BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION

NASHVILLE, TENNESSEE

January 11, 2019

IN RE:	)	
	)	
PETITION OF CHATTANOOGA GAS	)	
COMPANY FOR APPROVAL OF AN	)	
ADJUSTMENT IN RATES AND TARIFF; THE	)	**DOCKET NO.**
TERMINATION OF THE AUA MECHANISM	)	**18-00017**
AND THE RELATED TARIFF CHANGES AND	)	
REVENUE DEFICIENCY RECOVERY; AND AN	)	
ANNUAL RATE REVIEW MECHANISM	)	

ORDER

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This matter came before Chair Robin L. Morrison, Vice Chair Kenneth C. Hill and Commissioner David F. Jones of the Tennessee Public Utility Commission (the "Commission" or "TPUC"), the voting panel assigned to this docket, during a regularly scheduled Commission Conference held on October 15, 2018, for consideration of the *Chattanooga Gas Company Petition for Approval of an Adjustment in Rates and Tariff; the Termination of the AUA Mechanism and the Related Tariff Changes and Revenue Deficiency Recovery; and an Annual Rate Review Mechanism* ("*Petition*") filed on February 15, 2018 by Chattanooga Gas Company ("CGC" or "Company"). In its *Petition*, CGC seeks Commission approval to adjust rates for natural gas service, terminate the AUA mechanism and reinstitute the WNA mechanism for R-1 and C-1 customers and recover an associated customer revenue deficiency, and opt in to an annual rate review under the alternative regulatory methods statute.

I. BACKGROUND AND *PETITION*

CGC is a public utility authorized to transport, distribute and sell natural gas in the Chattanooga area, Cleveland, Tennessee, and other areas within Hamilton and Bradley counties.[1] CGC serves over 57,000 residential households and approximately 8,500 commercial and industrial customers.[2] CGC is a wholly-owned subsidiary of Southern Company Gas, a natural gas company offering service in Florida, Georgia, Illinois, New Jersey, Maryland and Virginia.[3] CGC's parent company, Southern Company Gas, which was formerly known as AGL resources, was acquired by the Southern Company in 2016. Overall, the Southern Company provides natural gas and electric services to more than 9 million customers in 18 states.[4]

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[1] *Chattanooga Gas Company Petition for Approval of an Adjustment in Rates and Tariff; the Termination of the AUA Mechanism and the Related Tariff Changes and Revenue Deficiency Recovery; and an Annual Rate Review Mechanism*, p. 2 (February 15, 2018).
[2] CGC Monthly Report, on file with Commission (May 31, 2018).
[3] *Petition*, p. 2 (February 15, 2018).
[4] *Id.*

Prior to the instant case, CGC's most recent rate case was Docket No. 09-00183, filed in 2009.[5] The Company states that without the relief sought, it projects to realize a rate of return of 4.61%. Further, CGC desires to meet new growth and continue providing adequate natural gas in compliance with state and federal compliance standards. CGC specifically requests in its *Petition*, a rate of return of 7.83% and revenue increase of $6,995,194 based on an Attrition Year of July 1, 2018 to June 30, 2019.[6] CGC states that the growth in Hamilton and Bradley counties, such as the addition of Volkswagen, Wacker, and Amazon facilities, along with the commercial districts and residential developments that follow them, support the requested 29.8 million in capital budget expenditures. The Company also states that these capital expenditures will allow it to meet Commission safety compliance requirements and to improve the reliability of its system.[7] The *Petition* also states that all known and measurable impacts of the Tax Cuts and Jobs Act ('the Act"), which became effective January 1, 2018, are incorporated into the filing and that the Commission's directives in Docket 18-00001[8] are accomplished by incorporation of the tax effects into this proceeding.[9]

CGC also requests in its *Petition* to terminate the Alignment and Usage Adjustment ("AUA") and revert the R-1 and C-1 AUA customers back to the Weather Normalization Adjustment ("WNA"). As part of this request, the Company seeks to recover nearly $2 million[10] of unrecovered customer AUA revenue through the Interruptible Margin Credit Rider

[5] *Id.* at 5.
[6] *Id.* at 3-5.
[7] *Id.* at 5-8.
[8] The Commission placed certain requirements on the five largest utilities, which includes CGC, following its investigation of the impacts of Federal Tax reform on public utility revenues. *See*, *In Re: Tennessee Public Utility Commission Investigation of Impacts of Federal Tax Reform on the Public Utility Revenue Requirements*, Docket No. 18-00001, Order Approving Staff Report and Recommendations, (October 1, 2018).
[9] *Petition*, at 8-9.
[10] The amount of the deficiency at the time of filing of the *Petition* was $1.9 million, but at the time of the Hearing, the deficiency had been reduced to $1.4 million before interest. *See* Transcript of Hearing, Vol. II C, p. 209 (August 21, 2018).

("IMCR").[11]

CGC also requests in its *Petition* to opt into an annual rate review under the alternative regulatory methods ("ARM") statute, pursuant to Tenn. Code Ann. § 65-5-103(d)(1)(A).[12] Subsequently, however, the Company gave notice of its withdrawal of its request for approval of its ARM.[13]

Along with its *Petition*, CGC filed Minimum Filing Guidelines, a revised Tariff and the pre-filed direct testimony and exhibits of CGC's witnesses: Wendell Davis, Heath Brooks, Rachel Johnson, James Vander Weide, Dan Yardley, Dane Watson, Michael Adams, Archie Hickerson, Gregory Becker and John Cogburn. The Company also filed a *Proposed Protective Order* and a *Proposed Procedural Schedule* on the same date as the filing of its *Petition.*

II. TRAVEL OF THE CASE

The Consumer Protection and Advocate Division of the Attorney General ("Consumer Advocate") filed a *Petition to Intervene* on March 9, 2018. The Chattanooga Regional Manufacturers Association ("CRMA") filed a *Petition for Leave to Intervene* on March 8, 2018. The Consumer Advocate also filed a *Proposed Agreed Protective Order* on March 2, 2018 and a *Proposed Procedural Schedule* on March 9, 2018.

The Hearing Officer issued the *Agreed Protective Order* on March 13, 2018. Subsequently, the Hearing Officer entered an *Order Granting the Petition to Intervene Filed By the Consumer Advocate*, an *Order Granting the Petition to Intervene Filed By the Chattanooga Regional Manufacturers Association*, and an *Order Establishing Procedural Schedule* on March 23, 2018. The parties commenced the submission of discovery requests and responses. During

[11] *Petition*, p. 8-16.
[12] *Id.* at 16-19.
[13] *Chattanooga Gas Company Notice of Withdrawal from Further Consideration in this Docket of its Requests for Approval of its Proposed Alternative Regulatory Methods* (April 10, 2018).

the discovery process, CGC submitted revised testimony for John M. Cogburn, Archie R. Hickerson and Wendell Dallas. In addition, CGC submitted the pre-filed testimony of Gary Tucker in substitution for the pre-filed testimony of Rachel Johnson.[14] In responding to certain discovery requests submitted by the Consumer Advocate, CGC identified errors on certain schedules and subsequently in late May 2018 submitted revised schedules correcting these errors. This revision maintains the requested overall return of 7.83% with a revised rate increase of approximately $6.2 million.[15]

The Consumer Advocate submitted pre-filed testimony of its rebuttal witnesses, Christopher C. Klein, Ph.D., David Dittemore and William H. Novak. CRMA filed the direct testimony of its witnesses, Randy Carter and David Klinger on July 3, 2018. CGC submitted rebuttal testimony of Wendell Dallas, Dr. James H. Vander Weide, Michael J. Morely, Michael J. Adams, John M. Cogburn, James Barvie, Jacob A. Ziliak, Heath J. Brooks, Gregory Macleod, Gary A. Tucker, Deborah A. Santolin, Daniel P. Yardley, Christopher Bellinger and Archie R. Hickerson on August 3, 2018. In addition, CGC submitted the pre-filed direct testimony of Deborah Santolin, substituting for the pre-filed direct testimony of Gregory Becker on the same date.

On July 26, 2018, the Hearing Officer issued a *Notice of Public Comment* providing members of the public an opportunity to provide oral comment in a public meeting presided by the Commission Chair at the University Center at the University of Tennessee-Chattanooga. An *Amended Notice of Public Comment* was filed on August 3, 2018 to correct the address of the University Center. An additional notice was provided upon the filing of the *Re-Notice of Public*

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[14] Gary Tucker substituted as a witness for Rachel D. Johnson, who had originally submitted pre-filed direct testimony but subsequently left the employment of CGC. Mr. Tucker worked with Ms. Johnson and was able to adopt Ms. Johnson's testimony and thereby substitute for her as a witness. *See* Transcript of Hearing, Vol. I C, pp. 214-215 (August 20, 2018).

[15] Transcript of Hearing, Vol. I C, p. 219 (August 20, 2018).

Comment on August 7, 2018. At the Public Comment Meeting held by the Commission on August 9, 2018, customers of CGC provided statements regarding their experiences with CGC, the services provided by the Company, and the rates proposed in the *Petition.* Additionally, written comments were filed by members of the public. On August 15, 2018, CGC filed copies of the legal notices concerning the Hearing date and the proposed rate changes that were published in appropriate newspapers of general circulation, as required by TPUC Rule 1220-4-1-.05. CGC filed additional published legal notices concerning the Hearing date and proposed rate changes on August 28, 2019.

III. THE HEARING AND POST HEARING FILINGS

The Hearing on the merits of the *Petition* commenced in Nashville and was held on August 20, August 21 and August 22, 2018, as noticed by the Commission on August 10, 2018. Participating in the Hearing were the following parties and their respective counsel:

> Chattanooga Gas Company – **J.W. Luna**, Esq., Luna Law Group, PLLC, 333 Union Street, Suite 300, Nashville, Tennessee 37201; **Floyd R. Self**, Esq., Berger Singerman LLP, 313 North Monroe Street, Suite 301, Tallahassee Florida 32301.
>
> Consumer Protection and Advocate Division – **Wayne M. Irvin**, Esq. and **Daniel P. Whitaker, III**, Esq., Office of the Tennessee Attorney General, Public Protection Section, Consumer Protection and Advocate Division, P.O. Box 20207, Nashville, Tennessee 37202-0207.
>
> Chattanooga Regional Manufacturers Association – **Henry Walker**, Esq., Bradley Arant Boult Cummings, LLP, 1600 Division Street, Suite 700, Nashville, Tennessee 37203.

The panel heard testimony from CGC witnesses, Wendell Dallas, Dr. James H. Vaner Weide, Gregory Macleod, Dane Watson, Michael Adams, Heath Brooks, Gary Tucker, Michael J. Morley, Deborah Santolin, Jacob A. Ziliak, Christopher Bellinger, Daniel P. Yardley, Archie Hickerson, John Cogburn, and James Garvie. The Consumer Advocate presented witness testimony from William H. Novak, David Dittemore, and Dr. Christopher C. Klein. The parties stipulated to the testimony of CRMA witnesses David Klinger and Randy Carter, who were made available for questions from the Commissioners or Commission Staff.[16] On each day of the Hearing, the panel solicited comments from the public, but no member of the public sought to be heard.[17]

The parties waived closing arguments at the Hearing in favor of filing Post-Hearing Briefs. The Hearing Officer issued an *Order Establishing Post-Hearing Procedural Schedule* on August 27, 2018. CGC filed updated information requested by Commission Staff during the Hearing on August 28, 2018. CGC, the Consumer Advocate and CRMA filed their Post-Hearing Briefs on September 10, 2018.

The Commission convened on October 15, 2018, during a regularly scheduled Commission Conference, which was duly noticed on October 5, 2018. The voting panel assigned to this matter deliberated, announced findings and conclusions upon consideration of the entire record, including all exhibits and the testimony of witnesses, and voted unanimously in favor of the finding and conclusions.[18]

IV. CRITERIA FOR ESTABLISHING JUST AND REASONABLE RATES

The Commission has jurisdiction to set the rates of public utilities operating in the State of Tennessee.[19] In setting rates for public utilities, the Commission balances the interests of the utilities subject to its jurisdiction with the interests of Tennessee consumers, i.e., it is obligated to fix just and reasonable rates.[20] A public utility possesses the burden of proof on a petition to approve an adjustment of its rates.[21]

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[16] Transcript of Hearing, Vol. III A, pp. 17-18 (August 22, 2018).
[17] Transcript of Hearing, Vol. I A, p. 7 (August 20, 2018); Transcript of Hearing, Vol. II A, p. 5, (August 21, 2018); Transcript of Hearing, Vol. III A, p. 70 (August 22, 2018).
[18] Transcript of Commission Conference, pp. 50-58 (October 15, 2018).
[19] Tenn. Code Ann. §§ 65-4-101(6); 65-4-104; 65-5-101, *et seq.*
[20] Tenn. Code Ann. § 65-5-101 (2018).
[21] Tenn. Code Ann. § 65-5-103(a) (2018).

The Commission must also approve a rate that provides the regulated utility an opportunity to earn a just and reasonable return on its investments.[22] The Commission considers petitions for a rate increase, filed pursuant to Tenn. Code Ann. § 65-5-103, in light of the following criteria:

1. The investment or rate base upon which the utility should be permitted to earn a fair rate of return;

2. The proper level of revenues for the utility;

3. The proper level of expenses for the utility; and

4. The rate of return the utility should earn.

There is no single, precise measure of the fair rate of return a utility is allowed an opportunity to earn. Therefore, the Commission must exercise its judgment in making an appropriate determination. The Commission, however, is not without guidance in exercising its judgment:

> 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.[23]

In addition, the United States Supreme Court has determined that regulated utilities are entitled to a return that is "just and reasonable."[24] The rate a utility is permitted to charge should enable it "to operate successfully, to maintain its financial integrity, to attract capital, and to

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[22] *Bluefield Water Works and Improvement Company v. Public Service Commission of the State of West Virginia*, 262 U.S. 679, 43 S.Ct. 675 (1923).
[23] *Id.* at 692-693; *see also Duquesne Light Co. v. Barasch*, 488 U.S. 299, 310 (1989).
[24] *Federal Power Comm'n v. Hope Natural Gas Co.* 320 U.S. 591, 605 (1944).

compensate investors for the risks assumed."[25]

The general standards to be considered in establishing the fair rate of return for a public utility are financial integrity, capital attraction and setting a return on equity that is commensurate with returns investors could achieve by investing in other enterprises of corresponding risk.[26] Thus, rates established must allow a company to cover its operating expenses and provide an opportunity to earn a fair rate of return on a company's investment used to provision service. Further, a rate should be reasonable not only when it is first established, but also for a reasonable time thereafter.[27]

The Commission has wide discretion with regard to setting rates. The Commission may "utilize an historical test period, a forecast period, a combination of these where necessary, or any other accepted method of rate making necessary to give a fair rate of return."[28] The Supreme Court noted in *Powell Tel. Co. v. Tennessee Pub. Serv. Comm'n* that, "there is no statutory nor decisional law that specifies any particular approach that must be followed by the Commission. Fundamentally, the establishment of just and reasonable rates is a value judgment to be made by the Commission in the exercise of its sound regulatory judgment and discretion."[29] Accordingly, the Commission is not limited to adopting any particular approach or to adopting a specific test period in making known and measurable adjustments to produce just and reasonable rates.[30]

Applying these principles and criteria, and upon consideration of the entire record, including all exhibits and the testimony of the witnesses, the panel made the following findings and conclusions.

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[25] *Id.*
[26] *Id.* at 603.
[27] *McCardle v. Indianapolis Water Co.*, 272 U.S. 400, 408-409, 47 S.ct 144, 148 (1926); *Southern Bell Telephone & Telegraph Co. v. Tennessee Pub. Serv. Comm'n*, 304 S.W2d 640, 647 (1944).
[28] *Powell Tel. Co. v. Tennessee Pub. Serv. Comm'n,* 660 S.W.2d 44, 46 (Tenn.1983); *Am. Ass'n of Retired Persons v. Tennessee Pub. Serv. Comm'n,* 896 S.W.2d 127, 133 (Tenn.Ct.App.1994).
[29] *Powell*, 660 S.W.2d at 46.
[30] *CF Industries v. Tennessee Pub. Serv. Comm'n,* 599 S.W.2d 536, 543 (Tenn. 1980).

V. Findings and Conclusions

A. Test Period and Attrition Period

In a rate case, the Commission must decide the appropriate test period and attrition period to be utilized in the calculation of rates. Selecting the test period has the stated purpose of providing an indication of the rate of return that will be produced during the period under the existing rate structure in the reasonably foreseeable future. The test period takes into consideration the estimated effect of calculations related to revenues, expenses, and investments. As previously stated, the Commission has wide discretion with regard to this decision.

The Company selected a historical test period of the twelve months ending June 30, 2017 and an attrition period of the twelve months ending June 30, 2019. CGC utilizes a combination of historical booked amounts with normalizing adjustments and historical growth rates, plus its annual budgeted process for forecasting attrition period revenue, expense, and rate base amounts.

The Consumer Advocate chose a test period of the twelve months ending December 31, 2017 and an attrition period of the twelve months ending December 31, 2019. The Consumer Advocate develops its attrition period revenue, expense and rate base amounts based on historical test period averages of booked amounts with normalizing adjustments. The Consumer Advocate then applies historical growth rates along with a national consumer price index to arrive at attrition period amounts.

The Commission noted that, in general, the most recent normalized test period is the most appropriate base to be used in forecasting because recent results are generally more reflective of future outcomes. Applying this principle to the instant case, the panel found the later test period of the twelve months ending December 31, 2017 utilized by the Consumer Advocate was the appropriate test period and, accordingly, voted unanimously to adopt it. The panel also voted unanimously to adopt the Company's attrition period of the twelve months ending June 30, 2019, finding that the evidence in the record better supports this attrition period.

B. REVENUES (INCLUDING COST OF GAS AND MARGIN CALCULATION)

Total Operating Margin consists of the sum of Base Revenues, Other Revenues and Allowance for Funds Used during Construction (AFUDC), less the Cost of Gas. Table 1 below summarizes the differences between the Company's and the Consumer Advocate's forecasted Attrition Period Total Operating Margin, as well as that adopted by the voting panel of the Commission. A discussion of each component follows.

Table 1

	Company[31]	Consumer Advocate[32]	Commission Panel
Operating Revenues:			
Gas Sales Revenue	$69,644,006	$74,740,093	$70,473,655
Other Revenue	612,767	675,121	675,121
AFUDC	900,355	340,214	823,951
Total Operating Revenues	**$71,157,128**	**$75,755,428**	**$71,972,727**
Less Cost of Gas	37,973,978	42,765,421	38,611,525
Total Operating Margin	**$33,183,150**	**$32,990,007**	**$33,361,202**

B(1). GAS SALES REVENUES

Gas sales revenues are forecasted by adjusting the test period billing determinants for the impacts of normal weather, annualized customer usage, and customer growth to arrive at the attrition period billing determinants. Attrition period billing determinants are then multiplied by the current (existing) base tariff rates and the appropriate Purchased Gas Adjustment rate to produce the attrition period gas sales revenues at current rates.

[31] CGC's Updated Response to TPUC's Workbook Request, Schedule 3 (August 28, 2018).
[32] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule7 (August 24, 2018).

CGC used the twelve months ended June 30, 2017 as its test period, forecasting gas sales revenues through its chosen attrition period, the twelve months ending June 30, 2019. The Company's Witness Heath Brooks testified that the weather normalization adjustment is computed by using a multi-linear regression methodology[33] to determine heating degree days and then another regression analysis to compute the appropriate WNA formula factors. Annualized customer usage and customer growth for the homogenous residential and commercial customer classes is based on consumption equations, using a multi-step process. Mr. Brooks uses a residential growth factor of 1.27% and a commercial growth factor of 0.46%. Other customer classes are analyzed based on a customer's foreseeable usage and demand requirements through the attrition period.[34] The Company then multiplies the forecasted attrition period billing determinants by the current tariff rates to arrive at its gas sales revenue forecast.[35]

The Consumer Advocate elected to use the twelve months ended December 31, 2017 as its test period, citing the fact that it contains more recent information than the test period used by the Company. The Consumer Advocate then forecasts gas sales revenues through its attrition period, the twelve months ending December 31, 2019. Consumer Advocate Witness William Novak uses a simple linear regression calculation of heating degree days to sales per bill to normalize usage.[36] Mr. Novak testified that this is the same weather normalization methodology historically adopted by this Commission in prior rate cases.[37] Mr. Novak used this same methodology to compute the proposed WNA formula factors. Mr. Novak computed customer growth for the residential and commercial classes by calculating the 2-year historical average of

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[33] This methodology uses the Company's proprietary software program Forecast Pro.
[34] Heath J. Brooks, Pre-filed Direct Testimony, p. 3 (February 15, 2018).
[35] *Id.* at 4-5.
[36] Normal weather is determined based on a thirty (30) year average. The Consumer Advocate uses the 30-year period ended December 31, 2017, the end of its test period.
[37] William H. Novak, Pre-filed Direct Testimony, p. 8 (July 3, 2018).

added customers. For industrial customers, Mr. Novak utilized the test period numbers as representative of the attrition period. Customer usage for the residential and commercial classes were normalized, while industrial customer sales volumes were individually analyzed. Mr. Novak then multiplies his forecasted attrition period billing determinants by the current tariff rates to arrive at his gas sales revenue forecast. [38]

After reviewing the record and parties' calculations, the panel applied its adopted test period of the twelve months ended December 31, 2017 and the twelve months ending June 30, 2019 for the forward looking attrition period. Further, the panel adopted the average normalized usage per customer as calculated by the Consumer Advocate for the residential and commercial classes and the Consumer Advocate's individual customer analysis of forecasted usage for the industrial customers, finding both to be reasonable, particularly since the factors were based on historical data.

In addition, the panel found that the weather normalization adjustment methodology utilized by the Consumer Advocate is the more appropriate methodology, as it is a simple regression that is straight forward and can be easily replicated and is a methodology that has been historically adopted and utilized by the Commission. The WNA methodology utilized by CGC consists of a multi-step regression analysis using proprietary software that cannot be verified or recomputed without use of the software.

The voting panel voted unanimously to terminate the Alignment and Usage Mechanism (AUA) as recommended by the parties and to reinstate the Weather Normalization Adjustment (WNA) for the R-1 and C-1 rate classes, consistent with the simple regression methodology proposed by the Consumer Advocate and adjusted for the attrition period ending June 30, 2019. Thereafter, the panel voted unanimously to adopt attrition period Gas Sales Revenues of

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[38] *Id.* at 10-11. *See also* Willian H. Novak Revenue Workpapers.

$70,473,655. The panel arrived at $70,473,655 based on the sum of amounts it unanimously adopted for:

Residential Revenues	$34,303,189;
Multi-Family Housing Revenues	$ 66,956;
Commercial C-1 Revenues	$ 7,594,595;
Commercial C-2 Revenues	$20,503,715;
Industrial F-1/T-2 Revenues	$ 3,085,648;
Industrial I-1 Revenues	$ 185,059;
Industrial T-1 Revenues	$ 1,082,153;
Industrial T-1/T-2 Revenues	$ 1,709,871;
Industrial T-3 Revenues	$ 1,800,158; and,
Special Contract Revenues	$ 142,310.

B(2). OTHER REVENUES

Other Revenues is a category consisting primarily of forfeited discounts and miscellaneous service charges. CGC forecasts Other Revenues based upon its budget and historical trends, resulting in a total of $612,767 for the attrition period.[39] The Consumer Advocate used a historical four year average as its forecast, resulting in an attrition period amount of $675,121.[40]

The panel found that the use of an historical four year average is a reasonable methodology for calculation of Other Revenues, as it uses known amounts as its basis as opposed estimated amounts. Thereafter the panel unanimously voted to adopt $675,121 for attrition period Other Revenues.

B(3). ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION

Allowance for Funds Used during Construction ("AFUDC") is a component of construction costs representing the net cost of funds borrowed and a reasonable return on those funds used during construction. The calculation of AFUDC is a function of the forecasted

[39] Heath J. Brooks, Pre-filed Direct Testimony, pp. 13-14 and Workpapers, (February 15, 2018).
[40] William H. Novak, Pre-filed Direct Testimony, p. 11, (July 3, 2018).

balance of Construction Work in Progress ("CWIP") for the attrition period multiplied by the proposed weighted average cost of capital for the attrition period.

CGC estimated AFUDC by multiplying its forecasted balance of CWIP for the attrition period by the Company's proposed weighted average cost of capital for the attrition period.[41] The Consumer Advocate forecasted AFUDC using a five year average of AFUDC from 2013 to 2018.[42]

The panel applied its determined weighted cost of capital of 7.12% to its calculated thirteen month average direct CWIP balance of $11,576,245, exclusive of allocated CWIP of $881,194. Therefore, the panel unanimously adopted $823,951 for Allowance for Funds Used During Construction for the attrition period.

B(4). Cost of Gas

Since Gas Costs are recovered through the Purchased Gas Adjustment mechanism, they are not included in the calculation of the Revenue Requirement. It is therefore necessary to deduct the computed cost of gas sales projected for the attrition period from Total Revenues to arrive at Total Operating Margin.

CGC used the wholesale futures price of natural gas as reported by NYMEX on January 3, 2018 as the basis to project an attrition period PGA rate, and using a regression equation developed with historical NYMEX prices and historical CGC retail prices. This rate is then applied to the attrition period billing determinants.[43] The Consumer Advocate prices out gas costs by multiplying its attrition period billing determinants by CGC's approved December 31, 2017 PGA tariff rate.[44]

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[41] Gary Tucker, Pre-filed Direct Testimony, p. 6 (May 11, 2018).
[42] Transcript of Hearing, Vol. III A, pp. 29-30 (August 22, 2018).
[43] Heath J. Brooks, Pre-filed Direct Testimony, p. 14 (February 15, 2018).
[44] William H. Novak, Pre-filed Direct Testimony, pp. 11-12 (July 3, 2018).

The panel found that the preferred methodology is to use an actual PGA tariff rate to project PGA gas costs. In this case, the panel utilized the PGA tariff rate submitted by CGC which became effective July 1, 2018. As a result, the attrition period gas cost amount adopted unanimously by the panel was $38,611,525.

B(5). Total Operating Margin

Thereafter, the panel voted unanimously to adopt a Total Operating Margin of $33,361,202 for the attrition period. The panel arrived at the sum of the amounts it adopted for the Base Revenues in the amount of $70,473,655, Other Revenues in the amount of $675,121, and AFUDC in the amount of $823,951, less the Cost of Gas in the amount of $38,611,525.

C. Operational and Maintenance Expenses

Operational and Maintenance ("O&M") Expenses are comprised of expenses associated with services necessary to run the business operations of CGC. The majority of these expenses are variable and dependent upon items such as the number of customers and employees, revenues, assets, etc. CGC budgets an annual total of $13,453,586 for O&M expenses[45] while the Consumer Advocate forecasts $10,964,177[46] – a difference of $2,489,409. The main differences between the Company and the Consumer Advocate relate to payroll expense and allocated expenses from CGC's parent company, Atlanta Gas and Light ("AGL").

The panel unanimously voted to adopt annual O&M expenses of $11,478,640 for the attrition period. Below is a table summarizing the O&M attrition period and O&M Expenses as advocated by CGC and the Consumer Advocate and as adopted by the Commission panel. Following the table is a discussion of each expense component.

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[45] CGC's Updated Response to TPUC's Workbook Request, Schedule 4 (August 28, 2018).

[46] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 9 (August 24, 2018).

O&M Expenses	CGC	Consumer Advocate	Commission Panel
	Attrition Year End 6/30/19	Attrition Year End 12/31/19	Attrition Year End 6/30/19
Payroll expense	$3,525,350	$2,983,448	$3,216,717
Employee Benefits	632,861	728,437	716,680
Benefits Capitalized	(59,357)	(103,075)	(92,484)
Fleet Services & Facilities Expense	728,185	822,931	810,419
Outside Services	2,087,933	1,878,336	1,849,778
Other Distribution & Storage Expense	804,148	597,294	588,213
Bad Debt Expense	127,970	121,863	121,863
Sales Promotion Expense	71,891	52,574	0
Customer Service & Account Expense	6,482	4,831	4,859
Administration & General Expense	712,523	829,853	951,611
Admin. & Gen. Salaries Exp. Capitalized	(66,719)	(69,690)	(60,878)
AGL Service Company Allocations	4,822,218	3,117,375	3,371,863
Total	**$13,453,585**	**$10,964,177**	**$11,478,640**

C(1). Payroll Expense

The Company based its payroll expense upon its 2018 budget which includes the anticipated hiring of ten new employees. This increase from forty to fifty employees represents a 25% increase over existing employee levels.[47] The payroll expense for these budgeted fifty employees multiplied by the average annual merit increase of 3% yields the attrition year payroll expense of $3,525,350.[48] Wendell David testified that, "these new employees are very necessary to improve the operational integrity and safety of our new systems due to new regulations, better training, system expansions and growth, and improved customer services and responsiveness".[49]

The Consumer Advocate based its payroll expense on the actual dollar amount for payroll expense for the twelve months ending December 31, 2017, adjusted by removing the amount of

[47] *Chattanooga Gas Company Responses and Objections to Consumer Advocate First Discovery Requests*, Response No. 1-122, (April 10, 2018). *See also* Transcript of Hearing, Vol. I A, p. 50, Hearing Exhibit 2 (August 20, 2018).
[48] Gary Tucker, Pre-filed Direct Testimony, pg. 8 (May, 11, 2018).
[49] Wendell Dallas, Pre-filed Rebuttal Testimony, p. 14 (August 3, 2018).

allocated Annual Incentive Performance Pay associated with direct CGC's labor cost.[50] The Consumer Advocate then utilized a compounded growth rate of 7.25%, based upon a two year average in labor costs growth, to calculate attrition year payroll expense of $2,983,448.[51] The Consumer Advocate disagrees with the Company's assumption that it will increase its Tennessee-Based employee count by 25% between the Test Period and Attrition Period. Mr. Dittemore testified, "[h]istory suggests the 25% increase in CGG labor is an unrealistic assumption and one that appears to be an attempt to increase the revenue requirement without any real substance."[52] As a result, the Consumer Advocate maintained the employee count from the test year of 39 through the attrition year.

The panel found that CGC consistently over-budgeted the number of employees between 2008 and 2017, having between 37 and 42 employees during that time period.[53] Upon cross examination during the hearing, Mr. Dallas confirmed that the budgeted number of employees was never achieved for 2017 and that the number of employees fluctuates throughout the year such that the Company can be three to five employees under budget at a given time.[54] The Company's approach is based upon an assumption that new hires will be in place prior to the position becoming vacant,[55] while the Company being under the budgeted number of employees may be due to new hires coming in only after a position becomes vacant. While CGC charges that the Consumer Advocate's approach "has no basis in fact or reality,"[56] it is the Company's approach that appears to be based mostly on assumptions. Therefore, while the panel found that,

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[50] David Dittemore, Pre-filed Direct Testimony, p. 6, (July 3, 2018).
[51] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 9, Consumer Advocate Workpaper, Attachment DD 9-1, (August 24, 2018).
[52] David Dittemore, Pre-filed Direct Testimony, p. 15, (July 3, 2018).
[53] *Chattanooga Gas Company Responses and Objections to Consumer Advocate First Discovery Requests*, Response No. 1-135, (April 10, 2018).
[54] Transcript of Hearing, Volume I A, pp. 51-52, (August 20, 2018).
[55] Wendell Dallas, Pre-filed Direct Testimony, p. 13, (February 15, 2018).
[56] *Post-Hearing Brief of Chattanooga Gas Company*, p. 19 (September 10, 2018).

as the Consumer Advocate asserts, it is highly unlikely the Company will increase its employee count to 50 in the attrition period, especially based on the historical employee levels. Nevertheless, the panel found that it is reasonable to expect the employee count to increase during the attrition period.

Based upon CGC's response to the Consumer Advocate Data Request No. 1-135, the Company had 39 employees in June 2017[57] and Mr. Dallas' testimony at the Hearing confirmed that Chattanooga Gas had approximately 42 employees throughout 2017.[58] Utilizing an eighteen month Compounded Salary and Wage Rate Change Factor of 5.388%, calculated based upon the CGC's response to the Consumer Advocate's Discovery Request 1-345,[59] the panel applied this factor to the test period employee count of 42 to arrive at an attrition period employee count of 44.

CGC and the Consumer Advocate also differed on how incentive compensation was treated in their calculations. The term "incentive compensation" is also referred to as "at-risk compensation."[60] James Garvie testified on behalf of CGC that employee fixed salaries are based upon the median of the market and the incentive portion is the compensation that is at-risk contingent upon meeting pre-determined targets.[61] CGC reiterates in its Post-Hearing Brief that base salaries are set at 50% of the market and that the compensation structure should be considered in the context of the present day labor market, in which most successful businesses offer a compensation program that includes at-risk pay.[62] The Consumer Advocate adjusted its

[57] *Chattanooga Gas Company Responses and Objections to Consumer Advocate First Discovery Requests*, Response No. 1-135, (April 10, 2018).
[58] Transcript of Hearing, Vol. I A, pg. 52 (August 20, 2018).
[59] *Chattanooga Gas Company Responses and Objections to Consumer Advocate Supplement to First Discovery Requests*, Response No. 1-345, (April 20, 2018).
[60] Transcript of Hearing, Vol. I A, pg. 12 (August 20, 2018).
[61] James Garvie, Pre-filed Rebuttal Testimony, pp. 6-10, (August 3, 2018). *See also* Transcript of Hearing, Vol. III A, pp. 8-10 (August 22, 2018).
[62] *Post-Hearing Brief of Chattanooga Gas Company*, p. 10 (September 10, 2018).

attrition forecast of payroll expense to remove $228,786 of incentive compensation, asserting that such "payouts are driven by corporate and business unit financial performance that directly benefits The Southern Company shareholders and therefore such costs should not be borne by CGC ratepayers."[63]

The panel found the Consumer Advocate's 2019 forecasted incentive pay exclusion to be reasonable, grounded upon historical operations and consistent with the long-standing policy established by the Commission regarding incentive pay. Moreover, the Company provided no convincing evidence justifying its deviation from established Commission policy. In addition, as Consumer Advocate witness Dittemore testified[64] and CGC witness Garvie acquiesced,[65] short-term incentive compensation is partially paid out based upon enhancing the earnings per share ("EPS") of the Southern Company stock price. CGC and the Consumer Advocate agreed that while ratepayers may benefit from efficiency, stockholders will also benefit from increased EPS. The panel found the compensation to be fair, with annual merit increases through the attrition period. For the foregoing reasons, the panel unanimously voted to disallow 50% of the short term incentive compensation.

The panel voted unanimously to adopt a payroll expense of $3,216,717 for the twelve month attrition period ending June 30, 2019. The panel arrived at this amount applying its findings on CGC payroll expense, beginning with the test period (twelve months ending December 31, 2017) payroll expense, removing 50% of the short term incentive compensation to arrive at an adjusted test period payroll, calculating the average employee pay using the December 31, 2017 employee count, and then multiplying the average employee pay by the

[63] David Dittemore, Pre-filed Direct Testimony, p. 7, (July 3, 2018).
[64] *Id.* at 7-8.
[65] Transcript of Hearing, Vol. III A, p. 11, (August 22, 2018).

attrition period employee count. Utilizing this calculation, the panel arrived at the adopted payroll expense of $3,216,717.

C(2). EMPLOYEE BENEFITS

Employee benefits includes the costs associated with 401(k) benefits, group health benefits, pension expense, and post-retirement benefits other than pensions. CGC based its employee benefit expense upon its 2018 budget to achieve attrition year employee benefit expense of $632,861. The 401(k) costs were based on the 2018 budget and increased by the average annual merit increase of 3%. Group health and other benefits were based upon data collected relative to medical, prescription drug and behavioral health claims. According to Mr. Tucker, changes to enrollment, plan changes and administrative costs were also considered in developing the attrition period estimate. The post retirement and pension expense was based upon an estimate from the Company's actuary. [66]

The Consumer Advocate based its employee benefits expense on the actual amount of $728,437 for the twelve months ending December 31, 2017.[67] Mr. Dittemore testified that this amount was adjusted by removing accrued pension and Other Post-Employment Benefits ("OPEB") and capitalized pensions, and cash pension contributions were added[68] for a total negative adjustment of $66,775.[69] The resulting amount was then multiplied by the compounded growth factor of 7.25% to arrive at employee benefits expense of $728,437.[70]

The panel found that, based upon review of budgeting process documents provided by CGC, employee benefits are budgeted by the Human Resource Department and no benefits are

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[66] Gary Tucker, Pre-filed Direct Testimony, pp. 8-9, (May 11, 2018).
[67] David Dittemore, Pre-filed Direct Testimony, p. 5, (July 3, 2018).
[68] Consumer Advocate Data Request 1-308 only identified cash contributions to the pension plan and none to its OPEB plan.
[69] David Dittemore, Pre-filed Direct Testimony, p. 8, (July 3, 2018).
[70] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 9, (August 24, 2018).

budgeted for incremental employees. Further, the panel found that the budgeting process makes no mention of the Company comparing its forecasted budget to the latest actual 12 months to identify any abnormalities or the reasonableness of the budgeted amounts or that CGC will no longer pay Dental and Vision Premiums.

Based upon a review of the actuarial report cited by the Company, the panel found that there is no required contribution amount provided in the report. Therefore, the panel found CGC's assertion that pension expense was based upon the actuarial report to be unsubstantiated. Further, CGC makes no argument that the cash approach utilized by the Consumer Advocate is incorrect; but rather argues the GAAP method "makes better sense."[71]

Based upon analysis of the evidence, the panel voted unanimously to adopt employee benefits expense for the twelve month attrition period ending June 30, 2019 of $716,680. The panel arrived at that amount for employee benefits expense based upon the December 31, 2017 test period with the recommended adjustments of ($66,775) as described by the Consumer Advocate, and removal of Dental and Vision Premiums, for a total of $688,801. The panel then grew this amount to the projected 44 employees and applied the compounded composite growth factor of 3.7% to arrive at the adopted $716, 680 for the attrition year.

C(3). BENEFITS CAPITALIZED

As with other O&M expenses, the Company forecasted its attrition period Benefits Capitalized of ($59,257) as the budgeted amount for the calendar year 2018 and then grew that amount through the attrition period ending June 30, 2019.[72] The Consumer Advocate applied a

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[71] *Post-Hearing Brief of Chattanooga Gas Company*, p. 13 (September 10, 2018).
[72] CGC's Updated Response to TPUCs Workbook Request, Schedule 4, (August 28, 2018).

compounded growth rate of 5.3% to the test period amount of ($97,884) to arrive at ($103,075) for benefits capitalized.[73]

The panel found that it could accept neither of the expense figures asserted by the parties, as the attrition year adopted by the panel is forecasting fewer employees than CGC and more employees than the Consumer Advocate. Therefore, the panel calculated a percentage of benefits capitalized using the December 31, 2017 test period amount of benefits expensed plus the benefits capitalized in total to the benefits capitalized and subsequently grossed up employee benefit expense by the inverse to arrive at a total employee benefit amount for the attrition year ending December 31, 2019. The benefits capitalized percentage was applied to the total employee benefit amount $809,164 to arrive at employee benefits capitalized of ($92,484). Therefore, the panel voted unanimously to adopt an operation and maintenance expense of Benefits Capitalized of ($92,484) for the attrition year ending December 31, 2019.

C(4). Fleet Services and Facilities, Outside Services, Other Distribution and Storage

The Company based its fleet services, facilities, outside services and other distribution expense upon the 2018 budget to achieve attrition year expense of $728,185 for fleet services, $2,087,933 for outside services and $804,148 for other distribution and storage expense.[74] According to Mr. Tucker all of these expenses were forecasted for the 2018 year and increased by a monthly average CPI percentage of 3% for six months through the end of the attrition period.[75]

The Consumer Advocate arrived at attrition period expenses of $822,931 for fleet services, $1,878,336 for outside services and $597,294 for other distribution and storage

[73] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 9, Consumer Advocate Workpaper, Attachment DD 9-3, (August 24, 2018).
[74] CGC's Updated Response to TPUCs Workbook Request, Schedule 4, (August 28, 2018).
[75] Gary Tucker, Pre-filed Direct Testimony, p. 9, (May 11, 2018).

expenses by utilizing the actual amounts per the trial balance at December 31, 2017.[76] Using these beginning balances, the Consumer Advocate applied an average two year compounded annual growth factor of 5.30% based on the CPI for 2018 and 2019.[77]

The panel found that CGC's budget process fails to compare the forecasted budget to the latest actual 12 months ending to identify any abnormalities between historical expenditures and budgeted upcoming expenditures. Further, the panel found that expenses should be aligned with the operations of the Company and should trend with previous expenditures and therefore, should be based upon historical amounts rather than a forecast which is not based on a realistic foundation. The panel also noted the different starting point used by the Company and the Consumer Advocate as the basis to determine the attrition period amounts.

Based upon calculations utilizing the actual test period amounts at December 31, 2017 and growing them by a compounded growth factor of 3.7%, the panel arrived at balances for the attrition period ending June 30, 2019 for Fleet Services and Facilities of $810,419, Outside Services of $1,849,778 and Other Distribution and Storage of $588,213. The panel unanimously voted to adopt operation and maintenance expenses for the attrition year ending June 30, 2019 for the following categories: Fleet Services and Facilities, $810,419; Outside Services, $1,849,778; and, Other Distribution and Storage, $588,213.

C(5). BAD DEBT (UNCOLLECTIBLE EXPENSE)

The Company forecasted $127,970 for bad debt expense by taking its projected December 31, 2018 budget and increasing the amount by monthly average CPI percentages[78]

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[76] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 9, (August 24, 2018).
[77] David Dittemore, Pre-filed Direct Testimony, p. 14, (July 3, 2018). *See also* Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 9, (August 24, 2018).
[78] CGC's Updated Response to TPUCs Workbook Request, Schedule 4, (August 28, 2018).

from the end of test period through the end of the attrition period.[79] In its Post-Hearing Brief the Company states this expense is partially based upon its proposed rate increase.[80] The Consumer Advocate took an actual five year average (2013-2017) of uncollectible expense of $100,904 and added an actual five year average of uncollectible expense-damages of $20,958 to arrive at an attrition period bad debt expense of $121,863.[81]

The panel found that the use of actual data for determining bad debt expense rather than forecasted budget based in part on a requested rate increase is reflective of the widely accepted policy of the Commission of historical forecasting which is grounded on actual results. Therefore, the panel found the Consumer Advocate's amount for bad debt expense to be reasonable. The panel voted unanimously to adopt the amount of $121,863 as bad debt expense for the attrition period ending June 30, 2019.

C(6). SALES PROMOTION

The Company forecasted $71,891 for sales promotion expenses.[82] This amount was calculated by taking CGC's forecasted 2018 budget for sales promotion expense and growing the amount by a CPI index to arrive at an amount for attrition period ending June 30, 2019.[83] The Consumer Advocate calculated sales promotion expense by taking the amount of such expense on CGC's December 31, 2017 trial balance of $51,996 and applying a growth factor derived from the growth in labor costs from 2015-2017. The Consumer Advocate arrived at a resulting sales promotion expense is $52,574 for the attrition period ending December 31, 2019.[84]

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[79] Gary Tucker, Pre-filed Direct Testimony, p. 10, (May 11, 2018).
[80] *Post-Hearing Brief of Chattanooga Gas Company*, p. 34, (September 10, 2018).
[81] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 9, (August 24, 2018).
[82] CGC's Updated Response to TPUCs Workbook Request, Schedule 4, (August 28, 2018).
[83] Gary Tucker, Pre-filed Direct Testimony, p. 9, (May 11, 2018).
[84] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 9, Consumer Advocate Workpaper, Attachment DD 9-6, (August 24, 2018).

While both parties include sales promotion as recoverable expenses, the panel found that Commission Rule 1220-04-05.45 on Advertising applied to this expense. The Rule provides:

> 1220-04-05-.45 ADVERTISING.
>
> (1) A utility may not recover from any person other than their shareholders (or other owners) any direct or indirect expenditure for promotional or political advertising.
> (a) The term "advertising" means the commercial use of any media, including newspaper, printed matter, radio, and television, in order to transmit a message to a substantial number of members of the public or to gas customers.
> (b) The term "political advertising" means any advertising for the purpose of influencing public opinion with respect to legislative, administrative, or electoral matters, or with respect to any controversial issue of public importance.
> (c) The term "promotional advertising" means any advertising for the purpose of encouraging any person to select or use gas service or additional gas service or the selection or installation of any appliance or equipment designed to use gas service.
> (d) The terms "political advertising" and "promotional advertising" do not include:
>
> 1. Advertising which informs gas customers how they can conserve energy or can reduce peak demand for gas;
> 2. Advertising required by law or regulation, including advertising required under Part 1 of Title II of the National Energy Conservation Policy Act;
> 3. Advertising regarding service interruptions, safety measures or emergency conditions;
> 4. Advertising concerning employment opportunities;
> 5. Advertising which promotes the use of energy efficient appliances, equipment, services, or which informs customers that natural gas is cheaper and/or more efficient than other fuels; or
> 6. Any explanation or justification of existing or proposed rate schedules or notification of hearings thereon.

Upon review and verification of the Uniform System of Accounts ("USOA") in which CGC's sales promotion was accounted booked, the panel found the accounts to be clearly defined in USOA as advertising and activities promoting sales. Therefore, based upon Commission rules that clearly prohibit expenses related to sales activities from being recovered in consumer rates, the panel voted to exclude sales promotion expense from attrition period expenses.

C(7). Customer Service and Account

CGC forecasted $6,482 for the attrition period ending June 30, 2019 utilizing the Company's forecasted budget and grown by the annual CPI growth factor to arrive at an amount for June 30, 2019 attrition period.[85] The Consumer Advocate took the December 31, 2017 ending trial balance amount of $4,775 and applied a customer related growth factor, arriving at a resulting customer service and account promotion expense of $4,831 for the attrition period.[86]

The panel found that the use of historical data as a starting point for calculations provides more credibility and verifiable evidence than the use of budgeted amounts for the attrition period. However, upon review of the Consumer Advocate's calculation for customer service and account expense, the panel found that the growth factor applied by the Consumer Advocate was not compounded for the correct growth time frame. Applying the compounded customer growth factor of 1.76% to the test period amount of $4,775 yields an attrition period expense of $4,859. Accordingly, the panel voted unanimously to adopt $4,859 in customer service and account expense for the attrition period ending June 30, 2019.

C(8). Administrative and General

According to Mr. Tucker, administrative and general expenses were forecasted by taking the 2018 budget amounts and increasing them by monthly average CPI percentages from the end of test period through the end of the attrition period.[87] To this amount, the Company added an annual deferred rate case amortization expense of $248,333 ($1,241,665 in total rate case

[85] Gary Tucker, Pre-filed Direct Testimony, p. 9, (May 11, 2018); CGC's Updated Response to TPUCs Workbook Request, Schedule 4, (August 28, 2018).
[86] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 9, Consumer Advocate Workpaper, Attachment DD 9-7, (August 24, 2018).
[87] Gary Tucker, Pre-filed Direct Testimony, p. 9, (May 11, 2018).

expenses amortized over a five year period). In total, the Company forecasted $712,523 for administrative and general expenses for the attrition period.[88] CGC urges that its rate case expenses are just and reasonable and presented testimony from Mr. Dallas, Mr. Hickerson, Mr. Yardley and Mr. Tucker concerning the prudency and necessity of the expenses.[89] Mr. Dallas testified that the filing of the case was delayed because of the passage of the Tax and Jobs Act in December of 2017 which caused CGC to redo its case due to reduction in corporate tax rates.[90]

The Consumer Advocate took the actual amount of administrative and general expenses per the trial balance at December 31, 2017 and applied an average two year compounded growth factor of 5.30% based on the CPI for 2018 and 2019 to calculate its attrition period amount.[91] The Consumer Advocate then added an annual deferred rate case amortization expense of $115,718, which is calculated by taking the Consumer Advocate's recommended total rate case expense of $347,153 and amortizing it over three years.[92] The difference in the rate case expense is due to the Consumer Advocate eliminating the recovery of consultant costs related to the class cost of service study, which Mr. Novak testified has never been accepted by Commission, nor on which has the Commission set utility rates.[93] The Consumer Advocate stated the legal expenses to prepare and try the case were much higher than anticipated and "seemed duplicative and imprudent."[94] Therefore, the Consumer Advocate eliminated one-half the estimated legal

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[88] CGC's Updated Response to TPUCs Workbook Request, Schedule 4, (August 28, 2018).
[89] *Post-Hearing Brief of Chattanooga Gas Company*, p. 14, (September 10, 2018).
[90] Wendell Dallas, Pre-filed Rebuttal Testimony, p. 3, (August 3, 2018); *See also* Gary Tucker, Pre-filed Rebuttal Testimony, p. 5, (August 3, 2018).
[91] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 9, Consumer Advocate Workpaper, Attachments DD 9-8 and 10-2, (August 24, 2018).
[92] *Id.*
[93] William H. Novak, Pre-filed Direct Testimony, p. 24, (July 3, 2018); Transcript of Hearing, Vol. III A, p. 32, (August 22, 2018). *See also Consumer Advocate's Post-Hearing Brief*, p. 28-29 (September 10, 2018).
[94] *Id.*

expenses from recovery in rates. The Consumer Advocate's resulting calculation of administrative and general expenses for the attrition period is $829,853.[95]

As discussed more fully in section J(4) herein below, the panel notes its concern regarding the high level of rate case expenses, acknowledging the benefit that both ratepayers and stockholders receive from the rate increases that generally follow the completion of rate cases. The panel found that in this case, the documentation and evidentiary record are not sufficiently detailed to determine a reasonable apportionment of rate case expense between ratepayers and shareholders based on their relative benefits from the proceeding. Without such proof, the panel determined that exclusion of a percentage or specific amount of rate case expense would be unsupported and potentially arbitrary. Accordingly, the panel found CGC's proposed rate expenses and proposed five-year amortization to be reasonable and acceptable.

The panel arrived at total administrative and general expenses of $951,611 for the twelve month attrition period ending June 30, 2019. This amount is calculated by taking the December 31, 2017 trial balance of administrative and general expenses and growing that amount by a composite 3.7% growth factor, and then adding $248,333 of amortized of rate case expenses. The panel voted unanimously to adopt $951,611 in administrative and general expenses for the attrition period.

C(9). ADMINISTRATIVE & GENERAL SALARIES (PAYROLL) CAPITALIZED

Consistent with other O&M expenses, CGC forecasted its attrition period administrative and general salaries capitalized of ($66,719) as the budgeted amount for the calendar year 2018, grown to the attrition period ending June 30, 2019.[96] The Consumer Advocate applied a

[95] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 9, Consumer Advocate Workpaper, Attachment DD 9-8, (August 24, 2018).

[96] CGC's Updated Response to TPUCs Workbook Request, Schedule 4, (August 28, 2018); Gary Tucker, Pre-filed Direct Testimony, p. 9, (May 11, 2018).

compounded growth rate of 5.3% to the December 31, 2017 test period amount of ($66,180) to arrive at ($69,690) for administrative and general salaries capitalized.[97]

Since the panel previously found that 44 employees are adopted for the attrition period, which is fewer employees than the Company and more employees than Consumer Advocate, it found that it could not accept the recommendation of either party. A percentage of payroll expense capitalized was calculated using CGC's forecasted payroll capitalized as a percentage of total payroll expense. The panel applied this percentage to the adopted payroll expense to arrive at administrative and general salaries capitalized of ($60,878). The panel voted unanimously to adopt the Administrative and General Salaries Capitalized of ($60,878) for the attrition period.

C(10). AGL Service Company Allocations

CGC forecasts attrition year allocations attributed to AGL Services of $4,882,218.[98] The Company allocated AGL services pursuant to the allocation methodology contained in the service agreement between the companies.[99] Mr. Morley testified that CGC began using this methodology in 2000 and included AGL cost allocations in Tennessee rate proceedings in 2004, 2006 and 2009 as well as in proceedings in five other states.[100]

Mr. Dittemore provided testimony expressing concern with the "significant lack of transparency and documented processes supporting the cost allocation methodology that I would expect from a very large regulated entity such as The Southern Company."[101] Mr. Dittemore further testified regarding the Consumer Advocate's recommendation that the Commission

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[97] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 9, Consumer Advocate Workpaper, Attachment DD 9-9, (August 24, 2018); David Dittemore, Pre-filed Direct Testimony, p. 14, (July 3, 2018).
[98] CGC's Updated Response to TPUCs Workbook Request, Schedule 4, (August 28, 2018).
[99] Michael J. Morley, Pre-filed Rebuttal Testimony, pp. 15-16, (August 3, 2018).
[100] *Id.* at 12-13; *Post-Hearing Brief of Chattanooga Gas Company*, p. 14, (September 10, 2018).
[101] David Dittemore, Pre-filed Direct Testimony, p. 31, (July 3, 2018).

require future filings to be fully supported with a Cost Allocation Manual ("CAM") to determine corporate allocations.[102]

Absent a CAM, the Consumer Advocate uses the Company's 2017 year end amount for allocations of $4,457,091 and adjusts the test year amount by removing $1,316 of benefits, $1,139,788 of short-term and long-term incentive compensation, $273,467 of lobbying expense, and $82,136 in corporate allocated expense.[103] This adjusted test year amount of $2,960,385 is then grown using a compound attrition factor of 5.30% to arrive at $3,117,375. The Consumer Advocate's forecasted amount is $1,764,843 less than that of the Company.[104]

The Consumer Advocate argues that because there is no direct Long-Term Incentive Compensation paid by Chattanooga Gas, a significant portion of the Short Term Incentive Compensation is driven by the corporate and business unit performance, directly benefiting The Southern Company. Therefore, The Consumer Advocate asserts these costs should not be recovered from CGC ratepayers.[105] The Consumer Advocate questioned Mr. Dallas about why CGC ratepayers should pay him a bonus when the earnings per share of the Southern Company go up, but Mr. Dallas gave no response.[106]

The panel noted that while CGC argues it has been utilizing a consistent methodology since 2000, the Company fails to address the fact that The Southern Company acquired AGL in July 2016.[107] Therefore, a different Company is allocating cost. The panel also noted that the majority of the $1,764,843 difference between the Company and the Consumer Advocate for the

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[102] *Id.* at 31-32.
[103] *Id.* at 8-14; Transcript of Hearing, Vol. III A, pp. 51-52, (August 22, 2018); Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 9, Consumer Advocate Workpaper, Attachment DD 9-11, (August 24, 2018).
[104] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 9, Consumer Advocate Workpaper, Attachment DD 9-11, (August 24, 2018).
[105] *Consumer Advocate's Post-Hearing Brief*, p. 40, (September 10, 2018).
[106] Transcript of Hearing, Vol. I A, p. 74-75, (August 20, 2018).
[107] Wendell Dallas, Pre-filed Direct Testimony, p. 14, (May 11. 2018).

attrition period relates to the adjustments made by the Consumer Advocate to remove Bonuses, Short and Long Term Incentives, Allocated Supplemental Executive Retirement Plan expenses ("SERP"), Government Relations, Legal and Lobbying Expenses totaling $1,496,707.

The panel found that that removal of expenses related to SERP, lobbying expense, certain pension benefits, and organization dues, as recommended by the Consumer Advocate, is reasonable and consistent with previous rulings of the Commission. The panel removed said expenses from the trial balance test period amount as of December 31, 2017, and then removed 50% of short-term incentive compensation and 100% of long-term incentive compensation (consistent with the methodology used for payroll expense and pursuant to established Commission precedent for recovery of incentive compensation) and applied a customer growth factor of 3.7%. This calculation results in $3,371,863 of AGL allocated service expenses for the attrition period ending June 30, 2019, which the panel voted unanimously to adopt.

D. PURCHASED GAS EXPENSE

As discussed in section B(4) herein, the voting panel found that the preferred methodology to determine purchased gas expense is to use an actual PGA tariff rate to project PGA gas costs. Therefore, the panel unanimously adopted $38,611,525 in purchased gas expense for the attrition period based upon CGC's July 1, 2018 PGA tariff rate.

E. DEPRECIATION EXPENSE

Depreciation expense is discussed in the paragraphs herein below addressing Utility Plant in Service, Depreciation and Accumulated Depreciation. Accordingly, for the reasons set out more fully in the discussion in the subsequent section of this order, the panel unanimously voted to adopt depreciation expense of $8,035,649 for the attrition period ending June 30, 2019.

F. INTEREST ON CUSTOMER DEPOSITS

TPUC Rule 1220-4-5.14 allows gas utilities to accrue interest on Customer Deposits. Such interest is refunded to the customer along with the security deposit after a specified time period when the customer demonstrates credit-worthiness. CGC forecasted $96,740 for the attrition period Interest on Customer Deposits.[108] The Consumer Advocate forecasted $114,315 for the attrition period Interest on Customer Deposits.[109] The panel multiplied the adopted accrued interest on customer deposits by the tariffed interest rate of 6.0% per annum and arrived at the amount forecasted by the Company. Therefore, the panel voted unanimously to adopt $96,740 for Interest on Customer Deposits for the attrition year ending June 30, 2019.

G. TAXES OTHER THAN INCOME TAXES

G(1). PROPERTY TAX

The Company forecasted $1,975,518 for property tax by growing its 2018 budgeted amount by the Company's monthly average CPI percentages.[110] The Consumer Advocate started with actual property tax per book amounts for the twelve months ending December 31, 2017, and then reclassified $4,484 of allocated property tax to allocated taxes other than income. The Consumer Advocate then used a compound growth factor of 7.11% to arrive at attrition period property taxes of $2,039,886.[111]

As opposed to strictly using a budgeted amount as proposed by the Company, the panel found that historical amounts provide more credible evidence of future outcomes in this instance. For this reason, the panel determined a property tax percentage by comparing the Consumer

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[108] CGC's Updated Response to TPUCs Workbook Request, Schedule 3, (August 28, 2018).
[109] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 6, Consumer Advocate Rate Base Workpaper R-50-1.00, (August 24, 2018).
[110] CGC's Updated Response to TPUCs Workbook Request, Schedule 5, (August 28, 2018).
[111] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 10, Consumer Advocate Workpaper, Attachment DD 10-1, (August 24, 2018).

Advocate's December 31, 2017 test year amount for property tax with the Company's thirteen month average of the combined direct plant and allocated plant in service. The panel applied this percentage to the plant in service for the attrition period ending June 30, 2019 to arrive at property taxes of $2,093,447, which the panel voted unanimously to adopt.

G(2). Commission Inspection Fee

The Company forecasted $315,074 for Commission inspection fees based on a 2018 budget amount grown by the Company's monthly average CPI percentages.[112] The Consumer Advocate forecasted $391,525 by applying a composite ratio of 5.30% to actual booked amounts for the twelve months ending December 31, 2017.[113]

The panel calculated Commission Inspection Fee by applying statutory rates set forth in Tenn. Code Ann. § 65-4-303. Consistent with statutory language, attrition period gas revenue, AFUDC, and Other Revenues less Uncollectibles were summed for a total of $71,850,864. This revenue amount was then reduced by the statutory $5,000 exemption to arrive at a taxable revenue base for inspection fees. The panel unanimously voted to adopt $305,345 for the attrition period ending June 30, 2019, having applied the statutory rate of 0.425% to the remaining balance to arrive at the adopted inspection fee.

G(3). Payroll Taxes

The Company forecasted $214,815 for the attrition period based on a 2018 budgeted amount increased by a 3% merit increase.[114] According to Mr. Tucker's rebuttal testimony, "the

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[112] CGC's Updated Response to TPUCs Workbook Request, Schedule 5, (August 28, 2018).
[113] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 10, Consumer Advocate Workpaper, Attachment DD 10-1, (August 24, 2018).
[114] CGC's Updated Response to TPUCs Workbook Request, Schedule 5, (August 28, 2018).

forecast for 2019 should be based on the 2018 budget as this more closely aligns with the Company's planned business operations."[115]

The Consumer Advocate disagrees with the Company's assertion and based payroll taxes on the 2017 year end amount of $187,647. The Consumer Advocate then reclassified $144,265 to allocated taxes other than income. The Consumer Advocate forecasted the test year using a labor composite attrition factor of 7.25% to arrive at the total of $355,971 resulting in a $141,156 difference from the Company.[116]

The panel found that in this instance, the historical amounts provide more credible evidence of future outcomes than the budgetary data provided by the Company. For this reason, the panel calculated a percentage for payroll tax using the Consumer Advocate's test year booked payroll tax as a percentage of booked payroll expense. The panel applied this percentage to the difference between the adopted payroll expense and the booked test year payroll expense for a total of $46,135.66. This incremental payroll tax amount (payroll tax for additional payroll expense) was then added to the December 31, 2017 booked payroll tax amount to arrive at attrition period payroll taxes of $383,805. The panel thereafter voted unanimously to adopt $383,805 in payroll taxes for the attrition year ending June 30, 2019.

G(4). FRANCHISE TAX

CGC forecasted $409,287 for franchise tax based on a 2018 budget amount grown by the Company's monthly average CPI percentages.[117] The Consumer Advocate forecasted $141,050

[115] Gary Tucker, Pre-filed Rebuttal Testimony, p. 29, (August 3, 2018).
[116] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 10, Consumer Advocate Workpaper, Attachment DD 10-1, (August 24, 2018).
[117] CGC's Updated Response to TPUCs Workbook Request, Schedule 5, (August 28, 2018).

based on the Company's actual year end December 31, 2017 amount of $124,028 multiplied by a two year revenue growth factor of 13.72%.[118]

The panel found that the Company provided no documentation of how it calculated budgeted Franchise Taxes other than a budgeted total. Based on the absence of documentation indicating reliability of the Company's amount, the panel determined it more reasonable and prudent to base its forecast on historical data utilized by the Consumer Advocate. Accordingly, the panel calculated a Franchise Fee percentage based upon the Company's thirteen month average of the combined direct plant and allocated plant in service to Consumer Advocate's test period Franchise Tax. The panel applied this percentage to the adopted Plant in Service to determine the Franchise Tax. The panel unanimously adopted Franchise Tax in the amount of $136,334 for the attrition period ending June 30, 2019.

G(5). Gross Receipt Tax

The Company forecasted $451,841 of gross receipt tax for the attrition year ending June 30, 2019 based upon its budgeted amounts multiplied by monthly average CPI percentages.[119] The Consumer Advocate forecasted gross receipt taxes of $904,986 for the attrition year end December 31, 2019, utilizing the actual year end December 31, 2017 booked amount and applying a 13.72% revenue growth factor.[120]

The panel found that use of historical amounts provides more credible evidence of future outcomes than budgetary data in this instance. Based upon this finding, the panel calculated Gross Receipts Tax using the Tennessee Gross Receipts Tax Form. Gas Revenue, AFUDC, and Other Revenues were totaled and Uncollectibles were deducted to arrive at a taxable amount of

[118] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 10, Consumer Advocate Workpaper, Attachment DD 10-1, (August 24, 2018).
[119] CGC's Updated Response to TPUCs Workbook Request, Schedule 5, (August 28, 2018).
[120] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 10, Consumer Advocate Workpaper, Attachment DD 10-1, (August 24, 2018).

$71,850,864. The $5,000 exemption was deducted and the statutory 1.50% tax rate was applied resulting in a gross tax of $1,077,688. Forecasted Franchise and Excise Taxes were then deducted, pursuant to the statute. The voting panel unanimously adopted the resulting Gross Receipts Tax of $862,580 for the attrition period ending June 30, 2019.

G(6). ALLOCATED & OTHER TAXES

The Company forecasted $157,412 for allocated & other taxes for the attrition period ending June 30, 2019.[121] The Consumer Advocate forecasted a December 31, 2019 balance of $0 by reclassifying the test period amount of $148,755 to their corresponding accounts: Property Taxes, Payroll Tax, and State Franchise Tax.[122]

The panel found that it is more prudent and reasonable to reclassify the amounts to their corresponding accounts. Reclassification of the amounts to their appropriate accounts will ensure that appropriate growth factors are applied to each individual account, providing more accurate data. Therefore, the panel voted unanimously that $0 in Allocated and Other Taxes be adopted for the attrition period ending June 30, 2019.

H. INCOME TAXES

The Company and the Consumer Advocate each presented its schedules as exhibits for its calculations on the proper amount of income tax. Income Taxes include both the Tennessee Excise Tax and the Federal Income Tax. Income Tax is calculated based on operating margin and expense calculations and applying statutory tax rates. Both CGC and the Consumer Advocate accounted for the impact of the significant changes resulting from the Tax Cut & Jobs

[121] CGC's Updated Response to TPUCs Workbook Request, Schedule 5, (August 28, 2018).
[122] Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 10, Consumer Advocate Workpaper, Attachment DD 10-1, (August 24, 2018).

Act, which became effective January 1, 2018 in their respective calculations and schedules.[123] Based upon the statutory rates and the other items decided in this rate case, the panel unanimously adopted Net State Excise Tax of $373,213 for the attrition period and Net Federal Income Tax of $264,062, which includes Excess Deferred Tax Liability Amortization of $918,724.

I. NET OPERATING INCOME

Net Operating Income ("NOI") represents the earnings of the Company under present rates that are available after all items of the cost of providing utility service have been considered. The NOI of CGC is the total operating revenue minus total operating expense based upon the determinations of revenues and expenses adopted by the panel.

The summation of operating revenues (i.e., gas sales and transportation, AFUDC and other), results in total operating revenue in the amount of $71,972,727. Thereafter, the operation and maintenance expenses totaling $50,090,166 are subtracted. In addition, depreciation expense, interest on customer deposits, taxes other than income taxes, state excise taxes and federal income taxes are also subtracted. These subtractions result in the removal of a total operating expense in the amount of $62,346,902. Calculation of NOI by subtracting total operating expense from total operating revenue arrives at the net operating income of $9,625,826 which was unanimously adopted by the panel for the attrition period ending June 30, 2019.

J. RATE BASE

Rate Base is the total of the investor funded or supplied plant, facilities, and other investments used by the utility in provisioning service to its customers. The rate base is the investment base to which a fair rate of return is applied to arrive at the net operating income

[123] CGC's Updated Response to TPUCs Workbook Request, Schedule 6, (August 28, 2018); Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 11, (August 24, 2018).

requirement. The Company recommends a rate base of $157.8 million while the Consumer Advocate maintains that a rate base of $139.1 million should be approved. For the reasons set forth below, the panel unanimously voted to adopt a rate base of $149,739,716 for the attrition year ending June 30, 2019.

Below is a chart summarizing the differences between the rate base components advocated by the Company, those advocated by the Consumer Advocate, and the adopted rate base for the attrition year adopted by the voting panel of the Commission. Following the chart is a discussion of the rate base components.

Additions:	**Company**	**Consumer Advocate**	**Staff**
Utility Plant in Service	$ 301,415,025	$ 301,241,411	$ 301,415,025
Construction Work in Progress	12,457,439	6,580,878	12,457,439
Pension and OPEB Assets	9,009,690	-	-
Working Capital - Lead/Lag	1,519,251	149,625	350,066
Materials & Supplies	403,477	300,612	343,442
Prepayments	46,418	40,653	46,803
Gas Inventory	9,710,633	10,168,496	9,425,959
Deferred Rate Case Expense	1,117,499	260,365	1,117,499
Total Additions	$ 335,679,432	$ 318,742,040	$ 325,156,233
Deductions:			
Accumulated Depreciation	$ 127,903,439	$ 131,951,410	$ 127,903,439
Accumulated Deferred Income Tax	25,514,266	22,678,112	23,114,266
Regulatory Liability-Excess Deferrals	22,177,646	22,074,305	22,177,646
Regulatory Liability - Deferred Tax Savings	-	428,512	-
Customer Advances for Construction	-	-	-
Reserve for Uncollectibles	239,893	180,584	169,708
Reserve for Health Insurance	31,616	33,852	33,409
Other Reserves - Uncliamed Credits	72,013	76,668	72,774
Customer Deposits	1,612,342	1,875,733	1,612,342
Accrued Interest on Customer Deposits	332,933	332,933	332,933
Total Deductions	$ 177,884,147	$ 179,632,109	$ 175,416,517
Rate Base	$ 157,795,285	$ 139,109,931	$ 149,739,716

J(1). Utility Plant in Service, Depreciation and Accumulated Depreciation

Utility Plant in Service ("UPIS") represents the original investment cost to the Company of the assets used in providing utility service. The parties' competing forecasts of UPIS and related accumulated depreciation result in a net rate base difference of $4.2 million. The Company bases its UPIS calculations on a starting balance at June 30, 2017, and then adjusts for actual capital expenditures for 2017 and planned capital expenditures for 2018 and 2019.[124] Plant retirements were estimated based on the average retirements for the four years ended June 30, 2017. With regard to indirect plant, the Company used a 1.90% factor to allocate common plant to Chattanooga Gas, which is based on the percentage of expenses charged to Chattanooga Gas relative to total expenses allocated to all affiliates.[125] To compute related depreciation expense and accumulated depreciation reserve amounts, the Company utilizes the depreciation rates recommended by the depreciation study sponsored its witness, Dane Watson.[126] The depreciation rates were applied to CGC's forecasted UPIS balances to compute attrition year depreciation expense of $8,035,069.[127] The depreciation expense, including estimated and recommended plant retirements, were then applied to the balance as of December 31, 2017, to arrive at the attrition year accumulated depreciation reserve balance.[128]

To project its attrition year UPIS, however, the Consumer Advocate began with the test period ending balance at December 31, 2017, and then increased the plant amounts by the five-year historical average of net plant additions (i.e., the net of additions and retirements over the

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[124] Gary Tucker, Pre-filed Direct Testimony, pp. 11-12, (May 11, 2018).
[125] *Id.* at 12.
[126] Dane Watson, Pre-filed Direct Testimony, p. 3, Exhibit DAW-2 (February 15, 2018).
[127] CGC's Updated Response to TPUCs Workbook Request, Schedule 3, (August 28, 2018).
[128] Gary Tucker, Pre-filed Direct Testimony, pp. 15-16, (May 11, 2018).

five-year period).[129] With regard to allocations of common plant, the Consumer Advocate developed an indirect plant allocation factor of 1.63% based on an average of the service company affiliate's throughput volumes and number of customers for 2016 and 2017.[130] The Consumer Advocate accepted and applied the depreciation rates recommended by the Company's depreciation study to its net UPIS balances to compute its attrition year depreciation expense, which then allows for calculation of the Consumer Advocate's accumulated depreciation amount.[131]

In a traditional rate case such as this one, the panel found that known and measurable changes should be applied to normalized test year amounts to determine utility plant and related depreciation and accumulated reserve balances for a forward-looking attrition year. The panel found CGC's methodology for determining plant additions through budgeted capital expenditures to be a reasonable, forward-looking procedure for calculating service rates. Mr. Ziliak testified that CGC's budgeting process considers a number of factors, including: historical spend, known strategic projects, projected impacts of new regulations, labor market and contract bid pricing adjustments, and any other known items affecting the work to be done.[132] He further testified that the Company's budgeting process allows for the greatest accuracy in predicting future spending requirements and is highly reliable.[133] CGC witness Morley testified that its approach is the more appropriate method to calculate the allocation factor for common plant because the service company affiliate's plant is predominantly general plant related to broad functions (e.g., accounting, human resources, supply chain, computer services, etc.).[134] The panel

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[129] William H. Novak, Pre-filed Direct Testimony, p. 17, (July 3, 2018).
[130] *Id.*
[131] *Id.* at 26-27; Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 11, (August 24, 2018).
[132] Jacob A. Ziliak, Pre-filed Rebuttal Testimony, pp. 4-5, (August 3, 2018).
[133] *Id.* at 5.
[134] Michael J. Morley, Pre-filed Rebuttal Testimony, pp. 22-23, (August 3, 2018).

found Mr. Morley's testimony persuasive and unanimously adopted the Company's allocation factor for common plant.

Mr. Novak notes, in his testimony on behalf of the Consumer Advocate, that the Company's anticipated capital expenditures are greater than historical spends.[135] However, the panel found that the Company's forecast should not be rejected merely because capital expenditures are expected to increase, especially in light of Company testimony supporting the capital projects proposed in this case.[136] Use of historical averages would not recognize planned major projects, such as a two-phase project to connect the Company's existing LNG facility to Red Bank and Signal Mountain by late 2020 at a total cost of $18 million.[137] Moreover, the panel found that the capital budgeting approach used by the Company is consistent with the methodology for determining appropriate levels of UPIS for rate-setting purposes by the Commission in prior rate cases. Therefore, the voting panel unanimously voted to adopt CGC's thirteen-month average of UPIS of $301,415,025 for the attrition year.

As stated above, the parties agreed that the updated depreciation rates recommended by CGC's depreciation study should be applied to plant balances to compute depreciation expense in this case. Because the panel adopted the Company's UPIS balance, based in part on its forward-looking forecast of capital projects and related expenditures, which is also consistent with prior rate case procedures, the panel likewise unanimously adopted CGC's calculation of attrition year annual depreciation expense of $8,035,649. Further, since the accumulated depreciation reserve is a mathematical function of plant balances and associated annual

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[135] William H. Novak, Pre-filed Direct Testimony, pp. 18-19 (July 3, 2018).
[136] Mr. Ziliak gave testimony about the Red Bank and Signal Mountain LNG connection pipeline project, the Lookout Mountain pressure improvement project, the Middle Valley PRIM project, and completion of the bare steel project. Jacob A. Ziliak, Pre-filed Rebuttal Testimony, pp. 6-8, (August 3, 2018); Transcript of Hearing, Vol. II A, p. 93, (August 21, 2018).
[137] Jacob A. Ziliak, Pre-filed Rebuttal Testimony, pp. 6-7, (August 3, 2018); Transcript of Hearing, Vol. II A, p. 93, (August 21, 2018).

depreciation charges, the panel voted unanimously to adopt the Company's thirteen-month average forecast of accumulated depreciation of $127,903,439 for the attrition period ending June 30, 2019.

J(2). Construction Work in Progress

Construction Work in Progress ("CWIP") represents the cost of investment that is currently under construction and will be transferred to Plant in Service when completed. The $5.9 million dollar difference in CWIP results from the parties' differing forecasting methodologies. Like the forecast for UPIS, CGC bases its CWIP calculations on a starting balance at June 30, 2017, with adjustments for the level of capital spending and project timing outlined in the Company's capital budget for 2018 and 2019.[138] Contributions in aid of construction ("CIAC") is included as a reduction to plant balance and netted with CWIP.[139] Alternatively, the Consumer Advocate uses a five-year historical average of annual balances to project its attrition year CWIP forecast.[140]

The panel found that because CWIP is determined by plant construction projects and activities, the CWIP forecast should be aligned with the capital expenditure projections used to compute UPIS. Accordingly, and for the same reasons the panel adopted CGC's forward-looking forecast of UPIS, the panel unanimously voted to adopt the Company's thirteen-month average CWIP balance of $12,457,439 for the attrition year in this case.

J(3). Pension and OPEB Assets

The Company forecasts a rate base addition of $9.0 million related to pension and other post-retirement benefit ("OPEB") assets whereas the Consumer Advocate did not include any

[138] Gary Tucker, Pre-filed Rebuttal Testimony, pp. 9-10, (August 3, 2018).
[139] Gary Tucker, Pre-filed Direct Testimony, p. 17, (May 11, 2018).
[140] William H. Novak, Pre-filed Direct Testimony, p. 18, (July 3, 2018).

provision for pension and OPEB assets in its rate base forecast.[141] In this case, CGC proposes a change to how pension and OPEB expenses and related accruals are treated by this Commission. Mr. Tucker offered testimony recommending the usage of the accounting standards for pensions and OPEBs issued by the Financial Accounting Standards Board ("FASB") to determine the amount of pensions and OPEB costs for ratemaking purposes.[142] The Consumer Advocate, however, states that pension and OPEB expenses should be limited to cash contributions only, which results in no accrued assets in this case.[143] Mr. Novak correctly testified that the Commission has a long-established ratemaking policy of only allowing rate recovery of the minimum required contribution for pension and OPEB expenses.[144] Further, Mr. Novak pointed out that there is no requirement for the Commission to follow the accounting principles established by other authorities, including the "generally accepted accounting principles" promulgated by FASB, as requested by the Company in this case.[145]

The panel concurred with the Consumer Advocate's position on this issue. For decades this Commission has recognized the expense of pension and post-retirement benefits in service rates in accordance with the actuarially-determined minimum contribution requirement, as opposed to the FASB accounting standards proposed by the Company. The panel found that this long-standing ratemaking policy should be maintained going forward. Further, the panel agreed with the Consumer Advocate that determining service rates based on minimum required contributions for pensions and post-retirement benefits is appropriate policy, because it: (1) applies consistently to all utilities, (2) most closely matches today's costs with today's

[141] CGC's Updated Response to TPUCs Workbook Request, Schedule 2, (August 28, 2018); Revised Exhibit of the Consumer Protection and Advocate Division of the Tennessee Attorney General's Office, Schedule 2, (August 24, 2018).
[142] Gary Tucker, Pre-filed Direct Testimony, p. 13, (May 11, 2018).
[143] William H. Novak, Pre-filed Direct Testimony, p. 19, (July 3, 2018).
[144] *Id.* at 20.
[145] *Id.* at 20-21.

customers, (3) is not subject to the same changes in assumptions for market conditions as the actuary's recommended contribution, and (4) is a more stable and consistent amount for setting rates in the near-term.[146] Therefore, the panel voted unanimously to adopt pension and OPEB assets of zero for the attrition year in this case, consistent with established Commission precedent.

J(4). WORKING CAPITAL

Working Capital is the amount of funds necessary for daily expenditures and a variety of non-plant investments that are necessary to sustain ongoing operations of the utility until those expenditures can be recovered through revenues received from customers. CGC projected a cash working capital requirement based on a lead/lag study sponsored by Company witness Adams.[147] Application of the lead/lag study results to CGC's revenues and expenses requiring operating funds results in a net lag of 8.14 days, which, when multiplied by the Company's estimated average daily cost of service, produces a working capital requirement of $1.5 million.[148] The Consumer Advocate applied the Company's lead/lag study, but with three adjustments made to the study's calculation. Mr. Dittemore testified that the Consumer Advocate adjusted the Company's study to: (1) exclude the return on equity from estimated average daily cost of service; (2) reduce the lag days for salaries and wages from 39.02 to 14.01 to reflect the exclusion of the incentive compensation lag; and (3) incorporate the test period average balance of withholdings (i.e., accrued liabilities) for franchise, excise and use taxes.[149] With these adjustments, the Consumer Advocate computes a net lag of 3.46 days, which, when multiplied

[146] *See* William H. Novak, Pre-filed Direct Testimony, p. 21, (July 3, 2018).
[147] Michael J. Adams, Pre-filed Direct Testimony, Exhibit MJA-2 (February 15, 2018).
[148] Gary Tucker, Pre-filed Direct Testimony, pp. 13-17, Exhibits RDJ 2-3, (May 11, 2018).
[149] David Dittemore, Pre-filed Direct Testimony, p. 17, (July 3, 2018).

by the Consumer Advocate's estimated average daily cost of service, produces a working capital requirement of $0.2 million, which is $1.3 million less than the Company's projection.

The Consumer Advocate argues that the exclusion of the return on equity from working capital is appropriate because it is a non-cash expense that does not generate a cash requirement on behalf of the Company, [150] CGC counters that exclusion of the return on equity would fail to account for the timing of the receipt of such return.[151] Further, Mr. Dittemore testified that payment of dividends is optional, and if paid, are paid in arrears with a significant expense lag as opposed to the zero lag days included in the study.[152] Finally, both the Company and the Consumer Advocate point to cases in which both this Commission and other jurisdictions have determined whether the return on equity component should be excluded from the cash working capital computation in favor of their respective positions.[153] The panel found that return on equity is a non-cash expense not generating a cash requirement for the Company, and therefore, exclusion from working capital calculation is appropriate.

Further, based upon the panel's finding concerning disallowance of incentive compensation for rate-setting purposes, the panel finds that the Consumer Advocate's adjustment to reduce the salaries and wages lag to reflect the removal of incentive compensation is appropriate.

Finally, Mr. Dittemore explains that the Consumer Advocate adjusted the cash working capital requirement to reflect the advanced collection of franchise, excise and use taxes by the average balance of these accounts for the test year, because prior to remittance to taxing authorities, these collected funds provide a source of ongoing working capital for the

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[150] *Id.* at 18
[151] Michael J. Adams, Pre-filed Rebuttal Testimony, (August 3, 2018).
[152] David Dittemore, Pre-filed Direct Testimony, p. 18, (July 3, 2018).
[153] *See* David Dittemore, Pre-filed Direct Testimony, pp. 18-19, (July 3, 2018); Michael J. Adams, Pre-filed Rebuttal Testimony, pp. 3-7, (August 3, 2018).

Company.[154] Mr. Adams counters in his rebuttal testimony that he agrees that these taxes should be considered in the working capital calculation, and in fact, were reflected in a reduction for the working capital requirement.[155] The panel found that recognition of these advanced collections is appropriate, and that the test period average balances of these tax liabilities accounts are reasonable approximations of the funds available to the Company for purposes of computing cash working capital.

As the panel found the Consumer Advocate's adjustments to the Company's lead/lag study to be reasonable and appropriate, the panel unanimously adopted the Consumer Advocate's lag days for computing cash working capital in this case. When weighted and applied to attrition year operating expenses, taxes and interest the panel adopted, the panel determined that a net lag of 4.75 days should be applied to a computed average daily cost of service of $180,221, which, when reduced for tax collections withheld of $506,569, results in a calculated cash working capital of $350,066. Therefore, the panel unanimously voted to adopt working capital for the attrition period in the amount of $350,066.

J(5). Deferred Rate Case Expense

The Company is requesting recovery of rate case expenses totaling $1,241,665, to be amortized over five years.[156] As discussed above, this results in an attrition year rate case expense of $248,333 and a thirteen-month average deferred rate case expense addition to rate base of $1,117,499[157] for the attrition year. In contrast, as discussed briefly in section C(8) herein, the Consumer Advocate estimates a much lower amount of rate case expense of

[154] David Dittemore, Pre-filed Direct Testimony, pp. 19-20 (July 3, 2018).
[155] Michael J. Adams, Pre-filed Rebuttal Testimony, pp. 9-10, (August 3, 2018).
[156] *Post-Hearing Brief of Chattanooga Gas Company*, p. 14, (September 10, 2018); CGC's Updated Response to TPUCs Workbook Request, Schedule 4, (August 28, 2018).
[157] *Post-Hearing Brief of Chattanooga Gas Company*, p. 39, (September 10, 2018); CGC's Updated Response to TPUCs Workbook Request, Schedule 2, (August 28, 2018).

$347,152, with a three-year amortization period to arrive at an attrition year amortization expense of $115,718 and a thirteen-month attrition year average of deferred rate case expense of $260,365.[158]

The Consumer Advocate eliminates certain expenses from CGC's proposed rate case expense, classifying the eliminated expenses as unreasonable.[159] Mr. Novak testified that he excluded consultant's costs related to the class cost of service study ("CCOSS") from recovery because CCOSS studies have never been approved by the Commission.[160] Mr. Novak also gave testimony that he eliminated other consultants' costs because CGC had not supported by records or testimony that costs were a necessity.[161] The Consumer Advocate eliminated 50% of estimated legal expenses asserting that the hiring of two separate law firms for this case is duplicative and imprudent and also contending that a portion of legal expenses should be paid by stockholders since the stockholders also receive benefits from the rate case.[162] Mr. Novak testified that he included only $200,000 as appropriate legal costs for this case in rate case expense.[163]

The Company, however, disagreed with the Consumer Advocate's adjustments to rate case expense. The Company asserted that consultants are needed to organize and manage the case, and that legal expertise is necessary in order to assure the case stays on course.[164] Rate case costs also include items not routinely undertaken, such as lead-lag and depreciation studies, which if not recovered for outside consultants, would force the Company to hire employees to

[158] William H. Novak, Pre-Filed Direct Testimony, pp. 23, 25 (July 3, 2018).
[159] *Consumer Advocate's Post-Hearing Brief*, p. 27 (September 10, 2018); William H. Novak, Pre-filed Direct Testimony, pp. 23-25, (July 3, 2018).
[160] William H. Novak, Pre-filed Direct Testimony, p. 24, (July 3, 2018).
[161] *Id.*; *See also Consumer Advocate's Post-Hearing Brief*, p. 27 (September 10, 2018).
[162] William H. Novak, Pre-filed Direct Testimony, pp. 24-25, (July 3, 2018); *Consumer Advocate's Post-Hearing Brief*, p. 27 (September 10, 2018).
[163] William H. Novak, Pre-filed Direct Testimony, p. 25, (July 3, 2018).
[164] Gary Tucker, Pre-filed Rebuttal Testimony, pp. 21-24 (August 3, 2018).

perform these functions internally at costs that could potentially exceed the outside costs incurred.[165] Further, the Company argued that the $200,000 the Consumer Advocate allowed for legal costs was arbitrary, as it was not supported by any reference or documentation on how the amount was calculated.[166] CGC also argued that some of the high case expenses of this rate case are related to unanticipated delays in filing the case relating to the passage of the Tax and Jobs Act in December of 2017 requiring the Company to redo it case, the extremely high number of discovery requests from the Consumer Advocate, and the need to put together a rebuttal case that required more rebuttal witnesses than direct witnesses.[167]

As previously indicated, the panel noted its concern with regard to the high amount of rate case expenses. It is evident that both ratepayers and stockholders receive a benefit from the rate increases that generally result from the completion of rate cases. The ratepayers receive the benefit of the facility repairs and upgrades ensuring a safe and reliable system and the resources necessary to cover reasonable operating expenses to ensure efficient operations from the Company's increase revenue. At the same time, the stockholders receive the benefit of higher equity returns which leads to increased stock prices as a result of the increased revenues. CGC acknowledges the benefit of rate cases to both ratepayers and stockholders in the testimony of Mr. Dallas.[168]

The Company bears the burden of proving its just and reasonable expenses pursuant to Tenn. Code Ann. § 65-5-103(a). The panel found that CGC provided sufficient testimony and documentation to justify its rate case expenses as reasonable. Further, while the panel noted its concern about the high rate case expense and noted the benefit of rate increases to both

[165] *Id.* at 23-24.
[166] *Id.* at 23.
[167] *Post-Hearing Brief of Chattanooga Gas Company*, pp. 14-15, (September 10, 2018).
[168] Transcript of Hearing, Vol. I A, pp. 79-80, (August 20, 2018).

ratepayers and stockholders, it found that there is insufficient evidence in the record to determine the relative benefits of this proceeding to ratepayers and stockholders by which to apportion the rate case among the ratepayers and shareholders. Absent such evidence, the panel determined that any exclusion from rate case expense based upon this distinction is unsupported and potentially arbitrary. Therefore, the panel unanimously voted to approve the rate case expense of $1,241,665 be recovered over a five-year period as proposed by the Company, resulting in a thirteen-month average of deferred rate case expense of $1,117,499 for the attrition period.

J(6). OTHER RATE BASE ADDITIONS

The remaining items, materials & supplies, prepayments and gas inventory are addressed collectively, the same calculation methodology applying to each of these accounts which represent an investment on which the Company should be allowed to earn a reasonable return. CGC utilized the thirteen-month average for the test period ended December 31, 2017 to project materials & supplies and prepayments for the attrition year. The Company forecasted $9,710,633 for gas inventory for the attrition year.[169] The Company started with the actual balances in stored gas inventory at December 31, 2017, and made projections based on the Company's planned business operations through the attrition year.[170] The Company used forecasted monthly volumes of stored gas inventory and projected NYMEX prices through the attrition year to estimate the dollar amount of its injections and withdrawals, also including the cost of liquefaction in the calculation for the LNG storage facility.[171] Alternatively, the Consumer Advocate forecasted attrition year materials & supplies, prepayments and gas inventories based on five-year historical

[169] Gary Tucker, Pre-filed Direct Testimony, p. 14 and Exhibit RDJ-2, (May 11, 2018); *See also Post-Hearing Brief of Chattanooga Gas Company*, pp. 38-39, (September 10, 2018).
[170] Gary Tucker, Pre-filed Rebuttal Testimony, p. 20 (August 3, 2018).
[171] Gary Tucker, Pre-filed Direct Testimony, p. 14 (May 11, 2018).

averages of each account, which the Consume Advocate claims represents a normalized level of activity for the attrition year. [172]

The panel found that utilizing the test year average is too limited because of the upward and downward variations of the monthly and annual balances of these accounts caused by the activities and operational needs of the Company. In addition, the panel found that while a multi-year average should be examined to capture a trend of normalized activity for ratemaking purposes, a three-year average, as opposed to the five-year average proposed by the Consumer Advocate, provides a more accurate reflection of the recent operational trends in these accounts. Therefore, the panel utilized a three-year, thirteen-month historical average to estimate materials & supplies, prepayments and gas inventories for the attrition year. Using this method, the panel arrived at an estimated thirteen-month average attrition year balance of $343,442 for materials & supplies, $46,803 for prepayments, and $9,425,959 for gas inventory and voted unanimously to adopt these amounts.

J(7). ACCUMULATED DEFERRED INCOME TAX AND REGULATORY LIABILITY FOR EXCESS DEFERRALS

Accumulated Deferred Income Tax represents the accumulated differences between accounting or book income and taxable income. While some of these differences are permanent, others involve temporary or timing matters that reverse in subsequent years. CGC computed accumulated deferred income tax ("ADIT") by using the booked amounts as of December 31, 2017, and then forecasting through June 2019.[173] Existing property, plant and equipment balances with known changes were used to estimate the tax and book depreciation, with the difference multiplied by the income tax rates to arrive at ADIT. The effect of the newly enacted Tax Cuts and Jobs Act was also included in the determination of ADIT, with tax depreciation

[172] William H. Novak, Pre-filed Direct Testimony, pp. 21-22 (July 3, 2018).
[173] Gary Tucker, Pre-filed Direct Testimony, p. 16, (May 11, 2018).

using the Modified Accelerated Cost Recovery System ("MACRS") for 2018 and 2019, without bonus depreciation, except for approximately $3.6 million of assets acquired during the fourth quarter of 2017 that are expected to be placed into service during the first quarter of 2018. The balance of excess deferred income tax ("EDIT") was also calculated and included with the ADIT forecast as a regulatory liability.[174] Mr. Tucker testified that the ADIT amount related to its computed pension asset is $1.7 million, and ADIT related to the OPEB asset is $0.7 million, and that these amounts should be deducted from ADIT if its pension and OPEB assets are excluded from rate base.[175]

With regard to amortization of EDIT, Mr. Tucker testified on behalf of CGC that amortization of the protected EDIT related to depreciable property must be amortized over the life of the related property in accordance with the average rate assumption method, which is one of the amortization methods approved by the IRS. Further, Mr. Tucker stated that compliance with the tax code required the amortization of the protected EDIT to begin with the income tax rate reduction effective January 2018 without delay.[176] The Company proposes to amortize its calculated unprotected EDIT over five years, aligning with its recommended amortization of rate case costs.[177]

The Consumer Advocate agreed with CGC's calculation of ADIT, as well as the protected and unprotected computations of EDIT.[178] However, Mr. Dittemore testified on behalf of the Consumer Advocate that he disagreed with the five-year amortization periods proposed by the Company. Mr. Dittemore recommends that EDIT amortization not commence until the effective date of the rate change ordered in this docket, but he does not object to the Company's

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[174] *Id.* at 16-17.
[175] Gary Tucker, Pre-filed Rebuttal Testimony, pp. 18, 20, (August 3, 2018).
[176] *Id.* at 38-39.
[177] *Id.* at 38.
[178] David Dittemore Pre-Filed Direct Testimony, pp. 24-27 (July 3, 2018).

amortization of protected EDIT over the life of the related depreciable property.[179] Mr. Dittemore, however, recommends that the unprotected EDIT be amortized over three years rather than the five-year period proposed by the Company because "these amounts belong to the ratepayers…"[180]

The most significant portion of ADIT relates to differences in the methods used for computing depreciation expense for tax purposes versus ratemaking purposes. As the voting panel adopted CGC's Utility Plant In Service and associated depreciation expense amounts and the Consumer Advocate does not object to CGC's computation of ADIT, the panel found that the Company's ADIT calculation of $25,514,266[181] be reduced by $2.4 million[182] to reflect the ADIT associated with removal of the Company's proposed pension and OPEB assets from rate base. Using this calculation, the voting panel arrived at an ADIT of $23,114,266 for the attrition year, which it voted unanimously to adopt. Further, the panel voted unanimously to adopt the Company's amortization periods for both protected and unprotected, and to adopt an EDIT regulatory liability of $22,177,646 for the attrition year. In addition, the voting panel ordered CGC to accrue into a regulatory liability account all amortized amounts of EDIT for the period from January 2018 to the effective date of the rate change ordered in this docket, with the disposition of the regulatory liability to be determined in Docket No. 18-00035.

J(8). RESERVES FOR UNCOLLECTIBLES, HEALTH INSURANCE AND UNCLAIMED CREDIT

Reserves for uncollectibles, health insurance and other/unclaimed credits represent non-investor supplied funds available to the Company and should therefore be deducted from rate base. The Company forecasted the reserve for uncollectibles by calculating the average historical

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[179] *Id.* at 25-26.
[180] *Id.* at 26.
[181] CGC's Updated Response to TPUCs Workbook Request, Schedule 2, (August 28, 2018).
[182] Gary Tucker, Pre-filed Rebuttal Testimony, pp. 18, 20, (August 3, 2018).

reserve from January 2016 through December 2017 and then applying that ratio to the estimated operating margin for the attrition period; and it used the thirteen-month average balance of the test year ending December 31, 2017 to forecast the reserves for unclaimed credits and health insurance.[183] The Consumer Advocate forecasted all of these reserve balance accounts for the attrition year by computing a five-year historical average of the annual balances in these accounts.[184]

As it found with regard to materials & supplies, prepayments and gas inventory, the panel found that utilizing a test year average does not allow for the upward and downward variations of the monthly and annual balances of these accounts caused by the activities and operational needs of the Company. Further, the volatility in the uncollectible reserve account suggests that this reserve has not been in correlation with associated annual revenues. In addition, the panel found that while a multi-year average should be examined to capture a trend of normalized activity for ratemaking purposes, a three-year average, as opposed to the five-year average proposed by the Consumer Advocate, provides a more accurate reflection of the recent operational trends in these accounts. Therefore, the panel utilized a three-year, thirteen-month historical average to estimate the reserves for uncollectibles, health insurance and unclaimed credits for the attrition year. Using this method, the voting panel unanimously voted to adopt the amounts calculated for these reserve balance accounts: an estimated thirteen-month average attrition year balance of $169,708 for the reserve for uncollectibles; $33,409 for the reserve for health insurance; and $72,774 for the reserve for unclaimed credits.

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[183] Gary Tucker, Pre-filed Direct Testimony, p. 15, (May 11, 2018); *See also* Gary Tucker, Pre-filed Rebuttal Testimony, pp. 20-21 (August 3, 2018); CGC's Updated Response to TPUCs Workbook Request, Schedule 2, (August 28, 2018)..

[184] William H. Novak, Pre-filed Direct Testimony, pp. 29-30 (July 3, 2018).

J(9). CUSTOMER DEPOSITS AND ACCRUED INTEREST ON CUSTOMER DEPOSITS

Customer deposits are amounts advanced by customers to the Company and therefore represent a source of non-investor supplied funds which the Company has available to finance a portion of its utility investment. Likewise, accrued interest on customer deposits held by the Company represent non-investor supplied funds. Thus, customer deposits and associated accrued interest should be deducted from the rate base on which investor returns are computed.

The Company forecasted customer deposits for the attrition year by applying the most recent three-year average growth rate to the deposits held on December 31, 2017.[185] The Company states that this approach captures a new system that was implemented in December 2017 called Customer Care and Billing ("CC&B") which allows for more frequent review of customer deposit accounts and more timely refunds of the customer deposits.[186] Mr. Tucker testified that the CC&B system results in continued lower balances of the customer deposits account in the future. As a result of the recent system change, CGC utilized the interest accrued for the test year ended December 31, 2017 to estimate attrition year accrued interest.[187] Consistent with its other rate base calculations, the Consumer Advocate used a five-year historical average of the annual balances to forecast customer deposits for the attrition year, but it agreed with the Company's forecast for accrued interest on customer deposits.[188]

The panel found that the implementation of the CC&B program in December 2017 should result in better management and more-timely refunding of customer deposits going forward. Based upon the Company's detailed information on the CC&B program and its implementation, the voting panel found that CGC's methodology for forecasting customer

[185] Gary Tucker, Pre-filed Direct Testimony, p. 15 (May 11, 2018).
[186] Gary Tucker, Pre-filed Rebuttal Testimony, p. 25, (August, 3, 2018).
[187] *Id.*
[188] William H. Novak, Pre-filed Direct Testimony, pp. 29-30 (July 3, 2018).

deposits and related accrued interest is reasonable. Therefore, the panel unanimously voted to adopt $1,612,342 for customer deposits and $332,933 for accrued interest on customer deposits for the attrition year.

K. REVENUE CONVERSION FACTOR

The Revenue Conversion Factor represents the adjustment factor necessary to translate any surplus or deficiency in NOI into a Revenue Deficiency or Surplus that rates will be designed to produce. To produce a certain amount of revenue several factors are considered. In order to determine the proper amount of revenue needed for the Company to have the opportunity to earn a fair rate of return, it is necessary to apply a revenue conversion factor to Net Income Deficiency or the NOI. After this amount is calculated, it is necessary to add forfeited discounts and subtract uncollectibles, state excise tax, and federal income tax. Based upon a Forfeited Discounts Factor of 0.008796, an Uncollectible Ratio of 0.003825, State Excise Tax rate of 6.5%, and a Federal Income Tax rate of 21%, the panel arrived at and unanimously voted to adopt an overall Revenue Conversion Factor of 1.347169.

L. RATE OF RETURN

The goal of regulatory rate setting is to ensure a fair rate of return on a company's investments while ensuring the safety and reliability of the service provided. Fair rate of return standards developed from the United States Supreme Court decisions in *Bluefiled Water Works & Improvement Company* v. *P.S.C. of West Virginia*[189] and *Federal Power Commission v. Hope Natural Gas Company.*[190] A fair rate of return is achieved when (1) the return is comparable to other businesses that bear similar risks; (2) the allowed return is sufficient to ensure financial

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[189] *Bluefield Water Works & Improvement Co. v. P.S.C. of West Virginia*, 262 U.S. 679 (1923).
[190] *F.P.C. v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

integrity; and (3) the company can attract, at reasonable cost, credit to meet its capital requirements.

The process of determining the cost of capital involves three steps. First, the capital structure of the firm must be established. In this proceeding, the Commission must determine whether to adopt a double leverage capital structure methodology, as proposed by the Consumer Advocate. Second, the cost of each component of the capital structure – debt and equity – must be calculated. Finally, the overall return is computed by calculating the weighted cost of capital.

The current authorized 7.41% rate of return for CGC was established in Docket No. 09-00183. The currently authorized return on equity established in Docket No. 09-00183 is 10.3%.[191] In the instant proceeding, CGC proposes an 11.25% equity return[192] and an overall rate of return of 7.83%.[193] The Consumer Advocate proposes an equity return of 9.0% and an overall rate of return of 5.93%.[194]

L(1). CAPITAL STRUCTURE

The Company's proposed capital structure is based upon the consolidated capital structure of its parent, Southern Company Gas, and is composed of 44.47% long-term debt, 6.3% short-term debt and 49.23% equity.[195]

The Consumer Advocate's capital structure is based upon the "double leverage" approach to account for the parent-subsidiary relationship between CGC, its parent Southern Company Gas (SCG), and SCG's parent holding company The Southern Company (TSC).[196] Essentially,

[191] *In Re: Petition of Chattanooga Gas Company for a General Rate Increase, Implementation of the Energysmart Conservation Programs and Implementation of a Revenue Decoupling Mechanism*, Docket No. 09-00183, *Order*, p. 66, (November 8, 2010).
[192] James H. Vander Weide, Ph.D., Pre-filed Direct Testimony, p. 52, (February 15, 2018).
[193] Gary Tucker, Pre-filed Direct Testimony, p. 5-6, (May 11, 2018).
[194] Christopher C. Klein, Ph.D., Pre-filed Direct Testimony, p. 22, (July 3, 2018).
[195] Gary Tucker, Pre-filed Direct Testimony, p. 18 (May 11, 2018).
[196] Dr. Klein defined double leverage in his testimony as follows: "Double leverage 'usually refers to a situation where a holding company raises debt and downstreams it as equity capital, or subordinated debt, to a subsidiary, i.e.,

the double leverage calculation proposed by Dr. Klein applies the weighted cost of capital of TSC to the equity portion of SCG's capital structure. When computing his double leverage capital structure, Dr. Klein accepts the capital structure for SGC proposed by the Company, noting "... I find Mr. Tucker's recommended capital structure of SCG and its cost rates to be reasonable, except for ignoring the parent-subsidiary relationship between SCG and TSC."[197] The Consumer Advocate's proposed double leverage capital structure, broadly measured, is composed of 35% equity and 65% debt.[198] Dr. Klein Further testified that when using his proposed 9% equity return, the double leverage methodology reduces overall cost of capital by approximately 70 basis points.[199]

The Consumer Advocate correctly observes that this Commission and its predecessors have recognized the importance of the parent-subsidiary relationship when determining capital structure. In addition, the Consumer Advocate is also correct to note that this agency has used the double-leverage methodology in prior cases. However, the prior decisions of the agency do not mandate the use and application of double-leverage in this proceeding. Previous CGC rate cases, TPUC Docket No. 09-00183 and TPUC Docket No. 04-00034 utilized the capital structure of AGLR, the parent company of CGC, when determining CGC's capital structure.[200] The agency

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it is the use of debt by both the parent company and the subsidiary, in combination with the company's equity capital, to finance the assets of the subsidiary.' [citation omitted] In the regulatory context, 'double leverage...as commonly propounded instructs that the weighted average cost of capital of the parent company of a subsidiary be used as a measure of the cost of equity of a subsidiary.' [citation omitted]." Dr. Klein further states that the purpose of the double-leverage approach is to recognize the parent-subsidiary relationship by sharing some of the benefits of that relationship with ratepayers. Christopher C. Klein, Ph.D., Pre-filed Direct Testimony, p. 9, (July 3, 2018).

[197] *Id.* at 8.

[198] The specific values for the components of the Consumer Advocate's capital structure are found in the Confidential Exhibits attached to Dr. Klein's Testimony. Christopher C. Klein, Ph.D., Pre-filed Direct Testimony, Confidential Exhibits, p. 11, (July 3, 2018).

[199] Christopher C. Klein, Ph.D.. Pre-filed Direct Testimony, p. 11, (July 3, 2018).

[200] *In Re: Petition of Chattanooga Gas Company for a General Rate Increase, Implementation of the Energysmart Conservation Programs and Implementation of a Revenue Decoupling Mechanism*, TPUC Docket No. 09-00183, *Order,* pp. 41-43, (November 8, 2010); *In Re: Petition of Chattanooga Gas Company for Approval of Adjustment of its Rates and Chares and Revised Tariff*, TPUC Docket No. 04-00034, *Order*, pp. 41-44, (October 20, 2004). *See also* Gregory Macleod, Pre-filed Rebuttal Testimony, p. 2 (August 3, 2018).

specifically declined to use double-leverage methodology in Docket No. 04-00034[201] and is unable to cite the use of double-leverage by the agency to calculate the capital structure or rate of return in a deliberated gas case since 2005.

The panel found that the use of double-leverage in this proceeding would result in a rate of return that is not comparable to similar companies and therefore rejected the application of double-leverage in this case. The use of the double-leverage approach generally leads to capital structures with smaller equity ratios. As equity is the most expensive form of capital, smaller equity ratios result in a lower weighted cost of capital. The Consumer Advocate presented an exhibit during the Hearing, Trial Exhibit 5, which shows that the average rate of return in the first quarter of 2018 for gas utilities was 7.14% and 6.89% for electric utilities during the same period.[202] Further, Company witness Dr. Vander Weide provides a study that shows the average overall return for natural gas utilities in 2017 through year-to-date 2018 is 7.33%.[203] The Consumer Advocate's witness recommends a rate of return that is over 120 basis points beneath the average return for gas utilities and almost 100 basis points beneath the average rate of return set for electric utilities.[204] Given the large difference between Consumer Advocate witness Dr. Klein recommended double-leverage based rate of return of 5.93% and the average recent rates of return decisions for other companies, the panel found that adopting the Consumer Advocate's methodology would run counter to the comparability requirement of the *Hope* and *Bluefield* decisions. As such, the panel rejected the double leverage capital structure and rate of return proposed by the Consumer Advocate.

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[201] *In Re: Petition of Chattanooga Gas Company for Approval of Adjustment of its Rates and Chares and Revised Tariff*, TPUC Docket No. 04-00034, *Order*, p. 44, (October 20, 2004).
[202] S&P Global Market Intelligence, RRA Regulatory Focus Major Rate Case Decisions – January – March 2018, www.spglobal.com/marketintelligence, p. 7, (April 17, 2018). Transcript of Hearing, Vol. I B, Trial Exhibit 5, p. 120, (August 20, 2018).
[203] James Vander Weide, Ph.D., Pre-filed Rebuttal Testimony, p. 23, (August 3, 2018).
[204] Christopher C. Klein, Ph.D.. Pre-filed Direct Testimony, p. 22, (July 3, 2018).

This rate case presents a matter of first impression for the Commission, being the first proceeding in which a natural gas company is ultimately a subsidiary of a holding company that owns both other natural gas companies and electric companies. As a result of this novel issue, the panel was required to determine whether the cost of capital for CGC should stand on the basis of its role as a natural gas distribution company or on the basis of its ultimate owner, The Southern Company, an energy conglomerate with both electric and gas companies. As discussed above, the Consumer Advocate's approach to place emphasis on CGC's' ties to the electric industry using its double-leverage method results in a rate of return that is not comparable to recent decisions for either natural gas or electric utilities. Therefore, the panel found that the Company should be valued relative to other natural gas utilities. In part, the decision to determine the cost of capital in this case relies on its financial relationship to its immediate parent Southern Company Gas and its need to secure capital in competition with its other gas distribution subsidiaries of Southern Company Gas.

The panel found that adoption of the capital structure of Southern Company Gas proposed by Company is reasonable and appropriate. The capital structure proposed by CGC witness Gary Tucker is composed of 44.47% long-term debt, 6.3% short-term debt and 49.23% equity and is comparable in composition to capital structures adopted by the agency. The Consumer Advocate witness, Dr. Klein accepted this capital structure for use in his double leverage calculation. Further, the panel found that using the capital structure for Southern Company Gas is analogous to its treatment in prior agency proceedings as CGC's capital structure is set by using a parent company's capital structure that is engaged in the natural gas business. Therefore, the panel adopted the capital structure proposed by the Company containing 44.47 long-term debt, 6.3% short-term debt and 49.23% equity.

L(2). COST OF DEBT

The panel adopted the short-term and long-term debt costs proposed by The Company, which were also accepted by the Consumer Advocate as part of its capital recommendation. Therefore the panel found that the costs of short-term debt and long-term debt for SCG are 3.01% and 4.73%, respectively.

L(3). RETURN ON EQUITY

The final piece of information needed to determine the weighted cost of capital is the appropriate equity return. There is no simple single-step process for setting the appropriate equity return. There are a number of factors used to determine the equity return, including: the results of the parties' models, prevailing economic conditions, rulings of other state commissions, and other factors that may provide evidence about the risk of investing in CGC or SCG. The Company requested an 11.25% equity return.[205] The Consumer Advocate proposes a 9.0% equity return.[206] The currently authorized return on equity established in Docket No. 09-00183 is 10.3%.[207]

Determination of the return on equity utilizes "estimation" techniques that rely on comparable companies. This estimation process provides useful information about the equity cost for a company in the same industry where inputs to models used to determine the cost of equity are difficult to measure. While CGC and SCG present especially acute problems with regard to the difficulty in measuring inputs due to the non-public trade of their stock, the uncertainty in the estimate of the cost of equity for any individual company can be greatly reduced by applying cost of equity methods to a sample of comparable companies.

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[205] James H. Vander Weide, Ph.D., Pre-filed Direct Testimony, p. 52, (February 15, 2018).
[206] Christopher C. Klein, Ph.D.. Pre-filed Direct Testimony, p. 6, (July 3, 2018).
[207] *In Re: Petition of Chattanooga Gas Company for a General Rate Increase, Implementation of the Energysmart Conservation Programs and Implementation of a Revenue Decoupling Mechanism*, TPUC Docket No. 09-00183, *Order*, p. 45, (November 8, 2010).

In the present case, the determination of comparable companies is an important distinction. As discussed above, the panel found that the cost of equity capital employed by CGC should be valued relative to other gas companies. The comparable companies used by the Company are a set of natural gas companies.[208] The Consumer Advocate relies on comparable companies that blend ownership of electric and gas utilities.[209] Based upon its finding, the panel placed greater emphasis on the results of valuation models using the natural gas company comparable companies provided by the Company. The panel found, based upon the testimony of Dr. Klein, that the equity return using gas-electric utility companies is less than comparable returns from a sample of gas companies. Using the zone of reasonableness concept, the panel found the Consumer Advocate's 9% equity return recommendation as a useful lower bound on the return on equity in this proceeding.

While the panel agreed with the use of the Company's choice of comparable companies, it rejected the Company's recommended 11.25% equity return, finding that the Company's recommendation is out of line with the average equity returns for natural gas utilities in 2017 and the first quarter of 2018 and exceeds the highest awarded equity return for the same time period.[210] The panel determined that CGC's recommended ROE is clearly inconsistent with decisions related to companies in the natural gas business from other states. Such incomparability violates the canon principles of the *Hope* and *Bluefield* decisions, which prohibit returns that are incomparably low and incomparably high.

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[208] James H. Vander Weide, Ph.D., Pre-filed Direct Testimony, p. 6, (February 15, 2018).
[209] Christopher C. Klein, Ph.D.. Pre-filed Direct Testimony, p. 12, (July 3, 2018).
[210] The average awarded equity return in rate cases for natural gas utilities, in 24 cases, was 9.72%. The average equity return awarded in rate cases for natural gas utilities during the first quarter of 2018 was 9.68%. The highest awarded equity return for a natural gas utility during the first quarter of 2018 was 10.19% awarded to a Florida utility in March, 2018. S&P Global Market Intelligence, RRA Regulatory Focus Major Rate Case Decisions – January – March 2018, www.spglobal.com/marketintelligence, pp. 9-10, (April 17, 2018). Transcript of Hearing, Vol. I B, Trial Exhibit 5, p. 120, (August 20, 2018).

In addition, CGC based its recommended ROE upon an adjustment accounting for the difference in the after tax market weighted capital structure of the Company relative to its comparable companies.[211] Dr. Klein testified on behalf of the Consumer Advocate:

> There are several practical issues in a regulatory context. First, this approach to the cost of equity has never been adopted in Tennessee before. The companies regulated by the TPUC and its predecessors remain financially viable despite this. Hence, there seems to be no necessity for taking into account a common WACC and calculating an adjusted cost of equity as Dr. Vander Weide proposes. Secondly, his calculation of the WACC for his comparable firms requires some estimation of the capital structure and debt costs of these firms. To the extent these approximations are not accurate, his estimates of the WACC for his comparable firms may be inaccurate or biased. Consequently, his adjusted cost of equity for CGC is also inaccurate.[212]

Following the guidance of *Hope* and *Bluefield* with regard to comparable decisions on returns and the analysis concerning the adjustment taken by the Company, the panel found a sufficient basis to reject the Company's 11.25% proposed equity return.

The Company's 11.25% percent equity return recommendation is based upon an adjustment to the determination that the return on equity should be set at 10.3%, based upon the implementation of an ensemble of valuation models.[213] This 10.3% return is based on models implemented utilizing methods that are inconsistent with prior decisions of the agency. First, Dr. Vander Weide used the ex ante and ex post risk premium models which this agency has not adopted on the basis of the results not being specific to the company or the set of comparable companies.[214] Next, Dr. Vander Weide used quarterly DCF models, which the agency has not adopted, finding that the annual model is a more accurate model, as it does not inflate the return

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[211] James H. Vander Weide, Ph.D., Pre-filed Direct Testimony, pp. 4-5, (February 15, 2018).
[212] Christopher C. Klein, Ph.D., Pre-filed Direct Testimony, pp. 21-22, (July 3, 2018).
[213] James H. Vander Weide, Ph.D., Pre-filed Direct Testimony, p. 4, (February 15, 2018).
[214] *In Re: Petition of Tennessee American Water Company For A General Rate Increase*, TPUC Docket 10-00189, *Final Order*, p. 128 (April 27, 2012).

on equity, unlike the quarterly model.[215] Finally, the agency has rejected the addition of floatation costs when there is no accompanying issuance of stock.[216] The Company indicated that there are no planned stock issuances for Chattanooga Gas or Southern Company Gas for the next five fiscal years.[217] The panel found that given these observations, it is reasonable to recast Dr. Vander Weide's analysis to reflect the previous decisions of the agency, the end result being an upper bound equity return of 9.9%.[218]

The panel chose to implement the Capital Asset Pricing Model ("CAPM") using information provided by the parties to assist in the determination of the equity return. The fundamental idea underlying the CAPM is that investors demand higher returns for assuming additional risk. The CAPM produces a quantitative measure of the additional return required for bearing additional risk. The additional return needed to induce an investor to engage in a riskier investment is known as the risk premium.

To understand the results of the CAPM based upon economic conditions expected during the attrition period, the panel performed its own analysis. The formal representation of the CAPM is:

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

Where:
K = expected return
R_f = risk-free return
R_m = overall market return
β = measure of asset risk relative to market risk.

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[215] *Id.*
[216] *Id.*
[217] Gary Tucker, Pre-filed Direct Testimony, p. 3, (May 11, 2018). *See also* MFG-95, (February 15, 2018).
[218] The 9.9% figure is derived by eliminating the ex ante and ex post risk premium models from the results summarized in Table 2 in Dr. Vander Weide's Direct testimony and subtracting 15 basis points from the remaining model results to reflect the elimination of floatation costs. The results of the discounted cash flow model were not recalculated to reflect annual payments, thus the panel determined the 9.9% estimate to be an upper bound of the equity return for capital used by CGC.

For overall market risk, the Parties both used a 6.9% long-run risk premium.[219] For the other inputs, the panel considered the values used by each party and made a determination about its utilization in the CAPM calculation.

The panel first utilized a risk-free return of 3.04% for use in the CAPM calculation, based upon the then-current yield on the 20 year Treasury bond used by Dr. Klein in his CAPM implementation.[220] However, upon completion of calculations, the panel arrived at equity return values lower than and not comparable to the CAPM result listed in the recent decisions reflected in Trial Exhibit 5. As a result, the panel noted that it shares the concern expressed by Company witness Dr. Vander Weide, that the low interest rate environment that has been evident since CGC's last rate proceeding has produced CAPM equity returns that biased low.[221] Similarly, due to anticipated action by the Federal Reserve with regard to interest rates, the panel noted that that using current interest rates as a measure for the risk-free rate will be unrepresentative of rates in the near term. Therefore, the panel implemented calculations of the CAPM with the 4.2% risk free rate used by Dr. Vander Weide.[222] However, to buffer against uncertainty in the interest rate forecast used by Dr. Vander Weide, the panel also implemented the CAPM using the average of the 4.2% forecast and the 3.04% then-current 20 year Treasury rate used by Dr. Klein.

Finally, the panel initially used a BETA value of 0.74 derived as the average of ValueLine BETAs for the comparable gas companies identified by the Company.[223] However, as with the initially used risk-free return value, this BETA value resulted in incomparably low CAPM results. Both witnesses accept that when companies have BETA statistics that are less than one, that CAPM equity return may be understated. To correct for this, Dr. Vander Weide

[219] *Id.*; James H. Vander Weide, Ph.D., Pre-filed Direct Testimony, p. 40, (February 15, 2018).
[220] Christopher Klein, Ph.D., Pre-filed Direct Testimony, Exhibit p. 4, (July 3, 2018).
[221] James H. Vander Weide, Ph.D., Pre-filed Rebuttal Testimony, pp. 10-11, (August 3, 2018).
[222] *Id.* at 39.
[223] James H. Vander Weide, Pre-filed Direct Testimony, p. 39 & Exhibit JVW-1, Schedule 6, (February 15, 2018).

sets BETA = .9, while Dr. Klein implements his CAPM on his electric company comparable using BETA = 1.[224] While this agency has not adjusted for BETA statistics less than 1 in previous cases,[225] in the present case, such adjustment is useful as it assists in the counteraction of the abnormally low current interest rate environment, and both parties agree the practice is acceptable.[226]

Implementing the CAPM with BETA = .9, risk premium = 6.9%, and risk free return of 3.62% yields an equity return of 9.8%. The panel found that the calculation is a reasonable implementation of the CAPM. Further, the panel found the equity return to be similar to the average first quarter gas rate case ROE of 9.68% found in Trial Exhibit 5. In addition, the panel found the equity return to be comparable to the 9.8% which was awarded to NICOR, an affiliate of CGC, in its rate case in Illinois.[227] Finally, the recast results of Dr. Vander Weide's analysis supported a 9.9% equity return. Therefore, the panel found that a 9.8% equity return is supported by the record and leads to a comparable return for the equity capital deployed by CGC and unanimously voted to adopt 9.8% as the appropriate equity return for use in this proceeding.

L(4). OVERALL RATE OF RETURN

Based upon the above findings for relevant debt and equity costs, the panel calculated an overall cost of capital of 7.12% for CGC. The average rate of return for gas utilities awarded in the first quarter of 2018 is 7.14%, as shown in Trial Exhibit 5. The voted unanimously to adopt overall cost of capital of 7.12%, finding, based upon comparison with the Parties proposals and recent decisions in other states that it is within the zone of reasonableness.

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[224] *Id.* at 42-48; Christopher C. Klein, Ph.D., Pre-filed Direct Testimony, pp. 15-16, (July 3, 2018).

[225] *In Re: Petition of Tennessee American Water Company For A General Rate Increase*, TPUC Docket 10-00189, *Final Order*, p. 127-128 (April 27, 2012).

[226] James Vander H. Weide, Ph. D., Pre-Filed Direct Testimony, pp. 42-49, (February 15, 2018). Christopher C. Klein, Ph.D., Pre-filed Direct Testimony, p.16 (July 3, 2018).

[227] *See* CGC's Updated Responses to MFG 17, (August 28, 2018). The decision was reached by the Illinois Commission to keep the previously authorized 9.8% equity return. *See Northern Illinois Gas Company d/b/a Nicor Gas Company*, Ill C.C. Docket No. 17-0124, *Order*, (January 31, 2018).

M. Revenue Deficiency

Based upon the rate base, net operating income, fair rate of return, and the revenue conversion factor adopted by the panel, the panel determined that the revenue deficiency for CGC is $1,390,347 for the attrition period.

N. Rate Design

The goal of overall rate design is to establish a system of rates that will enable a utility to generate sufficient revenues to cover expenses needed to operate the utility, plus an equity return for investors. There are often, however, many factors that are taken into consideration when designing rates, including those related to economics and social considerations. Social considerations may require affordable rates for certain customer classes that are less reflective of the actual cost of service. Economic considerations may include federal and state legislation that has been enacted to encourage energy efficiency and energy conservation and tasked state commissions with exploring rate design alternatives to align the conservation interests of consumers, while providing utilities with the proper financial incentive for promoting energy efficiency and energy conservation.

The Company proposed recovery over $4 million of its requested $6.2 million increase from residential customers and nearly $1 million from small commercial customers.[228] In total, the Company's proposed rate design seeks to recover $5 million of its requested $6.2 increase from these two customer classes. CGC's rate proposal represents a 28.21% increase in residential base rates and small commercial rates. The remaining revenue increase is apportioned to large

[228] CGC has reduced its requested rate increase from $7.0 million to $6.1 million through several modifications, though the latest rate design provided by the Company is based upon a requested revenue increase of 6.2 million. Daniel P. Yardley, Pre-filed Rebuttal Testimony, pp. 8-9, (August 3, 2018).

commercial, commercial transportation and industrial customers in CGC's proposed rate design.[229]

Specifically, CGC proposed a $5.00 increase to the Residential monthly fixed charge for November through April and a $5.50 increase to the same charge for May through October. For Small Commercial monthly rates, both the winter and summer fixed rates would increase by $10.00 per month. The other customer classes will retain their current fixed monthly rate.[230]

In addition, CGC would increase the fixed demand charge for Medium Commercial and Industrial customers by $1.5 per dekatherm, and the seasonally differentiated declining block variable distribution charge will increase by $0.01093 per therm. Further, the larger Industrial customer's fixed monthly demand charge would also increase by $1.50 per dekatherm, and the partial standby monthly demand charge will increase by $0.40 per month. The declining block variable distribution charges will increase by $0.00022 per therm.[231]

Company witness Daniel Yardley recommends these rates based upon a class cost of service study ("ACOSS") he performed.[232] His cost of service study indicates that residential and small commercial customers' rates do not cover their respective costs. Mr. Yardley testified that the rate design should be reflective of the service received in order to promote efficient energy consumption and to prevent overuse of a natural resource due to availability subsidized by other customers. In order to provide more intra-class fairness, Mr. Yardley proposed to allocate the largest portion of the requested revenue increase to Residential and Small Commercial rate classes.[233]

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[229] *Id.*
[230] Daniel P. Yardley, Pre-filed Direct Testimony, p. 17 (February 15, 2018).
[231] *Id.* at 19.
[232] *Id.* at 2.
[233] *Id.* at 3, 12-16.

Mr. Yardley also testified that when the variable portion of the rate is set to recover fixed costs, the Company is encouraged to promote increased consumption by customers. He stated that CGC rates currently follow the traditional throughput rate design, and a significant portion of base distribution revenues are derived from the variable portion of the rate.[234] Accordingly, CGC proposed allocating its proposed revenue increase predominantly to fixed monthly charges, explaining that the fixed customer charge is an important element of customer rates for three reasons: (1) it sends a price signal to the customer about the cost of connecting to the gas system; (2) it results in fairness to all customers; and (3) it provides revenue stability to the Company to recover the fixed cost to serve.[235]

The Consumer Advocate argued that the Company's Class Cost of Service Study ("CCOSS") is one factor to consider when evaluating the rates for each customer class as it established a cost for serving each of the separate customer classes and offered an allocation method to distribute the cost to the classes without providing evidence to explain rationale for allocations.[236] Mr. Novak challenged the impartiality of the Company's CCOSS and contended that distribution of the 41 allocation factors is "inherently judgmental."[237] Mr. Novak also pointed out, as an example, that many of the allocation factors are based on peak day consumption, instead of total throughput, which will assign almost all of these costs to residential and small commercial customers. He further stated that the Company has not substantiated the appropriateness of the factors used and asserted that other factors that should be considered when allocating costs to customer classes, such as the value of service that cannot be mathematically

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[234] *Id.* at 4-5.
[235] *Id.* at 15-17.
[236] William H. Novak, Pre-filed Direct Testimony, pp. 31-32, (July 3, 2018).
[237] *Id.* at 32.

quantified. Mr. Novak also testified that a CCOSS should not be directly converted into rates and such studies have never been adopted by the Commission for the purpose of setting rates.[238]

Rather than utilize a cost of service study on which to base rates, the Consumer Advocate instead recommended that its proposed rate reduction be allocated evenly across-the-board to each customer class, including special contract customers, based on the ratio of each customer class' attrition period margin to the total attrition period margin.[239] The Consumer Advocate argued that across-the-board changes in rates more equitably spreads the benefit or burden of rate changes and is preferable to the basing rates upon a CCOSS as CGC proposed. Based upon the Consumer Advocate's recommended rate reduction, the across-the-board rate decrease would be 8.9% to all customer classes.[240]

Although the panel considered CGC's cost of service study to be a useful tool, the panel agreed with the concerns raised by the Consumer Advocate with regard to the lack of an in-depth analysis of the Company's cost of service study and the allocations within the study. The panel noted that the peak day allocations relied upon by the Company have been the subject of much debate among state commissions, gas utilities and consumer advocacy groups. Without a full analysis of all inputs and assumptions used in cost of service model, the panel cannot rely upon the results of the Company's cost of service study as being truly representative of actual costs for customer classes. However, the panel found the Company's cost of service study to provide some generalities that have merit, such as residential and small commercial classes providing less margin than large commercial, industrial and transportation classes. The panel found that by themselves, the generalities supported by the cost of service study are not a just and reasonable basis for the shifting of approximately 82% of cost recovery to the residential and small

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[238] *Id.* at 32-33.
[239] *Id.* at 33.
[240] *Id.* at 34.

commercial classes with much smaller increases to large industrial and interruptible customers as proposed by CGC. For this reason, the panel rejected the Company's rate design methodology which is based upon its class cost of service study.

The panel observed that with a significant portion of revenues collected through volumetric charges, along with the fact that customer usage is declining, it has become increasingly difficult for all local distribution gas companies, including CGC, to maintain a revenue stream sufficient to earn its authorized rate of return. In addition, the panel found that CGC has no incentive to encourage customers to use less gas and, in fact, CGC is actually incentivized to sell more gas in order to generate additional revenues to increase earnings. In order to break the link of fixed cost recovery through volumetric charges, the panel determined it is necessary to approve and implement a rate design consisting of rate increases to fixed monthly charges and fixed demand charges. Such a design allows recovery of fixed costs through revenues that are more stable and predictable than those revenue streams collected via volumetric usage, which may vary greatly depending on weather and overall decline in customer usage due in part to more efficient appliances and homes, programmable thermostats and improving general customer awareness.

Based upon the panel's decisions regarding rate design, the panel voted unanimously to increase: the Residential R-1 Class fixed monthly rate from \$13.00 to \$14.00 in the summer and from \$16.00 to \$17.00 in the winter; the Residential R-4 Class fixed summer and winter monthly rates from \$6.00 to \$6.25; the Commercial C-1 fixed monthly rate from \$25.00 to \$26.80 in the summer and from \$29.00 to \$31.00 in the winter; and, the Firm Demand Charge from \$5.50 to \$6.35 for the Commercial C-2 Class, the Commercial Transportation Class, and the Industrial Transport with Full Standby and Partial Standby Classes. The panel found that these rate changes for revenue recovery are consistent with state and federal legislation regarding aligning the financial interest of the utility with the consumer interests of energy conservation and energy efficiency.

O. SPECIAL CONTRACT CHARGES

As indicated in above the Consumer Advocate argued for a rate design that allocated an evenly proportioned reduction (or increase) across-the-board for all classes, including special contracts.[241] The Consumer Advocate presented evidence that subsequent to Commission approval of a Special Contract between Chattanooga Gas and E.I. DuPont de Nemours in TPUC Docket No. 99-00908,[242] the Company has given these rates to subsequent owners of this plant by assignment of the special contract without seeking approval from the Commission.[243] The Company responded indicating approval was not necessary, the special contract contained language binding successors, and the Commission was aware of the assignment through subsequent dockets.[244] While the panel did not adopt a rate change applicable to the special contract, the panel voted unanimously to direct the Company, if the special contract is to be renewed or extended, to file for approval of this contract no less than 90 days prior to its current expiration, and to provide documentation that such contract is consistent with Commission Rules and remains in the public interest.

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[241] William H. Novak, Pre-filed Direct Testimony, pp. 31-32, (July 3, 2018).
[242] *In Re: Application of Chattanooga Gas Company for Approval of Negotiated Contract with E.I. Du Pont De Nemours Company*, TPUC Docket No. 99-00908, *Order Approving Application for Approval of Negotiated Contract with E.I. Du Pont De Nemours Company*, (July 18, 2000).
[243] *Id.* at 12-13.
[244] Archie R. Hickerson, Pre-filed Rebuttal Testimony, pp. 10-12, (August 3, 2018). *See also* Transcript of Hearing, Vol. II C, pp. 227-228, (August 21, 2018).

P. Tariff Changes

P(1). Miscellaneous Changes

The Company proposed certain changes to the current tariff through its witness Archie Hickerson. First, CGC proposes to replace the 12 page standard line extension provision and its 28 page Appendix with a simpler provision more in-line with other gas companies in Tennessee.[245] As another revision to the tariff, a new residential customer using gas for central heat and water heating will now qualify for up to 100 feet of service line installed at no charge. The Company will not be changing how they determine the amount of investment needed based on projected revenue; however, the tax gross-up factor has been revised to 17.25% to reflect the new 21% corporate tax rate and is on sheet 51 on Commission Tariff No. 1 and sheet 8 on Commission Tariff No. 2.[246]

Mr. Hickerson also testified that several deletions are needed in the current rate schedules to eliminate classes that are unused or see little use. CGC proposed elimination of the special R-1 Air Conditioning, as there are no Residential Air Conditioning customers.[247] Similarly, Rate Schedule SF-1 would be deleted, as there no customer has ever been provided service under this schedule.[248] Finally, CGC would also eliminate the Standby Demand Charge for Rate Schedules R-1, R-4, and C-1, as there are only 11 customers currently being billed this charge, making the billing process cost ineffective administratively.[249]

In addition, CGC proposed revising its tariff to add language for the protection of its employees and agents. This revision would authorize the Company to discontinue service to a customer if the Company has reasonable evidence that there may be a danger from the customer,

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[245] Archie R. Hickerson, Pre-filed Revised Direct Testimony, pp. 4-5, (May 1, 2018).
[246] *Id.*
[247] *Id.* at 5.
[248] *Id.* at 6.
[249] *Id.* at 5.

or anyone on the customer's premises, to Company personnel or agents who are on the premises on Company business.[250]

CGC is also proposing a revision that will allow the Company to determine the receipt point when the Company is not able to deliver gas directly to the customer and a solution cannot be found through displacement.[251] Mr. Hickerson also described revisions to the Performance Based Ratemaking provision of the tariff concerning the separate reporting of certain gas purchases and the replacement of certain benchmarks and indexes.[252]

The panel found that there was no opposition testimony to these proposed tariff changes from either the Consumer Advocate or the CRMA. Further, the panel found that these changes had little or no impact to customers and that the proposed tariff change concerning contributions for aid in construction is consistent the 2017 Tax Cuts and Jobs Act. Accordingly, the panel voted unanimously to approve each of the above described tariff revisions.

P(2). UNAUTHORIZED GAS USE PENALTY TARIFF

The Company also proposed increasing the Unauthorized Gas Use Penalty to make it significant enough to deter customers from continuing to use gas beyond the amount delivered to the Company for them or beyond their contracted volumes. CGC would also revise the tariff to state that the Company may terminate services to the customer that continues the excessive use of gas beyond their allotted amount.[253]

Randy Carter, manager of Talley Construction Company ("Talley"), presented testimony on behalf of CRMA expressing concern over the proposed change in the Company's Unauthorized Gas Use Penalty, stating the changes would result in "unreasonable hardship" for

[250] *Id.* at 8.
[251] *Id. at 7.*
[252] *Id.* at 7-8.
[253] *Id.* at 6-7.

Talley's three asphalt facilities in Chattanooga and Cleveland, which are billed under class Chattanooga T-1.[254] Mr. Carter testified that the variable nature of the day to day demand for natural gas coupled with a recent change in CGC's practices on the issuance of daily balancing orders has made it very difficult for Talley to avoid penalties despite its efforts to anticipate usage requirements.[255] Mr. Carter gave testimony concerning one specific instance wherein an unusually warm December day in 2017 resulted in larger than normal demand for asphalt. As a result, Talley overdrew 437.7 (Dth) at a penalty rate of $15.00, for a total penalty charge of $6,565.50, on a day when the gas price was relatively low at only $2.73.[256] Further, Mr. Carter objected to the CGC's discontinuance of the sale of incremental gas to interruptible customers as an alternative to paying penalty rates, as the Company did not seek agency approval for such discontinuance.[257]

The panel found that the testimony presented by the CRMA provides evidence that the significant increase found in proposed revision to the Unauthorized Gas Use Penalty Tariff is not reasonable. Further, the panel found that the Company failed to provide sufficient justification for the amount of the increase of the penalty. Therefore, the panel unanimously voted to deny approval of the proposed revision to the Unauthorized Gas Use Penalty Tariff.

Q. LNG ACCOUNTING METHODOLOGY

The Consumer Advocate discovered a change in accounting methodology for the sales of Liquefied Natural Gas ("LNG") from the facility in Chattanooga. Mr. Novak testified that the Company's Interruptible Margin Credit Rider ("IMCR") allows the margin from off-system sales to be shared on a 50/50 basis with its customers. While the margin of these sales was recorded on

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[254] Randy Carter, Pre-filed Direct Testimony, pp. 2-3, (July 3, 2018).
[255] *Id.* at 4.
[256] *Id.* at 4-5.
[257] *Id.* at 5-6.

the Company's books up until July of 2010, subsequent to that date, Mr. Novak stated the Company made an accounting change where only the gas cost of LNG is recorded on the books and the margin is kept on an affiliate's books to be shared with customers through the IMCR.[258] Mr. Novak testified that because the affiliate may not always be the asset manager of the LNG sales the Commission should require the Company to record both the gas cost and the margin from LNG sales on its books.[259] Further, he recommended that the 50% that is shared from this margin with the customers should be increased to 75%, as the customers should receive a larger portion of the benefits since they cover all of the cost from the LNG sales and the Commission has approved[260] the same percentage in another docket.[261]

Company witness Hickerson rebutted that the Commission did not adopt a 25/75 sharing percentage in TPUC Docket No. 07-00224[262] involving CGC.[263] Mr. Hickerson further testified that changing the sharing ratio risks loss of the LNG sales to another facility, and hence reduction of or loss of refunds to CGC's on-system customers.[264]

The panel found that a docket establishing base rates is not the appropriate venue to resolve this particular issue. Therefore, the panel voted unanimously to direct Commission Staff and any interested party to fully analyze and investigate this matter during an appropriate future proceeding.

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[258] William H. Novak, Pre-filed Direct Testimony, pp. 13-14, (July 3, 2018).
[259] *Id.* at 15.
[260] *In Re: Review of Nashville Gas Company's Incentive Plan Account Relating to Asset Management Fees*, TPUC Docket No. 05-00165, *Order Approving Settlement*, p. 2, (December 14, 2007).
[261] *Id.* at 14-15.
[262] *In Re: Docket to Evaluate Chattanooga Gas Company's Purchaes and Related Sharing Incentives*, TPUC Docket No. 07-00224, *Order*, (September 23, 2009).
[263] Archie R. Hickerson, Pre-filed Revised Rebuttal Testimony, p. 17, (May 1, 2018).
[264] *Id.*

R. ELIMINATION OF THE AUA AND REINSTATEMENT OF THE WNA

R(1). PROCEDURAL HISTORY OF THE IMPLEMENTATION AND EXPERIMENTAL PERIOD OF THE AUA

In its 2009 rate case in TPUC Docket 09-00183, CGC requested a rate design that incorporated the effects of weather and other factors of customer use, including energy conservation.[265] The Alignment and Usage Adjustment ("AUA") mechanism was a "revenue decoupling" mechanism intended to allow CGC the opportunity to earn a fair rate of return while promoting energy conservation. The AUA was proposed by the Company in tandem with an energy conservation program to educate and encourage energy conservation and provide tools, such as programmable thermostats, to Tennessee customers to help them use less natural gas. The Company sought to eliminate the WNA, as the AUA would account for any change in customer usage for all factors, including weather.[266]

The Company's proposal was an attempt to answer the call of the Tennessee General Assembly to align the financial interests of public utilities with energy conservation.

> The general assembly declares that the policy of this state is that the Tennessee public utility commission will seek to implement, in appropriate proceedings for each electric and gas utility, with respect to which the commission has rate making authority, a general policy that ensures that utility financial incentives are aligned with helping their customers use energy more efficiently and that provides timely cost recovery and a timely earnings opportunity for utilities associated with cost-effective measurable and verifiable efficiency savings, in a way that sustains or enhances utility customers' incentives to use energy more efficiently.

Tenn. Code Ann. § 65-4-126. While there was general consensus regarding the importance of energy conservation among the parties in the Company's 2009 rate case, there was considerable

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[265] *In Re: Petition of Chattanooga Gas Company for a General Rate Increase, Implementation of the EnergySmart Conservation Programs and Implementation of a Revenue Decoupling Mechanism*, Docket 09-00183, (hereafter "*2009 Chattanooga Gas Rate Case*"), *Final Order*, pp. 50-52, (November 8, 2010) (hereafter "*2009 Rate Case Order*").
[266] *Id.* at 58-59.

debate as to how to implement the requirements of General Assembly's policy with respect to aligning the financial interests of the Company with crafting energy conservation programs that were cost efficient and able to produce verifiable and measurable savings.[267]

Ultimately, the Commission approved the AUA rider after making the following modifications: (1) the rider only applied to R-1 and C-1 customers; (2) the rider was approved on a three-year experimental basis; and (3) the AUA adjustments were limited, as recommended by the Consumer Advocate, to a cap of 2% of margin revenue annually.[268] In addition, as part of the rate design decision in the 2009 rate case, the Commission determined it was appropriate to allow for approximately 70% of the Company's fixed costs to be recovered via fixed monthly charges and the remainder recovered via volumetric charges, thereby providing a greater amount of revenues that are less dependent upon volumetric billing.[269] In recognition of the reduced business risk inherent in such rate design changes, the Commission adopted a twenty-five basis point reduction in the return on equity.[270]

The Commission also approved a portion of the Company's energy conservation program, consisting of providing programmable thermostats to customers as well as an education and outreach program.[271] The bulk of the conservation measures were funded by consumers.[272] Finally, in an effort to comply with legislative directives that energy conservation programs be cost-effective and provide measurable and verifiable savings, the Commission directed the Commission Staff to work with the National Regulatory Research Institute ("NRRI") to develop a set of measurements to evaluate the approved energy conservation programs. The three-year

[267] *Id.* at 50-55.
[268] *Id.* at 57.
[269] *Id.* at 56.
[270] *Id.* at 45.
[271] *Id.* at 61.
[272] *Id.*

experimental period was to be followed by a review of the impact of both the AUA and the approved energy conservation programs.[273]

As the end of the initial three-year experimental period was coming to a close, on April 25, 2013, the Company filed a motion in TPUC Docket 09-00183 requesting an extension of the experimental period of up to three additional years for the AUA and the energy conservation programs before a review could take place.[274] In addition to the extension, the Company sought to modify the 2% annual cap. The Company claimed that the cap prevented the collection of over $1 million in revenue that would have been collected had the WNA been in effect. The Company asserted an extension was necessary, as the AUA was scheduled to end on May 31, 2013, before the Commission's review. Without an extension of the AUA, the Company's revenues would be impacted by any variance in usage, including weather.[275] The Company also asserted NRRI had not yet completed its work with respect to developing measurements and standards to the energy conservation programs and provided a report to the Commission. The Consumer Advocate opposed any extension without a review of the AUA and the energy conservation programs and argued that the Company may be earning more than its authorized return.[276] On May 16, 2013, Commission Party Staff intervened to participate in the review.[277]

On June 17, 2013, the Commission hearing panel assigned to the docket extended the AUA on an interim basis pending an evidentiary review of the AUA and energy conservation programs.[278] The Commission denied the Company's request to consider modifying the cap

[273] *Id.* at 57.
[274] *2009 Chattanooga Gas Rate Case, Chattanooga Gas Company's Motion to Extend the Alignment and Usage Adjustment and Conservation Programs Approved by the Authority*, (April 25, 2013).
[275] *Id.* at 2-3.
[276] *2009 Chattanooga Gas Rate Case, Order Extending Alignment and Usage Adjustment Mechanism, Convening a Contested Case Proceeding and Appointing a Hearing Officer*, p. 4 (November 6, 2013).
[277] *2009 Chattanooga Gas Rate Case, Memorandum*, (May 16, 2013).
[278] *Id.* at 5-6.

without an evidentiary hearing.[279] A procedural schedule was established based on a joint proposal by the parties.[280] The schedule was to be triggered by the filing of the Commission's Party Staff report.

After NRRI completed its work and report, the Commission Party Staff analyzed the results and filed its report on September 19, 2017.[281] The scope of the Staff Report was limited to an evaluation of the energy conservation programs, and neither the NRRI nor the Party Staff made any recommendations with respect to the AUA.[282] On October 20, 2017, the Company filed a request to terminate the AUA trial mechanism and reinstatement of the WNA.[283] The Company offered that it was willing to defer consideration of its proposal to address funds deferred under the AUA.[284] On October 24, 2017, the Consumer Advocate submitted the pre-filed testimony of William H. Novak. The Consumer Advocate noted the content of the Staff's Report and NRRI's conclusions that the energy conservation programs were reasonable in intent, but short sighted and difficult to assess and measure any resulting customer savings.[285] The Consumer Advocate opposed reinstatement of the WNA outside of a rate case proceeding and recovery of any deferred AUA amounts captured by the 2% cap.[286]

The parties mutually agreed that the energy conservation programs expired after the end of the three-year experimental period and that the outstanding issues in the 2009 rate case docket

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[279] *Id.*
[280] *2009 Chattanooga Gas Rate Case, Order Entering Amended Procedural Schedule*, (August 9, 2013).
[281] *2009 Chattanooga Gas Rate Case*, *Staff Report*, (September 19, 2017).
[282] *Id.*; *TPUC Party Staff Response Regarding Chattanooga Gas Company's Report and Recommendations on the Trial AUA*, (October 26, 2017).
[283] *2009 Chattanooga Gas Rate Case, Chattanooga Gas Company Request to Terminate the Trial AUA Mechanism and Reinstate the WNA*, October 20, 2017.
[284] *Id.* at 7.
[285] *2009 Chattanooga Gas Rate Case*, William H. Novak, Pre-filed Direct Testimony, p. 6, (October 24, 2017).
[286] *Id.*

should be moved into the Company's next rate case expected in early 2018.[287] Thereafter, the issues of whether the AUA should be terminated, whether the WNA should be reinstated, and whether CGC is entitled to any recovery of the AUA deferral under-recovery were placed in the present docket for resolution.[288]

R(2). THE AUA AND RELATED ISSUES IN THIS DOCKET

In the present rate case, the Company requested to eliminate the AUA, to reinstate the WNA for residential R-1 and commercial C-1 customers, and to recover approximately $1.9 million of accumulated and deferred AUA adjustments that exceeded the tariff rider's adjustment cap.[289] The Company claimed that, because of the warmer winters experienced over the past few years, coupled with the 2% margin cap on AUA adjustments, R-1 and C-1 customers have received approximately $1.9 million in gas that has not been recouped since inception of the rider.[290] For this reason, the Company has asked to terminate the AUA and return the R-1 and C-1 customers to the WNA, or alternatively, to continue the AUA with the weather normalization recovery moved to the WNA tariff. In either scenario, however, the Company has also requested to recover the $1.9 million of accumulated and deferred AUA adjustments through the Interruptible Margin Credit Rider ("IMCR").[291]

The Company stated that the AUA was meant to allow recovery of costs while encouraging customers to conserve energy. The calculation for the AUA was based on the average revenues per customer for R-1 and C-1 customers each month using approved rates and billing determinants.[292] Monthly averages became benchmarks to which actual revenue amounts

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[287] *2009 Chattanooga Gas Rate Case, Order Moving Outstanding Issues into the New Docket and Administratively Closing the Docket*, pp. 3-4, (January 5, 2018).
[288] *Id.* at 5-6.
[289] Archie R. Hickerson, Revised Pre-filed Direct Testimony, p. 3, (May 1, 2018).
[290] Wendell Dallas, Revised Pre-filed Direct Testimony, pp. 22-23, (May 11, 2018).
[291] *Id.* at 24.
[292] Archie R. Hickerson, Revised Pre-filed Direct Testimony, p. 9-10, (May 1, 2018).

were compared. Amounts collected (actual billed non-gas revenue divided by the number of customers) over the benchmark were subject to be refunded back to customers, and conversely, amounts collected under the benchmark could be surcharged. This calculation was performed monthly and any over/under collected amounts were then recorded in the deferred AUA revenue account.[293]

Mr. Hickerson testified that each year, the deferred AUA revenue account (as of May 31) is evaluated for both the R1 and C1 rate schedules to ascertain the amount of over or under collected funds for the year. Funds under or equal to the 2% margin cap, either to the positive or negative, are then divided by the total therms of gas consumed by the customers in the R-1 and C-1 rate schedule. The result, the AUA factor, is then billed or credited monthly to customers over the next 12 months, called the recovery period. The accumulated balance over the 2% cap is carried over into the next year's AUA factor calculation.[294] Mr. Hickerson stated that the accumulated balance over the 2% cap is approximately $1.9 million as of May 31, 2017.[295]

Mr. Hickerson asserted that the AUA mechanism has not met its objectives or served the best interest of customers or the Company. The Company contended that there is a revenue recovery shortfall for both rate schedules R-1 and C-1.[296] The Company also asserted the funds collected through the AUA for rate schedule R-1 are significantly out of sync each year with the authorized margin. In other words, the difference between the benchmarks and the actual revenues is significant, with large swings from positive to negative in some years. As a result of the 2% cap, the Company is unable to recoup all of its costs each year, which the Company argued is unfair. Finally, Mr. Hickerson also testified that although the C-1 rate schedule AUA

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[293] *Id.* at 10-11.
[294] *Id.*
[295] Archie R. Hickerson, Pre-filed Rebuttal Testimony, p. 24, (August 3, 2018).
[296] Archie R. Hickerson, Revised Pre-filed Direct Testimony, p. 13-15, (May 1, 2018

balances have been steadier, the Company still is unable to recover the full cost of service due to the 2% cap.[297]

Consumer Advocate witness Novak addressed the Company's proposal to terminate the AUA and recover the approximately $1.9 million deferred cumulative AUA balance in his testimony. Mr. Novak asserted that, from December 2011 to December 2014, the Company earned about $3.3 million more than its authorized rate of return.[298] He testified that CGC would have continued to exceed its authorized rate in 2015 and 2016 if there had not been a dramatic increase in its rate base of about $14 million. Additionally, Mr. Novak testified that the Commission has not given any authorization for the Company to recover the deferred AUA balance.[299] Therefore, Mr. Novak recommends that the Commission deny the Company's request to recover the deferred AUA balance and conduct an audit of the AUA surcharges and collections.[300]

There is consensus among the parties that the AUA should be terminated. Therefore, the panel voted unanimously to terminate the AUA and reinstate the WNA for the R-1 and C-1 rate classes consistent with the simple regression methodology proposed by the Consumer Advocate. With respect to the Company's request for recovery of the balance of the deferred AUA account, the panel voted unanimously to deny the request.

In considering utility proposals for energy conservation programs and related incentive rate designs, the Commission seeks for a balance in aligning the interests of utilities and customers with the goals of energy conservation.[301] The AUA was designed to adjust for all

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[297] *Id.* at 15-16.
[298] William H. Novak, Pre-filed Direct Testimony, p. 39 (July 3, 2018).
[299] *Id.*
[300] *Id.* at 40.
[301] *In Re: Petition of Piedmont Natural Gas Company, Inc. to Implement a Margin Decoupling Tracker (MDT) Rider and Related Energy Efficiency and Conservation Programs*, TPUC Docket 09-00104, *Order Denying Margin Decoupling Tracker Rider*, pp. 11-18 (June 9, 2010).

factors that impacted the usage volumes and the resulting revenue collected. Gas usage can be impacted by a number of factors, including price volatility in the natural gas commodities market. The AUA looks solely at revenue on a per customer average and ignores any changes in the Company's expenses which can lead to an unreasonable mismatch between revenues and expenses. Without some measure of moderation and protection, revenue decoupling can impact the bills of customers unreasonably beyond policy incentives and the compensation required to offset the effects of an energy conservation program.

In approving the AUA in 2010, the Commission specifically adopted one of the consumer protections proposed by the Consumer Advocate; a 2% annual cap on margin accruals within the AUA mechanism.

> ....At the end of the three year trial period, the Company shall provide a report to the Authority[302] on the AUA mechanism, including its impact and effect on both consumer classes and the Company. The report shall provide recommendations as to whether the AUA mechanism should be continued. Further, the panel voted unanimously to adopt the 2.0% annual cap on margin accruals within the AUA mechanism for the R-1 and C-1 classes, as recommended by the Consumer Advocate.[303]

Thus, concerned with the potential of passing on higher costs associated with the program's conservation and decoupling initiatives, the Commission approved the cap on annual adjustments to limit the impact of the program's costs on customers' bills. The purpose of the cap was to restrict the amount of cost recovery available under the AUA program to an amount deemed reasonable by the Commission.

While the AUA has remained in effect since 2010, the energy conservation programs which were the policy rationales underlying the implementation of the AUA were not extended in 2013 and fell short of the goals set by the legislature. Moreover, review of the Company's

[302] The Tennessee Public Utility Commission was previously known as the Tennessee Regulatory Authority ("Authority").
[303] *2009 Rate Case Order*, at 57.

earnings since the inception of the AUA program shows that the AUA rider and related cap had little, if any, effect on the Company's ability to achieve its authorized rate of return. Finally, as pointed out by the Consumer Advocate, the Commission specifically prohibited CGC from accruing margin shortfalls above the 2% cap, much less authorizing the recovery of AUA adjustment amounts over the annual 2% cap.[304] The Company never petitioned or obtained an accounting order which would have authorized deferral of these amounts into a regulatory asset for consideration of recovery in a future proceeding. The Company's request in 2013 to enlarge the cap was denied.[305] The record before the panel does not support the retroactive elimination of the cap. Therefore, the panel found that the Company is not entitled to recovery of the balance of the deferred AUA account and as previously indicated hereinabove, the panel unanimously voted to deny the Company's request to recover the deferred AUA balance.

IT IS THEREFORE ORDERED THAT:

1. The rates filed by Chattanooga Gas Company on February 15, 2018 are denied;

2. For purposes of the rates herein, the annual test period shall be the historical test period for the twelve months ending December 31, 2017, with adjustments for attrition for the twelve month period ending June 30, 2019;

3. For purposes of the rates herein, the rate base is $149,739,716 and the net operating income is $9,625,826;

4. For purposes of the rates herein, the capital structure is composed of 44.47% long-term debt, 6.3% short-term debt and 49.23% equity. The cost of capital rates consist of long-term debt cost of 4.73%, short-term debt cost of 3.01% and an equity return of 9.8%;

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[304] The Commission Order states, "The margin accruals within the AUA mechanism for R-1 and C-1 classes shall have a 2.0% annual cap." *Id.* at 66.

[305] *2009 Chattanooga Gas Rate Case, Order Extending Alignment and Usage Adjustment Mechanism, Convening a Contested Case Proceeding and Appointing a Hearing Officer*, p. 5 (November 6, 2013).

5. For purposes of the rates herein, the overall rate of return shall be 7.12%;

6. For purposes of the rates herein, the Revenue Conversion Factor is 1.347169, resulting in a Revenue Deficiency of $1,390,347, the amount needed for the Company to earn a fair return on its investment during the attrition year;

7. The Residential R-1 Class fixed monthly rate shall be $14.00 in the summer and $17.00 in the winter;

8. The Residential R-4 Class fixed summer and winter monthly rates shall be $6.25;

9. The Commercial C-1 Class fixed monthly rate shall be $26.80 in the summer and $31.00 in the winter;

10. The Firm Demand Charge shall be $6.35 for the Commercial C-2 Class, the Commercial Transportation T-3 Class, the Industrial Transport with Full Standby F-1/T-2 Class, and the Industrial Transport with Partial Standby F-1/T-2+T-1Class;

11. The revision to the line extension provisions of the Chattanooga Gas Company Tariff is approved as filed;

12. The revision of the Tariff by deletion of provisions relating to the Air Conditioning Rate, Standby Demand Charge and Rate Schedule SF-1 Experimental Semi Firm Sales Service are approved as filed;

13. The revision of the tariff concerning the determination of the eligible receipt point is approved as filed;

14. The revision of the Performance Based Ratemaking tariff provision is approved as filed;

15. The revision of the Tariff to add language concerning Employee Protection is approved as filed;

16. The revision of the Tariff to increase the Unauthorized Gas Penalty rate is denied;

17. The Alignment and Usage Adjustment is eliminated for Residential R-1 and Commercial C-1 customers;

18. The Weather Normalization Adjustment is reinstated for Residential R-1 and Commercial C-1 customers;

19. If the special contract approved in TPUC Docket No. 99-00908 is to be renewed or extended, Chattanooga Gas Company is directed to file for approval of extension or renewal of the contract no less than ninety (90) days prior to the date of expiration and provide documentation that such consistent with Commission Rules and remains in the public interest;

20. Commission Staff is instructed to, along with any interested party, fully analyze and investigate the accounting methodology for the sales of Liquefied Natural Gas from the facility in Chattanooga during an appropriate future proceeding;

21. Chattanooga Gas Company's request to recover the deferred balance of the Alignment and Usage Adjustment Mechanism is denied;

22. Any person who is aggrieved by the Commission's decision in this matter may file a Petition for Reconsideration with the Commission within fifteen days from the date of this Order; and

23. Any person who is aggrieved by the Commission's decision in this matter has the right to judicial review by filing a Petition for Review in the Tennessee Court of Appeals, Middle Section, within sixty days from the date of this Order.

Chair Robin L. Morrison, Vice Chair Kenneth C. Hill and Commissioner David F. Jones concur. None dissent.

ATTEST:

Earl Taylor

Earl R. Taylor, Executive Director

ATTACHMENT 1
(Commission Exhibit)

Docket No. 18-00017
Commission Exhibit

CHATTANOOGA GAS COMPANY
INDEX TO SCHEDULES
For the 12 Months Ending June 30, 2019

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CHATTANOOGA GAS COMPANY
Revenue Deficiency (Surplus)
For the 12 Months Ending June 30, 2019

Line No.		Attrition Year	
1	Rate Base	$ 149,739,716	A/
2	Operating Income At Current Rates	9,625,826	B/
3	Earned Rate Of Return	6.43%	
4	Fair Rate Of Return	7.12%	C/
5	Required Operating Income	10,657,877	
6	Operating Income Deficiency (Surplus)	1,032,051	
7	Gross Revenue Conversion Factor	1.347169	D/
8	**Revenue Deficiency (Surplus)**	**$ 1,390,347**	

A/ Commission Exhibit, Schedule 2.
B/ Commission Exhibit, Schedule 5.
C/ Commission Exhibit, Schedule 11.
D/ Commission Exhibit, Schedule 12.

Docket No. 18-00017
Commission Exhibit
Schedule 2

CHATTANOOGA GAS COMPANY
Rate Base
For the 12 Months Ending June 30, 2019

Line No.		Attrition Year A/
	Additions:	
1	Utility Plant in Service	$ 301,415,025
2	Construction Work in Progress	12,457,439
3	Pension & OPEB Assets	0
4	Materials & Supplies	343,442
5	Prepayments	46,803
6	Gas Inventory	9,425,959
7	Deferred Rate Case Expense	1,117,499
8	Working Capital	350,066 B/
9	**Total Additions**	**$ 325,156,233**
	Deductions:	
10	Accumulated Depreciation	$ 127,903,439
11	Accumulated Deferred Income Taxes	23,114,266
12	Regulatory Liability - Excess Deferrals	22,177,646
13	Regulatory Liability - Deferred Tax Savings	0
14	Customer Advances for Construction	0
15	Reserve for Uncollectibles	169,708
16	Reserve for Health Insurance	33,409
17	Other Reserves	72,774
18	Customer Deposits	1,612,342
19	Accrued Interest on Customer Deposits	332,933
20	**Total Deductions**	**$ 175,416,517**
21	**Rate Base**	**$ 149,739,716**

A/ Commission Staff Workpaper - Rate Base Summary
B/ Commison Exhibit, Schedule 3.

CHATTANOOGA GAS COMPANY
Lead Lag Results
For the 12 Months Ending June 30, 2019

Line No.		Commission Staff	
1	Revenue Lag	43.76	**A/**
2	Expense Lag	39.01	**B/**
3	Net Lag	4.75	
4	Daily Cost of Service	$ 180,221	**B/**
5	**Lead Lag Study**	**$ 856,635**	
6	Tax Collections Withheld	(506,569)	**C/**
7	**Net Cash Working Capital Provided**	**$ 350,066**	

A/ CGC Response to MFG #72 All Attachments Rev 5-31-2018, tab MJA-1, Schedule 1, Column B
B/ Commission Exhibit, Schedule 4.
C/ CGC Response to CPAD Discovery Request 1-0002(a) revised (April 10, 2018)

CHATTANOOGA GAS COMPANY
Working Capital Expense Lag
For the 12 Months Ending June 30, 2019

Line No.		Amount	Lag E/	Dollar Days
	Operating & Maintenance Expenses:			
1	Purchased Gas Expense	$ 38,611,525 A/	40.94	$ 1,580,755,852
2	O&M Labor	3,216,717 B/	14.01 F/	45,066,202
3	Pension Expense	22,964 B/	0.00	0
4	Post-Retirement Benefits Other Than Pension	0 B/	0.00	0
5	Miscellaneous Employee Benefits	(312) B/	4.47	(1,393)
6	401K Benefits	120,978 B/	12.07	1,460,201
7	Health/Life Insurance Expense	573,050 B/	8.98	5,145,989
8	Allocated Cost	3,371,863 B/	21.94	73,978,669
9	Uncollectible Expense	121,863 B/	43.76	5,332,708
10	Other Operating Expense	4,051,519 B/	31.49	127,582,320
	Taxes:			
11	Taxes Other Than Income Tax	3,488,071 C/	171.16 G/	597,018,264
12	State Income Tax - Current	0	37.88	0
13	State Income Tax Deferred	372,213 D/	0.00	0
14	Federal Income Tax - Current	0	37.88	0
15	Federal Income Tax - Deferred	264,062 D/	0.00	0
	Other:			
16	Depreciation Expense	8,035,649 H/	0.00	0
17	Interest on Customer Deposits	96,740 I/	0.00	0
18	Interest Expense - Short Term Debt	283,951 J/	(51.36)	(14,583,745)
19	Interest Expense - Long Term Debt	3,149,672 J/	45.76	144,128,973
20	**Total Working Capital Requirement**	**$ 65,780,525**	**39.01**	**$ 2,565,884,040**
21	**Daily Working Capital Requirement** **$ 180,221**			
22	Return on Equity	6,192,203		
23	**Total Cost of Service**	**$ 71,972,727**		

A/ Commission Exhibit, Schedule 6.
B/ Commission Exhibit, Schedule 7.
C/ Commission Exhibit, Schedule 8.
D/ Commission Exhibit, Schedule 9.
E/ CGC Response to MFG #72 All Attachments Rev 5-31-2018, tab MJA-1, Schedule 1, Column B
F/ CGC Response to MFG 72-1; Base Payroll lag, excludes consideration of Incentive Compensation lag.
G/ CGC Response to MFG 72 Revised; "TOT Summary Calculation" tab.
H/ CGC Response to MFG #25-1
I/ CGC Response to MFG #69-6
J/ Commission Exhibit, Schedule 11.

Docket No. 18-00017
Commission Exhibit
Schedule 5

CHATTANOOGA GAS COMPANY
Income Statement at Current Rates
For the 12 Months Ending June 30, 2019

Line No.		Attrition Amount	
	Operating Revenues:		
1	Gas Sales & Transportation Revenues	$ 70,473,655	A/
2	Other Revenues	675,121	B/
3	AFUDC	823,951	B/
4	**Total Operating Revenue**	**$ 71,972,727**	
	Operating & Maintenance Expenses:		
5	Purchased Gas Expense	$ 38,611,525	A/
6	Operations & Maintenance - Labor	3,216,717	C/
7	Operations & Maintenance - NonLabor	8,261,924	C/
8	**Total Operating & Maintenance Expenses**	**$ 50,090,166**	
	Other Expenses:		
9	Depreciation Expense	$ 8,035,649	D/
10	Interest on Customer Deposits	96,740	E/
11	General Taxes	3,488,071	F/
12	State Excise Taxes	372,213	G/
13	Federal Income Taxes	264,062	G/
14	**Total Other Expenses**	**$ 12,256,736**	
15	**Total Operating Expenses**	**$ 62,346,902**	
16	**Utility Operating Income**	**$ 9,625,826**	

A/ Commission Exhibit, Schedule 6.
B/ Commission Staff Workpaper - Revenue Summary
C/ Commission Exhibit, Schedule 7.
D/ CGC Response to MFG #25-1
E/ CGC Response to MFG #69-6
F/ Commission Exhibit, Schedule 8.
G/ Commission Exhibit, Schedule 9.

CHATTANOOGA GAS COMPANY
Revenue Summary
For the 12 Months Ending June 30, 2019

Line No.	Customer Class	Commission Staff A/
	Sales & Transportation Margin:	
1	Residential (R-1)	$ 14,251,629
2	Multi-Family Housing (R-4)	28,029
3	Commercial (C-1)	3,495,831
4	Commercial (C-2)	8,254,355
5	Industrial (F-1/T-2)	2,004,732
6	Industrial (I-1)	36,274
7	Industrial (T-1)	1,082,153
8	Industrial (T-1/T-2)	1,290,946
9	Industrial (T-3)	1,276,880
10	Special Contract	141,302
11	**Total Margin**	**$ 31,862,130**
12	Gas Cost	38,611,525
13	**Total Revenue**	**$ 70,473,655**

A/ Commission Staff Workpaper - Revenue Summary

CHATTANOOGA GAS COMPANY
O&M Expense Summary
For the 12 Months Ending June 30, 2019

Line No.	Expense		Commission Staff	
				A/
1	Payroll Expense	$	$ 3,216,717	B/
2	Employee Benefits		$ 716,680	
3	Benefits Capitalized		$ (92,484)	C/
4	Fleet Services & Facilities Expense		$ 810,419	
5	Outside Services		$ 1,849,778	
6	Bad Debt Expense		$ 121,863	
7	Sales Promotion Expense		$ -	D/
8	Customer Service & Account Expense		$ 4,859	
9	Administrative & General Expense		$ 951,611	
10	Admin & Gen. Salaries & Exp. Capitalized		$ (60,878)	
11	Other Distribution & Storage Expense		$ 588,213	
12	AGL Service Company Allocations		$ 3,371,863	
13	**Total O&M Expense**	$	**11,478,640**	

A/ Commission Staff Workpaper - Expense Summary
B/ Payroll Worksheet 44 Employees, 50% Incentive Comp disallowed
C/ Used CAPD Test period Capitalized percentage applied to Staff Total Benefit amount
D/ Commission Rule 1220-04-05-.45 prohibits the recovery of Advertising and Promotional Expense

Docket No. 18-00017
Commission Exhibit
Schedule 8

CHATTANOOGA GAS COMPANY
Taxes Other than Income Income Taxes
For the 12 Months Ending June 30, 2019

Line No.		Commission Staff A/
1	Property Taxes	$ 2,093,447
2	Commission Inspection Fee	305,345
3	Payroll Taxes	383,805
4	Franchise Tax	136,334
5	Gross Receipts Tax	569,140
6	Allocated & Other Taxes	0
7	**Total**	$ **3,488,071**

A/ Commission Staff Workpaper - TOTI Summary

CHATTANOOGA GAS COMPANY
Excise and Income Taxes
For the 12 Months Ending June 30, 2019

Line No.		Commission Staff	
1	**Operating Revenues**	**$ 71,972,727**	A/
	Operating Expenses:		
2	Purchased Gas Expense	$ 38,611,525	A/
3	O&M Expenses	11,478,640	A/
4	Depreciation Expense	8,035,649	A/
5	Interest on Customer Deposits	96,740	A/
6	General Taxes	3,488,071	A/
7	**Total Operating Expenses**	**$ 61,710,626**	
8	**NOI Before Excise and Income Taxes**	**$ 10,262,101**	
9	AFUDC	(823,951)	A/
10	Interest Expense	(3,433,623)	B/
11	**Net Income Before Income Taxes**	**$ 6,004,527**	
	Tennessee Excise Tax Calculation:		
12	Net Income Before Income Taxes	$ 6,004,527	
13	Excise Tax Rate	6.50%	
14	**Excise Tax Expense**	**$ 390,294**	
15	Less After-Tax Excess Deferred Tax Liability Amortization	18,081	D/
16	**Net Excise Tax Expense**	**$ 372,213**	
17	**Excise Tax - Current**	**$ 0**	E/
18	**Excise Tax - Deferred**	**$ 372,213**	E/
	Federal Income Tax Calculation:		
19	Net Income Before Income Taxes	$ 6,004,527	
20	Net Excise Tax Expense	372,213	
21	**Net Income Before Federal Income Tax**	**$ 5,632,314**	
22	FIT Rate	21.00%	
23	**Federal Income Tax Expense**	**$ 1,182,786**	
24	Less After-Tax Excess Deferred Tax Liability Amortization - Protected	(21,351)	C/
25	Less After-Tax Excess Deferred Tax Liability Amortization - Tax Cut & Jobs Act	(897,373)	F/
26	Less 2018 Tax Savings Amortization		
27	**Net Federal Income Tax Expense**	**$ 264,062**	
28	**Federal Income Tax - Current**	**$ 0**	E/
29	**Federal Income Tax - Deferred**	**$ 264,062**	E/

A/ Commission Exhibit, Schedule 5.
B/ Commission Exhibit, Schedule 11.
C/ MFG 61-2 Line 28 State
D/ MFG 61-2 Line 28 Federal
E/ All Pre-tax book income assumed to be deferred.
F/ MFG 69 Rev 5-31-2018

Docket No. 18-00017
Commission Exhibit
Schedule 10

CHATTANOOGA GAS COMPANY
Income Statement at Proposed Rates
For the 12 Months Ending June 30, 2019

Line No.		Current Rates A/	Rate Increase	Proposed Rates
	Operating Revenues:			
1	Gas Sales & Transportation Revenues	$ 70,473,655	$ 1,390,347 B/	$ 71,864,002
2	Other Revenues	675,121	12,230	687,351
3	AFUDC	823,951	0	823,951
4	**Total Operating Revenue**	**$ 71,972,727**	**$ 1,402,577**	**$ 73,375,304**
	Operating & Maintenance Expenses:			
5	Purchased Gas Expense	$ 38,611,525	$ 0	$ 38,611,525
6	Operations & Maintenance - Labor	3,216,717	0	3,216,717
7	Operations & Maintenance - NonLabor	8,261,924	5,364	8,267,288
8	**Total Operating & Maintenance Expenses**	**$ 50,090,166**	**$ 5,364**	**$ 50,095,530**
	Other Expenses:			
9	Depreciation Expense	$ 8,035,649	$ 0	$ 8,035,649
10	Interest on Customer Deposits	96,740	0	96,740
11	General Taxes	3,488,071	0	3,488,071
12	State Excise Taxes	372,213	90,819	463,032
13	Federal Income Taxes	264,062	274,344	538,406
14	**Total Other Expenses**	**$ 12,256,736**	**$ 365,163**	**$ 12,621,898**
15	**Total Operating Expenses**	**$ 62,346,902**	**$ 370,527**	**$ 62,717,428**
16	**Utility Operating Income**	**$ 9,625,826**	**$ 1,032,050**	**$ 10,657,876**

A/ Commission Exhibit, Schedule 5.
B/ Commission Exhibit, Schedule 1.

CHATTANOOGA GAS COMPANY
Rate of Return Summary
For the 12 Months Ending June 30, 2019

		Commission Staff		A/
Line No.	**Class of Capital**	**Percent of Total**	**Cost Rate**	**Weighted Cost Rate**
1	CGC Short-Term Debt	6.30%	3.01%	0.19%
2	CGC Long-Term Debt	44.47%	4.73%	2.10%
3	Common Equity	49.23%	9.80%	4.82%
4	**Total**	**100.00%**		**7.12%**

	Interest Expense Short-Term Debt:		
7	Rate Base	$	149,739,716 **B/**
8	Short-Term Debt Cost		0.19%
9	**Short-Term Debt Interest Expense**	$	**283,951**
	Interest Expense Long-Term Debt:		
10	Rate Base	$	149,739,716 **B/**
11	Long-Term Debt Cost		2.10%
12	**Long-Term Debt Interest Expense**	$	**3,149,672**
13	**Total Interest Expense**	$	**3,433,623**

A/ Commission Staff Workpaper - Rate of Return Summary
B/ Commission Exhibit, Schedule 2.

CHATTANOOGA GAS COMPANY
Revenue Conversion Factor
For the 12 Months Ending June 30, 2019

Line No.		Amount	Balance
1	Operating Revenues		1.000000
2	Add: Forfeited Discounts	0.008796 **A/**	0.008796
3	Balance		1.008796
4	Uncollectible Ratio	0.003825 **B/**	0.003858
5	Balance		1.004938
6	State Excise Tax	0.065000 **C/**	0.065321
7	Balance		0.939617
8	Federal Income Tax	0.210000 **C/**	0.197320
9	Balance		0.742298
10	Revenue Conversion Factor (Line 1 / Line 9)		**1.347169**

A/ Commission Staff Workpaper - Other Revenues
B/ Commission Staff Workpaper - Uncollectible Ratio.
C/ Statutory Rates.

CHATTANOOGA GAS COMPANY
Commission Proposed Margin Change
For the 12 Months Ending June 30, 2019

Line No.	Customer Class	Current Rates A/	Proposed Rates	Margin Change B/	Percent Change
1	Residential (R-1)	$ 14,251,629	$ 14,945,883	$ 694,254	4.87%
2	Multi-Family Housing (R-4)	28,029	28,579	550	1.96%
3	Commercial (C-1)	3,495,831	3,648,001	152,170	4.35%
4	Commercial (C-2)	8,254,355	8,592,933	338,578	4.10%
5	Industrial (F-1/T-2)	2,004,732	2,114,123	109,391	5.46%
6	Industrial (I-1)	36,274	36,274	0	0.00%
7	Industrial (T-1)	1,082,153	1,082,153	0	0.00%
8	Industrial (T-1/T-2)	1,290,946	1,333,342	42,396	3.28%
9	Industrial (T-3)	1,276,880	1,329,837	52,957	4.15%
10	Special Contract	141,302	141,302	0	0.00%
11	**Total Sales & Transportation Margin**	**$ 31,862,130**	**$ 33,252,477**	**$ 1,390,297**	**4.36%**
12	Other Revenues	675,121	687,351	12,230	1.81%
13	**Total Margin**	**$ 32,537,251**	**$ 33,939,828**	**$ 1,402,577**	**4.31%**

A/ Commission Exhibit, Schedule 6.
B/ Commission Exhibit, Schedule 10.

ATTACHMENT 2
(Rate Design)

Description	Post Test Year Billing Units Winter Nov-April	Summer May-Oct	Total	Present Winter Rates Nov - April Rate	Revenue	Present Summer Rates May - Oct Rate	Revenue	Present Total Revenue	Proposed Winter Rates Nov - April Rate	Revenue	Proposed Summer Rates May - Oct Rate	Revenue	Proposed Total Revenue
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
Residential (R-1)													
Number of Bills	350,470	343,784	694,254	$16.00	$5,607,520	$13.00	$4,469,192	$10,076,712	$17.00	$5,957,990	$14.00	$4,812,976	$10,770,966
Distribution Charges			36,018,609	$0.11591		$0.11591		$4,174,917	$0.11591	$0	$0.11591	$0	$4,174,917
Total Residential (R-1) Margin					$5,607,520		$4,469,192	$14,251,629		$5,957,990		$4,812,976	$14,945,883
									Residential R-1 Revenue Increase				$694,254
									Total % R-1 Increase				4.87%
Residential (R-4)													
Number of Bills	1,095	1,107	2,202	$6.00	$6,570	$6.00	$6,642	$13,212	$6.25	$6,844	$6.25	$6,919	$13,763
Distribution Charges	53,177	16,749	69,926	$0.21768	$11,576	$0.19350	$3,241	$14,817	$0.21768	$11,576	$0.19350	$3,241	$14,817
Total Residential (R-4) Margin					$18,146		$9,883	$28,029		$18,419		$10,160	$28,579
									Residential R-4 Revenue Increase				$551
								$14,279,657					
									Total % R-4 Increase				1.93%

	Post Test Year Billing Units			Present Winter Rates		Present Summer Rates		Present	Proposed Winter Rates		Proposed Summer Rates		Proposed
	Winter	Summer		Nov - April		May - Oct		Total	Nov - April		May - Oct		Total
	Nov-April	May-Oct	Total	Rate	Revenue	Rate	Revenue	Revenue	Rate	Revenue	Rate	Revenue	Revenue
Commercial (C-1)													
Number of Bills	40,822	39,181	80,003	$29.00	$1,183,838	$25.00	$979,525	$2,163,363	$31.00	$1,265,482	$26.80	$1,050,051	$2,315,533
Distribution Charges	6,471,362	891,247	7,362,609	$0.18581	$1,202,444	$0.14589	$130,024	$1,332,468	$0.18581	$1,202,444	$0.14589	$130,024	$1,332,468
Total Commercial (C-1) Margin					$2,386,282		$1,109,549	$3,495,831		$2,467,926		$1,180,075	$3,648,001
									Total C-1 Revenue Increase				$152,170
									Total % C-1 Increase				4.35%
Commercial (C-2)													
Number of Bills	10,746	10,540	21,286	$75.00	$805,950	$75.00	$790,500	$1,596,450	$75.00	$805,950	$75.00	$790,500	$1,596,450
DDDC (Firm) Demand (C-2) in Dths			395,134	$5.50		$5.50		$2,173,235	$6.35		$6.35		$2,509,098
Distribution Charges													
0 - 3000 therms	14,754,450	5,357,351	20,111,801	$0.18744	$2,765,574	$0.14717	$788,441	$3,554,015	$0.18744	$2,765,574	$0.14717	$788,441	$3,554,015
3,001 - 5,000 therms	1,754,660	637,118	2,391,778	$0.17109	$300,205	$0.11683	$74,434	$374,639	$0.17109	$300,205	$0.11683	$74,434	$374,639
5,001 - 15,000 therms	2,291,486	832,040	3,123,526	$0.16666	$381,899	$0.10892	$90,626	$472,525	$0.16666	$381,899	$0.10892	$90,626	$472,525
over 15,000 therms	733,407	266,301	999,708	$0.08623	$63,242	$0.08623	$22,963	$86,205	$0.08623	$63,242	$0.08623	$22,963	$86,205
Economic Development Discounts								-$2,714		$0		$0	$0
Total Commercial (C-2) Margin					$4,316,870		$1,766,965	$8,254,355		$4,316,870		$1,766,965	$8,592,933
									Total C-2 Revenue Increase				$338,578
									Total % C-3 Increase				4.10%

Commercial Transportation (T-3)													
Number of Bills	287	289	576	$75.00	$21,525	$75.00	$21,675	$43,200	$75.00	$21,525	$75.00	$21,675	$43,200
DDDC (Firm) Demand (T-3) in Dths			62,302	$5.50		$5.50		$342,663	$6.35		$6.35		$395,620
Distribution Charges													
0 - 3000 therms	1,023,915	581,256	1,605,171	$0.18744	$191,923	$0.14717	$85,543	$277,466	$0.18744	$191,923	$0.14717	$85,543	$277,466
3,001 - 5,000 therms	536,975	304,830	841,805	$0.17109	$91,871	$0.11683	$35,613	$127,484	$0.17109	$91,871	$0.11683	$35,613	$127,484
5,001 - 15,000 therms	1,567,229	889,684	2,456,913	$0.16666	$261,194	$0.10892	$96,904	$358,099	$0.16666	$261,194	$0.10892	$96,904	$358,099
over 15,000 therms	946,638	537,387	1,484,025	$0.08623	$81,629	$0.08623	$46,339	$127,967	$0.08623	$81,629	$0.08623	$46,339	$127,967
Revenue Adjustment													$0
Total Commercial Transportation (T-3) Margin					$648,142		$286,075	$1,276,880		$648,142		$286,075	$1,329,837
									Total T-3 Revenue Increase				$52,957
									Total % T-3 Increase				4.15%

	Post Test Year Billing Units			Present Winter Rates		Present Summer Rates		Present	Proposed Winter Rates		Proposed Summer Rates		Proposed
	Winter	Summer		Nov - April		May - Oct		Total	Nov - April		May - Oct		Total
	Nov-April	May-Oct	Total	Rate	Revenue	Rate	Revenue	Revenue	Rate	Revenue	Rate	Revenue	Revenue
Industrial Transport with Full Standby (F-1/T-2)													
Number of Bills	188	186	374	$300.00	$56,400	$300.00	$55,800	$112,200	$300.00	$56,400	$300.00	$55,800	$112,200
DDDC (Firm) Demand (T-2) in Dths			128,696	$5.50		$5.50		$707,827	$6.35		$6.35		$817,219
Distribution Charges													
0 - 15,000 therms			5,425,197	$0.08064		$0.08064		$437,488	$0.08064		$0.08064		$437,488
15,001 - 40,000 therms			6,104,799	$0.06891		$0.06891		$420,662	$0.06891		$0.08891		$420,682
40,001 - 150,000 therms			7,250,462	$0.03908		$0.03908		$283,348	$0.03908		$0.03908		$283,348
over 150,000 therms			1,797,936	$0.02402		$0.02402		$43,186	$0.02402		$0.02402		$43,186
Revenue Adjustment													$0
Total Industrial Transport with Full Standby Margin								$2,004,732		$56,400		$55,800	$2,114,123
									Total F-1/T-2 Revenue Increase				$109,392
									Total % F-1/T-2 Increase				5.46%

	Winter Nov-April	Summer May-Oct	Total	Present Winter Rate	Present Winter Revenue	Present Summer Rate	Present Summer Revenue	Present Total Revenue	Proposed Winter Rate	Proposed Winter Revenue	Proposed Summer Rate	Proposed Summer Revenue	Proposed Total Revenue
Industrial Transport with Partial Standby (F-1/T-2+T-1)													
Number of Bills	84	84	168	$300.00	$25,200	$300.00	$25,200	$50,400	$300.00	$25,200	$300.00	$25,200	$50,400
Demand in Dths													
DDDC (Firm) Demand (T-2)			49,878	$5.50		$5.50		$274,329	$6.35		$6.35		$316,725
Capacity (Non-Firm) Demand (T-1)			51,584	$1.35		$1.35		$69,639	$1.35		$1.35		$69,639
Total Demand													
Distribution Charges													
0 - 15,000 therms			2,474,062	$0.08064		$0.08064		$199,508	$0.08064		$0.08064		$199,508
15,001 - 40,000 therms			3,433,970	$0.06891		$0.06891		$236,635	$0.06891		$0.06891		$236,635
40,001 - 150,000 therms			7,928,817	$0.03908		$0.03908		$309,780	$0.03908		$0.03908		$309,780
over 150,000 therms			6,272,062	$0.02402		$0.02402		$150,655	$0.02402		$0.02402		$150,655
Revenue Adjustment													
sub-Total Industrial Transport with Partial StandbyMargin								$1,290,946					$1,333,342
									Total F-1/T-2+T-1 Revenue Increase				$42,396
									Total % F-1/T-2+T-1 Increase				3.28%

	Post Test Year Billing Units			Present Winter Rates		Present Summer Rates		Present	Proposed Winter Rates		Proposed Summer Rates		Proposed
	Winter	Summer		Nov - April		May - Oct		Total	Nov - April		May - Oct		Total
	Nov-April	May-Oct	Total	Rate	Revenue	Rate	Revenue	Revenue	Rate	Revenue	Rate	Revenue	Revenue
Interruptible Sales (I-1)													
Number of Bills	6	6	12	$300.00	$1,800	$300.00	$1,800	$3,600	$300.00	$1,800	$300.00	$1,800	$3,600
Distribution Charges													
0 - 15,000 therms			180,000	$0.08064		$0.08064		$14,515	$0.08064		$0.08064		$14,515
15,001 - 40,000 therms			255,454	$0.06891		$0.06891		$17,603	$0.06891		$0.06891		$17,603
40,001 - 150,000 therms			14,212	$0.03908		$0.03908		$555	$0.03908		$0.03908		$555
over 150,000 therms			0	$0.02402		$0.02402		$0	$0.02402		$0.02402		$0
Revenue Adjustment													$0
Total Interruptible Sales (I-1) Margin								$36,274		$1,800		$1,800	$36,274
									Total I-1 Revenue Increase				$0

	Winter Nov-April	Summer May-Oct	Total	Present Winter Rate	Present Winter Revenue	Present Summer Rate	Present Summer Revenue	Present Total Revenue	Proposed Winter Rate	Proposed Winter Revenue	Proposed Summer Rate	Proposed Summer Revenue	Proposed Total Revenue
Interruptible Industrial Transportation (T-1)													
Number of Bills	106	107	213	$300.00	$31,800	$300.00	$32,100	$63,900	$300.00	$31,800	$300.00	$32,100	$63,900
Capacity (Non-Firm) Demand (T-1)			106,079	$1.35		$1.35		$143,207	$1.35		$1.35		$143,207
Distribution Charges													
0 - 15,000 therms			2,671,708	$0.08064		$0.08064		$215,447	$0.08064		$0.08064		$215,447
15,001 - 40,000 therms			3,693,480	$0.06891		$0.08891		$254,518	$0.08891		$0.06891		$254,518
40,001 - 150,000 therms			6,082,145	$0.03908		$0.03908		$237,690	$0.03908		$0.03908		$237,690
over 150,000 therms			6,968,859	$0.02402		$0.02402		$167,392	$0.02402		$0.02402		$167,392
Revenue Adjustment													
sub-Total Interruptible Industrial Transport Margin								$1,082,153		$31,800		$32,100	$1,082,153
									Total I-1 Revenue Increase				$0

	Present Total Revenue		Proposed Total Revenue
Total Margin all Classes	$31,720,828		$33,111,124
Other Revenues	$675,121		$675,121
AFUDC	$623,951		$823,951
Special Contract Revenues	$141,302		$141,302
Total	$33,361,202		$34,751,498
		Total Revenue Increase	$1,390,297
		Revenue Deficiency	$1,390,347
			$50