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March 5, 2007

Sara Kyle, Chairman
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, Tennessee 37243

filed electronically in docket office on 03/05/07

Re: *In re: Petition of Tennessee- American Water Company to Change and Increase
Certain Rates and Charges so as to Permit it to Earn a Fair and Adequate Rate of
Return on its Property Used and Useful in Furnishing Water Service to its
Customers*
Docket Number: 06-00290

Dear Chairman Kyle:

Attached is the Direct Testimony of Michael Gorman on behalf of Chattanooga
Manufacturers Association.

Very truly yours,

BOULT, CUMMINGS, CONNERS & BERRY, PLC

By:


Henry Walker

HW/djc
Enclosure

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing is being forwarded via U.S. mail, to:

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on this the 5 day of March 2007.

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Henry Walker

PETITION OF TENNESSEE AMERICAN
WATER COMPANY TO CHANGE AND
INCREASE CERTAIN RATES AND
CHARGES SO AS TO PERMIT IT TO
EARN A FAIR AND ADEQUATE RATE
OF RETURN ON ITS PROPERTY USED
AND USEFUL IN FURNISHING WATER
SERVICE TO ITS CUSTOMERS

<p>1. 在下列各数中, 找出与 100 互质的数, 并求出它们的最大公约数。</p> <p>100 的质因数分解为: $100 = 2^2 \times 5^2$</p> <p>与 100 互质的数有: 1, 3, 7, 9, 11, 13, 17, 19, 21, 23, 27, 29, 31, 33, 37, 39, 41, 43, 47, 49, 51, 53, 57, 59, 61, 63, 67, 69, 71, 73, 77, 79, 81, 83, 87, 89, 91, 93, 97, 99</p> <p>它们的最大公约数是 1。</p>	<p>2. 在下列各数中, 找出与 100 互质的数, 并求出它们的最大公约数。</p> <p>100 的质因数分解为: $100 = 2^2 \times 5^2$</p> <p>与 100 互质的数有: 1, 3, 7, 9, 11, 13, 17, 19, 21, 23, 27, 29, 31, 33, 37, 39, 41, 43, 47, 49, 51, 53, 57, 59, 61, 63, 67, 69, 71, 73, 77, 79, 81, 83, 87, 89, 91, 93, 97, 99</p> <p>它们的最大公约数是 1。</p>	<p>3. 在下列各数中, 找出与 100 互质的数, 并求出它们的最大公约数。</p> <p>100 的质因数分解为: $100 = 2^2 \times 5^2$</p> <p>与 100 互质的数有: 1, 3, 7, 9, 11, 13, 17, 19, 21, 23, 27, 29, 31, 33, 37, 39, 41, 43, 47, 49, 51, 53, 57, 59, 61, 63, 67, 69, 71, 73, 77, 79, 81, 83, 87, 89, 91, 93, 97, 99</p> <p>它们的最大公约数是 1。</p>
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BRUBAKER & ASSOCIATES, INC.
ST. LOUIS, MO 63141-2000

**Before the
Tennessee Regulatory Authority**

PETITION OF TENNESSEE AMERICAN)	
WATER COMPANY TO CHANGE AND)	
INCREASE CERTAIN RATES AND)	
CHARGES SO AS TO PERMIT IT TO)	Docket No. 06-00290
EARN A FAIR AND ADEQUATE RATE)	
OF RETURN ON ITS PROPERTY USED)	
AND USEFUL IN FURNISHING WATER)	
SERVICE TO ITS CUSTOMERS)	

Direct Testimony of Michael Gorman

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A My name is Michael Gorman. My business address is 1215 Fern Ridge Parkway,
3 Suite 208, St. Louis, MO 63141-2000.

4 **Q WHAT IS YOUR OCCUPATION?**

5 A I am a consultant in the field of public utility regulation and a Principal in the firm of
6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 **Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**
8 **EXPERIENCE.**

9 A I have been involved in public utility regulation and utility economic analysis for
10 approximately 20 years. A more detailed description of my work experience and
11 education is included in Appendix A to my testimony.

1 **Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

2 A I am appearing on behalf of the Chattanooga Manufacturers Association (CMA) and
3 its members who take water service from the Tennessee-American Water Company
4 (TAWC or Company). These companies would experience a significant increase in
5 their cost of water if the rates proposed by TAWC were approved by the Tennessee
6 Regulatory Authority (TRA).

7 **Q WHAT IS THE SUBJECT OF YOUR TESTIMONY?**

8 A I will address two subjects. First, I will discuss the classification of electric power
9 expense for pumping in the cost of service study offered by Mr. Paul Herbert on
10 behalf of the Company. Mr. Herbert treats this expense on a purely volumetric basis.
11 I will show that expense is influenced by pumping volumes during peak demand
12 periods, and it is therefore more accurate to classify this expense with factors that
13 reflect peak day and peak hour demands.

14 Second, Mr. Herbert supports an across-the-board equal percent increase to
15 all general service rates. However, his own comparison of the allocated cost of
16 service to each class and the revenues generated by the equal percent increase
17 shows that the Commercial, Industrial, Public Authority and Private Fire Protection
18 classes are providing significant subsidies to the Residential and Wholesale
19 customers of TAWC. I recommend that TAWC begin to phase out these subsidies in
20 this rate case. The elimination of inter-class subsidies will promote equity, efficiency
21 (cost-minimization), conservation and stability.

22 My decision to remain silent at this time on all other aspects of TAWC's rate
23 increase request should not be construed as an endorsement of the Company or its

witnesses' positions on other elements of this case, particularly the levels of attrition
year plant investment, operating expenses, and cost of capital.

CLASSIFICATION OF ELECTRIC POWER COST

Q HAVE YOU REVIEWED MR. HERBERT'S COST OF SERVICE STUDY?

A Yes I have. Mr. Herbert uses the widely-accepted Base-Extra Capacity Method to
allocate costs to TAWC's various customer classes. In general, with the exception I
discuss below, I agree with Mr. Herbert's development of classification and allocation
factors and his application of these factors to the Company's costs.

**Q WITH WHAT ELEMENT OF MR. HERBERT'S STUDY DO YOU TAKE
EXCEPTION?**

A I disagree with his classification and allocation of the cost of electric power used for
pumping.

**Q HOW DOES MR. HERBERT CLASSIFY THE COST OF ELECTRIC POWER USED
FOR PUMPING?**

A Mr. Herbert classifies this cost with the Base Only classification factor (Factor 1). In
other words, this cost is considered to vary only with the average day volume of water
produced and sold by TAWC, with no regard to peak day or peak hour rates of flow.

Q HOW DOES THE USE OF THIS FACTOR IMPACT THE ALLOCATION OF COSTS TO THE INDIVIDUAL CUSTOMER CLASSES SERVED BY TAWC?

A The cost of electric power is apportioned to each class only in relation to the volume of water it consumes, regardless of the time of day or time of year that it takes water service.

Q IS TAWC'S COST OF WATER INFLUENCED ONLY BY THE VOLUME OF WATER IT PUMPS DURING THE YEAR?

A No, it is not. TAWC's cost of power is also impacted by the rate at which it must pump water during peak demand periods. The Base-Extra Capacity Method requires that a water utility's maximum day demand volume and maximum hour demand volume be used to calculate the costs associated with meeting peak period demands. Indeed, Mr. Herbert determined peak day and peak hour rates of flow, in addition to fire flow demands, to classify and allocate a large proportion of TAWC's total operating costs to the various customer classes.

Q HOW IS TAWC'S ELECTRIC POWER COST AFFECTED BY PEAK DAY AND PEAK HOUR RATES OF FLOW?

A When TAWC's customers demand higher than average flows for, say, summer lawn irrigation or fire fighting, water must be pumped at a greater rate in order to meet the increased demands. Clearly, more electric power is required to operate the pumps during these periods. This in turn increases the kilowatt demand used to calculate TAWC's electric bill.

1 **Q WHO IS TAWC'S POWER SUPPLIER, AND WHAT RATES DOES IT CHARGE**
2 **TAWC FOR THIS SERVICE?**

3 A The Chattanooga Electric Power Board (EPB) supplies power to TAWC. The majority
4 of this power is billed under Tariff GSA-3, according to TAWC's workpapers. The
5 Tariff features both kilowatt demand charges and energy charges per kilowatthour.
6 Higher kilowatt demands occasioned by higher pumping rates obviously lead to
7 higher electric bills.

8 **Q DOES MR. HERBERT DEVELOP ANOTHER CLASSIFICATION FACTOR THAT IS**
9 **MORE APPROPRIATE FOR APPLICATION TO ELECTRIC POWER COSTS?**

10 A Yes, he does. Mr. Herbert develops Factor 6, which recognizes maximum day,
11 maximum hour and fire flow demands. He uses this factor to allocate pumping plant,
12 pumping plant depreciation expense, and labor, supervision and engineering, and
13 other operating expenses associated with pumping plant.

14 **Q DO YOU AGREE WITH HIS USE OF FACTOR 6 TO CLASSIFY AND ALLOCATE**
15 **THESE COSTS?**

16 A Yes, I do. Pumping plant must be sized to meet peak rates of flow. This in turn
17 affects the costs associated with this plant. Factor 6 recognizes this fact.

18 **Q IN VIEW OF THE FOREGOING CONSIDERATIONS, DID YOU MAKE A**
19 **CORRECTION TO MR. HERBERT'S COST OF SERVICE STUDY?**

20 A Yes, I did. I applied Factor 6 to Purchased Power expense. This is consistent with
21 Mr. Herbert's allocation of all other pumping-related expenses. I also believe it more

1 accurately reflects cost-causation with respect to this expense for the reasons I stated
2 above.

3 **Q CAN YOU CITE ANY AUTHORITY FOR THIS TREATMENT OF ELECTRIC**
4 **POWER EXPENSE?**

5 A Yes, I can. American Water Works Association's Manual M-1, *Principles of Water*
6 *Rates, Fees and Charges*, states on page 54 that the demand portion of power costs
7 should be allocated to extra capacity to the degree that it varies with demand
8 pumping requirements.

9 **Q WHAT IS THE RESULT OF YOUR CORRECTION TO MR. HERBERT'S COST**
10 **STUDY?**

11 A The result of my correction is shown on Exhibit MPG-1. It shifts some cost
12 responsibility from the Industrial and Resale classes to the remaining customer
13 classes. This in turn changes the magnitude of interclass rate subsidies, which I will
14 discuss below.

15 **INTERCLASS SUBSIDIES AND RATE DESIGN**

16 **Q HOW DO TAWC'S RECOMMENDED RATES PRODUCE SUBSIDIES FROM ONE**
17 **CLASS TO ANOTHER?**

18 A TAWC is requesting that all rates for general water service be increased by an equal
19 percent to produce its requested revenue level. However, the revenues for each
20 class that result from an across-the-board increase do not equal the cost
21 responsibility calculated for that class.

1 The over or under-collection of revenue for each class is shown on Exhibit
2 MPG-2. As shown on Exhibit MPG-2, the Company's proposed revenue level for the
3 Residential class will under-collect its cost of service by \$3.08 million, or 15.85%. By
4 contrast, the Commercial and Industrial classes would experience over-collections of
5 \$1.78 million, or 17%, and \$157,000, or 4%, respectively.

6 **Q DO YOUR CORRECTIONS TO MR. HERBERT'S STUDY CHANGE THESE**
7 **RESULTS?**

8 A Yes. The interclass subsidies from my corrected cost study are shown on Exhibit
9 MPG-1. The subsidy to the Residential class becomes \$3.12 million, or 16.04%. The
10 subsidy provided by the Industrial class becomes \$214,383, or 5.51%.

11 **Q WHY ARE YOU CALLING ATTENTION TO THESE SUBSIDIES?**

12 A I believe that it is desirable for rates to track a utility's cost of service, to the extent
13 practicable, for several reasons. Subsidies show how far a utility's rates deviate from
14 this objective.

15 **Q WHAT ARE THE REASONS FOR USING COST OF SERVICE AS THE PRIMARY**
16 **FACTOR IN THE RATE DESIGN PROCESS?**

17 A The basic reasons are equity, engineering efficiency (cost minimization), conservation
18 and rate stability.

19 **Q HOW IS THE EQUITY PRINCIPLE ATTAINED BY BASING RATES ON COSTS?**

20 A When rates are based on costs, each customer (to the extent practicable) pays what
21 it costs the utility to serve him, no more and no less. If rates are not based on cost of

1 service, then some customers contribute disproportionately to the utility's revenue by
2 subsidizing service provided to other customers. This is inherently inequitable.

3 **Q PLEASE DISCUSS THE OTHER REASONS FOR BASING RATES ON THE COST**
4 **OF PROVIDING SERVICE.**

5 A The other three principles are closely interrelated. If a customer class's rates are too
6 low, it fails over time to encourage conservation of resources, and the utility will be
7 required to build new facilities to meet demands that may not otherwise have
8 materialized. This in turn leads to a request for a rate increase sooner than would be
9 the case had customers received a correct price signal in the first place.

10 **Q ARE YOU RECOMMENDING THAT THE TRA ORDER RATES TO RECOVER THE**
11 **FULL COST OF SERVICE FROM EACH CLASS IN THIS CASE?**

12 A No, I am not. Exhibit MPG-3 shows the revenue increases that would be necessary
13 to reach full cost of service in just one step. For illustrative purposes only, I am using
14 TAWC's revenue proposal to show the impacts on each customer class, and my
15 proposed adjusted cost of service study results shown on my Exhibit MPG-1. While
16 the overall requested increase is 19.61%, the Residential increase would be 42.36%,
17 while Commercial revenues would be increased by only 2.46%. The Industrial and
18 Public Authority classes would get percent increases less than the system average
19 increase, while Wholesale water customers would get an increase of 27.69% – well
20 above the system average. Class increases similar to those shown on Exhibit MPG-4
21 would be preferable, as they would avoid rate shock and lessen the perception of
22 inequity.

1 **Q HOW DO YOU RECOMMEND THAT THE ISSUE OF INTERCLASS SUBSIDIES BE**
2 **ADDRESSED AND AT THE SAME TIME AVOID LARGE DISPARITIES IN THE**
3 **PERCENT INCREASES AMONG CUSTOMER CLASSES?**

4 **A I recommend that interclass subsidies be phased out gradually, over the next three**
5 rate cases. This is shown on Exhibit MPG-4. Column (1) shows each class' revenue
6 at full cost of service from my Exhibit MPG-1. Column (2) shows revenues at present
7 rates for each class. Column (3) shows the full increase needed for each class to
8 reach cost of service. Column (4) shows the class increases needed to reduce the
9 class subsidy or surplus by 33.3%, or the first of a three rate case movement to cost
10 of service. Column (5) shows an equal percentage increase to each rate class to
11 incorporate the remaining revenue deficiency proposed by TAWC. The class
12 adjusted increases are shown in Column (6), and the corresponding percent
13 increases are shown in Column (7). Column (7) shows that no class would get more
14 than a 135% of the system average increase.

15 **Q ARE YOU RECOMMENDING THAT CUSTOMERS RECEIVE THE REVENUE**
16 **INCREASES SHOWN ON YOUR EXHIBIT MPG-4?**

17 **A No, I am not. As I stated before, I am presenting this Exhibit only for illustrative**
18 purposes. The method shown here should be applied to any increase that the TRA
19 may see fit to allow TAWC.

1 **Q CAN RATES BE ADJUSTED TO PRODUCE THE NECESSARY CLASS RATE**
2 **INCREASES?**

3 **A** Yes. My proposed rate adjustment is shown on my Exhibit MPG-5. My proposed
4 rates reflect a movement to my proposed cost allocation, including the phase out of
5 the interclass subsidization over the next three rate cases starting with this case.

6 **Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

7 **A** Yes, it does.

Qualifications of Michael Gorman

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Michael P. Gorman. My business mailing address is P. O. Box 412000, 1215 Fern
3 Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000.

4 **Q PLEASE STATE YOUR OCCUPATION.**

5 A I am a consultant in the field of public utility regulation and a managing principal with
6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 **Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK
8 EXPERIENCE.**

9 A In 1983 I received a Bachelors of Science Degree in Electrical Engineering from
10 Southern Illinois University, and in 1986, I received a Masters Degree in Business
11 Administration with a concentration in Finance from the University of Illinois at
12 Springfield. I have also completed several graduate level economics courses.

13 In August of 1983, I accepted an analyst position with the Illinois Commerce
14 Commission (ICC). In this position, I performed a variety of analyses for both formal
15 and informal investigations before the ICC, including: marginal cost of energy, central
16 dispatch, avoided cost of energy, annual system production costs, and working
17 capital. In October of 1986, I was promoted to the position of Senior Analyst. In this
18 position, I assumed the additional responsibilities of technical leader on projects, and
19 my areas of responsibility were expanded to include utility financial modeling and
20 financial analyses.

21 In 1987, I was promoted to Director of the Financial Analysis Department. In
22 this position, I was responsible for all financial analyses conducted by the staff.

1 Among other things, I conducted analyses and sponsored testimony before the ICC
2 on rate of return, financial integrity, financial modeling and related issues. I also
3 supervised the development of all Staff analyses and testimony on these same
4 issues. In addition, I supervised the Staff's review and recommendations to the
5 Commission concerning utility plans to issue debt and equity securities.

6 In August of 1989, I accepted a position with Merrill-Lynch as a financial
7 consultant. After receiving all required securities licenses, I worked with individual
8 investors and small businesses in evaluating and selecting investments suitable to
9 their requirements.

10 In September of 1990, I accepted a position with Drazen-Brubaker &
11 Associates, Inc. In April 1995 the firm of Brubaker & Associates, Inc. (BAI) was
12 formed. It includes most of the former DBA principals and Staff. Since 1990, I have
13 performed various analyses and sponsored testimony on cost of capital, cost/benefits
14 of utility mergers and acquisitions, utility reorganizations, level of operating expenses
15 and rate base, cost of service studies, and analyses relating industrial jobs and
16 economic development. I also participated in a study used to revise the financial
17 policy for the municipal utility in Kansas City, Kansas.

18 At BAI, I also have extensive experience working with large energy users to
19 distribute and critically evaluate responses to requests for proposals (RFPs) for
20 electric, steam, and gas energy supply from competitive energy suppliers. These
21 analyses include the evaluation of gas supply and delivery charges, cogeneration
22 and/or combined cycle unit feasibility studies, and the evaluation of third-party
23 asset/supply management agreements. I have also analyzed commodity pricing
24 indices and forward pricing methods for third party supply agreements. Continuing, I
25 have also conducted regional electric market price forecasts.

1 In addition to our main office in St. Louis, the firm also has branch offices in
2 Phoenix, Arizona; Corpus Christi, Texas; and Plano, Texas.

3 **Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?**

4 A Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of
5 service and other issues before the regulatory commissions in Arizona, California,
6 Delaware, Georgia, Illinois, Indiana, Iowa, Louisiana, Michigan, Missouri, New
7 Mexico, New Jersey, Oklahoma, Oregon, Tennessee, Texas, Utah, Vermont,
8 Washington, West Virginia, Wisconsin, Wyoming, and before the provincial regulatory
9 boards in Alberta and Nova Scotia, Canada. I have also sponsored testimony before
10 the Board of Public Utilities in Kansas City, Kansas; presented rate setting position
11 reports to the regulatory board of the municipal utility in Austin, Texas, and Salt River
12 Project, Arizona, on behalf of industrial customers; and negotiated rate disputes for
13 industrial customers of the Municipal Electric Authority of Georgia in the LaGrange,
14 Georgia district.

15 **Q PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR**
16 **ORGANIZATIONS TO WHICH YOU BELONG.**

17 A I earned the designation of Chartered Financial Analyst (CFA) from the Charter
18 Financial Analyst Institute. The CFA charter was awarded after successfully
19 completing three examinations which covered the subject areas of financial
20 accounting, economics, fixed income and equity valuation and professional and
21 ethical conduct. I am a member of CFA's Financial Analyst Society.

MPG:cs/8752/108720

TENNESSEE-AMERICAN WATER COMPANY
TRA Docket No. 06-00290

**Calculation of Inter-Class Revenue Subsidies
at CMA-Corrected Cost of Service
and Across the Board Rate Increase**

<u>Line</u>	<u>Customer Classification</u>	<u>Pro Forma Cost of Service Per CMA (1)</u>	<u>Revenues at Company- Proposed Rates (2)</u>	<u>Deviation From Cost of Service (3)</u>	<u>Under / Over Percentage (4)</u>
1	Residential	\$19,478,224	\$16,354,136	(\$3,124,088)	-16.04%
2	Commercial	10,482,274	12,242,287	1,760,013	16.79%
3	Industrial	3,889,024	4,103,407	214,383	5.51%
4	Other Public Authority	2,710,973	2,877,105	166,132	6.13%
5	Other Water Utilities	1,338,566	1,254,459	(84,107)	-6.28%
6	Private Fire Protection	576,347	1,644,020	1,067,673	185.25%
7	Public Fire Protection	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00%</u>
8	Total	\$38,475,408	\$38,475,414	\$6	0.00%

TENNESSEE-AMERICAN WATER COMPANY
TRA Docket No. 06-00290

**Calculation of Inter-Class Revenue Subsidies
at Company-Proposed Cost of Service
and Across the Board Rate Increase**

<u>Line</u>	<u>Customer Classification</u>	<u>Pro Forma Cost of Service Per TAWC (1)</u>	<u>Revenues at Company- Proposed Rates (2)</u>	<u>Deviation From Cost of Service (3)</u>	<u>Under / Over Percentage (4)</u>
1	Residential	\$19,434,031	\$16,354,136	(\$3,079,895)	-15.85%
2	Commercial	10,462,122	12,242,287	1,780,165	17.02%
3	Industrial	3,946,415	4,103,407	156,992	3.98%
4	Other Public Authority	2,705,353	2,877,105	171,752	6.35%
5	Other Water Utilities	1,361,068	1,254,459	(106,609)	-7.83%
6	Private Fire Protection	566,420	1,644,020	1,077,600	190.25%
7	Public Fire Protection	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00%</u>
8	Total	\$38,475,409	\$38,475,414	\$5	0.00%

TENNESSEE-AMERICAN WATER COMPANY
TRA Docket No. 06-00290

**Calculation of Inter-Class Revenue Subsidies
at Company-Proposed Cost of Service
and Across the Board Rate Increase**

<u>Line</u>	<u>Customer Classification</u>	<u>Pro Forma Cost of Service Per CMA (1)</u>	<u>Revenues at Present Rates (2)</u>	<u>Deviation From Cost of Service (3)</u>	<u>Under / Over Percentage (4)</u>
1	Residential	\$19,478,224	\$13,681,917	\$5,796,307	42.36%
2	Commercial	10,482,274	10,230,156	252,118	2.46%
3	Industrial	3,889,024	3,428,902	460,122	13.42%
4	Other Public Authority	2,710,973	2,404,176	306,797	12.76%
5	Other Water Utilities	1,338,566	1,048,255	290,311	27.69%
6	Private Fire Protection	576,347	1,373,647	(797,300)	-58.04%
7	Public Fire Protection	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00%</u>
8	Total	\$38,475,408	\$32,167,053	\$6,308,355	19.61%

TENNESSEE-AMERICAN WATER COMPANY
TRA Docket No. 06-00290

**Calculation of Inter-Class Revenue Subsidies
at Company-Proposed Cost of Service
and Across the Board Rate Increase**

Line	Customer Classification	Pro Forma Cost of Service Per CMA (1)	Revenues at Present Rates (2)	Deviation from Cost of Service (3)	Deficiency Spread				Adjusted Revenues (6)	Percent Increase (7)	Index at Percent Change (8)
					Reduce Subsidies by 33.3% (4)	Revenue Deficiency Spread on Equal Percentage Change (5)	Remaining				
1	Residential	\$19,478,224	\$13,681,917	\$5,796,307	\$1,930,170	\$1,782,212			\$17,394,299	27.13%	1.38
2	Commercial	10,482,274	10,230,156	252,118	83,955	1,177,417			11,491,528	12.33%	0.63
3	Industrial	3,889,024	3,428,902	460,122	153,221	408,920			3,991,043	16.39%	0.84
4	Other Public Authority	2,710,973	2,404,176	306,797	102,163	286,113			2,792,453	16.15%	0.82
5	Other Water Utilities	1,338,566	1,048,255	290,311	96,674	130,700			1,275,629	21.69%	1.11
6	Private Fire Protection	576,347	1,373,647	(797,300)		156,810			1,530,457	11.42%	0.58
7	Public Fire Protection	0	0	0	0	0			0	0	-
8	Total	\$38,475,408	\$32,167,053	\$6,308,355	\$2,366,183	\$3,942,172			\$38,475,408	19.61%	1.00

Comparison of Present and CMA Proposed Rates

Line No.		Rates Effective March 9, 2005			CMA Proposed Rates			CMA Proposed Percent Increase		
		Lookout			Lookout			Lookout		
		Chattanooga	Mountain	Lakeview	Chattanooga	Mountain	Lakeview	Chattanooga	Mountain	Lakeview
1										
2										
3										
4										
5	5/8 - inch meter	9.26	10.39	10.39	12.04	13.51	13.51	30.00%	30.00%	30.00%
6	3/4 - inch meter	15.55	15.55	15.55	20.22	20.22	20.22	30.00%	30.00%	30.00%
7	1 - inch meter	25.88	25.88	25.88	33.64	33.64	33.64	30.00%	30.00%	30.00%
8	1 1/2 - inch meter	51.79	51.79	51.79	67.33	67.33	67.33	30.00%	30.00%	30.00%
9	2 - inch meter	82.85	82.85	82.85	107.71	107.71	107.71	30.00%	30.00%	30.00%
10	3 - inch meter	155.35	155.35	155.35	201.96	201.96	201.96	30.00%	30.00%	30.00%
11	4 - inch meter	258.92	258.92	258.92	336.60	336.60	336.60	30.00%	30.00%	30.00%
12	6 - inch meter	517.85	517.85	517.85	673.21	673.21	673.21	30.00%	30.00%	30.00%
13	8 - inch meter	828.55	828.55	828.55	1,077.12	1,077.12	1,077.12	30.00%	30.00%	30.00%
14										
15										
16	Volumetric									
17	First 400 Cubic Feet	0.172	0.640	0.316	0.224	0.832	0.411	30.00%	30.00%	30.00%
18	Next 6,100 Cubic Feet	2.730	3.516	3.008	3.123	4.022	3.441	14.40%	14.40%	14.40%
19	Next 43,500 Cubic Feet	1.715	2.501	1.993	1.962	2.861	2.280	14.40%	14.40%	14.40%
20	Next 450,000 Cubic Feet	1.262	1.749	1.425	1.467	2.001	1.630	14.40%	14.40%	14.40%
21	Next 1,000,000 Cubic Feet	0.980	1.448	1.124	1.121	1.657	1.286	14.40%	14.40%	14.40%
22	All Over 1,500,000 Cubic Feet	0.582	1.049	0.725	0.666	1.200	0.829	14.40%	14.40%	14.40%
23	Ft. Oglethorpe	0.7960			0.969			21.69%		
24										
25	Private Fire Service									
26										
27	1 - Inch Service	24.12			26.87			11.42%		
28	1 1/2 - Inch Service	54.40			60.61			11.42%		
29	2 - Inch Service	96.75			107.80			11.42%		
30	2 1/2 - Inch Service	147.53			164.38			11.42%		
31	3 - Inch Service	217.48			242.32			11.42%		
32	4 - Inch Service	435.50			485.23			11.42%		
33	6 - Inch Service	870.32			969.71			11.42%		
34	8 - Inch Service	1,742.11			1,941.06			11.42%		
35	10 - Inch Service	2,613.37			2,911.82			11.42%		
36	12 - Inch Service	3,484.78			3,882.74			11.42%		
37		830.26			925.08			11.42%		
38										
39	Public Fire Service									
40										
41	Ridgeside	0.00			1,988.94					
42	Public Fire	0.00			186.60					

Attrition Year Revenues at Current and CMA Proposed Rates

Line No.	Class/Description	Per Book Sales (CCF)	Per Book Total Revenues	Normalized Sales (CCF)	Normalized Total Revenues	Current Rates Sales (CCF)	Attrition Total Revenues	Proposed Rates Sales (CCF)	Total Revenues	Total Revenue Difference	Total Revenue Percent Change
1											
2											
3	Class/Description										
4											
5	Residential	4,551,139	13,410,823	4,547,185	13,608,292	4,575,131	13,681,917	4,575,131	16,806,795	3,124,878	22.84%
6	Commercial	4,274,865	10,055,048	4,216,842	10,115,307	4,253,671	10,230,156	4,253,671	12,084,728	1,854,572	18.13%
7	Industrial	3,199,859	3,478,302	3,092,865	3,428,902	3,092,865	3,428,902	3,092,865	3,950,594	521,692	15.21%
8	Other Public Authority	1,205,008	2,329,280	1,210,272	2,404,176	1,210,272	2,404,176	1,210,272	2,826,404	422,228	17.56%
9	Other Water Utility	1,547,422	1,168,613	1,302,516	1,048,255	1,302,516	1,048,255	1,302,516	1,276,168	227,913	21.74%
10	Private Fire Service	0	1,326,106	0	1,341,877	0	1,373,647	0	1,530,517	156,870	11.42%
11	Public Fire Service	0	0	0	0	0	0	0	-	-	-
12	Subtotal	14,778,293	31,768,172	14,369,680	31,946,809	14,434,455	32,167,053	14,434,455	38,475,205	6,308,152	19.61%
13											
14	Other Operating Revenues		1,255,342		1,260,333		1,265,235		1,336,761	71,526	5.55%
15											
16	Total		33,023,514		33,207,142		33,432,288		39,811,966	6,379,678	19.08%

20 Per book revenues include unbilled revenues.