4 at 9.

OCA witness Mierzwa evaluated the Company's classification of costs and found that it did not reflect actual cost causation of UGI's distribution system. Mr. Mierzwa explained:

> These costs are not, in any meaningful way, directly related to the number of customers served. The cost of upstream distribution plant is incurred in order to meet the coincident loads of the customers that it serves. The size and costs of the required plant are a function of the diversity of customers' loads that must be served from this plant, as well as the expected future coincident loads that may have to be served from these facilities as growth occurs on the system. There is no direct relationship between the number of customers and the size or the cost of poles or conductors, and Mr. Taylor has presented no evidence of a direct relationship.

OCA St. 4 at 9.

The Company argues that the minimum system approach was accepted by the Commission in PPL Electric Utilities Corporations 2012 rate proceeding. OCA St. 4 at 8. However, as OCA witness Mierzwa explained while citing a NARUC report, the majority of jurisdictions take a different approach:

> The 2000 NARUC Report identified in my direct testimony provides:
>
>> There are a number of methods for differentiating between the customer and demand components of embedded distribution plant. <u>The most common method used is the basic customer method, which classifies all poles, wires, and transformers as demand-related and meters, meter-reading, and billing as customer-related. This general approach issued in more than thirty states</u>.

OCA St. 4S at 2.

There is valid evidence demonstrating that the minimum system approach does not reasonably allocate distribution plant. First, the minimum system approach makes no attempt to address customer density. OCA witness Mierzwa cited Professor James Bonbright regarding this issue, as follows:

Q. DOES ANY RECOGNIZED AUTHORITY AGREE WITH YOUR CONCLUSION THAT IT IS IMPROPER TO ALLOCATE A PORTION OF AN ELECTRIC UTILITY'S UPSTREAM DISTRIBUTION FACILITIES ON THE BASIS OF BEING RELATED TO THE NUMBER OF CUSTOMERS?

A. Yes. Professor James Bonbright, at pages 491 and 492 of his *Principles of Public Utility Rates*, states:

But the really controversial aspect of customer-cost imputation arises because of the cost analyst's frequent practice of including, not just those costs that can be definitely earmarked as incurred for the benefit of specific customers but also a substantial fraction of the annual maintenance and capital costs of the secondary (low voltage) distribution system – a fraction equal to the estimated annual costs of a hypothetical system of minimum capacity. This minimum capacity is sometimes determined by the smallest sizes of conductors deemed adequate to maintain voltage and to keep from falling of their own weight. In any case, the annual costs of this phantom, minimum-sized distribution system are treated as customer costs and are deducted from the annual costs of the existing system, only the balance being included among those demand-related costs to be mentioned in the following section. Their inclusion among the customer costs is defended on the ground that, since they vary directly with the area of the distribution system (or else with the lengths of the distribution lines, depending on the type of distribution system), they therefore vary indirectly with the number of customers.

What this last-named cost imputation overlooks, of course, is the **very weak correlation between the area (or the mileage) of a distribution system and the number of customers served by this system**. For it makes no allowance for the density factor (customers per linear mile or per square mile). Indeed, if the Company's entire service area stays fixed, an increase in number of customers does not necessarily betoken any increase whatever in the costs of a minimum-sized distribution system.

OCA St. 4 at 9-10. Mr. Mierzwa noted that former Commissioner James Cawley, in his dissent in the PPL 2012 case, found this position persuasive, as follows:

[F]ormer Commissioner James H. Cawley stated:

Both parties further debate the "minimum size" parameters at great detail. **But the company never really fundamentally addresses**

> **why its model is appropriate, when other states have rejected this model.** In fact, OCA presents valid arguments that this model is not well suited for the PPL service area. If, for example, a disproportionate number of residential customers lived in rural or suburban areas, the higher, less-dense costs of serving these customers might justify allocating more costs to residential customers. However, the density studies provided by PPL showed just the opposite, that various classes of customers were very evenly distributed across its service areas. Thus, there was no clear justification for why the "minimum size" model should be used in this instance to allocate more costs to the residential class.

OCA St. 4 at 11 (emphasis added).

OCA witness Mierzwa examined the customer density of UGI ratepayers to assess whether this criticism of the minimum system approach would apply here. Mr. Mierzwa testified as follows:

> Q. COMMISSIONER CAWLEY'S DISSENT SUGGESTS THAT USE OF A MINIMUM SYSTEM MODEL MAY BE JUSTIFIED IF RESIDENTIAL CUSTOMERS GENERALLY LIVED IN LESS-DENSE RURAL OR SUBURBAN AREAS OF PPL'S SERVICE TERRITORY. HAVE YOU EVALUATED WHETHER RESIDENTIAL CUSTOMERS GENERALLY LIVE IN THE LESS-DENSE AREAS OF UGI'S SERVICE TERRITORY?
>
> A. Yes. Table 3 identifies the percentage of Residential, General Service, and Large Power customers living in each of the non-post office box zip codes served by UGI, the total number of customers in each zip code, and the population density per square mile in each zip code. As indicated in Table 3 Residential customers comprise a consistent percentage of the number of customers in each zip code served by UGI regardless of population density and, therefore, evenly distributed across UGI's service territory.

OCA St. 4 at 11-12 (30-9). As OCA witness Mierzwa demonstrated, UGI's residential customers are evenly distributed within the service territory. See, OCA St. 4 at 12, Table 3. As a result, the concerns detailed by Mr. Mierzwa remain valid.

OCA witness Mierzwa identified additional flaws with the Company's minimum system approach. UGI's system services 62,000 customers and, under Company witness Taylor's approach, each customer is allocated 32 feet of primary distribution conductor line. OCA St. 4 at 13. The Company confirmed, however, that it extended its primary distribution facilities by an average of 1,350 feet to connect three of its largest customers to its distribution system, resulting in a mis-allocation of costs. Id.

Finally, the minimum system approach is flawed because it does not account for those portions of each classes peak load that can be met by the minimum system itself. OCA St. 4 at 14. As Mr. Mierzwa testified, failing to recognize the load carrying capability (referred to as the Peak Load Carrying Capability, or PLCC) inherent in the hypothetical minimum system results in a double allocation of primary and secondary upstream distribution costs to Residential and other small customers. Id. The Company argues that the fact that the minimum system has load carrying capability does not hinder its study from providing a reasonable approximation of the costs relating to the demand portion and customer portion of the distribution system. UGI St. 6R at13. The Company has not, however, conducted any assessment of the load carrying capability in its minimum system and its impacts on allocated costs upon which it can justify this claim. OCA St. 4-S at 7. Further, in Pa. PUC v. Duquesne Light Co., 1985 Pa. PUC LEXIS 68, 231 (1985), the Commission noted that the "theoretical minimum size system" "can be represented as a wet thread supported by long tooth picks to serve a Christmas tree light."

3. OCA witness Mierzwa's Modified ACCOSS Better Reflects Cost Causation And Should Be Used To Guide The Allocation Of The Rate Increase.

Given the flaws inherent in the minimum system approach, OCA witness Mierzwa recommended the following classification of upstream primary and secondary distribution plant:

> I recommend that the Commission require the Company to classify 100 percent of its upstream primary and secondary distribution plant as demand-related. This approach is used in more than 30 states. This classification will best reflect the factors that have caused this plant to be constructed—the need to meet local neighborhood peak demands and the need to deliver energy at usable voltages during all the hours of the year. The Company's proposal to classify a portion of upstream primary and secondary distribution plant as customer-related is unsupported and should be rejected because it fails to account for class differences between the distance between small and large customers and the PLCC of the minimum system.

OCA St. 4 at 16-17 (footnote omitted).

Mr. Mierzwa further recommended modifications to the classification and allocation of O&M Account 593 and O&M Account 594, and Account 923 – Outside Services Employed. Regarding accounts 593 and 594, Mr. Mierzwa testified:

> O&M Account 593-Maintenance of Overhead Lines has been classified and allocated based on the classification and allocation of plant Account 365-Overhead Conductors and Devices. That is, Account 593 has been classified and allocated partially based on the number of customers and partially based on NCP demands. This is unreasonable. While the distribution facilities included in Account 365 are sized to meet NCP demands, costs to maintain that plant are incurred throughout the year and maintenance is performed to ensure the reliable delivery of electricity throughout the year. Therefore, a portion of the maintenance expenses included in Account 593 should be classified and allocated as energy-related.
>
> O&M Account 594-Maintenance of Underground Lines has been classified and allocated based on the classification and allocation of plant Account 357-Underground Conductors and Devices. That is, Account 594 has been allocated partially based on the number of customers and partially based on NCP demands. This is unreasonable for the same reason a similar allocation for Account 593 is unreasonable, and portions of Account 594 should be classified and allocated as energy-related. I recommend that 50 percent of the costs included in Accounts 593 and 594 be classified and allocated as energy-related.

OCA St. 4 at 17-18. Regarding Account 923, OCA witness Mierzwa explained:

> Account 923-Outside Services Employed, has been classified and allocated based on a composite labor allocator. Under this approach, no costs are classified as energy-related. The most significant cost included in Account 923 are organizational costs for UGI's holding company for shared services. These shared services costs are allocated among UGI's Gas and Electric Divisions based on the Modified Wisconsin Formula ("MWF"). Under the MWF, costs are allocated to each UGI Division based on each Division's share of three factors: (1) operating revenues; (2) O&M expenses; and (3) utility plant. The most significant of these factors affecting UGI's allocation are operating revenues and O&M expenses. Included in these factors are UGI's purchased power costs which are a function of annual sales. Therefore, a portion of Account 923 should be classified and allocated as energy-related. Consistent with my allocation of Accounts 593 and 594, I recommend that 50 percent of Account 923 costs be classified and allocated as energy-related.

OCA St. 4 at 18.

With these well-supported modifications, OCA witness Mierzwa presented his ACCOSS, as follows:

Table 4.
Comparison of Allocated Cost of Service Study Results

	Company		**OCA**	
Rate Class	**Rate of Return**	**Index**	**Rate of Return**	**Index**
Residential	(2.01)%	(60%)	(0.27%)	(8%)
General Service	15.66	470	13.54	406
Large Power	13.68	411	5.05	151
Lighting	24.34	731	21.50	645
Total:	**3.33%**	**1.00**	**3.33%**	**1.00**

OCA St. 4 at 19.

In Rebuttal testimony, Company witness Taylor revised his ACCOSS in response to OSBA testimony. See, UGI St. 6R at 28-29. In order to remain consistent, OCA witness Mierzwa applied his ACCOSS modifications to the Company's revised ACCOSS. OCA St. 4S at 8. Mr. Mierzwa's final ACCOSS is summarized below:

Table 1-S. Comparison of Allocated Cost of Service Study Results				
	Company		OCA	
Rate Class	Rate of Return	Index	Rate of Return	Index
Residential	(0.54%)	(0.14)	0.97%	0.26
General Service-1	(0.59)	(0.16)	3.78	1.01
General Service-4	23.23	6.19	13.87	3.70
Large Power	16.20	4.32	5.56	1.48
Lighting	21.02	5.61	17.33	4.62
Total:	**3.75%**	**1.00**	**3.75%**	**1.00**

OCA St. 4S at 9, Sch. JDM 1-S. The OCA submits that the results of Mr. Mierzwa's revised study should guide the Commission when setting rates in this proceeding.

B. Revenue Allocation

1. Summary of UGI Electric's Proposed Revenue Allocation.

In its initial filing, UGI Electric proposed to allocate the entire amount of the requested revenue increase to the Residential Class. UGI St. 8SD at 3; UGI St. 6 at 15-16. The Company based its revenue allocation on the results of its ACCOSS, which are detailed in Section IX.A above. The Company's ACCOSS indicated that the Residential Class's current revenue contribution is below the cost of service, whereas other classes' revenue contributions are above the cost of service. Accordingly, UGI Electric allocated 100% of the increase to the Residential Class and 0% to other customer classes. UGI St. 6 at 15-16. Subsequently, the Company modified its proposed revenue allocation to reflect its acceptance of OSBA's proposal to establish two separate General Service Classes with a $106,000 increase for both General Service Classes, which is comprised of a $621,000 increase for General Service-1 and a $515,000 decrease for General Service-2. UGI St. 8R at 5-6; OCA St. 4S at 9. The Company's current proposed revenue allocation is reflected in the Table below:

Table 2-S Company Proposed Revenue Distribution ($000)				
Rate Class	**Present Rates**	**Proposed Rates**	**Increase**	**Percent**
Residential	$22,903	$30,891	$7,987	35%
General Service-1	1,565	2,185	620	40
General Service-4	5,717	5,202	(515)	(9)
Large Power	5,744	5,744	0	0
Lighting	990	900	0	0
Total:	**$36,921**	**$45,013**	**$8,092**	**22%**

OCA St. 4S at 9, Table 2S.

2. The Commission Should Reject the UGI Electric's Proposed Revenue Allocation and Adopt the OCA's Proposal.

As discussed above, UGI Electric's cost of service study is seriously flawed and must be disregarded. OCA witness Mierzwa explained that the Company's proposed revenue distribution is flawed in that it "is based on ACCOSS that include a number of deficiencies and cost mis-allocations." OCA St. 4 at 21. The revenue allocation in this proceeding should be based on the OCA's ACCOSS. OCA witness Mierzwa prepared a revenue allocation guided by his ACCOSS and the concept of gradualism, which provides reasonable progress toward cost-based rates for each customer class. OCA St. 4 at 22; see OCA St. 4S, Schedule JDM-2. As seen in the indexed rate of return in Section IX.A (Allocated Class Cost of Service Study), the Residential Class's current revenue contribution is below the cost of service, whereas other classes' revenue contributions are above the cost of service. The OCA's proposed revenue allocation is reflected in the table below:

Table 3-S. OCA Proposed Revenue Distribution ($000)				
Rate Class	**Present Rates**	**Proposed Rates**	**Increase**	**Percent**
Residential	$22,180	$29,660	$6,850	30%
General Service-1	1,548	1,879	331	21
General Service-4	5,753	5,753	0	0
Large Power	5,817	6,728	911	16
Lighting	993	993	0	0
Total:	**$36,921**	**$45,013**	**$8,092**	**22%**

OCA St. 4S at 10, Table 3S. OCA witness Mierzwa explained:

> I assigned a less-than-average system increase to [the General Service Class] because it was generating a return that exceeded the system average return. For the Large Power customer class, I assigned an increase sufficient to move the return of this class to the system average return. I assigned no increase to the Lighting customer class because the return of this class was significantly in excess of the system return. The Residential customer class was assigned the remainder of the requested increase.[14]

OCA St. 4 at 22.

The OCA submits that the revenue allocation proposed herein by OCA witness Mierzwa meets the legal requirements for determination of revenue allocation. In Lloyd v. Pa. PUC, 904 A.2d 1010 (Pa. Commw. Ct. 2004) (Lloyd), the Commonwealth Court of Pennsylvania provided that the "polestar," or "directing principle," for determining the level of revenue for the different rate cases should be the cost of providing service to those different rate classes. Lloyd at 1020. As the Commission has found, a COSS is to serve as a guide in setting rates. Pa. PUC v. Pennsylvania Gas & Water Co., 1993 Pa. PUC LEXIS 61, *161 (1993).

[14] The table above reflects the proposed revenue distribution in OCA witness Mierzwa's Surrebuttal Testimony. OCA witness Mierzwa noted that the justification for the proposed revenue distribution offered in his Direct Testimony continues to apply to this revenue distribution. OCA St. 4S at 10. He stated, "The OCA's proposed revenue distribution continues to reflect the rate design criteria previously discussed in my direct and rebuttal testimonies" and noted that the primary difference between his two proposals was the establishment of separate General Services classes as proposed by OSBA an adopted by UGI Electric. OCA St. 4S at 10.

The Commission has long regarded cost of service studies as more of an art form and a guide rather than as a source of actual data. Application of Metropolitan Edison Company for Approval of Restructuring Plan Under Section 2806 of the Public Utility Code, 1998 Pa. PUC LEXIS 160, *159 (1998); Pa. PUC v. Pa. Power & Light, 55 P.U.R. 4th 185, 249 (Pa. PUC 1983); Pa. PUC v. Aqua Pa, Inc., Docket No. R-00072711, Order (July 31, 2008). Cost of service studies are often disputed, making it an area of compromise within the decision making process. Other factors such as **gradualism**, rate shock, rate continuity, competitive concerns, and principles of fundamental fairness must also weigh in the determination. Lloyd at 1020-1021. The Commission recently confirmed that cost of service studies are a guide for setting rates, holding, "[W]hile Lloyd establishes cost of service rates as the polestar of ratemaking, it does not preclude consideration of other factors." Pa. PUC v. City of Dubois – Bureau of Water, Docket No. R-2016-2554150 (Order entered May 18, 2017, at 26) (City of Dubois). Moreover, in PPL 2012, the Commission rejected providing rate decreases in a general base rate proceeding, holding, "as a matter of fairness, those customer classes that have not been allotted any rate increase via the Company's original revenue allocation should not receive rate decreases as argued by the OSBA and PPLICA." PPL 2012 at 124.

As noted in his Direct Testimony, OCA witness Mierzwa included these important considerations in his recommendations concerning allocation. OCA St. 4 at 21. The OCA has recommended an alternative revenue allocation that reflects the results of a properly conducted, reasonable, and equitable cost of service study. In addition, the OCA submits that while cost of service should guide the Commission when setting rates in this proceeding, other ratemaking principles such as gradualism, avoidance of rate shock, and basic fairness must not be abandoned. The Commission must consider the reasonable cost of service evidence presented in this

proceeding as a guide for achieving the goal of Lloyd to move classes "at or near" cost of service while respecting principles of gradualism.

The OCA's proposed revenue allocation is appropriate because "it reflects movement toward the indicated cost of service, gradualism, and no decrease for any class at a time when rates are increasing." OCA St. 4S at 10; see City of Dubois at 26; see also PPL 2012 at 124. Accordingly, the OCA submits that the Commission should adopt the OCA's proposed revenue allocation. See OCA St. 4S, Schedule JDM-2.

C. Rate Design

1. Summary of UGI Electric's Proposed Rate Design

UGI Electric proposes to increase its current monthly Residential customer charge of $5.50 to $14.00 in an effort to move "closer to the total customer costs per bill . . . as identified within the cost of service studies." UGI St. 8 at 16. UGI Electric witness Taylor claimed that the Residential customer charge was calculated in accordance with Commission guidance based on the "costs associated with meter reading, customer service, billing and collection expenses, and costs relating to meters and services." UGI St. 6 at 17. UGI Electric witness Taylor further claimed that "the Company is proposing a customer charge . . . well below the total customer costs within the PA PUC Direct Customer Costs function; a monthly customer charge of $19.01." UGI St. 4 at 17-18. The Company's proposed monthly Residential customer charge of $14.00 results in an increase of 250 percent. OCA St. 4 at 22. UGI Electric also proposes to "eliminate multiple blocks in lieu of a single block at a proposed rate of $0.03312 per kWh." UGI St. 8 at 16.

2. Residential Customer Charge

For the reasons set forth in Sections IX.C.2.a – IX.C.2.c below, the OCA submits that a monthly Residential customer charge of $8.00, which includes only the costs appropriate for a

customer charge, reflects the principle of gradualism, and avoids harm to low-income customers, is more reasonable than the Company's proposed customer charge of $14.00.

a. <u>UGI Electric's Proposed Monthly Residential Customer Charge Includes Costs That Are Not Appropriate for a Customer Charge.</u>

As OCA witness Mierzwa explained, the Company's calculated charge of $19.01 is "based on the increase reflected in its initial application which has been subsequently reduced." OCA St. 4 at 23. OCA witness Mierzwa further explained:

> Adjusting the Company's calculated charge to reflect the Company's revised request results in a calculated charge of $17.70. However, the Company's calculated customer charge included costs not appropriately included in a customer charge: Universal Service Costs and Uncollectible Accounts. Only those costs that directly increase with the addition of a customer should be included in a customer charge. Removing these costs from the Company's calculated Residential monthly charge further reduces the charge to $12.22. Also included in the Company's calculated charge are miscellaneous customer service expenses associated energy efficiency and conservation. These costs do not vary directly with the addition of a customer. Removing these costs reduces the calculated Residential customer charge to $10.29. Generally, all the Company Residential customer charge calculations just described are based on the Company's claimed requested increase. The calculated charge will likely be further reduced based on the increase authorized by the Commission in this proceeding.

OCA St. 4 at 23-24. OCA witness Mierzwa's calculations are reflected in the Table below:

Table 6. Calculation of Customer Charge		
Description	**Customer Costs (000s)**	**Customer Charge[(1)]**
Initial Application	$12,363	$19.01
Revised Application	$11,507	$17.70
Uncollectible Accounts	$10,556	$16.24
Universal Service Program	$7,947	$12.22
Miscellaneous Customer Service Expenses	$6,689	$10.29
(1) Based on 650,160 Residential billings.		

OCA St. 4 at 24.

The Commission has clearly defined what is included in the basic customer costs for determining the customer charge – only those costs which directly relate to the Company's investment in services and meters as well as the operating expenses associated with meter reading, customer service, accounting, and customer records and collections. See Pa. PUC v. Metropolitan Edison Co., 60 Pa. PUC 349 (1985); Pa. PUC v. West Penn Power Co., 59 Pa. PUC 552 (1985); Pa. PUC v. West Penn Power Co., 1994 Pa. PUC LEXIS 144, *154 (1994). In a 1994 base rate proceeding, the Commission provided further guidance as follows:

> Commission precedent is clear that indirect customer costs are not properly included in the customer charge. Only those costs which represent items that the utility must have in place each month for each customer are 'basic customer costs" which are properly recovered in the customer charge.

Pa. PUC v. National Fuel Gas Dist. Corp., 83 Pa. PUC 262, 371 (1994). Accordingly, UGI Electric is permitted only to include costs in its calculation of the customer charge that are costs required to connect a customer and maintain a customer's account.

Nonetheless, in his Rebuttal Testimony, UGI Electric witness Lahoff claimed that the costs that OCA witness Mierzwa's recommends be removed from the Company's customer charge

calculation "are inconsistent with Pennsylvania law and improper." UGI St. 8R at 10-11. OCA witness Mierzwa explained, however, that:

> [O]inly those costs that directly increase with the addition of a customer should be included in a customer charge. The costs I have proposed to remove from the Company's customer charge calculation such as uncollectible accounts expense, universal service program costs, and miscellaneous customer service expenses do not directly increase with the addition of a customer and, therefore, should not be included in a customer charge.

OCA St. 4S at 11.

In addition, OCA witness Mierzwa noted that UGI Electric's electric distribution system "is dominated by costs which vary with changes in demand." OCA St. 4 at 24. As such, he concluded that the proposed "customer charge does not provide price signals that are particularly relevant to the cost structure." OCA St. 4 at 24. As OCA witness Mierzwa explained:

> The volumetric energy charge is the primary source of meaningful price signals. A lower customer charge that ensures that a greater portion of costs are recovered through energy charges, is more consistent with the Commonwealths' energy conservation and efficiency goals, and will help minimize electric distribution system costs over the long-term.

OCA St. 4 at 24. The development of rates that send proper pricing signals is one of the most important tools used by the Commission to promote conservation and efficiency.

In his Rebuttal Testimony, UGI Electric witness Lahoff also claimed that OCA witness Mierzwa overlooked the fact that "a material part of the operation and capital costs of a utility business is more directly and closely related to the number of customers than to energy consumption." UGI St. 8R at 10-11. OCA witness Mierzwa explained, however:

> I agree that a material part of the Company's cost of providing service are related to the number of customer services. Such costs would include meter and service line investment, meter reading, and billing. In the ACCOSS I am presenting in this proceeding, approximately 35 percent of the Company's proposed revenue

requirements is classified as customer-related and 7 percent is classified as energy-related.

OCA St. 4S at 12. As such, a greater portion of costs should be recovered through energy charges, rather than the customer charge.

Therefore, the OCA submits that the Company's proposed $14.00 monthly Residential customer charge includes costs that are not appropriate to include in a customer charge and does not provide price signals necessary to promote efficiency and conservation.

b. UGI Electric's Proposed Monthly Residential Customer Charge Does Not Reflect the Principle of Gradualism.

OCA witness Mierzwa noted that the Company's proposed monthly Residential customer charge of $14.00 "reflects an increase that is 6.6 times the proposed increase for the average Residential class" and is "inconsistent with the principal of gradualism." OCA St. 4 at 23. The OCA's proposed monthly Residential customer charge of $8.00 amounts to a 45 percent increase in the customer charge. OCA St. 4 at 25. As OCA witness Mierzwa stated, "while not typically reasonable, [a 45 percent increase] would be acceptable in this case given the length of time since the last customer charge increase." OCA St. 4 at 25. UGI Electric's current customer charge is $5.50 and it has been approximately 22 years since an increase in the customer charge.

In his Rebuttal Testimony, UGI Electric witness Lahoff claimed that the Company's proposed $14.00 monthly customer charge would not violate the principle of gradualism. UGI St. 8R at 8-9. As OCA witness Mierzwa noted, however, "[c]ustomers have different usage levels and will be affected differently by changes in customer charges and usage charges" such that "the Company's proposed [250] percent increase in the Residential customer charge will not provide gradualism for low-use customers. OCA St. 4S at 11.

In his Rebuttal Testimony, I&E witness Cline likewise found that the Company's proposed increase "is excessive and violates the concept of gradualism." OCA St. 4R at 3. However, I&E witness Cline proposed a monthly Residential customer charge of $10.00, which results in an increase of approximately 82 percent. OCA St. 4R at 4. As OCA witness Mierzwa stated, "further gradualism is appropriate" and an $8.00 customer charge is more reasonable. OCA St. 4R at 4.

c. UGI Electric's Proposed Monthly Customer Charge Will Disproportionately Harm Low-Income and Low-Use Customers.

OCA witness Mierzwa pointed out that the Company's proposed 250 percent increase "will have a disproportionate impact on low income and lower usage customers." OCA St. 4 at 23. OCA witness Colton[15] similarly noted that:

> The Company's proposal will harm low-income customers in at least the following ways:
>
> - The increased monthly customer charge will increase CAP bills to customers who use the average monthly bill component of CAP;
>
> - The increased customer charge will reduce the buying power of LIHEAP for UGI-Electric's customers; and
>
> - The increased monthly customer charge will increase bills to low-income customers not participating in a UGI-electric bill affordability program.

OCA St. 5 at 8.

OCA witness Colton explained how the Company's Customer Assistance Program (CAP) customers who use the average monthly bill component of CAP will be harmed by the proposed $14.00 monthly Residential customer charge, as follows:

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[15] Roger D. Colton is a principal in the firm of Fisher Sheehan & Colton, Public Finance and General Economics. Mr. Colton provides technical assistance to a variety of public utilities, state agencies and consumer organizations on rate and customer service issues for telephone, water/sewer, natural gas and electric utilities. Mr. Colton's work focuses on low-income energy issues, and he has testified and published extensively in this area. OCA St. 5 at 3, Appendix A.

> [I]t is nonetheless reasonable to conclude that the UGI-Electric participation rate in the low-income average billing component of CAP will be not insubstantial. Upon recertification, the average monthly CAP payments for these customers could be adversely affected by the increased rates, the vast majority of which are unavoidable due to the fact that they are in the form of increased fixed monthly customer charges. The adverse effect would increase up to the point where the monthly bill equals the customer's percentage of income limit on affordability. The fact that no CAP customer would pay more than their applicable percentage of income does not detract from the conclusion that their monthly bills will increase.

OCA St. 5 at 5.

OCA witness Colton also explained that the Company's Low-Income Home Energy Assistance Program (LIHEAP) customers will be harmed in that increased bills at standard rates increase the likelihood customers will not receive the full benefit of any LIHEAP payment. OCA St. 1 at 10. OCA witness Colton further explained that:

> According to the Company, 2,349 low-income customers received a LIHEAP basic grant in 2016 - 2017. In the 2016-2017 LIHEAP program year, the average LIHEAP grant to UGI-Electric customers was roughly $204. UGI-Electric reports that its confirmed low-income customers received an aggregate of $479,076 of LIHEAP benefits in the 2016 – 2017 LIHEAP program year.
>
> In contrast, it is possible to compare these LIHEAP benefits to the revenue loss to the confirmed low-income community resulting simply from the increase in customer charge proposed in this proceeding. The average number of confirmed low-income customers for UGI-Electric was 3,616 in 2017. Multiplying this figure by the ***increase*** in the customer charge ($14.00/month - $5.50/month = $8.50/month) shows a revenue loss to those confirmed low-income customers of $368,832 (3,616 x ($14.00 - $5.50) = (3,616 x $8.50/month) x 12 months = $368,832).
>
> The increase in customer charge, standing alone, in other words, represents more than three-fourths of the ***total*** LIHEAP basic cash grants received by UGI-Electric customers in 2017 ($368,832 / $470,076 = 0.7699). If someone were to propose a 77% decrease in LIHEAP for UGI-Electric customers, people would be concerned. The proposed increase in the UGI-Electric customer charge has the

> same effect impact on UGI-Electric confirmed low-income customers as a 77% reduction in LIHEAP benefits for UGI-Electric customers.
>
> The impact on the population of *estimated* low-income customers (as opposed to the much smaller number of LIHEAP recipients) is much greater. UGI-Electric had an estimated number of 16,373 low-income customers as of December 2017. Calculated in the same way as done above, the proposed customer charge, standing alone, takes $1.67 million out of this estimated low-income population (16,373 * $8.50/month * 12 months = $1,670,046), nearly four and a half times more than the benefits LIHEAP delivers ($1,670,046 / $368,832 = 4.530).

OCA St. 1 at 10-12 (citations and footnotes omitted).

Additionally, OCA witness Colton explained how low-income customers not participating in a UGI Electric bill affordability program will be harmed by the proposed $14.00 monthly Residential customer charge, as follows:

> The proposed increase in the customer charge imposes disproportionately high rate increases on low-use customers. Low-income customers in the UGI-Electric service territory disproportionately tend also to be low-use customers. As a result, through its increased customer charge, the Company proposes to increase rates the most for those who can least afford to pay those rate increases. As I document in detail above, not only are proportionately more low-income customers in arrears, but those who are in arrears, are *deeper* in arrears. UGI-Electric inappropriately proposes to respond to these payment difficulties by *raising* rates the most for these customers.

OCA St. 5 at 20-21.[16]

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[16] With regard to the incidence of arrears and level of arrears, OCA witness Colton explained:

> UGI-Electric's low-income customers have both a higher incidence of arrears and a deeper level of arrears than do the Company's residential customers as a whole. The "incidence" of arrears represents how many customers are in arrears. The "depth" of arrears represents how far in arrears each customer is. Having both a higher incidence and a larger depth of arrears means that not only are proportionately more confirmed low-income customers in arrears, but also that they are further in arrears.
>
> The data shows that while confirmed low-income customers in arrears have consistently maintained account balances of $400 or more over the 29-month study period (October 2015 through February 2018), the residential accounts in

OCA witness Colton also explained that the bulk of UGI Electric's requested revenue increase in this proceeding is derived from the customer charge. OCA witness Colton stated that, "$4,404,054 of the $6,316,032 (69.7%) total change in the sum of distribution charges plus customer charges can be found in the increase of the customer charge alone." OCA St. 5 at 8-9. For lower use customers, he noted that, "the percentage change attributed to the customer charge standing alone would be even higher" as the 69.7 percent considers rates in the aggregate. OCA St. 5 at 9. This is true because, for lower use customers, "the customer charge is a higher overall percentage of total bills and . . . a change in the customer charge would be a larger proportionate change in the total bill." OCA St. 5 at 9. As OCA witness Colton concluded:

> What UGI-Electric is effectively proposing to do through its recommendation to substantially increase its residential customer charge, is not only effectively to divert a huge proportion of existing publicly-funded energy assistance to this non-avoidable fixed charge, but also to raise its rates the most for those customers who can least afford the increase.

OCA St. 5 at 15.

In her Rebuttal Testimony, UGI Electric witness Rossi claimed that, although the Company's CAP customers will experience an average bill increase, these customers will not be harmed as "the Company's CAP would still offer a monthly CAP payment amount that is well within the percentage of income range approved by the Commission's regulations." UGI St. 10R at 7. As OCA witness Colton explained, however, CAP customers will be harmed by an average bill increase in that, "given income constraints, an increase in a low-income customer's bill

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> arrears maintained balances of $300 or less. UGI-Electric's low-income customers are 30% or more deeper in arrears than residential customers as a whole.

OCA St. 5 at 12, 13.

represents 'harm' to the customer." OCA St. 5S at 6. He noted that, under UGI Electric witness Rossi's argument, "no level of UGI-electric rate increase could be viewed as a 'harm' to non-low-income customers since the PUC has not prescribed maximum affordability limits for such customers." OCA St. 5S at 6.

In his Rebuttal Testimony, UGI Electric witness Taylor claimed that OCA witness Colton's argument that low-income customers are disproportionately low-use customers is inaccurate. UGI St. 6R at 33. He claimed that OCA witness Colton did not take into account that wealthy people sometimes choose to live in smaller homes and that low-income households have less energy efficient consumption. UGI St. 6R at 31-32. OCA witness Colton explained, with regard to household size, UGI Electric witness Taylor's own Tables show:

> In no income range below $35,000 does the electricity usage within the range equal, let alone exceed, the residential average. In contrast, in all but three of the income ranges at or above $35,000, usage does exceed the residential average. In six of the thirteen income ranges above $35,000, annual usage does equal or exceed 10,000 kWh, more than 25% greater than the residential average.

OCA St. 5S at 2-3 (emphasis omitted). Moreover, with regard to energy efficient consumption, OCA witness Colton noted, "While low-income households tend to have less efficient energy consumption than do residential customers generally on a per square foot of housing basis, because they tend to live in much smaller housing units, they tend to have lower overall electricity consumption." OCA St. 5S at 4 (emphasis omitted).

For the reasons set forth above, the OCA submits that the Company's proposed $14.00 monthly Residential customer charge will harm low-income customers. Specifically, low-income customers will experience harm through increased CAP bills for customers who use the average monthly bill component of CAP, reduced the buying power for LIHEAP customers, and increased

bills for low-income customers that do not participate in bill affordability programs. Therefore, the OCA submits that its $8.00 customer charge should be adopted.

d. Conclusion as to Residential Customer Charge

The OCA submits that the Commission should reject both the Company's proposed monthly Residential customer charge of $14.00 and I&E's proposed customer charge of $10.00 and adopt the OCA's recommended customer charge of $8.00, which includes only the costs appropriate to be included in a customer charge, sufficiently reflects gradualism, and avoids harm to low-income and low-use customers.

3. Non-Residential Customer Charges

The OCA takes no position on this issue.

D. Scale Backs

The OCA recommends that the rate increase for each rate class be scaled-back proportionately from OCA witness Mierzwa's revenue allocation if the total rate increase approved by the Commission is less than the increase requested by UGI Electric. As OCA witness Mierzwa stated, "In the event that UGI's authorized increase is less than its requested increase, I recommend a proportionate scale-back of the increase for reach rate class." OCA St. 4 at 22.

E. Summary and Alternatives

The OCA submits that its recommendations correct a number of deficiencies and mis-allocations in UGI Electric's ACCOSS. The OCA's proposed revenue allocation, which is based on a reasonable ACCOSS, represents an appropriate allocation that provides sufficient progress toward moving to the cost of service, applies the principles of gradualism, and reflects basic fairness. The OCA's proposed revenue allocation is as follows:

Table 3-S. **OCA Proposed Revenue Distribution** ($000)				
Rate Class	**Present Rates**	**Proposed Rates**	**Increase**	**Percent**
Residential	$22,180	$29,660	$6,850	30%
General Service-1	1,548	1,879	331	21
General Service-4	5,753	5,753	0	0
Large Power	5,817	6,728	911	16
Lighting	993	993	0	0
Total:	**$36,921**	**$45,013**	**$8,092**	**22%**

Under the OCA's revenue allocation, the Residential class would bear the majority of the requested rate increase, but not all of the increase as initially proposed by UGI Electric.

The OCA further submits that its proposed monthly Residential customer charge of $8.00 is appropriate and reasonable as it provides for a 45 percent increase, rather than a 250 percent increase as proposed by UGI Electric. The OCA's customer charge is based the proper elimination costs that do not directly increase with the addition of customers. In addition, the OCA's customer charge considers gradualism and avoids harm to low-income customers. Therefore, the OCA respectfully requests that the Commission reject UGI Electric's proposed revenue allocation and $14.00 monthly Residential customer charge and adopt the OCA's revenue allocation and $8.00 monthly Residential customer charge.

X. UNIVERSAL SERVICE

The OCA notes that a Partial Stipulation was reached on the issue of universal service. See surpa, Section III.F; see Partial Stipulation at 4.

XI. MISCELLANEOUS ISSUES

A. Quarterly Earnings Reports

The OCA takes no positon on this issue.

B. Public Input Hearings

In accordance with the ALJs' Scheduling Order, "smart" Public Input Hearings were held on April 18, 2018, at 1:00 p.m. and 6:00 p.m. at the Commission. Counsel for the OCA, I&E, and the Company were present at the Public Input Hearings. A total of four customers testified telephonically at the Hearings with two customers – one of which is a Formal Complainant in this matter – at the 1:00 p.m. Hearing and two customers at the 6:00 p.m. Hearing. Tr. at 29, 52.

Formal Complainant Barbara McDade testified that she is concerned as she cannot afford the UGI Electric rate increase and that other "senior citizen friends . . . have the same concerns." Tr. at 45. Ms. McDade explained that she receives Social Security Disability and that she is on a fixed income, "living from paycheck to paycheck." Tr. at 45. Similarly, one customer testified that she objects "to the raising of [her] electrical distribution rate by 11.2 percent" as she receives an increase of only two percent in her Social Security income and has minimal other additions to her income, making the rate increase difficult to afford. Tr. at 39.

The same customer also stated that she does not believe an increase is appropriate when it will be used to "line the pockets of the shareholders for getting 25 cents per quarter interest or dividends on each share which runs about $45 a share," rather than "improv[ing] the power grid which is aging." Tr. at 39-40. She further noted that "[t]hirty-nine of the states have lowered their electric rates" and that she believes the rates of Pennsylvania utilities should also decrease. Tr. at 39-40. Another customer echoed this statement, requesting that the "proposed increase . . . be

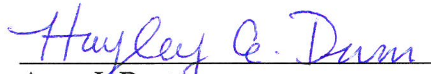
turned down or at the very lease lowered considerably." Tr. at 62. Lastly, one customer testified that the Company has not adequately justified the need for the rate increase. Tr. at 67.

Generally, testimony at the Public Input Hearings revealed that: (1) customers, especially those on a fixed income, such as Social Security Disability, are not able to afford the proposed rate increase (2) customers believe that utility rates in Pennsylvania, and specifically UGI Electric's rates, should decrease as rates are decreasing in other states, and (3) customers do not believe that UGI Electric has demonstrated a need for the rate increase. The OCA submits that, for the reasons set forth in this Main Brief and, in consideration of the testimony offered at the Public Input Hearings, the Commission should reject the Company's as-filed increase and adopt the recommendations of the OCA to ensure that resulting rates and just and reasonable.

XII. CONCLUSION

For the reasons set forth in this Main Brief, the OCA respectfully submits that the Commission should adopt the OCA's adjustments and modifications to UGI Electric's rate increase request. The Company's as-proposed rate increase will not result in just and reasonable rates and will not reflect sound ratemaking policy or Pennsylvania law. In particular, a fair revenue allocation, monthly Residential customer charge, and return on equity must be adopted in this proceeding. In addition, the Commission must order that UGI Electric timely return 2018 tax savings resulting from the TCJA to customers. Further, the OCA submits that the Commission should approve the provisions of the June 20, 2018 Partial Stipulation.

Respectfully Submitted,



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Appendix A

UGI Utilities, Inc. - Electric Division
Docket No. R-2017-2640058

Table I
Income Summary

Description	Company Amounts at Present Rates	Company Pro Forma Adjustments	Company Amounts at Present Rates	OCA Adjustments	Amounts After OCA Adjustments
Total Operating Revenues	$ 87,179	$ 1,755	$ 88,934	$ 158	$ 89,092
Operating Revenue Deductions					
O&M Expenses	$ 68,476	4,269	$ 72,745	$ (570)	$ 72,175
Depreciation & Amortization	5,028	635	5,663	(362)	5,301
Taxes Other Than Income Taxes	7,426	(605)	6,821	(524)	6,297
Total Operating Revenue Deductions	80,930	4,299	85,229	(1,456)	83,773
Operating Income Before Income Taxes	6,249	(2,544)	3,705	1,614	5,319
Income Taxes	135	(241)	(106)	605	499
Net Operating Income	$ 6,114	$ (2,303)	$ 3,812	$ 1,009	$ 4,820
Rate Base	$ 93,260		$ 114,404		$ 92,337
Return On Rate Base	6.56%		3.3320%		5.22%
Rate of Return Required			8.24%		6.75%
Required Operating Income			$ 9,427		$ 6,233
Operating Deficiency			$ 5,615		$ 1,413
Revenue Conversion Factor			1.512278		1.512279
Proposed Revenue Requirement			$ 8,491		$ 2,137

UGI Utilities, Inc. - Electric Division

Docket No. R-2017-2640058

Table II
Summary of Adjustments

		Rate Base Effect	Operating Revenues	O&M Expenses	Depreciation & Amortization	Taxes Other Than Income	Income Taxes	Net Operating Income Effect	Revenue Effect
Recommended Adjustments:									
Change in Rate of Return	Per Partial Stipulation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (2,578)
Average Balance for Plant and Related Items	OCA St. 1, Schedule LKM-4	(10,953)	-	-	-	-	-	-	(1,013)
Distribution Circuit From Loomis Substation	OCA St. 1, Schedule LKM-6	(581)	-	-	-	-	-	-	(74)
Regulatory Liability	OCA St. 1,Schedule LKM-5	(10,876)	-	-	-	-	-	-	(1,007)
Additional Hanover Industrial Park Revenue	OCA St. 1, Schedule LKM-7	-	158	-	-	-	46	112	(169)
Environmental Remediation Expense	OCA St. 1, Schedule LKM-8	-	-	(139)	-	-	40	99	(150)
Additional New Employees	OCA St. 1, Schedule LKM-9	-	-	(208)	-	-	60	148	(223)
Correct Payroll Taxes	OCA St. 1, Schedule LKM-10	-	-	-	-	(50)	14	36	(54)
Correct Pension Expense Capitalization Ratio	OCA St. 1, Schedule LKM-11	-	-	(63)	-	-	18	45	(68)
Correct PA & Local Use Tax	OCA St. 1, Schedule LKM-12	-	-	-	-	(122)	35	87	(131)
Eliminate Storm Damage Expense	OCA St. 1, Schedule LKM-13	-	-	(161)	-	-	47	114	(172)
Annualize Depreciation Expense	OCA St. 1, Schedule LKM-15	-	-	-	(343)	-	99	244	(337)
Adjust PURTA Tax per Settlement	Per Partial Stipulation	-	-	-	-	(352)	102	250	(378)
Total		$ (22,067)	$ 158	$ (570)	$ (362)	$ (524)	$ 605	$ 1,009	$ (6,354)