

BEFORE THE
TENNESSEE PUBLIC UTILITY COMMISSION

PETITION OF TENNESSEE-AMERICAN WATER COMPANY TO MODIFY TARIFF,
CHANGE AND INCREASE CHARGES, FEES, AND RATES, AND FOR APPROVAL OF A
GENERAL RATE INCREASE

TPUC DOCKET NO. 24-00032

DIRECT TESTIMONY
OF
CLARK KAML

MULTI-TIERED UNIVERSAL AFFORDABILITY TARIFF
AND RATE CONSOLIDATION

ON BEHALF OF THE
OFFICE OF THE TENNESSEE ATTORNEY GENERAL

September 17, 2024

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I. INTRODUCTION

Q1. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION FOR THE RECORD

A1. My name is Clark D. Kaml. My business address is 2624 Mistwood Ct., Grand Forks, ND, 58201. I am a Utility Consultant contracted with the Consumer Advocate Division of the Tennessee Attorney General's Office ("Consumer Advocate").

Q2. PLEASE PROVIDE A SUMMARY OF YOUR BACKGROUND AND PROFESSIONAL EXPERIENCE.

A2. I received a Bachelor of Science Degree in Economics from the University of North Dakota in 1987 and a Master of Arts Degree in Economics from the University of North Dakota in 1988. Have more than 30 years of experience working in the regulated utilities industries including electric, natural gas, telephone, and water. I have worked for various agencies including the Public Service Commission of North Dakota, the Kansas Corporation Commission, the Minnesota Public Utilities Commission, the Minnesota Office of the Attorney General, and the Grant County Public Utility District. In addition, I have worked with private companies, municipalities, and served on a Rate Committee.

Q3. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION ("TPUC" OR THE "COMMISSION")?

A3. I have not.

Q4. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

1 **A4.** I am addressing Tennessee-American Water Company’s (“TAWC” or the “Company”)
2 proposed Multi-Tiered Universal Affordability Tariff (“UAT”) as discussed in the direct
3 testimony of Mr. Grant Evitts and Mr. Charles Rea, and TAWC’s proposal to consolidate
4 rates as discussed in the direct testimony of Mr. Grant Evitts and Mr. Heath Brooks.

5 **II. PRINCIPLES OF RATE DESIGN**

6 **Q5. ARE THERE GENERAL GUIDING PRINCIPLES OF RATE DESIGN?**

7 **A5.** There are several basic principles of rate design that are generally accepted in utility
8 regulation. The principles that are discussed often draw from those outlined by James
9 Bonbright in *Principles of Public Utility Rates*:¹

- 10 • Practical attributes of simplicity, understandability, public acceptability, and
11 feasibility of application;
- 12 • Freedom from controversies as to proper interpretation;
- 13 • Effectiveness of yielding total revenue requirements under the fair return
14 standard;
- 15 • Revenue stability from year to year;
- 16 • Stability of rates themselves, minimal unexpected changes seriously adverse to
17 existing customers;
- 18 • Fairness of the specific rates in the apportionment of total costs of service
19 among different consumers;
- 20 • Avoidance of “undue discrimination” in rate relations; and
- 21 • Efficiency in discouraging wasteful use while promoting justified types and
22 amounts of use:
 - 23 ○ In control of total amounts of service; and
 - 24 ○ In the control of relative uses of alternative types of service.

25 **Q6. ARE THERE OTHER PRINCIPLES OF RATE DESIGN?**

¹ Bonbright, James. *Principles of Public Utility Rates*, p. 291 (1961).

1 **A6.** Those listed by Bonbright are the most common. Following the publication of his work,
2 there have been numerous other principles that have been offered depending on policies
3 and goals. Some examples are:

- 4 • Cost causation: the price of utility service should reflect the economic cost of
5 providing service to the customers who cause the utility to incur the expense.
- 6 • Offer customers multiple rate options.
- 7 • Engage with stakeholders during the process.
- 8 • Design customer-centric rates.
- 9 • Provide value of service pricing.

10 **Q7. WHAT ARE SOME OF THE DIFFICULTIES IN APPLYING THESE**
11 **PRINCIPLES?**

12 **A7.** Bonbright noted that the list is important in reminding rate makers of considerations.
13 However, there are ambiguities, overlapping character, and failure to offer any rules of
14 priority. As such, it may not be possible to produce a single rate design which is simple,
15 fair, and free of controversy.

16 **III. UNIVERSAL AFFORDABILITY**

17 **Q8. PLEASE EXPLAIN TAWC'S UNIVERSAL AFFORDABILITY TARIFF.**

18 **A8.** TAWC's Multi-Tiered Universal Affordability tariff would offer discounts to the basic 5/8"
19 meter charge and the volumetric charges for customers who are at or below 150% of the
20 Federal Poverty Level (FPL).²

21 TAWC proposed to offer:

- 22 • A 70% discount on volumetric base rates for qualifying customers who are
23 between 0% and 50% of the FPL.

² Direct Testimony of Grant Allen Evitts at p. 15.

- A 40% discount on volumetric base rates for qualifying customers who are between 51% and 100% of the FPL.
- A 10% discount on volumetric base rates for qualifying customers who are between 101% and 150% of the FPL.

Q9. WHY IS TAWC PROPOSING A UNIVERSAL AFFORDABILITY TARIFF?

A9. The Company explained that a driving principle is to provide Basic Water Service to participating customers at a rate that will not exceed 2% of the annual household income.³

Q10. HOW DOES THE COMPANY DEFINE BASIC WATER SERVICE?

A10. TAWC defined Basic Water Service as a water usage level that reflects the level of water consumption for basic human services (cooking, cleaning, sanitation, and general health requirements). It is assumed to have constant monthly usage. For the purpose of the Company's affordability analyses, Basic Water Service was defined to be 40 gallons of water per household member per day.

Q11. HOW MANY OF TAWC'S CUSTOMERS MEET THE THRESHOLD LEVEL?

A11. TAWC estimated that 16,700 residential water service customers (22 percent) have incomes at or below 150% of the FPL and would qualify for the service.⁴

Q12. DID TAWC EXPLAIN HOW THE UNIVERSAL AFFORDABILITY TARIFF WOULD BE ADMINISTERED?

A12. In the Company's Response to the City of Chattanooga's DR No. 1-30, TAWC stated that "the Company plans to contract with a third party to administer the program."

Q13. DID TAWC PROVIDE AN ESTIMATE OF THE NUMBER OF CUSTOMERS WHO WOULD BE ON THE TARIFF?

³ Direct Testimony of Charles Rea at p. 22.

⁴ Direct Testimony of Grant Allen Evitts at p. 14; and Direct Testimony of Charles Rea at p. 23.

1 **A13.** It did not. In the Company’s Response to the City of Chattanooga’s DR No. 1-32, TAWC
2 stated:

3 The Company does not have a specific forecast of participation under the UAT
4 for the five year period, however, the Company estimates that there are
5 currently 16,700 water customers with household incomes at or below 150% of
6 Federal Poverty Level who would qualify for service under the proposed
7 Universal Affordability Tariff is approved (see, Direct Testimony of Charles
8 Rea, p. 23).

9 **Q14. DID THE COMPANY EXPLAIN HOW IT WOULD VERIFY INCOME AND**
10 **DETERMINE WHICH CUSTOMERS QUALIFY FOR THE DISCOUNT?**

11 **A14.** That information was not provided in testimony. However, in the Company’s Response to
12 the City of Chattanooga’s DR No. 1-30, TAWC stated “Income verification for the
13 Universal Affordability Tariff will be conducted by that third-party administrator.”

14 **Q15. WHAT KIND OF COSTS WILL BE INCURRED AS A RESULT OF THE**
15 **PROGRAM?**

16 **A15.** There will be costs directly associated with the administration and management of the
17 program. There will also be lost revenues associated with the discounts.

18 **Q16. DID THE COMPANY PROVIDE AN ESTIMATE OF THE COSTS OF**
19 **ADMINISTERING THE PROGRAM?**

20 **A16.** It did not. The Company stated that forecasted revenue or expenses do not include costs
21 associated with associated with administering the Universal Affordability program or an
22 amount for the discounts that will be provided to customers.⁵ In Direct Testimony,
23 Company witness Mr. Lane stated that the costs of implementing and managing the

⁵ Direct Testimony of Grant Allen Evitts at p. 17.

1 program cannot be projected because they will vary with participation rates, which are not
2 yet known.⁶

3 The Company explained that who would manage the program is not known at this time.
4 Likewise, costs (lost revenue) associated with the discount provided to participating
5 customers “are difficult to predict as they are entirely dependent upon customer enrollment
6 and participation in the program.”⁷ This view was emphasized in TAWC’s Response to the
7 City of Chattanooga’s DR No. 1-35 asking for “all Documents reflecting, constituting,
8 recording, referring to, reporting, or relating to analyses of or cost projections related to the
9 Universal Affordability Tariff.” TAWC responded that “the Company does not have any
10 responsive documents.”

11 **Q17. DID TAWC PROVIDE ANY ESTIMATES OF LOST REVENUES ASSOCIATED**
12 **WITH THE PROPOSAL?**

13 **A17.** TAWC provided estimates of the monthly lost revenue at various participation rates. It
14 estimated that at a 100% participation rate, the total discounted revenue per month would
15 be \$344,252.⁸

16 **Q18. DID THE COMPANY INCLUDE EXPENSES ASSOCIATED WITH THE UAT IN**
17 **THE TEST YEAR?**

18 **A18.** It did not.

19 **Q19. HOW DOES TAWC PROPOSE TO RECOVER THE COSTS ASSOCIATED WITH**
20 **THE UNIVERSAL AFFODABILITY TARIFF?**

⁶ Direct Testimony of Robert C. Lane at pp. 30-31.

⁷ *Id.* at pp. 29-30.

⁸ The Company’s Response to the City of Chattanooga’s DR No. 1-33.

1 **A19.** TAWC proposed to record and defer actual costs associated with the discounts and
2 administration of the Universal Affordability Program to a future regulatory proceeding.⁹

3 The Company elaborated in Response to the City of Chattanooga’s DR No. 1-34:

4 [I]t is anticipated that administrative costs associated with the program would
5 be allocated to residential customers in a class cost of service study. Costs
6 associated with reduced revenues would not be recovered from any specific
7 customer class but would generally be recovered from all customers once
8 authorized for recovery in rates.

9 **Q20. DOES THE COMPANY PROPOSE ANY MONITORING?**

10 **A20.** The Company proposed that every January 15th it would provide:

- 11 • A summary of the level of participation;
- 12 • The amount of discounts provided;
- 13 • The costs associated with administering the program; and
- 14 • The annual and total amount of costs deferred through November of the
15 previous year.¹⁰

16 **Q21. IS THIS A REASONABLE TREATMENT OF THE COSTS ASSOCIATED WITH**
17 **THE PROGRAM?**

18 **A21.** There are several concerns with TAWC’s proposed treatment:

- 19 • First, when there is a proposal without cost estimates it is difficult to determine
20 whether the project is cost justified.
- 21 • Second, pre-approval of a project complicates a prudency review. If the
22 Company has been given approval of a project along with authorization to defer
23 those cost, determining the reasonableness of the costs that have been incurred
24 becomes more difficult. In this particular case, a prudency or reasonableness
25 review is further complicated by the absence of any cost estimate.
- 26 • Third, there is no assurance of how the project would be administered, including
27 oversight, of the third party. The “third party” is a void at this time. It is not
28 named, there is no indication of the qualification parameters, no cost estimates,
29 and is no indication of how such a third party would be selected.

⁹ Direct Testimony of Grant Allen Evitts at pp. 15, 17; and Direct Testimony of Robert C. Lane at p. 30.

¹⁰ Direct Testimony of Robert C. Lane at pp. 30.

- Fourth, the Company's proposal to allocate the costs to residential customers in a class cost of service study raises additional questions. Use of the study might be viewed as adding credibility to the allocation. However, class cost of service studies are often controversial and allocating the costs in such a study is likely to add additional dispute.

Q22. DID TAWC PROPOSE LANGUAGE FOR ITS AFFORDABILITY TARIFF?

A22. Yes, it was included as Exhibit-BL-1 to the Direct Testimony of Mr. Robert Lane. However, the proposed Universal Affordability tariff language was not included as part of TAWC's proposed tariff. Mr. Lane stated that if the Universal Affordability tariff is approved, the Company will include this tariff page with the revised final tariff sheets at the conclusion of the case.

Q23. DID THE PROPOSED TARIFF LANGUAGE EXPLAIN HOW THE PROGRAM WOULD BE ADMINISTERED AND HOW CUSTOMERS COULD APPLY FOR THE PROGRAM?

A23. The proposed tariff explained who would be eligible for the program, the discount rates, and the billing frequency. It did not explain how to apply for the discount, how it would be administered, how eligibility would be determined, or who to contact regarding the program.

Q24. WOULD TAWC'S RATE CONSOLIDATION PROPOSAL IMPACT THE PROVISION AND COST OF THE UNIVERSAL AFFORDABILITY PROPOSAL?

A24. Because TAWC's proposed rate changes are not consistent across service areas or volumes, the impact of the proposed rate consolidation would depend on the location and usage level of the qualifying customers. Rate increases for individuals who qualify for the discount

could result in an increase in the value of the discount. Likewise, areas with rate decreases, could result in a decrease in the value of the discount.

Q25. DO YOU RECOMMEND THE COMMISSION APPROVE THE PROPOSED UNIVERSAL AFFORDABILITY TARIFF?

A25. No. As proposed by TAWC, the Universal Affordability Tariff is at a conceptual stage. It is missing critical components necessary for informed analysis. The Company's proposal:

- Does not explain how it will be administered. Only that it will be by a third party;
- Does not provide an estimate of the cost of implementing and managing the program;
- Does not provide an estimate of the revenue reduction;
- Does not provide an estimate of the rate impact (of collecting the administrative costs or discount) on other customers;
- Does not explain how potential applicant's income will be verified; and
- Does not explain how customers will be informed of the existence of the tariff or the application process.

There is a fundamental absence of guidance, cost estimates, and expectations. As presented, the proposal would allow the Company to proceed with a program that will incur costs without a standard by which to measure the reasonableness or prudence of the costs, or the success of the program.

Q26. ARE THERE OTHER CONCERNS WITH THE PROPOSED UNIVERSAL AVAILABILITY TARIFF PROPOSAL?

A26. Yes. There may be an issue of reasonable or preferential rates. Some individuals who fall outside the Universal Availability Tariff eligibility may be in effectively the same situation as those who meet the eligibility requirements. With a firm parameter at 150% of the FPL, it is possible for those who miss the threshold by a minimal amount, as little as one dollar,

1 to be required to contribute to the cost of providing service to individuals who fall within
2 the threshold. The difference in household income between these two can be as little as
3 one dollar. This impact of this distinction could be viewed as unreasonable or preferential.

4 **IV. Rate Consolidation**

5 **Q27. WHAT IS MEANT BY RATE CONSOLIDATION?**

6 **A27.** As proposed in its filing, TAWC's rate consolidation is an averaging of cost recovery and
7 applying the same rates and rate structure for each customer class across multiple systems
8 or zones. Apart from Jasper Highlands, all existing zones will be consolidated, defined as
9 Rate Zone 1, and served under the same tariff schedules. Jasper Highlands will be defined
10 as Rate Zone 2.

11 **Q28. WHY IS THE COMPANY PROPOSING TO CONSOLIDATE RATES?**

12 **A28.** The Company stated that the primary benefits of consolidated rates are:

- 13 • Improved affordability for all customers;
- 14 • Lower administrative and regulatory costs;
- 15 • A consistent regulatory approach for all public utilities; and
- 16 • Support for water industry consolidation.

17 **Q29. WHAT IS THE COMPANY'S CURRENT RATE STRUCTURE?**

18 **A29.** The Company currently has seven rate zones, each with multiple customer classes, and
19 four independent service contracts. Each of these zones has its own rates and rate structure
20 for the various customer classes with service charge rates, volumetric rates and volumetric
21 rate block structures varying across the zones.¹¹ Mr. Brooks explained that service charges

¹¹ Direct Testimony of Heath J. Brooks at p. 20. The current rates for each zone are presented in Attachment 2 to the Direct Testimony of Mr. Brooks.

1 applicable to customers in Chattanooga, Lookout Mountain, and Lakeview escalate with
2 meter size. The service charges applicable to customers in Suck Creek, Whitwell Inside
3 City, Whitwell Outside City, and Jasper Highlands are flat and are not dependent on meter
4 size.

5 **Q30. WHAT IS TAWC'S PROPOSED RATE STRUCTURE?**

6 **A30.** The Company is proposing fixed service charges dependent on meter size and eliminating
7 volumetric block structures. For residential customers in Zone 1, the fixed rate starts at
8 \$21.50 for a 5/8" meter and includes a monthly allowance of 3,000 gallons. There would
9 be a volumetric rate of \$1.28091 per hundred gallons for usage above the monthly
10 allowance of 3,000.

11 For non-residential customers, the Company is proposing fixed service rate of \$27.50 for
12 a 5/8" meter with a six-block rate structure for volumetric rates.

13 The following Table 4 from Mr. Brooks' Testimony provides a summary of the proposed
14 rate structure for Zone 1.

15 *[Intentionally Blank, Table on Next Page]*

TABLE 4: Rate Zone 1 Proposed Rates

Meter Size		Residential	Non-Residential
5/8-METER		\$ 21.50	\$ 27.50
3/4-METER		\$ 32.25	\$ 41.00
1-METER		\$ 53.75	\$ 68.50
1.5-METER		\$ 107.50	\$ 137.50
2-METER		\$ 172.00	\$ 219.50
3-METER		\$ 344.00	\$ 438.50
4-METER		\$ 537.50	\$ 686.50
6-METER		\$ 1,075.00	\$ 1,372.50
8-METER		\$ 1,720.00	\$ 2,196.50
Monthly Usage (Per 100 Gallons)		Residential	Non-Residential
First 30 hgal		\$ -	\$ 0.05969
Next 456 hgal		\$ 1.28091	\$ 0.94791
Next 3,254 hgal		\$ 1.28091	\$ 0.59574
Next 33,660 hgal		\$ 1.28091	\$ 0.42075
Next 74,600 hgal		\$ 1.28091	\$ 0.32145
Over 112,000 hgal		\$ 1.28091	\$ 0.19122

Q31. WHAT IS TAWC PROPOSING FOR JASPER HIGHLANDS?

A31. The Company is proposing to keep the current service charge of \$52.15 for all meter sizes. The volumetric rate blocks will be eliminated and replaced with a single volumetric rate of \$1.1790 per hundred gallons applicable to consumption over a monthly allowance of 2,500 gallons.

Q32. HOW WILL THE CONSOLIDATION IMPACT CUSTOMERS?

A32. The proposed rates differ from existing rates for both meter size and volume of use. As a result, there is not a consistent impact across all customers and customer classes. Many customers will experience bill reductions while others will experience bill increases. On

page 26 of his Direct Testimony, Mr. Brooks provided Table 5 demonstrating the total revenue increase for each customer class.

TABLE 5: Rate Proposal Impact by Customer Class

Class	Current Revenue	Proposed Revenue	Increase \$	Increase %
Residential	\$ 32,458,901	\$ 39,218,107	\$ 6,759,206	20.82%
Commercial	\$ 22,715,453	\$ 27,461,381	\$ 4,745,927	20.89%
Industrial	\$ 5,750,304	\$ 6,581,262	\$ 830,958	14.45%
OPA	\$ 4,322,067	\$ 5,153,148	\$ 831,081	19.23%
SFR	\$ 1,286,516	\$ 1,288,075	\$ 1,559	0.12%
Private Fire	\$ 3,973,889	\$ 4,357,369	\$ 383,480	9.65%

This table indicates an increase in the revenue requirement for all rate classes, including residential. On page 26 of his Direct Testimony, Mr. Brooks provided Table 6 that indicates a decrease in the monthly bill in several zones for the average residential customer using 3,800 gallons per month.

TABLE 6: Average Residential Bill Impact

Rate Zone	Current	Proposed
Chattanooga	\$ 27.51	\$ 31.75
Lookout Mountain	\$ 35.84	\$ 31.75
Lakeview	\$ 31.82	\$ 31.75
Suck Creek	\$ 62.70	\$ 31.75
Whitwell Inside City	\$ 40.93	\$ 31.75
Whitwell Outside City	\$ 47.74	\$ 31.75
Jasper Highlands	\$ 97.33	\$ 66.68

Except for Jasper Highlands, for a residential customer using 3,800 gallons per month, the proposed rates would result in a bill of \$31.75 per month. Chattanooga is the only zone that would see a bill increase for the residential customers at this specific volume.

1 Residential, commercial, and industrial bill impacts under varying usage parameters can
2 be found in <Petitioner's Exhibit Rev – 4 - HB, Petitioner's Exhibit Rev – 5 – HB>, and
3 <Petitioner's Exhibit Rev – 6 – HB>. Some observations from these Exhibits are:

- 4 • Jasper Highlands would experience bill reductions for all customers;
- 5 • With the exclusion of Chattanooga, bills are expected to decrease for residential
6 customers at or below average consumption levels;
- 7 • Many residential customers with consumption levels at the higher levels would
8 experience higher bills;
- 9 • The bills for all Chattanooga commercial customers would increase; and
- 10 • With the exception of those under the allowed volumes, all Chattanooga
11 industrial customers would see bill increases.

12 **Q33. ARE THESE RESULTS UNUSUAL?**

13 **A33.** When consolidating rates over multiple systems where customers from various rate
14 schedules are moved to the same, new, rate schedule, it is not unusual to see smaller
15 systems benefit from reduced rates, or smaller rate increases, while larger systems and
16 those with higher population densities have rate increases. Often, smaller service areas
17 have a higher cost of treatment and distribution per customer due to size and often lower
18 population density. The decrease in bills for the majority of residential customers at or
19 below average consumption levels is unexpected.

20 **Q34. DO YOU AGREE WITH THE ARGUMENT THAT IT MAY BE MORE COSTLY**
21 **TO SERVE HIGHER GROWTH AREAS AND SUBURBS DUE TO INFLATION**
22 **AND LOWER POPULATION DENSITY?**

23 **A34.** The timing of a capital investment can make a difference in the imbedded capital per metric
24 (number of customers, capacity, etc.), however, it is not conclusory. Such an analysis only
25 demonstrates the incremental capital investment necessary to provide a specific service

1 under a given set of conditions, including the date of the investment. A full analysis,
2 adjusting for factors such as inflation and changes in installation methods, technology, and
3 materials, is necessary when trying to understand the variables that might contribute to cost
4 to serve differences between various service areas. Population density and geographic
5 conditions may be explanatory factors. If these contribute to a cost differential to an area,
6 it is reasonable to reflect those cost difference in rates.

7 Mr. Brooks acknowledged that costs may vary by location. He stated “Indeed, there are
8 some factors that make it more costly to build infrastructure in a more densely populated
9 area.”¹²

10 A careful cost review is necessary to fully understand the extent to which various factors
11 contributed to, and the actual cost to serve, differences among various areas.

12 **Q35. CAN YOU COMMENT ON THE CLAIM THAT CONSOLIDATION PROMOTES**
13 **MORE UNIVERSAL WATER INFRASTRUCTURE AND INVESTMENT AND**
14 **BRINGS COST-EFFECTIVE, HIGHER QUALITY WATER SERVICE TO A**
15 **LARGER NUMBER OF CITIZENS?**

16 **A35.** This statement has several qualifiers that require clarification with many others being
17 subjective. The first is consolidation. There is a fundamental difference between the
18 consolidation of companies or service areas and the consolidation of rates. The
19 consolidation of small utility service areas into a larger one can be expected to create
20 efficiencies and economies of scale. These efficiencies can be achieved without rate
21 consolidation.

¹² Direct Testimony of Heath J. Brooks at p. 28.

1 However:

- 2 • Consolidation of utilities, and a resulting larger utility, will not in and of itself
3 promote investment. Companies can still be expected to conduct a cost/benefit
4 analysis to determine if the investment will produce a reasonable return.
- 5 • For the consolidation to benefit customers, the new larger entity must be able
6 to capture the economies and provide service at a lower cost to customers.

7 Second, the statement assumes that at least one of the entities has a lower quality water
8 service, or that there are citizens that are not currently being served.

9 Third, as presented, there is not a definition of “cost-effective” or a demonstration that
10 there will be an increase in cost-effectiveness with the rate consolidation.

11 **Q36. DOES TAWC ARGUE THAT THE COST TO SERVE A GIVEN CUSTOMER**
12 **CLASS IS SIMILAR REGARDLESS OF THE ZONE SERVED?**

13 **A36.** The Company suggests that over a long term, the costs are likely to be similar. However,
14 the Company does not provide any substantive evidence or documentation.

15 **Q37. DO YOU AGREE THAT THE COST OF PROVIDING WATER SERVICE IS**
16 **SIMILAR TO THAT OF NATURAL GAS OR ELECTRICITY AND JUSTIFY RATE**
17 **CONSOLIDATION?**

18 **A37.** Although there are similarities among the provision of water service, natural gas services,
19 and electric service, there are also significant differences. All three of these services are
20 natural monopolies that benefit from economies of scale and the provision of the service
21 by one company rather than multiple companies that are competing with one another.

22 There is a fundamental difference. Natural gas provision and electric service are for the
23 most part, a nationwide, integrated system. In theory, natural gas can move from any source
24 point to any point of consumption on the system anywhere in the country, regardless of

1 ownership structure of the service provider (municipality, investor-owned company, or
2 cooperative). Likewise, electricity from any source on the system can be delivered to any
3 customer on the system anywhere in the United States. Due to this interconnection, there
4 are many common costs that support the entire system and the provision of service to all
5 customers regardless of the location of the customer, the location of the investment, or the
6 structure of the service company.

7 In addition, there are alternatives to natural gas such as propane and electricity. Natural
8 gas companies tend to extend service only to areas with sufficient population density, or
9 demand, to justify the capital cost. There are large portions of the country that do not have
10 natural gas service due to various factors including the serve to those areas and the
11 existence of alternative energy sources.

12 Another difference is that for the most part, electricity needs to be consumed at the same
13 time it is generated. While there have been advances in storing electricity, electricity
14 storage is still a capital-intensive endeavor. For commercial storage capacity using battery
15 technology, the estimated capital cost of capital for 4 hour delivery exceeds \$2,000 per kW,
16 the fixed operation and management cost is estimated to be approximately \$49 per kWh
17 per year,¹³ and losses associated with the storage are estimated to be approximately 20
18 percent.¹⁴

¹³ National Review Energy Lab, Annual Technology Baseline, Commercial Battery Storage available at https://atb.nrel.gov/electricity/2024/commercial_battery_storage.

¹⁴ U.S. Energy Information Administration, Utility-scale batteries and pumped storage return about 80% of the electricity they store (February 12, 2021) available at <https://www.eia.gov/todayinenergy/detail.php?id=46756>.

1 **Q38. ARE THERE DIFFERENCES IN THE COST OF PROVIDING NATURAL GAS**
2 **AND ELECTRIC SERVICES IN GEOGRAPHIC AREAS OR BASED ON**
3 **POPULATION DENSITIES SUCH AS URBAN VS. RURAL AREAS?**

4 **A38.** Yes, there are. The cost of providing natural gas or electricity to any area can vary based
5 on factors such as location, population density, and terrain. Increased distance between
6 customers can increase the cost of service. A prime example is the provision of service to
7 a multifamily facility vs a single-family home. In the case of the multifamily facility, the
8 same service line can be used to serve several customers. With several meters located in
9 the same area, or a few feet of each other, there are cost savings.

10 **Q39. ARE THE COST TO SERVE DIFFERENCES DEMONSTRATED IN SERVICE OR**
11 **RATES?**

12 **A39.** Yes. One of the most obvious differences is the lack of natural gas service in areas of low
13 population densities. To address decreasing population densities, utility are often designed
14 with parameters identifying a maximum free footage allowance for mains and service lines.
15 Additional fees or rates often apply to the specific customer or customers for extensions
16 beyond the free footage allowance.

17 Another example can be found in the Rural Electrification Administration (currently called
18 Rural Utilities Service “RUS”) with loans that supported the creation of cooperatives and
19 the electrification of the rural (farming) America. Its goal was to provide service to areas
20 where investor-owned utilities were reluctant to invest. (More than 800 co-ops continue to
21 provide service to this day.) Similarly, in recent years, RUS has provided loans and grants
22 to support broadband in rural communities on the basis that these areas are more costly to
23 serve and would otherwise have insufficient access to the internet.

1 **Q40. DO YOU AGREE THAT ECONOMIES OF SCALE EXIST IN THE PROVISION**
2 **OF WATER SERVICE?**

3 **A40.** There can be economies of scale in the provision of water service. However, many of the
4 economies of scale could exist without consolidating rates.

5 **Q41. IS THE COMPANY'S PROPOSAL INCONSISTENT WITH ANY RATEMAKING**
6 **PRACTICES?**

7 **A41.** Yes. The proposal is inconsistent with some rate principles including rate stability, rates
8 based on cost causation, acceptability, and possibly fairness and views of undue
9 discrimination.

10 TAWC has indicated that one of its goals is rate stability. It specifically argued that a goal
11 of rate design for large groups of customers should be to stabilize rates over the long run
12 and smooth out rate increases over time. As support, TAWC argued that spreading
13 investment cost, operating cost, and the cost of meeting water quality requirements over
14 the largest group of customers possible is the most practical way to do that.

15 As addressed above, stability of rates themselves is viewed as minimal unexpected
16 changes seriously adverse to existing customers. The rates should be reasonably stable and
17 predictable. TAWC's proposal is not predictable and is not stable:

- 18 • Some Chattanooga industrial customers could see a 28% increase;
- 19 • Some Whitwell Commercial customers could see a 68% increase;
- 20 • Some Jasper Highlands commercial customers could see a 32% decrease; and
- 21 • Some Whitwell residential customers could see a 47.7% decrease, while others
22 could see a 62% increase.

23 The proposed changes run into questions of public acceptability, and, absent a cost to serve
24 analysis in each zone justifying the change, may raise questions of fairness. A practice in

1 rate making is to consider cost recovery from those that cause the cost to be incurred. For
2 each rate class, TAWC has proposed to group all rate zones (excluding Jasper Highlands)
3 for a given rate class into one common classification, without demonstrating that the actual
4 cost to serve each of the zones is similar to the cost of serving all other zones.

5 **Q42. IS THE COMPAY AWARE OF THE CONCEPT OF PRICING BASED ON COST**
6 **CAUSATION?**

7 **A42.** Yes. In response to the question “are there compromises that have to be made with policy
8 issues to obtain consolidated tariff pricing?” Mr. Heath Brooks stated:

9 Generally, here are two common arguments against consolidated tariff pricing
10 with the first being that it does not follow a traditional cost of service
11 perspective where a revenue requirement along with rates to recover the
12 revenue requirement are developed for each separate rate zone.¹⁵

13 **Q43. DO YOU AGREE WITH THE STATEMENT THAT THE PRIMARY BENEFIT OF**
14 **CONSOLIDATED RATES IS THAT COSTS ARE RECOVERED OVER A**
15 **LARGER CUSTOMER BASE?**

16 **A43.** Not necessarily. If the larger customer base is creating economies of scale that reduce the
17 average cost to customers, it is a benefit. However, if the larger customer base is not
18 producing any cost saving and simply averaging rates, there is no real economic benefit.
19 A larger customer base, and recovery of capital expenses over that larger base, can exist
20 without rate consolidation.

21 **Q44. ARE THERE OTHER CONCERNS WITH TAWC’S RATE CONSOLIDATION**
22 **PROPOSAL?**

¹⁵ Direct Testimony of Heath J. Brooks at pp. 28-29.

1 **A44.** The Company's arguments for consolidated rates are based primarily on policy. They do
2 not justify rate consolidation from a cost perspective. TAWC has made general, and to
3 some extent rhetorical, policy arguments in support of rate consolidation. It did not provide
4 evidence supporting an argument that the cost to serve the existing zones is the same or
5 similar. It did not identify any cost savings, and there is no evidence that it would result in
6 just and reasonable rates for customers.

7 **Q45. DO YOU HAVE ANY CONCLUDING COMMENTS?**

8 **A45.** The recommendations regarding the Universal Service Proposal and the Rate
9 Consolidation Proposal in this proceeding should not be considered a general policy or
10 establishing a precedent. The recommendations are based on the specific facts and
11 conditions of this proceeding.

12 **Q46. DOES THIS COMPLETE YOUR TESTIMONY?**

13 **A46.** Yes, it does. However, I reserve the right to incorporate any new data that may
14 subsequently become available.

**IN THE TENNESSEE PUBLIC UTILITY COMMISSION
AT NASHVILLE, TENNESSEE**

IN RE:

**PETITION OF TENNESSEE-
AMERICAN WATER COMPANY TO
MODIFY TARIFF, CHANGE AND
INCREASE CHARGES, FEES, AND
RATES, AND FOR APPROVAL OF A
GENERAL RATE INCREASE**

DOCKET NO. 24-00032

AFFIDAVIT


I, Clark Kaml, on behalf of the Consumer Advocate Division of the Attorney General's Office hereby certify that the attached Testimony represents my opinion in the above-referenced case and the opinion of the Consumer Advocate Division.



CLARK KAML

Sworn to and subscribed before me

This 7th day of September, 2024.

Jordan Miller


NOTARY PUBLIC



My Commission Expires: December 21, 2027