BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	R-2017-2640058
Office of Consumer Advocate	:	C-2018-2646178
Office of Small Business Advocate	:	C-2018-2647268
Matthew Josefwicz	:	C-2018-2647099
Barbara McDade	:	C-2018-3000056
	:	
v.	:	
	:	
UGI Utilities, Inc. – Electric Division	:	

RECOMMENDED DECISION

Before
Steven K. Haas
Andrew M. Calvelli
Administrative Law Judges

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APPENDIX

I. INTRODUCTION

A. UGI Utilities, Inc. – Electric Division

UGI Utilities, Inc. – Electric Division (UGI Electric or the Company) provides electric distribution services to approximately 61,832 residential, commercial and industrial customers in a service territory of approximately 1,200 square miles in portions of Luzerne and Wyoming Counties. UGI Electric maintains over 1,200 miles of overhead and underground primary distribution lines, twelve distribution substations and 49 distribution circuits. UGI Electric is a public utility and an electric distribution company (EDC) as those terms are defined in the Pennsylvania Public Utility Code, 66 Pa. C.S. §§ 102 and 2803.

UGI Electric is seeking in this proceeding approval of an increase in its annual jurisdictional distribution operating revenues of $7.705 million.[1] UGI Electric's requested increase is based on a fully projected future test year (FPFTY) ending September 30, 2019 and is designed to provide the Company with an opportunity to earn an 8.24% overall rate of return, including an 11.25% return on common equity, on a claimed rate base of $119.242 million. UGI Electric proposes in its request to increase its residential monthly customer charge from $5.50 to $14.00.

UGI Electric asserts that the requested rate increase reflects the business environment the Company currently faces, including: accelerated investment in the repair, replacement or improvement of an aged and aging distribution system; the modernization of core technology systems occurring as a part of the UGI Next Information Technology Enterprise ("UNITE") system modernization initiative at UGI Utilities, Inc.; the modernization, consolidation and relocation of UGI Electric operations personnel out of outdated facilities and into a new operations center location; and modest increases in employee wages and salaries since

[1] UGI's initial filing sought a revenue increase of approximately $9.254 million. However, the Tax Cuts and Jobs Act of 2017, Pub. L. 115-97, 131 Stat. 2054 (the "TCJA") was passed and became effective while UGI prepared its initial filing. UGI served Supplemental Direct Testimony and revised supporting information that reflected the impacts of the TCJA on UGI's initial filing and updated its claimed revenue increase to $8.491 million. The final claimed revenue requirement of $7.705 million reflects additional updates to UGI's claim based upon its Rebuttal Testimony and the Partial Stipulation in Settlement, which uses a total rate base of $119.242 million and a return on equity of 11.25%.

its last base rate case in 1996. UGI Electric further asserts that the growth in operating and capital costs, along with relatively stagnant customer usage and growth trends, prevent it from earning a fair rate of return on its investment, at present rate levels.

B. History of the Proceeding

This proceeding was initiated on January 26, 2018, when UGI Electric filed Tariff Electric PA. P.U.C. Nos. 6 and 2S with the Commission. In Tariff Electric – PA. P.U.C. Nos. 6 and 2S, issued to be effective for service rendered on or after March 27, 2018, UGI Electric initially proposed changes to its base retail distribution rates designed to produce an increase in revenues of approximately $9.254 million, based upon data for the FPFTY ending September 30, 2019. In its initial filing, however, UGI Electric noted that it intended to submit Supplemental Direct Testimony to address the impact of the recently enacted federal Tax Cuts and Jobs Act of 2017, Pub. L. 115-97, 131 Stat. 2054 (TCJA).

Tariff Electric – PA. P.U.C. Nos. 6 and 2S were suspended by operation of law pursuant to Section 1308(d) of the Public Utility Code, 66 Pa. C.S. § 1308(d), for up to nine months, or until October 27, 2018, unless permitted by Commission Order to become effective at an earlier date. By Order entered March 1, 2018, the Commission initiated an investigation of UGI Electric's proposed general rate increase. The matter was assigned to the Office of Administrative Law Judge, and Administrative Law Judges Steven K. Haas and Andrew M. Calvelli (ALJs) were assigned to preside over the proceeding.

The Commission's Bureau of Investigation and Enforcement (I&E) filed a Notice of Appearance. Complaints against the proposed rate increase were filed by the Office of Consumer Advocate (OCA), the Office of Small Business Advocate (OSBA), Matthew Josefwicz, and Barbara McDade.

On March 12, 2018, UGI Electric filed the Supplemental Direct Testimony of five witnesses, as well as Revised Exhibit A – Fully Projected, Revised Exhibit A – Future, Revised Exhibit D – Cost of Service Study, and Revised Exhibit E – Proof of Revenues. The

Supplemental Direct Testimony and revised exhibits reflect the effects of the TCJA on the 2018 Base Rate Case. These adjustments reduced the Company's revenue increase from $9.254 million to $8.491 million.

An initial Prehearing Conference was held on March 20, 2018. Parties participating in the Prehearing Conference filed Prehearing Memoranda identifying potential issues and their expected witnesses. At the Prehearing Conference, the parties proposed a procedural schedule, which was adopted by the ALJs. In addition, the parties agreed to, and the ALJs approved, modified discovery rules, which included shorter response times than those provided for in the Commission's regulations at 52 Pa. Code § 5.321 *et seq*.

In the Scheduling Order, dated March 30, 2018, the ALJs set forth the litigation schedule for the proceeding and the revised periods for responding to discovery requests. The ALJs indicated that the parties had agreed that there should be two "smart" public input hearings, which were held on Wednesday, April 18, 2018, in Harrisburg, PA, at 1:00 p.m. and 6:00 p.m.

On April 26, 2018, parties other than UGI Electric served their Direct Testimony and associated exhibits. On May 25, 2018, UGI Electric, OCA and OSBA filed Rebuttal Testimony and associated exhibits. I&E, OCA and OSBA served Surrebuttal Testimony and exhibits on June 7, 2018. On June 11, 2018, UGI Electric served Rejoinder Testimony and exhibits. Formal Complainants Matthew Josefwicz and Barbara McDade did not submit any testimony during the evidentiary hearings, nor did they appear at and participate in the evidentiary hearings.[2]

Evidentiary hearings were held before the ALJs on June 11 and June 12, 2018. At the hearing, the parties' respective testimony and exhibits were admitted into the evidentiary record and certain parties' witnesses were cross-examined.

The parties filed their Main Briefs (M.B.) on July 2, 2018. The parties filed their Reply Briefs (R.B.) on July 18, 2018. The record was closed on July 18, 2018 upon the filing of

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[2] Ms. McDade presented on the record testimony at the public input hearing.

the parties' Reply Briefs. The final day for the Commission to act at a public meeting on this matter is October 25, 2018.

C. Burden of Proof

A public utility has the burden of proof to establish the justness and reasonableness of every element of its rate increase request in all proceedings under 66 Pa. C.S. § 1308(d). The standard to be met by the public utility is set forth at 66 Pa. C.S. § 315(a):

> **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 proceeding upon 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 of Pennsylvania set forth the utility's burden of proof in a rate proceeding pursuant to 66 Pa. C.S. § 315(a) as follows:

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

Lower Frederick Twp. Water Co. v. Pa. Pub. Util. Comm'n., 48 Pa. Cmwlth. 222, 226-227, 409 A.2d 505, 507 (1980) (emphasis added). *See also*, *Brockway Glass Co. v. Pa. Pub. Util. Comm'n*, 63 Pa. Cmwlth. 238, 437 A.2d 1067 (1981).

In general rate increase proceedings, the burden of proof does not shift to parties challenging a requested rate increase. Rather, the utility's burden of proof to establish the justness and reasonableness of every component of its rate request is an affirmative one and that burden of proof remains with the public utility throughout the course of the rate proceeding.

There is no similar burden placed on other parties to justify a proposed adjustment to the public utility's filing. The Pennsylvania Supreme Court has held:

> [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.

Berner v. Pa. Pub. Util. Comm'n, 382 Pa. 622, 631, 116 A.2d 738, 744 (1955).

However, a public utility does not need to affirmatively defend every claim it has made in its filing, even those which no other party has questioned, in proving that its proposed rates are just and reasonable. The Pennsylvania Commonwealth Court has held:

> While it is axiomatic that a utility has the burden of proving the justness and reasonableness of its proposed rates, it cannot be called upon to account for every action absent prior notice that such action is to be challenged.

Allegheny Center Assocs. v. Pa. Pub. Util. Comm'n, 131 Pa. Cmwlth. 352, 359, 570 A.2d 149, 153 (1990) (citation omitted). *See also, Pa. Pub. Util. Comm'n v. Equitable Gas Co*., 73 Pa. PUC 310, 359 – 360 (1990).

Additionally, 66 Pa.C.S. § 315(a) does not place the burden of proof on the utility with respect to an issue the utility did not include in its general rate case filing and which, frequently, the utility would oppose. The burden of proof must be on a party to a general rate increase case who proposes a rate increase beyond that sought by the utility. *Pa. Pub. Util. Comm'n v. Metropolitan Edison Company, et al.,* Docket No. R-00061366, 2007 Pa. PUC LEXIS 5 (Order entered January 11, 2007).

II. STIPULATION OF PARTIAL SETTLEMENT

On June 20, 2018, UGI Electric, I&E, OCA and OSBA ("Joint Petitioners") filed a "Partial Stipulation Resolving Certain Contested Issues" ("Joint Stipulation") in this proceeding.

Commission policy promotes settlements. See 52 Pa. Code § 5.231. Settlements lessen the time and expense that parties must expend litigating a case and, at the same time, conserve administrative resources. The Commission has indicated that settlement results are often preferable to those achieved at the conclusion of a fully litigated proceeding. *See* 52 Pa. Code § 69.401.

The Commission has explained that parties to cases resolved through settlement are afforded flexibility in reaching amicable resolutions, so long as the resolution is in the public interest. *Pa. Pub. Util. Comm'n. v. MXenergy Electric Inc.*, Docket No. M-2012-2201861, 2013 Pa. PUC LEXIS 789, 310 P.U.R.4th 58 (Order entered Dec. 5, 2013). In order to approve a settlement, the Commission must first determine that the proposed terms and conditions are in the public interest. *Pa. Pub. Util. Comm'n v. Windstream Pennsylvania, LLC*, Docket No. M-2012-2227108, 2012 Pa. PUC LEXIS 1535 (Order entered Sept. 27, 2012); *Pa. Pub. Util. Comm'n v. C.S. Water and Sewer Assoc.*, Docket No. R-881147, 74 Pa. PUC 767 (Opinion entered July 22, 1991). The Joint Stipulation covered the issues listed below.

A. Capital Structure

UGI Electric described its capital structure in the direct testimony of Paul R. Moul. In his testimony, Mr. Moul recommended using UGI Electric's actual capital structure ratios at the end of the FPFTY of 45.98% long-term debt and 54.02% common equity. UGI Electric St. No. 5, p. 15.

As part of the Joint Stipulation, the Joint Petitioners agree to accept UGI Electric's capital structure of 45.98% long-term debt and 54.02% common equity. This provision is in the public interest because it properly reflects the Company's capital structure, which is within the barometer group proposed in the testimony of UGI Electric and I&E, and otherwise conforms to the practice normally adopted by the Commission in determining capital structure. *See*, UGI Electric Main Brief, p. 18.

B. Depreciation Rates

UGI Electric's depreciation studies, accrued depreciation claim, and annual depreciation expense claim were set forth in UGI Electric St. No. 7 and UGI Electric Exhibits C (Historic), C (Future), and C (Fully Projected). The OCA proposed to reduce the Company's claim, based on the testimony of its witness, Mr. Garren. *See generally* OCA St. No 2. The OCA's recommendation to reduce depreciation expense was based on two primary changes: (1) increasing the service lives for certain distribution plant accounts; and (2) changing the longstanding, approved depreciation calculation procedure known as the Equal Life Group ("ELG") procedure to the Average Service Life ("ASL") procedure. *See generally* OCA St. No. 2.

Following the submission of rebuttal testimony and further negotiations, the Joint Petitioners agreed to accept UGI Electric's as-filed depreciation rates. Joint Stipulation ¶ 7. This provision is in the public interest because it properly accounts for UGI Electric's outlook and plans, including its Commission-approved Long-Term Infrastructure Improvement Plan (LTIIP), and is consistent with the depreciation procedure used by most other Pennsylvania utilities. *See,* UGI Electric Main Brief, p. 19.

C. EV Rider

In its direct case, UGI Electric proposed to install and maintain electric vehicle ("EV") charging station equipment. The proposed Rate EV consisted of a flat monthly charge based on the equipment costs and maintenance expenses associated with the station type and energy usage rates at the applicable Generation Supply Rate ("GSR") or electric generation supplier ("EGS") generation rate. UGI Electric St. No. 8, p. 14. In addition, customers electing service under the rate would be responsible for installation costs incurred by UGI Electric. UGI Electric St. No. 8, p. 14.

This rider was opposed by OCA and OSBA for a variety of reasons. OCA St. No. 4, p. 26; OSBA St. No. 1, pp. 26-27.

As part of the Joint Stipulation, UGI Electric agreed to withdraw Rate EV 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. Joint Stipulation ¶ 8. This provision is in the public interest because it removes a contentious issue from this case and will allow UGI Electric to continue to explore options that further the Commission's goal of fostering the development of a market for EVs in Pennsylvania.

D. Storm Damage Expense Rider

UGI Electric initially proposed a new Storm Expense Rider ("SER") to recover or refund certain storm damage expenses in excess of or below a base amount of $275,000 claimed in base rates, to provide for timely tracking of storm expenses. UGI Electric St. No. 8, p. 13. I&E and OCA recommended that the SER be rejected for various reasons. I&E St. No. 1, p. 41; OCA St. No. 4, pp. 25-26.

UGI Electric agreed to withdraw the proposed SER without prejudice to its right to refile the SER 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. Joint Stipulation ¶ 9. The Company believes, however, that the riders for storm recovery are appropriate because of the unique nature of storm events and their potentially devastating physical and financial impacts. This provision is in the public interest because it resolves a contested issue in this proceeding in a way that does not reduce or undermine UGI Electric's ability to recover appropriately identified storm expenses as part of this proceeding, does not limit UGI Electric's ability to file for deferred accounting of any storm expenses incurred after the period reflected in actual storm expenses in this base rate proceeding, and also does not impact UGI Electric's ability to seek a SER in the future, should UGI Electric believe that it is appropriate to do so.

E. Pennsylvania Public Utility Realty Tax (PURTA)

There was a disagreement in this proceeding regarding the appropriate Pennsylvania Public Utility Realty Tax ("PURTA") to be reflected in rates. I&E's witness Mr. Grab recommended an adjustment to the Company's PURTA claim. Mr. Grab's adjustment was based on his belief that the 2016 PURTA Notice of Determination issued by the Pennsylvania Department of Revenue in the amount of $449,000 is an outlier that will not be repeated in future years. He argued that this uncommon occurrence should not be used as the basis for the Company's claim. I&E St. No. 4, pp. 7-9.

In the Joint Stipulation, the parties agree that base rates established in this proceeding shall reflect $97,000 for PURTA obligations. Any future recalculations of the State Tax Adjustment Surcharge ("STAS") 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. Joint Stipulation ¶ 10. This provision is in the public interest because it addresses I&E's concern that the 2016 PURTA Notice received by the Company is an outlier, while still allowing the Company to recover future PURTA assessments, pursuant to the STAS mechanism.

F. Universal Service Programs

UGI Electric did not propose any changes regarding the administration, services provided, or funding levels of its universal service programs in this distribution base rate proceeding. OCA recommended a variety of structural changes to UGI Electric's universal service programs. *See generally* OCA St. No. 5. OCA's recommendations regarding UGI Electric's universal service offerings were largely unrelated to the proposed rate increase. While UGI Electric believes that these issues are better dealt with in its triennial universal service program filing, which is currently pending Commission review, UGI Electric has agreed to address and adopt certain proposed changes to its universal service programs in this proceeding.

In the Joint Stipulation, the Joint Petitioners agree to use a base Customer Assistance Program (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 the Company's 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. Joint Stipulation ¶ 11(a). The Joint Stipulation on CAP enrollment adopts the OCA's position.

The Joint Stipulation provides that 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. Joint Stipulation ¶ 11(b). UGI Electric believes this provision of the Joint Stipulation is in the public interest, as it will harmonize UGI Electric's practices with those of its affiliate natural gas companies.

The Joint Stipulation provides that UGI Electric 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 <u>*paid to external agencies that would not have been incurred in the absence of CAP*</u>; and…". Joint Stipulation ¶ 11(c).

Finally, UGI Electric has agreed in the Joint Stipulation to clarify that it is currently acting in accordance with two of OCA's universal service recommendations. First, UGI Electric agrees to allow year-round rolling enrollment for its budget billing program and shall modify related tariff language accordingly in its compliance filing. Joint Stipulation ¶ 11(d). Second, UGI Electric agrees that for customers completing payment plans, UGI Electric will automatically retain the customer on budget billing unless the customer explicitly requests to be removed from budget billing. Joint Stipulation ¶ 11(e). Regarding UGI Electric's budget billing program, UGI Electric has been permitting year-round rolling enrollment; however, it appears that UGI Electric's tariff language had not been updated to properly reflect that rolling enrollment was available to its customers. UGI Electric will clarify this procedure now that this error has been identified. With respect to the OCA recommendation to retain customers on budget billing upon completion of payment plans, UGI Electric already keeps customers on budget billing once they have completed a payment plan. It will continue to follow this practice.

G. Miscellaneous Accounting Issues

In its filing, UGI Electric proposed to capitalize certain costs incurred to develop new data base assets in connection with its use of cloud-based information services. Under generally accepted accounting principles ("GAAP"), such costs are ordinarily accounted for as operating expenses. In this case, however, UGI Electric is requesting Commission approval to record these costs as a long-lived capital asset. UGI Electric St. No. 4, pp. 13-15. No party challenged or otherwise opposed UGI Electric's proposed accounting treatment for the cloud-based information services. As such, the Joint Petitioners agreed that UGI Electric 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. Joint Stipulation ¶ 12(a). The Joint Petitioners also agree that, with regard to UGI Electric's UNITE Phase 2 Costs, UGI Electric 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. Joint Stipulation ¶ 12(b).

These Joint Stipulation provisions are in the public interest because they recognize that the new data bases will provide benefits to customers over extended periods of time and not just the period in which the costs are incurred. UGI Electric's cloud-based services will offer many advantages to traditional on premise software such as enhanced security, reliability, and flexibility. The data bases created for the cloud-based services will be used by UGI Electric to optimize various aspects of the utility service provided to its customers over, at a minimum, the life of the cloud-based service agreement. Moreover, UGI Electric will retain ownership and control of these data bases after the close of the cloud-based service for which they are being created and likely will use the information in subsequent applications. Accordingly, it is appropriate for the costs of these cloud-based services to be capitalized and depreciated over the life that the data bases will remain used and useful. *See,* UGI Electric Main Brief, pp. 23-24.

Having addressed the issues covered by the Joint Stipulation, we will now address the disputed issues in this proceeding.

III. RATE BASE

In its Initial Filing, UGI Electric sought a revenue increase of approximately $9.254 million. However, after adjustments for the TCJA, and adjustments made during the course of litigation including the Joint Stipulation, UGI Electric requests that the Commission approve an increase in annual jurisdictional operating revenues of $7.705 million. (UGI Electric Exhibit A -- Fully Projected, Schedule A-1 (Main Brief)). The requested increase is based upon a FPFTY test year ending September 30, 2019 and is designed to provide the company with an opportunity to earn an 8.24% overall rate of return on rate base, including an 11.25% return on common equity, on a claimed rate base of $119.242 million. *Id*.

Opposing parties (I&E and OCA) have proposed a variety of adjustments. I&E proposes a revenue increase of only $824,000, reflecting a return on common equity of 8.62% (I&E St. No. 1-SR, Errata). OCA initially proposed an increase of $1,237,000, and a return on equity of 8.5%. However, as a result of the Joint Stipulation, OCA's proposed increase is now approximately $2.1 million.

At issue in this case is whether UGI Electric may base its FPFTY rate base (and associated depreciation expense) on the use of a year-end rate base methodology, as it proposes, or whether an average rate base methodology, as recommended by the opposing parties, and joined by OSBA, should be used. As discussed below, the Commission has not, to date, adopted final rules or regulations addressing this issue. Therefore, an initial discussion of Act 11, upon which UGI Electric relies, is necessary here.

Act 11 and the Fully Projected Test Year

Section 315 of the Code, 66 Pa.C.S. § 315, contains the burden of proof a utility has in various proceedings before the Commission. With the enactment of Act 11 of 2012[3] the burden of proof standard for utilities in rate proceedings has been amended to provide that utilities may use a FPFTY to meet their burden. Thus, under Act 11, as part of base rate cases, utilities may now employ a FPFTY to project items such as revenues, operating expenses, and capital expenditures throughout a 12-month period beginning with the first month that new rates would be in effect. Prior to the passage of Act 11, utilities could use either a historic test year (HTY) or a future test year (FTY).

On August 2, 2012, the Commission entered its Final Implementation Order, at Docket No. M-2012-2293611, addressing Act 11 ("*Implementation Order*"). To date, the Commission has not adopted final rules or regulations regarding the use of a FPFTY in base rate case filings by regulated utilities. In this regard, the Commission initiated a separate proceeding at Docket No. L-2012-2317273 for adopting final rules and regulations regarding the use of the FPFTY in accordance with Section 315 of the Code. Act 11 provides, in relevant part:

> **§ 315. Burden of proof.**
>
> (e) Use of future test year.--In discharging its burden of proof the utility may utilize a <u>future test year or a fully projected future test year, which shall be the 12-month period beginning with the first month that the new rates will be placed in effect after application of the full suspension period permitted under section 1308(d) (relating to voluntary changes in rates)</u>. The commission shall promptly adopt rules and regulations regarding the information and data to be submitted when and if a future test period or a fully projected future test year is to be utilized. Whenever a utility utilizes a future test year or a fully projected future test year in any rate proceeding and such future test year or a fully projected test year forms a substantive basis for the final rate determination of the commission, the utility shall provide, as specified by the commission in its final order, appropriate data evidencing the accuracy of the estimates contained in the future test year <u>or a fully projected future test year</u>, and the commission may after reasonable notice and hearing, in its discretion, adjust the utility's rates

[3] Act of Feb. 14, 2012, Pub. L. 72, No. 11 ("Act 11").

> on the basis of such data. 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) (underline indicating language added by Act 11).

Act 11 defines the FPFTY as the twelve-month period that begins with the first month that the new rates will be placed into effect after the application of the full suspension period permitted under Section 1308(d) (relating to voluntary changes in rates) (*see,* 66 Pa.C.S. § 1308(d)). UGI Electric used the twelve months ending September 30, 2017 as the historic test year (HTY), the twelve months ending September 30, 2018 as the future test year (FTY), and the twelve months ending September 30, 2019 as the fully projected future test year (FPFTY). (UGI Electric St. No. 1, p. 8).

A. Original Cost Utility Plant-in-Service

1. End of Year v. Average Rate Base Methodology

Utility plant-in-service comprises all the utility's intangible assets (i.e., organization costs, franchise and consents cost, and land and land right costs) and tangible assets (i.e., facilities and equipment). UGI Electric's claim for original cost utility plant-in-service of $188,423,000 is based on projected plant-in-service at the end of the FPFTY--i.e., September 30, 2019. The opposing parties - I&E, OCA, and OSBA - oppose UGI Electric's calculation of plant-in-service at the end of the FPFTY and instead propose an "average" rate base calculation.

UGI Electric contends that the arguments of the opposing parties are inconsistent with the plain language of Act 11, the policy of Act 11, and are factually incorrect.

I&E's position

I&E recommends the use of an average rate base methodology rather than the year-end rate base methodology used by UGI Electric. (I&E St. No. 3, pp. 5-6). I&E takes the position that, in the absence of clear guidance from the Commission regarding the application of the FPFTY to base rate proceedings in Pennsylvania, the company should use an average rate base methodology to calculate its FPFTY utility plant-in-service amount. (*Id*. at 4-13, I&E St. No. 3-SR, pp. 2-12). I&E contends that using the average rate base methodology results in rates that are more just and reasonable because ratepayers are not paying for approximately a year of plant that is only proposed and is not subject to any guarantee of being completed and placed into service. (I&E St. No. 3, p. 6). Therefore, I&E recommends that UGI Electric's FPFTY year-end utility plant-in-service claim be rejected and that a total utility plant-in service amount of $173,871,383 be adopted instead. (I&E St. No. 3-SR, pp. 11-12, citing I&E Ex. No. 3-SR, Sch. 1, In. 4; also see, I&E's MB, p. 15).

I&E points out that under the traditional "used and useful" requirement, for a utility plant to be included in rates, the plant must be used and useful in the provision of utility service to customers. Therefore, by definition, only plant currently providing or capable of providing utility service to customers is eligible to be reflected in rates. (I&E St. No. 3, pp. 4-5, I&E's Main Brief, pp. 14-15). I&E argues that under the FPFTY, the traditional interpretation of the "used and useful" requirement for rate base inclusion of investments is unclear because when a company employs the use of a FPFTY in a base rate case, the new rates go into effect before the end of the company's FPFTY. (I&E, St. No. 3, pp. 5-6). Therefore, the inclusion of rate base added in a FPFTY necessarily means that customers will be paying a return on and a return of a utility's plant investment that has not yet been placed into service. I&E argues that by using an average of the rate base that is projected to be in service by the end of the FPFTY, rather than the full year-end amount, the impact of the necessary customer overpayment at the beginning of the year is mitigated. *Id.*

In support of its position, I&E presented the testimony of Ethan Cline, who testified that, with no knowledge of when UGI Electric's projected plant additions will actually be finished, allowing UGI Electric to use September 30, 2019 year-end plant-in-service 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 7-8). I&E pointed out that UGI Electric's new rates are expected to become effective October 27, 2018, which is approximately eleven months before the end of its FPFTY of September 30, 2019. (*Id*. 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." (*Id*. at 8).

I&E further argues that customers would pay rates in October 2018 that are calculated to recover depreciation expense and a return on investment at the end of the FPFTY, which are in excess of the rates that are necessary to provide the revenue requirement that allows the company the opportunity to earn its authorized rate of return ("ROR") on the plant and expenses that are used and useful when the new rates become effective. *Id*. I&E argues that, if all the company's projects are completed as proposed, ratepayers only reach the projected "just and reasonable" rate point on the final day of the FPFTY or the first day of the year after the FPFTY. On the other hand, an average rate base would yield an average annual return on rate base throughout the FPFTY equal to the authorized ROR. *Id.* at 8-9.

Further, I&E argues that there are additional negative effects of UGI Electric's proposed use of the FPFTY year-end methodology. One such negative effect is that an average rate base would yield an average annual return on rate base throughout the FPFTY equal to the authorized ROR; whereas, under the company's proposed methodology, only the end-of-year point at day 365 would coincide with the authorized ROR. (I&E St. No. 3, pp. 8-9). Next, I&E contends that the return of investment, or depreciation expense, which is recovered on a dollar for dollar basis, will be overstated to reflect an amount greater than the company's actual recorded depreciation expense in the FPFTY. *Id.* Another negative effect is that UGI Electric's projected usage declines and customer count adjustments projected to the end of the FPFTY will not accurately reflect the actual FPFTY usage, nor will annualized expenses for which a full year's expense is not realized in the FPFTY accurately reflect the actual FPFTY expenses. *Id.*

As to the language of Act 11, I&E argues that while Act 11 does provide for inclusion of plant proposed to be placed into service throughout the FPFTY to be included in rates, Act 11 does not indicate a specific or preferred methodology for recovery in rates. (I&E St. No. 3-SR, p. 5). Further, since the company did not provide an in-service date for any of the projects it has projected to be in service during the FPFTY, the use of the average rate mitigates the risk to customers that the vague "planned" projects will not be placed into service, as proposed, by the end of the FPFTY. *Id*. at 7.

Further, I&E recognizes that it is asking the Commission to approve a methodology that has not yet been adopted by the Commission. I&E Main Brief, p. 20. However, as additional support for its position, I&E points to a decision of the Illinois Commerce Commission ("Illinois Commission") which concluded that an average rate base is more appropriate than a year-end rate base, given a future test year. I&E St. No. 3, pp. 12-13, citing *Re North Shore Gas Company*, ICC Docket No. 12-0511/0512, 2013 WL 3762292 (Ill. C. C.), pp. 28-29 (Order entered June 18, 2013).

I&E argues that the Illinois decision is relevant because under the Illinois Administrative Code, the Illinois 24-month period includes the 12-month period that comprises Pennsylvania's FPFTY. I&E points to the section of the Illinois Administrative Code that allows a utility to propose a "future" test year that is "[a]ny consecutive twelve month period of forecasted data beginning no earlier than the date new tariffs are filed and ending no later than 24 months after the date new tariffs are filed." See, I&E St. No. 3, p. 12, quoting 83 Ill. Adm. Code 287.20; I&E Main Brief at 20.

<u>OCA's position</u>

Similar to I&E, OCA takes the position that rates must be set based on the average rate base projected to be used and useful in the FPFTY. OCA contends that using an average rate base properly matches the calculation of rate base with the other elements of UGI Electric's revenue requirements and income in a given year. OCA argues that, since the average rate base measures the net investment over the course of the year, rather than as of a point in time at the end of the year, it is internally consistent with the measurement of expenses, billing determinants, and income over the course of the year.

OCA presented the testimony of Lafayette K. Morgan, Jr., a regulatory consultant focusing on rate regulation in the analysis of public utility operations, who reached the same conclusion as I&E witness Cline as to matching rates and costs. Like Mr. Cline, Mr. Morgan concluded that the use of a year-end 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. OCA St. 1 at 8. OCA argues that 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, and such a mismatch would be inappropriate. *Id.*

In support of its position, OCA also cites the above decision of the Illinois Commission. OCA points out that the Illinois Commission found an average rate base methodology more appropriate than a year-end based calculation since it, *inter alia,* takes into account that investments are made throughout the test year, rather than assuming, for rate setting purposes, that all investments are made at the beginning of the test year. OCA Main Brief at 16, citing *Re North Shore Gas Company, supra.*

<u>OSBA's position</u>

OSBA did not submit direct testimony relating to this issue. However, because it found that this issue is significant and will likely serve as precedent for future base rate proceedings, the OSBA addressed this issue in its Main Brief. (OSBA Main Brief, pp. 5-12). OSBA takes the same positions as I&E and OCA in recommending an average rate base methodology. In support of its position, OSBA likewise points to the testimony of I&E witness Cline and OCA witness Morgan, discussed above, and submits that "both standard regulatory practice and basic common sense require a matching between the time period for which costs are incurred and the time period for which rates will be in effect." *Id*. at 8.

Further, OSBA contends that the use of an average rate base for the FPFTY is fully compliant with Act 11. (*Id.* at 10). OSBA contends that facilities which are projected to be in service during the FPFTY are included in rate base for the specific period in which they are in place. OSBA contends that Act 11 does not require that assets put in place at any time during the FPFTY must be fully reflected in the cost basis for service in every month of the FPFTY. *Id.*

Disposition

We find in favor of UGI Electric on this issue. We find that the plain language and policy of Act 11 supports UGI Electric's position. Historically, a fundamental principle of utility regulation is that a public utility should be permitted to include projects in rate base and earn a reasonable return on its investments after they became "used and useful" for the utility's public service. However, Act 11 fundamentally altered ratemaking in Pennsylvania by adopting the FPFTY to reduce the risks associated with regulatory lag. As noted by the Commission, under the FPFTY approach, "the risks associated with regulatory lag will be substantially reduced because the new rates will be consistent with the test year used to establish those rates for at least the first year." (See, *Implementation Order,* comments under "Chapter 3 - General Provisions").

Act 11 addressed regulatory lag and encourages plant investment to address aging infrastructure in two separate but related ways: by authorizing the use of a FPFTY and a Distribution System Improvement Charge ("DSIC") in certain conditions. (*See*, 66 Pa.C.S § 1358(b)(1) for the DSIC provisions). The Commission has long recognized regulatory lag as an important variable that the Commission should address in the ratemaking process. See, e.g., *Lower Paxton Twp. v. Pa. Pub. Util. Comm'n*, 317 A.2d 917, 921 (Pa. Cmwlth. 1974), and *Implementation Order*.

We also find persuasive that Section 315(e) specifically exempts application of Section 1315 which, for electric utilities, requires projects to be "used and useful" before being included in the rate base. Thus, the "used and useful" standard in Section 1315 is not a bar to including all plant added during the FPFTY. Section 1315, which codified the "used and useful" standard, provides:

> **§ 1315. Limitation on consideration of certain costs for electric utilities.**
>
> Except for such nonrevenue producing, nonexpense reducing investment as may be reasonably shown to be necessary to improve environmental conditions at existing facilities or improve safety at existing facilities or as may be required to convert facilities to the utilization of coal, the cost of construction or expansion of a facility undertaken by a public utility producing, generating, transmitting, distributing or furnishing electricity shall not be made a part of the rate base nor otherwise included in the rates charged by the electric utility until such time as the facility is *used and useful* in service to the public. Excepted as stated in this section, no electric utility property shall be deemed *used and useful until it is presently providing actual utility service to the customers.*

66 Pa.C.S. § 1315 (emphasis added).

As stated above, the new language set forth in Section 315(e) exempts application of Section 1315 which, for electric utilities, requires projects to be "used and useful" before being included in the rate base. Specifically, the last sentence of 315(e) provides:

> . . . 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).

Thus, through use of the FPFTY, a utility is allowed, in essence, to require ratepayers to pre-pay a return on its projected investment in future facilities. This is true because the future facilities are not only not in place and providing service at the time the new rates will take effect, but there is also no guarantee of them being completed and placed into service. An FPFTY allows a utility to project revenue requirements and ratemaking components throughout the 12-month period beginning with the first month that the new rates would be placed in effect, after the expiration of the full nine-month suspension period allowed by law.

We are also not persuaded by the decision of the Illinois Commission in *Re North Shore Gas Company, supra*. As the Commission has explained, the practices and policies of other jurisdictions have little, if any, relevance for Pennsylvania. *See.*, e.g., *Petition for Declaratory Order Regarding Ownership of Alt. Energy Credits, Associated with Non-Utility Generating Facilities Under Contract to Pa. Elec. Co. and Metro. Edison Co*., 2007 Pa. PUC LEXIS at *26-27 (Order entered Feb. 12, 2007); also see, *Elder v. Orlucky*, 515 A.2d 517, 522 (Pa. 1986) (noting that it was not appropriate to consider another jurisdiction's statute where there was no indication that the General Assembly based Pennsylvania legislation on legislation adopted in other jurisdictions).

Further, it is not persuasive to cite to one provision of another jurisdiction's ratemaking practice without looking at other issues and aspects of that jurisdiction's overall ratemaking policy. Different jurisdictions adopt different approaches and mechanisms to various ratemaking issues, including capital structure, cost of equity, normalization, annualization and amortization, automatic adjustment clauses and post-test year adjustments. Therefore, it is not appropriate to select one isolated element of the ratemaking formula from another jurisdiction and apply it to Pennsylvania ratemaking policy. We also note that the sections of the Illinois Administrative Code relied upon by opposing parties do permit the use of a year-end rate base where certain evidentiary requirements are met, which the Illinois Commission did not find applicable to the particular facts before it in *Re North Gas Company, supra*.

Next, as to opposing parties' concern that UGI Electric's projections may be overstated if plant is not completed, we agree with UGI Electric that this concern is addressed through some of the available protections that the Commission may invoke, including requiring verification through a subsequent rate filing and ordering an audit when appropriate. The Commission has expressed an interest in back testing prior projections through subsequent rate filings. As explained by the Commission, "Moreover, although there is no reconciliation of revenue and expenses between base rate cases we expect that in subsequent base rate cases, the utility will be prepared to address the accuracy of the fully projected test year projections made in its prior base rate case." (*Implementation Order*).

We also agree with UGI Electric that the legislature addressed this issue in Section 315(e), which also provides that the Commission may audit FPFTY results after the fact to determine whether they were accurate and authorizes the Commission to adjust rates to reflect material differences. The relevant portion of Section 315(e) provides:

> . . . Whenever a utility utilizes a . . . fully projected future test year in any rate proceeding and such . . . fully projected test year forms a substantive basis for the final rate determination of the commission, the utility shall provide, as specified by the commission in its final order, appropriate data evidencing the accuracy of the estimates contained in the . . . fully projected future test year, and the commission may after reasonable notice and hearing, in its discretion, adjust the utility's rates on the basis of such data . . . .

66 Pa.C.S. § 315(e).

2. Electrical Engineering and Operations Center

In its original filing, UGI Electric made a claim for $10 million for an Electric Engineering and Operations Center ("Operations Center"). UGI Electric St. 3 at 16. UGI Electric reflected this cost in plant-in-service because it projects the new Operations Center will be placed into service in the FPFTY. UGI Electric St. No. 3-R, p. 17. In rebuttal testimony, UGI Electric updated this claim, increasing the budgeted amount from $10 million to $17.3 million based on a "more comprehensive estimate" of expected costs. UGI Electric St. 3-R at 17.

According to UGI Electric, it will remodel an existing 54,000 square-foot facility and associated property and will accommodate all of the company's needs at one location, including consolidation of office and field personnel, development of a dedicated electric training area, creation of a back-up Energy Control Center, and existing future warehouse needs.

The timeline is to move into the new Operations Center by September 2019. Further, according to UGI Electric, the original cost of $10 million significantly underestimated the construction cost per square foot, in addition to other significant cost areas such as site preparation (cut & fill), paving, utilities, furnishings and storm water retention costs, and did not consider adequate room for growth, training facilities, warehouse space and staging area for assistance crews and vehicles. UGI Electric St. No. 3-R, pp. 17-18.

In rejoinder testimony, UGI Electric presented the testimony of Eric W. Sorber, Director Engineering & Operations, UGI Utilities, Inc., who stated all the following: (1) that UGI Electric presented more information in support of its updated claim, (2) that the proposed facility was under active negotiations with the property owner, (3) that UGI Electric had experience building new headquarters for its gas affiliate, and (4) that he was confident in UGI Electric's ability to move into the new Operations Center prior to the end of the FPFTY. UGI Electric St. 3-RJ at 11-12.

<u>OCA's position</u>

OCA is the only party that opposes this claim. OCA's position is that an adjustment to UGI Electric's plant-in-service should be made to remove the $17.3 million in the FPFTY. In his surrebuttal testimony, OCA witness Morgan recommended that the updated information was speculative and that UGI Electric's Confidential UGI Electric Exhibit EWS-8 raises serious concerns about the completion of the project during the FPFTY. OCA St. 1-S at 2-3 (OCA witness Morgan confidential analysis of UGI Exhibit EWS-8).

As a result, OCA witness Morgan revised his direct testimony and 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.

Further, OCA argues that UGI Electric has not sufficiently demonstrated that the new Operations Center will be in operation in the FPFTY. In support thereof, OCA argues: (1) that as of the date of the evidentiary hearing, there was no formal agreement to purchase the property; (2) that no contractors had been hired to do the remodeling and site preparations to complete the Operations Center; (3) that UGI Electric only recently toured the facilities; and (4) that UGI Electric has not followed any disciplined budgeting process in making the changed proposal. As to OCA's contention that UGI Electric has not followed any disciplined budgeting process in making the proposed changes, OCA points to the cross-examination of UGI Electric witness Sorber. Under cross-examination, Mr. Sorber was asked how the company updates budget estimates, and in response, OCA argues, it became evident that the only preliminary budgeted amount modified in this proceeding was the Operations Center. Tr. at 99-104.

Disposition

We find in favor of OCA on this issue. We agree with OCA that UGI Electric has not sufficiently demonstrated that the new Operations Center will be in operation in the FPFTY. We find it significant that as of the date of the evidentiary hearing, there was no formal agreement to purchase the property, no contractors had been hired to do the remodeling and site preparations to complete the Operations Center, and that UGI Electric only recently toured the facilities. It appears that this new facility is still in the preliminary planning stages. We find that there is too much uncertainty surrounding the proposed $17.3 million Operations Center to conclude with reasonable certainty that it will be operational in the FPFTY.

Therefore, we will adjust UGI Electric's plant-in-service claim to remove the $17.3 million for the proposed new Operations Center in the FPFTY.[4]

B. Accrued Depreciation

As explained above in Section II.B, the parties have agreed to use the company's proposed accrued depreciations claim. Joint Stipulation ¶ 7.

[4] The actual adjustment to rate base will be $15.352 million. We will assume that the initial $10 million claim was entirely a rate base item. Of the remaining $7.3 million, it appears only $5.577 million is attributable to plant in service less the depreciation expense of $225,000. UGI Electric St. No. 2-RJ, p. 2.

C. Additions to Rate Base

1. Cash Working Capital

Cash Working Capital (CWC) includes the amount of funds necessary to operate a utility during the interim period between the rendition of service, including the payment of related expenses, and the receipt of revenue in payment for services rendered by the utility. UGI Electric's original claim for CWC was $7,333,000. UGI Electric Rev. Ex. A-Fully Projected, Sch. A-1 (Revised). During the course of litigation, UGI Electric revised its original claim in response to some of I&E's claims, and in rebuttal testimony, UGI Electric provided an updated CWC claim of $7,180,000. UGI Electric Ex. A – Fully Projected (REBUTTAL), Sch. C-4. The Company's final position on CWC is $7.15 million, of which operating and maintenance (O&M) expense is $5.7 million. UGI Electric Reply Brief, p. 16.

Much of UGI Electric's CWC was not challenged. However, I&E did challenge UGI Electric's meter read lag. I&E St. No. 1, pp. 45-46. Meter reading lag reflects the time between when meters are read and bills are mailed to customers, and is an accepted component of CWC. See, e.g., *Pa. Pub. Util. Comm'n v. National Fuel Gas Distribution Corp*., Docket No. R-00942991 (Order entered December 6, 1994). UGI Electric's claimed meter read lag is 2.70 days.

I&E has recommended an adjustment from UGI Electric's meter read lag of 2.70 days down to 1.5 days due to major software system improvements by UGI Electric. I&E notes that the Company has made a major investment in software installation in its UNITE Phase I software implementation and this software program should have an effect on the Company's meter read lag days. (I&E St. No. 1, pp. 45-46; I&E St. No. 1-SR, p. 47). In support of this position, I&E witness Christine Wilson testified that, based upon her ten years of experience with I&E, the Company must realize some reduction in the time it takes to read the meters and process data in its computer system after spending a substantial amount of money on new software. I&E St. No. 1-SR, p. 47. I&E takes issue that the Company does not have a plan to modify its meter read lag times. I&E St. No. 1, p. 46, *citing* I&E Exh. No. 1, Sch. 13, p. 1.

I&E's updated recommendation for CWC is an allowance of $6,755,000 or a reduction of $425,000 ($7,180,000 - $6,755,000). I&E Reply Brief, p. 17, citing I&E St. No. 1-SR, p. 58.

In response, UGI Electric argues that there is no evidence in the record to support the conclusion that its new software system has or will reduce meter read lag by the 44% claimed by I&E. (UGI Electric Main Brief, p. 39). Further, UGI Electric argues that meter read timing was not within the scope of the company's new software program, and therefore, no adjustment in meter read lag was expected or shown. UGI Electric St. No. 4-R, p. 8.

We find in favor of UGI Electric on this issue of the meter lag. We agree that there is insufficient evidence to conclude that the new software, which was implemented for other purposes, should, or should be expected to, reduce the meter lag from 2.70 days to 1.5 days. There is insufficient evidence to support I&E's position of the effect of UGI Electric's new software on meter read lag.

2. Materials and Supplies

UGI Electric's initial filing included a claim for $1.44 million for materials and supplies. I&E and UGI Electric have agreed that the materials and supplies in inventory, based on the most recent 13-month average, is $1,464,692. UGI Electric Main Brief, p. 40; I&E Main Brief, p. 29. This amount is unopposed by all parties and will be adopted.

D. Deductions from Rate Base

1. Accumulated Deferred Income Taxes

UGI Electric claims an Accumulated Deferred Income Tax (ADIT) balance at the end of the FPFTY of $16,572,000, inclusive of adjustments reflecting the impacts of the TCJA. UGI Electric St. No. 9-SD, pp. 3-4 Revised UGI Electric Exhibit A -- Fully Projected, Schedule

C-6. I&E and OCA both contested UGI Electric's claim. I&E St. No. 1, pp. 36-39; OCA St. No. 1, pp. 14-15. This issue is fully addressed in Section VIII *infra.*

2. Act 40 of 2017

UGI Electric's initial filing claims that the amount of the consolidated tax savings adjustment applicable to UGI Electric, in the absence of Act 40, would have been $75,400 (i.e., $41,000 multiplied by the gross revenue conversion factor). UGI Electric St. No. 2, pp. 24-25. OCA contested UGI Electric's claim. OCA St. No. 1, pp. 22-25. This issue is fully addressed in Section VIII *infra.*

3. Customer Deposits

UGI Electric's claim for customer deposits in the FTY and the FPFTY is $1,419,000. UGI Electric Main Brief, pp. 41-42; UGI Electric St. No. 4. UGI Electric's position is that it is necessary to address the decrease caused by the passage of the Act of October 22, 2014, Pub. L. 2545, No. 155 (Act 155) prohibiting the Company from collecting customer deposits from customers who qualify for low-income programs. (UGI Electric Main Brief, pp. 41-42). UGI Electric's position is that because it is no longer able to collect customer deposits from low income customers, its customer deposits have fallen and subsequently leveled off. *Id*. Therefore, UGI Electric used the customer deposits balance at the end of the HTY (September 30, 2017) to determine that rate base offset. I&E St. No. 3, p. 23.

I&E rejects UGI Electric's position and argues that the Company should use its most recent 13 months of actual customer deposit balances. I&E asserts that, based on the actual customer deposit levels from October 2016 through February 2018, UGI Electric's claim that the customer deposit balance is decreasing or has leveled off is unsupported. *Id.* at 23. In fact, I&E asserts that the $1,419,000 balance at September 2017 is actually the lowest balance in the referenced seventeen-month period. *Id.*, citing I&E Ex. No. 3, Sch. 8; I&E Main Brief, p. 34. Therefore, I&E recommends a customer deposits level of $1,495,692 for both the FTY and FPFTY. I&E St. No. 3-SR, p. 19.

We find in favor of I&E on this issue. We find it persuasive that the actual customer deposits of the most recent 13 months should be used to determine the rate base offset. Therefore, we will make an adjustment consistent with I&E's recommendation.

E. Cloud Based Program

This issue was resolved in the Joint Stipulation. Joint Stipulation ¶ 12(a). The Joint Stipulation provides that UGI Electric shall be permitted to record the Cloud Based Implementation Costs, as described on page 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. We shall adopt this provision of the Joint Stipulation.

F. Unite Phase 2 Costs

This issue was resolved in the Joint Stipulation. Joint Stipulation ¶ 12(b). The Joint Stipulation provides that UGI Electric shall be permitted to capitalize the pre-implementation costs, as described on page 15 of the direct testimony of Megan Matter, UGI Electric St. No. 4 and shall begin depreciation of the costs after the systems are placed in service.

IV. REVENUE

UGI Electric's original revenue requirement proposal was presented in the testimony and associated exhibits of its witness, David E. Lahoff. UGI Electric St. No. 8, pp. 3-9; UGI Electric Ex. A (Fully Projected). OCA generally agreed with the company's proposal but recommended an adjustment in the amount of $158,000 to reflect additional revenues associated with the Hanover Industrial park project. OCA St. No. 1, pp. 15-16. UGI Electric acknowledged that its FPFTY budget sales and revenues did not reflect the additional revenue associated with the additional customer load served by this project and agreed with the OCA's proposed adjustment. UGI Electric St. No. 3-R, pp. 15-16. The adjusted revenues were reflected in UGI Electric Ex. A – Fully Projected (Rebuttal), Sch. A. The company's final claimed revenues at its proposed rates was $96,797,000.

I&E recommends adjustments to UGI Electric's claimed revenues based on its position that the average rate base methodology should be used in calculating rate base, expenses and revenues. It argues, "I&E is recommending the application of an average rate base methodology to calculate the Company's rate base and depreciation expense claims, therefore, for purposes of consistency, it is also necessary to calculate the Company's present rate revenue level in the FPFTY using a consistent average rate base methodology." I&E St. No. 3, p. 30; I&E Main Brief, p 36.

As explained in Section III of this RD, we have rejected I&E's recommendation of the use of the average rate base methodology. Accordingly, we disagree with I&E's recommended adjustments to UGI Electric's revenue proposal.

In consideration of the various adjustments adopted in this RD, we recommend an overall revenue requirement in this proceeding of $91,881,000.00.

V. EXPENSES

As a matter of law, a utility is entitled to recover in its rates all legitimate expenses incurred in the rendition of its public utility service. *UGI Corp. v. Pa. Pub. Util. Comm'n,* 410 A.2d 923, 932 (Pa. Cmwlth. 1980). Thus, the general rule is that utilities are permitted to set rates which will recover those operating expenses reasonably necessary to provide service to customers, while earning a fair rate of return on the investment in plant used and useful in providing adequate utility service. *Western Pennsylvania Water Company v. Pa. Pub. Util. Comm'n*, 422 A.2d 906 (Pa. Cmwlth. 1980). The objective evaluation of reasonableness is whether the record provides sufficient detail to objectively determine whether the expense is prudently incurred. *Popowsky v. Pa. Pub. Util. Comm'n*, 674 A.2d 1149, 1153-54 (Pa. Cmwlth. 1996). With respect to operating and maintenance expenses, those expenses, if properly incurred, are allowed as part of the overall rate computation. To the extent that expenses are not incurred, imprudently incurred, or abnormally overstated during the test year, they should be disallowed and found not recoverable through rates.

A. Vegetation Management Expense

UGI Electric has made a claim for vegetation management expenses in the amount of $2,118,501 for the FPFTY. This amount includes a level of increased costs related to the existence of the Emerald Ash Borer (Borer). The Borer is an insect that causes damage and death to Pennsylvania Ash trees, including Pennsylvania Ash trees in UGI Electric's service territory. The Borer increases the propensity for trees to fail at the root system resulting in more significant risk to distribution lines. UGI Electric St. No. 3-R, p. 6. UGI Electric alleges that the difficulty of removing these trees due to off right-of-way locations coupled with unsafe climbing conditions, combined with the sheer number of impacted trees, has created an unprecedented vegetation management issue. *Id.* UGI Electric anticipates that these issues will continue for the next seven to ten years. *Id*. at 8.

In response to the existence of the Borer and its impact on the Pennsylvania Ash trees, UGI Electric has added one additional vegetation maintenance crew in the FTY. UGI Electric St. No. 3-RJ, p. 5. UGI Electric argues that the historical average of the vegetation management expense, modified by a yearly inflation factor, cannot be used to calculate the company's vegetation management expenses in this proceeding because such a calculation would not account for the increased cost of hiring the additional vegetation maintenance crew to combat the new Emerald Ash Borer threat. The one additional vegetation maintenance crew has been added in the FTY which is reflected fully in the FPFTY. UGI Electric St. No. 3-RJ, p. 5.

I&E has recommended an allowance of $1,912,266 for vegetation management expenses. I&E St. No. 1, p. 13; I&E St. No. 1-SR, p. 12. I&E based its allowance for vegetation management expenses on an average increase between fiscal years ended September 30, 2015, 2016, and 2017 for the non-payroll/other component which is 5.2%. I&E St. No. 1, p. 13; I&E St. No. 1-SR, p. 10. UGI Electric's request of $2,118,501 represents a 14.8% increase. I&E feels that such an increase is unsupported. I&E contends that UGI Electric's proactive effort to address the impact of the Borer in its service territory is already reflected in the historic test year. I&E St. No. 1, pp. 13-15. I&E argues that future vegetation management costs are adequately reflected in the historic average of the expense modified by a yearly inflation factor.

We agree with UGI Electric on this issue. UGI Electric has presented sufficient evidence to show that the proposed increase in vegetation management expenses is due to a known and measurable change – the hiring of an additional vegetation maintenance crew in the FTY. I&E does not seem to discredit the unprecedented impact that the Borer has on Pennsylvania Ash trees in the service territory of UGI Electric. Furthermore, I&E's witness admitted that "if there is a very large unforeseeable event," the historic average with inflation would not reflect that event and additional relief may be granted by the Commission. Tr. 130:20-23. The existence and impact of the Borer is a large unforeseeable event that was not reflected in the historic test year. We recommend that the Commission accept UGI Electric's $2,118,501 claim for vegetation management expenses.

B. Company Owned Services Program

UGI Electric has made a claim for expenses relating to a Company-Owned Service ("COS") Transition Program in an amount of $454,418.

UGI Electric currently owns and maintains nearly 5,000 COS facilities (mainly residential) including service entrance cables, meter sockets, panel boxes, main breakers and 240-volt breakers. UGI Electric St. No. 3, p. 16. Some of these facilities are located inside the homes of customers, causing the maintenance of said facilities to be difficult. UGI Electric St. No. 3, p. 16. As a result, UGI Electric has proposed to implement a new program to transition ownership of these COS facilities to homeowners. $454,418 is the amount that UGI believes is necessary to fund said program.

As part of this program, UGI Electric will send notices to affected customers, will conduct inspections, and, if necessary, will repair or replace the COS equipment so that it passes an inspection by an approved electrical inspector certified by the Pennsylvania Department of Labor and Industry. UGI Electric St. No. 3, p. 16. UGI Electric argues that the services were installed in the 1970's when electrical code requirements were less stringent, and it estimates that a minimum of 90% of existing equipment will require work to bring service up to code and to pass inspection. I&E St. No. 1, p. 29, citing I&E Ex. No. 1, Sch. 10, p. 5. Once the inspection is completed, UGI Electric's former COS equipment will be deemed customer-owned equipment consistent with the terms of UGI Electric's tariff.

UGI Electric expects that this program will result in the inspection and transfer of responsibility for approximately 500 services a year for the next ten years. UGI Electric St. No. 3, p. 16.

UGI Electric indicated that it will not profit from this program, because UGI Electric is not capitalizing any portion of the COS program and is proposing only to recover the associated expenses. UGI Electric St. No. 3-R, pp. 9-10. Additionally, UGI Electric has stated that it is willing to coordinate its program with the Commission's Bureau of Consumer Services (BCS) and the OCA. UGI Electric St. No. 3-R, p. 10. Finally, UGI Electric indicated that while it has the right under its tariff to terminate service for failure to allow inspection of these facilities, UGI Electric has no desire to terminate service to any customer and will work with OCA and BCS on developing potential alternatives to achieve access without the threat of termination. UGI Electric St. No. 3-R, p. 10. If a homeowner refuses to allow inspection of the service facilities, UGI Electric can obtain a court order granting entry. UGI Electric St. No. 3-RJ, p. 7.

UGI Electric argues that the program should be mandatory in order to ensure the safety of all customers who currently have COS. UGI Electric cites to 66 Pa. C.S. § 1501 and 52 Pa. Code § 57.194(b) for the proposition that it has a responsibility to inspect and keep its facilities safe. UGI Electric argues that it must inspect the facilities to ensure they are in good repair, or to make necessary repairs, prior to transfer of ownership to customers.

I&E has recommended an allowance of $140,000 for the COS transition program.

First, I&E challenges the mandatory nature of the proposed COS transition program. I&E argues that UGI Electric admits it is not guaranteed that it will be afforded access to all of the affected homes for maintenance, so there is no reason to believe that all homeowners will allow access for the proposed final inspections. I&E St. No. 1, p. 30, <u>citing</u> UGI Electric St.

No. 3, p. 15. I&E argues that since UGI Electric has indicated it is not required by law to perform these inspections prior to relinquishing ownership of the equipment, it is more appropriate to make the inspections voluntary, giving homeowners the ability to decide by a certain date whether they wish to have such inspections performed prior to the change in ownership of the equipment. I&E Exh. No. 1, Sch. 10, p. 2.

Second, I&E challenges the reasonableness of UGI Electric's projected expenses, stating that the true amount of the total cost for either mandatory or voluntary inspections is not accurately known and measurable at this time, particularly not 9.44 years into the future, considering that costs will change over time and that it is unknown how many affected homeowners will grant access to the inspectors. I&E St. No. 1, pp. 30-31.

Lastly, I&E argues that UGI Electric has the potential to profit from the COS program. It states that in theory, if the Company inflated its 2019 budget amount of $140,000 by $314,418 due to its revised estimate of $454,418 where it reflected increased costs and a period of 9.44 years to complete the project (I&E St. No. 1, pp. 29-30, citing I&E Exh. No. 1, Sch. 10, p. 4.) and, if the inflated claimed expenses are built into the revenue requirement equation, even if no portion is capitalized, the Company would over-recover and profit based on the erroneous expense projection. I&E St. No. 1-SR, pp. 25-26.

In sum, I&E is recommending that the inspections be made voluntary while trying to balance the claimed expense against the inherent unknowns and the speculative nature of the claimed expense. I&E St. No. 1, pp. 29-31. I&E St. No. 1-SR, p. 24.

The OCA does not oppose this program as it addresses a safety issue unique to UGI Electric presented by the COS equipment. OCA St. 4 at 28. However, the OCA believes that UGI Electric should only be entitled to recover the expenses associated with the Program, and not profit in any way. OCA St. 4 at 28. Additionally, the OCA believes that "[u]nder no circumstances should service be terminated under the Program," and that "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.

Thus, the OCA believes that the Commission should approve UGI Electric's COS program expenses as long it does not profit from the program and as long as it is not permitted to terminate service in conjunction with the program.

We agree with UGI Electric on this issue. It is persuasive that OCA does not oppose the program, arguing that the program addresses a safety issue unique to UGI Electric and recommends that UGI Electric's claim be approved. Considering that UGI Electric has shown exactly how it calculated its claim – the result of the inspection and transfer of responsibility for approximately 500 services a year for the next ten years - we do not believe that its 2019 budget amount has been inflated. UGI Electric is required to provide reasonable and safe service to its customers, and it has identified 5,000 services that need to be inspected and repaired or replaced in order to provide reasonable and safe service. UGI Electric has provided for its calculation of said expense, based on its knowledge of the updated electrical code requirements, past experience implementing the program, and the projected cost of the contractor force required to conduct the inspections and make the necessary repairs or replacements. See UGI Electric Exhibit EWS-7. We recommend that the Commission accept UGI Electric's $454,418 COS expenses claim, under the conditions that UGI Electric is (1) prohibited from earning a profit from the program, (2) prohibited from terminating service in conjunction with the program, and (3) required to coordinate with BCS and the OCA in implementing and executing the program. UGI Electric has already agreed to follow the three aforementioned conditions, and we trust that UGI Electric through its coordination with the OCA and with BCS can find other alternatives to achieve access to homes without threatening to terminate service. Additionally, we agree that the inspections should be made mandatory. Making the inspections mandatory is the only way to ensure that the program can address the safety issues raised by the COS.

C. Environmental Remediation Expense

UGI Electric has made a claim for environmental remediation expenses in the amount of $417,000. The amount, to be amortized over three years, is to perform remediation work in one of the company's warehouse buildings, referred to as the "Forty Fort" site. UGI

Electric St. No. 3, p. 19. 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 Electric St. No. 3-R at 3. 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 plans to sell the property after the site is remediated in 2020.

With respect to the remediation costs and whether the costs should be recovered through the sale of the property, UGI Electric believes that the cost of remediation should not be offset with the net proceeds from the sale. UGI Electric argues first, that it is utilizing a FPFTY in this proceeding, and the environmental remediation expense will be incurred in the FPFTY, whereas the sale of the property is not expected until after the FPFTY. UGI Electric St. No. 3-R, p. 4. Second, the sales price for the building is not known or knowable at this time. Third, any net proceeds that are realized will be credited to net salvage expense which is an accepted element of the ratemaking formula.

Additionally, UGI Electric witness Sorber stated in his Rebuttal Testimony that the sale of the property is not relevant to the recovery of the environmental remediation costs. UGI Electric St. 3R at 4.

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, Sch. LKM-8. In particular, OCA argues that 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. OCA recommends that these costs should be removed from the cost of service, because they should be recovered from the sales proceeds of the associated property. OCA St. No. 1, p. 17. Thus, OCA seeks to reject UGI Electric's environmental remediation expense in its entirety and reduce O&M expense by $139,000.

The OCA additionally submits that the sale of the property is relevant to the recovery of the remediation costs. OCA witness Morgan explained that 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. Secondly, Morgan believes it is very unfair and improper to burden ratepayers with this cost when, clearly, it can be recovered from the sale proceeds. OCA St. 1S at 5.

Moreover, the OCA believes that 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 1

I&E initially recommended disallowance of the environmental remediation expense claim, but ultimately concurs in the position held by the OCA as represented by OCA witness Morgan. In the alternative, I&E believes that the costs should be amortized over five years if the costs are allowed to be included. I&E St. No. 1, p. 8.

We agree with the OCA and I&E on this issue. We believe that the expenses that will be related to the remediation of site "Forty Fort" can be recovered from the sales proceeds of the associated property. It is appropriate to recover the costs of the remediation from the sales proceeds rather than to pass those costs onto ratepayers. With remediation, the value of the property will certainly increase, increasing the gain that UGI Electric will receive from selling the property. Thus, there is an obvious connection between remediation and the value and eventual sale of the property. We recommend that the Commission disallow the environmental remediation expense claim in its entirety and accept the OCA's adjustment to reduce O&M expenses by $139,000.

D. Storm Damage Expense

In its direct case, UGI Electric used a five-year average of storm expense, reflecting expense from the years 2013 to 2017, to develop an average annual storm expense claim of $275,000. UGI Electric St. No. 8-R, pp. 22-23. UGI Electric's claim was 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. In its rebuttal testimony, the Company updated its claim to correct what it claimed to be an error in the original data and to reflect the actual experience of fiscal year 2018 to date. UGI Electric St. No. 8-R, pp. 22-23. In other words, its updated claim was based on dropping the oldest year (2013) from its average and replacing it with 2018 in the five-year average. These updates produced an average annual storm expense revised claim of $301,000. UGI Electric St. No. 8-R, p. 23.

In support of its claim, UGI Electric cites the testimony of I&E witness Wilson who acknowledged that the partial year data provided by the Company for its 2018 storm expenses either correctly reflects the total storm expense for fiscal year 2018 or would understate the actual storm expense should any additional storm events occur in the remaining months of fiscal year 2018, and that UGI Electric's claim reflects actual storm damage expense accrued in 2018. Tr. 123:11-19. UGI Electric states that it is not possible for the inclusion of the partial year 2018 storm expenses to overstate the actual expense experienced by UGI Electric in the full fiscal year 2018 and that Ms. Wilson agreed that excluding fiscal year 2018 actual expenses would improperly reduce the Company's storm expense claim based on her own five-year average methodology. Tr. 124:6-11. Therefore, UGI Electric believes that the inclusion of the Company's actual experience for 2018 would make the Company's numbers more reflective of its actual experience, while posing no risk of over-recovery from rate payers. In its rejoinder testimony, UGI Electric claims that its 2018 storm damage expense claim is based on actual historic accounting experience, not estimates.

I&E recommended an allowance of $253,229 for UGI Electric's storm damage expense claim. I&E challenged the Company's method for calculating its storm expense. I&E St. No. 1-SR, pp. 43-44. Specifically, I&E challenged the inclusion of the 2018 storm related data. I&E St. No. 1-SR, pp. 43-44. I&E rejects the Company's replacement of 2013 with 2018 in the five-year historic average. I&E St. No. 1-SR, p. 43-44. I&E's basis for excluding the 2018 storm data is that it is improper to include only a partial year's data in the five-year historic average, claiming that it is more relevant to include the actual historic expenses from 2013 in the five-year historic average. I&E St. No. 1-SR, pp. 43-44. I&E asserts that the Company's 2018 expense claim is based on estimates and was not sufficiently supported. I&E MB, p. 43.

The OCA submits that the Commission should accept the OCA's adjustment, which reduces UGI Electric's storm expense to an annualized level of $114,000. See OCA St. 1 at 20; OCA St. 1, Sch. LKM-13. OCA witness Morgan stated in his testimony that 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. OCA St. 1 at 19-20. 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. Witness Morgan believes that the Company's attempt to include the 2014 storm cost should not be accepted as 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. The adjustment is based upon the five-year normalization of the 2017 storm cost of $570,00 and that the five-year period is the normalization that was requested by the Company. OCA St. 1 at 20. Thus, OCA's adjustment removes the 2014 storm cost.

We agree with UGI Electric on this issue. UGI Electric's arguments in favor of normalization of the five-year period from 2014 to 2018 is persuasive, in that UGI Electric's claim reflects actual storm damage expense accrued in 2018. Both I&E and OCA's recommendations understate UGI Electric's storm damage expense in 2018. We recommend that the Commission accept UGI Electric's storm damage expenses claim of $301,000.

E. Rate Case Expense

It is the Commission's practice to recognize all prudently-incurred rate case expense and set a normalization period based upon historic filing frequency. *City of Lancaster v. Pa. Pub. Util. Comm'n*, 793 A.2d 978 (Pa. Cmwlth. 2002). UGI Electric has infrequently filed for base rate increases. In fact, UGI Electric last filed for a base rate increase 22 years ago, in 1996.

UGI Electric has made a claim for rate case expenses in the amount of $676,000. UGI Electric St. No. 2-R, p. 5. UGI Electric seeks to amortize this expense over a three-year period, resulting in a normalized claim of $225,000 per year. UGI Electric St. No. 2-R, pp. 5-6.

UGI Electric cites to *Pa. Pub. Util. Comm'n v. Emporium Water Company*, Docket No. R-2014-2402324, (Opinion and Order entered January 18, 2015), to state that there are exceptions to the general principle that the history of rate filings often represents the best evidence for normalization of rate case expense. *Id*. 48.

One of those exceptions, UGI Electric poses, was identified in *Pa. Pub. Util. Comm'n., v. PPL Electric Utilities Corporation,* Docket No. R-2012-2290597, *et al*., (Order entered December 28, 2012 (PPL 2012 Order). In that case, PPL Electric Utilities Corporation (PPL Electric or PPL) sought a two-year normalization of rate case expense, while I&E and OCA, based on a three-year rate filing history, proposed a three-year period. PPL 2012 Order, pp. 44-45. The Commission acknowledged PPL Electric's three-year filing history, but also noted its major capital improvement program to address aging infrastructure. *Id*., pp. 47-48. For these reasons, the Commission approved PPL Electric's two-year normalization of rate case expense. UGI Electric argues that the same logic applies here. UGI Electric states that, given its major capital investment program, it will likely file a base rate case every three years.

UGI Electric additionally cites to *Butler Township Water Company v. Pa. Pub. Util. Comm'n,* 81 Pa. Cmwlth. 40, 47, 473 A.2d 219, 223 (1984), for the proposition that while history can provide guidance on anticipated future conditions, it cannot and should not be the sole basis for determining revenue requirements as this would defeat the purpose of using a FTY or FPFTY in setting rates.

I&E has not challenged UGI Electric's total claim of rate case expense of $676,000. At issue is the amortization period. I&E proposes that the rate case expense be normalized over a period of five years for a normalized claim of $135,000 per year. I&E rejects the company's claimed 36-month normalization period because it is not supported by the company's historic filing frequency. I&E St. No. 1, p. 11; I&E St. No. 1-SR, pp. 8-9. The proposed normalization period fails to properly rely upon the historic data and is speculative in nature. *Id.* I&E's recommendation is based on an average historic base rate filing frequency of every 103 months when considering all cases filed by the company since 1992. I&E St. No. 1, p. 11, *citing* I&E Exh. No. 1, Sch. 2.

While the company's history shows a filing frequency in excess of every five years, I&E recommended a 60-month normalization period that moderates the impact of that longer historic filing frequency. I&E St. No. 1, p. 11. I&E St. No. 1-SR, pp. 7-8.

I&E cites to *Emporium* as well, to state that the Commission looks at the involved utility's history regarding the frequency of rate case filings to determine the normalized level of rate case expense for ratemaking purposes.

We agree with I&E on this issue. With respect to UGI Electric's argument that history is not the sole basis to determine normalization of the rate case expense, we agree with said argument. However, substantial evidence does not exist to support UGI Electric's suggestion that it will, from this point forward, file base rate cases every three years because of its major capital investment program. UGI Electric cited the PPL 2012 Order to surmise that the Commission may move away from using history of rate case filings to determine the normalization of the rate case expense, but the facts presented in this present case differ from the PPL 2012 Order because UGI Electric has not filed a base rate case in 22 years. UGI Electric's aversion to I&E's five-year normalization period would hold more merit if I&E sought normalization of the rate case expense of a period of 22 years as based on UGI Electric's history of rate base filings. UGI Electric in its brief states that there is no basis for I&E's adjustment, but we pose that there is no basis for UGI Electric's three-year normalization claim. I&E's recommendation, which is based on a consideration of all cases filed by UGI Electric since 1992, is a fair recommendation given that consideration of the history of UGI Electric's base rate increases could have led to a recommendation of a 22-year normalization period. We recommend that the Commission adopts UGI Electric's rate case expense claim in the amount of $676,000, to be normalized over I&E's recommended normalization period of five years.

F. Employee Expenses

1. Salaries and Wages Net of Employee Additions

UGI Electric has made a claim of $4,993,000 associated with salaries and wages expenses–net of employee additions, which include, amongst other things, a $34,000 annualization adjustment to reflect end of test year conditions. UGI Electric based its claim on budgeted salaries and wages for the FPFTY with an adjustment for annualization of anticipated wage increases. I&E St. No. 1, p. 16. UGI Electric supported this claim through its broader argument that the FPFTY should reflect end-of-the year conditions and not an average test year approach.

I&E recommended an allowance for salaries and wages expenses – net of employee additions of $4,959,000. This amount is based on the recommended disallowance of FPFTY end-of-year salaries and wages, to provide a more accurate representation of expenses actually incurred in that twelve-month period. I&E St. No. 1, p. 16. I&E St. No. 1-SR, p. 12.

I&E claims that its recommendation more accurately represents salaries and wages that the Company will pay across the twelve months that make up the FPFTY. *Id.* Annualization of the end-of-year salaries and wages, that include all increases, in I&E's opinion should not be allowed. I&E St. No. 1-SR, p. 13. *See also* I&E Main Brief, pp. 15-24 *supra*, and I&E St. No. 3, pp. 3-13, rejecting the company's year-end methodology. I&E claims that the annualization of end-of-year salaries and wages would allow the Company to recover in rates more than it requires for the test year utilized.

We agree with UGI Electric on this issue. We accept UGI Electric's end-of-year methodology, and throughout this decision we have accepted UGI Electric's argument that the FPFTY should reflect end-of-the year conditions. We recommend that the Commission accept

UGI Electric's claim of expenses for the salaries and wages net of employee additions in the amount of $4,993,000.

2. Employee Additions

The company has made a claim of $382,000 associated with expenses relating to employee additions. The company's claim includes salaries, wages, and benefits for three new positions: a general manager, a new business engineer, and a business support engineer. UGI Electric St. No. 3, pp. 13-14. The claim includes annualization of newly added positions in the FPFTY, consistent with UGI Electric's broader argument that the FPFTY should reflect end-of-the year conditions.

I&E recommended an expense allowance of $318,000 for employee additions, based on the removal of the annualization of compensation for the three positions in the FPFTY, reflecting the actual amount anticipated to be incurred during that period. I&E St. No. 1, p. 19. I&E makes the same argument here as it made in its recommendation for salaries and wages net of employee additions. I&E again rejects the Company's end-of-year methodology and asserts that the FPFTY expense allowance be based on the actual amounts incurred across the FPFTY period and not an annualization of the end-of-year inflated projections. I&E St. No. 1-SR, p 15. I&E notes that the Company assumes the positions will be filled *by* December 1, 2018; but, its claim is based on a *full year's* worth of expense (salaries, wages, and incentive compensation) for the positions. I&E St. No. 1, p. 18, *citing* UGI Electric St. No. 3, pp. 13-14.

The OCA recommends an adjustment to the payroll expense to reflect expected date of employment. OCA St. 1 at 17-18; see OCA St. 1, Schedule LKM-9. The Company based its claim on a full year of costs, and OCA witness Morgan claims that "adjusting costs to year end levels is not appropriate now that a FPFTY is being used to establish rates" and that "adjusting costs to end of rate year levels . . . would result in UGI Electric 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. The OCA rejects the Company's end-of-year methodology.

We agree with UGI Electric on this issue. As noted previously, we accept UGI Electric's end-of-year methodology whereby the FPFTY reflects end-of-the year conditions. We recommend that the Commission accept UGI Electric's claim of expenses for employee additions in the amount of $382,000.

3. Outside Services Employed

As part of its initial filing, the Company made a claim for $191,000 identified as Miscellaneous Outside Services Employed. This claim includes recruiting and staffing services, certain legal expenses not included elsewhere, various printing and photography services, unclassified IT analytical consulting, and other miscellaneous outside professional services. I&E St. No. 1, p. 22, *citing* I&E Ex. No. 1, Sch. 5, p. 1.

UGI Electric admits that through its initial filing it did incorrectly attribute the bulk of these expenses to UNITE audit fees. However, this cost category also consists of $17,000 in costs associated with Management Development programs organized by the Human Resource Department; $19,000 in printing costs that are budgeted to Account 923 but are booked to the actual accounts when the printing jobs are processed; and $91,000 in other professional services costs across various groups which support UGI Electric. UGI Electric St. No. 4-R, p. 9. These amounts are in addition to the worker's compensation claim of $39,000 that the company has budgeted in Account 923. UGI Electric St. No. 4-R, p. 9. Thus, at a minimum, the company believes it should be allowed to reflect $166,000 in its rates as it was able to show the source of $166,000 of outside services employed expenses. UGI Electric St. No. 4-RJ, p. 8.

Further, UGI Electric states that I&E's methodology should be rejected because the historic data is artificially deflated as a result of the mismatch between the account to which the company budgets (Account 923) and the account where the Company books its expenses. UGI Electric St. No. 4-RJ, p. 8.

With respect to UGI Electric's claim in its initial filing of $191,000, I&E recommended an allowance of $21,000 based on a three-year historic average of this expense due to the 2015, 2016, and 2017 expense amounts being substantially less than FTY amount of $171,000 and the FPFTY claim of $191,000, both amounts it claims were not supported by substantial record evidence. I&E St. No. 1, pp. 23-24. I&E St. No. 1-SR, pp. 15-16. I&E argues that the expenses claim was not supported by substantial record evidence in part because UGI Electric did not provide a breakdown of said expenses. UGI Electric has since in rebuttal testimony, as outlined above, provided a breakdown of the expenses.

With respect to UGI Electric's breakdown of $166,000 of its outside services employed expenses, I&E believes that the breakdown is insufficient and, therefore, the company has not provided substantial evidence to support that this expense was prudently incurred. I&E St. No. 1, p. 22. I&E still recommends an allowance of $21,000 based on the historic average.

We agree with UGI Electric in part on this issue, but we do not recommend the Commission adopt the Company's claim expenses of $166,000. We believe the Company has supported through substantial record evidence $75,000 of its $166,000 claim: $17,000 of costs associated with Management Development programs organized by the Human Resource Department; $19,000 of printing costs that are budgeted to Account 923 but are booked to the actual accounts when the printing jobs are processed, and $39,000 that the company has budgeted in Account 923 for the worker's compensation claim. We do not find that the $91,000 that UGI Electric claims to be from other professional services costs across various groups which support UGI Electric was adequately supported or explained in the record. Therefore, we recommend that the Commission allow UGI Electric to recover $75,000 in outside services employed expenses.

4. <u>Employee Activity Costs</u>

UGI Electric has made a claim to recover the cost of Employee Activities in this proceeding, totaling $11,848. The primary source of this cost is the company's annual picnic. UGI Electric claims that the claimed special events are to recognize the employees' hard work and dedication, as well as to boost employee engagement and the morale of the overall workforce. UGI Electric St. No. 4-R, p. 10. UGI Electric also states that employee engagement activities provide numerous specific benefits to customers in relation to customer service, including fostering a sense of community which increases communication between employees, enhancing problem solving, and improving productivity. UGI Electric St. No. 4-R, p. 10.

UGI Electric additionally points out that the Commission has an Employee Appreciation Day, used to boost employee engagement and morale. UGI Electric asserts that its employee activities are integral to the provision of service to its customers.

I&E has recommended disallowance of the company's total claim for employee activity costs. I&E St. No. 1, p. 25. I&E stated that these expenses are not necessary for the provision of safe and reliable service to ratepayers and that hosting a picnic or a party to boost morale or employee engagement is not justified as a business meeting qualified for recovery from the ratepayers. I&E St. No. 1-SR, p. 19.

I&E states that the company may offer, and the shareholders may pay for, as many employee activities as it wishes to build morale and increase returns to shareholders; but ratepayers should not be required to reimburse the company for these expenses.

As the parties have alluded, the question to be answered here is whether the employee activity costs, the primary source being an annual picnic, are reasonable and necessary in the provision of utility service to customers. We determine that such costs are reasonable and necessary in the provision of service to customers.

In *Pa. Pub. Util. Comm'n. v. Citizens Utilities Water Co. of Pa.*, Docket No. Docket No. R-00953300C0001-0072 (Opinion and Order entered March 29, 1996), the utility sought to recover expenses relating to flowers, gifts to employees, in-house lunches and horticultural service. The Commission in that case determined that such expenses were not necessary for the provision of utility service and disallowed said expenses.

In *Pa. Pub. Util. Comm'n. v. York Water Co.*, Docket Nos. R–850268, R-850268C001 (Opinion and Order entered November 25, 1986), the Commission granted the utility's expense claim for a company banquet but did not grant the utility's expense claim for a company picnic. The ALJ in *York* referred to a 1972 case in which the Commission stated, "We are of the opinion that respondent's annual dinner, at which service pins are awarded, provide respondent the opportunity to give recognition to its employees for service to the company and its customers. These annual award dinners should prove a real value in fostering improved employee/management relations and result in a more satisfied and effective work force." *Pa. Pub. Util. Comm'n., v. York Water Co.*, Docket No. 19466 *et al.,* (December 19, 1972). Thus, the ALJ came to the conclusion that the Commission accepts expenses relating to employee recognition. The ALJ then made a distinction between the company picnic and the company banquet, stating that the company picnic did not stand on the same footing as the company banquet, since it involved no element of employee recognition. The Commission accepted this distinction.

In *Pa. Pub. Util. Comm'n v. Columbia Water Company*, Docket No. R-2013-2360798 (Opinion and Order entered January 23, 2014), the ALJ disallowed employee recognition expenses in the form of a Hershey Park outing and a year end banquet. In disallowing expenses for the banquet, the ALJ stated that the utility did not provide specific information about the year-end banquet to demonstrate that it qualifies as an "employee recognition" dinner. This implies that had the utility provided specific information about the banquet so that it qualified as an "employee recognition" dinner, the ALJ would have allowed the banquet expenses.

Although UGI Electric's event is not a "banquet" but a "picnic," we believe that UGI Electric's annual picnic is an employee recognition event. UGI Electric states that at its picnic, the Company recognizes special employee milestones and employees that have gone above and beyond expectations in their service. Tr. 127; *see also* UGI Electric St. No. 4-R, p. 10. Such an event fosters employee/management and employee/customer relations, leading to a direct positive impact on utility service provided by those employees to UGI Electric's customers. We recommend that the Commission allow for UGI Electric to recover $11,848 for the cost of its employee activities.

5. Allocated Stock Options and Restricted Stock Awards

UGI Electric has made a claim for $77,000 in costs associated with Allocated Stock Options, and $112,000 for costs associated with Restricted Stock Awards. These costs are associated with incentive compensation. Incentive compensation is an element of employee pay that is contingent upon performance or results achieved. UGI Electric St. No. 4-R, p. 13. This pay is considered "at risk" for each performance period, requiring sustained performance to receive this reward. UGI Electric St. No. 4-R, p. 13. UGI Electric believes that this type of compensation ensures sustained production by the company's employees. It also believes that incentive compensation provides the Company with valuable information regarding individual employee performance and effort. UGI Electric St. No. 4-R, p. 13.

The Allocated Stock Options and Restricted Stock Awards programs include bonuses and other programs that compensate employees who achieve various operating and service goals and metrics. As a result, incentive compensation at UGI Electric is based on achieving both financial and operating goals. According to UGI Electric, the achievement of specified financial goals provides important and direct benefits to customers, in the form of better access to capital markets with more reasonable rates. UGI Electric St. No. 4-R, p. 12. It states that this benefit is particularly critical as the Company continues to replace aging infrastructure, because it will represent a less expensive cost of capital for construction. UGI Electric St. No. 4-R, p. 12. Good financial performance also provides an internal source of capital, which reduces the need to access capital markets and may defer the need for, and reduce the amount of, rate increases. UGI Electric argues that meeting the Company's financial goals produces a cost reducing benefit to customers. UGI Electric St. No. 4-R, p. 12.

UGI Electric explains that its use of incentive compensation programs is only part of its total compensation package and that the Allocated Stock Options and Restricted Stock Awards are only a part of its incentive compensation program. UGI Electric St. No. 4-R, p. 12. It states that its incentive compensation is market-driven, and necessary to obtain and retain quality employees. UGI Electric St. No. 4-R, p. 12. The employees eligible to receive incentive compensation under these plans are key actors in the process of establishing the operating and customer-focused goals for the entire corporation, including UGI Electric, and are a driving force behind ensuring that these goals are achieved. UGI Electric St. No. 4-R, p. 12. Failure to offer competitive compensation programs would increase the Company's risk of not attracting, hiring, motivating, and retaining the Company's talent. The Company would have to increase the level of its base salary compensation in order to remain competitive and to attract the same qualified candidates in the areas it serves, which would increase costs to customers. UGI Electric St. No. 4-R, p. 12. Alternatively, if the Company did not stay competitive in attracting and retaining qualified candidates, customer service and overall operations may be negatively impacted.

UGI Electric states that such programs have been repeatedly approved by the Commission. UGI Electric cites several cases for the ultimate proposition that if incentive compensation programs are reasonable and provide a benefit to ratepayers, then they may be recovered in their entirety.

UGI Electric also cites to industry organizations and discusses industry compensation standards, noting that 83% of organizations have at least one plan for management employees, and 79% of organizations have at least one plan for non-management exempt employees. UGI Electric Main Brief, p. 64.

I&E recommended the disallowance of the Company's total claim for Allocated Stock Options and the Company's total claim for Restricted Stock Awards. I&E St. No. 1, pp. 27-28. I&E states that ratepayers should not be responsible for paying a benefit available only to high-level executive type positions that are likely based on stock prices and/or earnings targets rather than goals that benefit ratepayers. I&E St. No. 1, p. 28. I&E notes that UGI Electric was careful to discuss "incentive compensation plans" without ever mentioning that the stock options and stock awards programs are for executives and should be correctly identified as "executive incentive compensation plans."

I&E notes that although the Company states that the Company's management employees have goals that include metrics which are not specifically tied to financial performance (UGI Electric Main Brief, p. 66.), the statement is in direct contradiction to the statements made by UGI Electric witness Mattern during cross examination where she stated "for the cash bonus component, there are non-financial metrics built in; but the stock components are primarily based on financial metrics to determine actual payout." Tr. pp. 109-110.

I&E disagrees with the Company's argument that offering stock options and awards will directly correlate to reduced base rate case filing intervals and lower requested revenue increases. I&E St. No. 1-SR, pp. 22-23. I&E also disagrees that the Company would have to raise salaries if it did not continue to offer stock options and awards. *Id.* To the contrary, it is in the Company's discretion as to whether to offer these benefits, and the ratepayers should not be required to fund them. *Id.* Finally, the Company also offers its executives an executive bonus plan of which I&E did not recommend a disallowance.

I&E additionally cites *Pa. Pub. Util. Comm'n v. Roaring Creek Water Company,* 81 Pa. PUC 285 (1994), for the proposition that the Commission has, in the past, rejected management bonuses that are primarily based on financial metrics to determine payouts.

Last, with respect to the industry organizations and the industry compensation standards, I&E states that, unlike the UGI Electric executive incentive compensation plans, neither of the industry standard compensation plans are for company executives and officers.

We agree with I&E on this issue. In the *Roaring Creek* case cited by I&E, the Commission found that the incentive compensation program was not aimed at enhancing the productivity and efficiency of the utility and thus the program cost was excluded from operating expenses.

In *Pa. Pub. Util. Comm'n v. UGI Utilities, Inc.*, Docket No. R-00932862 (Opinion and Order entered September 23, 1994), the Commission disallowed the incentive compensation program expense. "It is possible that deserving performance on the part of a UGI employee may not result in the receipt of incentive compensation because the parent company and other subsidiaries failed to meet their financial and business goals. In the same vein, the Company's personnel could receive incentive compensation simply because the holding company's profitability was enhanced at the expense of needed service improvements." *Id.* Most notably, the Commission stated that "our suspicions are always heightened when an effort is made to pay bonuses at the expense of ratepayers to those employees not proximately responsible for serving those same customers." *Id.*

In *Pa. Pub. Util. Comm'n v. Philadelphia Gas Works*, Docket No. R-00061931 (Opinion and Order entered September 28, 2007), the Commission disallowed Philadelphia Gas Work's (PGW's) management incentive program expense claim. The program gave incentives for fifty-five top managers based upon their performance in contributing to various operational and financial improvements that PGW had experienced. The Commission stated that PGW failed to provide any formal guidelines to define the program, any measurable performance objectives, or any plan documentation. PGW failed to demonstrate with any evidence that the expense was directly connected to the "implementation of improvements in the operational, service level and/or financial condition of PGW." The Commission stated that absent any evidence indicating that ratepayers benefit from this claimed expense, it should not be recognized. Additionally, PGW's claim that the Incentive Compensation Program was necessary to retain management employees was not supported by credible evidence on the record in the proceeding. PGW had not presented studies or submitted any data to support its claimed inability to retain competent management personnel without such an incentive plan.

With respect to UGI Electric's Incentive Compensation Program, the program is designed to give incentives to high level employees who are not proximately responsible for serving its customers. Additionally, the program appears to focus more on awarding executives for the financial success of the Company instead of the operational success of the Company. We recommend that the Commission disallow UGI Electric's claim to recover costs associated with Allocated Stock Options, and Restricted Stock Awards in its entirety.

G. Depreciation Expense

UGI Electric made a claim for annual depreciation expense for the FTY in the amount of $4,265,854 and for the Rebuttal FPFTY in the amount of $5,333,752. I&E St. No. 3-SR, p. 13. The Company determined its annual depreciation expense claim for the FPFTY by taking the calculated annual depreciation expense plus the amortization of net salvage and subtracted an amount charged to clearing accounts. UGI Electric REV. Ex. A, Sch. D-21.

These depreciation rates have actually been established pursuant to the Joint Stipulation which the parties believed to be a reasonable compromise that is in the public interest. However, both I&E and the OCA have recommended adjustments to the Company's depreciation expense that aligns with their average rate base methodology for calculating the FPFTY. UGI Electric, again, argues that the Commission should accept its end-of-year methodology.

Specifically, I&E and the OCA have recommended an annual depreciation expense of $5,290,062 based on the average rate base methodology. I&E St. No. 3, p. 13, *citing* I&E Ex. No. 3-SR, Sch. 2. I&E's adjusted annual depreciation expense recommendation was determined by taking the average annual depreciation expense plus the average amortization of net salvage less the average amount charged to clearing accounts. I&E St. No. 3-SR, pp. 13-14, *citing* I&E Exh. No. 3, Sch. 2, col. F.

We agree with UGI Electric on this issue. A utility seeking to recover a depreciation deficiency from rates has the burden of proving that the deficiency is genuine. *Pennsylvania Power & Light Co. v. Pa. Pub. Util. Comm'n*, 10 Pa.Cmwlth. 328, 339, 311 A.2d 151, 158 (1973). The genuineness of a deficiency is proved by the utility demonstrating that it has not received revenues sufficient to pay all of its operating expenses together with a fair return on its rate base during the years when the deficiency was created. See generally, *U.S. Steel Corp. v. Pa. Pub. Util. Comm'n*, 37 Pa.Cmwlth. 195, 212-19, 390 A.2d 849, 858-862 (1978); *Pennsylvania Power & Light Co*. 10 Pa.Cmwlth. at 339-42, 311 A.2d at 158-160 (1973). The issue here is the same issue that has appeared consistently in this proceeding - the difference between the parties proposed methodologies for calculating the FPFTY. As to stay consistent throughout this Recommended Decision, we accept UGI Electric's end-of-year methodology so that UGI Electric's depreciation expenses reflect end-of-the year conditions. We recommend that the Commission adopt UGI Electric's claim for depreciation expense.

H. Other Post Employment Benefits

UGI Electric revealed that it had been over collecting on other post employment benefits (OPEB) expense since the Company's last base rate proceeding dating back to 1996. In the 1996 rate case settlement, UGI Electric was authorized to recover $0.484 million per year for the company's annual OPEB costs and was also directed to account for the difference between the net periodic post-retirement benefit expense under SFAS 106 and the amount recovered in rates. UGI Electric St. No. 4-R, p. 17. The difference was to be recorded as a regulatory asset (or liability) and be recovered or refunded in future rate proceedings. UGI Electric St. No. 4-R, p. 17. The OPEB fund has been generating more income than its expenses and UGI Electric has accumulated an over-collection in the amount of $7.9 million over the last 22 years since its last rate case. UGI Electric St. No. 4-R, p. 17.

The Company proposed to refund this over-collection to customers over 20 years. UGI Electric has offered to return $0.395 million annually to its ratepayers with no mention of any interest on the return. UGI Electric Rev. Sch. D-14. UGI Electric states that the period of 20 years is similar to the time period that the current recovery mechanism has been in place, consistent with the 20-year time period established in 52 Pa. Code § 69.351 (regarding recovery of the OPEB costs that investor-owned utilities deferred after the adoption of Statement of Financial Account Standards No. 106). UGI Electric St. No. 4-R, pp. 17-18.

I&E and the OCA have no objection to the Company's proposal. I&E also does not object to returning the over-collection over a shorter period of time. I&E states that it is easier to return over collected monies already in the possession of the Company over a shorter period of time than it is to collect the over-collection over a period of years from the rate payers. Additionally, I&E would not object to the addition of interest to the over-collection.

As the opposing parties in this proceeding do not object to the Company's proposal, we recommend that the Commission accept UGI Electric's proposal to refund the over-collection on OPEB of $7.9 million by an amount of $0.395 million annually to its ratepayers over 20 years. As the issue of interest on the over-collection has not been analyzed in this proceeding, we do not recommend the addition of interest to the over-collection.

I. Power Supply Expenses

UGI Electric has made a power supply expense claim in the amount of $1,933,000.

I&E recommends the company's claimed power supply expense adjustment be increased by approximately $19,500 from $1,933,000 to $1,952,500 as a result of I&E's use of the average rate base methodology adjustment to present rates. I&E St. No. 3-SR, p. 22. *See also* I&E St. No. 3, pp. 28-32.

UGI Electric disagreed with the I&E recommendation on the basis that the Company rejects the use of an average FTY and FPFTY to calculate adjustments. UGI Electric St. No. 8-R, p. 3.

We agree with UGI Electric on this issue. As had been stated throughout this decision, we reject I&E's use of the average rate base methodology to calculate the FPFTY and accept UGI Electric's use of the end-of-year methodology. We recommend that the Commission accept UGI Electric's claim for power supply expense in the amount of $1,933,000.

J. Electrical Engineering and Operations Center

As explained in the Rate Base Discussion Section 2, Electrical Engineering and Operations Center, we recommend the removal of the costs associated with the new Operations Center. Therefore, we will adjust the Company's expense claim to remove the $13,000 associated with relocation expenses and the $225,000 in depreciation expense associated with the proposed new Operations Center in the FPFTY. UGI Electric St. No. 2-RJ, p2.

K. Conclusion as to Expenses

We recommend an adjustment of total claimed expenses for the FPFTY in the amount of $509,000. This adjustment consists of: (1) Rejection of UGI Electric's environmental remediation expense in its entirety and acceptance of the OCA's adjustment to reduce O&M expense ($139,000); (2) Reduction of rate case expense ($90,000); (3) Reduction of the outside services employed expense ($91,000); (4) Rejection of the allocated stock options and restricted stock awards expense in its entirety ($189,000); and (5) Removal of relocation ($13,000) and depreciation ($225,000) expenses related to the Electrical Engineering and Operations Center. This leaves a recommendation of total expenses in the amount of $83.308 million. We have accepted UGI Electric's end-of-year methodology for calculating the FPFTY in this proceeding, so no reductions were made based on the use of an average rate based methodology.

VI. FAIR RATE OF RETURN

UGI Electric is seeking in this proceeding an overall rate of return of 8.24%, including a cost of long term debt of 4.69% and a cost of common equity of 11.25%. UGI Electric Main Brief, p. 73. As more fully explained below, we recommend an overall rate of return of 7.56%, including a cost of long term debt of 4.69% and a return on common equity of 10.00%. The return on common equity rate of 10.00% includes the 20-basis point addition requested by the company for management effectiveness.

A. Legal Standards

A public utility seeking a general rate increase is entitled to an opportunity to earn a fair rate of return on the value of the property dedicated to public service. *Pennsylvania Gas and Water Co. v. Pa. Pub. Util. Comm'n*, 341 A.2d 239 (Pa. Cmwlth. 1975) In determining what constitutes a fair rate of return, the Commission is guided by the criteria set forth in *Bluefield*

Water Works and Improvement Co. v. Public Service Comm'n of West Virginia, 262 U.S. 679 (1923) and *Federal Power Comm'n v. Hope Natural Gas Co*., 320 U.S. 591 (1944). In *Bluefield* the United States Supreme Court stated:

> A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. 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 maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be too high or too low by changes affecting opportunities for investment, the money market and business conditions generally.

Bluefield Water Works and Improvement Co. v. Public Service Comm'n of West Virginia, 262 U.S. 679, 692-3 (1923).

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 maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties (262 U.S. at 693). These principles have been adopted and applied by the Appellate Courts of Pennsylvania in numerous cases. *Riverton Consolidated Water Co. v. Pa. Pub. Util. Comm'n*., 140 A.2d 114 (Pa. Super. 1958); *Pittsburgh v. Pa. Pub. Util. Comm'n.*, 126 A.2d 777 (Pa. Super. 1956); *Lower Paxton Twp. v. Pa. Pub. Util. Comm'n.*, 317 A.2d 917 (Pa. Cmwlth. 1974).

The return allowed to investors must be commensurate with the risk assumed, as the Supreme Court has stated in three landmark opinions. *Bluefield*, *supra*, requires that the rate of return reflect:

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

Id. at 692.

The Supreme Court reiterated that standard in *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944), as follows:

> From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

Id. at 603.

Later, in reaffirming *Hope*, the Supreme Court, in *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 314, 109 S. Ct. 609, 619, 102 L. Ed. 2d 646, 661 (1989) observed that "[o]ne of the elements always relevant to setting the rate under *Hope* is the return investors expect given the risk of the enterprise."

The determination of a fair rate of return thus requires the review of many factors, including: (1) the earnings which are necessary to assure confidence in the financial integrity of the company and to maintain its credit standing; (2) the need to pay dividends and interest; and (3) the amount of the investment, the size and nature of the utility, its business and financial risks, and the circumstances attending its origin, development and operation. *Pa. Pub. Util. Comm'n. v. Pennsylvania Gas and Water Co. - Water Division*, 341 A.2d 239 (Pa. Cmwlth. 1975); *Lower Paxton Twp.*, supra. Moreover, the Commission's findings must be based upon substantial and competent evidence on the record before it, not upon speculation or hypothesis. *Ohio Bell Telephone Co. v. Public Utility Commission of Ohio*, 301 U.S. 292 (1937); *United*

States Steel Corp. v. Pa. Pub. Util. Comm'n., 390 A.2d 849 (Pa. Cmwlth. 1978); *Octoraro Water Co. v. Pa. Pub. Util. Comm'n.*, 391 A.2d 1129 (Pa. Cmwlth. 1978).

In analyzing a proposed general rate increase, the Commission determines a rate of return to be applied to a rate base measured by the aggregate value of all the utility's property used and useful in the public service. In determining a proper rate of return, the Commission calculates the utility's capital structure and the cost of the different types of capital during the period in issue. The Commission has wide discretion, because of its administrative expertise, in determining the cost of capital. *Equitable Gas Co. v. Pa. Pub. Util. Comm'n*, 405 A.2d 1055 (Pa. Cmwlth. 1979).

B. Capital Structure

As explained in Section II above, the parties to this proceeding have agreed to accept and utilize UGI Electric's proposed capital structure for purposes of determining a fair rate of return. UGI Electric's proposal reflects its actual capital structure of 45.98% long-term debt and 54.02% common equity. UGI Electric St. No. 5, p. 15; OCA Main Brief, p. 8; I&E Main Brief, p. 13. We recommend adoption of the stipulated capital structure.

C. Cost of Long Term Debt

UGI Electric proposed in this proceeding a 4.69% forecast embedded long-term debt cost rate for the FPFTY. UGI Electric St. No. 5, p. 16; UGI Electric Ex. B, Sch. 6, p. 3. I&E and OCA have accepted the company's 4.69% figure. I&E Main Brief, p. 70; OCA Main Brief, p. 52. I&E noted that this figure is reasonable and is representative of the industry. I&E Main Brief, p. 70. We recommend adoption of the proposal.

D. Cost of Common Equity

UGI Electric seeks an 8.24% overall rate of return, including an 11.25% return on common equity. UGI Electric Main Brief, p. 73. This is based on its capital structure of 45.98% long-term debt and 54.02% common equity.

Description	Capitalization Ratio	Embedded Cost	Return-%
Long-Term Debt	45.98%	4.69%	2.16%
Common Equity	54.02%	11.25%	6.08%
Total	100.00%		8.24%

OCA states that the company failed to meet its burden of proof in support of its request for a return on equity of 11.25%. OCA conducted Discounted Cash Flow (DCF) and Capital Asset Pricing Model (CAPM) analyses and recommends a fair overall rate of return of 6.75%, including a cost of common equity of 8.5%. OCA Main Brief, pp. 6-7, 57.

Description	Capitalization Ratio	Embedded Cost	Return-%
Long-Term Debt	45.98%	4.69%	2.16%
Common Equity	54.02%	8.50%	4.59%
Total	100.00%		6.75%

I&E used the DCF model and the CAPM as a comparison to the DCF results. I&E recommends a 6.82% overall rate of return and an 8.62% return on equity. I&E Main Brief, pp. 10, 16.

Description	Capitalization Ratio	Embedded Cost	Return-%
Long-Term Debt	45.98%	4.69%	2.16%
Common Equity	54.02%	8.62%	4.66%
Total	100.00%		6.82%

UGI Electric's witness, Mr. Moul summarized his approach to determining the cost rate for common equity and the results of his analysis, as follows:

My cost of equity determination was derived from the results of the methods/models identified above. In general, the use of more than one method provides a superior foundation to arrive at the cost of equity. At any point in time, a single method can provide an incomplete measure of the cost of equity depending upon extraneous factors that may influence market sentiment. The specific application of these methods/models will be described later in my testimony. The following table provides a summary of the indicated costs of equity using each of these approaches, as shown on page 2 of Schedule 1.

DCF	10.55%
Risk Premium	11.25%
CAPM	11.03%
Comparable Earnings	12.55%

From these measures, I recommend a cost of equity of 10.95%, which is within the range of results reflected in the above table and also reflects 0.20% for strong management performance, as explained in the testimony of Mr. Paul Szykman.

To obtain new capital to support an expanded construction program and retain existing capital, the rate of return on common equity must be high enough to satisfy investors' requirements. In recognition of its performance, the Company should be granted an opportunity to earn a 10.95% rate of return on common equity.

UGI Electric St. No. 5, pp. 4-5.

Mr. Moul further elaborated on the reasons for using multiple models to determine the cost of common equity:
It is also important to reiterate that no one method or model of the cost of equity can be applied in an isolated manner. Rather, informed judgment must be used to take into consideration the relative risk traits of the firm. It is for this reason that I have used more than one method to measure the Company's cost of equity. As I describe below, each of the methods used to measure the cost of equity contains certain incomplete and/or overly restrictive assumptions and constraints that are not optimal. Therefore, I favor considering the results from a variety of methods. In this regard, I applied each of the methods with data taken from the Electric Group

> and arrived at a cost of equity of 10.95% for UGI Electric, which includes 0.20% in recognition of strong management effectiveness.

UGI Electric St. No. 5, p. 17.

Without changing his approach or methodology, Mr. Moul provided an updated cost of common equity analysis in his Supplemental Direct Testimony to address the impacts of the TCJA on UGI Electric's ability to attract and retain sufficient capital. See UGI Electric St. No. 5-SD, pp. 2-7. Based upon his consideration of the impacts of the TCJA on UGI Electric's risk profile, Mr. Moul updated his proposed cost of common equity from 10.95% to 11.25%. UGI Electric St. No. 5, p. 7.

As noted, both I&E and OCA recommend using the Discounted Cash Flow (DCF) method as the primary method to determine the cost of common equity, with the results of the Capital Asset Pricing Model (CAPM) as a comparison to the DCF results. We agree with I&E and OCA in the use of the DCF and CAPM models as the preferred methods to determine an appropriate cost of common equity and see no reason to deviate from these preferred methods in this proceeding.

In addressing this issue, the Commission has stated:

> Although there are various models used to estimate the cost of equity, the Discounted Cash Flow (DCF) method applied to a barometer group of similar utilities, has historically been the primary determinant by the Commission. *Pa. PUC v. City of Lancaster – Water Bureau,* Docket No. R-2010-2179103, at 56 (Order entered July 14, 2011); *Pa. PUC v. PPL electric Utilities, Corp.,* Docket No. R-00049255, at 59 (Order entered December 22, 2004). The DCF model assumes that the market price of a stock is the present value of the future benefits of holding the stock. These benefits are the future cash flows of holding the stock, *i.e.*, the dividends paid and the proceeds from the ultimate sale of the stock. Because dollars received in the future are worth less than dollars received today, the cash flow must be "discounted" back to the present value at the investor's rate of return.

2012 PPL Order, at pp. 69-70.

As a result of I&E and OCA's analyses, I&E recommends a cost of common equity of 8.62%. The comparable results of I&E's CAPM analysis are 8.00% (forecasted) and 8.98% (historic), placing the DCF result of 8.62% and I&E's recommendation comfortably within the CAPM range. I&E Main Brief, p. 70. OCA recommends a cost of common equity of 8.5%. OCA Main Brief, pp 6-7, 57.

As stated above, UGI Electric seeks an 8.24% overall rate of return, including an 11.25% return on common equity. The company's proposed capital structure is 54.02% equity and 45.98% debt. As noted, the company conducted analyses under four models in arriving at its return on equity recommendation. As explained below, we agree with I&E and OCA's use of the DCF and CAPM models to determine an appropriate cost of common equity.

Barometer Groups

As explained by I&E witness Anthony Spadaccio, a proxy group is typically utilized since the use of data exclusively from one company may be less reliable than using a proxy group. I&E St. No. 2, pp. 7-10; I&E St. No. 2-SR, pp. 2-5. The lower reliability occurs because the data for one company may be subject to events that can cause short-term anomalies in the marketplace. The rate of return on common equity for a single company could become distorted in these circumstances and would therefore not be representative of similarly situated companies. I&E St. No. 2, p. 8. Therefore, a proxy group has the effect of smoothing out potential anomalies associated with a single company. I&E St. No. 2, p. 8.

Mr. Moul determined his proxy group of ten electric companies by using the following criteria:

1. Have publicly-traded common stock;
2. Are contained in *The Value Line Investment Survey* and are classified in the Electric Utility East group;
3. Are not currently the target of an announced merger or acquisition; and

4. Are not engaged in the construction of a nuclear generating plant or have not recently cancelled the construction of a nuclear generating plant.

UGI Electric St. No. 5, pp. 3-4.

The companies in UGI Electric's proxy group, which OCA also utilized, are the following:

Avangrid, Inc.	AGR
Consolidated Edison Inc.	ED
Dominion Energy	D
Duke Energy Corp.	DUK
Eversource Energy	ES
Exelon Corp.	EXC
FirstEnergy Corp.	FE
NextEra Energy	NEE
PPL Corporation	PPL
Public Serv. Enterprise	PEG

UGI Electric Ex. B, Schedule 3, p. 2.

I&E notes that five of UGI Electric's selected companies did not meet Mr. Spadaccio's criteria: (1) Avangrid, Inc. for not having five consecutive years of historic earnings, (2) Dominion Energy as it is currently in the process of acquiring SCANA Corporation, (3&4) Exelon Corp. and Public Service Enterprise, which do not receive 50% of their revenue from regulated electric utility operations; and (5) NextEra Energy, which does not operate in a state with a deregulated electric market. I&E St. No. 2, pp. 10-11.

I&E used the following criteria for Value Line's East, Central, and West Electric Utility groups:

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

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

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

4. The company must not be currently involved/targeted in an announced merger or acquisition;

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

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

I&E St. No. 2, p. 8.

I&E's proxy group was as follows:

Ameren Corp.	AEE
CMS Energy Corp.	CMS
Consolidated Edison Inc.	ED
Duke Energy Corp.	DUK
El Paso Electric Co.	EE
Entergy Corp.	ETR
Eversource Energy	ES
FirstEnergy Corp.	FE
IDACORP Inc.	IDA
NorthWestern Corporation	NWE
Portland General Electric Company	POR
PPL Corporation	PPL

I&E St. No. 2, p. 9.

UGI Electric witness Moul asserts that the criterion of 50% or more of the regulated revenue must be generated from the regulated electric utility industry is inappropriate. The appropriate criterion should be based on the percentage of electric assets to total assets. This measure best describes how the potential returns on capital used in utility operations will be achieved on the total business. Mr. Moul points to Energy Trading as an example, as it produces large revenues but little profits due to the thin margins. UGI Electric St. No. 5-R, pp. 11-12.

Mr. Spadaccio disagrees with Mr. Moul's assertion. He argues that, as assets are accounted at original cost minus depreciation, it is possible for a company to have significantly depreciated assets but still operate primarily as a utility rather than another business. Similarly, a utility with all new equipment will have a higher percentage of assets to a smaller cash flow. Thus, the level of assets may not correspond to the primary business of a company. I&E St. No. 2-SR, pp. 2-3.

Legitimate arguments may be made as to whether percentage of assets or percentage of revenue more accurately reflects whether a company primarily operates as a utility. However, these arguments were general in nature and did not specifically address the companies in question. Mr. Spadaccio notes that revenues represent the percentage of cash flow a company receives from each business line related to providing a good or service. If fewer than 50% of revenues come from the regulated electric business sector, the companies are not comparable to the subject utility as they do not provide a similar level of regulated business. I&E St. No. 2-SR, p. 4.

We are persuaded that percentage of regulated revenues is a better criterion than percentage of regulated assets. While percentage of assets could certainly indicate a company's primary business, the percentage of cash flow a company receives from a business line would appear to be the most direct indication of the company's primary business. Thus, we will exclude Exelon Corp. and Public Service Enterprise Group from UGI Electric's proxy group (Altered Proxy Group).

1. UGI's Proposed Return on Common Equity

UGI Electric witness Moul used four methods to determine the cost of equity: Discounted Cash Flow (DCF), Risk Premium (RP), Capital Asset Pricing Model (CAPM), and Comparable Earnings (CE):

a. Discounted Cash Flow (DCF)

OCA explains the discounted cash flow model in its main brief as follows:

> The Discounted Cash Flow, or DCF method is an approach to determining the cost of equity that recognizes that investors purchase common stock to receive future cash payments. These payments come from: (a) current and future dividends; and (b) proceeds from selling stock. A rational investor will buy stock to receive dividends and to ultimately sell the stock to another investor at a gain. The price the new owner is willing to pay for stock is related to the future flow of dividends and the future expected selling price. The value of the stock is the discounted value of all future dividends until the stock is sold plus the value of proceeds from the sale of the stock.

OCA Main Brief, p. 26.

UGI Electric explained that Mr. Moul's DCF cost rate for the electric group is comprised of three components: (1) a dividend yield; (2) a growth rate; and (3) a leverage adjustment. It argues that these components and the resulting DCF cost of common equity are reasonable and should be approved. UGI Electric Main Brief, pp 78-79.

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

Party	**DCF Results**	**Recommended ROE**
UGI	10.55%	11.25 %
OCA	7.93-8.31%	8.50%
BIE	8.62%	8.62%

OCA St. 3, pp. 2, 37, 46; I&E St. 2, p. 23; I&E Ex. 2, Sch. 1.

UGI's witness Moul also added a leverage adjustment stating that a leverage adjustment is required when the results of the DCF model (k) are to be applied to a capital structure that is different than that which underlies the market price (P). UGI St. 5, p. 26. Mr. Moul's DCF adjusted barometer groups for leverage result in a DCF cost rate of 10.55%:

	Dividend	+	Growth	+	Leverage	=	DCF Cost Rate
Electric Group	3.73%		5.75%		1.07%		10.55%

UGI Main Brief, p. 79.

The OCA's recommended 8.50% ROE is based on current market conditions. As Mr. Rothschild explained in his direct testimony:

> 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. No. 3, pp. 9-10; OCA Main Brief, p. 54.

Mr. Rothschild used both a constant growth and non-constant growth Discounted Cash Flow ("DCF") method. The constant growth DCF method determines growth based on the sustainable retention procedure. Mr. Rothschild's non-constant growth method is based on estimated dividend growth for the next 5 years and capital gains. Additionally, he used a Capital Asset Pricing Model ("CAPM") based on current market data.

> Mr. Rothschild presents the constant growth model as k=D/P + (br +sv) where:
> 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.

OCA St. No. 3, pp. 28-29.

> Mr. Rothschild also proposes a non-constant growth DCF model:
>
> The non-constant growth form of the DCF model determines the return on investment expected by investors based on an estimate of each separate annual cash flow the investor expects to receive. For the purpose of this computation, I incorporated Value Line's detailed annual forecasts to arrive at the specific non-constant growth expectations that an investor who trusts Value Line would expect. This implementation is shown on Schedule ALR 5, pages 1-2. In the first stage (2018-2022) of my non-constant growth method the dividend received by investors is based on Value Line's year-by-year forecasts of dividends per share. In the second stage (2023-2059) the dividends received by investors is generated from Value Line's future expected return on book equity as follows:
>
> 1. Earnings Per Share = Future Expected Return on Book Equity X Book Value
>
> 2. Dividends = Earnings Per Share X Retention Ratio
>
> The retention ratio is based on Value Line's forecasts of dividends and earnings in the first stage. The future expected return on book

> equity is based on Value Line's forecast for 2021-23. The stock price used to determine the proceeds from selling the stock was obtained by estimating that the stock price would grow at the same rate Value Line forecasts book value to grow.

OCA St. No. 3, p. 38.

Mr. Moul criticizes the non-constant DCF model.

> As a preliminary matter, his alternative DCF result of 7.63% or 7.10%, using a two staged DCF, cannot be given serious consideration because it is 211 and 264 basis points below the average authorized returns for electric utilities of 9.74% in 2017 and 9.75% in 2018, as revealed on page 5 of my rebuttal testimony. Mr. Rothschild uses book value per share growth as a key input in his alternative form of the DCF, which makes this method invalid as an alternative measure of the cost of equity. He also assumes a decline in the market-to-book ratio in his analysis, which violates a principal assumption of the DCF. If he had held the market-to-book ratio constant and used the actual stock price, his result would have increased to 8.47% (rather than 7.63%), another wholly inadequate result. Further, if he had held the price-earnings multiple constant and the price grew at the rate of earnings growth as established by the research by Myron Gordon, the two-stage result would be 9.23%, an inadequate return, but far more reasonable than Mr. Rothschild's 7.63% number.

UGI Electric St. No. 5-R, p. 20.

I&E recommended using the Discounted Cash Flow (DCF) method as the primary method to determine the cost of common equity. The fundamental concept behind the DCF is that the receipt of dividends in addition to expected appreciation is the total return requirement determined by the market. I&E's DCF analysis utilizes a forecasted growth rate and expected dividend yield, which allows the time-value of money to be considered and causes the results to be forward-looking. I&E Main Brief, p. 72. As a result of I&E's DCF analysis, I&E recommended a cost of common equity of 8.62%. I&E Main Brief, p. 71.

Dividend yields

Mr. Moul used the six-month average historical dividend yield of 3.62% for the Electric Group, adjusted it by eleven basis points to recognize the prospective nature of dividend payments - *i.e.* higher expected future dividends - and arrived at the 3.73% adjusted dividend yield for the Electric Group. UGI Electric St. No. 5, p. 19. Mr. Moul further explained that his eleven-basis point adjustment is the result of three different, but generally accepted adjustments to the average dividend yield, and is detailed on Schedule 7 of UGI Electric Exhibit B. UGI Electric St. No. 5, p. 19. UGI Electric notes that Mr. Moul's dividend yield is very likely understated as it is based largely on historic information and does not reflect declines in public utility stock prices post-TCJA. Recognition of this decline in stock prices would increase the indicated dividend yield. This yield was not adjusted to account for the Altered Proxy Group.

I&E states that a representative yield must be calculated over a time frame sufficient to avoid short-term anomalies and stale data. I&E witness Spadaccio's dividend yield calculation places equal emphasis on the most recent spot (February 16, 2018) (3.85%) and 52-week average (3.64%) dividend yields, resulting in an average dividend yield of 3.74%. I&E St. No. 2, p. 22.

OCA witness Rothschild calculated a spot (March 31, 2018) dividend yield of 3.73% and a 52-week average dividend yield of 4.00%. Schedule ALR 3, Page 1. Adjusting the calculation, for the Altered Proxy Group, we calculated a spot yield of 4.12% and 52-week average of 3.78%. Giving equal weight to each average, the average dividend yield is 3.95%.

	Market Price				Dividend Yield	
	At 03/31/18	High for Year	Low for Year	Div. Rate	At 3/31/2018	Avg. for Year
	[B]	[B]	[B]	[A]	[D]	[D]
FINANCIAL DATA FOR ELECTRIC GROUP						
AVANGRID, Inc.	**$49.32**	**$53.46**	**$50.11**	**$1.73**	3.50%	3.34%
Consol. Edison	**$76.42**	**$89.70**	**$73.73**	**$2.86**	3.74%	3.50%
Dominion Energy	**$67.33**	**$85.30**	**$67.17**	**$3.34**	4.96%	4.38%
Duke Energy	**$75.92**	**$91.80**	**$72.93**	**$3.56**	4.69%	4.32%

Eversource Energy	**$57.02**	**$91.80**	**$55.93**	**$2.02**	3.54%	2.73%
Exelon Corp.	**$38.10**	**$42.67**	**$33.30**	**$1.31**		
FirstEnergy Corp.	**$33.99**	**$35.22**	**$27.93**	**$1.44**	4.24%	4.56%
NextEra Energy	**$161.43**	**$164.25**	**$127.09**	**$3.93**	2.43%	2.70%
PPL Corp.	**$27.04**	**$40.20**	**$27.08**	**$1.58**	5.84%	4.70%
Public Serv. Enterprise	**$47.97**	**$53.28**	**$41.67**	**$1.72**		
	$63.45	$74.77	$57.69	$2.35	4.12%	3.78%

We note that all three parties had fairly similar results and there was not significant conflict regarding the dividend yield. Because it is based on the most recent observations, we will use the average of OCA's dividend yield, based on the Altered Proxy Group, which is 3.95%.

<u>Growth rates</u>

Mr. Moul reviewed various methods of calculating investor expected growth rates and concluded that analysts' projections of growth rates are the best indicator of expected growth. UGI Electric St. No. 5, p. 24. Mr. Moul avers that this conclusion is supported by the research of Myron Gordon, the foremost proponent of the use of DCF in utility rate proceedings. *Id.* The range of such growth rates was 4.33% to 6.06%, based upon the projections of earnings per share (EPS) growth from IBES/ First Call, Zacks, Morningstar, SNL, and Value Line. UGI Electric St. No. 5, p. 24. Mr. Moul chose a growth rate of 5.75%, arguing that improved economic growth supports a DCF growth rate near the high end of the range. UGI Electric St. No. 5, p. 25. We calculate Mr. Moul's Altered Proxy Group to have growth rates ranging from 5.2% to 6.5%, with an average growth rate of 5.85%.

	IBES	Zacks	Morningstar	SNL	Value Line	AVG
Avangrid	8.40	8.30		8.50		8.4000
Con Ed	3.23	3.00	4.10	2.94	2.50	3.1540
Dom	3.57	5.60	7.20	4.97	6.50	5.5680
Duke	3.23	4.00	9.10	4.05	4.50	4.9760
Eversource	5.91	5.90	6.10	6.00	6.50	6.0820
FE			3.80	2.00	12.00	5.9333

Next Era	7.97	7.50	7.30	7.39	7.00	7.4320
PPL		7.00		5.75		6.3750
Average	5.38500	5.90000	6.26667	5.20000	6.5000	5.8503

OCA and I&E both criticize Mr. Moul's growth rate. Mr. Rothschild criticizes the growth rate noting that only two forecasts are higher than the growth rate selected by Mr. Moul. OCA St. No. 3, p. 48. Mr. Spadaccio notes that Mr. Moul argues for a growth rate near the high end of the range on the basis of the acceleration of growth expected with the implementation of the tax change. Mr. Spadaccio argues that these factors would already be considered in the analyst growth rate. I&E St. No. 2, p. 38.

I&E witness Spadaccio used five-year projected growth rate estimates from Value Line, Yahoo! Finance, Zacks, and Morningstar. The expected average growth rates for the twelve-company proxy group ranged from -1.12% to 6.84% with an average of 3.88%. For the purpose of determining the growth estimate, he subsequently eliminated all proxy companies that had negative projected growth rates and determined a new adjusted average of 4.88%. I&E St. No. 2, p.22. Mr. Spadaccio noted that the growth projections for some of the proxy companies were extremely inconsistent and would have an unnecessary and unwarranted negative impact on his DCF analysis, which would adversely affect his recommendation for the company's cost of common equity. I&E St. No. 2, p. 23.

UGI Electric criticizes Mr. Spadaccio's growth rates stating that he arbitrarily includes low growth rates for companies that should have been excluded from his electric group.

> Mr. Spadaccio's failure to exclude companies with arbitrarily low growth rates from his Electric Group renders his analysis unreliable. Mr. Moul explained that a fundamental tenet of finance is that the cost of equity must be higher than the cost of debt by a meaningful margin to compensate for the higher risk associated with a common equity investment. UGI Electric St. No. 5-R, p. 14. Yet, Mr. Spadaccio included the growth rates five companies in his DCF analysis that do not satisfy this fundamental requirement. See, *Id* (table summarizing DCF results). As the spread between the cost of debt and cost of common equity in this

> market environment was demonstrated to be 6.5%, the returns of these five companies are unreasonable and should have been excluded from Mr. Spadaccio's barometer group. *Id,* pp. 14-15 (citing UGI Electric St. No. 5, p. 38). If Mr. Spadaccio had properly excluded these companies from his analysis, his group average growth rate would have been 5.73%, thereby producing a 9.47% DCF return. UGI Electric St. No. 5-R, p. 17; UGI Main Brief, pp. 93-94.

Based on the average market stock price, OCA's witness calculated a dividend yield of 3.73% and a cost of equity of 7.93%; a growth rate of 4.2%. Additionally, based on the spot stock price on March 31, 2018, a dividend yield of 4.00% and indicated cost of equity of 8.31% was calculated, implying a growth rate of 4.31%. OCA Schedule ALR 4.

Based on average market stock prices and adjusting Mr. Rothschild's calculations for the Altered Proxy Group provides a dividend yield of 3.78%, an indicated cost of equity of 7.54% and an implied growth rate of 3.79%. Based on the spot prices on March 31, 2018, the Altered Proxy Group has a dividend yield of 4.12%, an indicated cost of equity of 7.98% and an implied growth rate of 3.86%.

Mr. Moul criticizes Mr. Rothschild's growth rate.

> Mr. Rothschild indicates that his preferred method for selecting the growth rate component of the constant growth DCF is the "b x r" approach, i.e., the retention growth method. This special form of the DCF, as described by Mr. Rothschild, merely adjusts his assumed return on book common equity by the difference between the dividend yield on book value and the dividend yield on market value. The table provided below shows how his DCF result (using year-end and average market prices) can be expressed from the values shown on Schedule ALR 4. The table shows how Mr. Rothschild moves from the return that investors expect the Electric Group to actually achieve, i.e., 11.00%, to a much lower DCF return, i.e., 7.93% to 8.31%.

UGI Electric St. No. 5-R, p. 18.

UGI Electric further notes that Mr. Rothschild makes an erroneous adjustment to the growth rate based on a book to market adjustment.

> Regarding Mr. Rothschild's proposed growth rate, UGI Electric witness Mr. Moul explained that Mr. Rothschild use a special form of the constant growth DCF model, i.e. the retention growth method, to adjust his assumed return on book common equity by the difference between the dividend yield on book value and the dividend yield on market value. UGI Electric St. No. 5-R, pp. 18-20. Mr. Moul explained that Mr. Rothschild's use of the retention growth method is anchored in his erroneous contention that when stock prices are considerably higher than their book value, then a company is earning a return in excess of the cost of equity. Not only does Mr. Rothschild's contention contravene the Commission's prior decisions that it does not make ROE determinations to produce any particular market-to-book ratios, it ignores the fact that nearly all stocks prices have exceeded book value for an extended period of time. If Mr. Rothschild's premise were correct, then stock prices would gravitate toward book value. Mr. Moul explained that the basic history of the market for electric utility stocks over a lengthy period of time demonstrates this contention is not valid. UGI Electric St. No. 5-R, pp. 15-16.

UGI Electric Main Brief, p. 96

We recommend using the 5.85% average growth rate of UGI Electric, using the Altered Proxy Group.

<u>Leverage Adjustment</u>

The Company argues for a leverage adjustment in this matter, which it explains as follows:

> In order to make the DCF results relevant to the capitalization measured at book value (as is done for rate setting purposes) the market-derived cost rate must be adjusted to account for this difference in financial risk. The only perspective that is important to investors is that they can realize the market value of their investment. As I have measured the DCF, the simple yield (D/P) plus growth (g) provides a return strictly applicable to the price (P)

> that an investor is willing to pay for a share of stock. The need for a 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). From the market perspective, the financial risk of the Electric G is accurately measured by the capital structure ratios calculated from the market capitalization of firm. If the rate setting process utilized the market capitalization ratios, then no additional analysis or adjustment would be required, and the simple yield (D/P) plus growth (g) components of the DCF would satisfy the financial risk associated with the market value of the equity capitalization. Because the rate setting process uses a different set of ratios calculated from the book value capitalization, the further analysis is required to synchronize the financial risk of the book capitalization with the required return on the book value of equity.

UGI Electric St. No. 5, pp. 25-26.

In arguing against UGI Electric's proposed leverage adjustment, Mr. Rothschild states:

> 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. No. 3, pp. 55-56; OCA Main Brief, pp. 64-65.

We note that the Commission rejected PPL's request for a leverage adjustment in its 2012 PPL Order, stating:

> 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.

2012 PPL Order, p. 91.

Having recommended a return on equity rate of 10.00% in this proceeding, we likewise conclude that there is no need to include an artificial upward adjustment and, accordingly, recommend that UGI Electric's proposed leverage adjustment be denied.

b. Risk Premium

UGI Electric recommends inclusion of a risk premium of 6.5%, which would result in a cost of common equity rate, under the risk premium model, of 11.25%. UGI Main Brief, p. 86. The company explains the concept of risk premium as follows:

> The risk premium analysis is based upon the fundamental principle that an equity investor in a given company has a greater risk than a bond holder in the same company because interest on bonds are paid before any return is received by the equity investor, and the bond holder receives a return of its capital before an equity investor receives any return of capital in the event of bankruptcy or the dissolution of the company.
>
> Furthermore, the risk premium analysis has common sense appeal to investors, who expect to earn equity return in excess of bond returns as compensation for the increased risk associated with equity investments. UGI Electric St. No. 5-R, p. 32. Accordingly, the risk premium method determines the cost of equity by summing the expected public utility bond yield and the return of equities over bond returns (i.e. the "equity premium") over an

> historic period, as adjusted to reflect lower risk of utilities compared to the common equity of all corporations.

UGI Electric Main Brief, pp. 85-86.

OCA argues that the company's risk premium of 6.5% is out of line with market data, academic studies and surveys of Chief Financial Officers (CFO) and global managers. It continues, "[t]he Campbell and Harvey survey of CFOs (2104) showed an average equity risk premium estimate of 3.73%. From a historical perspective, Roger Ibbotson has stated that the historical equity risk premium is the geometric difference between company stock returns and U.S. Treasury returns. Calculated this way, the historical risk premium for large company stocks is 4.6% with long-term government bond returns as the risk-free rate." OCA Main Brief, pp. 56-57.

I&E argues against use of the risk premium model on the basis that it is a simplified version of the CAPM and is subject to the same faults of the CAPM described on pages 17-19 of its main brief. It further argues that the risk premium model does not recognize company-specific risk through beta. I&E Main Brief, p. 19.

Because we agree with I&E and OCA that the DCF and CAPM models are the preferred methods of calculating an appropriate cost of common equity rate, we recommend against the use of the risk premium model in this analysis.

c. Capital Asset Pricing Model (CAPM)

The CAPM uses the yield on a risk free interest-bearing obligation plus a rate of return premium that is proportional to the systematic risk of an investment. To compute the cost of equity with the CAPM, three components are necessary: (1) a risk-free rate of return (Rf); (2) the Beta measure of systemic risk(β); and (3) the market risk premium (Rm-Rf) derived from the total return on the market of equities reduced by the risk-free rate of return. UGI St. No. 2, p. 34.

UGI Electric further explained:

> Mr. Moul determined the risk-free rate to be 3.75% based on current and forecasted Treasury notes and bonds yields. In his analysis, Mr. Moul highlighted the importance of the longer-term forecasts of Treasury notes and bonds yields, which reflect the FOMC's clear decision to address historically low interest rates in the wake of the Great Recession . . . .
>
> For the risk/market premium component of the CAPM analysis, Mr. Moul calculated an 8.03% premium based upon the average historical data and forecasted returns. UGI Electric St. No. 5, p. 37. Mr. Moul further gave additional weight to the more recent historical data, to recognize the fact that interest rates are forecasted to trend upwards in the future. The forecasted returns are based upon the 11.87% DCF return for the S&P 500.
>
> Finally, Mr. Moul included a 1.02% size adjustment to his CAPM analysis to recognize the Company's smaller size and resultant increased risk profile. This adjustment is based upon generally accepted and widely recognized literature that states smaller firms have higher capital costs than larger firms. UGI Electric St. No. 5, p. 37.
>
> The results of Mr. Moul's CAPM analysis are 11.03% for the Electric Group.

UGI Electric Main Brief, pp. 87-88.

I&E witness Spadaccio also performed an analysis of a return on equity using the CAPM methodology. Mr. Spadaccio used an average of the betas of the companies in his proxy group as provided by Value Line. The average beta was 0.68. I&E St. No. 2, p. 25.

Mr. Spadaccio calculated both a historic and a forecasted CAPM. The expected returns on the overall market are 10.80% for his historic analysis and 10.33% for his forecasted analysis. I&E St. No. 2, p. 27.

For his historic CAPM analysis, he chose to use the risk-free rate of return (Rf) from the projected yield on 10-year Treasury Notes. Historically, the geometric average for the yield on the 10-year Treasury Bond has been 5.21%. He used a historical return for the S&P Composite Index as a benchmark for the expected return on the overall stock market. The geometric average for the historical return of the S&P Composite Index is 10.80%. I&E St. No. 2, pp. 25-26.

For his forecasted CAPM, Mr. Spadaccio utilized Blue Chip Financial Forecasts. The yield on the 10-year Treasury Bond is expected to range between 2.90% and 3.2% from the third quarter of 2018 through the second quarter of 2019. It is forecasted to be 3.60% from 2019-2023. I&E Ex. No. 2, Sch. 10. For his forecasted CAPM analysis, he chose 3.16%, which is the average of all the yield forecasts. I&E St. No. 2, p. 26. To arrive at a representative expected return on the overall stock market, he observed Value Line's 1700 stocks and the S&P 500. Value Line expects its universe of 1700 stocks to have an average yearly return of 7.64% over the next three to five years, based on a forecasted dividend yield of 1.90%, and a yearly index appreciation of 25%. The S&P 500 index is expected to have an average yearly return of 13.03% over the next five years, based upon Barron's forecasted dividend yield of 2.03% and Yahoo!'s expected increase in the S&P 500 index of 11.00%. I&E St. No. 2, p. 27.

OCA's witness Rothschild determined a market implied beta for the Electric Group of 0.81. OCA St. No. 3, p. 40. Mr. Rothschild used CAPM to estimate the cost of equity based upon the option-implied betas for each of the companies in the Electric Group, the option-implied betas for two Black Rock Bond Funds and yields on Black Rock Bond Funds. Mr. Rothschild stated that the Electric Group has a cost of equity of 7.08%. OCA St. No. 3, pp. 42-43.

We largely accept Spadaccio's forecasted calculation, but with modifications based upon Mr. Moul's testimony. Mr. Moul believes Mr. Spadaccio's CAPM analysis understates the cost of equity for a number of items: (1) his use of the yield on 10-year Treasury Notes; (2) out of date measures of the total market return; (3) his use of historical geometric means to calculate total market return; (4) his failure to use leveraged adjusted betas; and (5) his failure to make a size adjustment. We address each one in turn.

Moul states that a 30-year bond is a better measure of the risk-free return. Use of a shorter rate of return, such as the 10-year Treasury Note, is more susceptible to Federal policy actions. UGI St. No. 5-R, p 26. Mr. Spadaccio acknowledged this in his testimony and explained his rationale.

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

I&E St. No. 2, pp. 25-26.

We agree with Mr. Spadaccio regarding the 10-year Treasury Note.

However, it appears that his measurements are clearly out of date. There is a large discrepancy, particularly with the Value Line estimate. Mr. Moul notes:

> His forecasted future returns (see Schedule 11 of I&E Exhibit No. 2) using the Value Line forecasts and the returns for the S&P 500 are out of date. The current dividend yield on the S&P 500 is 1.98%. The growth rate for the S&P 500 is 12.0%. Thus, the total return for the S&P 500 is 14.10% ((1.98% + (1.06)) + 12.0%). The current return for Value Line is 11.83% ((((1.45).25) -1) + 2.1%). Therefore, the correct return on the market is 12.97% (14.10% + 11.83% = 25.93% ÷ 2) rather than the 10.33% return Mr. Spadaccio shows on Schedule 11 of I&E Exhibit No. 2. UGI 5R-at 29.

This yields a forecasted CAPM of 9.83.

We also largely accept Mr. Spadaccio's historical calculation. However, we are persuaded by Mr. Moul's testimony regarding the use of the arithmetic mean:

> In the 2014 Yearbook (see page 83), Ibbotson states that "… the arithmetic mean better represents a typical performance over single periods." The CAPM is a single-period model, i.e., it provides an annual return, that requires use of the arithmetic mean to conform with the specification of the model. Moreover, when applying the CAPM (see page 152), Ibbotson specifically states: "The equity risk premium is calculated by subtracting the arithmetic mean of the government bond income return from the arithmetic mean of the stock market total return." UGI Electric St. No. 5-R, pp. 28-29.

With the arithmetic mean, the market premium is 6.36 and the historical CAPM is 10.18.

We reject the argument for a leverage-adjusted beta as we did in the leverage-adjustment section above.

Mr. Spadaccio cites an article "Utility Stocks and the Size Effect: An Empirical Analysis" by Dr. Annia Wong to refute the size adjustment.

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

I&E St. 2 pp 45-46

Mr. Rothschild believes Mr. Moul improperly utilizes a "small size" adder. 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 57-58.

Mr. Moul refutes the Wong article stating that the article was 20 years old and employed data from the 1960s. Additionally, enormous changes have occurred in the industry that have fundamentally changed the utility industry. The Wong article further concludes that size cannot be explained in terms of beta. He also notes the financial consequences of external factors that can influence the financial performance of a small company include loss of a large customer and the effect of unexpected changes in expense. UGI St. No. 5-R, p. 30.

For the reasons described in Mr. Spadaccio's testimony, we deny the size adjustment.

d. Comparable Earnings (CE)

UGI Electric also performed a comparable earnings analysis, which identifies non-regulated companies with comparable risks. Mr. Moul's analysis under this model resulted in a cost of common equity rate of 12.55%. UGI Electric St. No. 5, pp. 38-41.

Both I&E and OCA criticize the Company's use of the comparable earnings model on the basis that the companies analyzed under this model are not public utility companies and, therefore, are too dissimilar to be used in a common equity analysis. I&E argues that public utilities, as regulated monopolies, have very low business risk and are able to maintain higher financial risk profiles by employing more leverage. By contrast, the companies included in Mr. Moul's comparable earnings analysis operate in an unregulated, competitive environment with higher business risk. Accordingly, they must maintain lower financial risk profiles using lesser leverage. I&E Main Brief, pp. 29-30. OCA argues that the Company's comparable earnings analysis "simply considered the returns on book equity that were achieved and are expected to be achieved by Value Line in the next 3 to 5 years. The earned return on book equity is an entirely different concept from the cost of equity." OCA Main Brief, p. 59.

We agree with I&E and OCA that use of this model in a cost of common equity analysis in inappropriate because of the dissimilarity of the companies analyzed to a regulated electric public utility. Accordingly, we recommend that the results of UGI Electric's comparable earnings analysis not be considered in determining an appropriate common equity rate of return.

2. Additional Risk Considerations

UGI Electric argues that there are additional risk considerations that weigh in favor of approving a higher common equity rate of return. First, it argues that the current financial climate of rising interest rates for risk-free investments results in an increase in risk associated with common equity investments, necessitating an increase in the return on common equity in order to attract capital investments. It argues that in order to attract common equity investments, a sufficient premium over risk-free investments must be offered. UGI Electric Main Brief, p. 88.

It next argues that the TCJA will significantly decrease the Company's pre-tax interest coverage which, in turn, will reduce the Company's credit quality and will greatly increase the amount of investor-supplied capital needed to fund infrastructure programs. In order to attract this investor capital, returns on common equity must be higher. UGI Electric Main Brief, p. 89. The Company further argues that, without supporting regulation from the Commission, potential investors may assume that Pennsylvania is backing off its support for accelerated infrastructure investment and public utilities will be unable to attract needed capital to support accelerated infrastructure replacement. UGI Electric Main Brief, p. 91.

We recommend against consideration of the additional risk factors identified by UGI Electric as a reason to increase the allowed return on common equity. We are recommending a return on common equity rate of 10.00%. This rate includes a 0.2% increase for management effectiveness. The 10.00% rate is already significantly higher than the 8.5% ROE rate recommended by OCA and the 8.62% ROE rate recommended by I&E. Further, assessing the potential impacts of the factors identified above by UGI Electric on potential equity investors requires a degree of speculation, rendering precise quantification of the potential impacts difficult at best. We decline to attempt to make such an assessment here.

E. Management Effectiveness Adjustment

Under the Public Utility Code, the Commission is required to consider management performance and effectiveness when setting rates: Section 523 states:

> The commission shall 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 under this title. On the basis of the commission's consideration of such evidence, it shall give effect to this section by making such adjustments to specific components of the utility's claimed cost of service as it may determine to be proper and appropriate. Any adjustment made under this section shall be made on the basis of specific findings upon evidence of record, which findings shall be set forth explicitly, together with their underlying rationale, in the final order of the commission.

66 Pa. C.S. § 523(a).

In past decisions, the Commission has included upward adjustments to the cost of common equity to reflect solid management effectiveness. *See, e.g. 2012 PPL Order,* pp. 98-99; *Pa. Pub. Util. Comm'n. v. Aqua PA., Inc.*, Docket No. R-00072711, 2008 Pa. PUC LEXIS 50 (Order dated July 17, 2008); *Pa. Pub. Util. Comm'n v. West Penn Power Co.*, Docket nos. R-00942986, *et al.,* 1994 Pa. PUC LEXIS 144 (Order dated 12/29/1994).

UGI Electric recommends in this proceeding that it be given a 20-basis point addition to the cost of common equity due to its management effectiveness. UGI Electric St. No. 5, p. 1. Both I&E and OCA oppose the award of any allowance for management effectiveness.

UGI Electric summarized various initiatives and accomplishments in its main brief as follows:

UGI Electric has focused on a number of areas and programs to enhance and improve the quality and effectiveness of the service it provides to its customers. As detailed in the Direct Testimony of UGI Electric witness Paul J. Szykman and the Statement of reasons, the Company has taken substantial efforts to improve the quality and effectiveness of its management performance, including, but not limited to: (1) a Commission-approved Long Term Infrastructure Improvement Plan to accelerate the replacement and repair of aged and aging infrastructure; (2) high standards for electric reliability that rank UGI Electric first in Customer Average Interruption Duration Index ("CAIDI"), third in System Average Interruption Frequency Index ("SAIFI") and second in System Average Interruption Duration Index ("SAIDI") among all Pennsylvania electric distribution companies; (3) a voluntary EE&C Plan designed to educate and encourage the efficient use of electricity and smart appliance purchase decisions by UGI Electric customers; (4) a new, state of the art CIS to provide customers with greater levels of service quality, information availability and around the clock accessibility; (5) improvements to aged and outdated financial systems to provide improved system capability related to capital activity tracking and recording, as well as financial system support; (6) top-tier customer satisfaction; (7) implementation of the UGI-1 initiative to drive additional efficiencies and effectiveness across the organization, including the implementation of new state-of-the-art CIS,, work management and other supportive systems; and (8) expansive customer assistance and support under its Universal Service offerings. UGI Electric Book I, Statement of Reasons; *see also* UGI Electric St. No. 1, pp. 12-17. UGI Electric also plays an essential role in the communities it serves, supporting education programs and a number of community initiatives. UGI Electric St. No. 1, p. 18. Importantly, UGI Electric has implemented these projects and programs while maintaining some of the lowest rates in Pennsylvania. *Id*.

While UGI Electric is not required to submit an EE&C Plan or LTIIP for Commission approval, it has elected to do so in order to address the needs of its customers. *See* UGI Electric St. No. 1-R, p. 15. These voluntary programs by the Company reflect management's support and commitment to the Company and its customers; management oversight and execution of these voluntary programs are required for successful execution. *Id.*

In addition, the UGI-1 and related UNITE technology improvement represent substantial distribution system optimization initiatives employed by UGI Electric to drive efficiencies that benefit its customers. In particular, the UNITE technology improvement project standardizes and adopts common industry-leading electric and gas modern processes; automating certain manual, time consuming processes; and retiring legacy mainframe equipment. It also includes a replacement of UGI Electric's CIS to improve its customers' experience interfacing with UGI Electric. UGI Electric St. No. 1, pp. 18-21. UGI Electric's ability to be more efficient and effective under the UNITE program provides significant customer and operational benefits. UGI Electric St. No. 1, pp. 21-23.

UGI has also developed and implemented numerous safety improvement initiatives designed to reduce or prevent injuries and motor vehicle accidents. These initiatives include pursuing Occupational Safety and Health Administration verification of a Voluntary Protection Program, a First Move Forward policy, a 360-degree "cone" policy, a "Making a Difference" safety program, use of dash-cams to record and review incidents or close-calls, Smith Driving School training, an annual Safety Summit involving all employees, establishing safety committees for accident analysis and review, and Company-wide education and appropriate employee coaching and engagement tracks. UGI Electric St. No. 1, pp. 15-16; UGI Electric St. No. 3, pp. 7-11.

Finally, UGI Electric is also consistently recognized for high customer satisfaction. UGI has finished in first or second place in the J.D. Power award for customer satisfaction among utilities in each of the last 5 years, and has won the award a total of 7 times (2003-2007, 2013, 2014) since UGI was first included in the survey in 2003 by J.D. Power. UGI Electric's customers receive the same call center customer service experience as the other regulated UGI affiliates. UGI Electric St. No. 1, p. 15.

The foregoing clearly demonstrates UGI Electric's efforts to improve its operations in ways that strengthen reliability, enhance customer satisfaction, respond to customer needs, and reinforce public and employee safety, beyond what it is required to do under the Public Utility Code. Importantly, UGI Electric's voluntary operating initiatives, programs focusing on enhancing customer satisfaction, and workforce safety and training initiatives are extremely similar to the types of utility programs and initiatives that the Commission has previously deemed laudable and deserving recognition through an addition to the cost of common equity. *See PPL 2012 RC Order*, p. 98 (recognizing PPL's operating initiatives, customer contact center, and energy efficiency programs justified a twelve basis point recognition for management performance). For

> these reasons, the cost of common equity should include an increment for management performance.

UGI Electric Main Brief, pp. 100-102.

No other party disputed the company's claims about its various initiatives or accomplishments. OCA argues that, under 66 Pa. C.S. §§ 1301 and 1501, a public utility's ratepayers have a right to receive safe and adequate service at just and reasonable rates. It further states that the record does not support an award of an additional financial adder based on management performance. OCA Main Brief, p. 67. I&E likewise argues that the company is required to provide good service to its ratepayers, stating, "I&E does not believe that UGI Electric or any utility company for that matter, should reap additional rewards for programs funded by ratepayers for meeting the Company's obligations to provide safe and reliable service." I&E Main Brief, p. 73. Similar arguments against inclusion of a management effectiveness adder were raised by I&E and OCA in the 2012 PPL proceeding. The Commission rejected those arguments, finding that PPL had sufficiently supported its request for inclusion of a management adder. 2012 PPL Order, pp. 97-98.

We agree with UGI Electric and recommend that it be given a 20-basis point addition to its cost of common equity due to management effectiveness. In addition to the various initiatives identified above, we are particularly persuaded by evidence presented by UGI Electric that it is consistently recognized for high customer satisfaction. The record evidence shows that UGI Electric has finished in first or second place in the J.D. Power award for customer satisfaction among utilities in each of the last 5 years and has won the award a total of 7 times (2003-2007, 2013, 2014) since UGI was first included in the survey in 2003 by J.D. Power. UGI Electric St. No. 1, p. 15. Further, the company notes, "UGI Electric's internal programs and initiatives have caused it to exceed Commission benchmark levels for service reliability. In fact, UGI Electric has outperformed the vast majority of all Pennsylvania EDCs in each category used to measure system reliability." UGI Electric St. No. 1, p. 13; UGI Electric Main Brief, p. 105. There is no record evidence to dispute or otherwise challenge these claims.

We believe that UGI Electric has sufficiently supported its request for a 20-basis point addition to its cost of common equity rate and recommend that it be included in the cost of common equity calculation.

F. Summary UGI Electric's Return on Common Equity

UGI Electric presented four methods of determining the cost of equity: Discounted Cash Flow (DCF), Risk Premium (RP), Capital Asset Pricing Model (CAPM), and Comparable Earnings (CE).

I&E recommended using the Discounted Cash Flow (DCF) method as the primary method to determine the cost of common equity. I&E St. No. 2, p. 16; I&E St. No. 2-SR, p. 6. Further, I&E recommended using the results of the Capital Asset Pricing Model (CAPM) as a comparison to the DCF results. *Id.* Further, in the recent case of *Pa. Pub. Util. Comm'n v. City of DuBois-Bureau of Water*, Docket No. R-2016-2554150 (Opinion and Order entered March 28, 2017), the Commission reaffirmed its support for I&E's methodology of basing its recommended cost of common equity on a DCF method analysis with a CAPM analysis solely as a check. The Commission stated, "although there are various models used to estimate the cost of equity, the DCF method applied to a barometer group of similar utilities, has historically been the primary determinant utilized by the Commission." *City of Dubois Water Bureau*, p. 88; I&E Main Brief, p. 71.

As the OCA points out, the Commission has indicated a preference for using the DCF method to establish reasonable common equity costs.

> 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.

OCA Main Brief, pp. 55-56.

Accordingly, we will not utilize the Comparable Earnings Method or the Risk Premium Method. We will utilize the DCF Method with the CAPM as a check.

For the DCF calculation, we will use the average dividend yield of 3.95% utilizing the Altered Proxy Group based upon the OCA's calculation. We will utilize the average growth rate of 5.85% based upon the use of the Altered Proxy Group and UGI Electric's data.

	D/P	g	k
DCF	3.95%	5.85%	9.80%

We have adopted a historic CAPM of 10.18% based upon I&E's calculation, but utilizing an arithmetic mean based upon Mr. Moul's testimony. Additionally, we also utilize the forecasted CAPM of 9.83 based upon the calculation of I&E with updated numbers provided by Mr. Moul.

CAPM-Historic	
Rf	5.85
Rm	12.21
β	0.68
k	10.18

CAPM-Forecasted	
Rf	3.16
Rm	12.97
β	0.68
k	9.83

The DCF analysis, consisting of a dividend yield of 3.95% and a growth rate of 5.85% produces a result of 9.8%. This appears reasonable as compared to the forecasted CAPM of 9.83% and historic CAPM of 10.18%.

Additionally, we grant UGI Electric the additional 0.20% management effectiveness adjustment. With a ROE of 10.00%, we decline to add any further upward adjustment, as the return is reasonable. Mr. Moul notes, "according to RRA, the average authorized equity return for electric utilities was 9.75% in the first quarter of 2018, as compared to the average authorized equity return of 9.74% for all of 2017." UGI Electric St. No. 5-R, p. 5.

G. Overall Rate of Return

The parties have stipulated to a capital structure consisting of 45.98% debt and 54.02% equity. Moreover, they have agreed to a cost of debt of 4.69%. Although agreement could not be reached regarding the cost of equity, we have examined the testimony and determined a 10.00% cost rate of common equity is appropriate. Based on the evidence presented, the appropriate overall rate of return that will result in just and reasonable rates is 7.56%.

Description	Capitalization Ratio	Embedded Cost	Return-%
Long-Term Debt	45.98%	4.69%	2.16%
Common Equity	54.02%	10.00%	5.40%
Total	100.00%		7.56%

VII. TAXES

A. 2018 Tax Adjustment – Issues of Retroactive and Single Issue Ratemaking

UGI Electric's Position

UGI Electric asserts that the supplemental filing fully reflects all impacts of the TCJA on a prospective basis. UGI Electric Main Brief, p. 109. UGI Electric further asserts that the Commission should reject an additional reduction in rates to reflect the 2018 impacts of the TCJA. *Id*. Specifically, I&E and OCA propose a reduction in tax expense of $212,000 to be refunded to customers outside of base rates. I&E proposes that this amount be flowed back to ratepayers through a Section 1307 surcharge mechanism, similar to a mechanism proposed by PECO Energy Company (PECO). I&E St. No. 1, pp. 33-35. OCA proposes that this amount also be passed through to ratepayers through a mechanism similar to a surcharge. OCA St. No. 1, p. 14. UGI Electric argues that such a further reduction in rates violates long-standing rules against single issue and retroactive ratemaking, is unwarranted given that the Company's current rate of return is not excessive or unreasonable, and would be extraordinarily poor public policy. UGI Electric Main Brief, p. 109.

According to UGI Electric, the "general rule" under Pennsylvania law is that "there may be no line by line examination" of "particular items of expense or revenue," and variations in "an isolated item of revenue or expense" may not, "without more," support "a Commission order of refund or recovery." See *Phila. Elec. Co. v. Pa. Pub. Util. Comm'n*, 502 A.2d 722, 727-728 (Pa. Cmwlth. 1985) UGI Electric Main Brief, p. 110. Single-issue ratemaking occurs "when only one element of the general ratemaking equation is examined between rate cases and the customers' rates are adjusted to reflect a change in that element." *Id*. (Citing *Petition of UGI Utilities, Inc. – Elec. Div. For Approval Of Its Energy Efficiency And Conservation Plan*, Docket No. M-2010-2210316, 2011 Pa. PUC LEXIS 1690 at *28 (Recommended Decision issued July 13, 2011)).

UGI Electric further states that Pennsylvania law also prohibits retroactive ratemaking. Citing what it deems to be the seminal case in this area, *Cheltenham v. Abington Sewerage Co. v. Pa. Pub. Util. Comm'n*, 25 A.2d 334, 337 (Pa. 1942), UGI Electric notes that the Pennsylvania Supreme Court reversed the decisions of the Superior Court and the Commission that would have required the utility to refund amounts collected pursuant to a final order establishing rates. UGI Electric Main Brief, p. 110. In doing so, UGI Electric asserts that the Pennsylvania Supreme Court announced the rule that Commission-made rates are not subject to subsequent retroactive revision by the Commission; in other words, once the Commission approves the new rate, it may not then revisit that rate and revise that rate. (UGI Electric Main Brief, p. 110).

Given the above, UGI Electric argues that the I&E and OCA 2018 adjustments clearly violate the rules against single issue and retroactive ratemaking. UGI Electric states that the proposed base rate increase in this proceeding will be effective in October 2018 for service rendered on and after October 27, 2018 and is based on data and information for a FPFTY ending September 30, 2019. UGI Electric Main Brief, p. 111. UGI Electric also states that the test year and the rates developed from it reflect a full year's impact of all aspects of the TCJA. *Id*. UGI Electric further states that the additional adjustment proposed by I&E and OCA would impermissibly reduce rates for a single issue, i.e. the 2018 tax impact of TCJA, without any examination of any other elements of the ratemaking formula. *Id*. UGI Electric also notes that the adjustment also would retroactively reduce UGI Electric's rates. *Id*.

UGI Electric does acknowledge existing legal precedent where single issue/retroactive ratemaking can take place for certain extraordinary and non-recurring items and events between rate cases. However, UGI Electric argues that these precedents are inapplicable as the proposed adjustment fails to qualify for this exception. UGI Electric Main Brief, p. 111. UGI Electric argues that a change in the tax law is not extraordinary, as changes in tax law occur all the time as Congress regularly amends, extends, and adds to existing tax laws and regulations. UGI Electric St. No. 5-RJ, pp. 2-3. UGI Electric cites to the 2016 Annual Report to Congress published by the Taxpayer Advocate service, stating that from 2001 – 2016, there have been more than 5,900 changes to the Internal Revenue Code which equates to more than 1 change per day. UGI Electric Main Brief p. 111 – 112.

UGI Electric also argues that a change in tax rates is not a non-recurring item. The tax law changed effective January 1, 2018, and will remain permanently in effect unless and until changed by Congress. UGI Electric Main Brief, p. 112. There is no "sunset" provision or other expiration of this tax cut. *Id*.

UGI Electric next argues against OCA's and I&E's adjustment on public policy grounds. It claims that adoption of the proposed 2018 TCJA Adjustment would produce unintended negative effects. UGI electric Main Brief, p. 115. UGI Electric witness Mr. Moul stated that a lower federal income tax rate will lower the company's pre-tax interest coverage that will reduce credit quality and increase risk. UGI Electric St. No. 5, pp. 8 – 9. Mr. Moul also stated that with a lower marginal federal corporate income tax rate, the company's return variability will increase, thereby increasing its business risk. *Id*. Mr. Moul further stated that utilities will require more investor supplied capital to fund their construction programs because the level of deferred taxes will decline and because the tax code reform eliminates bonus depreciation. *Id*. Given these factors, UGI Electric requests that the Commission reject the proposed adjustment on public policy grounds.

<u>OCA's Position</u>

UGI Electric revised its initial filing to update the Company's revenue requirement request to reflect the impact of the TCJA. UGI Electric 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, OCA contends that 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.

OCA notes that 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) (OCA M.B. p. 37).

OCA further notes that 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. OCA Electric Main Brief, pp. 38 – 39. 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) OCA Electric Main Brief, p. 39. 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) OCA Main Brief, p. 39. 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*.

Given the Commission's Orders, OCA disagrees with UGI Electric's claim that returning the 2018 tax savings to customers constitutes single issue ratemaking. UGI Electric St. 9R at 2; OCA St. 1S at 6; OCA Main Brief, p. 40. OCA witness Morgan explained that:

> 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; OCA Main Brief, p. 40. OCA also contends that "retaining savings would result in unjust rates" OCA St. 1S at 7; OCA Main Brief, p. 40. OCA contends that the Commission also concluded that returning the 2018 tax savings to customers does not constitute single-issue ratemaking, citing the Commission's May Order at 15. 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. OCA Main Brief, p. 40.

I&E's Position

I&E notes that the Commission initiated a proceeding at Docket No. M-2018-2641242 to determine the effects of the TCJA on the tax liabilities of Commission-regulated public utilities for 2018 and future years and the feasibility of reflecting such impacts in the rates charged to Pennsylvania utility ratepayers. I&E Main Brief, p. 56. I&E further notes that the Commission issued a Temporary Rates Order on May 17, 2018, in which the Commission concluded generally that due to the substantial decrease in federal corporate income tax rates and its effect on utility revenue requirements, the existing rates of the identified public utilities are no longer just and reasonable and were therefore excessive. *Id*. The Commission Order also added, for utilities with a pending general rate case, the proceedings in regard to their temporary rates will be consolidated with their pending base rate case for hearing and decision. *Id*.

I&E noted that the Commission's May 17, 2018 Order stated that the Commission was persuaded that the tax savings and associated reductions in utility revenue requirements should be flowed back to consumers on a current basis. *Id*. I&E further noted that the Commission's May 17, 2018 Order stated that while ratemaking is generally *prospective* in nature, an exception to this rule applies in the case of expenses that are extraordinary, substantial and nonrecurring, and that the Commission agreed with the OCA that the TCJA tax savings represent an extraordinary and substantial, non-recurring reduction in utility expenses that [can and] should be treated outside of a general rate proceeding and flowed back to ratepayers. I&E Main Brief, at pp. 56 – 57.

I&E also discusses the Commission's May 17, 2018 Order and notes that the Commission indicated its agreement with the OCA and OSBA that a negative surcharge is both a lawful and appropriate means to recognize the TCJA tax rate changes and their effect on consumer rates. I&E Main Brief, p. 57. I&E also notes that the Commission stated in the Order that it is not persuaded by the arguments that utilities be given the option to use any tax savings from the TCJA for utility infrastructure projects or other utility-identified benefits. *Id*.

I&E then cites the Commission's May 17, 2018 Order for the proposition that the Commission does not deem it appropriate to permit utilities to retain TCJA savings due to a perceived risk of possible negative outlooks from credit rating firms. I&E Main Brief, p. 58. I&E quotes the following in that regard:

> Similarly, the Commission does not deem it appropriate to permit utilities to retain TCJA savings due to a perceived risk of possible negative outlooks from credit rating firms. Once again, if a utility's cash flow is of concern, a general rate increase is the appropriate vehicle to address such a concern. But, as pointed out by BI&E, an increased cash flow realized because a utility is permitted to retain revenues resulting from customers paying a "phantom 35%" income tax rate would not be lawful or appropriate. BI&E Comments at 4. Indeed, while utilities are

> entitled to recover in rates all reasonable and prudently incurred expenses, there is no warrant for the recovery of taxes or other expenses from consumers that are not incurred. *Barasch v. Pa. PUC*, 493 A.2d 653 (Pa. 1985). Accordingly, the Commission declines to allow rates for non-existent tax expenses for the purpose of artificially augmenting a utility's cash flow.

I&E Main Brief, p. 58, citing Commission's May 17, 2018 Order at pp. 16-17.

I&E concludes its position by stating that flowing back the tax savings to customers would not represent impermissible retroactive or single issue ratemaking. I&E Main Brief, pp. 57-61. Accordingly, I&E recommends that the Company be required to flow back to ratepayers, via a reconcilable 1307 surcharge mechanism (which could be entitled the Federal Tax Adjustment Credit, or FTAC, and using the language set forth on Appendix B), the net tax savings associated with the reduction in the federal income tax rate for the period January 1, 2018 through the date when new rates from this proceeding are expected to go into effect. I&E Main Brief, pp. 61-62.

OSBA's Position

The OSBA's submissions did not specifically discuss the issues of single issue ratemaking, retroactive ratemaking, or the refund of excess money to ratepayers as a result of the passage of the TCJA.

B. Excess Accumulated Deferred Income Taxes

UGI Electric's Position

UGI Electric notes that the Company's revenue requirement in this proceeding includes the amortization of a regulatory liability for excess accumulated deferred income taxes (EADIT), which represent the change in the Company's ADIT balance resulting from the TCJA's change in the corporate income tax rate from 35% to 21%. UGI Electric St. No. 9-SD, pp. 2-3. UGI Electric also notes that I&E and OCA support the company's proposed amortization, but contend that the unamortized balance should be deducted from rate base. See I&E St. No. 1, pp. 37-39; see also OCA St. No. 1, p. 11. UGI Electric contends that the proposed rate base adjustment is unprecedented, factually wrong, patently inconsistent and not in the public interest. UGI Electric Main Brief, p. 117.

The reduction in the federal corporate income tax rate from 35% to 21% substantially reduced the value of ADIT on the Company's books. UGI Electric Main Brief, p. 120. For example, ADIT on a $1,000,000 book-tax depreciation difference would have been $350,000 under the old 35% federal tax rate ($1,000,000 x 35%). *Id*. Now, that same ADIT item is $210,000 at the new federal tax rate of 21% ($1,000,000 x 21%). UGI Electric Main Brief, p. 120-121. This "excess" ADIT is removed from the ADIT account (FERC Account 282) and recorded in Account 254 – Other Regulatory Liabilities. *Id*. at p. 121. In accordance with accounting and IRS requirements, this "excess" ADIT is recorded as regulatory liability on the company's balance sheet and amortized to the income statement and/or returned to customers over time using the IRS approved Average Rate Assumption Method ("ARAM"). *Id*. The amortization begins at the reversal point when book depreciation exceeds tax depreciation. *Id*.

UGI Electric contends that the fundamental flaw in the I&E and OCA proposals is that they seek to treat an expense item (federal corporate income taxes) as a capital expense and provide customers a return thereon. According to UGI Electric, the proposal of I&E and OCA violates ratemaking principles by deducting the unamortized balance of an operating expense (taxes) from rate base. *Id*. at p. 122. The fact that EADIT has been deferred to the balance sheet should not affect this analysis. The liability in question, a tax expense credit, is still an expense item even though it has been deferred to the balance sheet. *Id*. Deferral simply affects the timing of rate recovery/refund, and cannot transform an expense item into a capital item for ratemaking purposes. *Id*.

<u>OCA's Position</u>

OCA notes that 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. OCA Main Brief, p. 41. This inclusion assumed that when a utility eventually paid deferred taxes, they would be paid at the rate of 35%. *Id*. 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%. *Id*.

OCA states that 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 EADIT that was created as a result of the TCJA tax rate reduction. OCA Main Brief, p. 41; OCA St. 1 at 10. OCA also states that the company has acknowledged that the TCJA affects deferred taxes. OCA Main Brief, pp. 41-42; UGI Electric St. 9R at 3-4. OCA notes that 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." OCA Main Brief, p. 42; UGI Electric St. 9R at 3-4.

The OCA noted that UGI Electric transferred excess ADIT to a regulatory liability account and then 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; OCA St. 1 Schedule LKM-5. OCA notes that its witness Morgan explained why it is appropriate to include the regulatory liability in rate base, as follows:

> [E]ven 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.

OCA also notes that 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." OCA Main Brief, p. 43; UGI St. 9R at 9. OCA further notes that UGI Electric witness McKinney suggested "the regulated liability should be flowed through to customers through an amortization allowance without a return to customer on the unamortized balance." OCA Main Brief, p. 43; UGI Electric St. 9R at 5.

OCA disagrees with UGI Electric on these points, noting that its witness Morgan explained, 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 Main Brief, pp. 43-44; OCA St. 1 at 13. OCA also notes that witness Morgan explained:

> Even though the Company would like to characterize these funds as simply a regulatory liability, the fact is that the funds 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.

OCA therefore submits that amount of the EADIT 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. OCA Main Brief, p. 44; OCA St. 1, Schedule LKM-5.

<u>I&E's Position</u>

I&E notes that the Company reclassified the protected excess ADIT to a regulatory liability, but it did not make the necessary corresponding reduction to its rate base. I&E Main Brief, p. 63. I&E also notes that the Company acknowledged that Commission precedent requires that amounts recorded as ADIT be deducted from rate base, but that the Company argues that the excess deferred taxes are not ADIT; rather they are "excess" deferred taxes and the Company is not aware of any precedent under which excess deferred taxes are treated as a rate base deduction. *Id*. I&E also notes the Company's argument that regulatory assets are not allowed to be added to rate base and that the Company believes that the same treatment should apply to regulatory liabilities. *Id*. at 63-64. In short, the Company believes it should be able to earn a return on the excess ADIT balance. *Id*. at 64.

I&E disagrees, noting that the excess ADIT monies were originally built into the rate formula to cover future income tax payments to the government. I&E Main Brief, p. 64; I&E St. No. 1-SR, p. 38; UGI Electric St. No. 9-R, p. 5. I&E contends that the fact that the excess ADIT is no longer due in future income tax payments, but is now due to ratepayers via a refund over the remaining useful life of affected plant, does not change the fact that the Company has received this money from ratepayers in prior years, which has been available for infrastructure improvements. I&E Main Brief, p. 64; I&E St. No. 1, p. 38. I&E further contends that the original intent should be considered, and that because the funds were an interest-free loan from the government (taxes due at some point in the future) and now, due to the reclassification, the money is basically an interest-free loan from ratepayers, the ratepayers should not be required to pay the Company a return on this balance during the time it takes to refund the money to them. I&E Main Brief, p. 64; I&E St. No. 1, p. 38.

I&E states that, regardless of whether the account for this balance is entitled ADIT or excess ADIT, the fact remains that the Company over-collected in rates an amount of ADIT based on the pre-January 1, 2018 federal income tax rate of 35%. I&E Main Brief, p. 64; I&E St. No. 1-SR, p. 38. In I&E's opinion, it is 100% accurate not to allow the Company to earn its cost of capital on the excess ADIT balance since the monies were over-collected from ratepayers with the intent of paying future tax liabilities, which no long exist due to the lower tax rate. I&E Main Brief, p. 65; I&E St. No. 1-SR, p. 39.

I&E therefore recommends that the excess accumulated deferred income tax currently held by the Company be returned to ratepayers over a period of time equal to the remaining life of the affected assets per IRS regulation. Each year, the balance in the excess ADIT account will be ratably reduced until the entire amount is refunded to ratepayers.

OSBA's Position

OSBA notes that the passage of the TCJA substantially lowered the federal statutory corporate income tax rate from 35 percent to 21 percent, which has significant implications for ADIT. OSBA Main Brief, p. 13. For the period prior to the adoption of TCJA, the Company's financial statements essentially assumed that income tax expense was based on the statutory 35 percent rate, including the portion of the income taxes that were not paid in cash and deferred through the use of accelerated tax depreciation. *Id*. Because the statutory rate has been reduced, the Company has been recording a higher deferred expense than it will eventually bear, and thus the balance sheet needs to be corrected to reflect the lower tax obligation. *Id*. Thus, lowering the statutory corporate tax rate means that the ADIT liability is overstated, and the Company's income/retained earnings are understated. *Id*.

OSBA also notes that the effect of the TCJA was to convert a portion of the ADIT from being an interest-free loan from the government in the form of tax deferrals to being an interest free loan from ratepayers. OSBA Main Brief, p. 13, citing I&E Statement No. 1-SR, at 37.

OSBA agrees with OCA and I&E that excess ADIT should continue to serve as a credit to rate base in the same manner as ADIT. OSBA Main Brief, pp. 14-16.

OSBA notes that OCA and I&E make simple, straight-forward arguments in support of their positions, explaining that the shifting of balances from ADIT to Excess ADIT accounts is essentially that of a change in the name of the account, that the benefits of the TCJA reduction in the tax rate have not been fully returned to ratepayers, and therefore there is no reason to penalize ratepayers by changing the rate base treatment of these amounts. OSBA Main Brief, p. 14, citing OCA Statement No. 1, at 12-13.

OSBA also notes that I&E witness Wilson explained that the funds in the ADIT account, including those shifted to the Excess ADIT account, were reflected in rates in prior years but not incurred by the company as cash tax costs, making the funds available for investment. OSBA Main Brief, p. 14. OSBA also cites Ms. Wilson's testimony which explains that these funds represented an interest-free loan from the government and now represent an interest-free loan from ratepayers. *Id*. OSBA therefore concludes that it is inappropriate for the company to charge ratepayers for interest on these balances, *Id*, and that the rate base treatment of Excess ADIT should follow that of ADIT, and that Excess ADIT should be recognized as an offset to rate base.

C. Disposition

1. Retroactive and Single Issue Ratemaking

Turning first to the issues of retroactive and single issue ratemaking, we are persuaded that this case fits within the judicial exceptions articulated above. Initially, we note that the 40% reduction in the corporate tax rate in 2017 has no precedent in history; in fact, all indications seem to be that this is one of the greatest single tax cuts in United States history. Therefore, it is appropriate to characterize this massive tax cut as nothing short of an extraordinary one-time event that is unlikely to be repeated.

OCA points out that 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.

Based on the foregoing, the Commission considered the TCJA to represent such an extraordinary and substantial, non-recurring reduction in utility expenses that it warranted an immediate flow back of the windfall to ratepayers of utility companies that did not presently have a pending base rate case before the Commission.

The Commission noted that UGI Electric did have a base rate case pending, and that a determination on flow back should wait until that case was concluded. Having thoroughly reviewed the relevant evidence in this case, we conclude that UGI Electric should also be compelled to flow back the TCJA savings to ratepayers, for the same reasons noted by the Commission in its <u>May Order</u> and those reasons noted by OCA and I&E.

Simply stated, UGI Electric will receive an unprecedented windfall if it is allowed to retain the TCJA tax savings. The savings results from a one-time massive reduction in the federal corporate tax rate, an event that could hardly be anticipated by any utility company whether the company has a pending base rate case or not. Although UGI Electric was provided with an opportunity to try to avoid flow back of the TCJA tax savings due to the pending rate case, we are unpersuaded by UGI Electric's arguments that it should be allowed to retain that money. In that regard, we cannot agree with UGI Electric that returning the TCJA tax savings would result in a decreased credit profile and an increased cost to obtain credit and capital. Since this is an issue of first impression, we conclude that none of the parties to this case will know the credit impact of the TCJA tax savings flow back until the flow back actually occurs. Moreover, should there be an adverse credit impact directly attributable to the TCJA tax savings flow back, we are in agreement with the Commission's guidance provided in the <u>May Order</u>, as follows:

> Similarly, the Commission does not deem it appropriate to permit utilities to retain TCJA savings due to a perceived risk of possible negative outlooks from credit rating firms. Once again, if a utility's cash flow is of concern, a general rate increase is the appropriate vehicle to address such a concern. But, as pointed out by BI&E, an increased cash flow realized because a utility is

> permitted to retain revenues resulting from customers paying a "phantom 35%" income tax rate would not be lawful or appropriate. BI&E Comments at 4. Indeed, while utilities are entitled to recover in rates all reasonable and prudently incurred expenses, there is no warrant for the recovery of taxes or other expenses from consumers that are not incurred. *Barasch v. Pa. PUC*, 493 A.2d 653 (Pa. 1985). Accordingly, the Commission declines to allow rates for non-existent tax expenses for the purpose of artificially augmenting a utility's cash flow.

Commission's May 17, 2018 Order at pp. 16 – 17. Therefore, UGI Electric would be free to bring a subsequent rate case before the Commission, and to include in that particular case a line item for any negative consequences of the TCJA tax savings flow back.

Given the above, we conclude that ordering UGI Electric to flow back the TCJA tax savings does not constitute impermissible retroactive or single issue ratemaking. Flowing back the windfall amounts is fair, just and reasonable under the unprecedented circumstances in this case. We will therefore enter an appropriate ordering paragraph adjusting for the flow back monies.

2. Excess Accumulated Deferred Income Taxes

Regarding excess accumulated deferred income taxes, we are in agreement with the positions adopted by the OCA, I&E and the OSBA, namely, that the excess ADIT should be recognized as an offset to UGI Electric's rate base. Our reasons are set forth below.

As noted by the OCA, "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 Main Brief, pp. 43-44; OCA St. 1 at 13.

I&E notes that the excess ADIT monies were originally built into the rate formula to cover future income tax payments to the government. I&E Main Brief, p. 64; I&E St. No. 1-SR, p. 38; UGI Electric St. No. 9-R, p. 5. I&E contends that the fact that the excess ADIT is no longer due in future income tax payments, but is now due to ratepayers via a refund over the remaining useful life of affected plant, does not change the fact that the Company has received this money from ratepayers in prior years, which has been available for infrastructure improvements. I&E Main Brief, p. 64; I&E St. No. 1, p. 38. I&E further contends that the original intent should be considered, and that because the funds were an interest-free loan from the government (taxes due at some point in the future), and now due to the reclassification, the money is basically an interest-free loan from ratepayers, the ratepayers should not be required to pay the Company a return on this balance during the time it takes to refund the money to them. I&E Main Brief, p. 64; I&E St. No. 1, p. 38.

I&E states that, regardless of whether the account for this balance is entitled ADIT or excess ADIT, the fact remains that the Company over-collected in rates an amount of ADIT based on the pre-January 1, 2018 federal income tax rate of 35%. (I&E Main Brief, p. 64; I&E St. No. 1-SR, p. 38). In I&E's opinion, it is 100% accurate not to allow the Company to earn its cost of capital on the excess ADIT balance since the monies were over-collected from ratepayers with the intent of paying future tax liabilities, which no long exist due to the lower tax rate. I&E Main Brief, p. 65; I&E St. No. 1-SR, p. 39.

OSBA notes that OCA and I&E make simple, straight-forward arguments in support of their position, explaining that the shifting of balances from ADIT to Excess ADIT accounts is essentially that of a change in the name of the account, that the benefits of the TCJA reduction in the tax rate have not been fully returned to ratepayers, and therefore there is no reason to penalize ratepayers by changing the rate base treatment of these amounts. OSBA Main Brief, p. 14, citing OCA Statement No. 1, at 12-13.

OSBA also notes that I&E witness Wilson explained that the funds in the ADIT account, including those shifted to the Excess ADIT account, were reflected in rates in prior years but not incurred by the Company as cash tax costs, making the funds available for investment. (OSBA Main Brief, p. 14). OSBA also cites Ms. Wilson's testimony wherein she explains that these funds represented an interest-free loan from the government and now represent an interest-free loan from ratepayers. *Id*. OSBA therefore concludes that it is inappropriate for the Company to charge ratepayers for interest on these balances (*Id*.), and that the rate base treatment of Excess ADIT should follow that of ADIT, and that Excess ADIT should be recognized as an offset to rate base.

We agree that simply changing the name from one account to another does not somehow transform the nature of the monies in the new account. Calling some monies "Excess ADIT" instead of "ADIT" does not change the fact that the money in the original ADIT account was an offset to rate base. Similarly, placing the excess ADIT monies into a regulatory liability account does not transform those funds into money that should be included in the rate base. These funds were, and continue to be, ADIT funds because that is what the funds were collected for in the first place. Accordingly, we cannot allow UGI Electric to hold these excess funds because the future tax liability on these funds is no longer due to the government. Therefore, we will recommend that the Commission order these to be deducted from the rate base to reflect these factors.

Since we have concluded that we will use the Company's fully projected future test year numbers in making our various recommendations in this case, the amount of excess ADIT will be based upon the ending balance adjustment which is the company's number of $11,213,000. See OCA schedule LKM-5, Lafayette K. Morgan's testimony.

D. Act 40

UGI's Position

In 2016, the General Assembly enacted Act 40 of 2016, Pub. L. 332 ("Act 40"), which added Section 1301.1 to the Public Utility Code. The purpose of Act 40 was to eliminate the so called "consolidated tax savings adjustment" ("CTA") from Pennsylvania ratemaking. Prior to Act 40, long-standing decisions of the Commonwealth Court required the Commission to adjust rates to reflect "savings" achieved from a utility's participation in its parent company's consolidated tax return. UGI Main Brief, p. 127, citing *Pa. Pub. Util. Comm'n, et al., v. PPL Gas Utilities Corporation*, Docket Nos. R-0061398 et al., 2007 Pa. PUC LEXIS 779 at *128-133

(Order entered Feb. 8, 2007) (litigating consolidated tax savings adjustment); *Petition of Metropolitan Edison Company for Approval of a Distribution System Improvement Charge*, Docket Nos. P-2015-2508942, et al., 2018 Pa. PUC LEXIS 147 (Order entered April 19, 2018) ("…the intended purpose of Section 1301.1 was to move away from Pennsylvania's past practice of requiring a consolidated tax adjustment to a public utility's tax expenses when setting rates in a base rate proceeding."). Act 40, however, requires utilities to compute a hypothetical CTA (which would apply in the absence of Act 40), and to certify that 50% of the differential shall be used to support reliability or infrastructure related to the rate-base eligible capital investment as determined by the Commission, and 50% shall be used for general corporate purposes. 66 Pa. C.S. § 1301.1(b).

UGI Electric notes that OCA witness Morgan contends that the Company has not adequately demonstrated its proposed use of the additional income generated from not making a CTA and that the hypothetical CTA should therefore be deducted from rate base as "ratepayer supplied capital." UGI Main Brief, pp. 127-128, citing OCA St. No. 1, pp. 23-25. UGI Electric counters by stating that the Company has fully complied with the Act's use of funds requirements, and that Mr. Morgan's adjustment is nothing more than a blatant attempt to continue the CTA, although in a different form. *Id*. at p. 128.

UGI Electric states that its witness Mr. Anzaldo has fully explained the Company's compliance with this provision in both his Direct and Rebuttal Testimony. In his Direct Testimony, Mr. Anzaldo explained that the Company's pro forma capital additions for reliability or infrastructure projects in the FTY are $10.950 million and for the FPFTY are $11.770 million, which is greater than 50% of the amount of what would have been the CTA under prior ratemaking principles, and that the Company's general corporate purpose expense will also exceed 50% of the tax benefit resulting from elimination of the CTA. UGI Electric St. No. 2, p. 25. Mr. Anzaldo further responded to the criticisms of OCA witness Morgan in his Rebuttal Testimony and explained "[i]n the case of UGI Electric, both its capital expenditure expense and general corporate purpose expense exceed the fifty percent thresholds referenced in 66 Pa. C.S. § 1301(b) by wide margins, and thus UGI Electric is fully entitled to recover tax expense in the manor [sic] authorized by Act 40 without reduction. As quantified in UGI Electric St. No. 9, the Act 40 impact is $75,400." UGI Electric St. No. 2-R, p. 13.

UGI also notes that Subsection (b), in turn, deals with the "uses" of the differential, and embodies the Legislature's decision that fifty percent of those funds are to be invested in vital infrastructure and reliability and the other fifty percent may be devoted to general corporate purposes. UGI Main Brief, p. 132. Subsection (b) has nothing to do with ratemaking and does not even purport to address any ratemaking issue. UGI Electric contends that subsection (b) does not deal with ratemaking but focuses solely on the use of the funds by the utility. *Id*. UGI Electric further contends that if the form of ratemaking treatment proposed Mr. Morgan's recommendation was contemplated, it was contemplated and expressly prohibited by Section 1301.1(a). *Id*.

<u>OCA's Position</u>

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 Main Brief, p. 45, <u>citing</u> 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 Electric. The OCA further submits that rate base should grow only to the extent such growth is funded by investor supplied funds. OCA Main Brief, p. 45.

I&E's Position

I&E takes no position regarding the reduction of rate base for Act 40. (I&E Main Brief, p. 33).

OSBA's Position

The OSBA did not specifically discuss Act 40 in its submissions.

Disposition

Having reviewed the language of Act 40, we are convinced that the language of the statute is clear and unambiguous, and therefore agree with UGI Electric's position on this issue. The statue merely requires that:

> (b) Revenue use. – If a differential accrues to a public utility resulting from applying the ratemaking methods employed by the commission prior to the effective date of subsection (a) for ratemaking purposes, the differential shall be used as follows:
>
> (1) fifty percent to support reliability or infrastructure related to the rate-base eligible capital investment as determined the commission; and
>
> (2) fifty percent for general corporate purposes.

66 Pa. C.S.A. § 1301.1(a),(b).

The statute merely requires 50% of the Act 40 savings be used for reliability or infrastructure purposes, while the other 50% of the Act 40 savings be used for general corporate purposes. Nowhere does the statute state any particular requirements within the subcategories listed. Therefore, the OCA's position that UGI Electric did not sufficiently specify where the Act 40 savings would be spent is without merit.

UGI Electric states that its witness Mr. Anzaldo has fully explained the company's compliance with this provision in both his Direct and Rebuttal Testimony. In his Direct Testimony, Mr. Anzaldo explained that the company's pro forma capital additions for reliability or infrastructure projects in the FTY are $10.950 million and for the FPFTY are $11.770 million, which is greater than 50% of the amount of what would have been the CTA under prior ratemaking principles, and that the company's general corporate purpose expense will also exceed 50% of the tax benefit resulting from elimination of the CTA. UGI Electric St. No. 2, p. 25. Mr. Anzaldo further responded to the criticisms of OCA witness Morgan in his Rebuttal Testimony, and explained "[i]n the case of UGI Electric, both its capital expenditure expense and general corporate purpose expense exceed the fifty percent thresholds referenced in 66 Pa. C.S. § 1301(b) by wide margins, and thus UGI Electric is fully entitled to recover tax expense in the manor authorized by Act 40 without reduction. As quantified in UGI Electric St. No. 9, the Act 40 impact is $75,400." UGI Electric St. No. 2-R, p. 13.

We find UGI's reading of the statute and its arguments to be persuasive. We will therefore recommend that the Commission approve UGI's retention of the $75,400 Act 40 savings for UGI's stated purposes.

VIII. RATE STRUCTURE

A. Allocated Class Cost of Service Study

When a utility files for a rate increase and the proposed increase exceeds one million dollars, the utility must include with its filing a cost-of-service study in which it assigns to each customer class a rate based upon operating costs that it incurred in providing that service. 52 Pa. Code § 53.53. The primary purpose of a class cost of service study is to assist in the design of a utility's rates by identifying all capital and operating costs incurred by the utility in the provision of service to its customers, then directly assigning, or allocating, these various costs to the individual rate classes based on principles of cost causation in order to calculate the rate of return provided by each class. The rate of return identified for each class is then compared to a system average rate of return to determine if each rate class is under-paying or over-paying its allocated cost of service. This information is then used to determine the manner in which the proposed rate increase should be allocated among the various rate classes. The allocation should be based on how the various rate classes caused the costs to be incurred.

In allocating a rate increase among various rate classes, the Commission may consider a number of factors, including such things as cost of service by rate class, the value of service, gradualism and conservation considerations. The Pennsylvania Commonwealth Court has concluded, however, that the concept of class cost of service is the "polestar" of utility ratemaking and is the primary consideration. In its 2006 decision, the Commonwealth Court, in considering a substantial difference in the rate of return by class of a utility's customers, and the concept of gradualism, concluded that the proposed rate of return difference should not stand. The court stated:

> . . . while permitted, gradualism is but one of many factors to be considered and weighed by the Commission in determining rate designs, and principles of gradualism cannot be allowed to trump all other valid ratemaking concerns and do not justify allowing one class of customers to subsidize the cost of service for another class of customers over an extended period of time.

Lloyd v. Pa. Pub. Util. Comm'n, 904 A.2d 1010, 1020 (Pa. Cmwlth. 2006).

UGI Electric witness, John D. Taylor, a principal consultant with Black & Veatch, prepared the Company's allocated class cost of service study (ACOSS). The original study was submitted as UGI Electric Exhibit D – Cost of Service Study, for the FPFTY ending September 30, 2019. UGI Electric's ACOSS was subsequently updated to reflect the impacts of the TCJA and submitted as Revised UGI Electric Exhibit D – Cost of Service Study. The Company made additional revisions based on a number of technical corrections and modifications proposed by OSBA witness Knecht. OSBA St. No. 1, pp. 9-11. The technical corrections included four related to the allocation of taxes among the various rate classes, and seven other technical corrections. UGI Electric St. No. 6-R, pp. 19-21. OSBA's additional proposed modifications related to: (1) the separate allocation of Rate GS-1 and Rate GS-4 classes; (2) the classification of pole costs; (3) the classification of transformer costs; (4) the allocation of line transformer costs to secondary customers; and (5) the reallocation of meters for the lighting class. UGI Electric St. No. 8-R, pp. 22-27. UGI Electric's final revisions and corrections to its ACOSS are reflected in UGI Electric Exhibit B – Cost of Service Study (Rebuttal).

UGI Electric explained the basic steps in the design and preparation of its ACOSS as follows:

> The cost of service study prepared by Mr. Taylor includes three familiar steps: (1) cost functionalization, (2) cost classification, (3) cost allocation. UGI Electric St. No. 6, p. 6. First, the Company's total cost of service (plant and expenses) are identified and separated into specific cost categories associated with the electric distribution service including: Primary Distribution, Secondary Distribution, and Customer Accounts and Services. Next, the costs in each category are further classified and then allocated and assigned to the responsible rate classes, in accordance with their classification. Calculating the costs assigned to each rate class by their individual contribution to the Company's revenue provides the rate of return for each rate class. Those rates of return for each class are compared to a system average rate of return to determine if each rate class is either under-paying or over-paying its allocated cost of service.

UGI Electric St. No. 6, pp. 6-10.

UGI Electric explains that, with respect to cost functionalization and classification, the methodology used by Mr. Taylor starts with the Federal Energy Regulatory Commission (FERC) accounts used by the company to record its Pennsylvania-jurisdictional assets. UGI Electric St. No. 6. P. 14. These accounts were then split into the separate functions of primary distribution, secondary distribution, customer accounts and services, and then further classified as customer or demand costs based on the portion of those costs required to serve a customer with minimum or no load (customer cost). The remaining portion of the costs is allocated based on each rate class' maximum non-coincident peak (NCP) demand (demand costs). UGI Electric explained that this method is known as the "minimum system" method. UGI Electric Main Brief, pp. 137-138.

UGI Electric states that the minimum system method is generally favored because it is "based on the specific design and operating characteristics of the company's distribution system and provides a more accurate and consistent measure of class cost responsibility than other approaches for the provision of distribution service to its customers." UGI Electric St. No. 6, p. 9. Additionally, UGI Electric argues that this methodology adheres to the generally accepted methods of preparing a cost allocation study set out in the National Association of Regulatory Utility Commissioners (NARUC) Manual. UGI Electric St. No. 6, p. 8. UGI Electric further explains that the NARUC manual states that distribution costs should be either customer-based, demand-related or, as the Company has done in this proceeding, a combination of both. UGI Electric St. No. 6, p. 8.

As further support for its argument that its ACOSS should be accepted by the Commission, UGI Electric notes that the methodology it used in preparing its study is based on the same methods and criteria approved by the Commission in PPL's 2012 rate case. *Pa. Pub. Util. Comm'n. v. PPL Electric Utilities Corporation*, Docket Nos. R-2012-2290597, et al., (Order entered December 28, 2012) (PPL 2012 Order). UGI Electric notes that the Commission approved in its PPL 2012 Order the same functionalization and classification methods used by UGI Electric in this proceeding. UGI Electric Main Brief, pp. 138-139.

The OCA submitted an alternative cost of service study that it argues more correctly and accurately reflects cost causation. OCA St. No. 4S, Sch. JDM-1S. The OCA's study was prepared by Mr. Mierzwa. Mr. Mierzwa criticizes UGI Electric's proposed classification of primary and secondary upstream distribution plant, criticizes the use of non-coincident peak (NCP) demand rather than Peak Load Carrying Capability (PLCC), and proposes modifications to allocations in specific O&M accounts. OCA St. No. 4, pp. 3, 6-19.

I&E did not present any testimony concerning UGI Electric's ACOSS and did not make any specific recommendations about the Company's cost analysis, other than to simply state that it believes the Company's cost analysis is overly inclusive. I&E St. No. 3, p. 34; I&E St. No. 3-R, p. 23. OSBA indicated in its main brief that the revisions made by UGI Electric to its ACOSS were consistent with the recommendations of its witness, Robert Knecht, and that any remaining disagreements had minimal quantitative impacts. OSBA Main Brief, p. 23. OSBA recommends that the Commission adopt either Mr. Knecht's ACOSS or UGI Electric's rebuttal ACOSS in this proceeding. OSBA Main Brief, p. 23.

With respect to the classification of the primary and secondary portions of upstream distribution plant, OCA argues that they should be classified as 100% demand, rather than part demand and part customer as proposed by UGI Electric. OCA argues that primary and secondary distribution plant are demand-related investments and, accordingly, should not be classified as partially customer-related. OCA Main Brief, p. 72. OCA also challenges as flawed UGI Electric's method of determining customer-related and demand-related primary and secondary distribution plant costs using the minimum system approach. As described by OCA, the minimum system approach "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 customer-related, and the remaining actual cost of the distribution system is deemed to be demand related." OCA Main Brief, p. 72. OCA witness Mierzwa argues that this method of classifying costs does not reflect actual cost causation of UGI Electric's distribution system, stating:

> 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 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 or a direct relationship.

OCA Main Brief, p. 73; OCA St. No. 4, p. 9.

Additionally, the OCA argues that customer density should be considered in allocating upstream distribution facilities on a customer basis. It cites to former Commissioner Cawley's dissent in the PPL 2012 Order in support of its position that use of the minimum system model may be appropriate if residential customers generally live in less dense rural or suburban areas of the service territory. OCA St. No. 4, pp. 11-12. Mr. Mierzwa argues that this is inappropriate here because UGI Electric's residential customers are evenly distributed within the Company's service territory. OCA St. No. 4, p. 12, Table 3.

The OCA also challenges the minimum system approach based on analyses by Mr. Mierzwa of the average footage of primary conductor allocated to each customer. OCA St. No. 4, p. 13. OCA argues, "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. 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." OCA St. No. 4, p. 13.

OCA further argues that the minimum system method is flawed in that it does not account for the portions of each class's peak load that can be met by the minimum system itself. OCA St. No. 4, p, 14. OCA witness Mierzwa testified that failing to recognize the load carrying capability (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 customers. OCA St. No. 4, p. 14. OCA ultimately recommends that the Commission adopt Mr. Mierzwa's revised study when setting rates in this proceeding. OCA St. No. 4S, p. 9, Sch. JDM 1-S.

Finally, OCA argues that additional modifications to the classification and allocation of O&M Account 593 and O&M Account 594, and Account 923 – Outside Services Employed should be made. Mr. Mierzwa argues that a portion of the maintenance expenses included in Account 593 should be classified and allocated as energy related, and that 50% of the costs included in Accounts 593 and 594 be classified and allocated as energy-related. OCA St. No. 4, pp. 17-18; OCA Main Brief, p. 77. He further recommends that 50% of the Account 923 costs should be classified and allocated as energy-related. OCA St. No. 4, p. 18; OCA Main Brief, p. 78.

UGI Electric generally opposes the OCA's criticisms and recommendations as "fundamentally flawed and specifically designed to improperly and unreasonably decrease the costs attributed and allocated to the residential class." UGI Electric Main Brief, p. 141.

In responding to the OCA's criticisms about its allocation of upstream primary and secondary distribution plant as part customer-related and part demand related, UGI Electric emphasizes the testimony of Mr. Taylor, wherein he states that the company's proposed classification is consistent with Commission precedent (see, e.g., 2012 PPL Order), public utility accounting theory, the cost allocation process as developed by NARUC and cost causation. UGI Electric Main Brief, pp. 141-143; UGI Electric St. No 6-R, pp. 3-12. Additionally, UGI Electric provides on page 59 of its reply brief an illustration demonstrating how the various upstream facilities necessary to serve varying numbers of customers can be impacted by the number of customers, thereby rendering the classification of a portion of upstream distribution facilities as customer-related appropriate, depending upon the specific configuration involved.

With respect to its use of the minimum system approach, UGI Electric witness Taylor testified that fundamental utility accounting practices recognize that upstream distribution plant all contain customer costs and that the NARUC Manual supports the use of the minimum system method to make this classification. UGI Electric St. No. 6-R, pp. 9-12. UGI Electric explains in its main brief:

> First, the fact that some equipment in the Company's minimum size system has some nominal capability to carry load does not prevent the study from providing a reasonable approximation of customer and demand related costs. UGI Electric St. No. 6-R, p. 13. Second, the Company's ACOSS only classifies the <u>no-load</u> portion of transformers as customer related through an adjustment made to the unit cost of transformers. This method fulfills the requirements to consider the load carrying capacity of the transformers requested by Mr. Mierzwa. Conversely, minimum size poles do not have load carrying capacity; so, the minimum used for the customer portion of poles costs is the no-load portion. *Id.*, pp. 13-14. This reality is recognized by all other electric utilities and was specifically approved in PPL Electric's and Duquesne Light Company's last rate filings, as explained by Mr. Taylor. *Id.*, p. 14.

UGI Electric Main Brief, p. 143.

As noted above, the OCA criticized UGI Electric's ACOSS by arguing that, under Company witness Taylor's approach, "each customer is allocated 32 feet of primary distribution conductor line. 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." OCA St. No. 4, p. 13. In response, UGI Electric argues that this analysis is not accurate "because the minimum system study does not allocate a specific footage of distribution conductor to each customer; it determines what the total costs would be if the minimum conductor size were installed across the system." UGI Electric Main Brief, p. 142; UGI Electric St. No. 6-R, p. 12.

With respect to the OCA's recommendations concerning the classification and allocation of costs to various O&M Accounts, UGI Electric argues:

> The OCA's argument is counterintuitive and violates cost causation principles. The maintenance of the facilities recorded in Accounts 364, 365 and 367 is not driven by the amount of energy consumed by each rate class. In his Rebuttal Testimony, Mr. Taylor provided data demonstrating that there is no correlation between these O&M expenses and the amount of energy consumed by customers. UGI Electric St. No. 6-R, p. 16. More specifically, for the maintenance of overhead and underground transmission lines, there is no correlation between the level of conductor maintenance costs and total sales of electricity. UGI Electric St. No. 6-R, p. 15. Therefore, Mr. Mierzwa's recommendation to classify 50% of these costs as energy-related should be rejected.
>
> Similarly, the OCA recommends 50% of Outside Service expenses in Accounts 539, 594, and 923 be classified and allocated as energy-related rather than customer related because they are organizational costs for UGI Electric's holding company for shared services where some of the allocation is dependent on purchased power costs and purchased power revenues. OCA St. No. 4, p. 17-18.
>
> However, outside services costs are general in nature, do not vary with energy consumed, and are best allocated based on the labor costs of the electric distribution utility. UGI Electric St. No. 6-R, p. 17. Account 923 in total represents only 2.2% of the total budget and the fact that there may be a de minimus portion of affiliated costs should not inform the allocation choices within the

> ACOSS. As such, Mr. Mierzwa's recommendations to classify half of the O&M and outside service account costs as energy related are baseless, inconsistent with the principle of cost causation, and should be rejected.

UGI Electric Main Brief, pp. 144-145.

We find that the revised ACOSS prepared by UGI Electric and submitted in this proceeding as UGI Electric Exhibit B – Cost of Service Study (Rebuttal) is reasonable and, when viewed in connection with the Company's proposed revenue allocation and rate design, correctly considers and adheres to the "polestar" consideration of utility ratemaking; class cost of service.

UGI Electric correctly argues in its main and reply briefs that its ACOSS was performed in accordance and consistent with the cost of service study submitted by PPL in its 2012 rate case, which was approved by the Commission. The OCA challenged PPL's COSS in that proceeding on many of the same grounds upon which it is challenging UGI Electric's ACOSS in this proceeding. For example, the OCA argued in the 2012 PPL case that the company's primary plant should be classified on a 100% demand basis, rather than as part demand and part customer, as proposed by the Company. Further, PPL used the class maximum non-coincident peak demand method, which is the method used by UGI Electric in its ACOSS in this proceeding. The Commission ultimately rejected OCA's arguments, agreed with PPL and accepted PPL's proposed COSS, stating:

> Based on our review of the record evidence, we are in agreement with the ALJ that PPL's proposed COSS should be approved. . . . PPL's proposed COSS in the instant proceeding is virtually identical to the COSS approved in 2010, is consistent with the NARUC Manual and more accurately reflects cost-causation principles than the COSS methodology the Company utilized prior to the 2010 base rate case. We conclude that PPL has carried its burden of proof on this issue and we shall adopt the ALJ's recommendation.

PPL 2012 Order, at 113.

We are also persuaded, as argued by UGI Electric and noted by the Commission in the PPL case, that the ACOSS presented by the Company adheres to the generally accepted methods of preparing a cost allocation study set forth in the NARUC manual. Classifying primary and secondary distribution costs as part demand and part customer costs, and allocating other costs based on the maximum non-coincident demand, known as the minimum system method, are methods accepted by and set out in the NARUC Manual. These methods were accepted by the Commission in the 2012 PPL case and the OCA has offered no convincing reasons for deviating from this approach in this proceeding.

We finally note that OCA is the only party in this case that challenged UGI Electric's ACOSS. I&E merely stated in testimony that it believed the Company's study was overly inclusive. I&E St. No. 3, p. 34; I&E St. No. 3-R, p. 23. OSBA indicated in its main brief that the revisions made by UGI Electric to its ACOSS were consistent with the recommendations of its witness, Robert Knecht, and that any remaining disagreements had minimal quantitative impacts. OSBA Main Brief, p. 23. OSBA recommends that the Commission adopt either Mr. Knecht's ACOSS or UGI Electric's rebuttal ACOSS in this proceeding. OSBA Main Brief, p. 23. While the ACOSS recommendations proposed by OCA may result in more favorable rate treatment for residential customers, they provide no basis for rejecting UGI Electric's ACOSS, which has been shown to be reasonable, consistent with recent Commission precedent and in adherence to the methods set forth in the NARUC Manual. For these reasons, UGI Electric's ACOSS as reflected in UGI Electric Exhibit B – Cost of Service Study (Rebuttal) should be approved and the OCA alternative denied.

B. Revenue Allocation

The primary goal in revenue allocation is to have rates reflect the actual cost of service to the various customer classes. *Lloyd, supra.* A proposed revenue allocation will only be found to be reasonable if it moves distribution rates for each class closer to the full cost of providing service. *Pa. Pub. Util. Comm'n v. PPL Electric Utilities Corp.,* Docket Nos. R-00049255, et al., 2007 Pa. PUC LEXIS 55 (Order on Remand entered July 25, 2007).

As explained above, we have accepted UGI Electric's ACOSS (UGI Electric Exhibit B – Cost of Service Study (Rebuttal)) as reasonable, consistent with Commission precedent and in adherence with the methods set forth in the NARUC Manual. UGI Electric argues that its revenue allocation proposal neutrally allocates revenues consistent with the cost to serve each class. UGI Electric Main Brief, p. 146. UGI Electric presented evidence that the residential class currently pays far less than its cost of service, whereas all other classes pay significantly more than their respective costs of service. *See, e.g.* UGI Electric St. No. 6-SD, pp. 2-3. By contrast, UGI Electric argues that the OCA is attempting to allocate revenues "in a manner that ignores the cost to serve each class solely to allocate less of the proposed revenue increase to the residential class. UGI Electric Main Brief, p. 146.

As noted, OSBA proposed modifications to the Company's ACOSS that impacted the proposed allocation of revenue. OSBA St. No. 1, pp. 8-10. UGI Electric agreed to incorporate most of the proposed modifications. UGI Electric St. No. 6-R, pp. 19-22. UGI Electric explained the effect of these modifications as follows:

> . . . the revenue originally allocated to the GS class has been segmented between Rates GS-1 and GS-4, as proposed by OSBA witness Mr. Knecht. UGI Electric St. No. 8-R, p. 5; *see also* OSBA St. No. 1-SD, pp. 4-5. Examined independently, Rate GS-1, which is below system average rate of return, has been allocated a portion of the Company's proposed revenue increase of $621,000. UGI Electric St. No. 8-R, pp. 5-6, 12. Similarly, Rate GS-4, which is significantly above the system average rate of return, has been allocated a $515,000 revenue decrease. *Id.* These reasonable modifications result in an overall General Service class increase of $106,000, subsequently providing for a $106,000 reduction in the allocation to the Rate R class. *See,* UGI Electric St. No. 8-R, pp. 5-6. While this adjustment does not bring those rate classes as close to the system average as the Company originally proposed, these proposed allocations of revenue are fair and reasonable and reduce the items of contention in this case by addressing the concerns raised by OSBA, without ignoring the cost to serve the residential class.

UGI Electric Main Brief, pp. 147-148.

With the modifications intended to address OSBA's concerns, the Company is proposing the following allocation and relative rates of return:

UGI Electric's Proposed Relative Rate of Returns

	Total Company	Residential	General Service - 1	General Service - 4	Large Power	Lighting
Total Revenue Increase as Proposed	$8,092	$7,987	$620	$(515)	$0	$0
Percent Total Revenue Change	9.08%	13.30%	19.35%	-3.31%	0.00%	0.00%
Proposed Rate of Return	8.24%	6.13%	6.12%	17.30%	14.50%	18.91%
Proposed Relative Rate of Return	100%	75%	74%	210%	176	230
Current Rate of Return	3.75%	-0.54%	-0.59%	23.23%	16.20%	21.02%
Current Relative Rate of Return	100%	-14%	-16%	619%	431%	560%

UGI Electric Exhibit D – Cost of Service Study (Rebuttal).

As noted above, the Company presented evidence that the residential class currently pays far less than its cost of service, whereas all other classes pay significantly more than their respective costs of service. *See, e.g.* UGI Electric St. No. 6-SD, pp. 2-3. We agree with UGI Electric that its proposed revenue requirement allocation among the various rate classes achieves significant progress moving rate classes toward the system average relative rate of return.

I&E merely requests in its main brief that the Commission consider the concept of gradualism when making a final allocation determination. In particular, I&E argues that gradualism should be considered for individual components of customer bills, including customer charge, rather than merely focusing on the overall rate increase. I&E Main Brief, pp. 76-77. I&E does not, however, present any evidence in its brief in support of its position.

OCA has presented an alternative allocation proposal that is based on its COSS which, as noted above, we have rejected in favor of UGI Electric's ACOSS. Accordingly, OCA's rate allocation alternative is denied and UGI Electric's rate allocation proposal is recommended here, with the actual numbers to be based on the proportionate adoption of the actual revenue requirement approved.

C. Rate Design

UGI Electric's proposed rate design is intended to reflect the fixed and variable costs of service that are associated with its proposed revenue allocation. The Company's proposal, set forth in the chart below, accounts for the impacts of the TCJA and the revisions to its cost of service study and revenue allocation addressed above.

Rate Class	**Customer Charge**	**Demand Charge**	**Volumetric Energy Charge(s)**
Rate R – Residential[5]	$14.00	N/A	$0.03077/kWh
Rate GS-1 – General Service[6]	$14.00	N/A	$0.04707/kWh
Rate GS-4 – General Service[7]	$15.00	$3.59/kWh/month $2.20/kWh/month	$0.02222-0.01261/kWh
Rate GS-5 – General Service[8]	$14.00	N/A	$0.03077/kWh
Rate LP – Large Power[9]	N/A	$135.80 (≤ 100 kW) $0.94/kWh (101-400 kW) $0.69/kWh (> 500 kW)	$0.01672 (first 100 hours of demand) $0.01518/kWh (next 200 hours of demand, not to exceed 200,000 kWh) $0.01383/kWh (next 200 hours of demand, not to exceed 200,000 kWh) $0.01295/kWh (excess)

UGI Electric Main Brief, p. 151.

5 UGI Electric St. No. 8, p. 17; *see also* UGI Electric St. No. 8-SD, p. 4 (noting changes to volumetric charges caused by the TCJA).

6 UGI Electric St. No. 8-R, p. 11 (noting modifications to Rate GS-1, due to the acceptance of certain modifications to the Company's proposed cost of service study).

7 UGI Electric St. No. 8-R, pp. 11-12 (noting modifications to Rate GS-4, due to the acceptance of certain modifications to the Company's proposed cost of service study).

8 UGI Electric St. No. 8, p. 18 (noting that Rate GS5 is served under residential rates, which are identical to those proposed for Rate R in this proceeding).

9 UGI Electric Book XI – Proposed Tariff, Rate Schedule LP, Page Nos. 66-67.

1. <u>Residential Charges</u>

I&E and OCA challenge UGI Electric's proposed monthly residential customer charge of $14.00. I&E recommends a monthly residential customer charge of $10.00 (I&E St. No. 3, p. 37) and OCA recommends a monthly charge of $8.00 (OCA St. No. 4, p. 8). Both I&E and OCA argue that the Company's proposed residential customer charge is not consistent with the concept of gradualism. Additionally, OCA argues that the Company's proposed residential customer charge inappropriately includes certain Universal Service and Uncollectible Account costs. OCA also argues that the proposed charge will disproportionately harm low income customers. OCA St. No. 4, pp. 23-24.

With respect to the issue of gradualism, UGI Electric argues that I&E and OCA are elevating gradualism over the cost to serve the residential class, which is the "polestar" consideration of ratemaking. UGI Electric Main Brief, p. 155. UGI Electric argued in its brief:

> As indicated by the Commonwealth Court in *Lloyd*, cost of service is the "polestar" of utility rates. *Lloyd*, 904 A.2d at 1020. While other factors, such as gradualism, may be considered, these factors are not permitted to "trump" cost of service as the primary basis for allocating the revenue increase. *Id*. at 1020-21.
>
> Consistent with the Commonwealth Court's directive in *Lloyd*, a proposed revenue allocation will only be found to be reasonable where it moves distribution rates for each class closer to the full cost of providing service. *Pa. Publ. Util. Comm'n., et al. v PPL Electric Utilities Corporation,* Docket Nos. R-00049255, *et al.,* 2007 Pa. PUC LEXIS 55 (Order on Remand entered July 25, 2007).

UGI Electric Main Brief, p. 145.

UGI Electric notes that, based on its cost of service study and resulting allocation, it proposes to increase its monthly residential customer charge from $5.50 to $14.00. UGI St. No. 8, p. 17. UGI Electric argues that ". . . Mr. Taylor's ACOSS, which allows for the development of the total revenue requirement by functions and classifications, demonstrated that the residential customers have a monthly customer cost of $31.84." UGI Electric St. No. 6, pp.

15-16. The Company continues, ". . . this analysis showed that the PA PUC Customer Cost Function, which includes only those fixed costs historically allowed by the PA PUC in a customer charge, resulted in a monthly customer charge of $19.01." *Id.,* p. 16. UGI Electric argues that its proposed customer charge of $14.00 is reasonable in light of the amount shown to be justified by Mr. Taylor's ACOSS analysis. The Company further argues that its proposed residential customer charge is far below the corresponding charge of other Pennsylvania electric utilities (it cites to PPL Electric, with a current monthly customer charge of $17.34, and to the customer charges of all Pennsylvania electric cooperatives). UGI Electric Main Brief, p. 153.

UGI Electric next argues I&E and OCA both acknowledge that, after their proposed adjustments to the Company's ACOSS, a residential customer charge reflecting the cost to serve residential customers still substantially exceeds their proposed monthly customer charge (I&E – cost to serve of $17.70 but proposing $10.00 charge; OCA – cost to serve of $10.29 but proposing $8.00 charge). The Company argues that, although I&E and OCA may justify their recommendations on the basis of gradualism, this overreliance on that consideration ignores the fact that its proposed $14.00 charge is less than the current charge of PPL Electric and all Pennsylvania electric cooperatives, and that gradualism concerns ". . . cannot be a valid reason for UGI Electric to adopt an $8.00 or $10.00 customer charge that is far below and bears little or no relationship to the "polestar" of cost of service." UGI Electric Main Brief, p. 155.

UGI Electric further argues that I&E and OCA's gradualism concerns improperly focus on only one element of the residential rate. It argues, "[t]he concept of gradualism should be applied to the entire rate increase, and not individual components of the rate design. Customers do not pay just the customer charge, just the demand charge or just the energy charge. They pay the entire rate. . . . As shown in UGI Electric Exhibit E – Proof of Revenue (Rebuttal), the Company's proposal results in a total Rate R revenue increase of just 13.6%. Given UGI Electric's last base rate case increase was 22 years ago, a 13.6% change or approximately 0.6% annually over the course of 22 years is quite gradual under any reasonable standard." UGI Electric Main Brief, pp. 155-156.

I&E and OCA both argue that the Company's proposed monthly residential customer charge increase to $14.00 violates the principle of gradualism. OCA states that UGI electric's proposed monthly residential customer charge is inconsistent with the principle of gradualism. OCA Main Brief, p. 87. It points out that its proposed monthly residential customer charge of $8.00 amounts to a 45 percent increase in the customer charge. OCA St. No. 4, p. 25. OCA witness Mierzwa testified, "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. No. 4, p. 25. I&E recommends a monthly residential customer charge of $10.00, which represents an increase of 81% over the current charge. I&E Main Brief, p. 78. In support, I&E states, "[a]ll of I&E's recommendations for rate design and customer charges take the concepts of rate shock and gradualism into consideration." I&E Main Brief, p. 78.

On the issue of gradualism, we recognize that an increase in the monthly residential customer charge from $5.50 to $14.00 is not insignificant. We do not believe, however, in light of the results of the Company's ACOSS and the length of time since the Company's last rate increase, that it is unreasonable.

As noted above, cost of service is the "polestar" of utility ratemaking and the primary purpose of cost of service studies and corresponding rate allocation and design is to move the rates assigned to the various customer classes toward the system average and their respective costs of service. Rate design should reflect the cost of service to each rate class and should eliminate cross-subsidization. *Lloyd, supra*.

We agree with UGI Electric that gradualism considerations should not trump cost of service considerations in this proceeding. UGI Electric's ACOSS demonstrated that residential customers have a monthly customer cost of $31.84, and that the PA PUC Customer Cost Function, which includes only those fixed costs historically permitted by the Commission in a customer charge, resulted in a monthly customer charge of $19.01. UGI Electric St. No. 6, pp. 15-16; UGI Electric Main Brief, pp. 152-153. The Company's proposed $14.00 charge is clearly justified by the results of its ACOSS. We do not believe that the proposed increase is so significant as to justify the elevation of gradualism considerations over cost of service considerations. The Company's last rate increase was approximately 22 years ago. The Company has demonstrated that the residential class has been significantly underpaying, relative to its cost of service, for many years. UGI Electric St. No. 6-SD, pp. 2-3. UGI Electric's allocation and rate design proposals significantly move the residential class toward the system average rate of return and its cost of service. We agree with the Company that cost of service considerations should outweigh gradualism considerations in this proceeding.

We also agree that, to the extent that gradualism factors into the allocation and design of rates, it should be considered in the context of the entire increase to a customer class, rather than to an individual element or component of the rate design. As noted by the Company, customers pay the entire monthly charge, not just an individual component of the total. UGI Electric Main Brief, pp. 155-156. UGI Electric argues, "[a]s shown in UGI Electric Exhibit E – Proof of Revenue (Rebuttal), the Company's proposal results in a total Rate R revenue increase of just 13.6%. Given UGI Electric's last base rate increase was 22 years ago, a 13.6% change or approximately 0.6% annually over the course of 22 years is quite reasonable under any reasonable standard." UGI Electric Main Brief, p. 156.

We further agree with the Company that it properly calculated and included relevant costs as part of its customer cost analysis. As explained by UGI Electric, and as addressed in Section IX of this RD, the Company's customer cost analysis is consistent with public utility accounting, theory and cost causation principles, and is consistent with precedent with respect to utility ratemaking in Pennsylvania.

Finally, OCA argues that the proposed residential charge should be rejected as it will have a disproportionate negative impact on low income, lower-usage customers. OCA argues that low income customers tend to be low usage customers. OCA witness Mierzwa testified, "[t]he 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 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." OCA Main Brief, p. 90.

UGI Electric disagrees with OCA that low income customers are low use customers. It presented evidence showing that low income customers, in fact, use more electricity than the average residential customer. UGI Electric St. No. 10-RJ, p. 2; UGI Electric Reply Brief, p. 66. The Company's usage data shows that low income customers use more electricity than its average customers. UGI Electric St. No. 6-R, p. 33; UGI St. No. 10-R, p. 4. Additionally, UGI Electric presented evidence showing monthly billing information for low income customers, based on the Company's proposed monthly customer charge and consumption charge versus OCA's proposed monthly customer charge ($8.00) and consumption charge. This evidence, presented in Mr. Taylor's testimony, suggests that low income customers, both CAP and non-CAP, will pay less under UGI Electric's proposed $14.00 customer, with the corresponding proposed consumption charge, than they would under the OCA's proposed $8.00 customer charge, with its corresponding consumption charge. UGI Electric St. No. 6-RJ, p. 10. The record evidence on this issue supports UGI Electric's argument that its proposed monthly customer charge will not have a disproportionate negative impact on its low income customers, as suggested by OCA.

2. Non-Residential Charges

UGI Electric, in its direct testimony, originally proposed no allocation of the revenue increase to the General Service class. UGI Electric St. No. 8, pp. 17-18. In response to certain criticisms of OSBA, the Company made revisions to its ACOSS which, in turn, required modifications to its proposed rate design proposal for Rates GS-1 and GS-4. The company explained:

> As seen in UGI Electric Exhibit E – Proof of Revenue (REBUTTAL), UGI Electric adopted a total revenue increase of $606,680 for Rate GS-1 along with a customer charge of $14.00 per month, which results in a revised distribution rate of $0.04707/kWh. *See* UGI Electric Exhibit E – Proof of Revenue (REBUTTAL). In addition, the Company adopted the OSBA's proposal for a total revenue decrease of $520,672 for Rate GS-4 along with a customer charge of $15.00 per month which results in revised energy rates of $0.02222/kWh for the first block (first 200 hours of demand), $0.01533/kWh for the second block (next 300

> hours of demand) and $0.01261/kWh for the third block (all hours over 500). UGI Electric Exhibit E – Proof of Revenue (REBUTTAL). Demand charges for the first 20 kWh would be $3.59/kWh and the second block (over 20kWh) would be $2.20/kW.

UGI Electric Main Brief, pp. 161-162.

OSBA acknowledged in its reply brief, "Mr. Knecht also made recommendations regarding rate design for those [GS-1 and GS-4] classes, which the Company has generally accepted. OSBA Reply Brief, p. 11. Neither I&E nor OCA took positions on the issue of non-residential customer charges in this proceeding.

We find that UGI Electric's rate design proposals for the GS-1 and GS-4 classes are reasonable. The Company's proposals result from its revised ACOSS, which we have accepted, and modifications made therein based on certain OSBA criticisms. We, therefore, recommend the adoption of UGI Electric's rate design proposals for the GS-1 and GS-4 classes.

With respect to its Rate LP, UGI Electric did not propose any changes to the rate design for its LP class since, as explained by its witness Mr. Lahoff, no portion of the proposed revenue increase was allocated to this class. OSBA witness Knecht expressed concern that the Rate LP eligibility cutoff was too low, at 100 kW. OSBA St. No. 1, p. 24. Mr. Knecht also recommended including either a customer charge or retaining a two-block demand charge, reducing the demand charge block differentials, and reducing the Wright energy charge. (OSBA St. No. 1-SD, pp. 8-9.

UGI Electric argues in response, that OSBA Knecht "provided no evidence that the Rate LP eligibility cutoff was unjust or unreasonable. In addition, he provided no analysis regarding the bill impacts for Rate LP customers that would occur if his alternative rate design proposal were adopted and no evidence that the current rate design, without these changes, is unreasonable. UGI Electric Main Brief, p. 163.

We agree with UGI Electric that OSBA's proposed rate design changes to Rate LP should be rejected. The Company is proposing no allocation of its proposed revenue increase to the LP class and OSBA has not presented any convincing evidence that the current rate design is unreasonable.

UGI Electric briefly addressed its Lighting Customer and Rate HTP classes in its main brief. No other party addressed these rate classes in their briefs. Accordingly, UGI Electric's rate design proposals for these rate classes are adopted.

OSBA witness Knecht recommended that UGI Electric adopt a merchant function charge (MFC) for supply-related uncollectibles for default service. OSBA St. No. 1, p. 25. OSBA made this recommendation due to its concern that shopping customers may be required to pay for uncollectible expenses associated with default service. *Id.* UGI Electric argues that it is not feasible or reasonable to implement a MFC at this time since very few residential customers participate in its Choice program. It argues that it would be cost-prohibitive to implement a program now, given the Company's current focus on implementing high impact IT projects, such as its Unite Phase 1 and Phase 2 projects. UGI Electric Main Brief, p. 164. OSBA ultimately agreed that it is reasonable at this time to defer implementation of a MFC. OSBA St. No. 1-SR, p. 1, footnote 1. Accordingly, implementation of a MFC is not recommended at this time.

D. Scale Back

If the Commission ultimately approves a lesser revenue increase than sought by UGI Electric, a determination must be made as to where the scale back in rates will fall. UGI Electric argues that any scale back be applied proportionally based on its proposed revenue allocation. With respect to rate design, the Company requests that any scale back be first applied to any proposed increase to any energy charges, and then to any proposed increase to demand charges. The Company further requests that any scale back should be based on its proposed rates and not the reduced customer charges proposed by I&E and OCA. UGI Electric main Brief, p. 165.

OCA recommends that the rate increase for each rate class be scaled back proportionately from OCA Mierzwa's proposed revenue allocation if the total rate increase approved by the Commission is less than the increase requested by UGI Electric. OCA Main Brief, p. 93.

I&E recommends that, if the Commission ultimately approves a revenue increase that is less that the increase sought by UGI Electric, the usage rates for the GS-5 and Rate R classes be scaled back sequentially to produce specific revenue levels for each class first, and then I&E's recommended $10.00 customer charge for each class be scaled back if required. I&E further argues that any scale back should be based on the customer charges ultimately granted by the Commission. I&E Main Brief, pp. 19-20.

OSBA recommends that any reduction from the full revenue increase requested by UGI Electric be proportionally assigned to the Residential and GS-1 classes, since they are the only two classes receiving a rate increase under the OSBA's proposed revenue allocation. OSBA argues that there is no need to give any further relief to those classes that are assigned a rate decrease under its proposed allocation.

As noted above, we are recommending adoption of UGI Electric's ACOSS and proposed revenue allocation and rate design. As we are also recommending a lesser increase than sought by the Company, the Commission should reduce the customer charges and usage rates proportionally to the percent increase originally requested. We also adopt the Company's request that any scale back should be based on its proposed rates and not the reduced customer charges proposed by I&E and OCA.

For all of the reasons set forth above, we find that the rate structure proposed by UGI Electric is reasonable and recommend that it be adopted in this proceeding.

IX. MISCELLANEOUS ISSUES

A. Quarterly Earnings Report.

I&E is the only party that has challenged the Company's method of calculating its quarterly earnings report (QER), which is filed on a quarterly basis when UGI Electric is not in a base rate proceeding. *See*, 52 Pa. Code § 71 *et seq.* Specifically, I&E challenges UGI Electric's use of FPFTY ratemaking adjustments in the calculation of past QER, the last of which was filed about nine months ago, on November 30, 2017. I&E's requested relief is that the Company not be allowed to use FPFTY ratemaking adjustments in future QERs, the next of which will not be filed until May 31, 2019. (I&E St. No. 5, pp. 8, 15; I&E M.B. pp. 85-92).

In support of its position, I&E presented the testimony of Joseph Kubas, who recommended that the Company not be permitted to include net plant and corresponding annual depreciation expenses related to plant not yet in service, including FTY and FPFTY plant, in any future QERs. (I&E St. No. 5, p. 8). I&E cites to UGI Statement No. 1, the testimony of UGI Electric witness Paul Szykman and associated exhibits, where UGI Electric's operations are projected to produce an overall rate of return on rate base of 3.2 percent, which equates to a return on common equity of just 1.92 percent for the twelve months ending September 30, 2019.

I&E argues that this claim triggered an investigation by I&E into UGI Electric's projected earnings claim in this proceeding. As part of its investigation, I&E reviewed UGI Electric's QER filings. Mr. Kubas contends that the Company's projections made in the September 30, 2017 QER were not accurate in that the overall rate of return (ROR) should have been 10.17% and not 4.94%; and, that the return on equity (ROE) should have been 14.9% and not 5.22%. (*See,* I&E St. No. 5, pp. 1-15; I&E St. No. 5-SR, pp. 1-30). Therefore, I&E contends that, since there was a 35% decrease in projected plant between the Company's September 2017 QER and the filing of this case, UGI Electric's projections should be viewed as highly speculative. I&E St. No. 5, pp. 9-10.

Thus, I&E argues that by including FPFTY plant in its September 2017 QER, UGI Electric dramatically decreased its reported ROE and overall ROR. I&E's R.B. at 66. Consequently, I&E argues that only verifiable, current data should be included in future QERs. *Id*. at 67. I&E argues, therefore, that its investigation and review of UGI Electric's QERs is relevant to the entire issue of ROR and ROE discussed in the Company's testimony.

In light of Mr. Kubas' testimony, on June 8, 2018, UGI Electric filed a Motion in Limine to strike the testimony of Mr. Kubas, on the basis that this issue is not relevant to the issues in the present base rate case, which involves a determination of the justness and reasonableness of the rates, rules and regulations reflected in the proposed tariffs. UGI Electric argued that I&E's argument should be raised in a complaint filed in response to a QER filed by UGI Electric, or in an industry-wide proceeding, rather than in an individual company base rate proceeding.

By Order dated June 25, 2018, we denied UGI Electric's Motion in Limine, finding that, in the most general sense, there may be some relevance in reviewing the claims made by UGI Electric in past QER filings while investigating and evaluating the Company's claims of projected future earnings in this proceeding. However, we noted in our Order that while we admitted into the record the testimony of Mr. Kubas, we retained the right to decide what evidentiary weight, if any, to assign to Mr. Kubas' testimony, noting that we tended to agree with UGI Electric's position.[10]

After review of the entire record, we find in favor of UGI Electric on this issue and give little weight to Mr. Kubas' testimony. We agree with UGI Electric that any Commission decision on I&E's recommendation that no projected plant additions should be included in future QERs would have no impact on either the amount of increase granted in this proceeding, or on the allocation or rate design of that increase. Base rate cases and QER filings

[10] See Order Denying Motion in Limine of UGI Utilities, Inc.—Electric Division to Strike the Testimony of Bureau of Investigation and Enforcement Witness Joseph Kubas, dated June 25, 2018.

are separate proceedings with distinct filing requirements.[11] While I&E has described in detail the various different RORs and those produced in the QER, none of these rates will impact the outcome of this rate proceeding. Consequently, we agree with UGI Electric that the challenge to the QER calculation is not within the scope of a base rate proceeding. (See 52 Pa. Code § 53.53 generally for information to be furnished with a proposed general rate increase).

We also agree with UGI Electric that there are more appropriate remedies for the determination on the appropriate calculation of the QER. A determination of I&E's recommendation would be more appropriately made in the context of a QER filing proceeding or in a state-wide proceeding where all utilities that may be affected by resolution of this issue would have an opportunity to participate. Therefore, I&E may file a complaint following a filing of UGI Electric of its QER. Or, alternatively, I&E may petition the Commission to initiate an industry-wide rulemaking proceeding, which would allow all interested participants to provide the Commission with comments on the impact of adopting I&E's recommendations for QER reporting in base rate proceedings. See, e.g., *Pa. Pub. Util. Comm'n v. Pennsylvania-American Water Co*., Docket No. R-00932670 (Final Order entered July 26, 1994) (adopting the ALJ's conclusion that the issues raised by OCA were outside the scope of a rate case and would be better addressed in a statewide rulemaking proceeding).

B. Public Input Hearing Testimony

Two "smart' public input hearings were held in this proceeding on April 18, 2018, at 1:00 p.m. and 6:00 p.m., in Harrisburg, PA. Present during the hearings were counsel for the Company, I&E and the OCA. A total of four UGI Electric customers testified telephonically. Two testified during the 1:00 p.m. hearing and two testified during the 6:00 p.m. hearing. Tr. pp. 29, 52.

Paula Kostewicz testified that she is opposed to the increase of her electrical distribution rate by 11.2 percent. She believes the increase is unfair. Tr. p. 39. Ms. Kostewicz stated that her social security benefits only went up two percent this year. Tr. p. 39. She

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[11] Chapter 53 of the Code governs base rate proceedings; Chapter 71 governs the filing of QERs. QERs are only filed when a utility is not involved in a base rate proceeding. 52 Pa. Code § 71.4(c).

testified she would support an increase if used to improve the power grid, but not to line the pockets of shareholders. Tr. pp. 39-40. She stated she has not seen service trucks around improving power lines or transformers or anything. Tr. p. 40. She does not want the Company to contact her to discuss her eligibility for customer assistance programs, as she does not believe she would be eligible. Tr. pp. 40-41.

Barbara McDade testified she receives $1,800.00 in social security disability benefits and that she has a lot of medical problems. Tr. p. 45. She stated that prices on utilities seem to be going up and she just cannot afford them. Tr. p. 45. She is agreeable to talking to Company representatives to discuss her potential eligibility for customer assistance programs. Tr. p. 47.

Maureen Magaliski testified that she is strongly opposed to the proposed 11.2% rate increase. Tr. p. 62. She understands that 39 other states have lowered their rates and she is hoping that UGI Electric's proposed increase will be turned down or at least lowered. Tr. p. 62. She is agreeable to discussing her potential eligibility for a customer assistance program with a Company representative. Tr. p. 63.

David Dombek testified he did not see anything in the rate increase filing that justifies the requested increase. Tr. p. 67. He testified he does not have a lot of extra income to throw into a ten percent increase. Tr. pp. 67-68. He is agreeable to discussing his potential eligibility for a customer assistance program with a Company representative. Tr. p. 69.

UGI Electric noted that it provides numerous programs to assist low income customers. UGI Electric St. No. 10-R and 10-RJ. It argues that the concerns raised by the witnesses who testified at the public input hearings have been fully addressed in this proceeding. UGI Electric Main Brief, p. 187.

OCA summarized the testimony of the public input hearing witnesses as follows: (1) customers are not able to afford the proposed increase; (2) rates in other states are decreasing and so should rates in Pennsylvania; and (3) the Company has not demonstrated a need for the proposed increase. OCA argues that the Commission should reject the Company's as-filed increase and adopt the OCA's recommendations. OCA Main Brief, p. 97.

I&E merely stated that it did not incorporate any of the on-the-record public input hearing testimony into its testimony in this proceeding. I&E Main Brief, p. 93.

We have reviewed and fully considered the testimony of the four public input hearing witnesses in reaching the recommendations contained in this recommended decision.

X. <u>ORDER</u>

THEREFORE,

IT IS RECOMMENDED:

1. That UGI Utilities, Inc. – Electric Division shall not place into effect the rates contained in Supplement Nos. 6 and 2S to Tariffs Electric - Pa. P.U.C. Nos. 6 and 2S, which have been found to be unjust and unreasonable and therefore, unlawful.

2. That UGI Utilities, Inc. – Electric Division shall be permitted to file tariffs, tariff supplements or tariff revisions containing proposed rates, rules and regulations to increase annual revenues in the total amount of not more than $2,789,000.00.

3. That UGI Utilities, Inc. – Electric Division's tariffs, tariff Supplements or tariff revisions may be filed on less than statutory notice, and pursuant to the provisions of 52 Pa. Code §§53.31 and 53.101, may be filed to be effective on at least one day's notice after entry of the Commission's Final Order, for service rendered on and after the date of entry of the Commission's Final Order in this matter.

4. That UGI Utilities, Inc. – Electric Division shall refund to its ratepayers the 2018 tax savings resulting from the Tax Cuts and Jobs Act of 2017.

5. That, within sixty (60) days of the Commission's Final Order, UGI Utilities, Inc. – Electric Division, shall file with the Commission a compliance filing demonstrating that it has complied with Ordering Paragraph No. 4 above, which filing shall demonstrate the total amount refunded, the manner of refund, and the amount of refund per class of ratepayer.

6. That UGI Utilities, Inc. – Electric Division is permitted to retain its Act 40 savings in the amount of $75,400 for the uses as specified by UGI Utilities, Inc. – Electric Division in its submissions in this case.

7. That UGI Utilities, Inc. – Electric Division shall comply with all directives, conclusions and recommendations in this Recommended Decision that are not the subject of individual ordering paragraphs as fully as if they were the subject of specific ordering paragraphs.

8. That UGI Utilities, Inc. – Electric Division shall allocate the authorized increase in operating revenues to each customer class and rate schedule within each class in the manner set forth in the Recommended Decision.

9. That, upon acceptance and approval by the Commission of the tariff supplements filed by UGI Utilities, Inc. – Electric Division, consistent with its Final Order, the investigation at Docket R-2017-2640058 be marked closed.

10. That the complaint filed by the Office of Consumer Advocate in this proceeding at Docket Number C-2018-2646178 be dismissed and marked closed.

11. That the complaint filed by the Office of Small Business Advocate in this proceeding at Docket No. C-2018-2647268 be dismissed and marked closed.

12. That the complaint filed by Matthew Josefwicz in this proceeding at Docket Number C-2018-2647099 be dismissed and marked closed.

13. That the complaint filed by Barbara McDade in this proceeding at Docket Number C-2018-3000056 be dismissed and marked closed.

Date: August 20, 2018

/s/
Steven K. Haas
Administrative Law Judge

/s/
Andrew M. Calvelli
Administrative Law Judge

APPENDIX

A

Office of Administrative Law Judge Recommended Decision

TABLE I

UGI Utilities, Inc. - Electric Division

INCOME SUMMARY

R-2017-2640058

($000s)

		Pro Forma Present Rates (Revised) [1]	OALJ Adjustments [2]	OALJ Pro Forma Present Rates	OALJ Revenue Increase	Total Allowable Revenues	Check	
		(1)	(2)	(3) = (1) + (2)	(4)	(5) = (3) + (4)		
1.	Operating Revenue	89,092	0	89,092	2,789	91,881	91,881	
2.	Expenses:							
3.	O & M Expense	72,028	(522)	71,506	31	71,537	71,537	
4.	Depreciation	5,869	(225)	5,644	0	5,644	5,644	
5.	Taxes, Other	6,158	0	6,158	163	6,321	6,321	
6.	Income Taxes:							
7.	State	(28)	110	82	259	341	341	
8.	Federal	335	208	543	491	1,034	1,034	
9.	Total Expenses	84,362	(429)	83,933	944	84,877	84,877	83,308
10.	Net Inc. Available for Return	4,730	429	5,159	1,844	7,003	7,004	
11.	Rate Base	119,272	(26,625)	92,647	0	92,647	92,647	
12.	Rate of Return	3.97%		5.57%		7.5585%	7.56%	
	(1) Company Main Brief							
	(2) From Table II Adjustments							
				Revenue Change (%):	3.13%			
				% of requested Increase	36.20%			

B

Office of Administrative Law Judge Recommended Decision

TABLE I(A)

UGI Utilities, Inc. - Electric Division

RATE OF RETURN

R-2017-2640058

		Structure	Cost	After-Tax Weighted Cost	Effective Tax Rate Complement	Pre-Tax Weighted Cost Rate
		(1)	(2)	[(3)=(1)x(2)]	(4)	[(5)=(3)x(4)]
1.	Total Cost of Debt			2.15646200%		2.15646200%
2.	Long-term Debt	45.98%	4.69%	2.15646200%		2.16%
3.	Short-term Debt	0.00%	0.00%	0.00000000%		0.00%
4.	Preferred Stock	0.00%	0.00%	0.00000000%	0.711079	0.00%
5.	Common Equity	54.02%	10.00%	5.40200000%	0.711079	7.60%
6.		100.00%		7.55846200%		9.7565%
7.	Pre-Tax Interest Coverage	4.52				
8.	After-Tax Interest Coverage	3.51				
9.	Tax Rate Complement (1-(21%+(9.99% X (1-21%))	71.10790%				

C

Office of Administrative Law Judge Recommended Decision

TABLE I(B)

UGI Utilities, Inc. - Electric Division

REVENUE FACTOR

R-2017-2640058

1.	100%	1.00000000
	Less:	
2.	Uncollectible Accounts Factor (*)	0.01107000
3.	PUC, OCA, OSBA Assessment Factors (*)	0.00000000
4.	(Line 1-(Line 2 + Line 3)	98.8930%
5.	Gross Receipts Tax	0.05900000
6.	Other Tax Factors	0.00000000
7.	(Line 5 + Line 6)	5.9000%
8.	Effective GRT/CST (Line 7 x Line 4)	5.8347%
9.	Factor after GRT and CST (Line 4 - Line 8)	92.993%
10.	State Income Tax Rate (*)	9.9900%
11.	Effective State Income Tax Rate	9.2900%
12.	Factor After Local and State Taxes	83.7030%
13.	Federal Income Tax Rate (*)	21.00%
14.	Effective Federal Income Tax Rate	17.578%
15.	Revenue Factor (100% - Effective Tax Rates)	66.1254%

D

Office of Administrative Law Judge Recommended Decision

TABLE II

UGI Utilities, Inc. - Electric Division

SUMMARY OF ADJUSTMENTS

R-2017-2640058

($000s)

	Adjustments	Rate Base	Revenues	Expenses	Depreciation	Taxes-Other	State Income Tax	Federal Income Tax
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	RATE BASE:							
2.	CWC:							
3.	Int. & Div. (Table IV)	56						
4.	Taxes (Table V)	(50)						
5.	O & M (Table VI)	(35)						
6.	Excess ADIT	(11,213)						
7.	Operation Center	(15,352)						
8.	Customer Deposits	(31)						
9.	REVENUES:							
							0	0
10.	EXPENSES:							
11.	Env. Remediation			(139)			14	26
12.	Rate Case Expense			(90)			9	17
13.	O/S Services-Misc			(91)			9	17
14.	Stock Options/Awards			(189)			19	36
15.	Operations Center			(13)	(225)		1	3
16.				0			0	0
17.				0			0	0
18.				0			0	0
				0			0	0
				0			0	0
				0			0	0
				0			0	0
19.	TAXES:							
20.	Interest Synchronization (Table III)						58	109
21.	TOTALS	(26,625)	0	(522)	(225)	0	110	208

E

Office of Administrative Law Judge Recommended Decision

TABLE III

UGI Utilities, Inc. - Electric Division

INTEREST SYNCHRONIZATION

R-2017-2640058

		Amount $
1.	Company Rate Base Claim (UGI Electric Main Brief)	119,272
2.	ALJ Rate Base Adjustments (From Table II)	(26,625)
3.	ALJ Rate Base (Line 1 - Line 2)	92,647
4.	Weighted Cost of Debt (From Table IA)	2.156462%
5.	ALJ Interest Expense (Line 3 x Line 4)	1,998
6.	Company Claim (UGI Electric Main Brief)	2,576
7.	Total ALJ Adjustment (Line 6 - Line 5)	578
8.	Company Adjustment	0
9.	Net ALJ Interest Adjustment (Line 7 - Line 8)	578
10.	State Income Tax Rate	9.99%
11.	State Income Tax Adjustment (Line 9 x Line 10) (Flow to Table II)	58
12.	Net ALJ Adjustment for F.I.T. (Line 9 - Line 11)	520
13.	Federal Income Tax Rate	21.00%
14.	Federal Income Tax Adjustment (Line 12 x Line 13) (Flow to Table II)	109
	(1) Company Main Brief	

F

	TABLE IV UGI Utilities, Inc. - Electric Division CASH WORKING CAPITAL - Interest and Dividends R-2017-2640058				
	Accrued Interest			Preferred Stock Dividends	
		Long-Term Debt	Short-Term Debt		
	(1)	(2)	(3)	(4)	(5)
1.	Company Rate Base Claim	$119,272	$0	Company Rate Base Claim	$0
2.	ALJ Rate Base Adjustments	($26,625)	$0	ALJ Rate Base Adjustments	$0
3.	ALJ Rate Base	$92,647	$0	ALJ Rate Base	$0
4.	Weighted Cost of Debt	2.156462%	0.00%	Weighted Cost Pref. Stock	0.00%
5.	ALJ Annual Interest Exp.	$1,998	$0	ALJ Preferred Dividends	$0
6.	Average Revenue Lag Days (1)	55.9	55.9	Average Revenue Lag Days (1)	55.9
7.	Average Expense Lag Days (1)	91.25	0.0	Average Expense Lag Days (1)	0.0
8.	Net Lag Days	-35.3	55.9	Net Lag Days	55.9
9.	Working Capital Adjustment				
10.	ALJ Daily Interest Exp.	$5	$0	ALJ Daily Dividends	$0
11.	Net Lag Days	-35.3	55.9	Net Lag Days	55.9
12.	ALJ Working Capital	($193)	$0		$0
13.	Company Claim (1)	($249)	$0	Company Claim (1)	$0
14.	ALJ Adjustment	$56	$0		$0
15.	Total Interest & Dividend Adj.	$56			
	(1) Company Main Brief.				

G

TABLE V
UGI Utilities, Inc. - Electric Division
CASH WORKING CAPITAL -TAXES
R-2017-2640058

	Description (1)	Company Proforma Tax Expense Present Rates (2)	ALJ Adjustments (3)	ALJ Pro forma Tax Expense Present Rates (4)	ALJ Allowance (5)	ALJ Adjusted Taxes at Present Rates (6)	Daily Expense (7)	Net Lead/ Lag Days (8)	Accrued Tax Adjustment (9)	
1.	PUC Assessment	$327	$0	$327		$327	$0.90	0.00	$0	
2.	Public Utility Realty	$449	$0	$449		$449	$1.23	25.93	$32	
3.	Capital Stock Tax	$164	$0	$164		$164	$0.45	-34.57	($16.0)	
4.		$0	$0	$0		$0	$0.00	0.00	$0	
5.		$0	$0	$0		$0	$0.00	0.00	$0	
6.		$0	$0	$0		$0	$0.00	0.00	$0	
7.	State Income Tax	($28)	$110	$82	$260	$342	$0.94	26.43	$25	1.69
8.	Federal Income Tax	$335	$208	$543	$492	$1,035	$2.84	21.18	$60	4.27
		$1,247	$318	$1,565	$752	$2,317			$101	
9.							ALJ Allowance		101	
10.							Company Claim (1)		151	
11.							ALJ Adjustment		(50)	

(1) Company Main Brief

H

TABLE VI

UGI Utilities, Inc. - Electric Division

CASH WORKING CAPITAL -- O & M EXPENSE

R-2017-2640058

	Description	Company Pro forma F.T.Y. Expense	ALJ	ALJ Pro forma Expenses	Lag Days	Lag Dollars
	(1)	(2)	(3)	(4)	(5)	(6)
1.	Service Company	$0	$0	$0	0.00	$0
2.	Chemicals	$0	$0	$0	0.00	$0
3.	Group Insurance	$0	$0	$0	0.00	$0
4.	Insurance, Other	$0	$0	$0	0.00	$0
5.	Labor	$5,375	$0	$5,375	12.00	$64,500
6.	Leased Equip./Rent	$0	$0	$0	0.00	$0
7.	Leased Vehicles	$0	$0	$0	0.00	$0
8.	Miscellaneous	$16,517	($522)	$15,995	15.06	$240,885
9.	Natural Gas	$0	$0	$0	0.00	$0
10.	Power	$49,093	$0	$49,093	33.33	$1,636,270
11.	Purchased Water	$0	$0	$0	0.00	$0
12.	Telephone	$0	$0	$0	0.00	$0
13.	Waste Disposal	$0	$0	$0	0.00	$0
14.	Post Retirement Benefits	$0	$0	$0	0.00	$0
15.	Pensions	$0	$0	$0	0.00	$0
16.		$70,985	($522)	$70,463	0.00	$1,941,655
17.	ALJ Average Revenue Lag (1)	55.9				
18.	Less: ALJ Avg. Expense Lag	27.5				
19.	Net Difference	28.4	Days			
20.	ALJ Pro forma					
22.	O & M Expense per Day	$193				
23.	ALJ CWC for O & M	$5,487				
24.	Less: Company Claim (2)	$5,522				
25.	ALJ Adjustment	($35)				

(1) Company Revised Exhibit A - Schedule C-4 Page 2 of 9

(2) [illegible]