BEFORE THE
TENNESSEE REGULATORY AUTHORITY

PREPARED DIRECT TESTIMONY
OF
RHONDA WATTS

IN RE:
CHATTANOOGA GAS COMPANY
DOCKET NO. _____

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

2 A.   My name is Rhonda Watts. My business address is 1410 Avenue K, Suite 1105B, Plano,

3   Texas 75074. I am a Senior Consultant of Alliance Consulting Group ("Alliance").

4 **Q.** **FOR WHOM ARE YOU PROVIDING TESTIMONY?**

5 A.   I am providing testimony on behalf of Chattanooga Gas Company ("CGC" or "the

6   Company").

7 **Q.** **PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

8 A.   I hold a Bachelor of Science degree in Business Administration from the University of

9   Nevada at Las Vegas with emphasis in Accounting and Finance.

10 **Q.** **PLEASE OUTLINE YOUR EXPERIENCE IN THE FIELD OF DEPRECIATION.**

11 A.   Since graduation from college in 1989, I have worked for and consulted in the area of utility

12   accounting and depreciation. I have been exposed to various areas of regulated utility

13   accounting, depreciation and regulatory issues over the past 20 years as an employee of a

14   regulated utility and as a consultant.   Specifically related to depreciation studies and issues, I

15   have participated in the preparation of over 50 depreciation studies for approximately 20

16   different utility companies.

17   Currently, my duties at Alliance Consulting Group related to depreciation studies

18   include the assembly and analysis of historical and simulated data, conducting field reviews,

19   determining service life and net salvage estimates, calculating annual depreciation expense

20   accruals and rates, presenting recommended depreciation rates to utility management for its

1 consideration, and supporting such rates before regulatory bodies. Since joining Alliance in

2 June 2009, I have participated in conducting and/or assisted in regulatory support for seven

3 depreciation studies,

4 My prior employment from 1996 to 2009 was with Deloitte & Touche LLP

5 ("Deloitte"). During my tenure with Deloitte, I was a key participant and/or responsible for,

6 among other things, conducting depreciation studies for Deloitte's utility clients. I served as

7 a Senior Manager and assisted in serving clients on other engagements in addition to my

8 depreciation responsibilities.

9 I worked for Nevada Power Company ("NPC") from 1990-1996. My tenure with

10 NPC included experience in plant accounting, rates and regulatory and general accounting.

11 My specific experience included updates and participation in a depreciation study, customer

12 account reconciliations, multiple rate filings, including two general and a fuel recovery case,

13 and monthly fuel accounting, account reconciliations, budget variances and other internal

14 reporting activities, respectively.

15 I am Past President of the Society of Depreciation Professionals ("SDP") and have

16 held numerous other Executive Board and Committee positions in the SDP. I am also an

17 active participant in the Edison Electric Institute ("EEI") and American Gas Association

18 ("AGA") Property and Accounting Valuation Group.

19 Additionally, I have conducted several depreciation training sessions as well as

20 participated in the updates on depreciation to several industry textbooks.

21 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY REGULATORY AGENCY?**

22 A. No, I have not.

23 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

24 A. I have conducted a depreciation study of the depreciable gas properties of CGC as of

25 December 31, 2008, and I have made recommendations for revised depreciation rates for

26 inclusion in CGC's revenue requirement. The purpose of my testimony is to present the

27 results of the depreciation study, describe the depreciation study process, and recommend

1   appropriate depreciation rates for use by CGC reflecting depreciation accounting principles

2   and regulatory rules. I will show that my study produces fair and reasonable levels of

3   depreciation expense utilizing sound accounting practices and principles.

4   **Q.   ARE YOU SPONSORING ANY EXHIBITS?**

5   A.   Yes, I am. I am sponsoring Exhibit RW-1. Exhibit RW-1 is the depreciation study prepared for

6   CGC as of December 31, 2008. The depreciation study discusses depreciation accounting

7   principles, describes the methodology employed for the study, summarizes the results of the

8   study, and makes recommendations relating to depreciation rates and depreciation accounting.

9   **Q.   WERE THE EXHIBITS YOU ARE SPONSORING PREPARED BY YOU OR UNDER**

10   **YOUR DIRECT SUPERVISION?**

11   A.   Yes, they were.

12   **Q.   WHAT PROPERTY IS INCLUDED IN THE INSTANT DEPRECIATION STUDY?**

13   CGC has three classes, or functional groups, of gas depreciable property: Storage,

14   Distribution and General Plant property. The Storage functional group primarily consists of

15   facilities that store liquefied natural gas ("LNG") for use as needed. The Distribution

16   functional group primarily consists of lines and associated facilities used to distribute gas

17   within the cities served by CGC. Last, General Plant property is not location specific but is

18   used to support the overall distribution of gas to its customers.

19   **Q.   WHAT DEFINITION OF "DEPRECIATION" HAVE YOU USED FOR THE**

20   **PURPOSES OF CONDUCTING A DEPRECIATION STUDY AND PREPARING**

21   **TESTIMONY?**

22   A.   The term "depreciation," as used herein, is considered in the accounting sense; that is, a

23   system of accounting that distributes the cost of assets, less net salvage (if any), over the

24   estimated useful life of the assets in a systematic and rational manner. Depreciation is a

25   process of allocation, not valuation. Depreciation expense is systematically allocated to

26   accounting periods over the life of the properties. The amount allocated to any one

27   accounting period does not necessarily represent the loss or decrease in value that will occur

1   during that particular period. Thus, depreciation is considered an expense or cost, rather than

2   a loss or decrease in value. The Company accrues depreciation based on the original cost of

3   all property included in each depreciable plant account. On retirement, the full cost of

4   depreciable property, less the net salvage amount, if any, is charged to the depreciation

5   reserve.

6   **Q.   PLEASE DESCRIBE YOUR DEPRECIATION STUDY APPROACH.**

7   A.   I conducted the depreciation study in four phases as shown in my Exhibit RW-1. The four

8   phases are: Data Collection, Analysis, Evaluation, and Calculation. During the initial phase

9   of the study, I collected historical data to be used in the analysis. After the data was

10   assembled, I performed analyses to determine the life and net salvage percentage for the

11   different property accounts being studied. As part of this process, I conferred with field

12   personnel, engineers, and managers responsible for the installation, operation, and removal of

13   the assets to gain their input into the operation, maintenance, and salvage of the assets. The

14   information obtained from field personnel, engineers, and managerial personnel, combined

15   with the study results, was then evaluated to determine how the results of the historical asset

16   activity analysis, in conjunction with the Company's expected future plans, should be

17   applied. Using all of these resources, I then calculated the depreciation rate for each account.

18   **Q.   WHAT DEPRECIATION SYSTEM DID YOU USE?**

19   A.   The straight-line, Average Life Group ("ALG") remaining-life depreciation system was

20   employed to calculate annual accrued depreciation expense in this study.

21   **Q.   HOW ARE THE DEPRECIATION RATES DETERMINED USING THE ALG**

22   **PROCEDURE?**

23   A.   In this system, the annual depreciation expense for each account was computed by dividing

24   the original cost of the asset, less actual (allocated depreciation reserve); less estimated net

25   salvage, by its respective average life group remaining life. The resulting annual accrual

26   amounts of all depreciable property within an account were accumulated, and the total was

27   divided by the original cost of all depreciable property within the account to determine the

1   depreciation rate. The calculated remaining lives and annual depreciation accrual rates were

2   based on the attained ages of the plant in service, the estimated service life, and the net

3   salvage characteristics of each depreciable group. The annual depreciation rates from these

4   calculations are shown in Appendix A of my Exhibit RW-1.

5   **Q.   WHAT TIME PERIOD DID YOU USE TO DEVELOP THE PROPOSED**

6   **DEPRECIATION RATES?**

7   A.   The account level depreciation rates were developed based on the depreciable property

8   recorded on the Company's books at December 31, 2008.

9   **Q.   DID YOU PERFORM AND PREPARE THE DEPRECIATION STUDY IN**

10   **ACCORDANCE WITH THE PROCESS THAT YOU HAVE DESCRIBED IN YOUR**

11   **STUDY AND TESTIMONY?**

12   A.   Yes, I did.

13   **Q.   IS THIS THE STUDY UPON WHICH CGC RELIES IN THIS CASE TO ESTABLISH**

14   **NEW DEPRECIATION RATES FOR PROPERTY?**

15   A.   Yes, it is.

16   **Q.   WHAT ARE YOUR FINDINGS AND RECOMMENDATIONS?**

17   A.   First, CGC entered into a Settlement Agreement in Tennessee Regulatory Authority ("TRA")

18   Docket No. 06-00175 regarding depreciation. CGC agreed to utilize the Average Life Group

19   ("ALG") procedure to calculate depreciation rates, which is a change from the existing

20   approved Equal Life Group ("ELG") procedure depreciation rates. The effect of changing

21   from the existing ELG whole-life to ALG remaining-life was a reduction in annual

22   depreciation expense of approximately $717 thousand. Additionally, I found that changes are

23   needed to the mortality characteristics for numerous accounts resulting in revised

24   depreciation rates. A summary comparison of the existing depreciation rates and those

25   recommended in the depreciation study for CGC by functional category is as follows:

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Table 1		
Chattanooga Gas Company		
Function	**Existing** **%**	**Recommended** **%**
LNG Storage	2.67	2.14
Distribution	3.37	2.26
General	7.34	13.48
Total Depreciable Plant	**3.37**	**2.49**

1 **Q.** **HAVE YOU QUANTIFIED THE IMPACT ON ANNUAL DEPRECIATION**

2 **EXPENSE DUE TO YOUR RECOMMENDED CHANGES?**

3 A. Yes, I have. The above summaries were taken from Appendix A of Exhibit RW-1. Using

4 December 31, 2008 depreciable balances, the effect of the recommended depreciation rates

5 on annual depreciation expense for CGC is a decrease of approximately $1.6 million.

6 **Q.** **WHAT ARE THE PRIMARY FORCES AFFECTING THE DEPRECIATION**

7 **EXPENSE RECOMMENDED IN THIS STUDY?**

8 A. Generally, depreciation expense is affected by three separate factors – changes in average

9 service life, changes in net salvage, and the effect of reserve position. CGC's depreciation

10 expense is no exception. However, depreciation expense in this study is also being impacted

11 by a change in depreciation procedure from ELG to ALG and a change in depreciation

12 technique from whole-life to remaining life as previously stated.

13 **Q.** **PLEASE DESCRIBE THE RESULTS REFLECTED IN THE TABLE ABOVE FOR**

14 **LNG STORAGE PLANT.**

15 A. The functional depreciation rate for the LNG Storage Plant decreased from 2.67% to 2.14%.

16 There has been a general increase in asset lives and an increase in net salvage (less cost of

17 removal resulting in less negative net salvage rates). The other factor is the change in

18 depreciation procedure and technique, which resulted in remaining life and reserve

1   differences. The total effect upon depreciation expense for this function is a decrease of

2   approximately $117 thousand.

3   **Q.**   **PLEASE DESCRIBE THE RESULTS REFLECTED IN THE TABLE ABOVE FOR**

4   **DISTRIBUTION PLANT.**

5   A.   The functional depreciation rate for Distribution Plant decreased from 3.37% to 2.26%. The

6   decrease in cost of removal (resulting in a less negative net salvage rate) and increase in asset

7   life for Account 376, Mains is the primary driver. Among the other accounts in this function

8   there is a mix of increases, decreases and no change in average service lives ("ASL's") and

9   net salvage rates. This function is also impacted by the change in depreciation procedure and

10   technique resulting in remaining life and reserve differences. The total effect upon annual

11   depreciation expense is a decrease of approximately $1.7 million.

12   **Q.**   **PLEASE DESCRIBE THE RESULTS REFLECTED IN THE TABLE ABOVE FOR**

13   **GENERAL PLANT.**

14   A.   The functional depreciation rate for General Plant has increased from 7.34% to 13.48%. The

15   primary changes impacting the depreciation rates are the decrease in life for Computer

16   Equipment & Software and the overall reserve position for this function. The effect upon

17   annual depreciation expense is an increase of approximately $227 thousand.

18   **Q.**   **PLEASE DESCRIBE THE IMPACT OF THE RESERVE POSITION FOR EACH**

19   **FUNCTION, STORAGE, DISTRIBUTION AND GENERAL PLANT.**

20   A.   The over accrued reserve position for the Storage assets can be found in Exhibit RW-1 in

21   Appendix B1. The total reserve requirement for Storage is $5.1 million compared to the

22   actual reserve of $8.5 million; Distribution is $53.1 reserve requirement compared to the

23   actual reserve of $76.6 million; and General $1.2 million reserve requirement compared to

24   the actual reserve of $1.0 million.

25

26   **Q.**   **WHEN YOU USE THE TERM "RESERVE POSITION", WHAT DO YOU MEAN?**

27   A.   The term "reserve position" refers to the difference between a theoretical reserve and the

1		existing book reserve. If the theoretical reserve is greater than the book reserve, past
2		depreciation has been inadequate compared to the depreciation parameters developed in the
3		depreciation study, and an upward adjustment to the depreciation rate is required. If the
4		opposite is true, a downward adjustment to the depreciation rate is required.
5	Q.	**HAVE YOU PREPARED A SUMMARY SCHEDULE COMPARING THE**
6		**APPROVED AND RECOMMENDED RATES AND ACCRUAL FOR EACH**
7		**ACCOUNT?**
8	A.	Yes. Exhibit RW-1 Appendix A provides an account comparison. However, it is important
9		to understand the Company applies a functional rate for its depreciation expense accruals, so
10		there is not an account by account rate comparison. The accrual comparison is based on the
11		application of the approved functional rate.
12	Q.	**WHAT FACTORS INFLUENCE THE DEPRECIATION RATES FOR AN**
13		**ACCOUNT?**
14	A.	There are three primary factors that influence the depreciation rate for an account.
15		1. The remaining investment to be recovered in the account;
16		2. The depreciable life of the account; and
17		3. The net salvage for the account.
18		As mentioned earlier, all three of these factors have influenced the changes in the recommended
19		depreciation rates and annual depreciation expense accrual for CGC.
20	Q.	**WHAT METHOD DID YOU USE TO ANALYZE HISTORICAL DATA TO**
21		**DETERMINE LIFE CHARACTERISTICS?**
22	A.	Accounts were analyzed using the simulated plant record ("SPR") balances method or the
23		actuarial method to estimate the life of property. In much the same manner as human mortality
24		is analyzed by actuaries, depreciation analysts use models of property mortality characteristics
25		that have been validated in research and empirical applications. Further detail is found in the life
26		analysis section of Exhibit RW-1.

1   **Q.**   **HOW DID YOU DETERMINE THE AVERAGE SERVICE LIVES FOR EACH ASSET**

2   **GROUP?**

3   A.   The establishment of appropriate average service lives for each account in the Distribution

4   function was determined by using the SPR balances analysis method.   Graphs showing the

5   simulated balances for the proposed curve and life compared to the actual balances are provided

6   in Exhibit RW-1. The establishment of appropriate average service lives for each account in the

7   LNG Storage and General Plant function was determined using the actuarial method.   The

8   recommended Iowa-curve (dispersion pattern) with average service life is provided in Exhibit

9   RW-1. A summary of the life and Iowa curve for the approved, current study and the change for

10   each account is shown below in Table 2.

TABLE 2
CHATTANOOGA GAS COMPANY
COMPARISON OF DEPPRECIATION PARAMETERS

[1]	[2]	[3]	[4]	[5]	[6]	[7]
		EXISTING		STUDY		CHANGE IN
Account Number	Description	Iowa Curve	Average Service Life Yrs	Iowa Curve	Average Service Life Yrs	Average Service Life Yrs
361.10	Structures & Improvements	R4	40.0	S6	45.0	5.0
362.00	Storage Tanks	R4	40.0	S6	45.0	5.0
363.00	Purification Equipment	R4	40.0	S6	45.0	5.0
363.10	Liquefaction Equipment	R4	40.0	S4	25.0	(15.0)
363.20	Vaporizing Equipment	R4	40.0	R4	25.0	(15.0)
363.30	Compressor Station Equipment	R3	40.0	R4	25.0	(15.0)
363.40	M & R Station Equipment	R3	40.0	S6	30.0	(10.0)
363.50	Other Equipment	R3	40.0	S6	14.0	(26.0)
374.10	Rights of Way	S4	40.0	R4	60.0	20.0
375.00	Structures & Improvements	R5	20.0	S6	25.0	5.0
376.00	Mains	R3	55.0	R2.5	57.0	2.0
377.00	Compressor Station Equipment			R3	25.0	
378.00	M & R Station Equipment	R3	40.0	R3	40.0	-
379.00	City Gate Equipment	R1.5	45.0	R4	42.0	-
380.00	Services	S1.5	40.0	R2	51.0	11.0
381.00	Meters & ERTS	S5	40.0	S5	30.0	(10.0)
381.30	Metreteks	S5	40.0	R4	40.0	-
382.00	Meter Installations	R0.5	30.0	S5	30.0	-
383.00	House Regulators	S5	40.0	S6	37.0	(3.0)
384.00	House Regulator Installations			S6	37.0	
385.00	Industrial M & R Equipment	R3	35.0	R3	35.0	-
386.00	Installation on Customer Premise	S1.5	40.0	S1.5	40.0	-
387.00	Other Equipment			R4	50.0	
390.00	Structures & Improvements	R4	50.0	SQ	10.0	(40.0)
391.00	Office Furniture & Equipment	S6	20.0	S6	20.0	-
391.10	Computer Equipment & Software	L1.5	8.0	S6	5.0	(3.0)
391.20	Enterprise Systems	L1.5	8.0	R1.5	10.0	2.0
392.10	Transportation - Service Trucks	SQ	7.0	S6	7.0	-
392.20	Transportation - Heavy Trucks	SQ	10.0	S3	10.0	-
393.00	Stores Equipment	R3	25.0	R5	25.0	-
394.00	Tools, Shop & Garage Equipment	R2	15.0	R2	15.0	-
396.00	Power Operated Equipment	R4	5.0	S6	10.0	-
397.00	Communication Equipment	L3	10.0	L3	10.0	-
398.00	Miscellaneous Equipment	R2	20.0	L3	15.0	(5.0)

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1   Q.   **PLEASE DESCRIBE SOME OF THE CHANGES IN THE AVERAGE SERVICE LIVES**

2   **FOR THE VARIOUS ACCOUNTS?**

3   A.   The detailed analysis of each account is described fully in Exhibit RW-1. Examples of some of

4   the changes in average service lives are:

5   • The largest decreases (all greater than 10 years) in life were in Storage Plant accounts

6   363.1, 363.2, 363.3, and 363.5 and General Plant account 390.0;

7   • The largest increases in life were in Distribution Plant accounts 374.1 and 380; and

8   • Overall, eight accounts experienced an increase in life, 10 accounts a decrease in life and

9   13 remained the same.

10   Q.   **WHAT IS NET SALVAGE?**

11   A.   While discussed more fully in the study itself, net salvage is the difference between the gross

12   salvage (what the asset was sold for) and the removal cost (cost to remove and dispose of the

13   asset). Salvage and removal cost percentages are calculated by dividing the current cost of

14   salvage or removal by the original installed cost of the asset. Some plant assets can experience

15   significant negative removal cost percentages due to the amount of removal cost and the timing

16   of the addition versus the retirement.

17   Q.   **HOW DID YOU DETERMINE THE NET SALVAGE PERCENTAGES FOR EACH**

18   **ASSET GROUP?**

19   A.   The establishment of appropriate net salvage percentages for each account was determined by

20   using the method as discussed above. The net salvage as a percent of retirements for various

21   bands (i.e. groupings of years such as the three-year average) for each account are shown in

22   Appendix D of my Exhibit RW-1. Judgment was used to select a net salvage percentage that

23   represents the future expectations for each account. A summary comparing the existing net

24   salvage to the proposed net salvage percentages is shown below in Table 3.

TABLE 3
CHATTANOOGA GAS COMPANY
COMPARISON OF DEPPRECIATION PARAMETERS

[1]	[2]	[3] EXISTING	[4] STUDY	[5]	[6]	[7] CHANGE IN
Account Number	Description	Net Salvage %	Salvage %	COR %	Net Salvage %	Net Salvage %
361.10	Structures & Improvements	(5.0)	-	-	-	5.0
362.00	LNG Storage Tanks	(5.0)	-	-	-	5.0
363.00	Purification Equipment	(5.0)	-	-	-	5.0
363.10	Liquefaction Equipment	(5.0)	-	-	-	5.0
363.20	Vaporizing Equipment	(5.0)	-	-	-	5.0
363.30	Compressor Station Equipment	(5.0)	-	-	-	5.0
363.40	M & R Station Equipment	(5.0)	-	-	-	5.0
363.50	Other Equipment	(5.0)	-	-	-	5.0
374.10	Rights of Way	-	-	-	-	-
375.00	Structures & Improvements	-	-	-	-	-
376.00	Mains	(40.0)	-	32.0	(32.0)	8.0
377.00	Compressor Station Equipment		-	-	-	
378.00	M & R Station Equipment	-	-	-	-	-
379.00	City Gate Equipment	-	-	-	-	-
380.00	Services	(55.0)	-	60.0	(60.0)	(5.0)
381.00	Meters & ERTs	5.0	-	-	-	(5.0)
381.30	Metreteks	5.0	-	-	-	(5.0)
382.00	Meter Installations	-	-	-	-	-
383.00	House Regulators	-	-	-	-	-
384.00	House Regulator Installations		-	-	-	
385.00	Industrial M & R Equipment	-	-	-	-	-
386.00	Installtion on Customer Premise	(55.0)	-	60.0	(60.0)	(5.0)
387.00	Other Equipment		-	-	-	
390.00	Structures & Improvements	5.0	-	-	-	(5.0)
391.00	Office Furniture & Equipment	5.0	-	-	-	(5.0)
391.10	Computer Equipment & Software	-	-	-	-	-
391.20	Enterprise Systems	-	-	-	-	-
392.10	Transportation - Service Trucks	30.0	28.0	-	28.0	(2.0)
392.20	Transportation - Heavy Trucks	20.0	28.0	-	28.0	8.0
393.00	Stores Equipment	-	-	-	-	-
394.00	Tools, Shop & Garage Equipment	-	-	-	-	-
396.00	Power Operated Equipment	15.0	17.0	-	17.0	2.0
397.00	Communication Equipment	-	-	-	-	-
398.00	Miscellaneous Equipment	-	-	-	-	-

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1 **Q.** **PLEASE DESCRIBE SOME OF THE CHANGES IN THE NET SALVAGE**

2 **PERCENTAGES FOR THE VARIOUS ACCOUNTS?**

3 A. The detailed analysis of each account is described fully in Exhibit RW-1. Examples of some of

4 the changes in net salvage are:

5 • The two largest increases (i.e. more positive or less negative) in net salvage were

6 increases in Account 376.0 - Mains, 392.10 – Transportation Service Trucks and

7 Account 392.20 – Transportation Heavy Trucks;

8 • The largest decrease (i.e. more negative) is in Account 380 Services; and

9 • Overall, seven accounts experienced some level of increased negative net salvage

10 percentage while 11 accounts experienced an increase in salvage resulting in a more

11 positive net salvage percentage.

12 **Q.** **DO YOU HAVE ANY RECOMMENDATIONS AS A RESULT OF YOUR**

13 **DEPRECIATION STUDY?**

14 A. Yes, I do. I recommend that the TRA approve, and CGC adopt, the depreciation rates shown

15 on Appendix A of Exhibit RW-1.

16 **Q.** **UPON WHAT DO YOU BASE THIS RECOMMENDATION?**

17 A. I base this recommendation on the fact that I have conducted a comprehensive depreciation

18 study, giving appropriate recognition to historical experience, recent trends, and CGC

19 expectations. The depreciation study results in a fair and reasonable level of depreciation

20 expense which, when incorporated into a revenue stream, will provide CGC with adequate

21 capital recovery until such time as a new depreciation study indicates a need for change.

22 **Q.** **DOES THIS COMPLETE YOUR PRE-FILED DIRECT TESTIMONY?**

23 A. Yes, it does.