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April 15, 2019

19-00047

Chairman Robin L. Morrison
Tennessee Public Utility Commission
502 Deaderick Street, 4th Floor
Nashville, TN 37243

Re: Chattanooga Gas Company Petition to Opt Into an Annual Review of
Rates Mechanism

Dear Chairman Morrison:

Enclosed for filing is a Petition and supporting documents in the above captioned new matter for Chattanooga Gas Company. The following documents are being filed:

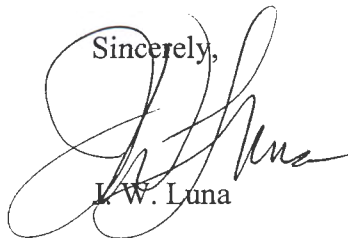
1. Petition
2. Direct Testimony of Archie Hickerson and Exhibit ARH-1 ("Annual Review Mechanism")
3. Direct Testimony of Gary Tucker and Exhibit GAT-1 ("ARM Methodologies")

We are providing an electronic filing and four hard copies. No confidential information is contained in this filing.

Also, we are providing by e-mail a courtesy copy of the enclosed documents to the Consumer Advocate, and obviously, CGC will not object to the intervention by the Consumer Advocate. Hopefully, within the next few days the parties may be able to submit a proposed procedural schedule for the Hearing Officer's consideration.

As always, if there are any questions, please do not hesitate to contact me.

Sincerely,



J. W. Luna

Enclosures

cc: Earl Taylor
Kelly Cashman-Grams
Monica Smith-Ashford
David Foster
Vance Broemel
Karen Stachowski

1 **I. WITNESS IDENTIFICATION**

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

3 A. Archie R. Hickerson, Ten Peachtree Place, Atlanta, Georgia 30309.

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

5 A. I am Director of Rates and Tariff Administration at Southern Company Gas
6 (formerly AGL Resources, Inc.). Southern Company Gas is the is the parent holding
7 company for four natural gas distribution companies, including Chattanooga Gas
8 Company. The other companies are in Georgia, Illinois, and Virginia.

9 **Q. What are your duties in your position as Director – Rates and Tariff**
10 **Administration?**

11 A. I am responsible for development, coordination, review and analytical activities
12 related to rates and tariff administration for Chattanooga Gas Company and the
13 other natural gas distribution companies that are subsidiaries of Southern Company
14 Gas.

15 **Q. For whom are you testifying?**

16 A. I am testifying on behalf of Chattanooga Gas Company (“Company” or “CGC”).

17 **II. BACKGROUND AND EXPERIENCE**

18 **Q. Please summarize your education background and experience.**

19 A. I received a Bachelor of Science degree with a major in mathematics and later
20 accounting from Austin Peay State University in Clarksville, Tennessee. I am a
21 Chartered Global Management Accountant, and I am licensed as a Certified Public
22 Accountant in the State of Tennessee. I have over 43 years of experience with
23 utility rates, utility accounting, and the regulation of public utilities. Over this

1 period, I have worked for consumers of utilities and others in addition to my work
2 for Southern Company Gas. Prior to becoming Director – Rates and Tariff
3 Administration in 2013, I served as Director – Regulatory Affairs and Planning for
4 AGL Services Company from 2010-2013, Director – Regulatory Affairs for
5 Chattanooga Gas Company and Virginia Natural Gas from 2004-2010, and
6 Manager – Rates for AGL Services Company from 2000-2004. Prior to joining
7 AGL Resources, I was the Director of the Consumer Advocate Division Staff with
8 the Tennessee Office of the Attorney General and Reporter (1994-2000), where I
9 often appeared as an expert witness to present comments on utility cost of service,
10 cost allocation and rate design, and to supervise the technical staff, notably in
11 proceedings before the Tennessee Public Service Commission (“TPSC”) and the
12 Tennessee Regulatory Authority (“TRA”). I also served on the National
13 Association of State Utility Consumer Advocates’ (“NASUCA”) Accounting and
14 Tax Committee, and as an observer member of the National Association of
15 Regulatory Utility Commissions’ (“NARUC”) Staff Subcommittee on Accounts.
16 From 1976-1982, I was a financial Analyst for TPSC, then served as Assistant
17 Director of the TPSC Accounting Division for four years (1982-1986), and later as
18 the Deputy Director of the TPSC’s Utility Rate Division for approximately seven
19 years (1987-1994). While employed by the TPSC, I served on the NARUC Staff
20 Subcommittee on Communications, the NARUC Staff Subcommittee on Accounts,
21 and the NARUC’s Southern Accounting Taskforce. My work at TPSC, like much
22 of my later experience, included significant work with compliance and

1 management audits, cost of service, rate design and earnings, and rate
2 investigations of utilities.

3 **Q. Have you previously testified before any state regulatory commission other**
4 **than the Tennessee Public Service Commission and the Tennessee Regulatory**
5 **Authority?**

6 A. Yes. I have testified before this Commission, the Georgia Public Service
7 Commission, the Virginia State Corporation Commission, and the Illinois
8 Commerce Commission.

9 **Q. Were you a witness in CGC's last rate case?**

10 A. Yes. I was a witness in CGC's last rate case in Docket No. 18-00017.

11 **III. PURPOSE OF TESTIMONY**

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

13 A. The purpose of my testimony is to provide the Commission with an overview of
14 the annual rate review mechanism that CGC is opting into pursuant to the
15 alternative regulatory method statute. CGC's annual review of rates process is
16 being referred to as an "Annual Review Mechanism" or CGC's "ARM." Mr. Gary
17 Tucker will provide a description of the mechanics of CGC's mechanism and the
18 documentation to be associated with the annual CGC ARM filing.

19 **Q. Are you including any exhibits in connection with your testimony?**

20 A. Yes. Exhibit ARH 1: Chattanooga Gas Company Annual Review Mechanism
21 (ARM).

22 **Q. What is your understanding of what the alternative rate statute authorizes?**

23 A. As I understand it, the Tennessee General Assembly has authorized a utility, with

1 the approval of the Commission, to opt into various alternative regulatory methods
2 that can provide the utility with the flexibility to better meet the needs of its
3 customers and the communities it serves and to provide a more efficient process for
4 the Commission to ensure that safe and reliable public utility service is provided at
5 just and reasonable rates. One of the authorized alternative regulatory methods is
6 an annual review of rates, which we seek to adopt. To implement the annual rate
7 review process, we have prepared a proposed Annual Ratemaking Mechanism
8 (ARM) plan that we believe provides the Commission and our customers with
9 greater transparency regarding our operations and how our business translates into
10 the rates we charge customers. It will also provide for the more timely review of
11 CGC's cost of providing service and the adjustment of rates that allow the company
12 to recover its costs.

13 **Q. Are you familiar with the history of the alternative regulation legislation?**

14 A. Yes. We carefully reviewed the legislation when it was introduced and followed it
15 as it moved through the various committees until it was passed by the General
16 Assembly and signed into law.

17 **Q. The alternative regulation legislation became law in 2013. Why hasn't CGC**
18 **previously asked for approval to operate under an alternative regulation**
19 **process?**

20 A. We examined the alternative regulatory plans adopted by other Tennessee utilities
21 and observed the resulting process implemented to adjust rates. From what we
22 observed, we were reluctant to adopt a similar plan. It did not appear that the
23 process was more efficient than the traditional rate making procedures. While an

1 annual review of rates seemed a better approach for CGC rather than filing separate
2 riders, the annual review of rates process settlement between Atmos Energy
3 Corporation and the Consumer Advocate that had been approved by the
4 Commission in 2015 required two filings annually, with one that appeared to be
5 very similar to a traditional rate case compressed into a four-month period instead
6 of the traditional six months schedule.

7 In addition, as CGC evaluated the options, Section 65-5-103(d)(6)(B)
8 requires a utility requesting an annual rate review plan to have had a general rate
9 case within five (5) years. Since CGC's last rate case was filed in 2009, CGC
10 elected to delay requesting an alternative rate making plan until it filed its next rate
11 case, which was initially planned to have been filed in late 2017. When CGC's rate
12 case was finally filed in early 2018 in Docket 18-00017, CGC also included an
13 annual rate review plan very similar to the Atmos one. Much like Atmos had done,
14 CGC anticipated that its annual rate review plan would be approved simultaneously
15 with the final rate case decision after a temporary withdrawal that would enable the
16 different statutory timelines to synch up. In taking this approach, we believed it
17 would be easier to get an Atmos-type plan approved rather than adopting a new
18 approach. The Atmos plan was negotiated by Atmos and the Consumer Advocate
19 and approved by the Commission, and this settlement plan was, at that time,
20 considered by some to be the model for all such annual review plans in Tennessee.
21 However, as the CGC rate case proceeded, we decided it would be best to
22 completely withdraw our annual rate review plan with the intention of re-filing it
23 after the rate case was completed. Thus, on April 10, 2018, we formally withdrew

1 our annual review of rates from our rate case. However, in withdrawing our annual
2 review proposal, we did ask that the Commission approve the necessary ratemaking
3 methodology that would support the later filing of an annual review of rates plan.
4 The Commission order issued in Docket No. 18-00017 on January 15, 2019 (“Rate
5 Case Order”), expressly included approval of the necessary methodology.

6 **Q. So, is this CGC ARM the same plan as the one you filed in Docket No. 18-**
7 **00017?**

8 A. No, it is not. While we always felt that certain aspects of the Atmos settlement
9 would be unnecessarily burdensome or overly complicated for CGC, when we
10 withdrew our annual rate review request from the rate case it certainly was our
11 intent to just refile the prior submitted plan. However, we subsequently became
12 aware that the Commission was exploring modifying the Atmos plan that would
13 eliminate the requirement for two filings per year. Concerned for the precedent that
14 any changes to the Atmos plan might have for us given our understanding that the
15 Atmos plan was the “model” for the industry, CGC formally sought to intervene in
16 Docket 18-00112 so we could participate in negotiations changing the Atmos plan.
17 But in response to our petition for intervention, the Commission Party Staff made
18 clear its opinion that provisions of the Atmos plans are not binding on other utilities:

19 The term “annual rate review” is not uniformly defined
20 under Tennessee law. The plain language of the numerous
21 options available pursuant to Tenn. Code Ann. § 65-5-103(d)
22 indicates alternative rate mechanisms are elective and that
23 proposals and mechanisms can be tailored to individual
24 companies. Individual ARM plans are proposed by the
25 electing public utility, not the Commission or other parties.
26 In totality, the various outlines of mechanisms available
27 pursuant to Tenn. Code Ann. § 65-5-103(d) recognizes that
28 each utility may be unique and that modifications can be

1 made to individual ARM plans. Moreover, the structure and
2 nuances of each alternative rate mechanism the Commission
3 has approved for utilities such as Piedmont Natural Gas
4 Company, Tennessee American Water Company and Atmos
5 pursuant to Tenn. Code Ann. §65-5-103(d) are not uniformly
6 applicable to CGC or any other public utility. In short, no
7 two ARMs may be equal.¹

8
9 We agree with the Staff that each utility's annual rate review mechanism should
10 stand on its own and should not be required to conform to settlements negotiated
11 by other parties in other proceedings. In denying CGC's intervention, the Hearing
12 Officer agreed with the Staff:

13 One size does not fit all when it comes to alternative
14 regulatory methods and there is not a specific formula or
15 method for implementing alternative regulation methods,
16 including an annual rate review, set forth in statute. A utility
17 is free to propose the type of alternative regulatory method
18 that would work best for its business, and the Commission
19 will then make a determination based on the evidence
20 presented and vote accordingly.²

21
22 Given the unique or different aspects of CGC's business, the plan that CGC is now
23 proposing is materially different from the plan initially filed in Docket 18-00017,
24 and materially different from any other annual review plan currently in place for
25 other utilities in Tennessee.

26 **Q. Will you please provide an overview of your proposed ARM?**

27 A. Yes. After the end of each calendar year, CGC will make a filing that will allow the
28 Commission to review CGC's revenues, expenses and investment (rate base) for
29 the prior calendar year and determine if the Company earned the authorized return

¹ Docket No. 18-00112 Party Staff's Opposition To The Petition To Intervene Of Chattanooga Gas Company Or, In The Alternative, Motion For Restrictions And Conditions For Intervention (January 29, 2019).

² Docket No. 18-00112, Order Denying the Petition to intervene Filed by Chattanooga Gas Company (April 8, 2019)

1 on equity adopted in the most recent rate case. If the Company earned more than
2 the authorized, the excess will reduce the rates in the future. If the Company earns
3 less than its authorized return on equity, the Company will be able to recover the
4 deficiency through future rates. In addition to this annual reconciliation, the rates
5 will be adjusted to provide that the Company may earn its authorized return in the
6 future. Mr. Gary Tucker will provide the specifics of how the mechanism will
7 work.

8 **Q. How will the authorized rate of return be computed?**

9 A. The authorized rate of return will be computed based on the capital structure
10 adopted in Docket 18-00017 consisting of 6.30% Short-Term Debt, 44.47% Long-
11 Term Debt, and 49.23% Equity. The cost of Short-Term and Long-Term Debt will
12 be revised annually to reflect current cost rates while the Return on Equity will be
13 9.8% as approved by the Commission.

14 **Q. Will there be any adjustments to the amounts recorded on the Company's**
15 **books and used in determining if the Company earned the authorized return**
16 **on equity?**

17 A. Yes. The revenues, expenses, and investment for the historic base period will be
18 computed in accordance with the ratemaking methodologies adopted in Docket 18-
19 00017 or subsequent general rate case. These are outlined in Exhibit ARH-1. Mr.
20 Tucker will provide more details of the adjustments as adopted by the Commission.

21 **Q. For setting rates on a going forward basis, will there be forward-looking or**
22 **forecasted adjustments?**

23 A. No, there will be no forward-looking or forecasted adjustments. The amounts will

1 be based on the Company's actual calendar year's books and records with
2 adjustments to remove items that were excluded for rate making purposes in Docket
3 18-00017. Mr. Tucker will provide more details of the ratemaking adjustments.
4 While the use of a forward looking (forecasted or projected) test period is
5 appropriate to address regulatory lag under the traditional rate making procedure,
6 it isn't necessary using the ARM procedure that includes a true-up procedure that
7 provides that the Company is made whole for under-recovery of cost, and the rates
8 are reduced to credit the customer's through reduced rate when the utility earns in
9 excess of its authorized return. The use of historical amounts should greatly reduce
10 the amount of controversy in the rate proceeding.

11 **Q. How is regulatory lag addressed under CGCs proposed filing?**

12 A. Regulatory lag occurs when the revenue from new rates doesn't match the utility's
13 expense and investments resulting in the utility earning more or less than
14 authorized. The use of the forecast or forward-looking test (attrition) period in a
15 general rate case addresses the problem by the Commission setting rates based on
16 the forecasted expenses and investment during the time that the new rates will be
17 in effect. The goal is for the rates to produce revenues that cover the operating
18 expenses and provide for the utility to earn the approved return.

19 Under CGC's proposed ARM filing the problem with regulatory lag will be
20 addressed by providing that CGC accrues any earnings deficiency or excess for the
21 year and accrue carrying charges on the balance from the mid-point to the end of
22 the year. The deficiency or excess and accrued interest would be amortized and
23 treated as an increase or reduction expense as appropriate for setting new rates, and

1 the unamortized portion would be an adjustment to the rate base. The new rates
2 would be developed to provide for the recovery of the deficiency or credit for the
3 past under or over recovery respectively and provide for the utility to earn its
4 authorized return in the future.

5 **Q. Are there other adjustments that can be made in the determination of the**
6 **Company's revenue deficiency or excess for the historic period that were not**
7 **discussed in the Rate Case Order?**

8 A. Yes, there could be. It may be necessary to make one-time adjustments to properly
9 reflect the earnings of CGC for the year. For example, in 2018 the recovery of the
10 deferred AUA revenue was denied in Docket 18-00017, and the Company recorded
11 a write-off of the deferred AUA revenue in 2018. In this instance, it would be
12 necessary to make a ratemaking adjustment to exclude this amount from the
13 determination of any revenue deficiency or excess for the year. An example of an
14 expense adjustment could be a proposal by CGC to amortize and recover, over a
15 specified period of time a large, one-time expense that would provide for more rate
16 stability to CGC's Customers. An example of such an expense is the expense
17 incurred to paint CGC's LNG tank. In one of our previous cases the cost of painting
18 the tank was amortized over three years.

19 **Q. Will there be an adjustment for weather normalization?**

20 A. There will be no weather normalization adjustment in determining any earning
21 deficiency or excess for the historic period. However, for setting rates on an
22 ongoing basis, the usage for these Rate Schedules R-1, R-4, C-1 and C-2 will be
23 normalized based on average use per customer adopted in Docket 18-00017 or

1 subsequent general rate case. The details of the base period (the calendar year) will
2 be provided on ARM Schedule 15 and the normalized revenue used in computing
3 rates on the ongoing basis will be provided on ARM Schedule 16.

4 **Q. Will usage and revenue be normalized for the other rate schedules?**

5 A. No. Consistent with the methodology adopted in Docket 18-00017 the revenue for
6 Rate Schedules other than R-1, R-4, C-1 and C-2 will not be normalized. The
7 revenue for the Historic Base Period will be used in determining the revenue
8 deficiency or excess for the calendar year and for setting rates on an ongoing basis.

9 **Q. What schedules will be included in the annual filing?**

10 A. The schedules that will be included in the annual filing are identified in my Exhibit
11 ARH-1. The primary schedules are those that were included in the Commission
12 Exhibit, Attachment 1, to the January 15, 2019 Order in Docket 18-00017:

- 13 1. Revenue Deficiency (Excess)
- 14 2. Rate Base
- 15 3. Lead Lag Results
- 16 4. Working Capital Expenses Lag
- 17 5. Income Statement
- 18 6. Revenue Summary
- 19 7. Operating & Maintenance (O&M)
- 20 8. Taxes Other than Income Tax Expense
- 21 9. Excise and Income Tax
- 22 10. Income Statement at Proposed Rates
- 23 11. Rate of Return Summary
- 24 12. Revenue Conversion Factor
- 25 13. Proposed Margin Change

26
27 The following schedules provide additional information that is otherwise needed
28 for the review:

- 29 14. Depreciation and Amortization Expenses
- 30 15. Summary - Historic Base Period Jurisdictional Non-Gas Revenues
- 31 -Current Rates
- 32 16. Weather Normalization Adjustment

- 1 16.1 Weather Normalized Volumes Historic Base Period
2 16.2 Weather Normalized Base Revenue for the Historic Base
3 Period
4 16.3 Weather Normalized Revenue Adjustment for the Historic
5 Base Period
6 17. Proof of Revenue-Proposed Rates.
7 18. Other Revenues
8 19. CGC Income Statement
9 20. AGLS Income Statement
10 21. General Ledger for each month of the Historic Base Period, and two
11 previous years.
12 22. Capital Expenditures
13 23. Allocated Cost
14 24. Lobbying Expense, Charitable Contribution, Social Club
15 Membership
16 25. Pension and Other Post- Employment Benefits
17 26. Advertising Expense
18 27. Incentive Compensation
19 28. Normalization Adjustments-Non -Weather
20 29. Carrying Charges and Historic Period Annual Reconciliation
21 Balance
22

23 In addition to these schedules that will be filed in each annual filing, there will be
24 supporting schedules or workpapers as needed.

25 **Q. Is it correct that there will be only one annual filing that will include the**
26 **determination of the Company's earnings for the year, and the adjustment to**
27 **rates to provide for the Company to earn its authorized return on an ongoing**
28 **basis?**

29 A. Yes. There will be only one annual filing that will include the determination of the
30 earnings and revenue deficiency or excess and the annual rate adjustment, as
31 applicable. Since the revenues, expenses, and investment will be based on historic
32 instead of forecasted amounts for the year, only one filing is needed.

33 **Q. When will the Company make the annual filing, and when will the rates be**
34 **effective?**

1 A. The Company proposes to make the annual filing on or before March 20 each year
2 with the rates to be effective on August 1.

3 **Q. Will the filing include any supplemental information?**

4 A. Yes. For informational and transparency purposes the Company will provide a copy
5 of the current year's annual budget including the budgeted capital expenditures
6 (Schedules 19, 20, and 22). This information is not being included for the purpose
7 of setting rates but to provide the Commission a better view of the utility's projected
8 operations.

9 **Q. Will the filing include Operating Metrics such as the average time to respond
10 to leak calls, answered call rate, number of estimated bills, etc.?**

11 A. The Company currently files Operating Metrics with its monthly reports. These
12 reports will continue to be provided.

13 **Q. Please explain why the proposed ARM will provide the Commission and
14 CGC's customers with greater transparency regarding Company's operations
15 and how its business translates into the rates?**

16 A. Under the traditional rate making procedure there is usually an extended period
17 between rate cases. For example: CGC filed a rate case in 2009 (Docket No. 09-
18 00183) and had rates approved in May 2010. The Company filed its next rate case
19 in February 2018 (Docket No. 18-00017). During that eight plus year period, the
20 Company has added new customers and made material investments in the
21 infrastructure required to provide safe and reliable utility service. For example, in
22 Docket No. 09-00183 the rate base that was adopted was \$93,878,504 while the
23 rate base adopted by the Commission in Docket No. 18-00017 has increased to

1 \$149,739,716, or an increase of 59%. Under CGC's ARM proposal, the
2 Commission, the Consumer Advocate, and the Customers will have the opportunity
3 to see how the Company's operations are changing on a more current basis. The
4 Commission, the Consumer Advocate, and the public will be able to see how the
5 Company's investment in infrastructure, the number of customers served, its sales
6 and transportation volumes, and its expenses are changing on an annual basis.
7 While the Commission currently receives monthly and annual reports, the
8 information is not at the level of detail that will be provided under the proposed
9 ARM. In addition, the Commission Staff, the Consumer Advocate, and the
10 Company's Customers will have the opportunity to ask questions and to analyze
11 the changes in more detail during the annual proceeding. In general, the annual
12 filing and proceeding will provide greater transparency than is currently provided
13 under the traditional rate making routine.

14 **Q. Will the adoption of the proposed ARM, result in a change in how CGC**
15 **operates?**

16 A. The change will be in how rapidly the Company will be able to react to the changing
17 needs of our customers. Because of the annual review under the proposed ARM,
18 the Company will have more reasonable assurance that will be fairly compensated
19 for investment required and the recovery of expenses incurred in the provision of
20 service. As a result, the Company should have improved access to the resources
21 that it needs.

22 **Q. When will the first annual review occur?**

23 A. CGC's first annual review will be filed March 20, 2020 based on calendar 2019.

1 With any rate adjustments taking effect for rates beginning on August 1, 2020.

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

3 A. Yes.

Chattanooga Gas Company Annual Review Mechanism (ARM)

Applicable

To all gas sold and transported under tariff services, excluding approved special contracts.

Purpose

This Annual Review Mechanism ("ARM") is implemented under the provisions of Tennessee Code Annotated Section 65-5-103(d)(6), which authorizes the Company to opt for an annual review of the Company's rates. Pursuant to this ARM and the annual filings described herein, the Company's tariff rates (excluding approved special contract rates) shall be adjusted to provide that the Company earns the Authorized Return on Equity. The rate adjustments implemented under this mechanism will reflect changes in the Company's jurisdictional revenues, cost of service, and rate base. The ARM may be terminated or modified as provided under Tennessee Code Annotated Section 65-5-103(d)(6)(D).

Definitions

- A) **Annual ARM Rate Effective Date** shall be the date the rate and rate adjustments established in the Annual ARM proceeding are effective. The Annual ARM Rate Effective Date shall be August 1 each year.
- B) **Annual Filing Date** shall be the date the Company will make its annual ARM filing with the Tennessee Public Utility Commission. The Annual Filing Date shall be no later than March 20 of each year.
- C) **Annual Reconciliation Balance** is the sum of the Historic Base Period Earning Deficiency or (Excess) and the carrying charges from the mid-point to the end of the Historic Base Period multiplied by the Income Tax Gross-Up factor.
- D) **Annual True-Up Revenue Requirement Rate Adjustment (True-Up Rate Adjustments)** is the rate adjustment necessary to allow the Company to recover or credit to the customers the Historic Base Period earning deficiency or excess respectively and earn its Authorized Return on Equity on a going forward basis.

The Annual True-Up Revenue Requirement Rate Adjustment shall be based on the Historic Base Period revenues, expenses, and rate base with the following adjustments:

1. Sales and transportation margin shall be weather normalized based on the weather normalized use per customer for Rate Schedules R-1, R-4, C-1 and C-2 adopted in Docket No. 18-00017 or subsequent general rate case. The revenues for customer

Chattanooga Gas Company Annual Review Mechanism (ARM)

served under the following Rate Schedules or combination of Rate Schedules F-1, I-1, T-1, F-1/T-2, F1/T-2/T1, and Special Contracts shall be the actual revenues for the Historic Base Period.

2. "Other Revenues" shall be the average for the Historic Base Period and the previous three (3) years.
3. AFUDC shall be the AFUDC-Debt and the AFUDC-Equity for the Historic Base Period.
4. Uncollectible (Bad Debt) Expense shall be the average for the Historic Base Period and the four (4) previous years.
5. Interest on Customer Deposits shall be the average balance of Customer Deposits include in the Rate Base multiplied by the Customer Deposit interest rate as stated in the Company's tariff.
6. The Historic Base Period rate making Operating Expenses shall be increased to include the recovery of a positive Historic Base Period Annual Reconciliation Balance or reduced to credit a negative Historic Base Period Reconciliation Balance.
7. State Excise Tax and Federal Income Tax shall be computed based on the adjusted revenues and expenses, and synchronized interest computed by multiplying the Rate Base by the weighted cost of debt.
8. The rate base shall be adjusted to include:
 1. the average unamortized balance of the Annual Reconciliation Balance (positive or negative) and the related deferred income tax assuming amortization over twelve (12) months, and
 2. the historic average balance for the Historic Base Period and the previous two years for:
 - i. The Materials and Supplies,
 - ii. Prepayments;
 - iii. Gas Inventory;
 - iv. The Reserves for Uncollectibles (Bad Debt);
 - v. The Reserve for Health Insurance; and

Or as otherwise adjusted by the Commission in a subsequent general rate case.

9. The Annual True-Up Rate Adjustment Rate Increase or Reduction shall be allocated proportionately to the Revenue Requirements allocated to the individual Rate Schedules in Docket No. 18-00017 or any Subsequent general rate case to determine the total adjustment applicable to each Rate Schedule.

E) **Approved Methodologies** are defined as the methodologies adopted by the Commission in Docket No. 18-00017 or in any subsequent general rate case, whichever is more recent, or as otherwise approved by the Commission.

**Chattanooga Gas Company
Annual Review Mechanism (ARM)**

- F) **ARM Regulatory Asset or Regulatory Liability** shall be the Annual Reconciliation Balance and the related deferred income tax, with the Annual Reconciliation Balance multiplied by the composite Tennessee Excise and Federal Income Tax rate.
1. The average unamortized balance of the ARM Regulatory Asset or Regulatory Liability and the related Deferred Income Tax for the current Historic Base Period shall be components of the Annual True-Up Rate Adjustment Rate Based assuming amortization uniformly over twelve (12) months.
- G) **Authorized Overall Rate of Return** is defined as the overall rate of return as computed in accordance with the procedure adopted by the TPUC in Docket No. 18-00017 or any subsequent general rate case. The capital structure (% short-term debt, % long-term debt, and % equity) shall be as adopted by the Commission in Docket No. 18-00017 or subsequent general rate case. The return on equity shall be 9.8% as adopted in Docket No. 18-00017 or the equity return adopted in a subsequent general rate case. The short-term and long-term debt cost rates shall be the current cost rates computed consistent with the calculations in Docket No. 18-00017 or subsequent general rate case.
- H) **Authorized Return on Equity** is defined as the return on equity established in TPUC Docket No. 18-00017, or in any subsequent general rate case, whichever is more recent.
- I) **Earning Deficiency or Excess** shall be the net operating income for the Historic Base Period less the net operating income required to produce the authorized return on equity. The revenues shall be actual revenues for the Historic Base Period, and the expenses shall be adjusted consistent with Docket No. 18-00017:
1. excluding 50% of the direct and allocated short-term incentive pay,
 2. excluding 100% of direct and allocated long-term incentive pay,
 3. excluding 100% of promotional advertising,
 4. excluding 100% of lobbying expense,
 5. excluding 100% of Supplemental Executive Retirement Plan (SERP) Expense
 6. excluding Pension and Other Post-Employment Benefits computed in accordance with GAAP and including actual contributions,
 7. State Excise Tax and Federal Income Tax shall be computed based on the Historic Base Period revenues, the adjusted expenses, and synchronized interest computed by multiplying the Rate Base by the weighted cost of debt.

Or as otherwise adjusted in a subsequent general rate case.

**Chattanooga Gas Company
Annual Review Mechanism (ARM)**

- J) **Historic Base Period** is defined as the twelve-month period ending December 31 of each year prior to each Annual Filing Date.
- K) **New Matters** refers to any issue, adjustment, and/or ambiguity in or for any account, method of accounting or estimation, or ratemaking topic that would directly or indirectly affect the Annual ARM Filing for which there is no explicit prior determination by the Commission regarding the Company.
- L) **Operating Income Deficiency or (Excess)** shall be the amount resulting from subtracting the Historic Base Period operating income for the authorized operating income computed by multiplying the Historic Base Period rate base by the authorized weighted return on Equity adopted in TPUC Docket No. 18-00017 or subsequent general rate case. The result is an Operating Income Deficiency if the authorized operating income is greater than the Historic Base Period net operating income, and an Operating Income Excess if the authorized operating income is less than the Historic Base Period net operating income.
- M) **Revenue Conversion Factor** is the adjustment factor necessary to translate any excess or deficiency in Net Operating Income NOI into a Revenue Deficiency or Surplus as adopted by the Commission in Docket No. 18-00017 or subsequent general rate case.
- N) **Revenue Deficiency or Excess** shall be the Earning Deficiency for the Historic Base Period multiplied by the Revenue Conversion Factor adopted in TPUC Docket No. 18-00017 or subsequent general rate case.
- O) **Income Tax Gross-Up Factor** is $1 / (1 - \text{Composite Income Tax Rate})$. The Composite Income Tax Rate is $(\text{Tennessee Excise Tax Rate} + (1 - \text{Tennessee Excise Tax Rate}) \times \text{Federal Income Tax Rate})$.
- P) **Annual ARM Filing.**

On the Annual Filing Date each year, the Company shall file with the Commission schedules and supporting work papers that reflect the actual annual amounts as recorded on the books and records of the Company for the Historic Base Period, the calculation of the Annual Reconciliation Revenue Deficiency/(Surplus), and the rates adjustments for the Company to recover or refund the earning deficiency (surplus) respectively for the Historic Base Period, and earn its authorized return on equity on a going forward basis.

**Chattanooga Gas Company
Annual Review Mechanism (ARM)**

Contents of the Annual Filing.

Schedule	
1	Revenue Deficiency (Excess)
2	Rate Base
3	Lead Lag Results
4	Working Capital
5	Income Statement
6	Revenue Summary
7	Operating and Maintenance Expense
8	Taxes Other than Income
9	Excise and Income Tax
10	Income Statement at Proposed Rates
11	Rate of Return Summary
12	Revenue Conversion Factor
13	Proposed Margin Change
14	Depreciation and Amortization Expense
15	Summary-Historic Base Period Jurisdictional Non-Gas Revenue-Current Rates
16	Weather Normalization Adjustment
	16.1 Weather Normalized Volumes- Historic Base Period
	16.2 Weather Normalized Revenue -Historic Base Period
	13.3 Weather Normalized Adjustment-Historic Base Period
17	Proof of Revenues
18	Other Revenues
19	CGC Income Statement
20	AGLS Income Statement
21	General Ledger-Historic Base Period and Two Previous Years
22	Capital Expenditures
23	Allocated Cost
24	Lobbying Expense, Charitable Contributions, Social Club Membership
25	Pension Expense
26	Advertising Expense
27	Incentive Compensation
28	Normalization Adjustment-Non-Weather
29	Carrying Charges and Historic Period Annual Reconciliation Balance

Chattanooga Gas Company Annual Review Mechanism (ARM)

The ARM filing shall include:

Schedule 1: Annual Reconciliation Revenue Deficiency/ (Surplus)

For the Historic Base Period show the calculation of the Revenue Deficiency or Surplus computed consistently and using the approved methodologies adopted in Docket No. 18-00017 or subsequent general rate case. The following shall be identified for the Historic Base Period.

Line		Prior Year Filing Adopted	Historic Base Period	Historic Base Period Normalized	Annual True- Up Revenue Requirement Rate Adjustment
1	Rate Base Schedule 2				
2	Operating Income				
3	Interest Expense				
4	Fair Rate of Return				
5	Return Deficiency (Surplus) L4-L3				
6	Operating Income Deficiency L5 X L1				
7	Gross Revenue Conversion Factor				
8	Revenue Deficiency (Surplus) L6 X L7				

**Chattanooga Gas Company
Annual Review Mechanism (ARM)**

Schedule 2: Rate Base

Line #		Prior Year Filing Adopted	Historic Base Period	Adjustments to Remove Prior Year Avg ARM Asset (Liability) and Related Deferred Income Tax and Include Current Year ARM Asset (Liability) the Related Deferred Tax and Normalization Adjustments		Annual True-Up Rate Adjustme nt Rate Base
			13 Month Average	Remove	Add	
Additions						
1	Utility Plant in Service					
2	Construction Work in Progress					
3	Materials and Supplies				a/	
4	Prepayments				a/	
5	Gas Inventory				a/	
6	Deferred Rate Case Expense					
7	Working Capital					
8	Unamortized ARM Reconciliation Balance -Asset (Liability)				b/	
9	Other rate base components as approved by the Commission.					
Total Additions:						
Deductions						
10	Accumulated Depreciation					
11	Accumulated Deferred Income Tax					
12	Regulatory Liability-Excess Deferred Income Tax					

**Chattanooga Gas Company
Annual Review Mechanism (ARM)**

13	Deferred Income Tax- ARM Reconciliation Balance (Asset) Liability						
14	Customer Advance for Construction						
15	Reserve for Uncollectibles					a/	
16	Reserve for Health Insurance					a/	
17	Other Reserves					a/	
18	Customer Deposits						
19	Accrued Interest on Customer Deposits						
20	Total Deductions						
21	Rate Base						

Detailed supporting workpapers that show the calculation of the adjustments shall be provided as part of the filing.

a/ Three-year average

b/ Schedule

**Chattanooga Gas Company
Annual Review Mechanism (ARM)**

Schedule 3: Lead -Lag Results

Line	Item	Prior Year Adopted	Historic Base Period
1	Revenue Lag Days (Docket No. 18-00017)	43.79	43.76
2	Expense Lag (Schedule 4)		
3	Net Lag Days (L1-L2)		
4	Daily Cost of Service (Schedule 4)		
5	Lead Lag Study (L3 X L4)		
6	Less: Average Balance Tax Collections Withheld		
7	Net Cash Working Capital Provided (L5-L6)		

1. Revenue Lag as adopted by the Commission in Docket No. 18-00017 or subsequent general rate case.
2. Expense Lag computed using the expense lag days adopted by the Commission in Docket No. 18-00017 or subsequent general rate case as shown on ARM Schedule 4 Working Capital Expense Lag.
3. Net Lag (Revenue lag less Expense Lag)
4. Daily Cost of Service (Total Cost for the Working Capital Expense Lag Schedule divided by 365.
5. Lead Lag Study (Net Lag multiplied by Daily Cost of Service
6. Less the average balance of Tax Collections Withheld during the Historic Base Period.
7. Net Working Capital Provided.

**Chattanooga Gas Company
Annual Review Mechanism (ARM)**

Schedule 4: Working Capital Expense Lag

This schedule shall show the calculation of the Expense lag computed using the expense amounts for the Historic Base Period and the corresponding Lag Day for those expenses adopted by the Commission in Docket No. 18-00017 or subsequent general rate case.

Working Capital Expense Lag
Historic Base Period Ended December 31, _____
Schedule 4

Line No.	Col A Item	Col B	Col C Historic Base Period Amount	Col D Lag Days Docket No. 18-00017 or Subsequent General Rate Case	Col E \$ Days
Operating and Maintenance Expense					
1	Purchased Gas			40.94	
2	O&M Wages			14.01	
3	Pension Expense			0	
4	Post -Retirement Benefits Other than Pensions Expense			0	
5	Miscellaneous Employee Benefits			4.47	
6	401 K Benefits			12.07	
7	Health/Life Insurance Expense			8.98	
8	Allocated Cost			21.94	
9	Uncollectible			43.79	
10	Other Operating Expense			31.49	
Taxes					
11	Taxes other than Income Tax			171.16	
12	State Excise Income Tax- Current			37.88	
13	State Excise (Income) Tax- Deferred			0	

**Chattanooga Gas Company
Annual Review Mechanism (ARM)**

14	Federal (Income) Tax-Current			37.88	
15	Federal (Income) Tax-Deferred			0	
Other					
16	Depreciation Expense			0	
17	Interest on Customer Deposits			0	
18	Interest Short-Term Debt			(51.36)	
19	Interest Long-Term Debt			<u>45.76</u>	
20	Total Working Capital Requirements [Total L1:L19]				
21	Net Lead (Lag) Days [Col E L20/Col C L20]				
22	Col B -Daily Working Capital Requirement Col C L20/365				
23	Return on Equity				
24	Total Cost of Service				

**Chattanooga Gas Company
Annual Review Mechanism (ARM)**

Schedule 5: Income Statement Historic Base Period

This schedule is the Income Statement for the Historic Base Period with expenses presented in accordance with the methodologies adopted by the Commission in Docket No. 18-00017, in a subsequent general rate case, or as otherwise modified by the Commission. It shall include:

Line		Prior Year Adopted	Historic Base Period Actual With Rate Making Adjs.		Normal ization Adjs.		Normal ized Historic Base Period	Adjustment to include Amortization of Current Year Regulatory Asset or Liability	Annual True- Up Revenue Requirement Rate Adjustment
	Operating Revenues								
1	Gas Sales & Transportation					a/			
2	Other Revenues					b/			
3	AFUDC-Interest								
4	AFUDC-Equity								
5	Total Operating Revenue								
	Operating & Maintenance Expense								
6	Purchased Gas Expense								
7	Operating & Maintenance - Labor			e/					
8	Operating & Maintenance-Non-Labor			e/		c/			

**Chattanooga Gas Company
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9	Total Operating & Maintenance Expense								
	Other Expense								
10	Depreciation								
11	Amortization- Prior Year Earnings Deficiency or Surplus Asset/Liability								
12	Interest on Customer Deposits					d/			
13	Taxes Other than Income								
14	State Excise Tax			f/					
15	Federal Income Tax			f/					
16	Total Operating Expense								
17	Utility Operating Income								

- a/ Weather Normalized Schedule 16
- b/ Average Historic Base Period and 3 previous years Sch 28
- c/ Uncollectible (Bad Debt) Historic Base Period and previous 4 years Sch 28
- d/ Average Customer Deposits Sch 2 X Tariff Interest Rate 6%
- e/ Schedule 7
- f/ Schedule 9

Revenue and Expenses shall be reported consistently with the methodologies adopted by the Commission in Docket No. 18-00017, in a subsequent general rate case, or as otherwise modified by the Commission.

**Chattanooga Gas Company
Annual Review Mechanism (ARM)**

Schedule 6: Revenue Summary

This schedule shall summarize utility actual and Weather Normalized Revenues for the Historic Base Period and shall include:

Line	Sales & Transportation	Prior Year Adopted	Historic Base Period Revenue	Weather Normal Adj Sch 16.3	Normal Revenue
1	Residential (R-1)				
2	Multi-Family Housing (R-4)				
3	Commercial (C-1)				
4	Commercial (C-2)				
5	Industrial (F-1/T-2)				
6	Industrial (I-1)				
7	Industrial (T-1)				
8	Industrial (T-1/T-2)				
9	Industrial (T-3)				
10	Special Contract				
11	Total Margin				
12	Gas Cost				
13	Total Sales and Transportation Revenue				
14	Other Revenue a/				
15	Total Revenue				

a/ Normalized Other Revenue is the average for Historic Base Period and previous four (3) years' Schedule 28.

This schedule shall be modified to reflect Commission approved deletion or additions of Rate Schedules.

Chattanooga Gas Company Annual Review Mechanism (ARM)

Schedule 7: Operating and Maintenance Expense Summary

This schedule is a summary of the Operating and Maintenance for the Historic Base Period reported consistently with the methodologies adopted by the Commission in Docket No. 18-00017, subsequent general rate case, or as otherwise modified by the Commission. It shall include:

Line		Prior Year Adopted	Historic Base Period Per Books	Rate Making Adjustments a/	Historic Base Period Adjusted
1	Payroll Expense				
2	Pension				
3	Post-Retirement Benefits Other than Pension				
4	Miscellaneous Employee Benefits				
5	Health/Life Insurance Expense				
6	Benefits Capitalized				
7	Fleet Service & Facilities Expense				
8	Outside Services				
9	Bad Debt				
10	Sales and Promotion Expense				
11	Customer Service & Accounting Expense				
12	Administrative and General				
13	Administrative and General Capitalized				
14	Other Distribution & Storage Expense				
15	AGL Service Co. Allocations				
16	Total Operating and Maintenance Expense				

a/ Detailed workpapers shall be provided for each rate making adjustment.

**Chattanooga Gas Company
Annual Review Mechanism (ARM)**

Schedule 8: Taxes Other than Income Tax

This schedule is a summary of the Taxes Other than Income for the Historic Base Period reported consistently with the methodologies adopted by the Commission in Docket No. 18-00017, subsequent general rate case, or as otherwise modified by the Commission. It shall include:

Line		Prior Year Adopted	Per Books	Rate Making Adjustment a/	Adjusted Taxes Other than Income
1	Property Tax				
2	Tennessee Utility Commission Inspection Fee				
3	Payroll Tax				
4	Franchise Tax				
5	Gross Receipt Tax				
6	Allocated & Other Tax				
7	Total Taxes Other than Income				

a/ Detailed workpapers shall be provided for any rate making adjustment.

Chattanooga Gas Company Annual Review Mechanism (ARM)

Schedule 9: Excise and Income Tax

This schedule shows the calculation of the Tennessee Excise and Federal Income Tax and shall be computed in accordance with the methodologies adopted by the Commission in Docket No. 18-00017, a subsequent general rate case, or as otherwise modified by the Commission.

Line		Prior Year Adopted	Historic Base Period as Adjusted	Historic Base Period Normalized	Annual True-Up Revenue Requirement Rate Adjustment (Includes Amortization Current Year Filing ARM Regulatory Asset / (Liability)
1	Operating Revenue				
	Operating Expense				
2	Purchased Gas Expense				
3	Operating & Maintenance				
4	Depreciation				
5	Amortization- ARM Regulatory Asset /(Liability)				
6	Interest on Customer Deposits				
7	Taxes Other than Income				
8	Total Operating Expense				
9	Income Before Excise and Income Tax				
	Less:				
10	Non-Taxable AFUDC				
11	Interest a/				
12	Net Income before Income Tax				
	Tennessee Excise Tax Calculation				
13	Net Income before Income Tax				
14	Tennessee Excise Tax Rate				
15	Tennessee Excise Tax				

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16	Less: After -Tax Excess Deferred Tax Liability Amortization				
17	Net Tennessee Excise Tax				
Federal Income Tax Calculation					
18	Net Income Before Income Tax				
19	Tennessee Excise Tax Expense				
20	Net Income Before Federal Income Tax				
21	FIT Tax Rate				
22	Federal Income Tax Expense				
23	Less: After-Tax Excess Deferred Tax Liability Amortization-Protected				
24	Less: After-Tax Excess Deferred Tax Liability Amortization-Un protected				
25	Net Federal Income Tax Expense				
26	Federal Income Tax-Current				
26	Federal Income Tax-Deferred				

a/ Synchronized Interest is the Weighted Cost of Debt Schedule 11 X Rate Base
Schedule 2

Schedule 10: Income Statement at Proposed Rates

This schedule shows for the Historic Base Period the Income Statement under Current and under Proposed Rates as adjusted for rate making methodologies adopted by the Commission in Docket No. 18-00017, a subsequent general rate case, or as otherwise modified by the Commission.

**Chattanooga Gas Company
Annual Review Mechanism (ARM)**

Schedule 10: Income Statement at Proposed Rates

Line		Annual True-Up Revenue Requirement Rate Adjustment Current Rates Schedule 5	Rate Increase (Reduction)	Proposed Rates
	Operating Revenues			
1	Gas Sales and Transportation Revenues			
2	Other Revenues			
3	AFUDC			
4	Total Operating Revenues L1+L2+L3			
	Operating & Maintenance Expense			
5	Purchased Gas Cost			
6	Operating & Maintenance-Labor			
7	Operating & Maintenance-Non-Labor			
8	Total Operating & Maintenance Expense L5+L6+L7			
	Other Expenses:			
9	Depreciation Expense			
10	Amortization-Current ARM Regulatory Asset/(Liability)			
11	Interest on Customer Deposits			
12	Taxes Other than Income Tax			
13	State Excise Taxes			
14	Federal Income Taxes			
15	Total Other Expenses: L9+L10+L11+L12+L13+L14			
16	Total Operating Expenses L8+L15			
17	Utility Operating Income L4-L16			
18	Rate Base			
19	Return on Rate Base L17/L18			
20	Authorized Return			
21	Return Deficiency (Surplus) L19-L20			

Chattanooga Gas Company Annual Review Mechanism (ARM)

Schedule 11: Rate of Return Summary

Schedule 11 shows the Capital Structure Adopted in Docket No. 18-00017 or subsequent general Rate Case, the cost of debt, authorized Return on Equity, the weighted cost of debt, the weighted cost of Equity, the overall rate of return, and the computation of the interest expense and computation of Interest on Customer Deposits.:

Line	Class of Capital	Rate Case Capital Structure and Rate Case Cost Rates	Rate Case Capital Structure and Current Period Cost Rates
1	Short- Term Debt % of Total	6.30%	6.30%
2	Long- Term Debt % of Total	44.47%	44.47%
3	Equity % of Total	49.23%	49.23%
	Cost Rate		
4	Short-Term Debt	3.01%	
5	Long -Term Debt	4.73%	
6	Equity	9.8%	9.8%
	Weighted Cost		
7	Short- Term-Debt L1 X L4	0.19%	
8	Long- Term Debt L2X L5	2.01%	
9	Equity L3 X L6	4.82%	4.82%
10	Overall Cost of Capital L7+L8+L9	7.12%	
11	Rate Base Schedule 2	\$149,739,716	
	Interest Expense		
12	Short Term Debt Interest L7 X L11	\$283,951	
13	Long-Term Debt Interest L8 X L11	3,149,672	
14	Total L12 + L13	\$3,433,623	
15	Required Net Operating Income L10 X L 11		
16	Customer Deposits -13 Month Average	\$1,612,342	
17	Customer Deposit Interest Rate	6%	
18	Interest on Customer Deposits L16 X L17	\$96,740	

**Chattanooga Gas Company
Annual Review Mechanism (ARM)**

Schedule 12: Revenue Conversion and Income Tax Gross-up Factors

This schedule shall show the calculation of the Revenue Conversion Factor and shall be the same as that adopted by the Commission in Docket No. 18-00017, a subsequent general rate case, unless otherwise modified by the Commission. The Revenue Conversion Factor is computed as follows:

Line #		Balance
1	Operating Revenue	100%
2	Add: Forfeited Discounts	<u>0.008796</u>
3	Balance [L1+L2]	1.008796
4	Uncollectible Ratio	0.003825
5	Uncollectible Adjustment [L4 X L3]	<u>0.003859</u>
6	Balance[L3-L5]	1.004937
7	State Excise Rate	0.065000
8	State Excise Tax Adjustment [L7 X L6]	<u>0.065321</u>
9	Balance [L6-L8]	0.939617
10	Federal Income Tax Rate	0.210000
11	Federal Income Tax Adjustment [L10 X L 9]	<u>0.197319</u>
12	Balance [L9 – L11]	0.742298
13	Revenue Conversion Factor [1/L12]	<u>1.347169</u>
	Composite Income Tax Factor	
14		<u>100%</u>
15	Tennessee Excise Tax	<u>.6.5%</u>
16	Balance L14-L15	<u>.93.5%</u>
17	Federal Income Tax Rate	<u>.21%</u>
18	L16 X L17	19.635%
19	Composite Income Tax Rate L15+L18	<u>26.135%</u>
20	Income Tax Gross-Up factor 1/(1-L19)	<u>1.35382</u>

Chattanooga Gas Company Annual Review Mechanism (ARM)

Schedule 13: Margin by Rate Schedule under Current and Proposed Rates

This schedule shows the for each Rate Schedule the Margin under Current Rates, the Margin under Proposed Rates, the Change in the Margin, and the Percentage Changes based the billing determinants for the Historic Base Period (the number of customers, the volumes sold, the volumes transported, the demand determinants, and the system capacity demand.)

Line #	Rate Schedule	Normalized Margin Current Rates Sch 6	Normalized Margin Proposed Rates Sch 17	Margin Change	% Change
1	Residential (R-1)				
2	Multi-Family Housing (R-4)				
3	Commercial (C-1)				
4	Commercial (C-2)				
5	Industrial (F-1/T-2)				
6	Industrial (I-1)				
7	Industrial (T-1)				
8	Industrial (F-1/T-2/T-1)				
9	Industrial (T-3)				
10	Special Contracts				
11	Total Sales and Transportation				
12	Other Revenues				
13	Total Margin				

Schedule 13A Shows Historic Base Period depreciation and amortization expense shall be computed consistent with the ratemaking methodologies adopted in Docket No. 18-00017, a subsequent general rate case, or as otherwise modified by the Commission. Depreciation expense shall be computed using the depreciation rates approved by the Commission for the Historic Base Period.

Schedule 13 shall show for the Historic Base Period for each plant account the additions, retirements, average gross investment, the depreciation rate, the depreciation expense, cost of removal, and the accumulated depreciation balance.

Chattanooga Gas Company Annual Review Mechanism (ARM)

If the Company performs and files a new depreciation study with the Commission, and the Commission approves new depreciation rates, the Company shall calculate depreciation using the new rates beginning on the effective date of the new rates as approved by the Commission. Detailed workpapers shall be provided supporting the depreciation and amortization expense shall be included in the filing.

Schedule 13B shall show the calculation of the depreciation and amortization expense based on the End of Period Plant investment balances that shall be included in the calculation of the Annual True-Up Revenue Requirement Rate Adjustment

Schedule 14: Depreciation and Amortization Expenses

Schedule 15: Summary - Historic Base Period Jurisdictional Non-Gas Revenues -Current Rates

This schedule shall provide for each month of the Historic Base Period the applicable billing determinants, and the revenues for each Rate Schedule per book, and other revenues. (The following shall be presented for each Rate Schedule for each month):

- a. Number of Bills;
- b. Customer Charge
- c. Base Customer Charge Revenue
- d. Total Usage Volume
- e. Usage Rate(s)
- f. Total Usage Revenue
- g. Weather Normalization Adjustment (WNA) Revenue, for applicable Rate Schedules;
- h. Total Demand Determinants, for applicable Rate Schedules
- i. Demand Charge, for applicable Rate Schedules
- j. Total Demand Charge Revenue, for applicable Rate Schedules
- k. Total Capacity Determinants, for applicable Rate Schedules
- l. Total Capacity Charge Revenue for applicable Rate Schedules
- m. Total Revenue

Chattanooga Gas Company Annual Review Mechanism (ARM)

Schedule 16: Schedule Weather Normalization Adjustment

This schedule shall show the weather normalized revenue for the Historic Base Period consistent with the methodology adopted in Docket No. 18-00017, as subsequent general rate case, or as otherwise determined by the Commission.

Schedule 16.1: Weather Normalized Volume for Historic Base Period

This schedule shows the weather normalized for the Historic Base Period volumes for the Rate Schedules subject to Weather Normalization. (Rate Schedules: Residential R-1, Multi-Family R-4, Commercial C-1, and Commercial C-2). The Weather Normalized Volumes for these Rate Schedule shall be computed by multiplying the average number of bills or R-4 units during the Historic Base Period by the average normalized use per bill or unit during adopted in Docket No. 18-00017. (Docket No. 18-00017, Amended Order dated January 15, 2019, Appendix 2).

Weather Normalized Usage Historic Base Period Ended December 31

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7
Residential R-1		Number of Bills		Average Normalized Use Per Bill Dkt 18-00017		Normalize Usage Col 3 X Col 5
				51.881		
Multi-Family R-4	Number of Winter Units	Number of Summer Units	Average Normalized Use Per Unit Winter Dkt 18-00017	Average Normalized Use per Unit Summer Dkt 18-00017	Normalized Winter Usage Col 2 X Col 4	Normalized Summer Usage Col 3 X Col 5
			48.56	16.94		
Commercial C-1	Number Winter Bills	Number Summer Bills	Average Normalized Use Per Bill Winter	Average Normalized Use per Bill Summer	Normalized Winter Usage	Normalized Summer Usage Col 3 X Col 5

**Chattanooga Gas Company
Annual Review Mechanism (ARM)**

			Dkt 18-00017	Dkt 18-00017	Col 2 X Col 4	
			158.53	22.75		
Commercial C-2	Number Winter Bills	Number Summer Bills	Average Normalized Use Per Bill Winter Dkt 18-00017	Average Normalized Use per Bill Summer Dkt 18-00017	Normalized Winter Usage Col 2 X Col 4	Normalized Summer Usage Col 3 X Col 5
Therms						
0-3000			361.43	136.73		
3,001-5,000			42.98	16.26		
5,001-15,000			56.13	21.24		
Over 15,000			17.97	6.8		

Schedule 16.2: Weather Normalized Base Revenue- Historic Base Period

This schedule shows the weather normalized volumetric base revenues for the Historic Base Period for the Rate Schedules subject to Weather Normalization. (Rate Schedules: Residential R-1, Multi-Family R-4, Commercial C-1, and Commercial C-2).

Chattanooga Gas Company Annual Review Mechanism (ARM)

Weather Normalized Volumetric Revenue for the Historic Base Period Ended December 31,

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
Residential R-1	Normalized Usage			Volumetric Rate		Normalized Volumetric Revenue Col 2 X Col 5	Total Normalized Volumetric Revenue Col 6 + Col 7
				\$0.11591			
Multi-Family R-4	Normalized Winter Usage Sch 16.1	Normalized Summer Usage Sch 16.1	Winter Volumetric Rate	Summer Volumetric Rate	Normalized Winter Volumetric Revenue Col 2 X Col 4	Normalized Summer Volumetric Revenue Col 3 X Col 5	Total Normalized Volumetric Revenue Col 6 + Col 7
			\$0.21768	\$0.19350			
Commercial C-1	Normalized Winter Usage Sch 16.1	Normalized Summer Usage Sch 16.1	Winter Volumetric Rate	Summer Volumetric Rate	Normalized Winter Volumetric Revenue Col 2 X Col 4	Normalized Summer Volumetric Revenue Col 3 X Col 5	Total Normalized Volumetric Revenue Col 6 + Col 7
			\$0.18561	\$0.14589			
Commercial C-2	Normalized Winter Usage Sch 16.1	Normalized Summer Usage Sch 16.1	Winter Volumetric Rate	Summer Volumetric Rate	Normalized Winter Volumetric Revenue Col 2 X Col 4	Normalized Summer Volumetric Revenue Col 3 X Col 5	Total Normalized Volumetric Revenue Col 6 + Col 7
Therms							
0-3000			\$0.18744	\$0.14717			
3,001-5,000			\$0.17109	\$0.11683			
5,001-15,000			\$0.16666	\$0.10562			
Over 15,000			\$0.08823	\$0.08823			

Chattanooga Gas Company Annual Review Mechanism (ARM)

Schedule 16.3: Weather Normalized Revenue Adjustment for the Historic Base Period

This schedule shows the weather normalized adjustment for the Historic Base Period for the Rate Schedules subject to Weather Normalization. (Rate Schedules: Residential R-1, Multi-Family R-4, Commercial C-1, and Commercial C-2).

Weather Normalized Revenue Adjustment Historic Base Period Ended December 31,

Line	Col 1	Col 2	Col 3	Col 4
	Residential R-1	Volumetric Base Revenue	Weather Normalized Base Revenue Sch 16.2	Weather Normalization Adjustment Col 2-Col 3
1	R-1 Adjustment			
	Multi-Family R-4	Volumetric Base Revenue	Weather Normalized Base Revenue Sch 16.2	Weather Normalization Adjustment Col 2-Col 3
2	R-4 Adjustment			\$0.21768
	Commercial C-1	Volumetric Base Revenue	Weather Normalized Base Revenue Sch 16.2	Weather Normalization Adjustment Col 2-Col 3t
3	C-1 Adjustment			\$0.18561
	Commercial C-2	Volumetric Base Revenue	Weather Normalized Base Revenue Sch 16.2	Weather Normalization Adjustment Col 2-Col 3t
4	C-2 Adjustment			
5	Total Weather Normalization Revenue Adjustment (L1+L2+L3+L4)			

**Chattanooga Gas Company
Annual Review Mechanism (ARM)**

	Forfeited Discount Factor Dkt 18-00017	.	.008796
7	Adjustment Forfeited Discount Revenue	(L5 X L6)	
8	Uncollectible Factor Dkt 18-00017	.	.003825
9	Uncollectible Adjustment	(15+L7) X L9	
10	Excise Tax Rate Dkt 18-00017		6.5%
11	Excise Tax Adjustment (L5+L7-L9) X L10		
12	Federal Income Tax Rate Dkt 18-00017		21%
13	Income Tax Adjustment (L5+L7-L9-L11) X L12		

Schedule 17: Proof of Revenue-Proposed Rates.

The Proposed Rates shall be based on the number of customers served, the normalized volumes (where applicable), the demand determinants (where applicable), and the capacity determinants (where applicable) for each Rate Schedule during the Base Historic Base Period.

This Schedule shall show for each Rate Schedule:

- a. The number of Summer (May-Oct) bills;
- b. The number of Winter (Nov-Apr) bills;
- c. The current Summer Customer Charge Rate;
- d. The current Winter Customer Charge Rate;
- e. The Summer Customer Charge Revenue-Current Rates;
- f. The Winter Customer Charge Revenue-Current Rates;
- g. The Summer sales and transported volumes (for Rate Schedules R-1, R-4, C-1 and C-2 the volumes will be weather normalized);
- h. The Winter sales and transported volumes (for Rate Schedules R-1, R-4, C-1 and C-2 the volumes will be weather normalized)

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(For Rate Schedules with rate blocks the volume will be distributed to the rate blocks proportionately to the distribution in Docket No. 18-00017 or subsequent general rate case.);

- i. The Summer Volumetric rate(s);
- j. The Winter Volumetric rate(s);
- k. The Summer Volumetric Revenue-Current Rate;
- l. The Winter Volumetric Revenue-Current Rate;
- m. Total Revenue -Current Rates;
- n. Proposed Summer Customer Charge Rate;
- o. Proposed Winter Customer Charge Rate;
- p. Summer Customer Charge Revenue-Proposed Rates;
- q. Winter Customer Charge Revenue-Proposed Rates;
- r. Proposed Summer Volumetric rate(s);
- s. Proposed Winter Volumetric rate(s);
- t. Summer Volumetric Revenues-Proposed Rates;
- u. Winter Volumetric Revenue-Proposed Rates;
- v. Total Revenue -Proposed Rates;
- w. Proposed Percent Increase;
- x. Total Revenue under Current Rates for all Rate Schedules;
- y. Total Revenue under Proposed Rates for all Rate Schedules;
- z. Percent Increase.

Schedule 18: Other Revenues

Provide a breakdown by charge all revenues shown as "Other Operating Revenues" for the Prior Year and the Historic Base Period.

Schedule 19: Chattanooga Gas Company Income Statement

For each month of the Historic Base Period and as budget for the current year provide the income statements that show the salary and wages and other operating and maintenance expense separately.

Schedule 20: ALG Services Company Income Statement

For each month of the Historic Base Period and as budget for the current year provide the income statements that show the salary and wages and other operating and maintenance expense separately.

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Schedule 21: General Ledge for each month of the Historic Base Period, and two previous years.

Schedule 22: Capital Expenditures

Provide:

1. The monthly plant additions and retirements by plant account for the Historic Base Period;
2. The annual capital expenditures broken into the following Prioritization Categories for the Historic Base Period and as budgeted for the current year:
 - A. Safety
 - B. Regulatory
 - C. Reliability/Integrity
 - D. Obsolesce/Update
 - E. Productivity/New Business
 - F. Business Projects

Schedule 23: Allocated Cost

1. For each month of the Historic Base Period, and account identify the amount of
 - a. direct charged
 - b. direct assigned, and
 - c. allocated charges to the Chattanooga Gas Company from
 - i. the Parent Company,
 - ii. an Affiliate Utility Service Company, and
 - iii. Other Affiliate.
2. For allocated Cost identify the total amount subject to allocation for each:
 - a. The Parent Company,
 - b. an Affiliate Utility Service Company, and
 - c. Other Affiliate
3. Provide the amount of any revenue or credits resulting from transactions with each affiliate for each month of the Historic Base Period.

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Schedule 24: Lobbying Expense, charitable contribution, social club membership

1. Provide the amount of each
 - a. lobbying expense,
 - b. charitable contribution,
 - c. social club membership and
 - d. athletic event recorded on the Company's books either directly incurred by the Company, or allocated to Chattanooga Gas Company by its Parent, an Affiliated Utility Service Company or other Affiliated for each month of the Historic Base Period.

Provide the same information and breakdown of any amounts that are included in cost of service to be recovered in regulated rates

Schedule 25: Pension and Other Post-Employment Benefits

1. For each month of the Historic Base Period identify:
 - a. The amount of pension expense recorded on the Company's books;
 - e. The actual pension contribution;
 - f. The pension expense included in the cost of service for the ARM Filing;
 - g. The amount of Post-Employee Benefits Expense recorded on the Company's books;
 - h. The actual Post Employment Benefit Contribution
 - i. The amount of Post-Employment Benefit Expense included in the cost of service for the ARM Filing.
2. Provide the latest actuarial studies for:
 - a. pension expense and liabilities and;
 - b. Other Post-Employment Benefits

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Schedule 26: Advertising Expense

1. Provide a detailed analysis of advertising expense for the Historic Base Period. For each month, identify the amount of advertising classified as follows:
 - a. Institutional
 - b. Conservation
 - c. Informational
 - d. Promotional
 - e. Promotional for the sale of appliances
 - f. For each of the above, identify the amount included in the ARM Cost of service.

Schedule 27: Incentive Compensation

1. Provide incentive plan documents for the Historic Base Period.
2. Identify the amount and account charged for Incentive Compensation:
 - a. During the Historic Base Period, and
 - b. The amount included in the ARM Cost of Service.

Schedule 28: Normalization Adjustments-Non-Weather

		Other Revenues 4 Year Average	Uncollectible Expense 5 Year Average		
1	Historic Base Period				
2	Previous Year				
3	2nd Previous Year				
4	3rd Previous Year				
5	4th Previous Year				
6	Average	\$	\$		
7	Adjustment L6-L1	\$ -	\$ -		

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Rate Base Normalization Adjustments					
		Material and Supplies	Prepayments	Gas Inventory	Reserve for Uncollectibles
8	Historic Base Period				
9	Previous Year				
10	2nd Previous Year				
11	3rd Previous Year				
12	Average	\$	\$	\$	\$
13	Adjustment L12-L8	\$ -	\$ -	\$ -	\$ -
		Reserve for Health Insurance	Other Reserves		
14	Historic Base Period				
15	Previous Year				
16	2nd Previous Year				
17	3rd Previous Year				
18	Average				
19	Adjustment L18-L14	\$ -	\$ -	\$ -	\$ -

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Schedule 29: Carrying Charges and Historic Period Annual Reconciliation Balance

Line			Historic Base Period
1	Gas Sales and Transportation Revenues	Schedule 5	
2	AFUDC-Interest	Schedule 5	
3	AFUDC-Equity	Schedule 5	
4	Other Revenues	Schedule 5	
5	Total Operating Revenue	L1+L2+L3+L4	
6	Purchased Gas Expense	Schedule 5	
7	Operating & Maintenance-Labor	Schedule 5 a/	
8	Operating & Maintenance-Non-Labor	Schedule 5 a/	
9	Total Operating and Maintenance	L6+L7+L8	
10	Depreciation Expense	Schedule 5	
11	Amortization -Prior Year Reconciliation Balance	Schedule 5	
12	Interest on Customer Deposits	Schedule 5	
13	Taxes Other than Income	Schedule 5	
14	State Excise (Income) Tax	Schedule 5 b/	
15	Federal Income Tax	Schedule 5 b/	
16	Total Operating Expense	(L9+L10+L11+L12+L13+L14+L15)	
17	Utility Operating Income	L5-L16	
18	Historic Base Period Interest	L20 x L21	
19	Net Income -Equity Return	L17-L18	
20	Historic Base Period Rate Base	Schedule 2	
21	Weighted Cost of Debt	Schedule 11	
22	Weighted Cost of Equity	Schedule 11	
23	Required Net Income	L20 X L22	
24	Earning Deficiency (Excess)	L23-L19	
25	Authorized Overall ROR	Schedule 11	
26	Annual Carrying Charges	L25 X L24	
27	½ Year		0.5
28	Carrying Charge	L25 X L27	

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29	Earning Deficiency (Excess) + Carrying Charges	L24+L28	
30	Tax Gross-Up factor	Schedule 12	1.3538211
31	ARM Reconciliation Balance	L30 X L29	
32	Average Balance Assuming 12 Month Amortization	L31/2	

a/ Excluding expenses disallowed for ratemaking

b/ Based on Revenues, ratemaking expenses, and synchronized Interest