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BEFORE THE ARIZONA CORPORATION COMMISSION

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IN THE MATTER OF THE APPLICATION OF
SOUTHWEST GAS CORPORATION FOR
THE ESTABLISHMENT OF JUST AND
REASONABLE RATES AND CHARGES
DESIGNED TO REALIZE A REASONABLE
RATE OF RETURN ON THE FAIR VALUE
OF THE PROPERTIES OF SOUTHWEST
GAS CORPORATION DEVOTED TO ITS
OPERATIONS THROUGHOUT ARIZONA.

Docket No. G-01551A-07-0504

NOTICE OF FILING DIRECT TESTIMONY

The Residential Utility Consumer Office ("RUCO") hereby provides notice of filing the Direct Testimony of William A. Rigsby, CRRA, and Rodney L. Moore in the above-referenced matter.

RESPECTFULLY SUBMITTED this 28th day of March 2008.

Daniel W. Pozefsky
Attorney

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SOUTHWEST GAS CORPORATION

DOCKET NO. G-01551A-07-0504

DIRECT TESTIMONY

OF

WILLIAM A. RIGSBY, CRRA

ON BEHALF OF

THE

RESIDENTIAL UTILITY CONSUMER OFFICE

March 28, 2008

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1 **INTRODUCTION**

2 Q. Please state your name, occupation, and business address.

3 A. My Name is William A. Rigsby. I am a Public Utilities Analyst V employed
4 by the Residential Utility Consumer Office ("RUCO") located at 1110 W.
5 Washington, Suite 220, Phoenix, Arizona 85007.

6
7 Q. Please describe your qualifications in the field of utilities regulation and
8 your educational background.

9 A. I have been involved with utility regulation in Arizona since 1994. During
10 this period of time I have worked as a utilities rate analyst for both the
11 Arizona Corporation Commission ("ACC" or "Commission") and for RUCO.
12 I hold a Bachelor of Science degree in the field of finance from Arizona
13 State University and a Master of Business Administration degree, with an
14 emphasis in accounting, from the University of Phoenix. I have been
15 awarded the professional designation, Certified Rate of Return Analyst
16 ("CRRRA") by the Society of Utility and Regulatory Financial Analysts
17 ("SURFA"). The CRRRA designation is awarded based upon experience
18 and the successful completion of a written examination. Appendix I, which
19 is attached to this testimony, further describes my educational background
20 and also includes a list of the rate cases and regulatory matters that I have
21 been involved with.

22
23 ...

1 Q. What is the purpose of your testimony?

2 A. The purpose of my testimony is to present recommendations that are
3 based on my analysis of Southwest Gas Corporation's ("SWG" or
4 "Company") application for a permanent rate increase ("Application").
5 SWG filed the Application with the ACC on August 31, 2007. The
6 Company has chosen the one-year operating period ended April 30, 2007
7 for the test year in this proceeding.

8

9 Q. Briefly describe SWG.

10 A. SWG is a local distribution company ("LDC") based in Las Vegas, NV, and
11 is publicly-traded on the New York Stock Exchange ("NYSE"). The
12 Company is the dominant provider of natural gas distribution services in
13 the state of Arizona. SWG also provides natural gas in the states of
14 California and Nevada. The Company's last rate increase was approved
15 in Decision No. 68487, dated February 23, 2006. In that case, SWG was
16 granted a rate of return of 8.40 percent with a cost of equity capital of 9.50
17 percent.

18

19 Q. Please explain your role in RUCO's analysis of SWG's Application.

20 A. I reviewed SWG's Application and performed a cost of capital analysis to
21 determine a fair rate of return on the Company's invested capital. In
22 addition to my recommended capital structure, my direct testimony will
23 present my recommended costs of common equity, cost of preferred

1 equity and my recommended cost of debt. The recommendations
2 contained in this testimony are based on information obtained from
3 Company responses to data requests, the Company's Application and
4 from market-based research that I conducted during my analysis.

5
6 Q. Is this your first case involving SWG?

7 A. No. I testified on cost of capital issues for RUCO during SWG's prior rate
8 case proceeding during 2005.

9
10 Q. Were you also responsible for conducting an analysis on the Company's
11 proposed revenue level, rate base and rate design?

12 A. No. RUCO witnesses Marylee Diaz Cortez, CPA, RUCO's Chief of
13 Accounting and Rates, and Rodney L. Moore will provide testimony on
14 those issues.

15
16 Q. What areas will you address in your testimony?

17 A. I will address the cost of capital issues associated with the case.

18
19 Q. Please identify the exhibits that you are sponsoring.

20 A. I am sponsoring Schedules WAR-1 through WAR-9.

21

22

23

1 **SUMMARY OF TESTIMONY AND RECOMMENDATIONS**

2 Q. Briefly summarize how your cost of capital testimony is organized.

3 A. My cost of capital testimony is organized into eight sections. First, the
4 introduction I have just presented and second, the summary of my
5 testimony that I am about to give. Third, I will present the findings of my
6 cost of equity capital analysis, which utilized both the discounted cash flow
7 (“DCF”) method, and the capital asset pricing model (“CAPM”). These are
8 the two methods that RUCO and ACC Staff have consistently used for
9 calculating the cost of equity capital in rate case proceedings in the past,
10 and are the methodologies that the ACC has given the most weight to in
11 setting allowed rates of returns for utilities that operate in the Arizona
12 jurisdiction. In this third section I will also provide a brief overview of the
13 current economic climate that SWG is operating in. Fourth, I will discuss
14 my recommended cost of debt. Fifth, I will explain my recommended cost
15 of preferred equity. Sixth, I will compare my recommended capital
16 structure with the Company-proposed capital structure. Seventh, I will
17 explain my weighted cost of capital recommendation and eighth, I will
18 comment on SWG's cost of capital testimony. Schedules WAR-1 through
19 WAR-9 will provide support for my cost of capital analysis.

20
21
22 ...

23

1 Q. Please summarize the recommendations and adjustments that you will
2 address in your testimony.

3 A. Based on the results of my analysis of SWG, I am making the following
4 recommendations:

5

6 Cost of Equity Capital – I am recommending a 9.88 percent cost of equity
7 capital. This 9.88 percent figure is based on the results that I obtained in
8 my cost of equity analysis, which employed both the DCF and CAPM
9 methodologies.

10

11 Cost of Debt – I am recommending a 7.96 percent cost of debt. This is
12 based on my review of the costs associated with SWG's various debt
13 instruments.

14

15 Cost of Preferred Equity – I am recommending that the Commission adopt
16 an 8.20 percent cost of preferred equity. This figure represents the
17 effective cost of SWG's \$100 million issue of trust originated preferred
18 securities ("TOPrS").

19

20 Capital Structure – I am recommending that the Commission adopt the
21 Company-proposed target capital structure of 51.0 percent debt, 4.0
22 percent preferred equity and 45.0 percent common equity.

1 Cost of Capital – Based on the results of my recommended capital
2 structure, cost of common equity, and debt analyses, I am recommending
3 an 8.83 percent cost of capital for SWG. This figure represents the
4 weighted cost of my recommended costs of common equity, preferred
5 equity and debt.

6
7 Q. Why do you believe that your recommended 8.83 percent cost of capital is
8 an appropriate rate of return for SWG to earn on its invested capital?

9 A. The 8.83 percent cost of capital figure that I have recommended meets
10 the criteria established in the landmark Supreme Court cases of Bluefield
11 Water Works & Improvement Co. v. Public Service Commission of West
12 Virginia (262 U.S. 679, 1923) and Federal Power Commission v. Hope
13 Natural Gas Company (320 U.S. 391, 1944). Simply stated, these two
14 cases affirmed that a public utility that is efficiently and economically
15 managed is entitled to a return on investment that instills confidence in its
16 financial soundness, allows the utility to attract capital, and also allows the
17 utility to perform its duty to provide service to ratepayers. The rate of
18 return adopted for the utility should also be comparable to a return that
19 investors would expect to receive from investments with similar risk.

20 The Hope decision allows for the rate of return to cover both the operating
21 expenses and the “capital costs of the business” which includes interest
22 on debt and dividend payment to shareholders. This is predicated on the
23 belief that, in the long run, a company that cannot meet its debt obligations

1 and provide its shareholders with an adequate rate of return will not
2 continue to supply adequate public utility service to ratepayers.

3
4 Q. Do the Bluefield and Hope decisions indicate that a rate of return sufficient
5 to cover all operating and capital costs is guaranteed?

6 A. No. Neither case *guarantees* a rate of return on utility investment. What
7 the Bluefield and Hope decisions *do allow* is for a utility to be provided
8 with the *opportunity* to earn a reasonable rate of return on its investment.
9 That is to say that a utility, such as SWG, is provided with the opportunity
10 to earn an appropriate rate of return if the Company's management
11 exercises good judgment and manages its assets and resources in a
12 manner that is both prudent and economically efficient.

13
14 **COST OF EQUITY CAPITAL**

15 Q. What is your recommended cost of equity capital for SWG?

16 A. Based on the results of my DCF and CAPM analyses, which ranged from
17 9.20 percent to 10.83 percent, I am recommending a 9.88 percent cost of
18 equity capital for SWG. My recommended 9.88 percent figure represents
19 a mean average of the results of my DCF and CAPM analyses, which
20 utilized a sample of publicly-traded natural gas local distribution
21 companies ("LDC").

1 **Discounted Cash Flow (DCF) Method**

2 Q. Please explain the DCF method that you used to estimate SWG's cost of
3 equity capital.

4 A. The DCF method employs a stock valuation model known as the constant
5 growth valuation model, that bears the name of Dr. Myron J. Gordon (i.e.
6 the Gordon model), the professor of finance who was responsible for its
7 development. Simply stated, the DCF model is based on the premise that
8 the current price of a given share of common stock is determined by the
9 present value of all of the future cash flows that will be generated by that
10 share of common stock. The rate that is used to discount these cash
11 flows back to their present value is often referred to as the investor's cost
12 of capital (i.e. the cost at which an investor is willing to forego other
13 investments in favor of the one that he or she has chosen).

14 Another way of looking at the investor's cost of capital is to consider it from
15 the standpoint of a company that is offering its shares of stock to the
16 investing public. In order to raise capital, through the sale of common
17 stock, a company must provide a required rate of return on its stock that
18 will attract investors to commit funds to that particular investment. In this
19 respect, the terms "cost of capital" and "investor's required return" are one
20 in the same. For common stock, this required return is a function of the
21 dividend that is paid on the stock. The investor's required rate of return
22 can be expressed as the percentage of the dividend that is paid on the

1 stock (dividend yield) plus an expected rate of future dividend growth.

2 This is illustrated in mathematical terms by the following formula:

$$k = \frac{D_1}{P_0} + g$$

3 where: k = the required return (cost of equity, equity capitalization rate),

4 $\frac{D_1}{P_0}$ = the dividend yield of a given share of stock calculated

5 by dividing the expected dividend by the current market

6 price of the given share of stock, and

7 g = the expected rate of future dividend growth

8
9 This formula is the basis for the standard growth valuation model that I
10 used to determine SWG's cost of equity capital. It is similar to one of the
11 models used by the Company.

12
13 Q. In determining the rate of future dividend growth for SWG, what
14 assumptions did you make?

15 A. There are two primary assumptions regarding dividend growth that must
16 be made when using the DCF method. First, dividends will grow by a
17 constant rate into perpetuity, and second, the dividend payout ratio will
18 remain at a constant rate. Both of these assumptions are predicated on
19 the traditional DCF model's basic underlying assumption that a company's
20 earnings, dividends, book value and share growth all increase at the same

1 constant rate of growth into infinity. Given these assumptions, if the
2 dividend payout ratio remains constant, so does the earnings retention
3 ratio (the percentage of earnings that are retained by the company as
4 opposed to being paid out in dividends). This being the case, a
5 company's dividend growth can be measured by multiplying its retention
6 ratio (1 - dividend payout ratio) by its book return on equity. This can be
7 stated as $g = b \times r$.

8
9 Q. Would you please provide an example that will illustrate the relationship
10 that earnings, the dividend payout ratio and book value have with dividend
11 growth?

12 A. RUCO consultant Stephen Hill illustrated this relationship in a Citizens
13 Utilities Company 1993 rate case by using a hypothetical utility.¹

14
15 Table I

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Growth</u>
16 Book Value	\$10.00	\$10.40	\$10.82	\$11.25	\$11.70	4.00%
17 Equity Return	10%	10%	10%	10%	10%	N/A
18 Earnings/Sh.	\$1.00	\$1.04	\$1.082	\$1.125	\$1.170	4.00%
19 Payout Ratio	0.60	0.60	0.60	0.60	0.60	N/A
20 Dividend/Sh	\$0.60	\$0.624	\$0.649	\$0.675	\$0.702	4.00%

21
22

¹ Citizens Utilities Company, Arizona Gas Division, Docket No. E-1032-93-111, Prepared Testimony, dated December 10, 1993, p. 25.

1 Table I of Mr. Hill's illustration presents data for a five-year period on his
2 hypothetical utility. In Year 1, the utility had a common equity or book
3 value of \$10.00 per share, an investor-expected equity return of ten
4 percent, and a dividend payout ratio of sixty percent. This results in
5 earnings per share of \$1.00 (\$10.00 book value x 10 percent equity return)
6 and a dividend of \$0.60 (\$1.00 earnings/sh. x 0.60 payout ratio) during
7 Year 1. Because forty percent (1 - 0.60 payout ratio) of the utility's
8 earnings are retained as opposed to being paid out to investors, book
9 value increases to \$10.40 in Year 2 of Mr. Hill's illustration. Table I
10 presents the results of this continuing scenario over the remaining five-
11 year period.

12 The results displayed in Table I demonstrate that under "steady-state" (i.e.
13 constant) conditions, book value, earnings and dividends all grow at the
14 same constant rate. The table further illustrates that the dividend growth
15 rate, as discussed earlier, is a function of (1) the internally generated
16 funds or earnings that are retained by a company to become new equity,
17 and (2) the return that an investor earns on that new equity. The DCF
18 dividend growth rate, expressed as $g = b \times r$, is also referred to as the
19 internal or sustainable growth rate.

20
21
22 ...
23

1 Q. If earnings and dividends both grow at the same rate as book value,
2 shouldn't that rate be the sole factor in determining the DCF growth rate?

3 A. No. Possible changes in the expected rate of return on either common
4 equity or the dividend payout ratio make earnings and dividend growth by
5 themselves unreliable. This can be seen in the continuation of Mr. Hill's
6 illustration on a hypothetical utility.

7
8 Table II

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Growth</u>
9 Book Value	\$10.00	\$10.40	\$10.82	\$11.47	\$12.158	5.00%
10 Equity Return	10%	10%	15%	15%	15%	10.67%
11 Earnings/Sh	\$1.00	\$1.04	\$1.623	\$1.720	\$1.824	16.20%
12 Payout Ratio	0.60	0.60	0.60	0.60	0.60	N/A
13 Dividend/Sh	\$0.60	\$0.624	\$0.974	\$1.032	\$1.094	16.20%

14
15
16 In the example displayed in Table II, a sustainable growth rate of four
17 percent² exists in Year 1 and Year 2 (as in the prior example). In Year 3,
18 Year 4 and Year 5, however, the sustainable growth rate increases to six
19 percent.³ If the hypothetical utility in Mr. Hill's illustration were expected to
20 earn a fifteen-percent return on common equity on a continuing basis,
21 then a six percent long-term rate of growth would be reasonable.
22 However, the compound growth rates for earnings and dividends,

² $[(\text{Year 2 Earnings/Sh} - \text{Year 1 Earnings/Sh}) / \text{Year 1 Earnings/Sh}] = [(\$1.04 - \$1.00) / \$1.00] = [\$0.04 / \$1.00] = \underline{4.00\%}$

³ $[(1 - \text{Payout Ratio}) \times \text{Rate of Return}] = [(1 - 0.60) \times 15.00\%] = 0.40 \times 15.00\% = \underline{6.00\%}$

1 displayed in the last column, are 16.20 percent. If this rate were to be
2 used in the DCF model, the utility's return on common equity would be
3 expected to increase by fifty percent every five years, [(15 percent / 10
4 percent) – 1]. This is clearly an unrealistic expectation.

5 Although it is not illustrated in Mr. Hill's hypothetical example, a change in
6 only the dividend payout ratio will eventually result in a utility paying out
7 more in dividends than it earns. While it is not uncommon for a utility in
8 the real world to have a dividend payout ratio that exceeds one hundred
9 percent on occasion, it would be unrealistic to expect the practice to
10 continue over a sustained long-term period of time.

11
12 Q. Other than the retention of internally generated funds, as illustrated in Mr.
13 Hill's hypothetical example, are there any other sources of new equity
14 capital that can influence an investor's growth expectations for a given
15 company?

16 A. Yes, a company can raise new equity capital externally. The best
17 example of external funding would be the sale of new shares of common
18 stock. This would create additional equity for the issuer and is often the
19 case with utilities that are either in the process of acquiring smaller
20 systems or providing service to rapidly growing areas.

21
22 ...

23

1 Q. How does external equity financing influence the growth expectations held
2 by investors?

3 A. Rational investors will put their available funds into investments that will
4 either meet or exceed their given cost of capital (i.e. the return earned on
5 their investment). In the case of a utility, the book value of a company's
6 stock usually mirrors the equity portion of its rate base (the utility's earning
7 base). Because regulators allow utilities the opportunity to earn a
8 reasonable rate of return on rate base, an investor would take into
9 consideration the effect that a change in book value would have on the
10 rate of return that he or she would expect the utility to earn. If an investor
11 believes that a utility's book value (i.e. the utility's earning base) will
12 increase, then he or she would expect the return on the utility's common
13 stock to increase. If this positive trend in book value continues over an
14 extended period of time, an investor would have a reasonable expectation
15 for sustained long-term growth.

16
17 Q. Please provide an example of how external financing affects a utility's
18 book value of equity.

19 A. As I explained earlier, one way that a utility can increase its equity is by
20 selling new shares of common stock on the open market. If these new
21 shares are purchased at prices that are higher than those shares sold
22 previously, the utility's book value per share will increase in value. This
23 would increase both the earnings base of the utility and the earnings

1 expectations of investors. However, if new shares sold at a price below
2 the pre-sale book value per share, the after-sale book value per share
3 declines in value. If this downward trend continues over time, investors
4 might view this as a decline in the utility's sustainable growth rate and will
5 have lower expectations regarding growth. Using this same logic, if a new
6 stock issue sells at a price per share that is the same as the pre-sale book
7 value per share, there would be no impact on either the utility's earnings
8 base or investor expectations.

9
10 Q. Please explain how the external component of the DCF growth rate is
11 determined.

12 A. In his book, *The Cost of Capital to a Public Utility*,⁴ Dr. Gordon identified a
13 growth rate that includes both expected internal and external financing
14 components. The mathematical expression for Dr. Gordon's growth rate is
15 as follows:

$$g = (br) + (sv)$$

16
17
18 where: g = DCF expected growth rate,
19 b = the earnings retention ratio,
20 r = the return on common equity,
21 s = the fraction of new common stock sold that
22 accrues to a current shareholder, and

⁴ Gordon, M.J., *The Cost of Capital to a Public Utility*, East Lansing, MI: Michigan State University, 1974, pp. 30-33.

1 Q. Has the Commission ever adopted a cost of capital estimate that included
2 this assumption?

3 A. Yes. In the prior SWG rate case⁵, the Commission adopted the
4 recommendations of ACC Staff's cost of capital witness, Stephen Hill, who
5 I noted earlier in my testimony. In that case, Mr. Hill used the same
6 methods that I have used in arriving at the inputs for the DCF model. His
7 final recommendation for SWG was largely based on the results of his
8 DCF analysis, which incorporated the same valid market-to-book ratio
9 assumption that I have used consistently in the DCF model as a cost of
10 capital witness for RUCO.

11

12 Q. How did you develop your dividend growth rate estimate?

13 A. I analyzed data on a natural gas proxy group consisting of eight natural
14 gas local distribution companies ("LDC").

15

16 Q. Why did you use this methodology as opposed to a direct analysis of
17 SWG?

18 A. One of the problems in performing this type of analysis is that the utility
19 applying for a rate increase is not always a publicly-traded company.
20 Although SWG is publicly-traded on the NYSE, SWG's Arizona operations
21 are not. Because of this situation, I used the aforementioned proxy that
22 includes eight publicly-traded natural gas providers that have similar risk

⁵ Decision No. 68487, dated February 23, 2006 (Docket No. G-01551A-04-0876)

1 characteristics to SWG in order to derive a cost of common equity for the
2 Company.

3
4 Q. Are there any other advantages to the use of a proxy?

5 A. Yes. As I noted earlier, the U.S. Supreme Court ruled in the Hope
6 decision that a utility is entitled to earn a rate of return that is
7 commensurate with the returns on investments of other firms with
8 comparable risk. The proxy technique that I have used derives that rate of
9 return. One other advantage to using a sample of companies is that it
10 reduces the possible impact that any undetected biases, anomalies, or
11 measurement errors may have on the DCF growth estimate.

12
13 Q. What criteria did you use in selecting the natural gas LDC's included in
14 your proxy for SWG?

15 A. Each of the natural gas LDC's used in the proxy are publicly-traded on a
16 major stock exchange (all ten trade on the NYSE) and are followed by The
17 Value Line Investment Survey ("Value Line"). Each of the eight LDC's are
18 tracked in Value Line's Natural Gas Utility industry segment. All of the
19 companies in the proxy are engaged in the provision of regulated natural
20 gas distribution services. Attachment A of my testimony contains Value
21 Line's most recent evaluation of the natural gas proxy group that I used for
22 my cost of common equity analysis.

23

1 Q. What companies are included your natural gas proxy?

2 A. The eight natural gas LDC's included in my proxy (and their NYSE ticker
3 symbols) are AGL Resources, Inc. ("ATG"), Atmos Energy Corp. ("ATO"),
4 Laclede Group, Inc. ("LG"), Nicor, Inc. ("GAS"), Northwest Natural Gas Co.
5 ("NWN"), Piedmont Natural Gas Company ("PNY"), South Jersey
6 Industries, Inc. ("SJI"), and WGL Holdings, Inc. ("WGL").

7

8 Q. Briefly describe the regions of the U.S. served by the eight natural gas
9 LDC's that make up your sample proxy.

10 A. The eight LDC's listed above provide natural gas service to customers in
11 the Middle Atlantic region (i.e. SJI which serves southern New Jersey and
12 WGL which serves the Washington D.C. metro area), the Southeast and
13 South Central portions of the U.S. (i.e. ATG which serves Virginia,
14 southern Tennessee and the Atlanta, Georgia area and PNY which serves
15 customers in North Carolina, South Carolina and Tennessee), the South,
16 deep South and Midwest (i.e. ATO which serves customers in Kentucky,
17 Mississippi, Louisiana, Texas, Colorado and Kansas, GAS which provides
18 service to northern and western Illinois, and LG which serves the St. Louis
19 area), and the Pacific Northwest (i.e. NWN which serves Washington state
20 and Oregon).

21

22 ...

23

1 Q. Did the Company's witness also perform a similar analysis using the
2 natural gas LDC's included in your proxy?

3 A. Yes. The Company's cost of capital witness, Mr. Frank Hanley, CRRRA,
4 used the same eight LDC's that I have included in my proxy.

5
6 Q. Please explain your DCF growth rate calculations for the sample
7 companies used in your proxy.

8 A. Schedule WAR-5 provides retention ratios, returns on book equity, internal
9 growth rates, book values per share, numbers of shares outstanding, and
10 the compounded share growth for each of the utilities included in the
11 sample for the historical observation period 2003 to 2007. Schedule
12 WAR-5 also includes Value Line's projected 2008, 2009 and 2011-13
13 values for the retention ratio, equity return, book value per share growth
14 rate, and number of shares outstanding for the LDC's that make up my
15 proxy.

16
17 Q. Please describe how you used the information displayed in Schedule
18 WAR-5 to estimate each comparable utility's dividend growth rate.

19 A. In explaining my analysis, I will use AGL Resources, Inc., NYSE symbol
20 ATG, as an example. The first dividend growth component that I
21 evaluated was the internal growth rate. I used the "b x r" formula (page
22 10) to multiply ATG's earned return on common equity by its earnings
23 retention ratio for each year 2003 through 2007 to derive the utility's

1 annual internal growth rates. I used the mean average of this five-year
2 period as a benchmark against which I compared the 2008 internal growth
3 rate and projected growth rate trends provided by Value Line. Because an
4 investor is more likely to be influenced by recent growth trends, as
5 opposed to historical averages, the five-year mean noted earlier was used
6 only as a benchmark figure. As shown on Schedule WAR-5, ATG's
7 sustainable internal growth rates experienced an up and down pattern
8 during the 5-year observation period. This resulted in a 5.84% average
9 over the 2003 to 2007 time frame. Value Line's analysts are forecasting a
10 steady pattern of growth through 2013 ranging from 5.00% in 2008 to
11 6.16% by the end of 2013. Value Line has made no changes to its prior 5-
12 year earnings projection of 5.50% but has revised its projections for
13 dividend growth and book value downward from 5.50% and 2.50% to
14 4.00% and 1.50% respectively. Based on these estimates I believe a
15 5.75% rate of growth is reasonable for ATG (Schedule WAR-6).

16
17 Q. Please continue with the external growth rate component portion of your
18 analysis.

19 A. Schedule WAR-5 illustrates that ATG's average share growth was 4.32%
20 over the current 2003 – 2007 observation period. Value Line expects
21 negative growth during the 2008 and 2009 operating periods. After
22 remaining stagnant at 76.00 million shares for the aforementioned periods,
23 outstanding shares are expected to increase to 80.00 million during the

1 2011-13 period. Taking this data into consideration, I am standing on my
2 prior estimate of a 0.55 rate of growth for ATG. My final dividend growth
3 rate estimate for ATG is 5.92 percent (5.75 percent internal + 0.17 percent
4 external) and is shown on Page 1 of Schedule WAR-4.

5
6 Q. What is your average dividend growth rate estimate using the DCF model
7 for the LDC's in your sample?

8 A. Based on the DCF model, my average dividend growth rate estimate is
9 5.18 percent as displayed on page 1 of Schedule WAR-4.

10
11 Q. How does your average dividend growth rate estimates compare to the
12 growth rate data published by Value Line and other analysts?

13 A. Schedule WAR-6 compares my sustainable growth estimates with the
14 five-year projections of both Zacks (Attachment B) and Value Line. My
15 5.18 percent estimate is 131 basis points higher than the average
16 projected rate of growth published by Value Line (which is an average of
17 projected EPS, DPS and BVPS), and 8 basis points higher than the 5.10
18 percent average of projected 5-year EPS of analyst consensus opinions
19 published by Zacks Investment Research, Inc. ("Zacks"). My 5.18 percent
20 estimate is also 44 basis points higher than the 4.74 percent average of
21 Value Line's and Zacks' projected and historical figures on EPS, DPS and
22 BVPS. This indicates that investors are expecting increased performance
23 from LDC's in the future. Based on this comparison, I would still say my

1 5.18 percent estimate is a fair representation of the growth projections that
2 are available to the investing public.

3
4 Q. How did you calculate the dividend yields displayed in Schedule WAR-3?

5 A. I used the estimated annual dividends, for the next twelve-month period,
6 that appeared in Value Line's March 14, 2008 Ratings and Reports natural
7 gas utility industry update. I then divided those figures by the eight-week
8 average price per share of the appropriate utility's common stock. The
9 eight-week average price is based on the daily closing stock prices for
10 each of the companies in my proxies for the period January 28, 2008 to
11 March 20, 2008.

12
13 Q. Why did you rely on an eight-week observation period for the closing stock
14 prices as opposed to a spot price at a given point in time?

15 A. The eight-week average tends to smooth out random events that may
16 influence a stocks price on any one particular trading day. For this reason
17 I typically rely on an eight-week mean average of closing stock prices as
18 opposed to a spot price.

19
20 Q. Based on the results of your DCF analysis, what is your cost of equity
21 capital estimate for the natural gas utilities included in your sample?

22 A. As shown in Schedule WAR-2, the cost of equity capital derived from my
23 DCF analysis is 9.73 percent for the LDC's included in my sample.

1 **Capital Asset Pricing Model (CAPM) Method**

2 Q. Please explain the theory behind the capital asset pricing model ("CAPM")
3 and why you decided to use it as an equity capital valuation method in this
4 proceeding.

5 A. CAPM is a mathematical tool that was developed during the early 1960's
6 by William F. Sharpe⁶, the Timken Professor Emeritus of Finance at
7 Stanford University, who shared the 1990 Nobel Prize in Economics for
8 research that eventually resulted in the CAPM model⁷. CAPM is used to
9 analyze the relationships between rates of return on various assets and
10 risk as measured by beta.⁸ In this regard, CAPM can help an investor to
11 determine how much risk is associated with a given investment so that he
12 or she can decide if that investment meets their individual preferences.
13 Finance theory has always held that as the risk associated with a given
14 investment increases, so should the expected rate of return on that
15 investment and vice versa. According to CAPM theory, risk can be
16 classified into two specific forms: nonsystematic or diversifiable risk, and
17 systematic or non-diversifiable risk. While nonsystematic risk can be
18 virtually eliminated through diversification (i.e. by including stocks of

⁶ William F. Sharpe, "A Simplified Model of Portfolio Analysis," Management Science, Vol. 9, No. 2 (January 1963), pp. 277-93.

⁷ Dr. Sharpe shared the 1990 Nobel Prize in Economics with Harry M. Markowitz of City University of New York, and the late Merton H. Miller of the University of Chicago.

⁸ Beta is defined as an index of volatility, or risk, in the return of an asset relative to the return of a market portfolio of assets. It is a measure of systematic or non-diversifiable risk. The returns on a stock with a beta of 1.0 will mirror the returns of the overall stock market. The returns on stocks with betas greater than 1.0 are more volatile or riskier than those of the overall stock market; and if a stock's beta is less than 1.0, its returns are less volatile or riskier than the overall stock market.

1 various companies in various industries in a portfolio of securities),
2 systematic risk, on the other hand, cannot be eliminated by diversification.
3 Thus, systematic risk is the only risk of importance to investors. Simply
4 stated, the underlying theory behind CAPM states that the expected return
5 on a given investment is the sum of a risk-free rate of return plus a market
6 risk premium that is proportional to the systematic (non-diversifiable risk)
7 associated with that investment. In mathematical terms, the formula is as
8 follows:

$$k = r_f + [\beta (r_m - r_f)]$$

9
10 where: k = cost of capital of a given security,
11 r_f = risk-free rate of return,
12 β = beta coefficient, a statistical measurement of a
13 security's systematic risk,
14 r_m = average market return (e.g. S&P 500), and
15 $r_m - r_f$ = market risk premium.
16

17 Q. What security did you use for a risk-free rate of return in your CAPM
18 analysis?

19 A. I used a six-week average of the yields on a 91-day Treasury Bill ("T-
20 Bill").⁹ The yields can be viewed in Attachment C of my testimony. This
21 six-week average resulted in a risk-free (r_f) rate of return of 1.65 percent.

⁹ A six-week average was computed for the current rate using 91-day T-Bill yield quotes listed in Value Line's Selection and Opinion newsletter from February 22, 2008 to March 28, 2008.

1 Q. Why did you use the short-term T-Bill rate as opposed to the yield on an
2 intermediate 5-year Treasury note or a long-term 30-year Treasury bond?

3 A. This is because a 91-day T-Bill presents the lowest possible total risk to
4 an investor. As citizens and investors, we would like to believe that U.S.
5 Treasury securities (which are backed by the full faith and credit of the
6 United States Government) pose no threat of default no matter what their
7 maturity dates are. However, a comparison of various Treasury
8 instruments will generally reveal that those with longer maturity dates do
9 have slightly higher yields. Treasury yields are comprised of two separate
10 components,¹⁰ a true rate of interest (believed to be approximately 2.00
11 percent) and an inflationary expectation. When the true rate of interest is
12 subtracted from the total treasury yield, all that remains is the inflationary
13 expectation. Because increased inflation represents a potential capital
14 loss, or risk, to investors, a higher inflationary expectation by itself
15 represents a degree of risk to an investor. Another way of looking at this
16 is from an opportunity cost standpoint. When an investor locks up funds in
17 long-term T-Bonds, compensation must be provided for future investment
18 opportunities foregone. This is often described as maturity or interest rate
19 risk and it can affect an investor adversely if market rates increase before
20 the instrument matures (a rise in interest rates would decrease the value
21 of the debt instrument). As discussed earlier in the DCF portion of my

¹⁰ As a general rule of thumb, there are three components that make up a given interest rate or rate of return on a security: the true rate of interest, an inflationary expectation, and a risk premium. The approximate risk premium of a given security can be determined by simply subtracting a 91-day T-Bill rate from the yield on the security.

1 testimony, this compensation translates into higher rates of returns to the
2 investor. Since a 91-day T-Bill presents the lowest possible total risk to an
3 investor, it more closely meets the definition of a risk-free rate of return
4 and is the more appropriate instrument to use in a CAPM analysis.

5
6 Q. How did you calculate the market risk premium used in your CAPM
7 analysis?

8 A. I used both a geometric and an arithmetic mean of the historical returns on
9 the S&P 500 index¹¹ from 1926 to 2006 as the proxy for the market rate of
10 return (r_m). The risk premium ($r_m - r_f$) that results by using the geometric
11 mean calculation for r_m is equal to 8.75 percent (10.40% - 1.65% =
12 8.75%). The risk premium that results by using the arithmetic mean
13 calculation for r_m is 10.65 percent (12.30% - 1.65% = 10.65%).

14
15 Q. How did you select the beta coefficients that were used in your CAPM
16 analysis?

17 A. The beta coefficients (β), for the individual utilities used in my proxy, were
18 calculated by Value Line and were current as of March 14, 2008 for the
19 natural gas LDC's that comprise my sample. Value Line calculates its
20 betas by using a regression analysis between weekly percentage changes
21 in the market price of the security being analyzed and weekly percentage
22 changes in the NYSE Composite Index over a five-year period. The betas

¹¹ The historical return information on the S&P 500 index was obtained from Morningstar's SBBI 2007 Yearbook (previously published by Ibbotson Associates).

1 are then adjusted by Value Line for their long-term tendency to converge
2 toward 1.00. The beta coefficients for the natural gas service providers
3 included in my sample ranged from 0.80 to 1.00 with an average beta of
4 0.86.

5
6 Q. What are the results of your CAPM analysis?

7 A. As shown on pages 1 and 2 of Schedule WAR-7, my CAPM calculation
8 using a geometric mean for r_m results in an average expected return of
9 9.20 percent. My calculation using an arithmetic mean results in an
10 average expected return of 10.83 percent.

11
12 Q. Please summarize the results derived under each of the methodologies
13 presented in your testimony.

14 A. The following is a summary of the cost of equity capital derived under
15 each methodology used:

<u>METHOD</u>	<u>RESULTS</u>
DCF	9.73%
CAPM	9.20% – 10.83%

16
17
18
19
20
21 Based on these results, my best estimate of an appropriate range for a
22 cost of common equity for SWG is 9.20 percent to 10.83 percent. My final
23 recommendation for SWG is 9.88 percent.

24

1 Q How did you arrive at your recommended 9.88 percent cost of common
2 equity?

3 A. My recommended 9.88 percent cost of common equity is the mean
4 average of my DCF and CAPM results. The calculation can be seen on
5 Page 4 of Schedule WAR-1.

6

7 Q. How does your recommended cost of equity capital compare with the cost
8 of equity capital proposed by the Company?

9 A. The 11.25 percent cost of equity capital proposed by the Company is 137
10 basis points higher than the 9.88 percent cost of equity capital that I am
11 recommending.

12

13 **Current Economic Environment**

14 Q. Please explain why it is necessary to consider the current economic
15 environment when performing a cost of equity capital analysis for a
16 regulated utility.

17 A. Consideration of the economic environment is necessary because trends
18 in interest rates, present and projected levels of inflation, and the overall
19 state of the U.S. economy determine the rates of return that investors earn
20 on their invested funds. Each of these factors represent potential risks
21 that must be weighed when estimating the cost of equity capital for a
22 regulated utility and are, most often, the same factors considered by
23 individuals who are also investing in non-regulated entities.

1 Q. Please discuss your analysis of the current economic environment.

2 A. My analysis includes a brief review of the economic events that have
3 occurred since 1990. Schedule WAR-8 displays various economic
4 indicators and other data that I will refer to during this portion of my
5 testimony.

6 In 1991, as measured by the most recently revised annual change in
7 gross domestic product ("GDP"), the U.S. economy experienced a rate of
8 growth of negative 0.20 percent. This decline in GDP marked the
9 beginning of a mild recession that ended sometime before the end of the
10 first half of 1992. Reacting to this situation, the Federal Reserve Board
11 ("Federal Reserve" or "Fed"), then chaired by noted economist Alan
12 Greenspan, lowered its benchmark federal funds rate¹² in an effort to
13 further loosen monetary constraints - an action that resulted in lower
14 interest rates.

15 During this same period, the nation's major money center banks followed
16 the Federal Reserve's lead and began lowering their interest rates as well.
17 By the end of the fourth quarter of 1993, the prime rate (the rate charged
18 by banks to their best customers) had dropped to 6.00 percent from a
19 1990 level of 10.01 percent. In addition, the Federal Reserve's discount
20 rate on loans to its member banks had fallen to 3.00 percent and short-

¹² This is the interest rate charged by banks with excess reserves at a Federal Reserve district bank to banks needing overnight loans to meet reserve requirements. The federal funds rate is the most sensitive indicator of the direction of interest rates, since it is set daily by the market, unlike the prime rate and the discount rate, which are periodically changed by banks and by the Federal Reserve Board, respectively.

1 term interest rates had declined to levels that had not been seen since
2 1972.

3
4 Although GDP increased in 1992 and 1993, the Federal Reserve took
5 steps to increase interest rates beginning in February of 1994, in order to
6 keep inflation under control. By the end of 1995, the Federal discount rate
7 had risen to 5.21 percent. Once again, the banking community followed
8 the Federal Reserve's moves. The Fed's strategy, during this period, was
9 to engineer a "soft landing." That is to say that the Federal Reserve
10 wanted to foster a situation in which economic growth would be stabilized
11 without incurring either a prolonged recession or runaway inflation.

12
13 Q. Did the Federal Reserve achieve its goals during this period?

14 A. Yes. The Fed's strategy of decreasing interest rates to stimulate the
15 economy worked. The annual change in GDP began an upward trend in
16 1992. A change of 4.50 percent and 4.20 percent were recorded at the
17 end of 1997 and 1998 respectively. Based on daily reports that were
18 presented in the mainstream print and broadcast media during most of
19 1999, there appeared to be little doubt among both economists and the
20 public at large that the U.S. was experiencing a period of robust economic
21 growth highlighted by low rates of unemployment and inflation. Investors,
22 who believed that technology stocks and Internet company start-ups (with
23 little or no history of earnings) had high growth potential, purchased these

1 types of issues with enthusiasm. These types of investors, who exhibited
2 what former Chairman Greenspan described as "irrational exuberance,"
3 pushed stock prices and market indexes to all time highs from 1997 to
4 2000.

5
6 Q. What has been the state of the economy since 2001?

7 A. The U.S. economy entered into a recession near the end of the first
8 quarter of 2001. The bullish trend, which had characterized the last half of
9 the 1990's, had already run its course sometime during the third quarter of
10 2000. Economic data released since the beginning of 2001 had already
11 been disappointing during the months preceding the September 11, 2001
12 terrorist attacks on the World Trade Center and the Pentagon. Slower
13 growth figures, rising layoffs in the high technology manufacturing sector,
14 and falling equity prices (due to lower earnings expectations) prompted
15 the Fed to begin cutting interest rates as it had done in the early 1990's.
16 The now infamous terrorist attacks on New York City and Washington
17 D.C. marked a defining point in this economic slump and prompted the
18 Federal Reserve to continue its rate cutting actions through December
19 2001. Prior to the 9/11 attacks, commentators, reporting in both the
20 mainstream financial press and various economic publications including
21 Value Line, believed that the Federal Reserve was cutting rates in the
22 hope of avoiding a recession.

1 Despite several intervals during 2002 and 2003 in which the Federal Open
2 Market Committee (“FOMC”) decided not to change interest rates – moves
3 which indicated that the worst may be over and that the recession might
4 have bottomed out during the last quarter of 2001 – a lackluster economy
5 persisted. The continuing economic malaise and even fears of possible
6 deflation prompted the FOMC to make a thirteenth rate cut on June 25,
7 2003. The quarter point cut reduced the federal funds rate to 1.00
8 percent, the lowest level in 45 years.

9 Even though some signs of economic strength, mainly attributed to
10 consumer spending, began to crop up during the latter part of 2002 and
11 into 2003, Chairman Greenspan appeared to be concerned with sharp
12 declines in capital spending in the business sector.

13 During the latter part of 2003, the FOMC went on record as saying that it
14 intended to leave interest rates low “for a considerable period.” After its
15 two-day meeting that ended on January 28, 2004, the FOMC announced
16 “that with inflation ‘quite low’ and plenty of excess capacity in the
17 economy, policy-makers ‘can be patient in removing its policy
18 accommodation.¹³”

19
20 ...

21
22

¹³ Wolk, Martin, “Fed holds interest rates steady,” MSNBC, January 28, 2004.

1 Q. What actions has the Federal Reserve taken in terms of interest rates
2 since the beginning of 2001?

3 A. As noted earlier, from January 2001 to June 2003 the Federal Reserve cut
4 interest rates a total of thirteen times. During this period, the federal funds
5 rate fell from 6.50 percent to 1.00 percent. The FOMC reversed this trend
6 on June 29, 2004 and raised the federal funds rate 25 basis points to 1.25
7 percent. From June 29, 2004 to January 31, 2006, the FOMC raised the
8 federal funds rate thirteen more times to a level of 4.50 percent.

9 The FOMC's January 31, 2006 meeting marked the final appearance of
10 Alan Greenspan, who had presided over the rate setting body for a total of
11 eighteen years. On that same day, Greenspan's successor, Ben
12 Bernanke, the former chairman of the President's Council of Economic
13 Advisers and a former Fed governor under Greenspan from 2002 to 2005,
14 was confirmed by the U.S. Senate to be the new Federal Reserve chief.

15 As expected by Fed watchers, Chairman Bernanke picked up where his
16 predecessor left off and increased the federal funds rate by 25 basis
17 points during each of the next three FOMC meetings for a total of
18 seventeen consecutive rate increases since June 2004, and raising the
19 federal funds rate to a level of 5.25 percent. The Fed's rate increase
20 campaign finally came to a halt at the FOMC meeting held on August 8,
21 2006, when the FOMC decided not to raise rates.

22

1 Q. What was the reaction in the financial community to the Fed's decision not
2 to raise interest rates?

3 A. As in the past, banks followed the Fed's lead once again and held the
4 prime rate to a level of 8.25 percent, or 300 basis points higher than the
5 federal funds rate of 5.25 percent established on June 29, 2006.

6
7 Q. How did analysts view the Fed's actions between January 2001 and
8 August 2006?

9 A. According to an article that appeared in the December 2, 2004 edition of
10 The Wall Street Journal, the FOMC's decision to begin raising rates two
11 years ago was viewed as a move to increase rates from emergency lows
12 in order to avoid creating an inflation problem in the future as opposed to
13 slowing down the strengthening economy.¹⁴ In other words, the Fed was
14 trying to head off inflation *before* it became a problem. During the period
15 following the August 8, 2006 FOMC meeting, the Fed's decisions not to
16 raise rates were viewed as a gamble that a slower U.S. economy would
17 help to cap growing inflationary pressures.¹⁵

18

19 ...

20

¹⁴ McKinnon, John D. and Greg IP, "Fed Raises Rates by a Quarter Point," The Wall Street Journal, September 22, 2004.

¹⁵ Ip, Greg, "Fed Holds Interest Rates Steady As Slowdown Outweighs Inflation," The Wall Street Journal Online Edition, August 8, 2006.

1 Q. Was the Fed attempting to engineer another “soft landing”, as it did in the
2 mid-nineties, by holding interest rates steady?

3 A. Yes, however, as pointed out in an August 2006 article in The Wall Street
4 Journal by E.S. Browning, soft landings – like the one that the Fed
5 managed to pull off during the 1994-95 time frame, in which a recession or
6 a bear market were avoided – rarely happen¹⁶. Since it began increasing
7 the federal funds rate in June 2004, the Fed had assured investors that it
8 would increase rates at a “measured” pace. Many analysts and
9 economists interpreted this language to mean that former Chairman
10 Greenspan would be cautious in increasing interest rates too quickly in
11 order to avoid what is considered to be one of the Fed’s few blunders
12 during Greenspan’s tenure – a series of increases in 1994 that caught the
13 financial markets by surprise after a long period of low rates. The rapid
14 rise in rates contributed to the bankruptcy of Orange County, California
15 and the Mexican peso crisis¹⁷. According to Mr. Browning, at the time that
16 his article was published, the hope was that Chairman Bernanke would
17 succeed in slowing the economy “just enough to prevent serious inflation,
18 but not enough to choke off growth.” In other words, “a ‘Goldilocks
19 economy,’ in which growth is not too hot and not too cold.”

20

¹⁶ Browning, E.S, “Not Too Fast, Not Too Slow...,” The Wall Street Journal Online Edition, August 21, 2006.

¹⁷ Associated Press (AP), “Fed begins debating interest rates” USA Today, June 29, 2004.

1 Q. Was the Fed's attempt to engineer a soft landing successful during the
2 period that followed the August 8, 2006 FOMC meeting?

3 A. It would appear so. Articles published in the mainstream financial press
4 were generally upbeat on the economy during that period. An example of
5 this is an article written by Nell Henderson that appeared in the January
6 30, 2007 edition of The Washington Post. According to Ms. Henderson, "a
7 year into [Fed Chairman] Bernanke's tenure, the [economic] picture has
8 turned considerably brighter. Inflation is falling; unemployment is low;
9 wages are rising; and the economy, despite continued problems in
10 housing, is growing at a brisk clip."¹⁸

11
12 Q. What has been the state of the economy over the past year?

13 A. Reports in the mainstream financial press during the majority of 2007
14 reflected the view that the U.S. economy was slowing as a result of a
15 worsening situation in the housing market and higher oil prices. The
16 overall outlook for the economy was one of only moderate growth at best.
17 Also during this period the Fed's key measure of inflation began to exceed
18 the rate setting body's comfort level.

19 On August 7, 2007, the FOMC decided not to increase or decrease the
20 federal funds rate for the ninth straight time and left its target rate

¹⁸ Henderson, Nell, "Bullish on Bernanke" The Washington Post, January 30, 2007.

1 unchanged at 5.25 percent.¹⁹ At the time of the Fed's decision, analysts
2 speculated that a rate cut over the next several months was unlikely given
3 the Fed's concern that inflation would fail to moderate. However, during
4 this same period, evidence of an even slower economy and a possible
5 recession was beginning to surface. Within days of the Fed's decision to
6 stand pat on rates, a borrowing crises rooted in a deterioration of the
7 market for U.S. subprime mortgages and securities linked to them, forced
8 the Fed to inject \$24 billion in funds (raised through open market
9 operations) into the credit markets.²⁰ By Friday, August 17, 2007, after a
10 turbulent week on Wall Street, the Fed made the decision to lower its
11 discount rate (i.e. the rate charged on direct loans to banks) by 50 basis
12 points, from 6.25 percent to 5.75 percent, and took steps to encourage
13 banks to borrow from the Fed's discount window in order to provide
14 liquidity to lenders. According to an article that appeared in the August 18,
15 2007 edition of The Wall Street Journal,²¹ the Fed had used all of its tools
16 to restore normalcy to the financial markets. If the markets failed to settle
17 down, the Fed's only weapon left was to cut the Federal Funds rate –
18 possibly before the next FOMC meeting scheduled on September 18,
19 2007.

¹⁹ Ip, Greg, "Markets Gyrate As Fed Straddles Inflation, Growth" The Wall Street Journal, August 8, 2007

²⁰ Ip, Greg, "Fed Enters Market To Tamp Down Rate" The Wall Street Journal, August 9, 2007

²¹ Ip, Greg, Robin Sidel and Randall Smith, "Fed Offers Banks Loans Amid Crises" The Wall Street Journal, August 9, 2007

1 Q. Did the Fed cut rates as a result of the subprime mortgage borrowing
2 crises?

3 A. Yes. At its regularly scheduled meeting on September 18, 2007, the
4 FOMC surprised the investment community and cut both the federal funds
5 rate and the discount rate by 50 basis points (25 basis points more than
6 what was anticipated). This brought the federal funds rate down to a level
7 of 4.75 percent. The Fed's action was seen as an effort to curb the
8 aforementioned slowdown in the economy. Over the course of the next
9 four months, the FOMC reduced the Federal funds rate by a total 175
10 basis points to a level of 3.00 percent – mainly as a result of concerns that
11 the economy was slipping into a recession. This included a 75 basis point
12 reduction that occurred one week prior to the FOMC's meeting on January
13 29, 2008.

14

15 Q. What recent actions have the Fed taken in regard to interest rates?

16 A. As of this writing, the Fed has continued to cut rates and announced a 75
17 basis point reduction in the federal funds rate on March 18, 2008. The
18 Fed's decision to cut rates was based on its belief that, at this point in
19 time, the slowing economy is a greater concern than the current rate of
20 inflation (which the majority of FOMC members believe will moderate

1 during the present economic slowdown).²² As a result of the Fed's rate
2 cutting action, the federal funds rate now stands at 2.25 percent.

3
4 Q. Putting this all into perspective, how have the Fed's actions since 2000
5 affected benchmark rates?

6 A. Despite the increases (prior to June 2006) by the FOMC, interest rates
7 and yields on U.S. Treasury instruments are for the most part still at
8 historically low levels. The Fed's actions have also had the overall effect
9 of reducing the cost of many types of business and consumer loans. As
10 can be seen in Schedule WAR-8, the previously mentioned federal
11 discount rate (the rate charged to the Fed's member banks), has fallen to
12 2.50 percent from 5.73 percent in 2000.

13
14 Q. What has been the trend in other leading interest rates over the last year?

15 A. As of March 28, 2008, the leading interest rates have all dropped from the
16 levels that existed a year ago (Attachment C). The prime rate has fallen
17 from 8.25 percent a year ago to 5.25 percent. The benchmark federal
18 funds rate, just discussed, has decreased from 5.25 percent, in March
19 2007, to a level of 2.25 percent (as a result of the March 18, rate cut
20 discussed above). The yields on several maturities of U.S. Treasury
21 instruments have also decreased over the past year. A previous trend,

²² Ip, Greg, "Credit Worries Ease as Fed Cuts, Hints at More Relief" The Wall Street Journal,
March 19, 2008

1 described by former Chairman Greenspan as a "conundrum"²³, in which
2 long-term rates fell as short-term rates increased, thus creating a
3 somewhat inverted yield curve that existed as late as June 2007, appears
4 to have ended and a more traditional yield curve (one where yields
5 increase as maturity dates lengthen) presently exists (Attachment C). The
6 91-day T-bill rate, used in my CAPM analysis, has fallen from 5.03
7 percent, in March 2007, to 0.56 percent as of March 19, 2008. The 1-Year
8 Treasury constant maturity rate also decreased from 4.94 percent over the
9 past year to 1.40 percent. Again, for the most part, these current yields
10 are considerably lower than corresponding yields that existed during the
11 early nineties and at the beginning of the current decade (as can be seen
12 on Schedule WAR-8).

13
14 Q. What is the current outlook for interest rates, inflation, and the economy?

15 A. As a result of the FOMC's March 18, 2008 rate cutting action, the federal
16 funds rate of 2.25 percent is already below The Wall Street Journal's
17 February 2008 Economic Forecasting Survey's prediction that the rate
18 would drop to 2.64 percent by December 2008. The change in the
19 consumer price index, a key measure of inflation, is also expected to fall
20 from the December 2007 level of 4.10 percent to 2.30 percent by
21 December 2008.

²³ Wolk, Martin, "Greenspan wrestling with rate 'conundrum'," MSNBC, June 8, 2005.

1 Value Line's analysts have been decidedly pessimistic in their outlook on
2 the economy recently and had this to say in their Economic and Stock
3 Market Commentary that appeared in the March 28, 2008 edition of Value
4 Line's Selection and Opinion publication:

5 **The evidence that we are in a recession continues to build.** Such
6 indicators include declining nonfarm payrolls, sluggish manufacturing
7 and nonmanufacturing data, a falloff in March retail sales, and additional
8 softness in industrial production.

9
10 **The economic problems, which began with the housing market, are**
11 **spreading and could well spread further in the months to come.** Not
12 only are housing's woes intensifying and weakness evolving in other key
13 markets, but businesses are unlikely to increase their spending on plant
14 and equipment given the slowdown on the consumer front. We also think
15 nonresidential construction, which gave a boost to the economy in 2007,
16 will ease this year due to the recent tightening in credit conditions. The
17 spreading construction slump, in the meantime, is likely to increase the
18 unemployment rolls still further.

19
20 Despite their less than favorable outlook on the economy, Value
21 Line's analysts believe that the Federal Reserve is on the right
22 track as also stated in the March 28, 2008 edition of Value Line's
23 Selection and Opinion publication:

24 **Effective action by the Federal Reserve should lessen the severity**
25 **of an economic setback.** The Fed has not only been reducing interest
26 rates aggressively, taking the federal funds rate (the overnight lending
27 rate between banks) down from 5.25% to 2.25% since last September,
28 but it has extended its lending program to provide liquidity to cash-
29 strapped companies. We think other innovative moves to alleviate the
30 strains caused by the tightening in the credit markets will be taken by the
31 Fed in the weeks to come to lessen the severity of any economic
32 downturn and to hopefully boost flagging investor confidence.

33
34 Q. How has the current economic environment of lower interest rates affected
35 various regulated utility industries as a whole?

36 A. Value Line analyst Nils C. Van Liew took note of the environment of low
37 interest rates that existed in the early part of 2007. In Value Line's Electric

1 Utility (East) Industry update dated March 2, 2007, Mr. Van Liew had this
2 to say:

3 **Low Interest Rates.** Several factors are, no doubt, driving the electric
4 utilities' strong share-price performance. Perhaps most important is a
5 benign interest-rate environment. Utilities frequently tap the credit
6 markets to fund their operations. (Low interest rates mean they can cost
7 effectively build new power plants and maintain existing ones.) "Cheap
8 money" also tends to drive economic expansion, thereby increasing
9 electricity demand. That said, interest rates should remain relatively low,
10 though the likelihood that the Federal Reserve eases (monetary) policy is
11 small, given persistent inflation concerns.
12

13 While Mr. Van Liew's views appeared in Value Line's Electric Utility
14 Industry update, I believe his comments hold true for all regulated utilities
15 including the natural gas distribution segment. Given the fact that interest
16 rates are even lower now than they were at the time of Mr. Van Liew's
17 writing, and utility bond rates are currently lower than their 2007 averages
18 (Schedule WAR 8), I believe that his views are still valid. In fact, my
19 opinions are supported by Gabe Moreen, an analyst for Merrill Lynch, who
20 had this to say in his February 21, 2008 report²⁴ on SWG:

21 **Falling interest rates bode well for utilities** The Fed's recent interest
22 rate cuts buoyed our natural gas utility index stocks, which had
23 underperformed during recent credit market turmoil. The liquidity
24 squeeze elevated concerns over higher capital costs for this capital-
25 intensive industry, but credit market concerns do not fundamentally
26 threaten the sector, in our view. Most gas utilities in our index have
27 investment grade credit and, were the cost of debt to rise, could recover
28 higher capital costs via rate cases. The interest rate cut also boosted
29 gas utility stocks as 10-year Treasury prices rose and yields fell. 10-year
30 Treasury yields provide a common benchmark for utility valuation; like
31 Treasury bills, utility stocks typically offer steady income and are often
32 valued by yield differential above Treasury bills. The dividend yield-
33 Treasury yield differential has recently shrunk to 85 [basis points], just
34 shy of the long-term average 86 [basis point] differential. Treasury yields
35 are relatively low at 3.9%, and we expect this low differential to help
36 sustain gas utility stocks at their high valuations in the near term. For

²⁴ Provided in the Company's response to ACC Staff data request STF-2-8 dated March 6, 2008.

1 Merrill Lynch's current interest rate outlook, please see The Market
2 Economist. 15 February 2008.
3

4 Q. How does the average dividend yield of your sample LDC stocks compare
5 to the average dividend yield for all of the LDC stocks followed by Value
6 Line?

7 A. As can be seen in Schedule WAR-3, my sample LDC's have an average
8 dividend yield of 4.55 percent which falls between Value Line's 3.60
9 percent 2006 average dividend yield for the natural gas industry and their
10 2011-13 projection of 4.60 percent (Attachment A).

11
12 Q. How has the slowdown in housing construction impacted SWG?

13 A. It would appear the housing slowdown discussed above is actually having
14 a positive effect on SWG. This was reflected in several security analysts'
15 reports that the Company provided in response to ACC Staff data request
16 STF-2-8. Analysts for North American Equity Research, a subsidiary of
17 J.P. Morgan Chase, had this to say:

18 **Slowing Customer Growth; Reduced Equity Issuance Need**
19 Southwest Gas highlighted a decline in its customer growth rate to below
20 3% in 2007, a decline attributable to problems in the housing market.
21 Specifically, unoccupied homes and associated inactive meters
22 accounted for a significant portion of the year-over-year decline. The
23 large inventory of existing homes is expected to place downward
24 pressure on new construction. As such, for the next two years the
25 company anticipates growth in the range of 1.5-3% until the housing
26 market returns to more normal levels. A more normalized growth rate
27 reduces capital expenditures, mitigates cost creep associated with
28 serving the growing demand and thereby should reduce the impact of
29 regulatory lag caused in part by rate making in AZ which utilizes a
30 historical test-year. On a related issue, we note that Southwest Gas has
31 placed meters in approximately 20,000-30,000 homes that are currently
32 vacant. The company highlighted that once these houses are occupied
33 and gas meters turned on, Southwest Gas will begin bringing on new
34 customers at no cost. As the capital for these meters are already

1 included in the company's AZ rate case, these new customer additions
2 would be incremental to earnings. Along with the decline in the
3 company's customer growth forecast, Southwest Gas has revised its
4 2008-2010 capital expenditure forecast as disclosed in the 2007 10K.
5 SWX forecasts capex of \$850 million with \$70-80 million equity financed.
6 That is a reduction from the prior three-year outlook of \$880 million and
7 \$100-125 million of equity financing. The reduction in their equity
8 financing needs equates to about 2.8% of outstanding shares and is a
9 positive development for shareholders.
10

11 Analysts at Citigroup Global Markets, Inc. had this to say:

12 **What's Wrong?** - We believe the housing downturn in AZ, NV and CA
13 has led some to believe that SWX will be negatively impacted by lower
14 customer growth (6% previously down to 3% on the high-end). We think
15 differently. First, we had always assumed that customer growth would
16 trend back to normal levels. Second, during times of high customer
17 growth, SWX struggled to earn its cost of capital because of historical
18 test years in its rate cases (EVA negative). We estimate a one to two
19 year lull in housing growth will enable SWX to push ROR above its costs
20 of capital creating positive EVA.
21

22 Based on the above analysts' outlooks, it is reasonable to say that
23 the slowdown in the housing sector is actually having a positive
24 effect on SWG, given the fact that the Company will not have to
25 devote higher levels of internally generated funds on capital
26 expenditures, thus providing SWG with the opportunity to build on
27 its existing equity position and possibly increase dividends.
28

29 Q. After weighing the economic information that you've just discussed, do you
30 believe that the 9.88 percent cost of equity capital that you have estimated
31 is reasonable for SWG?

32 A. I believe that my recommended 9.88 percent cost of equity will provide
33 SWG with a reasonable rate of return on the Company's invested capital
34 when economic data on interest rates (that are low by historical

1 standards), the current lull in growth in new housing construction, and the
2 Fed's ability to keep inflation in check are all taken into consideration. As I
3 noted earlier, the Hope decision determined that a utility is entitled to earn
4 a rate of return that is commensurate with the returns it would make on
5 other investments with comparable risk. I believe that my cost of equity
6 analysis, which is an average of the results of both the DCF and CAPM
7 models, has produced such a return.

8
9 **COST OF DEBT**

10 Q. Have you reviewed SWG's testimony on the Company-proposed cost of
11 debt?

12 A. Yes. I have reviewed the testimony provided by SWG witness Theodore
13 K. Wood who presents the Company's capital structure, cost of debt and
14 cost of preferred equity proposals.

15
16 Q. Briefly explain how SWG calculated the Company-proposed cost of debt.

17 A. The Company-proposed cost of debt is the weighted cost of the SWG's
18 fixed rate and variable rate debt instruments excluding industrial
19 development revenue bonds ("IDRB") that were issued to finance specific
20 assets located in Clark County, Nevada and the City of Big Bear,
21 California.

22
23

1 Q. Have you adopted the Company-proposed cost of debt?

2 A. Yes. The weighted cost of the Company's debt was also used in RUCO
3 witness Rodney L. Moore's synchronized interest calculation which
4 produced the interest deduction reflected in RUCO's recommended level
5 of income tax expense.

6

7 **COST OF PREFERRED EQUITY**

8 Q. Have you reviewed SWG's testimony on the Company-proposed cost of
9 preferred equity?

10 A. Yes. SWG witness Wood presented testimony on the Company-proposed
11 8.20 percent embedded cost of preferred equity, which reflects the
12 effective cost of the Company's \$100 million in trust originated preferred
13 securities ("TOPrS").

14

15 Q. Have you accepted the Company-proposed 8.20 percent cost of preferred
16 equity?

17 A. Yes I have.

18

19 Q. Is the weighted cost of SWG's preferred equity also reflected in RUCO's
20 recommended level of income tax expense?

21 A. Yes it is. Ordinarily this type of regulatory accounting treatment would not
22 be considered for the dividends of preferred equity instruments. However,
23 as explained on pages 34 and 35 of SWG witness Theodore K. Wood, the

1 dividends of the TOPrS are tax-deductible as a result of the trust structure
2 used by the Company to issue the securities. Given the tax-deductible
3 nature of the dividends, it is only logical that their weighted cost be
4 included in the synchronized interest calculation that produces an
5 appropriate interest expense deduction that is used to compute a final
6 recommended level of income tax expense.

7
8 **CAPITAL STRUCTURE**

9 Q. Have you reviewed SWG's testimony regarding the Company's proposed
10 capital structure?

11 A. Yes.

12
13 Q. What was SWG's actual capital structure during the test year?

14 A. According to the direct testimony of SWG witness Wood (pages 10 and
15 11), the Company's actual capital structure during the test year was
16 comprised of 52.70 percent debt, 4.40 percent preferred equity, and 42.90
17 percent common equity.

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23

1 Q. How does the Company's actual capital structure compare to the average
2 capital structure of the eight LDC's in your cost of equity capital proxy
3 group?

4 A. As can be seen in Schedule WAR-9, the average capital structure of the
5 eight LDC's included in my sample was comprised of 45.90 percent debt,
6 0.20 percent preferred equity, and 53.90 percent common equity. My
7 analysis shows that the equity positions of the LDC's in my sample have
8 increased slightly since SWG's cost of capital consultant, Mr. Hanley,
9 conducted his analysis (as seen on page 11 of Mr. Wood's direct
10 testimony).

11
12 Q. Is SWG's capital structure in line with industry averages?

13 A. No. As I explained above, SWG's actual capital structure is heavier in
14 debt and preferred equity than the natural gas utilities included in my
15 sample (Schedule WAR-9). Thus, the cost of equity derived in my DCF
16 analysis is applicable to companies that are not as leveraged and,
17 theoretically speaking not as risky than a utility with a level of debt similar
18 to SWG's. In the case of a publicly-traded company, such as those
19 included in my proxy, a company with SWG's level of debt would be
20 perceived as having a higher level of financial risk and would therefore
21 also have a higher expected return on common equity.

22
23 ...

1 Q. Please describe the Company's proposed capital structure.

2 A. The Company is proposing a target capital structure comprised of 51.00
3 percent debt, 4.00 percent preferred equity, and 45.00 percent common
4 equity.

5
6 Q. What capital structure are you recommending for SWG?

7 A. I am recommending the same capital structure being proposed by SWG.

8
9 Q. Have you made an adjustment to your cost of equity estimate based on
10 the perception of higher financial risk that you explained earlier?

11 A. No, I have not. The target (i.e. hypothetical) capital structure that I am
12 recommending will provide SWG with additional operating income and
13 cash flows that will offset any perceived financial risk.

14
15 Q. Please explain.

16 A. The higher level of equity in my recommended capital structure will
17 provide the Company with a higher overall weighted cost of equity (i.e.
18 8.83 percent as opposed to 8.80 percent) and will likewise provide SWG
19 with a higher level of operating income. The higher level of equity in the
20 target capital structure also results in a lower weighted cost of debt which
21 in turn produces a lower synchronized interest deduction. This has the
22 overall effect of providing SWG with a higher level of income tax expense.
23 This higher level of income tax expense results in additional cash flow to

1 SWG because the Company's actual income tax liability will be lower (as a
2 result of the higher actual interest expense deduction that the Company is
3 entitled to). For these reasons I have made the decision not to make any
4 adjustment to my recommended cost of equity which was based on the
5 results of my DCF and CAPM analyses. In summary, I believe that my
6 recommended target capital structure will provide SWG with a return on
7 invested capital that will compensate the Company's shareholders for any
8 perceived financial risk that they may face.

9
10 **WEIGHTED COST OF CAPITAL**

11 Q. How does the Company's proposed weighted cost of capital compare with
12 your recommendation?

13 A. The Company has proposed a weighted cost of capital of 9.45 percent.
14 This composite figure is the result of a weighted average of SWG's
15 proposed 7.96 percent cost of debt, 8.20 percent cost of preferred equity,
16 and 11.25 percent cost of equity capital. The Company-proposed 9.45
17 percent weighted cost of capital is 62 basis points higher than the 8.83
18 percent weighted cost of capital that I am recommending.

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1 **COMMENTS ON SOUTHWEST GAS CORPORATION'S COST OF EQUITY**

2 **CAPITAL TESTIMONY**

3 Q. Please describe SWG's cost of equity capital testimony.

4 A. As noted earlier in my testimony, SWG's cost of capital testimony was
5 prepared by the Company's cost of equity consultant Mr. Frank J. Hanley,
6 CRRA. Mr. Hanley's testimony presents the results of his cost of common
7 equity analysis, which used the DCF, CAPM, risk premium, and
8 comparable earnings methodologies. Mr. Hanley believes that the
9 Company is entitled to an 11.25 percent cost of common equity based on
10 the results of his cost of capital analysis.

11
12 Q. Please compare the way you conducted your DCF analysis with the way
13 that Mr. Hanley conducted his.

14 A. Mr. Hanley conducted a DCF analysis using a similar single-stage
15 constant growth model as I did. As I explained earlier in my testimony, Mr.
16 Hanley also conducted his analysis using a proxy group comprised of the
17 same eight natural gas utilities that were included in my sample. In
18 addition to the aforementioned proxy group, Mr. Hanley also treated SWG
19 as a stand-alone company in his analysis.

20
21
22 ...

23

1 Q. How did Mr. Hanley determine the dividend yield component in his DCF
2 model?

3 A. For the P_0 portion of the DCF formula, Mr. Hanley averaged spot prices
4 that occurred on June 25, 2007 with average high and low prices that
5 occurred during the months of May 2007 and April 2007 to arrive at initial
6 average dividend yields of 3.94 percent, 3.67 percent, and 3.67 percent
7 respectively for his proxy group of eight LDC's. After obtaining his initial
8 dividend yields, he averages the results to arrive at an unadjusted average
9 dividend yield of 3.76 percent. Mr. Hanley then adds a dividend growth
10 component, which averages 0.08 percent for his sample LDC's, to arrive
11 at a final adjusted average dividend yield of 3.84 percent. His final
12 adjusted dividend yield is 71 basis points lower than the average 4.55
13 percent dividend yield that I obtained using an average of closing stock
14 prices during a more recent 8-week period (Schedule WAR-3).

15

16 Q. How did Mr. Hanley obtain his final growth (i.e. g) estimate in his DCF
17 analysis?

18 A. Mr. Hanley averaged the long-term (i.e. 2010-12) June 15, 2007 earnings
19 per share projections of Value Line analysts and the June 23, 2007 five-
20 year earnings per share projections of Thompson FN/First Call analysts to
21 arrive at an average DCF growth rate of 4.51 percent for his proxy group
22 of eight LDC's. His final average DCF growth estimate result of 4.51

1 percent is 67 basis points lower than my growth rate estimate of 5.18
2 percent.

3

4 Q. What is the average DCF result for the average dividend yields and
5 growth estimates that were obtained by Mr. Hanley?

6 A. Mr. Hanley's final average DCF cost of equity estimate, using the inputs
7 that I have just described, is 8.35 percent or 138 basis points lower than
8 my DCF estimate of 9.73 percent. Mr. Hanley's final DCF estimate of 9.92
9 percent is 19 basis points higher than my final DCF estimate of 9.73
10 percent.

11

12 Q. How did Mr. Hanley obtain his final DCF cost of equity estimate of 9.92
13 percent when the average of his LDC sample produced an estimate of
14 8.35 percent?

15 A. To arrive at his final DCF cost estimates, Mr. Hanley ignored any results
16 that were lower than 9.60 percent, which he states was the lowest rate
17 awarded to a gas distribution utility during the twelve month period ended
18 March 31, 2007. This methodology had the effect of eliminating the
19 results of six of the eight LDC's in his proxy group.

20

21

22 ...

23

1 Q. Do you agree with Mr. Hanley's method which eliminates any results
2 under 9.60 percent?

3 A. No, I do not. Even though my final DCF estimate falls above the 9.60
4 percent threshold established by Mr. Hanley I still don't agree with his
5 methodology. By setting his 9.60 percent threshold, Mr. Hanley is in effect
6 refusing to consider the fact that the market has priced the returns of
7 LDC's at a lower level than what regulators have adopted and that the
8 investment community is willing to accept lower rates of returns.

9

10 Q. Please compare the results of your CAPM analysis with the results of Mr.
11 Hanley's CAPM analysis.

12 A. Mr. Hanley performed two CAPM analyses, one using the traditional
13 CAPM model which I used (i.e. the Sharpe/Lintner version expressed as k
14 $= r_f + [\beta (r_m - r_f)]$) and a second using the empirical ("ECAPM") version of
15 the model which assumes that the risk-free rate of return used in the
16 traditional model is understated. Typically the ECAPM uses unadjusted
17 betas that are lower than the adjusted Value Line betas that I used in my
18 CAPM analysis (a point on which Mr. Hanley and I disagree).

19

20 Q. Why didn't you use the ECAPM version in your CAPM analysis?

21 A. I did not use this version mainly because the ECAPM has been given little
22 to no weight by the ACC in prior Commission proceedings (most notably in

1 a number of Arizona-American Water Company filings where the model
2 was employed by a Boston consulting firm known as the Brattle Group).

3
4 Q. What were the differences between your CAPM analysis and Mr. Hanley's
5 CAPM analysis?

6 A. Mr. Hanley performed his analysis using the same proxy that he used in
7 his DCF analyses and also treated SWG as a stand-alone entity. His
8 CAPM analysis produced an average expected return, or k, of 10.35
9 percent for his group of eight LDC's. As in his DCF analysis, Mr. Hanley
10 simply rejected any results lower than 9.60 percent. Thus, his final CAPM
11 estimate of 10.49 percent is higher than the aforementioned average of all
12 eight of the LDC's used in both of our samples. His final CAPM estimate
13 of 10.49 percent is 129 basis points higher than my 9.20 percent CAPM
14 analysis result using a geometric mean, and 34 basis points lower than my
15 10.83 percent CAPM analysis result using an arithmetic mean. His stand-
16 alone result for SWG is 10.17 percent. Mr. Hanley's ECAPM analysis
17 produced an average expected return of 10.51 percent for his group of
18 eight LDC's (the results for all eight of his sample companies exceeded
19 his 9.60 percent threshold). His final ECAPM estimate of 10.51 percent
20 results is 131 basis points higher than my 9.20 percent CAPM analysis
21 result using a geometric mean, and 31 basis points lower than my 10.83
22 percent CAPM analysis result using an arithmetic mean. His ECAPM
23 result for SWG as a stand-alone entity is 10.38 percent.

1 Q. What beta coefficient (β) did you use in your CAPM model and what beta
2 coefficient did Mr. Hanley's use in his CAPM analysis?

3 A. I used a beta coefficient of 0.86, which is an average of Value Line's
4 adjusted betas for the eight LDC's included in my proxy. Mr. Hanley used
5 an average beta coefficient of 0.88 for his group of eight LDC's. The lower
6 average beta used in my analysis reflects the fact that the betas for
7 several of the LDC's used in our samples have fallen (indicating lower
8 risk) since Mr. Hanley conducted his analysis. Technically, Mr. Hanley's
9 ECAPM model overstates the expected return because of his use of an
10 adjusted beta in a model that contains an upward adjustment for the risk-
11 free rate of return.

12
13 Q. Please compare the risk free rate of return (r_f) proxies used in both your
14 and Mr. Hanley CAPM analyses.

15 A. As I explained earlier in my testimony (page 25), I used a six-week
16 average on a 91-day T-Bill rate. This resulted in a risk-free rate of return
17 of 1.65 percent. Mr. Hanley on the other hand, used an average of
18 economist's projections, reported in Blue Chip Financial Forecasts dated
19 July 1, 2007, on the yields of 30-year U.S. Treasury Notes for the six
20 quarters ending with the final calendar quarter of 2008. This resulted in a
21 higher risk-free rate of return of 5.33 percent. The difference between the
22 two average yields is 368 basis points.

23

1 Q. What is the difference between your market risk premium and the market
2 risk premium used by Mr. Hanley?

3 A. Mr. Hanley derived his 5.69 percent market risk premium figure by
4 averaging Value Line and Morningstar data. The 5.69 percent market risk
5 premium used by Mr. Hanley is 306 basis points lower than my 8.75
6 percent market risk premium, using a geometric mean, and is 496 basis
7 points lower than my 10.65 percent market risk premium, using an
8 arithmetic mean.

9

10 Q. Did you conduct a risk premium study or a comparable earnings analysis
11 similar to the ones performed by Mr. Hanley?

12 A. No I did not. The risk premium methodology is basically an offshoot of the
13 CAPM and the comparable earnings method, though used by most
14 analysts to some degree, has been largely replaced by forward-looking
15 methods such as DCF and CAPM.

16

17 Q. How does Mr. Hanley arrive at his 11.25 percent cost of common equity
18 figure after presenting the results of his DCF, risk premium, CAPM and
19 comparable earnings analyses?

20 A. Mr. Hanley arrived at his recommended 11.25 percent cost of common
21 equity by weighing the results of all four of his models. This resulted in a
22 cost rate of 11.00 percent for his proxy group of eight LDC's. After this he
23 makes an upward adjustment of 31 basis points as a result of SWG's

1 credit ratings. His final 11.25 percent cost of common equity for SWG is
2 conditioned on the Commission's adoption of the 45.00 percent level of
3 equity, in the Company-proposed capital structure, and the Company's
4 proposed tariff tools.

5
6 Q. Has Mr. Hanley given any consideration to the risk mitigation inherent in
7 SWG's decoupling proposal in his cost of equity analysis?

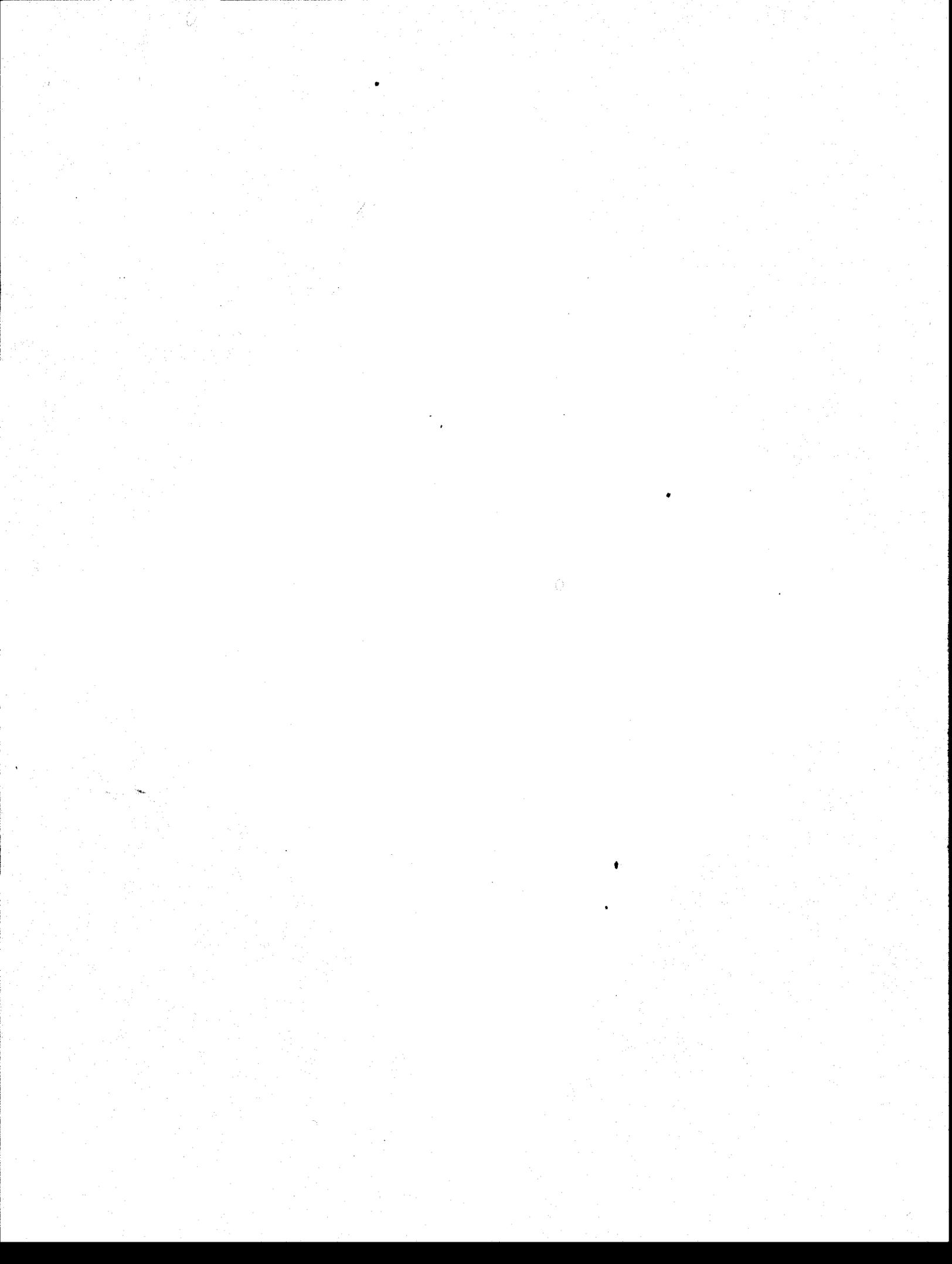
8 A. No. Mr. Hanley's testimony concentrates on why his recommended 11.25
9 percent cost of common equity is appropriate for SWG given the various
10 characteristics of the LDC's in his sample which includes their credit
11 ratings and the fact that six of the eight have some form of decoupling or
12 weather normalization in some of the jurisdictions they serve. However,
13 Mr. Hanley's testimony does not address the fact that the implementation
14 of a decoupling mechanism, which would essentially provide SWG with a
15 guaranteed return on the Company's invested capital, does in itself merit a
16 lower cost of common equity that reflects the elimination of the risk of not
17 being able to earn an authorized rate of return.

18
19 Q. Does your silence on any of the issues, matters or findings addressed in
20 the testimony of Mr. Hanley constitute your acceptance of his positions on
21 such issues, matters or findings?

22 A. No, it does not.
23

1 Q. Does this conclude your testimony on SWG?

2 A. Yes, it does.



Qualifications of William A. Rigsby, CRRA

EDUCATION:

University of Phoenix
Master of Business Administration, Emphasis in Accounting, 1993

Arizona State University
College of Business
Bachelor of Science, Finance, 1990

Mesa Community College
Associate of Applied Science, Banking and Finance, 1986

Society of Utility and Regulatory Financial Analysts
38th Annual Financial Forum and CRRA Examination
Georgetown University Conference Center, Washington D.C.
Awarded the Certified Rate of Return Analyst designation
after successfully completing SURFA's CRRA examination.

Michigan State University
Institute of Public Utilities
N.A.R.U.C. Annual Regulatory Studies Program, 1997 &1999

Florida State University
Center for Professional Development & Public Service
N.A.R.U.C. Annual Western Utility Rate School, 1996

EXPERIENCE:

Public Utilities Analyst V
Residential Utility Consumer Office
Phoenix, Arizona
April 2001 – Present

Senior Rate Analyst
Accounting & Rates - Financial Analysis Unit
Arizona Corporation Commission, Utilities Division
Phoenix, Arizona
July 1999 – April 2001

Senior Rate Analyst
Residential Utility Consumer Office
Phoenix, Arizona
December 1997 – July 1999

Utilities Auditor II and III
Accounting & Rates – Revenue Requirements Analysis Unit
Arizona Corporation Commission, Utilities Division
Phoenix, Arizona
October 1994 – November 1997

Tax Examiner Technician I / Revenue Auditor II
Arizona Department of Revenue
Transaction Privilege / Corporate Income Tax Audit Units
Phoenix, Arizona
July 1991 – October 1994

RESUME OF RATE CASE AND REGULATORY PARTICIPATION

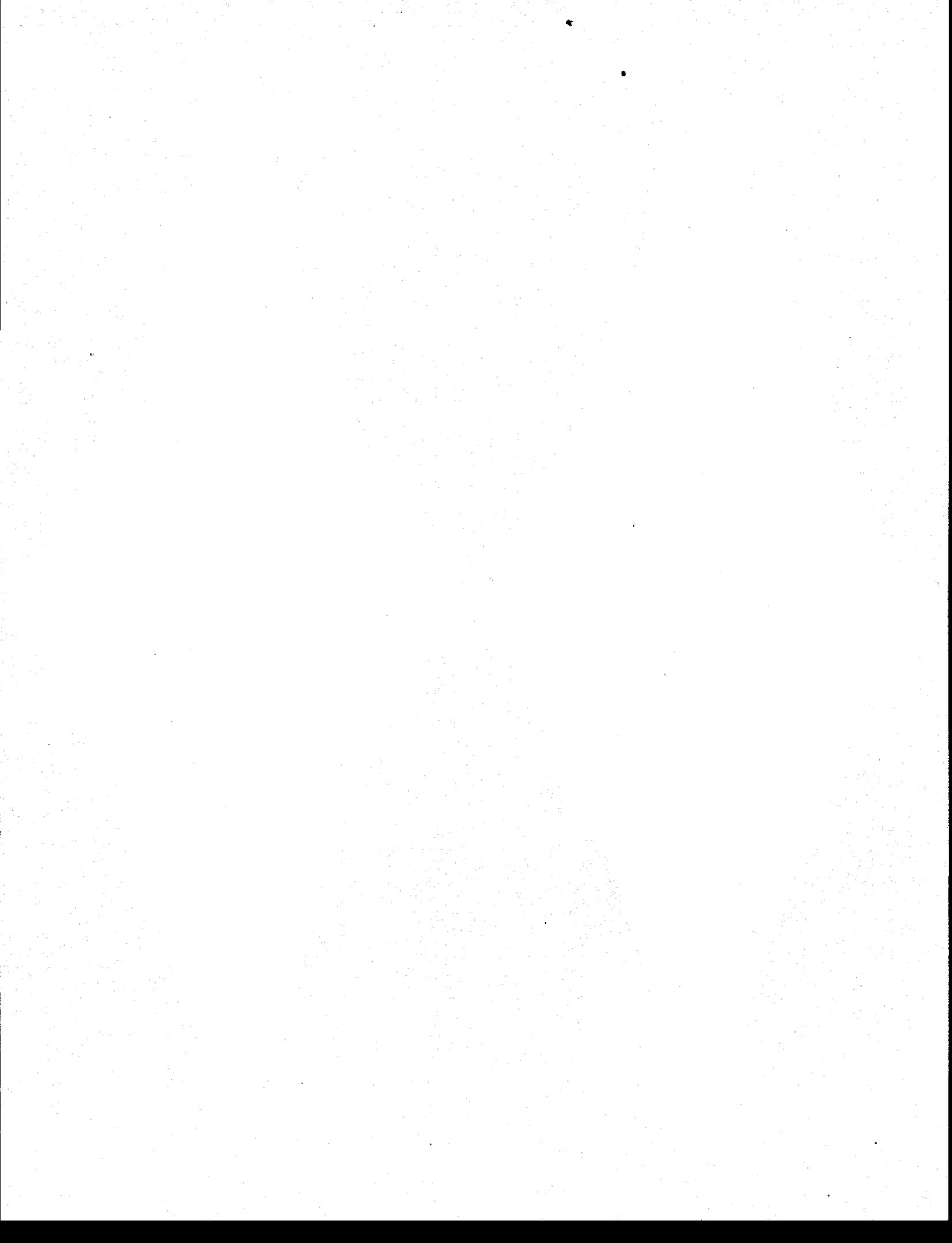
<u>Utility Company</u>	<u>Docket No.</u>	<u>Type of Proceeding</u>
ICR Water Users Association	U-2824-94-389	Original CC&N
Rincon Water Company	U-1723-95-122	Rate Increase
Ash Fork Development Association, Inc.	E-1004-95-124	Rate Increase
Parker Lakeview Estates Homeowners Association, Inc.	U-1853-95-328	Rate Increase
Mirabell Water Company, Inc.	U-2368-95-449	Rate Increase
Bonita Creek Land and Homeowner's Association	U-2195-95-494	Rate Increase
Pineview Land & Water Company	U-1676-96-161	Rate Increase
Pineview Land & Water Company	U-1676-96-352	Financing
Montezuma Estates Property Owners Association	U-2064-96-465	Rate Increase
Houghland Water Company	U-2338-96-603 et al	Rate Increase
Sunrise Vistas Utilities Company – Water Division	U-2625-97-074	Rate Increase
Sunrise Vistas Utilities Company – Sewer Division	U-2625-97-075	Rate Increase
Holiday Enterprises, Inc. dba Holiday Water Company	U-1896-97-302	Rate Increase
Gardener Water Company	U-2373-97-499	Rate Increase
Cienega Water Company	W-2034-97-473	Rate Increase
Rincon Water Company	W-1723-97-414	Financing/Auth. To Issue Stock
Vail Water Company	W-01651A-97-0539 et al	Rate Increase
Bermuda Water Company, Inc.	W-01812A-98-0390	Rate Increase
Bella Vista Water Company	W-02465A-98-0458	Rate Increase
Pima Utility Company	SW-02199A-98-0578	Rate Increase

RESUME OF RATE CASE AND REGULATORY PARTICIPATION (Cont.)

<u>Utility Company</u>	<u>Docket No.</u>	<u>Type of Proceeding</u>
Pineview Water Company	W-01676A-99-0261	WIFA Financing
I.M. Water Company, Inc.	W-02191A-99-0415	Financing
Marana Water Service, Inc.	W-01493A-99-0398	WIFA Financing
Tonto Hills Utility Company	W-02483A-99-0558	WIFA Financing
New Life Trust, Inc. dba Dateland Utilities	W-03537A-99-0530	Financing
GTE California, Inc.	T-01954B-99-0511	Sale of Assets
Citizens Utilities Rural Company, Inc.	T-01846B-99-0511	Sale of Assets
MCO Properties, Inc.	W-02113A-00-0233	Reorganization
American States Water Company	W-02113A-00-0233	Reorganization
Arizona-American Water Company	W-01303A-00-0327	Financing
Arizona Electric Power Cooperative	E-01773A-00-0227	Financing
360networks (USA) Inc.	T-03777A-00-0575	Financing
Beardsley Water Company, Inc.	W-02074A-00-0482	WIFA Financing
Mirabell Water Company	W-02368A-00-0461	WIFA Financing
Rio Verde Utilities, Inc.	WS-02156A-00-0321 et al	Rate Increase/ Financing
Arizona Water Company	W-01445A-00-0749	Financing
Loma Linda Estates, Inc.	W-02211A-00-0975	Rate Increase
Arizona Water Company	W-01445A-00-0962	Rate Increase/ACRM
Mountain Pass Utility Company	SW-03841A-01-0166	Financing
Picacho Sewer Company	SW-03709A-01-0165	Financing
Picacho Water Company	W-03528A-01-0169	Financing
Ridgeview Utility Company	W-03861A-01-0167	Financing
Green Valley Water Company	W-02025A-01-0559	Rate Increase
Bella Vista Water Company	W-02465A-01-0776	Rate Increase
Arizona Water Company	W-01445A-02-0619	Rate Increase/ACRM

RESUME OF RATE CASE AND REGULATORY PARTICIPATION (Cont.)

<u>Utility Company</u>	<u>Docket No.</u>	<u>Type of Proceeding</u>
Arizona-American Water Company	W-01303A-02-0867 et al.	Rate Increase
Arizona Public Service Company	E-01345A-03-0437	Rate Increase
Rio Rico Utilities, Inc.	WS-02676A-03-0434	Rate Increase
Qwest Corporation	T-01051B-03-0454	Renewed Price Cap
Chaparral City Water Company	W-02113A-04-0616	Rate Increase
Arizona Water Company	W-01445A-04-0650	Rate Increase/ACRM
Tucson Electric Power Company	E-01933A-04-0408	Rate Review
Southwest Gas Corporation	G-01551A-04-0876	Rate Increase
Arizona-American Water Company	W-01303A-05-0405	Rate Increase/ACRM
Black Mountain Sewer Corporation	SW-02361A-05-0657	Rate Increase
Far West Water & Sewer Company	WS-03478A-05-0801	Rate Increase
Gold Canyon Sewer Company	SW-02519A-06-0015	Rate Increase
Arizona Public Service Company	E-01345A-05-0816	Rate Increase
Arizona-American Water Company	W-01303A-06-0014	Rate Increase
Arizona-American Water Company	W-01303A-05-0718	Transaction Approval
UNS Gas, Inc.	G-04204A-06-0463	Rate Increase
Arizona-American Water Company	WS-01303A-06-0403	Rate Increase
Arizona-American Water Company	WS-01303A-06-0491	Rate Increase
UNS Electric, Inc.	E-04204A-06-0783	Rate Increase
Arizona-American Water Company	W-01303A-07-0209	Rate Increase
Tucson Electric Power Company	E-01933A-07-0402	Rate Increase



ATTACHMENT A

The Natural Gas Utility Industry ranks in the bottom half of our industry spectrum for Timeliness. However, many firms are developing opportunities to bolster growth for the years ahead. Moreover, companies in this sector tend to be stable businesses that offer attractive dividend yields, which may add appeal to many issues, given the current lackluster economic environment. Still, limited near-term earnings prospects and a tough regulatory environment continue to weigh on firms here.

Economic Environment

The domestic economy appears to be moving closer to a possible recession. Investor sentiment has soured over the past year, as turmoil in the credit markets and a weak housing market have been a drag on the broader economy. The weakness in the housing market has hurt companies in this industry, as customer growth has slowed for many Natural Gas Utilities. Oil prices have risen, which has helped offset some of this pressure, as natural gas has become an increasingly popular choice for consumers to meet their energy needs. Given the current turmoil in the world's financial markets, good quality businesses such as these may come increasingly into favor. These equities offer fairly predictable results, solid balance sheets, and above-average yields. Thus, conservative accounts may want to consider some of the stocks in this industry if they are trying to reduce risk in their portfolios.

Regulation

Rate cases are a key theme for the companies in this industry. These firms are regulated by state commissions that dictate the return on equity these companies can achieve. As a result, these utilities tend to register flat bottom-line results from year to year. Notably, numerous firms are in the process of applying for new rates or have cases pending. Therefore, when reading the following pages, investors should pay special attention to this factor as it will likely remain key for these firms going forward. This should be increasingly important if the tough real estate market continues to hinder demand for natural gas. When considering new cases, regulators try to strike a balance between consumer and shareholder interests. Given the recent challenges of this industry, the management of these firms are eagerly

INDUSTRY TIMELINESS: 70 (of 97)

hoping for relief from these commissions in order to boost results.

Business Structure

Companies in this sector have sought various ways to drive profits. One such way has been developing or adding unregulated businesses to their operations. These ventures are not limited by state commissions and possess the potential to drive share-net beyond their typical levels. Currently, this strategy only makes up a small portion of this industry's results. However, it may become an increasingly important long-term opportunity. Another way firms have been trying to boost performance is by improving cost controls. Firms have also been looking to evolve their business model in an effort to create more sustainable growth. Companies have developed new ventures such as the ones mentioned above, while others have added bolt-on acquisitions to improve their position in this mature market. As a result, we believe that there will probably continue to be consolidation in this industry for the foreseeable future. All told, these strategies have been necessary for companies to continue to grow their business.

Weather

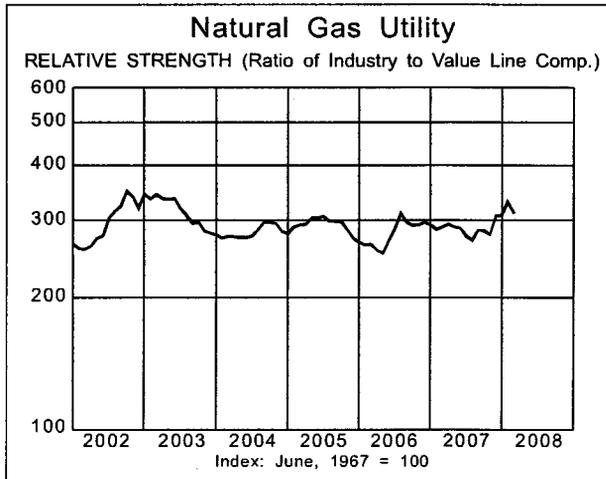
Weather is another factor that firms have to contend with in the Natural Gas Utility industry. Unseasonably warm or cold weather can create increased volatility. As a result, the predictable growth these firms enjoy can be disrupted. Some of these utilities hedge their risk through weather-adjusted rate mechanisms. This can minimize volatility if these weather abnormalities occur. Therefore, investors interested in firms with more stable performance should look for companies that use these strategies.

Investment Consideration

The majority of the stocks in this industry have subpar prospects over the 3- to 5-year pull. Additionally, the lion's share of the equities in this industry are ranked average or lower for Timeliness. Therefore, we believe performance-minded investors should look elsewhere. However, conservative income-oriented accounts may be attracted by these companies' above-average yields.

Richard Gallagher

Composite Statistics: Natural Gas Utility								11-13
2004	2005	2006	2007	2008	2009			
33220	41399	41401	44500	46500	49500	Revenues (\$mill)	61500	
1517.2	1788.8	1823.0	2050	2150	2350	Net Profit (\$mill)	3000	
35.7%	35.8%	36.1%	36.0%	36.0%	36.0%	Income Tax Rate	36.0%	
4.6%	4.3%	4.4%	4.6%	4.6%	4.7%	Net Profit Margin	4.9%	
53.2%	50.7%	52.0%	51.0%	51.0%	51.0%	Long-Term Debt Ratio	52.0%	
45.7%	48.3%	47.0%	48.0%	48.0%	48.0%	Common Equity Ratio	46.0%	
31268	33911	35357	36750	38000	39750	Total Capital (\$mill)	44000	
32053	35030	35944	39000	41000	43000	Net Plant (\$mill)	47500	
6.4%	6.9%	6.7%	7.0%	7.0%	7.5%	Return on Total Cap'l	8.0%	
10.4%	10.7%	10.7%	11.5%	11.5%	12.0%	Return on Shr. Equity	12.5%	
10.5%	10.8%	11.0%	11.5%	11.5%	12.0%	Return on Com Equity	12.5%	
4.0%	4.4%	4.6%	5.2%	5.3%	5.5%	Retained to Com Eq	6.0%	
63%	59%	59%	60%	60%	60%	All Div'ds to Net Prof	60%	
15.6	16.2	15.8				Avg Ann'l P/E Ratio	13.0	
.82	.87	.90				Relative P/E Ratio	.85	
4.0%	3.6%	3.6%				Avg Ann'l Div'd Yield	4.6%	
308%	331%	315%	325%	325%	330%	Fixed Charge Coverage	330%	



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AGL RESOURCES NYSE-ATG

RECENT PRICE **35.54** P/E RATIO **12.4** (Trailing: 13.0, Median: 14.0) RELATIVE P/E RATIO **0.80** DIVD YLD **4.7%** VALUE LINE

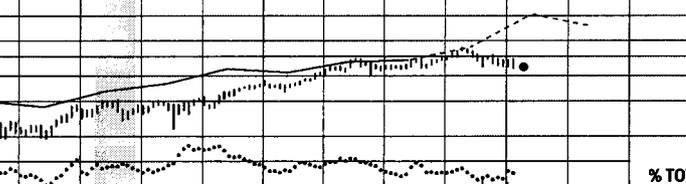
TIMELINESS 3 Raised 3/14/08
SAFETY 2 New 7/27/90
TECHNICAL 3 Raised 12/21/07
BETA .85 (1.00 = Market)

High: 21.6 23.4 23.4 23.2 24.5 25.0 29.3 33.7 39.3 40.1 44.7 39.1
 Low: 17.8 17.7 15.6 15.5 19.0 17.3 21.9 26.5 32.0 34.4 35.2 34.4

Target Price Range 2013
 2011 2012 2013
 128
 96
 80
 64
 48
 40
 32
 24
 16
 12

2011-13 PROJECTIONS
 Price Gain Ann'l Total
 High 55 (+55%) 15%
 Low 40 (+15%) 7%

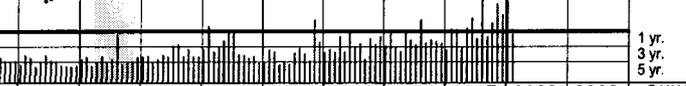
LEGENDS
 - 1.25 x Dividends p sh divided by Interest Rate
 - Relative Price Strength
 - 2-for-1 split 12/95
 - Options: Yes
 - Shaded area indicates recession



% TOT. RETURN 2/08
 THIS STOCK VL ARITH. INDEX
 1 yr. -11.1 -9.3
 3 yr. 13.2 17.1
 5 yr. 91.5 111.9

Insider Decisions
 A M J J A S O N D
 to Buy 0 0 0 0 0 0 0 0 0 0 0 0
 to Sell 0 0 1 0 0 0 0 0 0 0 0 0
 Options 0 0 0 0 0 0 0 0 0 0 0 0

Institutional Decisions
 2Q2007 3Q2007 4Q2007
 to Buy 132 106 128
 to Sell 101 112 99
 Hld's(000) 50323 47302 47469



Percent shares traded
 12
 8
 4

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC. 11-13	
20.43	22.73	23.59	19.32	21.91	22.75	23.36	18.71	11.25	19.04	15.32	15.25	23.89	34.98	33.73	32.64	34.55	36.20	Revenues per sh ^A	41.25
2.31	2.25	2.24	2.33	2.49	2.42	2.65	2.29	2.86	3.31	3.39	3.47	3.29	4.20	4.50	4.77	4.95	5.15	"Cash Flow" per sh	5.65
1.13	1.08	1.17	1.33	1.37	1.37	1.41	.91	1.29	1.50	1.82	2.08	2.28	2.48	2.72	2.72	2.80	2.90	Earnings per sh ^{A B}	3.20
1.03	1.04	1.04	1.04	1.06	1.08	1.08	1.08	1.08	1.08	1.08	1.11	1.15	1.30	1.48	1.64	1.68	1.72	Div'ds Decl'd per sh ^C	1.84
2.74	2.49	2.37	2.17	2.37	2.59	2.05	2.51	2.92	2.83	3.30	2.46	3.44	3.44	3.26	3.39	3.50	3.60	Cap'l Spending per sh	3.65
9.70	9.90	10.19	10.12	10.56	10.99	11.42	11.59	11.50	12.19	12.52	14.66	18.06	19.29	20.71	21.74	22.35	23.05	Book Value per sh ^D	22.50
48.69	49.72	50.86	55.02	55.70	56.60	57.30	57.10	54.00	55.10	56.70	64.50	76.70	77.70	77.70	76.40	76.00	76.00	Common Shs Outst'g ^E	80.00
15.5	17.9	15.1	12.6	13.8	14.7	13.9	21.4	13.6	14.6	12.5	12.5	13.1	14.3	13.5	14.7	14.7	14.7	Avg Ann'l P/E Ratio	15.0
.94	1.06	.99	.84	.86	.85	.72	1.22	.88	.75	.68	.71	.69	.76	.73	.77	.77	.77	Relative P/E Ratio	1.00
5.9%	5.4%	5.9%	6.2%	5.6%	5.4%	5.5%	5.5%	6.2%	4.9%	4.7%	4.3%	3.9%	3.7%	4.0%	4.1%	4.1%	4.1%	Avg Ann'l Div'd Yield	3.8%

CAPITAL STRUCTURE as of 12/31/07
 Total Debt \$2254.0 mill. Due in 5 Yrs \$897.0 mill.
 LT Debt \$1674.0 mill. LT Interest \$95.0 mill.

1338.6	1068.6	607.4	1049.3	868.9	983.7	1832.0	2718.0	2621.0	2494.0	2625	2750	Revenues (\$mill) ^A	3300
80.6	52.1	71.1	82.3	103.0	132.4	153.0	193.0	212.0	210.5	215	225	Net Profit (\$mill)	260
32.5%	33.1%	34.3%	40.7%	36.0%	35.9%	37.0%	37.7%	37.8%	37.6%	38.0%	38.0%	Income Tax Rate	38.0%
6.0%	4.9%	11.7%	7.8%	11.9%	13.5%	8.4%	7.1%	8.1%	8.4%	8.2%	8.2%	Net Profit Margin	7.9%
47.5%	45.3%	45.9%	61.3%	58.3%	50.3%	54.0%	51.9%	50.2%	50.2%	50.0%	50.0%	Long-Term Debt Ratio	50.0%
47.1%	49.2%	48.3%	38.7%	41.7%	49.7%	46.0%	48.1%	49.8%	49.8%	50.0%	50.0%	Common Equity Ratio	50.0%
1388.4	1345.8	1286.2	1736.3	1704.3	1901.4	3008.0	3114.0	3231.0	3335.0	3400	3500	Total Capital (\$mill)	3600
1534.0	1598.9	1637.5	2058.9	2194.2	2352.4	3178.0	3271.0	3436.0	3566.0	3700	3800	Net Plant (\$mill)	4150
7.6%	5.7%	7.4%	6.5%	8.1%	8.9%	6.3%	7.9%	8.0%	7.5%	7.5%	8.0%	Return on Total Cap'l	8.5%
11.1%	7.1%	10.2%	12.3%	14.5%	14.0%	11.0%	12.9%	13.2%	12.7%	12.5%	13.0%	Return on Shr. Equity	14.5%
12.3%	7.9%	11.5%	12.3%	14.5%	14.0%	11.0%	12.9%	13.2%	12.7%	12.5%	13.0%	Return on Com Equity	14.5%
4.4%	NMF	3.2%	4.2%	7.0%	6.6%	5.6%	6.2%	6.3%	5.3%	5.0%	5.5%	Retained to Com Eq	6.5%
64%	101%	72%	65%	52%	53%	49%	52%	52%	58%	59%	58%	All Div'ds to Net Prof	57%

Business: AGL Resources, Inc. is a public utility holding company. Its distribution subsidiaries include Atlanta Gas Light, Chattanooga Gas, and Virginia Natural Gas. The utilities have more than 2.2 million customers in Georgia, Virginia, Tennessee, New Jersey, Florida, and Maryland. Engaged in nonregulated natural gas marketing and other allied services. Also wholesales and retails propane. Deregulated subsidiaries: Georgia Natural Gas markets natural gas at retail. Sold Utilipro, 3/01. Acquired Compass Energy Services, 10/07. Off/dir. own less than 1.0% of common; Barclays Global Investors, 5.0% (3/07 Proxy). Pres. & CEO: John W. Somerhalder II, Inc.: GA. Addr.: Ten Peachtree Place N.E., Atlanta, GA 30309. Telephone: 404-584-4000. Internet: www.aglresources.com.

(Total interest coverage: 3.7x)
 Leases, Uncapitalized Annual rentals \$26.0 mill.

AGL Resources reported solid performance for the fourth quarter. Revenues declined slightly in the recent interim. However, the company enjoyed lower operating costs, and the bottom-line improved considerably. But share earnings for 2007 as a whole only matched the prior year's figure, owing to unfavorable comparisons in the first and third quarters. Operating earnings were lower at the company's Wholesale Services business, resulting from a significant decrease in commercial activity due to lower volatility in the natural gas market during the year. Performance was supported by solid earnings growth in the company's Distribution Operations, and a strong bottom-line advance in its Retail Energy Operations. The Distribution business benefited from modest customer growth and higher base rates at Chattanooga Gas. The Retail Energy line experienced higher average customer usage, a greater customer base, and increased late payment fees.

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Pension Assets-12/07 \$383.0 mill.
 Oblig. \$427.0 mill.

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Pfd Stock None
 Common Stock 76,439,305 shs. as of 1/31/08

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MARKET CAP: \$2.7 billion (Mid Cap)

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CURRENT POSITION (\$MILL)

	2005	2006	12/31/07
Cash Assets	30.0	20.0	21.0
Other	2002.0	1802.0	1790.0
Current Assets	2032.0	1822.0	1811.0
Accts Payable	264.0	213.0	172.0
Debt Due	522.0	539.0	580.0
Other	1153.0	875.0	893.0
Current Liab.	1939.0	1627.0	1645.0
Fix. Chg. Cov.	442%	397%	391%

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ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	3.5%	13.5%	3.5%
"Cash Flow"	5.5%	7.0%	4.0%
Earnings	7.0%	15.0%	3.5%
Dividends	2.5%	4.0%	4.0%
Book Value	6.5%	10.5%	1.5%

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QUARTERLY REVENUES (\$ mill.)

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	908	430	387	993	2718
2006	1044	436	434	707	2621
2007	973	467	369	685	2494
2008	1000	475	400	750	2625
2009	1025	500	425	800	2750

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EARNINGS PER SHARE ^B

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	1.14	.30	.19	.85	2.48
2006	1.41	.25	.46	.60	2.72
2007	1.29	.40	.17	.86	2.72
2008	1.35	.35	.30	.80	2.80
2009	1.35	.40	.35	.80	2.90

AGL Resources reported solid performance for the fourth quarter. Revenues declined slightly in the recent interim. However, the company enjoyed lower operating costs, and the bottom-line improved considerably. But share earnings for 2007 as a whole only matched the prior year's figure, owing to unfavorable comparisons in the first and third quarters. Operating earnings were lower at the company's Wholesale Services business, resulting from a significant decrease in commercial activity due to lower volatility in the natural gas market during the year. Performance was supported by solid earnings growth in the company's Distribution Operations, and a strong bottom-line advance in its Retail Energy Operations. The Distribution business benefited from modest customer growth and higher base rates at Chattanooga Gas. The Retail Energy line experienced higher average customer usage, a greater customer base, and increased late payment fees.

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QUARTERLY DIVIDENDS PAID ^C

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.28	.29	.29	.29	1.15
2005	.31	.31	.31	.37	1.30
2006	.37	.37	.37	.37	1.48
2007	.41	.41	.41	.41	1.64

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(A) Fiscal year ends December 31st. Ended September 30th prior to 2002.
 (B) Diluted earnings per share. Excl. nonrecurring gains (losses): '95, (\$0.83); '99, \$0.39; '00, \$0.13; '01, \$0.13; '03, (\$0.07). Next earnings report due late April/early May.
 (C) Dividends historically paid early March, June, Sept., and Dec. ■ Div'd reinvest. plan available.

(D) Includes intangibles. In 2007: \$420 million, \$5.50/share.
 (E) In millions, adjusted for stock split.

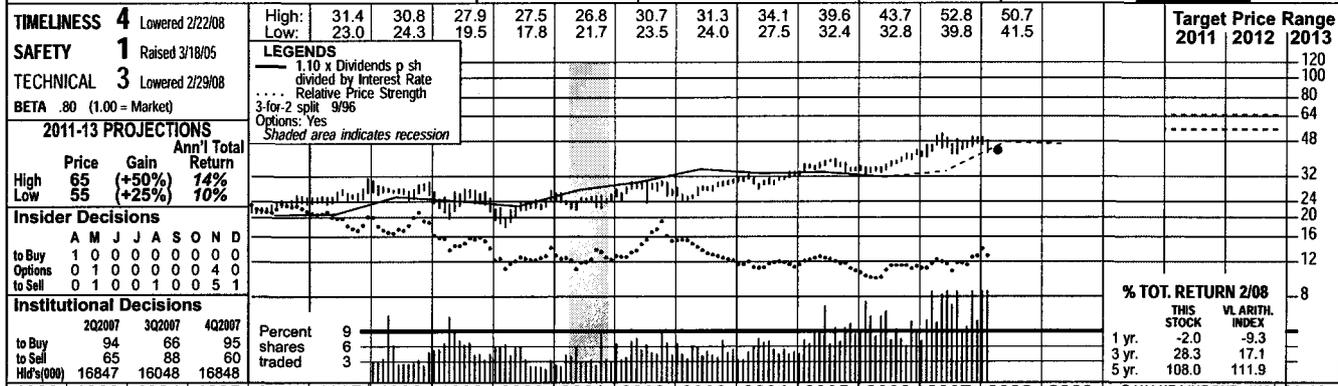
Company's Financial Strength B++
Stock's Price Stability 100
Price Growth Persistence 70
Earnings Predictability 80

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N.W. NAT'L GAS NYSE:NWN

RECENT PRICE **43.28** P/E RATIO **17.2** (Trailing: 16.1; Median: 16.0) RELATIVE P/E RATIO **1.11** DIVD YLD **3.6%** VALUE LINE



Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Price	14.10	18.15	18.30	16.02	16.86	15.82	16.77	18.17	21.09	25.78	25.07	23.57	25.69	33.01	37.20	39.12	41.35	42.90	41.35	42.90	48.20	120
Gain	3.25	3.74	3.50	3.41	3.86	3.72	3.24	3.72	3.68	3.86	3.65	3.85	3.92	4.34	4.76	5.41	5.40	5.70	5.40	5.70	6.60	100
Return	.74	1.74	1.63	1.61	1.97	1.76	1.02	1.70	1.79	1.88	1.62	1.76	1.86	2.11	2.35	2.76	2.60	2.75	2.60	2.75	3.35	80
Options	1.15	1.17	1.17	1.18	1.20	1.21	1.22	1.23	1.24	1.25	1.26	1.27	1.30	1.32	1.39	1.44	1.52	1.60	1.60	1.60	1.88	64
Cap'l Spending	3.73	3.61	4.23	3.02	3.70	5.07	4.02	4.78	3.46	3.23	3.11	4.90	5.52	3.48	3.56	4.48	4.60	6.80	6.80	6.80	4.50	48
Book Value	12.41	13.08	13.63	14.55	15.37	16.02	16.59	17.12	17.93	18.56	18.88	19.52	20.64	21.28	21.97	22.52	23.00	23.75	23.75	23.75	26.50	32
Common Shs Outs'g	19.46	19.77	20.13	22.24	22.56	22.86	24.85	25.09	25.23	25.23	25.59	25.94	27.55	27.58	27.28	26.41	26.00	26.00	26.00	26.00	28.00	24
Avg Ann'l P/E Ratio	27.0	12.9	13.0	12.9	11.7	14.4	26.7	14.5	12.4	12.9	17.2	15.8	16.7	17.0	15.9	16.7	16.7	16.7	16.7	16.7	18.0	20
Relative P/E Ratio	1.64	.76	.85	.86	.73	.83	1.39	.83	.81	.66	.94	.90	.88	.91	.86	.88	.88	.88	.88	.88	1.20	16
Avg Ann'l Div'd Yield	5.7%	5.2%	5.5%	5.7%	5.2%	4.8%	4.5%	5.0%	5.6%	5.1%	4.5%	4.6%	4.2%	3.7%	3.7%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	8

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Revenues per sh	41.10	48.15	48.30	46.02	46.86	45.82	46.77	48.17	51.09	55.78	55.07	53.57	55.69	63.01	67.20	69.12	71.35	72.90	71.35	72.90	82.00	11-13
"Cash Flow" per sh	3.25	3.74	3.50	3.41	3.86	3.72	3.24	3.72	3.68	3.86	3.65	3.85	3.92	4.34	4.76	5.41	5.40	5.70	5.40	5.70	6.60	
Earnings per sh	.74	1.74	1.63	1.61	1.97	1.76	1.02	1.70	1.79	1.88	1.62	1.76	1.86	2.11	2.35	2.76	2.60	2.75	2.60	2.75	3.35	
Div'ds Decl'd per sh	1.15	1.17	1.17	1.18	1.20	1.21	1.22	1.23	1.24	1.25	1.26	1.27	1.30	1.32	1.39	1.44	1.52	1.60	1.60	1.60	1.88	
Cap'l Spending per sh	3.73	3.61	4.23	3.02	3.70	5.07	4.02	4.78	3.46	3.23	3.11	4.90	5.52	3.48	3.56	4.48	4.60	6.80	6.80	6.80	4.50	
Book Value per sh	12.41	13.08	13.63	14.55	15.37	16.02	16.59	17.12	17.93	18.56	18.88	19.52	20.64	21.28	21.97	22.52	23.00	23.75	23.75	23.75	26.50	
Common Shs Outs'g	19.46	19.77	20.13	22.24	22.56	22.86	24.85	25.09	25.23	25.23	25.59	25.94	27.55	27.58	27.28	26.41	26.00	26.00	26.00	26.00	28.00	
Avg Ann'l P/E Ratio	27.0	12.9	13.0	12.9	11.7	14.4	26.7	14.5	12.4	12.9	17.2	15.8	16.7	17.0	15.9	16.7	16.7	16.7	16.7	16.7	18.0	
Relative P/E Ratio	1.64	.76	.85	.86	.73	.83	1.39	.83	.81	.66	.94	.90	.88	.91	.86	.88	.88	.88	.88	.88	1.20	
Avg Ann'l Div'd Yield	5.7%	5.2%	5.5%	5.7%	5.2%	4.8%	4.5%	5.0%	5.6%	5.1%	4.5%	4.6%	4.2%	3.7%	3.7%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Debt	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1	\$660.1
LT Debt	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0	\$512.0
LT Interest	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0	\$31.0
Income Tax Rate	31.0%	35.4%	35.9%	35.4%	34.9%	34.9%	34.9%	34.9%	34.9%	34.9%	34.9%	34.9%	34.9%	34.9%	34.9%	34.9%	34.9%	34.9%	34.9%	34.9%	34.9%	34.9%
Net Profit Margin	6.6%	9.9%	9.0%	7.7%	6.8%	7.5%	6.8%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
Long-Term Debt Ratio	45.0%	46.0%	45.1%	43.0%	47.6%	49.7%	46.0%	47.0%	46.3%	46.3%	46.3%	46.3%	46.3%	46.3%	46.3%	46.3%	46.3%	46.3%	46.3%	46.3%	46.3%	46.3%
Common Equity Ratio	50.6%	49.9%	50.9%	53.2%	51.5%	50.3%	54.0%	53.0%	53.7%	53.7%	53.7%	53.7%	53.7%	53.7%	53.7%	53.7%	53.7%	53.7%	53.7%	53.7%	53.7%	53.7%
Total Capital (\$mill)	815.6	861.5	887.8	880.5	937.3	1006.6	1108.4	1116.5	1108.8	1116.5	1108.8	1116.5	1108.8	1116.5	1108.8	1116.5	1108.8	1116.5	1108.8	1116.5	1108.8	1116.5
Net Plant (\$mill)	894.7	895.9	934.0	965.0	995.6	1205.9	1318.4	1373.4	1425.1	1495.9	1550	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Return on Total Cap'l	5.0%	6.8%	6.7%	6.9%	5.9%	5.7%	5.9%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Return on Shr. Equity	6.1%	9.7%	9.8%	10.0%	8.9%	9.1%	8.9%	9.9%	10.9%	12.5%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%
Return on Com Equity	6.0%	9.9%	10.0%	10.2%	8.5%	9.0%	8.9%	9.9%	10.9%	12.5%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%
Retained to Com Eq	NMF	2.8%	3.1%	3.5%	1.9%	2.6%	2.7%	3.7%	4.5%	6.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
All Div'ds to Net Prof	118%	74%	70%	67%	79%	72%	69%	63%	59%	52%	58%	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%

CAPITAL STRUCTURE as of 12/31/07
 Total Debt \$660.1 mill. Due in 5 Yrs \$179.7 mill.
 LT Debt \$512.0 mill. LT Interest \$31.0 mill.
 (Total interest coverage: 3.5x)

Pension Assets-12/06 \$236 mill.
 Oblig. \$269 mill.
 Pfd Stock None

Common Stock 26,407,000 shs.

MARKET CAP \$1.1 billion (Mid Cap)

Year	2005	2006	12/31/07
Cash Assets	7.1	5.8	6.1
Other	316.6	303.0	268.8
Current Assets	323.7	308.8	274.9
Accts Payable	135.3	113.6	119.7
Debt Due	134.7	129.6	148.1
Other	56.6	96.3	122.1
Current Liab.	326.6	341.5	389.9
Fx. Chg. Cov.	340%	349%	NMF

Year	2005	2006	2007	2008	2009
Revenues	6.5%	8.0%	6.5%	6.5%	6.5%
"Cash Flow"	2.0%	3.0%	5.0%	5.0%	5.0%
Earnings	2.0%	3.5%	7.0%	7.0%	7.0%
Dividends	1.0%	1.5%	5.5%	5.5%	5.5%
Book Value	4.0%	3.5%	3.5%	3.5%	3.5%

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	308.7	153.7	106.7	341.4	910.5
2006	390.4	171.0	114.9	336.9	1013.2
2007	394.1	183.2	124.2	331.7	1033.2
2008	405	190	125	355	1075
2009	415	200	130	370	1115

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	1.44	.04	d.31	.94	2.11
2006	1.48	.07	d.35	1.15	2.35
2007	1.77	.10	d.22	1.11	2.76
2008	1.60	.10	d.30	1.20	2.60
2009	1.70	.10	d.30	1.25	2.75

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.325	.325	.325	.325	1.30
2005	.325	.325	.325	.345	1.32
2006	.345	.345	.345	.355	1.39
2007	.355	.355	.355	.375	1.44
2008	.375				

(A) Diluted earnings per share. Excludes non-recurring items: '98, \$0.15; '00, \$0.11; '06, \$(0.06). Next earnings report due late April.
 (B) Dividends historically paid in mid-February.
 (C) In millions, adjusted for stock split.

mid-May, mid-August, and mid-November.
 ■ Dividend reinvestment plan available.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	65
Earnings Predictability	80

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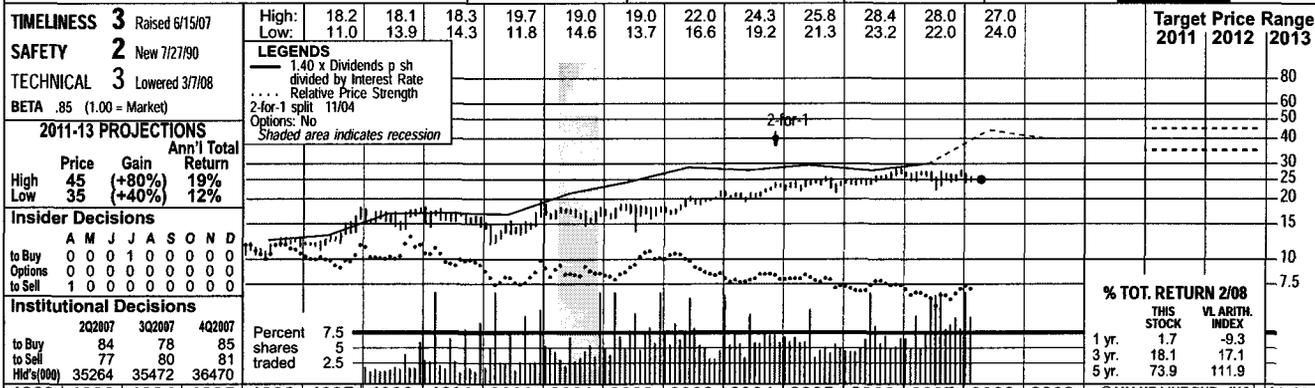
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fruit this year. Operating costs, which rose just 1% on a normalized basis last year, will likely grow slower than revenues. **Another mild earnings gain is likely in 2009.** By then, customer growth will probably be heading back toward the recent 3% average. Northwest will have completed its work reorganization program, including outsourcing some functions and centralizing others. And the company could start to benefit from enhanced automated meter-reading capacity. **Continued customer growth and two large projects should help boost earnings toward the end of our time horizon.** Portland's high-density zoning has been expanded many times over the last 30 years, making it profitable to lay gas mains. An expansion to the southeast of the city should add substantially to customer growth over the next 10 years. And by 2011, NWN will probably invest around \$300 million in a gas storage project in California and a new pipeline in Oregon. **These top-quality shares, though untimely, have worthwhile risk-adjusted total-return potential.**

Sigourney B. Romaine March 14, 2008

PIEDMONT NAT'L GAS NYSE-PNY

RECENT PRICE **24.98** P/E RATIO **16.7** (Trailing: 17.8 Median: 17.8) RELATIVE P/E RATIO **1.08** DIV'D YLD **4.0%** VALUE LINE



Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Price	8.91	10.57	10.82	8.76	11.59	12.84	12.45	10.97	13.01	17.06	12.57	18.14	19.95	22.96	25.80	23.37	24.20	24.95	27.55
Gain	1.07	1.14	1.13	1.25	1.49	1.62	1.72	1.70	1.77	1.81	1.81	2.04	2.31	2.43	2.51	2.64	2.75	2.80	3.00
Return	.70	.73	.68	.73	.84	.93	.98	.93	1.01	1.01	.95	1.11	1.27	1.32	1.28	1.40	1.50	1.55	1.75
Div'd	.46	.48	.51	.54	.57	.61	.64	.68	.72	.76	.80	.82	.85	.91	.95	.99	1.04	1.08	1.20
Cap'l	1.41	1.58	1.95	1.72	1.64	1.52	1.48	1.58	1.65	1.29	1.21	1.16	1.85	2.50	2.74	1.85	2.00	2.05	2.30
Book	5.13	5.45	5.68	6.16	6.53	6.95	7.45	7.86	8.26	8.63	8.91	9.36	11.15	11.53	11.83	11.99	12.45	12.85	14.30
Outst'g	51.59	52.30	53.15	57.67	59.10	60.39	61.48	62.59	63.83	64.93	66.18	67.31	76.67	76.70	74.61	73.23	73.00	72.75	72.00
Avg Ann'l P/E	12.3	15.4	15.7	13.8	13.9	13.6	16.3	17.7	14.3	16.7	18.4	16.7	16.6	17.9	19.2	18.7	18.7	18.7	22.0
Relative P/E	.75	.91	1.03	.92	.87	.78	.85	1.01	.93	.86	1.01	.95	.88	.95	1.04	.98	1.04	1.04	1.50
Avg Ann'l Div'd Yld	5.3%	4.3%	4.8%	5.4%	4.9%	4.8%	4.0%	4.1%	5.0%	4.5%	4.6%	4.4%	4.1%	3.8%	3.9%	3.8%	3.9%	3.8%	3.1%

CAPITAL STRUCTURE as of 10/31/07
 Total Debt \$1019.9 mill. Due in 5 Yrs \$150.0 mill.
 LT Debt \$824.9 mill. LT Interest \$55.7 mill.
 (LT interest earned: 4.0x; total interest coverage: 4.0x)

Pension Assets-10/07 \$225.0 mill.
 Oblig. \$188.7 mill.

Pfd Stock None

Common Stock 73,233,664 shs. as of 12/20/07
MARKET CAP: \$1.8 billion (Mid Cap)

Year	2005	2006	10/31/07
Cash Assets	7.1	8.9	7.5
Other	497.8	467.1	427.8
Current Assets	504.9	476.0	435.3
Accts Payable	182.8	80.3	97.2
Debt Due	193.5	170.0	195.0
Other	152.3	150.1	132.3
Current Liab.	528.6	400.4	424.5
Fix. Chg. Cov.	271%	261%	225%

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Revenues per sh	27.55	27.55	27.55	27.55	27.55	27.55	27.55	27.55	27.55	27.55	27.55	27.55	27.55
"Cash Flow" per sh	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Earnings per sh	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Div'ds Decl'd per sh	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
Cap'l Spending per sh	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30
Book Value per sh	14.30	14.30	14.30	14.30	14.30	14.30	14.30	14.30	14.30	14.30	14.30	14.30	14.30
Common Shs Outst'g	72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00
Avg Ann'l P/E Ratio	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
Relative P/E Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Avg Ann'l Div'd Yld	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%

Fiscal Year	2005	2006	10/31/07
Revenues	8.0%	11.0%	2.5%
"Cash Flow"	5.5%	7.0%	3.0%
Earnings	5.0%	6.0%	5.0%
Dividends	5.0%	4.5%	4.0%
Book Value	6.0%	6.5%	3.5%

Fiscal Year	2005	2006	2007	2008	2009
Jan.31	680.6	508.0	232.9	339.6	1761.1
Apr.30	921.4	483.2	237.9	282.1	1924.7
Jul.31	677.2	531.5	224.4	278.2	1711.3
Oct.31	685	540	240	300	1765
Full Fiscal Year	697	553	250	315	1815

BUSINESS: Piedmont Natural Gas Company is primarily a regulated natural gas distributor, serving over 932,097 customers in North Carolina, South Carolina, and Tennessee. 2007 revenue mix: residential (54%), commercial (30%), industrial (14%), other (2%). Principal suppliers: Transco and Tennessee Pipeline. Gas costs: 69.4% of revenues. '07 deprec. rate: 3.4%. Estimated plant age: 8.7 years. Non-regulated operations: sale of gas-powered heating equipment, natural gas brokering; propane sales. Has about 1,876 employees. Officers & directors own less than 1% of common stock (1/08 proxy). Chairman, CEO, & President: Thomas E. Skains, Inc.: NC. Addr.: 4720 Piedmont Row Drive, Charlotte, NC 28210. Telephone: 704-364-3120. Internet: www.piedmontng.com.

Fiscal Year	2005	2006	2007	2008	2009
Jan.31	.93	.52	d.06	d.07	1.32
Apr.30	.94	.57	d.16	d.08	1.27
Jul.31	.94	.69	d.12	d.11	1.40
Oct.31	.95	.70	d.10	d.05	1.50
Full Fiscal Year	1.00	.75	d.13	d.07	1.55

Piedmont Natural Gas likely posted relatively unchanged earnings for the first quarter (ended January 31st). The company was scheduled to report earnings for its January interim after this report went to press. We have ratcheted down our top-line estimate for 2008, though, we look for some progress this year. During the first quarter, Piedmont's revenues likely advanced in the low single-digit range. The reduced expectations stem from slower growth in the residential construction market. Subsequently, in an effort to increase volumes, PNY has been working on converting users of other types of energy to natural gas. Meanwhile, the fourth quarter of 2007 experienced warmer-than-normal weather. But that interim is not subject to the weather normalization clause (WNC) for its Tennessee and South Carolina service areas. The WNC protects the bottom line against decreased usage. The adjustment should help during the January interim, though. Overall, we look for a nominal advance in share net for the first quarter. **The company ought to experience better volume comparisons as the year progresses.** And its revenues ought to advance approximately 3% this year and next. Efforts to gain customers from the conversion markets should help this cause. Furthermore, the company intends to file a general rate case in North Carolina, its largest service area. Meanwhile, its non-utility business ought to pick up steam as the Hardy Storage joint venture (JV) contributes to both top and bottom lines for the whole of 2008. And, we expect solid performance to persist from its South Star Energy JV. **All told, we look for the bottom line to advance 7% and 3% for this year and next, respectively.** This ought to stem from continued investments in its natural gas infrastructure. Further streamlining and consolidation of business processes and operations should help maintain margins, as well. **The equity offers a solid dividend yield and decent total return potential to 2011-2013.** Meanwhile, these shares are ranked to perform in line with the broader market averages for the year ahead.

Cal-endar	2004	2005	2006	2007	2009
Mar.31	.208	.215	.215	.215	.85
Jun.30	.215	.23	.23	.23	.91
Sep.30	.23	.24	.24	.24	.95
Dec.31	.24	.25	.25	.25	.99
Full Year					

(A) Fiscal year ends October 31st. (B) Diluted earnings. Excl. extraordinary item: '00, '86. Excl. non-recurring charge: '97, '24. Next earnings report due early May. (C) Dividends historically paid mid-January, April, July, October. (D) Includes deferred charges. In 2007: \$23.9 million, 33¢/share. (E) In millions, adjusted for stock split. (F) Quarters may not add to total due to change in shares outstanding.

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Company's Financial Strength B++
Stock's Price Stability 100
Price Growth Persistence 55
Earnings Predictability 80
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Bryan Fong March 14, 2008

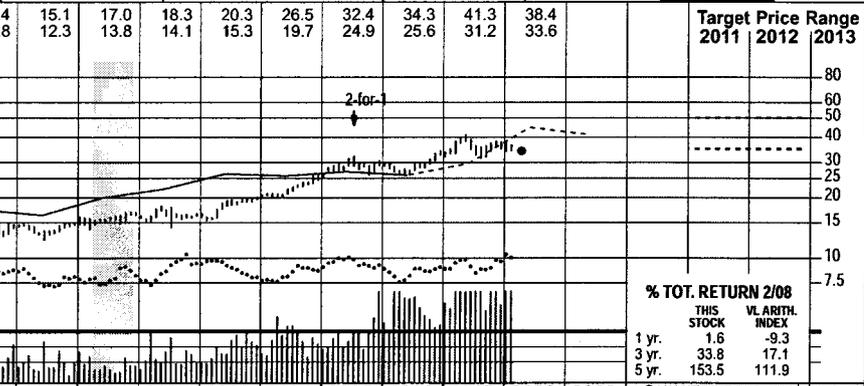
SOUTH JERSEY INDS. NYSE-SJI

RECENT PRICE **34.23** P/E RATIO **15.3** (Trailing: 17.5; Median: 14.0) RELATIVE P/E RATIO **0.99** DIV'D YLD **3.2%** VALUE LINE

TIMELINESS 4 Lowered 9/14/07
SAFETY 2 Lowered 1/14/91
TECHNICAL 2 Raised 3/14/08
BETA .80 (1.00 = Market)

2011-13 PROJECTIONS

Price	Gain	Ann'l Total
High 50	(+45%)	Return 12%
Low 35	(Nil)	4%



Insider Decisions

	A	M	J	A	S	O	N	D
to Buy	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0
to Sell	0	3	0	0	1	0	0	0

Institutional Decisions

	2Q2007	3Q2007	4Q2007
to Buy	69	67	66
to Sell	64	58	59
Hld's(1000)	16955	16787	16995

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC. 11-13			
Revenues per sh	16.67	17.03	17.45	16.50	16.52	16.18	20.89	17.60	22.43	35.30	20.69	26.34	29.51	31.78	31.76	32.29	34.35	36.05	39.05			
"Cash Flow" per sh	1.56	1.54	1.35	1.65	1.54	1.60	1.44	1.84	1.95	1.90	2.12	2.24	2.44	2.51	3.51	3.03	3.20	3.50	4.05			
Earnings per sh ^A	.81	.78	.61	.83	.85	.86	.64	1.01	1.08	1.15	1.22	1.37	1.58	1.71	2.46	2.09	2.25	2.45	3.00			
Div'ds Decl'd per sh ^B	.71	.72	.72	.72	.72	.72	.72	.72	.73	.74	.75	.78	.82	.86	.92	1.01	1.10	1.16	1.28			
Cap'l Spending per sh	1.69	1.87	1.93	2.08	2.01	2.30	3.06	2.19	2.21	2.82	3.47	2.36	2.67	3.21	2.51	1.87	2.15	2.45	3.15			
Book Value per sh ^C	6.95	7.17	7.23	7.34	8.03	6.43	6.23	6.74	7.25	7.81	9.67	11.26	12.41	13.50	15.11	16.24	17.35	18.35	20.30			
Common Shs Outst'g ^D	19.00	19.61	21.43	21.44	21.51	21.54	21.56	22.30	23.00	23.72	24.41	26.46	27.76	28.98	29.33	29.62	30.00	30.50	32.00			
Avg Ann'l P/E Ratio	13.2	15.8	16.1	12.2	13.3	13.8	21.2	13.3	13.0	13.6	13.5	13.3	14.1	16.6	11.9	17.2	17.2	17.2	14.0			
Relative P/E Ratio	.80	.93	1.06	.82	.83	.80	1.10	.76	.85	.70	.74	.76	.74	.88	.64	.90	1.00	1.00	.95			
Avg Ann'l Div'd Yield	6.6%	5.9%	7.4%	7.2%	6.4%	6.1%	5.3%	5.4%	5.2%	4.7%	4.6%	4.3%	3.7%	3.0%	3.2%	2.8%	3.0%	3.0%	3.0%			

CAPITAL STRUCTURE as of 12/31/07
 Total Debt \$476.3 mill. Due in 5 Yrs \$156.1 mill.
 LT Debt \$357.9 mill. LT Interest \$21.0 mill.
 (Total interest coverage: 4.8x)

Pension Assets-12/07 \$120.4 mill.
 Oblig. \$133.0 mill.

Pfd Stock none

Common Stock 29,624,492 common shs. as of 2/23/08

MARKET CAP: \$1.0 billion (Mid Cap)

450.2	392.5	515.9	837.3	505.1	696.8	819.1	921.0	931.4	956.4	1030	1100	1250	1250	Revenues (\$mill)	1250
13.8	22.0	24.7	26.8	29.4	34.6	43.0	48.6	72.0	61.9	67.5	75.0	95.0	95.0	Net Profit (\$mill)	95.0
46.2%	42.8%	43.1%	42.2%	41.4%	40.6%	40.9%	41.5%	41.3%	40.7%	40.0%	40.0%	40.0%	40.0%	Income Tax Rate	40.0%
3.1%	5.6%	4.8%	3.2%	5.8%	5.0%	5.2%	5.3%	7.7%	6.5%	6.6%	6.8%	7.6%	7.6%	Net Profit Margin	7.6%
57.3%	53.8%	54.1%	57.0%	53.6%	50.8%	48.7%	44.9%	44.7%	42.7%	41.5%	40.5%	41.0%	41.0%	Long-Term Debt Ratio	41.0%
33.5%	37.0%	37.6%	35.9%	46.1%	49.0%	51.0%	55.1%	55.3%	57.3%	58.5%	59.5%	59.0%	59.0%	Common Equity Ratio	59.0%
401.1	405.9	443.5	516.2	512.5	608.4	675.0	710.3	801.1	839.0	890	945	1100	1100	Total Capital (\$mill)	1100
504.3	533.3	562.2	607.0	666.6	748.3	799.9	877.3	920.0	948.9	980	1015	1200	1200	Net Plant (\$mill)	1200
5.3%	7.4%	7.4%	6.9%	7.6%	7.3%	7.9%	8.3%	10.1%	8.5%	9.0%	9.0%	10.0%	10.0%	Return on Total Cap'l	10.0%
8.1%	11.7%	12.1%	12.1%	12.4%	11.5%	12.4%	12.4%	16.3%	12.9%	13.0%	13.5%	14.5%	14.5%	Return on Shr. Equity	14.5%
10.3%	14.6%	14.8%	12.8%	12.5%	11.6%	12.5%	12.4%	16.3%	12.9%	13.0%	13.5%	14.5%	14.5%	Return on Com Equity	14.5%
NMF	4.2%	4.8%	3.5%	4.7%	5.0%	5.9%	6.2%	10.2%	6.7%	6.5%	7.0%	8.5%	8.5%	Retained to Com Eq	8.5%
112%	72%	67%	76%	62%	57%	52%	50%	37%	48%	49%	47%	43%	43%	All Div'ds to Net Prof	43%

CURRENT POSITION (\$MILL.)

	2005	2006	12/31/07
Cash Assets	4.9	7.9	11.7
Other	352.6	363.8	316.6
Current Assets	357.5	371.7	328.3
Accnts Payable	179.0	101.6	101.2
Debt Due	149.7	197.0	118.4
Other	74.4	124.2	108.7
Current Liab.	403.1	422.8	328.3
Fix. Chg. Cov.	486%	527%	476%

ANNUAL RATES

	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	6.5%	4.5%	3.5%
"Cash Flow"	6.5%	8.5%	NMF
Earnings	9.5%	12.0%	NMF
Dividends	2.0%	3.5%	5.5%
Book Value	6.0%	13.5%	5.0%

QUARTERLY REVENUES (\$ mill.)

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	328.6	154.0	157.0	281.4	921.0
2006	372.6	153.8	154.7	250.3	931.4
2007	368.4	171.7	156.2	260.1	956.4
2008	390	190	170	280	1030
2009	405	205	190	300	1100

EARNINGS PER SHARE ^A

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	.96	.27	.09	.39	1.71
2006	1.06	.20	.51	.69	2.46
2007	1.30	.21	d.05	.63	2.09
2008	1.25	.25	.10	.65	2.25
2009	1.30	.30	.15	.70	2.45

QUARTERLY DIVIDENDS PAID ^B

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	--	.202	.202	.415	.82
2005	--	.213	.213	.438	.86
2006	--	.225	.225	.470	.92
2007	--	.245	.245	.515	1.01

BUSINESS: South Jersey Industries, Inc. is a holding company. Its subsidiary, South Jersey Gas Co., distributes natural gas to 335,663 customers in New Jersey's southern counties, which covers 2,500 square miles and includes Atlantic City. Gas revenue mix '07: residential, 46%; commercial, 23%; cogeneration and electric generation, 8%; industrial, 23%. Non-utility operations include: South Jersey Energy, South Jersey Resources Group, Marina Energy, and South Jersey Energy Service Plus. Has 604 employees. Off/dir. cntrl. 1.2% of com. shares; Dimensional Fund Advisors, 8.3%; Barclays, 6.0% (3/07 proxy). Chrmn. & CEO: Edward Graham. Incorp.: NJ. Address: 1 South Jersey Plaza, Folsom, NJ 08037. Tel.: 609-561-9000. Internet: www.sjindustries.com.

South Jersey Industries reported a modest advance in revenues for 2007, although economic earnings increased roughly 14%. Utility South Jersey Gas benefited from continued growth in the customer base and lower interest costs. The company's nonutility operations also posted a solid performance. Readers are advised that our earnings-per-share figures are now based on economic earnings, a non-GAAP measure that excludes unrealized gains and losses from commodity derivative transactions. Thus, the share-net figures from 2007 onward are not directly comparable with those from previous years.

The company has solid long-term prospects. Natural gas remains the fuel of choice in the markets served by South Jersey Gas, as it enjoys a considerable price advantage over alternatives. Indeed, the vast majority of new homes built have chosen natural gas as their main heating source. Moreover, the company expects economic development in the Atlantic City area will boost housing demand in the coming years. In addition, this business ought to continue to benefit from the Conservation Incentive Program (CIP). This initiative allows South Jersey to promote energy conservation and insulate itself from the negative impact of lower customer usage. The CIP protected \$7.5 million of net income during 2007, offsetting reduced customer utilization. Elsewhere, the performance of the nonutility Commodity Marketing business should continue to have an important impact on earnings. This unit maintains 10 billion cubic feet of gas storage capacity, which allows it to take advantage of volatility in natural gas pricing and lock in attractive profit margins. Looking forward, we anticipate moderate share-earnings and dividend growth in the current year. This pattern seems likely to continue in 2009, as well.

These shares are ranked to lag the broader market for the coming six to 12 months. Looking further out, we project solid bottom-line growth at South Jersey over the pull to 2011-2013. Moreover, this issue scores high marks for Price Stability and Earnings Predictability. Thus, this stock offers worthwhile total return potential for a natural gas utility.

Michael Napoli, CPA *March 14, 2008*

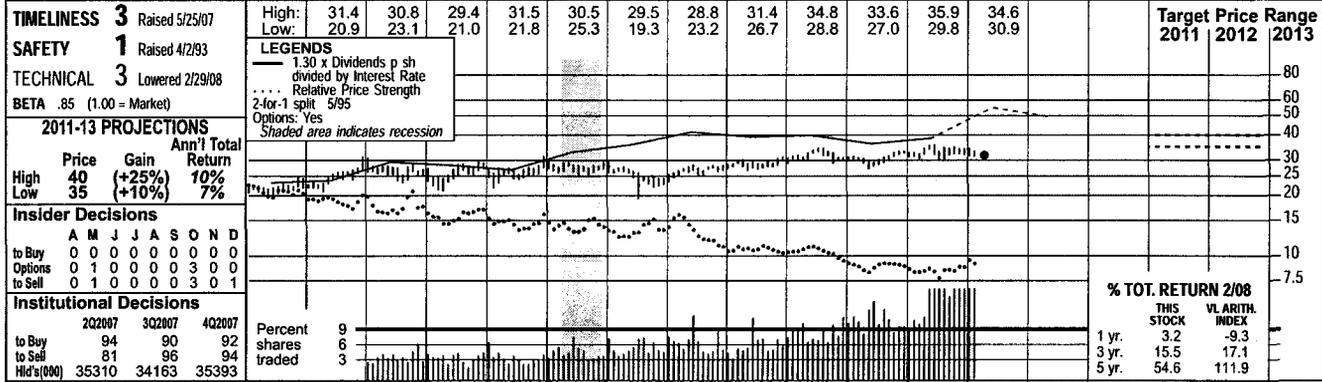
(A) Based on GAAP EPS through 2006, economic earnings thereafter. GAAP EPS: '07, \$2.10. Excl. nonrecr. gain: '01, \$0.13. Excl. gain (losses) from discount. ops.: '96, \$1.14; '97, (\$0.24); '98, (\$0.26); '99, (\$0.02); '00, (\$0.04); '01, (\$0.02); '02, (\$0.04); '03, (\$0.09); '05, (\$0.02); '06, (\$0.02). Next egs. report due late April. (B) Div'ds paid early Apr., Jul., Oct., and late Dec. ■ Div. reinvest. plan avail. (C) Incl. regulatory assets. In 2007: \$188.7 mill., \$6.37 per sh. (D) In millions, adjusted for split.

Company's Financial Strength B++
Stock's Price Stability 100
Price Growth Persistence 95
Earnings Predictability 85

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WGL HOLDINGS NYSE-WGL

RECENT PRICE **31.83** P/E RATIO **13.8** (Trailing: 14.9 Median: 15.0) RELATIVE P/E RATIO **0.89** DIVD YLD **4.3%** VALUE LINE



1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC. 11-13	
18.37	21.55	21.69	19.30	22.19	24.16	23.74	20.92	22.19	29.80	32.63	42.45	42.93	44.94	53.96	53.51	54.55	56.05	Revenues per sh ^A	60.70
2.17	2.25	2.43	2.51	2.93	3.02	2.79	2.74	3.20	3.24	2.63	4.00	3.87	3.97	3.93	3.89	4.15	4.25	"Cash Flow" per sh	4.50
1.27	1.31	1.42	1.45	1.85	1.85	1.54	1.47	1.79	1.88	1.14	2.30	1.98	2.11	1.94	2.10	2.30	2.35	Earnings per sh ^B	2.50
1.07	1.09	1.11	1.12	1.14	1.17	1.20	1.22	1.24	1.26	1.27	1.28	1.30	1.32	1.34	1.37	1.40	1.44	Div'ds Decl'd per sh ^C	1.56
2.17	2.43	2.84	2.63	2.85	3.20	3.62	3.42	2.67	2.68	3.34	2.65	2.33	2.32	3.27	3.33	3.35	3.00	Cap'l Spending per sh	2.50
10.66	11.04	11.51	11.95	12.79	13.48	13.86	14.72	15.31	16.24	15.78	16.25	16.95	17.80	18.28	19.83	21.15	22.00	Book Value per sh ^D	24.95
40.62	41.50	42.19	42.93	43.70	43.70	43.84	46.47	46.47	48.54	48.56	48.63	48.67	48.65	48.89	49.45	49.50	49.60	Common Shs Outs't'g ^E	50.00
13.6	15.6	14.0	12.7	11.5	12.7	17.2	17.3	14.6	14.7	23.1	11.1	14.2	14.7	15.5	15.6	15.6	15.6	Avg Ann'l P/E Ratio	15.0
.82	.92	.92	.85	.72	.73	.89	.99	.95	.75	1.26	.63	.75	.78	.84	.82	.84	.82	Relative P/E Ratio	1.00
6.2%	5.3%	5.6%	6.1%	5.4%	5.0%	4.5%	4.8%	4.8%	4.6%	4.8%	5.0%	4.6%	4.2%	4.5%	4.2%	4.5%	4.2%	Avg Ann'l Div'd Yield	4.2%

CAPITAL STRUCTURE as of 12/31/07
 Total Debt \$941.0 mill. Due in 5 Yrs \$399.5 mill.
 LT Debt \$593.5 mill. LT Interest \$40.1 mill.
 (LT interest earned: 6.7%; total interest coverage: 5.7x)
 Pension Assets-9/07 \$740.7 mill.
 Preferred Stock \$28.2 mill. Pfd. Div'd \$1.3 mill.
 Common Stock 49,464,057 shs. as of 1/31/08
 MARKET CAP: \$1.6 billion (Mid Cap)

CURRENT POSITION

	2006	2007	12/31/07
Cash Assets	4.4	4.9	19.0
Other	556.9	568.8	878.3
Current Assets	561.3	573.7	897.3
Accts Payable	208.5	216.9	331.4
Debt Due	238.4	205.4	347.5
Other	113.9	134.8	237.5
Current Liab.	560.8	557.1	916.4
Fix. Chg. Cov.	465%	460%	460%

BUSINESS: WGL Holdings, Inc. is the parent of Washington Gas Light, a natural gas distributor in Washington, D.C. and adjacent areas of VA and MD to resident'l and comm'l users (1,046,201 meters). Hampshire Gas, a federally regulated sub., operates an underground gas-storage facility in WV. Non-regulated subs.: Wash. Gas Energy Svcs. sells and delivers natural gas and provides energy related products in the D.C. metro area; Wash. Gas Energy Sys. designs/installs comm'l heating, ventilating, and air cond. systems. American Century Inv. own 8.2% of common stock; Off/dir. less than 1% (1/08 proxy). Chrmn. & CEO: J.H. DeGraffenreid. Inc.: D.C. and VA. Addr.: 1100 H St., N.W., Washington, D.C. 20080. Tel.: 202-624-6410. Internet: www.wglholdings.com.

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	9.0%	12.5%	3.0%
"Cash Flow"	3.5%	5.0%	2.5%
Earnings	2.0%	5.0%	3.5%
Dividends	1.5%	1.5%	2.5%
Book Value	4.0%	3.5%	5.0%

WGL Holdings has been experiencing progress with its rate cases. The company recently received approval for a rate hike in the District of Columbia (DOC). The incremental cash flow from the rate hike, which was not expected to be approved until March, added approximately \$0.05 per share to the bottom line in the first quarter (ended December 31st). Furthermore, the earlier-than-expected rate increase has prompted us to raise our annual estimate by 5%, to \$2.30 per share. **The company's earnings will likely get a 2%-3% lift for the March interim.** WGL's gas and light utility division has been experiencing higher usage volumes and system charges as a result of 12,310 new customers. And it is expected to add about 5,200 more accounts by the end of fiscal 2008. Furthermore, the asset management business likely continued to enjoy strong off-system sales as excess reserves are released in order to meet the heightened demand during the colder winter months. These results ought to be partially offset by increased operation and maintenance costs.

approximately 10% this year. Lifts in the top-line volumes ought to stem from the heightened rates in the DOC, additional customer growth, and expansion of the company's asset management program. Meanwhile, gas sales at the Washington Gas Energy Services unit have been down as a result of warmer-than-normal weather patterns. However, this unit's margins have been widening on a per-therm basis, offsetting the lower volumes and boosting the bottom line. **In 2009, the bottom-line increase ought to moderate.** The majority of benefits from efficiency initiatives and the effects of the recent DOC rate hike will have cycled through by next year. Therefore, we look for earnings advances to slow to a low single-digit rate.

These neutrally ranked shares may appeal to income-oriented accounts. The equity offers a solid dividend yield. Meanwhile, the stock garners our Highest Safety rank (1), and our best mark for Price Stability (100), indicating suitability for conservative accounts with an eye on capital preservation.

QUARTERLY REVENUES (\$ mill.) ^A

Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	623.4	929.8	349.0	284.1	2186.3
2006	902.9	1064.5	346.9	323.6	2637.9
2007	732.9	1119.9	467.5	325.7	2646.0
2008	751.6	1140	458.4	350	2700
2009	770	1160	480	370	2780

We look for the share net to advance

Bryan Fong March 14, 2008

EARNINGS PER SHARE ^{A, B}

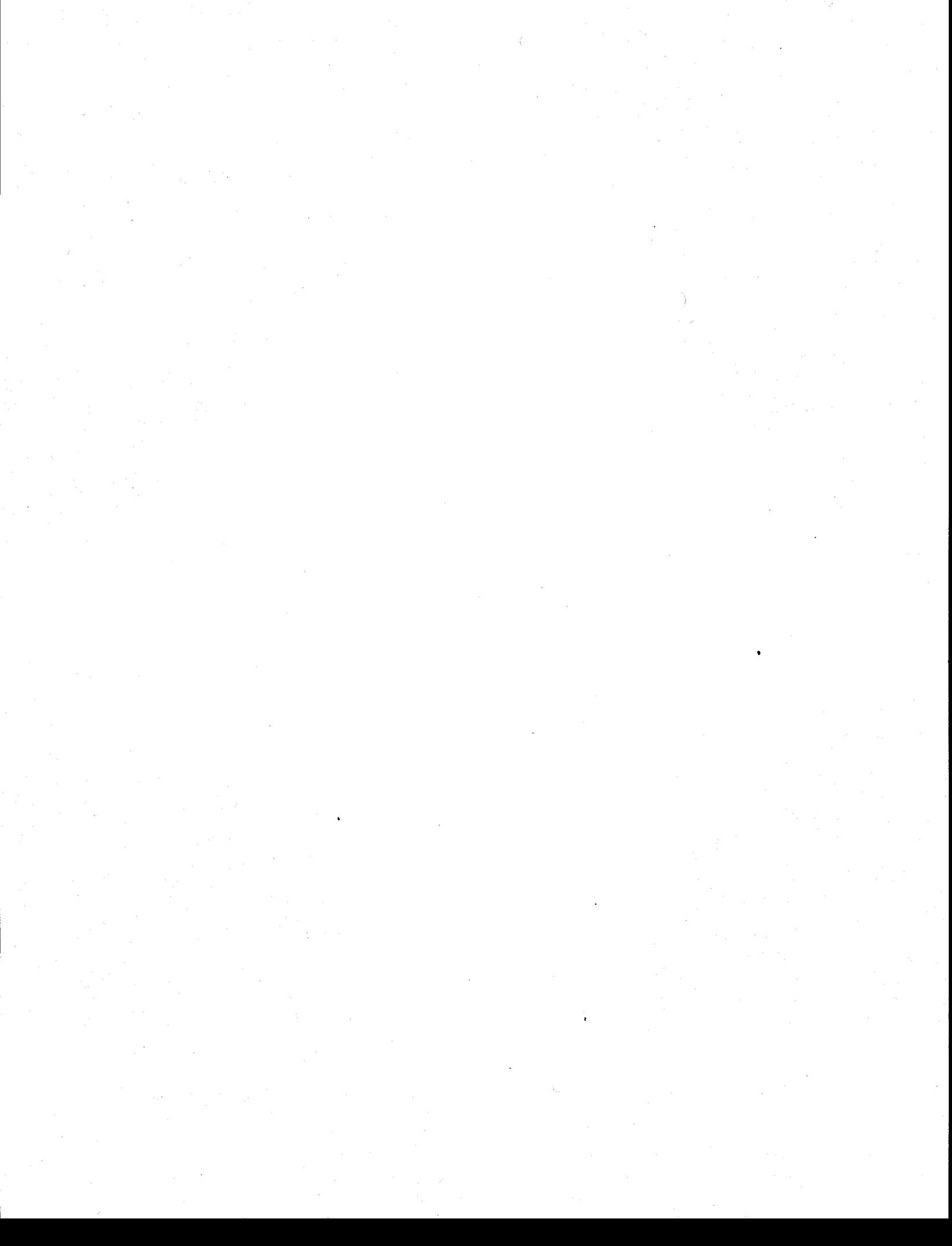
Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	.88	1.63	d.17	d.23	2.11
2006	.93	1.17	d.01	d.15	1.94
2007	.92	1.27	.22	d.31	2.10
2008	.95	1.30	.20	d.15	2.30
2009	.97	1.33	.25	d.20	2.35

QUARTERLY DIVIDENDS PAID ^C

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.32	.325	.325	.325	1.30
2005	.325	.333	.333	.333	1.32
2006	.333	.338	.338	.338	1.34
2007	.34	.34	.34	.34	1.36
2008	.34				

(A) Fiscal years end Sept. 30th. (B) Based on diluted shares. Excludes non-recurring losses: '01, (13¢); '02, (34¢); '07, (4¢) discontinued operations; '06, (15¢). Next earnings report due late April. (C) Dividends historically paid early February, May, August, and November. ■ Dividend reinvestment plan available. (D) Includes deferred charges and intangibles. '07: \$322.2 million, \$6.51/sh. (E) In millions, adjusted for stock split.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	50
Earnings Predictability	65



ATTACHMENT B



Proven Ratings, Research & Recommendations

Zacks.com Quotes and Research

ATLANTA GAS LIGHT (NYSE)					Scottrade
ATG	34.46	▼-0.09	(-0.26%)	Vol. 197,003	13:25 ET

AGL Resources principal business is the distribution of natural gas to customers in central, northwest, northeast and southeast Georgia and the Chattanooga, Tennessee area through its natural gas distribution subsidiary. AGL's major service area is the ten county metropolitan Atlanta area.

General Information

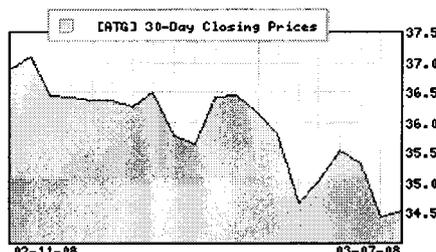
AGL RESOURCES
 Ten Peachtree Place NE
 Atlanta, GA 30309
 Phone: 404 584-4000
 Fax: 404 584-3945
 Web: www.aglresources.com
 Email: scave@aglresources.com

Industry: UTIL-GAS DISTR
 Sector: Utilities

Fiscal Year End: December
 Last Reported Quarter: 12/31/07
 Next EPS Date: 05/07/2008

Price and Volume Information

Zacks Rank	2
Yesterday's Close	34.55
52 Week High	44.67
52 Week Low	34.44
Beta	0.46
20 Day Moving Average	437,597.56
Target Price Consensus	41.95



% Price Change

4 Week	-6.42
12 Week	-4.69
YTD	-8.21

% Price Change Relative to S&P 500

4 Week	-3.68
12 Week	8.18
YTD	4.21

Share Information

Shares Outstanding (millions)	76.44
Market Capitalization (millions)	2,640.97
Short Ratio	1.89
Last Split Date	12/04/1995

Dividend Information

Dividend Yield	4.86%
Annual Dividend	\$1.68
Payout Ratio	0.60
Change in Payout Ratio	0.04
Last Dividend Payout / Amount	02/13/2008 / \$0.42

EPS Information

Current Quarter EPS Consensus Estimate	1.34
Current Year EPS Consensus Estimate	2.82
Estimated Long-Term EPS Growth Rate	4.80
Next EPS Report Date	05/07/2008

Consensus Recommendations

Current (1=Strong Buy, 5=Strong Sell)	2.00
30 Days Ago	2.00
60 Days Ago	2.00
90 Days Ago	1.88

Fundamental Ratios

P/E	EPS Growth	Sales Growth
Current FY Estimate: 12.26	vs. Previous Year 43.33%	vs. Previous Year -3.11%
Trailing 12 Months: 12.66	vs. Previous Quarter 405.88%	vs. Previous Quarter: 85.64%
PEG Ratio 2.58		
Price Ratios	ROE	ROA
Price/Book 1.59	12/31/07 12.72	12/31/07 3.57

Price/Cash Flow	7.45	09/30/07	11.67	09/30/07	3.27
Price / Sales	1.06	06/30/07	13.15	06/30/07	3.66
Current Ratio			Quick Ratio		Operating Margin
12/31/07	1.10	12/31/07	0.77	12/31/07	8.46
09/30/07	1.04	09/30/07	0.56	09/30/07	7.63
06/30/07	1.08	06/30/07	0.62	06/30/07	8.33
Net Margin			Pre-Tax Margin		Book Value
12/31/07	13.55	12/31/07	13.55	12/31/07	21.69
09/30/07	12.28	09/30/07	12.28	09/30/07	20.89
06/30/07	13.41	06/30/07	13.41	06/30/07	21.49
Inventory Turnover			Debt-to-Equity		Debt to Captial
12/31/07	2.49	12/31/07	1.01	12/31/07	50.89
09/30/07	2.50	09/30/07	0.95	09/30/07	49.47
06/30/07	2.59	06/30/07	0.92	06/30/07	48.65



Proven Ratings, Research & Recommendations

Zacks.com Quotes and Research

ATMOS ENERGY CP (NYSE)

Scottrade

ATO 25.81 ▲0.03 (0.12%) Vol. 347,800

12:58 ET

Atmos Energy Corporation distributes and sells natural gas to residential, commercial, industrial, agricultural and other customers. Atmos operates through five divisions in cities, towns and communities in service areas located in Colorado, Georgia, Illinois, Iowa, Kansas, Kentucky, Louisiana, Missouri, South Carolina, Tennessee, Texas and Virginia. The Company has entered into an agreement to sell all of its natural gas utility operations in South Carolina. The Company also transports natural gas for others through its distribution system.

General Information

ATMOS ENERGY CP

Three Lincoln Centre, 5430 Lbj Freeway

Suite 1800

Dallas, TX 75240

Phone: 972 934-9227

Fax: 972 855-3040

Web: www.atmosenergy.com

Email: InvestorRelations@atmosenergy.com

Industry: UTIL-GAS DISTR
Sector: Utilities

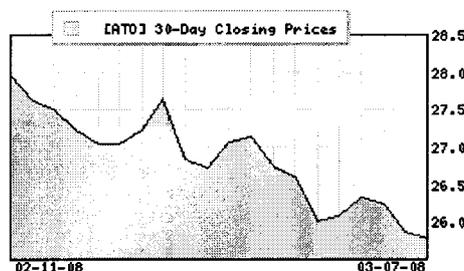
Fiscal Year End: September

Last Reported Quarter: 12/31/07

Next EPS Date: 05/07/2008

Price and Volume Information

Zacks Rank	
Yesterday's Close	25.78
52 Week High	33.47
52 Week Low	23.87
Beta	0.76
20 Day Moving Average	491,138.56
Target Price Consensus	30.29



% Price Change

4 Week	-6.29
12 Week	-4.09
YTD	-8.06

% Price Change Relative to S&P 500

4 Week	-3.54
12 Week	8.85
YTD	4.38

Share Information

Shares Outstanding (millions)	89.96
Market Capitalization (millions)	2,319.12
Short Ratio	6.61
Last Split Date	05/17/1994

Dividend Information

Dividend Yield	5.04%
Annual Dividend	\$1.30
Payout Ratio	0.71
Change in Payout Ratio	0.05
Last Dividend Payout / Amount	02/21/2008 / \$0.32

EPS Information

Current Quarter EPS Consensus Estimate	1.38
Current Year EPS Consensus Estimate	1.99
Estimated Long-Term EPS Growth Rate	4.60
Next EPS Report Date	05/07/2008

Consensus Recommendations

Current (1=Strong Buy, 5=Strong Sell)	2.11
30 Days Ago	2.11
60 Days Ago	2.00
90 Days Ago	2.00

Fundamental Ratios

P/E	EPS Growth	Sales Growth
Current FY Estimate: 12.95	vs. Previous Year -15.46%	vs. Previous Year 3.42%
Trailing 12 Months: 14.09	vs. Previous Quarter 2,150.00%	vs. Previous Quarter: 65.41%
PEG Ratio 2.82		

Price Ratios	ROE		ROA		
Price/Book	1.14	12/31/07	8.14	12/31/07	2.67
Price/Cash Flow	6.18	09/30/07	8.64	09/30/07	2.81
Price / Sales	0.39	06/30/07	10.30	06/30/07	3.24
Current Ratio	Quick Ratio		Operating Margin		
12/31/07	1.14	12/31/07	0.72	12/31/07	2.74
09/30/07	1.16	09/30/07	0.60	09/30/07	2.89
06/30/07	1.22	06/30/07	0.80	06/30/07	3.32
Net Margin	Pre-Tax Margin		Book Value		
12/31/07	4.22	12/31/07	4.22	12/31/07	22.62
09/30/07	4.45	09/30/07	4.45	09/30/07	22.05
06/30/07	5.05	06/30/07	5.05	06/30/07	22.39
Inventory Turnover	Debt-to-Equity		Debt to Captial		
12/31/07	9.87	12/31/07	1.05	12/31/07	51.11
09/30/07	9.98	09/30/07	1.08	09/30/07	51.96
06/30/07	10.11	06/30/07	1.07	06/30/07	51.68



Proven Ratings, Research & Recommendations

Zacks.com Quotes and Research

LACLEDE GROUP INC (NYSE)

Scottrade

LG 34.30 ▲0.35 (1.03%) Vol. 59,200

12:59 ET

The Laclede Group, Inc. is a public utility engaged in the retail distribution and transportation of natural gas. The Company, which is subject to the jurisdiction of the Missouri Public Service Commission, serves the City of St. Louis, St. Louis County, the City of St. Charles, St. Charles County, the town of Arnold, and parts of Franklin, Jefferson, St. Francois, Ste. Genevieve, Iron, Madison and Butler Counties, all in Missouri.

General Information

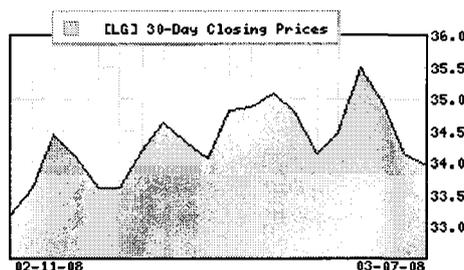
LACLEDE GRP INC
720 Olive Street
St. Louis, MO 63101
Phone: 314-342-0500
Fax: -
Web: www.thelacledegroup.com
Email: mkullman@lacledegas.com

Industry: UTIL-GAS DISTR
Sector: Utilities

Fiscal Year End: September
Last Reported Quarter: 12/31/07
Next EPS Date: 04/25/2008

Price and Volume Information

Zacks Rank 
Yesterday's Close: 33.95
52 Week High: 35.72
52 Week Low: 28.84
Beta: 0.79
20 Day Moving Average: 148,388.95
Target Price Consensus: N/A



% Price Change

4 Week: 2.35
12 Week: 0.83
YTD: -0.85

% Price Change Relative to S&P 500

4 Week: 5.35
12 Week: 14.44
YTD: 12.57

Share Information

Shares Outstanding (millions): 21.79
Market Capitalization (millions): 739.74
Short Ratio: 11.60
Last Split Date: 03/08/1994

Dividend Information

Dividend Yield: 4.42%
Annual Dividend: \$1.50
Payout Ratio: 0.63
Change in Payout Ratio: -0.07
Last Dividend Payout / Amount: 03/07/2008 / \$0.38

EPS Information

Current Quarter EPS Consensus Estimate: 0.94
Current Year EPS Consensus Estimate: 2.28
Estimated Long-Term EPS Growth Rate: -
Next EPS Report Date: 04/25/2008

Consensus Recommendations

Current (1=Strong Buy, 5=Strong Sell): 3.00
30 Days Ago: 3.00
60 Days Ago: 3.00
90 Days Ago: 3.00

Fundamental Ratios

P/E

Current FY Estimate: 14.89
Trailing 12 Months: 14.15

EPS Growth

vs. Previous Year: 8.99%
vs. Previous Quarter: 3,133.33%

Sales Growth

vs. Previous Year: 0.33%
vs. Previous Quarter: 67.46%

PEG Ratio: -

Price Ratios

Price/Book: 1.67

ROE

12/31/07: 11.91

ROA

12/31/07: 3.20

Price/Cash Flow	8.34	09/30/07	11.64	09/30/07	3.12
Price / Sales	0.37	06/30/07	11.48	06/30/07	3.07
Current Ratio			Quick Ratio		Operating Margin
12/31/07	1.02	12/31/07	0.73	12/31/07	2.55
09/30/07	0.99	09/30/07	0.64	09/30/07	2.46
06/30/07	1.09	06/30/07	0.84	06/30/07	2.46
Net Margin			Pre-Tax Margin		Book Value
12/31/07	3.84	12/31/07	3.84	12/31/07	20.32
09/30/07	3.70	09/30/07	3.70	09/30/07	19.80
06/30/07	3.73	06/30/07	3.73	06/30/07	20.13
Inventory Turnover			Debt-to-Equity		Debt to Captial
12/31/07	13.60	12/31/07	0.81	12/31/07	44.63
09/30/07	12.85	09/30/07	0.83	09/30/07	45.32
06/30/07	12.81	06/30/07	0.82	06/30/07	45.02



Proven Ratings, Research & Recommendations

Zacks.com Quotes and Research

NICOR INC (NYSE)

Scottrade

GAS 33.11 ▲ 0.10 (0.30%) Vol. 341,691 13:00 ET

Nicor Inc. is a holding company and is a member of the Standard & Poor's 500 Index. Its primary business is Nicor Gas, one of the nation's largest natural gas distribution companies. Nicor owns Tropical Shipping, a containerized shipping business serving the Caribbean region and the Bahamas. In addition, the company owns and has an equity interest in several energy-related businesses.

General Information

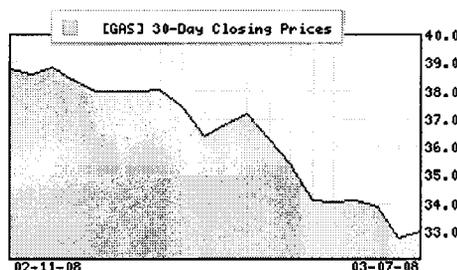
NICOR INC
1844 Ferry Road
Naperville, IL 60563-9600
Phone: 630 305-9500
Fax: 630 983-9328
Web: www.nicor.com
Email: None

Industry: UTIL-GAS DISTR
Sector: Utilities

Fiscal Year End: December
Last Reported Quarter: 12/31/07
Next EPS Date: 04/25/2008

Price and Volume Information

Zacks Rank 
Yesterday's Close: 33.01
52 Week High: 53.66
52 Week Low: 32.74
Beta: 0.91
20 Day Moving Average: 865,557.50
Target Price Consensus: 43.33



% Price Change

4 Week: -15.27
12 Week: -22.35
YTD: -22.05

% Price Change Relative to S&P 500

4 Week: -12.79
12 Week: -11.87
YTD: -11.51

Share Information

Shares Outstanding (millions): 45.13
Market Capitalization (millions): 1,489.91
Short Ratio: 8.36
Last Split Date: 04/27/1993

Dividend Information

Dividend Yield: 5.63%
Annual Dividend: \$1.86
Payout Ratio: 0.65
Change in Payout Ratio: -0.11
Last Dividend Payout / Amount: 12/27/2007 / \$0.47

EPS Information

Current Quarter EPS Consensus Estimate: 0.71
Current Year EPS Consensus Estimate: 2.64
Estimated Long-Term EPS Growth Rate: 4.00
Next EPS Report Date: 04/25/2008

Consensus Recommendations

Current (1=Strong Buy, 5=Strong Sell): 3.20
30 Days Ago: 2.80
60 Days Ago: 2.75
90 Days Ago: 2.75

Fundamental Ratios

P/E	EPS Growth	Sales Growth
Current FY Estimate: 12.48	vs. Previous Year: -5.43%	vs. Previous Year: 9.70%
Trailing 12 Months: 11.50	vs. Previous Quarter: 281.25%	vs. Previous Quarter: 151.78%
PEG Ratio: 3.12		

Price Ratios

Price Ratios	ROE	ROA
Price/Book: 1.58	12/31/07: 14.12	12/31/07: 3.21

Price/Cash Flow	4.73	09/30/07	14.71	09/30/07	3.31
Price / Sales	0.47	06/30/07	14.81	06/30/07	3.29
Current Ratio			Quick Ratio		Operating Margin
12/31/07	0.80	12/31/07	0.68	12/31/07	4.09
09/30/07	0.73	09/30/07	0.48	09/30/07	4.29
06/30/07	0.79	06/30/07	0.74	06/30/07	4.24
Net Margin			Pre-Tax Margin		Book Value
12/31/07	5.80	12/31/07	5.80	12/31/07	20.95
09/30/07	6.05	09/30/07	6.05	09/30/07	20.15
06/30/07	6.35	06/30/07	6.35	06/30/07	20.35
Inventory Turnover			Debt-to-Equity		Debt to Captial
12/31/07	22.95	12/31/07	0.45	12/31/07	30.89
09/30/07	18.26	09/30/07	0.47	09/30/07	31.73
06/30/07	19.79	06/30/07	0.54	06/30/07	35.18



Proven Ratings, Research & Recommendations

Zacks.com Quotes and Research

NORTHWEST NAT GAS (NYSE)

Scottrade

NWN 42.23 ▲ 0.22 (0.52%) Vol. 119,600

13:02 ET

NW Natural is principally engaged in the distribution of natural gas. The Oregon Public Utility Commission (OPUC) has allocated to NW Natural as its exclusive service area a major portion of western Oregon, including the Portland metropolitan area, most of the fertile Willamette Valley and the coastal area from Astoria to Coos Bay. NW Natural also holds certificates from the Washington Utilities and Transportation Commission (WUTC) granting it exclusive rights to serve portions of three Washington counties bordering the Columbia River.

General Information

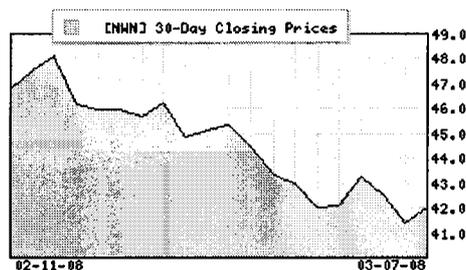
NORTHWEST NAT G
220 N.W. Second Avenue
Portland, OR 97209
Phone: 503 226-4211
Fax: 503 273-4824
Web: www.nwnatural.com
Email: Bob.Hess@nwnatural.com

Industry: UTIL-GAS DISTR
Sector: Utilities

Fiscal Year End: December
Last Reported Quarter: 12/31/07
Next EPS Date: 04/24/2008

Price and Volume Information

Zacks Rank 
Yesterday's Close: 42.01
52 Week High: 52.85
52 Week Low: 40.98
Beta: 0.77
20 Day Moving Average: 317,889.84
Target Price Consensus: 52.25



% Price Change

4 Week: -11.56
12 Week: -10.94
YTD: -13.67

% Price Change Relative to S&P 500

4 Week: -8.96
12 Week: 1.08
YTD: -1.99

Share Information

Shares Outstanding (millions): 26.41
Market Capitalization (millions): 1,109.40
Short Ratio: 11.06
Last Split Date: 09/09/1996

Dividend Information

Dividend Yield: 3.57%
Annual Dividend: \$1.50
Payout Ratio: 0.54
Change in Payout Ratio: -0.11
Last Dividend Payout / Amount: 01/29/2008 / \$0.38

EPS Information

Current Quarter EPS Consensus Estimate: 1.69
Current Year EPS Consensus Estimate: 2.60
Estimated Long-Term EPS Growth Rate: 5.30
Next EPS Report Date: 04/24/2008

Consensus Recommendations

Current (1=Strong Buy, 5=Strong Sell): 2.25
30 Days Ago: 2.25
60 Days Ago: 2.43
90 Days Ago: 2.43

Fundamental Ratios

P/E	EPS Growth	Sales Growth
Current FY Estimate: 16.15	vs. Previous Year: 2.75%	vs. Previous Year: -1.57%
Trailing 12 Months: 15.22	vs. Previous Quarter: 609.09%	vs. Previous Quarter: 166.90%
PEG Ratio: 3.08		

Price Ratios

ROE

ROA

Price/Book	1.87	12/31/07	12.24	12/31/07	3.93
Price/Cash Flow	7.78	09/30/07	12.35	09/30/07	3.92
Price / Sales	1.07	06/30/07	11.69	06/30/07	3.77
Current Ratio			Quick Ratio		Operating Margin
12/31/07	0.71	12/31/07	0.50	12/31/07	7.21
09/30/07	0.69	09/30/07	0.39	09/30/07	7.21
06/30/07	0.76	06/30/07	0.47	06/30/07	6.91
Net Margin			Pre-Tax Margin		Book Value
12/31/07	11.47	12/31/07	11.47	12/31/07	22.48
09/30/07	11.43	09/30/07	11.43	09/30/07	22.01
06/30/07	10.96	06/30/07	10.96	06/30/07	22.61
Inventory Turnover			Debt-to-Equity		Debt to Capital
12/31/07	9.07	12/31/07	0.86	12/31/07	46.26
09/30/07	9.62	09/30/07	0.88	09/30/07	46.67
06/30/07	9.10	06/30/07	0.85	06/30/07	45.86



Proven Ratings, Research & Recommendations

Zacks.com Quotes and Research

PIEDMONT NAT GAS CO (NYSE)

Scottrade

PNY 25.96 ▲ 1.59 (6.52%) Vol. 568,900

14:05 ET

Piedmont Natural Gas Co, Inc., is an energy and services company engaged in the transportation and sale of natural gas and the sale of propane to residential, commercial and industrial customers in North Carolina, South Carolina and Tennessee. The Company is the second-largest natural gas utility in the southeast. The Company and its non-utility subsidiaries and divisions are also engaged in acquiring, marketing and arranging for the transportation and storage of natural gas for large-volume purchasers, and in the sale of propane to customers in the Company's three-state service area.

General Information

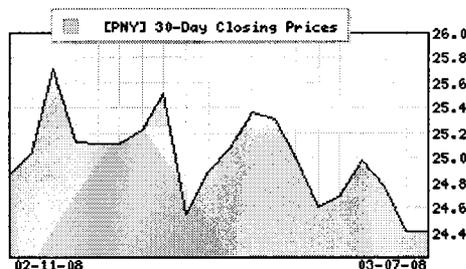
PIEDMONT NAT GA
4720 Piedmont Row Drive
Charlotte, NC 28210
Phone: 704 364-3120
Fax: 704 364-1395
Web: www.piedmontng.com
Email: margaret.griffith@piedmontng.com

Industry: UTIL-GAS DISTR
Sector: Utilities

Fiscal Year End: October
Last Reported Quarter: 01/31/08
Next EPS Date: 03/11/2008

Price and Volume Information

Zacks Rank 
Yesterday's Close: 24.37
52 Week High: 27.98
52 Week Low: 22.00
Beta: 0.60
20 Day Moving Average: 351,083.91
Target Price Consensus: 28.33



% Price Change

4 Week: -1.97
12 Week: -5.83
YTD: -6.84

% Price Change Relative to S&P 500

4 Week: 3.09
12 Week: 6.92
YTD: 5.94

Share Information

Shares Outstanding (millions): 73.28
Market Capitalization (millions): 1,785.76
Short Ratio: 18.46
Last Split Date: 11/01/2004

Dividend Information

Dividend Yield: 4.10%
Annual Dividend: \$1.00
Payout Ratio: 0.00
Change in Payout Ratio: 0.00
Last Dividend Payout / Amount: 12/20/2007 / \$0.25

EPS Information

Current Quarter EPS Consensus Estimate: 0.97
Current Year EPS Consensus Estimate: 1.50
Estimated Long-Term EPS Growth Rate: 5.50
Next EPS Report Date: 03/11/2008

Consensus Recommendations

Current (1=Strong Buy, 5=Strong Sell): 2.50
30 Days Ago: 2.50
60 Days Ago: 2.80
90 Days Ago: 2.80

Fundamental Ratios

PE	EPS Growth	Sales Growth
Current FY Estimate: 16.23	vs. Previous Year: -37.50%	vs. Previous Year: -1.48%
Trailing 12 Months: 17.41	vs. Previous Quarter: 8.33%	vs. Previous Quarter: 23.88%
PEG Ratio: 2.95		

Price Ratios	ROE	ROA	
Price/Book	2.06 01/31/08	- 01/31/08	-
Price/Cash Flow	9.13 10/31/07	11.55 10/31/07	3.76
Price / Sales	- 07/31/07	11.77 07/31/07	3.86
Current Ratio	Quick Ratio	Operating Margin	
01/31/08	- 01/31/08	- 01/31/08	-
10/31/07	1.03 10/31/07	0.67 10/31/07	6.10
07/31/07	1.23 07/31/07	0.81 07/31/07	6.21
Net Margin	Pre-Tax Margin	Book Value	
01/31/08	- 01/31/08	- 01/31/08	-
10/31/07	9.93 10/31/07	9.93 10/31/07	11.86
07/31/07	10.69 07/31/07	10.69 07/31/07	12.18
Inventory Turnover	Debt-to-Equity	Debt to Captial	
01/31/08	- 01/31/08	- 01/31/08	-
10/31/07	8.44 10/31/07	0.94 10/31/07	48.43
07/31/07	8.46 07/31/07	0.92 07/31/07	47.81



Proven Ratings, Research & Recommendations

Zacks.com Quotes and Research

SOUTH JERSEY IND (NYSE)

Scottrade

SJI 32.59 ▲ 0.25 (0.77%) Vol. 277,700 14:10 ET

South Jersey Inds Inc. is engaged in the business of operating, through subsidiaries, various business enterprises. The company's most significant subsidiary is South Jersey Gas Company (SJG). SJG is a public utility company engaged in the purchase, transmission and sale of natural gas for residential, commercial and industrial use. SJG also makes off-system sales of natural gas on a wholesale basis to various customers on the interstate pipeline system and transports natural gas.

General Information

SOUTH JERSEY IN

1 South Jersey Plaza

Folsom, NJ 08037

Phone: 609 561-9000

Fax: 609 561-8225

Web: www.sjindustries.com

Email: investorrelations@sjindustries.com

Industry: UTIL-GAS DISTR
Sector: Utilities

Fiscal Year End: December

Last Reported Quarter: 12/31/07

Next EPS Date: 05/06/2008

Price and Volume Information

Zacks Rank



Yesterday's Close: 32.34

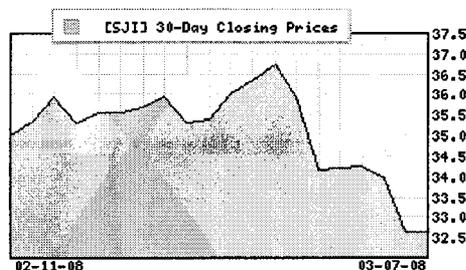
52 Week High: 41.27

52 Week Low: 31.20

Beta: 0.71

20 Day Moving Average: 178,990.50

Target Price Consensus: 41.67



% Price Change

4 Week: -7.65

12 Week: -7.23

YTD: -10.39

% Price Change Relative to S&P 500

4 Week: -2.88

12 Week: 5.34

YTD: 2.61

Share Information

Shares Outstanding (millions): 29.62

Market Capitalization (millions): 958.04

Short Ratio: 15.35

Last Split Date: 07/01/2005

Dividend Information

Dividend Yield: 3.34%

Annual Dividend: \$1.08

Payout Ratio: 0.63

Change in Payout Ratio: 0.09

Last Dividend Payout / Amount: 03/06/2008 / \$0.27

EPS Information

Current Quarter EPS Consensus Estimate: 0.91

Current Year EPS Consensus Estimate: 2.17

Estimated Long-Term EPS Growth Rate: 7.50

Next EPS Report Date: 05/06/2008

Consensus Recommendations

Current (1=Strong Buy, 5=Strong Sell): 1.67

30 Days Ago: 1.67

60 Days Ago: 2.00

90 Days Ago: 1.80

Fundamental Ratios

P/E

Current FY Estimate: 14.93

Trailing 12 Months: 18.91

PEG Ratio: 1.99

EPS Growth

vs. Previous Year: -8.70%

vs. Previous Quarter: 1,360.00%

Sales Growth

vs. Previous Year: 3.88%

vs. Previous Quarter: 66.46%

Price Ratios

ROE

ROA

Price/Book	1.99	12/31/07	10.82	12/31/07	3.38
Price/Cash Flow	10.10	09/30/07	11.31	09/30/07	3.44
Price / Sales	1.00	06/30/07	12.44	06/30/07	3.71
Current Ratio			Quick Ratio		Operating Margin
12/31/07	1.00	12/31/07	0.61	12/31/07	5.30
09/30/07	0.94	09/30/07	0.47	09/30/07	5.52
06/30/07	0.97	06/30/07	0.54	06/30/07	6.09
Net Margin			Pre-Tax Margin		Book Value
12/31/07	10.96	12/31/07	10.96	12/31/07	16.27
09/30/07	6.32	09/30/07	6.32	09/30/07	16.00
06/30/07	7.70	06/30/07	7.70	06/30/07	16.05
Inventory Turnover			Debt-to-Equity		Debt to Captial
12/31/07	5.72	12/31/07	0.74	12/31/07	42.69
09/30/07	3.19	09/30/07	0.76	09/30/07	43.14
06/30/07	3.09	06/30/07	0.76	06/30/07	43.22



Proven Ratings, Research & Recommendations

Zacks.com Quotes and Research

WGL HOLDINGS INC (NYSE)

Scottrade

WGL 31.15 ▲0.37 (1.20%) Vol. 644,700

13:07 ET

WASHINGTON GAS LIGHT CO is a public utility that delivers and sells natural gas to metropolitan Washington, D.C. and adjoining areas in Maryland and Virginia. A distribution subsidiary serves portions of Virginia and West Virginia. The Company has four wholly-owned active subsidiaries that include: Shenandoah Gas Company (Shenandoah) is engaged in the delivery and sale of natural gas at retail in the Shenandoah Valley, including Winchester, Middletown, Strasburg, Stephens City and New Market, Virginia, and Martinsburg, West Virginia.

General Information

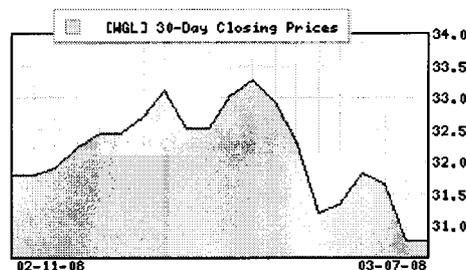
WGL HLDGS INC
101 Constitution Ave, N.W
Washington, DC 20080
Phone: 703 750-2000
Fax: 703 750-4828
Web: www.wglholdings.com
Email: madams@washgas.com

Industry: UTIL-GAS DISTR
Sector: Utilities

Fiscal Year End: September
Last Reported Quarter: 12/31/07
Next EPS Date: 04/24/2008

Price and Volume Information

Zacks Rank 
Yesterday's Close: 30.78
52 Week High: 35.91
52 Week Low: 29.79
Beta: 0.73
20 Day Moving Average: 615,432.81
Target Price Consensus: 35.25

**% Price Change**

4 Week: -4.44
12 Week: -4.44
YTD: -6.04

% Price Change Relative to S&P 500

4 Week: -1.64
12 Week: 8.46
YTD: 6.67

Share Information

Shares Outstanding (millions): 49.46
Market Capitalization (millions): 1,522.50
Short Ratio: 6.93
Last Split Date: 05/02/1995

Dividend Information

Dividend Yield: 4.45%
Annual Dividend: \$1.37
Payout Ratio: 0.64
Change in Payout Ratio: -0.05
Last Dividend Payout / Amount: 01/08/2008 / \$0.34

EPS Information

Current Quarter EPS Consensus Estimate: 1.41
Current Year EPS Consensus Estimate: 2.35
Estimated Long-Term EPS Growth Rate: 4.00
Next EPS Report Date: 04/24/2008

Consensus Recommendations

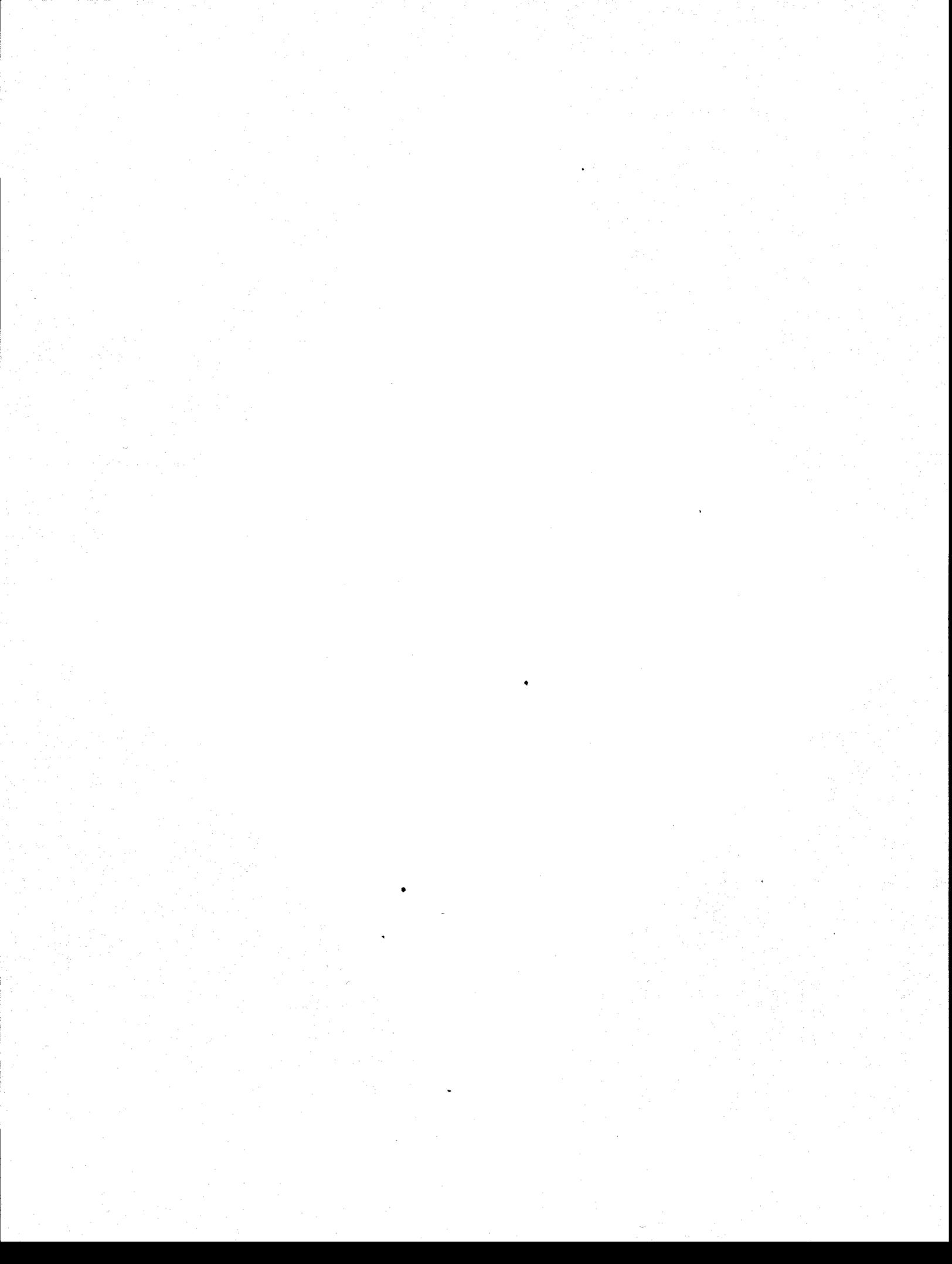
Current (1=Strong Buy, 5=Strong Sell): 2.20
30 Days Ago: 2.60
60 Days Ago: 2.50
90 Days Ago: 2.50

Fundamental Ratios

P/E	EPS Growth	Sales Growth
Current FY Estimate: 13.09	vs. Previous Year	4.35% vs. Previous Year
Trailing 12 Months: 14.38	vs. Previous Quarter	409.68% vs. Previous Quarter: 130.78%
PEG Ratio: 3.27		

Price Ratios**ROE****ROA**

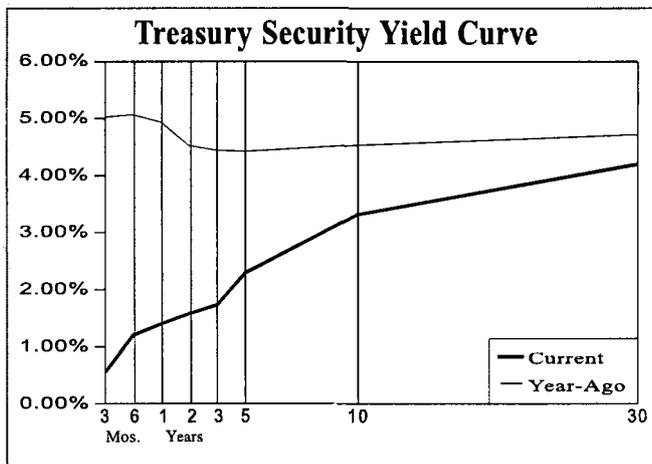
Price/Book	1.50	12/31/07	10.53	12/31/07	3.41
Price/Cash Flow	7.55	09/30/07	10.41	09/30/07	3.42
Price / Sales	0.57	06/30/07	11.26	06/30/07	3.72
Current Ratio			Quick Ratio		Operating Margin
12/31/07	0.88	12/31/07	-	12/31/07	3.96
09/30/07	1.03	09/30/07	0.47	09/30/07	3.89
06/30/07	1.15	06/30/07	0.72	06/30/07	4.15
Net Margin			Pre-Tax Margin		Book Value
12/31/07	6.81	12/31/07	6.81	12/31/07	20.49
09/30/07	6.73	09/30/07	6.73	09/30/07	19.89
06/30/07	7.27	06/30/07	7.27	06/30/07	20.50
Inventory Turnover			Debt-to-Equity		Debt to Captial
12/31/07	9.33	12/31/07	0.59	12/31/07	36.30
09/30/07	8.69	09/30/07	0.63	09/30/07	37.92
06/30/07	12.06	06/30/07	0.60	06/30/07	36.86



ATTACHMENT C

Selected Yields

	Recent (3/19/08)	3 Months Ago (12/19/07)	Year Ago (3/21/07)		Recent (3/19/08)	3 Months Ago (12/19/07)	Year Ago (3/21/07)
TAXABLE							
Market Rates							
Discount Rate	2.50	4.75	6.25	Mortgage-Backed Securities	4.70	5.42	5.53
Federal Funds	2.25	4.25	5.25	GNMA 6.5%	4.96	5.62	5.60
Prime Rate	5.25	7.25	8.25	FHLMC 6.5% (Gold)	4.62	5.41	5.50
30-day CP (A1/P1)	2.65	5.59	5.24	FNMA 6.5%	5.07	5.46	5.60
3-month LIBOR	2.60	4.91	5.35	FNMA ARM			
Bank CDs							
6-month	2.15	2.82	3.26	Corporate Bonds			
1-year	2.16	3.45	3.87	Financial (10-year) A	5.89	6.01	5.40
5-year	3.12	3.74	3.92	Industrial (25/30-year) A	5.87	5.99	5.68
U.S. Treasury Securities							
3-month	0.56	2.89	5.03	Utility (25/30-year) A	5.96	6.14	5.86
6-month	1.20	3.31	5.07	Utility (25/30-year) Baa/BBB	6.14	6.24	6.01
1-year	1.40	3.31	4.94	Foreign Bonds (10-Year)			
5-year	2.30	3.43	4.43	Canada	3.45	3.99	4.08
10-year	3.33	4.03	4.54	Germany	3.76	4.28	3.93
10-year (inflation-protected)	0.90	1.71	2.12	Japan	1.28	1.49	1.57
30-year	4.21	4.45	4.72	United Kingdom	4.31	4.68	4.83
30-year Zero	4.35	4.47	4.68	Preferred Stocks			
				Utility A	6.34	6.33	6.08
				Financial A	7.91	8.18	6.44
				Financial Adjustable A	5.47	5.47	5.47



TAX-EXEMPT

Bond Buyer Indexes							
20-Bond Index (GOs)	4.94	4.46	4.13				
25-Bond Index (Revs)	5.15	4.79	4.38				
General Obligation Bonds (GOs)							
1-year Aaa	1.80	2.85	3.54				
1-year A	1.90	2.90	3.64				
5-year Aaa	2.87	3.19	3.51				
5-year A	3.17	3.49	3.80				
10-year Aaa	3.73	3.62	3.65				
10-year A	4.02	3.91	3.95				
25/30-year Aaa	4.92	4.33	4.00				
25/30-year A	5.05	4.44	4.30				
Revenue Bonds (Revs) (25/30-Year)							
Education AA	5.10	4.50	4.33				
Electric AA	5.10	4.50	4.30				
Housing AA	5.40	4.80	4.55				
Hospital AA	5.50	4.75	4.57				
Toll Road Aaa	5.10	4.60	4.40				

Federal Reserve Data

BANK RESERVES

(Two-Week Period; in Millions, Not Seasonally Adjusted)

	Recent Levels			Average Levels Over the Last...		
	3/12/08	2/27/08	Change	12 Wks.	26 Wks.	52 Wks.
Excess Reserves	1413	1799	-386	1655	1640	1883
Borrowed Reserves	231	198	33	1634	1181	736
Net Free/Borrowed Reserves	1182	1601	-419	21	459	1147

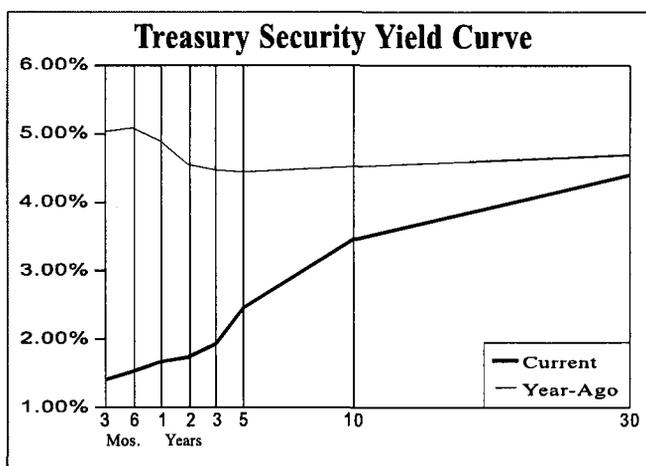
MONEY SUPPLY

(One-Week Period; in Billions, Seasonally Adjusted)

	Recent Levels			Growth Rates Over the Last...		
	3/3/08	2/25/08	Change	3 Mos.	6 Mos.	12 Mos.
M1 (Currency+demand deposits)	1391.8	1367.8	24.0	6.1%	-0.4%	1.6%
M2 (M1+savings+small time deposits)	7644.7	7630.3	14.4	12.2%	8.3%	7.3%

Selected Yields

	Recent (3/12/08)	3 Months Ago (12/12/07)	Year Ago (3/14/07)		Recent (3/12/08)	3 Months Ago (12/12/07)	Year Ago (3/14/07)
TAXABLE							
Market Rates							
Discount Rate	3.50	4.75	6.25				
Federal Funds	3.00	4.25	5.25				
Prime Rate	6.00	7.25	8.25				
30-day CP (A1/P1)	2.84	5.10	5.25				
3-month LIBOR	2.85	5.06	5.35				
Bank CDs							
6-month	2.17	2.82	3.20				
1-year	2.17	3.45	3.80				
5-year	3.16	3.74	3.91				
U.S. Treasury Securities							
3-month	1.41	2.86	5.04				
6-month	1.53	3.22	5.09				
1-year	1.67	3.09	4.90				
5-year	2.46	3.47	4.45				
10-year	3.46	4.09	4.53				
10-year (inflation-protected)	0.84	1.78	2.17				
30-year	4.41	4.54	4.70				
30-year Zero	4.57	4.58	4.66				
Mortgage-Backed Securities							
GNMA 6.5%	5.02	5.54	5.59				
FHLMC 6.5% (Gold)	5.04	5.67	5.66				
FNMA 6.5%	4.94	5.53	5.57				
FNMA ARM	5.07	5.46	5.60				
Corporate Bonds							
Financial (10-year) A	6.05	6.26	5.40				
Industrial (25/30-year) A	6.07	6.15	5.65				
Utility (25/30-year) A	6.08	6.25	5.85				
Utility (25/30-year) Baa/BBB	6.27	6.35	5.99				
Foreign Bonds (10-Year)							
Canada	3.53	4.03	4.02				
Germany	3.77	4.31	3.88				
Japan	1.35	1.52	1.58				
United Kingdom	4.42	4.80	4.74				
Preferred Stocks							
Utility A	6.61	6.35	6.03				
Financial A	7.83	7.80	6.42				
Financial Adjustable A	5.46	5.46	5.46				



TAX-EXEMPT							
Bond Buyer Indexes							
20-Bond Index (GOs)	4.92	4.38	4.08				
25-Bond Index (Revs)	5.11	4.74	4.39				
General Obligation Bonds (GOs)							
1-year Aaa	2.05	2.90	3.54				
1-year A	2.20	3.00	3.64				
5-year Aaa	2.83	3.19	3.51				
5-year A	2.93	3.29	3.60				
10-year Aaa	3.66	3.63	3.66				
10-year A	3.86	3.93	4.18				
25/30-year Aaa	4.85	4.37	4.00				
25/30-year A	5.04	4.57	4.30				
Revenue Bonds (Revs) (25/30-Year)							
Education AA	5.05	4.65	4.30				
Electric AA	5.10	4.70	4.30				
Housing AA	5.35	4.80	4.50				
Hospital AA	5.40	4.85	4.50				
Toll Road Aaa	5.10	4.70	4.30				

Federal Reserve Data

BANK RESERVES							
<i>(Two-Week Period; in Millions, Not Seasonally Adjusted)</i>							
	Recent Levels			Average Levels Over the Last...			
	2/27/08	2/13/08	Change	12 Wks.	26 Wks.	52 Wks.	
Excess Reserves	1800	1660	140	1714	1615	1896	
Borrowed Reserves	198	102	96	1630	1276	729	
Net Free/Borrowed Reserves	1602	1558	44	84	339	1167	

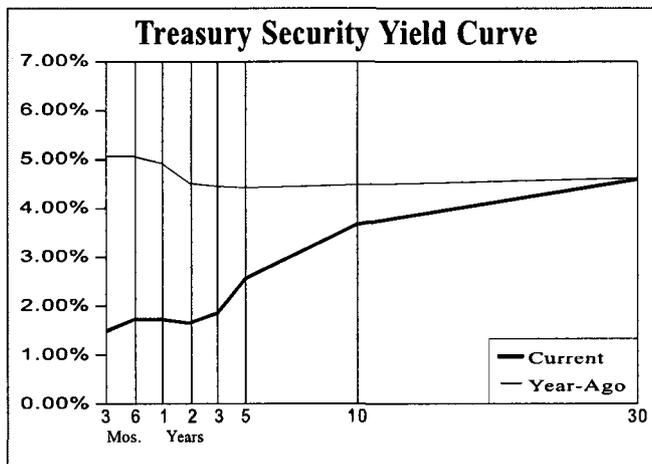
MONEY SUPPLY							
<i>(One-Week Period; in Billions, Seasonally Adjusted)</i>							
	Recent Levels			Growth Rates Over the Last...			
	2/25/08	2/18/08	Change	3 Mos.	6 Mos.	12 Mos.	
M1 (Currency+demand deposits)	1368.0	1360.7	7.3	2.4%	-0.3%	0.2%	
M2 (M1+savings+small time deposits)	7630.3	7597.2	33.1	10.7%	7.2%	7.0%	

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Selected Yields

	Recent (3/05/08)	3 Months Ago (12/05/07)	Year Ago (3/07/07)		Recent (3/05/08)	3 Months Ago (12/05/07)	Year Ago (3/07/07)
TAXABLE							
Market Rates				Mortgage-Backed Securities			
Discount Rate	3.50	5.00	6.25	GNMA 6.5%	4.80	5.25	5.55
Federal Funds	3.00	4.50	5.25	FHLMC 6.5% (Gold)	5.36	5.42	5.64
Prime Rate	6.00	7.50	8.25	FNMA 6.5%	5.02	5.25	5.56
30-day CP (A1/P1)	2.97	5.23	5.24	FNMA ARM	5.05	5.44	5.60
3-month LIBOR	3.00	5.15	5.34	Corporate Bonds			
Bank CDs				Financial (10-year) A	5.96	5.92	5.31
6-month	2.16	2.82	3.28	Industrial (25/30-year) A	6.35	5.96	5.60
1-year	2.16	3.45	3.89	Utility (25/30-year) A	6.26	6.07	5.59
5-year	3.16	3.80	3.93	Utility (25/30-year) Baa/BBB	6.39	6.22	5.86
U.S. Treasury Securities				Foreign Bonds (10-Year)			
3-month	1.49	3.05	5.08	Canada	3.64	3.93	3.99
6-month	1.72	3.24	5.07	Germany	3.86	4.03	3.92
1-year	1.72	3.11	4.92	Japan	1.38	1.50	1.63
5-year	2.57	3.32	4.43	United Kingdom	4.48	4.49	4.77
10-year	3.67	3.96	4.49	Preferred Stocks			
10-year (inflation-protected)	1.02	1.70	2.16	Utility A	6.26	6.25	6.01
30-year	4.60	4.44	4.63	Financial A	7.60	7.73	6.46
30-year Zero	4.78	4.49	4.57	Financial Adjustable A	5.53	5.53	5.53



TAX-EXEMPT							
Bond Buyer Indexes							
20-Bond Index (GOs)	5.11	4.39	4.10				
25-Bond Index (Revs)	5.22	4.77	4.41				
General Obligation Bonds (GOs)							
1-year Aaa	2.25	3.00	3.53				
1-year A	2.35	3.04	3.63				
5-year Aaa	3.30	3.18	3.49				
5-year A	3.60	3.48	3.78				
10-year Aaa	4.11	3.57	3.64				
10-year A	4.40	3.86	3.94				
25/30-year Aaa	5.10	4.29	3.96				
25/30-year A	5.23	4.40	4.25				
Revenue Bonds (Revs) (25/30-Year)							
Education AA	5.30	4.45	4.30				
Electric AA	5.30	4.45	4.25				
Housing AA	5.60	4.70	4.50				
Hospital AA	5.70	4.65	4.50				
Toll Road Aaa	5.30	4.65	4.36				

Federal Reserve Data

BANK RESERVES							
<i>(Two-Week Period; in Millions, Not Seasonally Adjusted)</i>							
	Recent Levels			Average Levels Over the Last...			
	2/27/08	2/13/08	Change	12 Wks.	26 Wks.	52 Wks.	
Excess Reserves	1807	1661	146	1715	1615	1897	
Borrowed Reserves	198	102	96	1630	1276	729	
Net Free/Borrowed Reserves	1609	1559	50	85	339	1168	

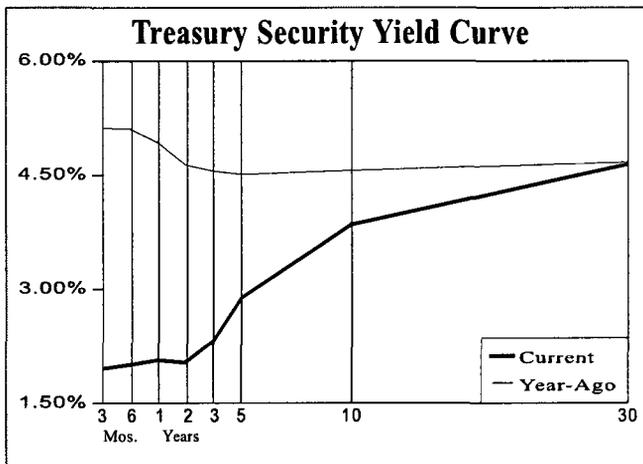
MONEY SUPPLY							
<i>(One-Week Period; in Billions, Seasonally Adjusted)</i>							
	Recent Levels			Growth Rates Over the Last...			
	2/18/08	2/11/08	Change	3 Mos.	6 Mos.	12 Mos.	
M1 (Currency+demand deposits)	1360.8	1357.5	3.3	1.1%	0.1%	-0.2%	
M2 (M1+savings+small time deposits)	7597.0	7584.4	12.6	10.7%	7.6%	6.9%	

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Selected Yields

	Recent (2/27/08)	3 Months Ago (11/28/07)	Year Ago (2/28/07)		Recent (2/27/08)	3 Months Ago (11/28/07)	Year Ago (2/28/07)
TAXABLE							
Market Rates							
Discount Rate	3.50	5.00	6.25				
Federal Funds	3.00	4.50	5.25				
Prime Rate	6.00	7.50	8.25				
30-day CP (A1/P1)	3.21	4.65	5.23				
3-month LIBOR	3.09	5.08	5.35				
Bank CDs							
6-month	2.19	2.82	3.28				
1-year	2.17	3.54	3.88				
5-year	3.06	3.88	3.92				
U.S. Treasury Securities							
3-month	1.96	3.03	5.12				
6-month	2.01	3.36	5.11				
1-year	2.07	3.26	4.93				
5-year	2.89	3.50	4.52				
10-year	3.85	4.04	4.57				
10-year (inflation-protected)	1.30	1.70	2.19				
30-year	4.65	4.42	4.68				
30-year Zero	4.78	4.45	4.61				
Mortgage-Backed Securities							
GNMA 6.5%	5.04	5.39	5.63				
FHLMC 6.5% (Gold)	5.21	5.61	5.73				
FNMA 6.5%	5.12	5.41	5.63				
FNMA ARM	5.19	5.87	5.60				
Corporate Bonds							
Financial (10-year) A	5.81	5.94	5.38				
Industrial (25/30-year) A	6.41	5.87	5.62				
Utility (25/30-year) A	6.20	6.03	5.65				
Utility (25/30-year) Baa/BBB	6.48	6.11	5.89				
Foreign Bonds (10-Year)							
Canada	3.82	4.06	4.03				
Germany	4.09	4.11	3.96				
Japan	1.48	1.49	1.64				
United Kingdom	4.70	4.68	4.80				
Preferred Stocks							
Utility A	6.10	6.31	5.99				
Financial A	7.12	7.84	6.44				
Financial Adjustable A	5.53	5.53	5.53				



TAX-EXEMPT

	Recent (2/27/08)	3 Months Ago (11/28/07)	Year Ago (2/28/07)
Bond Buyer Indexes			
20-Bond Index (GOs)	4.66	4.45	4.19
25-Bond Index (Revs)	4.94	4.80	4.48
General Obligation Bonds (GOs)			
1-year Aaa	2.20	3.25	3.56
1-year A	2.35	3.35	3.66
5-year Aaa	3.13	3.27	3.55
5-year A	3.23	3.37	3.64
10-year Aaa	3.92	3.64	3.67
10-year A	4.12	3.94	4.20
25/30-year Aaa	4.94	4.38	3.97
25/30-year A	5.14	4.58	4.28
Revenue Bonds (Revs) (25/30-Year)			
Education AA	5.15	4.65	4.39
Electric AA	5.20	4.75	4.38
Housing AA	5.45	4.85	4.44
Hospital AA	5.50	4.85	4.45
Toll Road Aaa	5.20	4.75	4.39

Federal Reserve Data

BANK RESERVES

(Two-Week Period; in Millions, Not Seasonally Adjusted)

	Recent Levels			Average Levels Over the Last...		
	2/13/08	1/30/08	Change	12 Wks.	26 Wks.	52 Wks.
Excess Reserves	1661	1446	215	1670	2152	1875
Borrowed Reserves	102	390	-288	1676	1281	723
Net Free/Borrowed Reserves	1559	1056	503	-7	872	1153

MONEY SUPPLY

(One-Week Period; in Billions, Seasonally Adjusted)

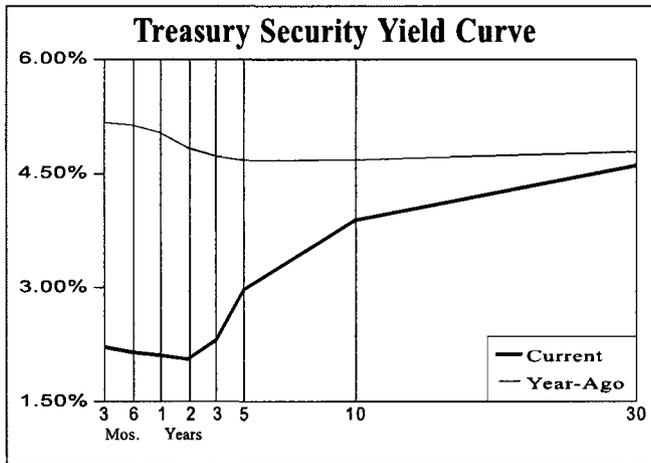
	Recent Levels			Growth Rates Over the Last...		
	2/11/08	2/4/08	Change	3 Mos.	6 Mos.	12 Mos.
M1 (Currency+demand deposits)	1358.2	1382.5	-24.3	-2.0%	-0.2%	-0.7%
M2 (M1+savings+small time deposits)	7585.5	7569.2	16.3	11.0%	8.2%	6.8%

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Selected Yields

	Recent (2/20/08)	3 Months Ago (11/20/07)	Year Ago (2/21/07)		Recent (2/20/08)	3 Months Ago (11/20/07)	Year Ago (2/21/07)
TAXABLE							
Market Rates				Mortgage-Backed Securities			
Discount Rate	3.50	5.00	6.25	GNMA 6.5%	5.10	5.50	5.67
Federal Funds	3.00	4.50	5.25	FHLMC 6.5% (Gold)	5.31	5.77	5.75
Prime Rate	6.00	7.50	8.25	FNMA 6.5%	5.09	5.56	5.67
30-day CP (A1/P1)	3.05	4.59	5.23	FNMA ARM	5.19	5.88	5.61
3-month LIBOR	3.08	5.00	5.36	Corporate Bonds			
Bank CDs				Financial (10-year) A	5.82	6.01	5.51
6-month	2.20	2.83	3.27	Industrial (25/30-year) A	6.29	5.96	5.72
1-year	2.19	3.54	3.88	Utility (25/30-year) A	6.15	6.04	5.74
5-year	2.82	3.89	3.92	Utility (25/30-year) Baa/BBB	6.33	6.14	5.97
U.S. Treasury Securities				Foreign Bonds (10-Year)			
3-month	2.22	3.28	5.17	Canada	3.93	4.07	4.10
6-month	2.15	3.42	5.14	Germany	4.03	4.06	4.05
1-year	2.11	3.43	5.04	Japan	1.43	1.47	1.70
5-year	2.98	3.55	4.68	United Kingdom	4.69	4.62	4.89
10-year	3.89	4.10	4.69	Preferred Stocks			
10-year (inflation-protected)	1.41	1.70	2.33	Utility A	6.08	6.62	6.16
30-year	4.61	4.50	4.79	Financial A	7.00	7.97	6.44
30-year Zero	4.76	4.53	4.71	Financial Adjustable A	5.52	5.52	5.52



TAX-EXEMPT							
Bond Buyer Indexes							
20-Bond Index (GOs)	4.47	4.53	4.17				
25-Bond Index (Revs)	4.82	4.85	4.51				
General Obligation Bonds (GOs)							
1-year Aaa	1.70	3.30	3.58				
1-year A	1.80	3.34	3.68				
5-year Aaa	2.80	3.34	3.61				
5-year A	3.10	3.64	3.90				
10-year Aaa	3.55	3.71	3.73				
10-year A	3.84	4.00	3.15				
25/30-year Aaa	4.64	4.47	4.06				
25/30-year A	4.77	4.62	4.38				
Revenue Bonds (Revs) (25/30-Year)							
Education AA	4.80	4.67	4.40				
Electric AA	4.80	4.67	4.35				
Housing AA	5.10	4.90	4.60				
Hospital AA	5.15	4.85	4.60				
Toll Road Aaa	4.80	4.67	4.48				

Federal Reserve Data

BANK RESERVES							
<i>(Two-Week Period; in Millions, Not Seasonally Adjusted)</i>							
	Recent Levels			Average Levels Over the Last...			
	2/13/08	1/30/08	Change	12 Wks.	26 Wks.	52 Wks.	
Excess Reserves	1663	1459	204	1671	2153	1876	
Borrowed Reserves	102	390	-288	1676	1281	723	
Net Free/Borrowed Reserves	1561	1069	492	-5	872	1153	

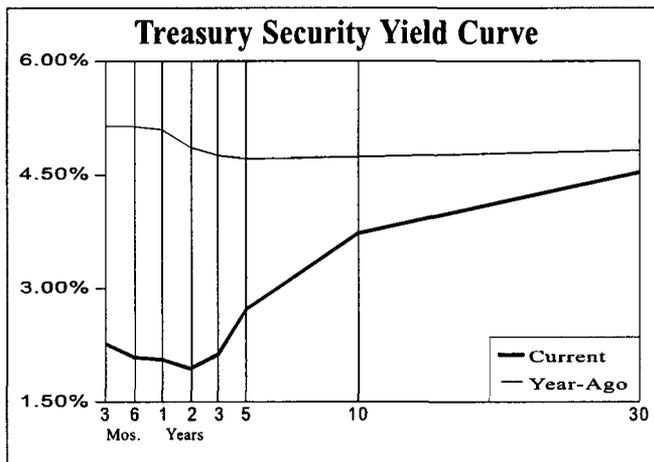
MONEY SUPPLY							
<i>(One-Week Period; in Billions, Seasonally Adjusted)</i>							
	Recent Levels			Growth Rates Over the Last...			
	2/4/08	1/28/08	Change	3 Mos.	6 Mos.	12 Mos.	
M1 (Currency+demand deposits)	1382.7	1362.6	20.1	2.3%	2.5%	0.5%	
M2 (M1+savings+small time deposits)	7569.4	7535.6	33.8	10.0%	8.2%	6.6%	

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Selected Yields

	Recent (2/13/08)	3 Months Ago (11/14/07)	Year Ago (2/14/07)		Recent (2/13/08)	3 Months Ago (11/14/07)	Year Ago (2/14/07)
TAXABLE							
Market Rates							
Discount Rate	3.50	5.00	6.25	Mortgage-Backed Securities			
Federal Funds	3.00	4.50	5.25	GNMA 6.5%	4.46	5.53	5.72
Prime Rate	6.00	7.50	8.25	FHLMC 6.5% (Gold)	5.10	5.73	5.82
30-day CP (A1/P1)	3.00	4.56	5.23	FNMA 6.5%	4.71	5.51	5.74
3-month LIBOR	3.07	4.88	5.36	FNMA ARM	5.18	5.90	5.62
Bank CDs							
6-month	2.15	2.83	3.27	Corporate Bonds			
1-year	2.34	3.54	3.86	Financial (10-year) A	5.78	5.95	5.52
5-year	2.85	3.89	3.91	Industrial (25/30-year) A	6.29	5.98	5.77
U.S. Treasury Securities							
3-month	2.26	3.39	5.15	Utility (25/30-year) A	6.20	6.09	5.77
6-month	2.09	3.68	5.14	Utility (25/30-year) Baa/BBB	6.35	6.18	6.02
1-year	2.06	3.68	5.10	Foreign Bonds (10-Year)			
5-year	2.73	3.82	4.72	Canada	3.87	4.21	4.15
10-year	3.73	4.25	4.74	Germany	3.96	4.15	4.10
10-year (inflation-protected)	1.34	1.86	2.39	Japan	1.43	1.53	1.74
30-year	4.54	4.60	4.83	United Kingdom	4.62	4.74	4.95
30-year Zero	4.65	4.62	4.76	Preferred Stocks			
				Utility A	6.13	6.43	6.14
				Financial A	7.00	7.58	6.43
				Financial Adjustable A	5.51	5.51	5.51



TAX-EXEMPT

Bond Buyer Indexes							
20-Bond Index (GOs)	4.33	4.54	4.21				
25-Bond Index (Revs)	4.72	4.85	4.53				
General Obligation Bonds (GOs)							
1-year Aaa	1.05	3.30	3.60				
1-year A	1.15	3.40	3.70				
5-year Aaa	2.67	3.44	3.63				
5-year A	2.77	3.74	3.72				
10-year Aaa	3.40	3.83	3.78				
10-year A	3.60	4.13	4.30				
25/30-year Aaa	4.36	4.55	4.08				
25/30-year A	4.56	4.75	4.39				
Revenue Bonds (Revs) (25/30-Year)							
Education AA	4.60	4.75	4.49				
Electric AA	4.65	4.85	4.48				
Housing AA	4.80	4.95	4.54				
Hospital AA	4.85	4.95	4.55				
Toll Road Aaa	4.65	4.85	4.49				

Federal Reserve Data

BANK RESERVES

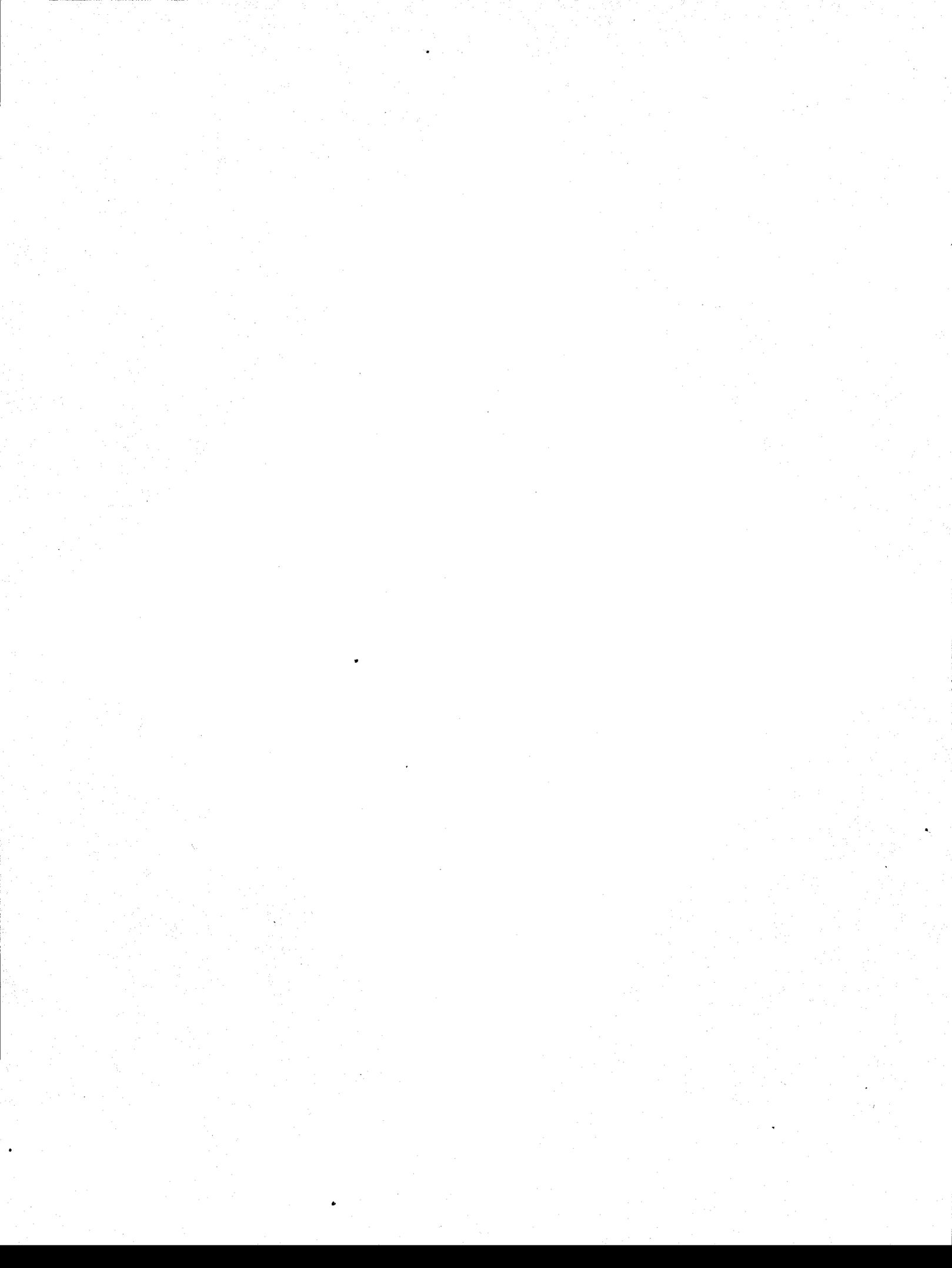
(Two-Week Period; in Millions, Not Seasonally Adjusted)

	Recent Levels			Average Levels Over the Last...		
	1/30/08	1/16/08	Change	12 Wks.	26 Wks.	52 Wks.
Excess Reserves	1458	1712	-254	1700	2144	1861
Borrowed Reserves	390	1377	-987	1699	1291	729
Net Free/Borrowed Reserves	1068	335	733	1	854	1132

MONEY SUPPLY

(One-Week Period; in Billions, Seasonally Adjusted)

	Recent Levels			Growth Rates Over the Last...		
	1/28/08	1/21/08	Change	3 Mos.	6 Mos.	12 Mos.
M1 (Currency+demand deposits)	1362.3	1372.1	-9.8	-2.1%	-1.0%	-1.0%
M2 (M1+savings+small time deposits)	7529.2	7491.6	37.6	6.8%	6.9%	6.0%



SOUTHWEST GAS CORPORATION
DOCKET NO. G-01551A-07-0504
TABLE OF CONTENTS TO SCHEDULES WAR

<u>SCHEDULE #</u>	
WAR - 1	COST OF CAPITAL SUMMARY
WAR - 2	DCF COST OF EQUITY CAPITAL
WAR - 3	DIVIDEND YIELD CALCULATION
WAR - 4	DIVIDEND GROWTH RATE CALCULATION
WAR - 5	DIVIDEND GROWTH COMPONENTS
WAR - 6	GROWTH RATE COMPARISON
WAR - 7	CAPM COST OF EQUITY CAPITAL
WAR - 8	ECONOMIC INDICATORS - 1990 TO PRESENT
WAR - 9	CAPITAL STRUCTURES OF SAMPLE COMPANIES

WEIGHTED COST OF CAPITAL

LINE NO.	DESCRIPTION	(A) CAPITAL RATIO	(B) COST	(C) WEIGHTED COST
1	LONG-TERM DEBT	51.00%	7.96%	4.06%
2	PREFERRED EQUITY	4.00%	8.20%	0.33%
3	COMMON EQUITY	<u>45.00%</u>	9.88%	<u>4.44%</u>
4	TOTAL CAPITALIZATION	<u>100.00%</u>		

5 WEIGHTED COST OF CAPITAL

8.83%

REFERENCES:

- COLUMN (A): COMPANY SCHEDULE D-1
- COLUMN (B): TESTIMONY, WAR
- COLUMN (C): COLUMN (A) x COLUMN (B)
- COLUMN (C) LINE 5: SUM OF COLUMN (C) LINES 1 THRU 3

SOUTHWEST GAS CORPORATION
 TEST YEAR ENDED APRIL 30, 2007
 COST OF CAPITAL SUMMARY

DOCKET NO. G-01551A-07-0504
 SCHEDULE WAR - 1
 PAGE 2 OF 4

WEIGHTED COST OF DEBT

LINE NO.	DESCRIPTION	(A) NET PROCEEDS	(B) CAPITAL RATIO	(C) COST	(D) WEIGHTED COST
1	TOTAL DEBENTURES AND MTN'S (FIXED RATE)	\$ 590,463,378	91.74%	8.11%	7.44%
2	TERM FACILITY (VARIABLE RATE)	53,169,199	8.26%	6.27%	0.52%
3	TOTAL CAPITALIZATION	<u>\$ 643,632,577</u>	<u>100.00%</u>		
4	WEIGHTED COST OF DEBT				<u>7.96%</u>

REFERENCES:

- COLUMN (A): COMPANY SCHEDULE D-2
- COLUMN (B): COLUMN (A), LINES 1 AND 2 / COLUMN (A), LINE 3
- COLUMN (C): SCHEDULE WAR-1, PAGE 3
- COLUMN (D): COLUMN (B) x COLUMN (C)

WEIGHTED COST OF DEBT

LINE NO.	(A) DESCRIPTION	(B) PRINCIPAL AMOUNT INTEREST	(C) UNAMORTIZED DEBT EXPENSE AND DISCOUNT	(D) NET PROCEEDS	(E) EFFECTIVE INTEREST RATE	(F) COST OF DEBT
	DEBENTURES					
1	8.0% DEBENTURE, DUE 2026	\$ 75,000,000	\$ 6,089,371	\$ 68,910,630	8.89%	\$ 6,126,155
2	8.375 NOTE, DUE 2011	200,000,000	1,485,867	198,514,134	8.61%	17,091,670
3	7.625 NOTE, DUE 2012	200,000,000	1,380,294	198,619,706	7.79%	15,472,475
4	TOTAL DEBENTURES	\$ 475,000,000	\$ 8,955,531	\$ 466,044,469	8.30%	\$ 38,690,300
	MEDIUM TERM NOTES					
5	7.59% MTN, DUE 2017	\$ 25,000,000	\$ 147,215	\$ 24,852,785	7.68%	\$ 1,908,694
6	7.59% MTN, DUE 2017	25,000,000	175,679	24,824,321	7.86%	1,951,192
7	7.59% MTN, DUE 2017	25,000,000	204,455	24,795,545	8.00%	1,983,644
8	7.59% MTN, DUE 2017	17,500,000	7,731	17,492,269	7.00%	1,224,459
9	7.59% MTN, DUE 2017	7,500,000	3,458	7,496,542	6.88%	515,762
10	7.59% MTN, DUE 2017	25,000,000	42,553	24,957,447	6.40%	1,597,277
11	TOTAL MEDIUM TERM NOTES	\$ 125,000,000	\$ 581,091	\$ 124,418,909	7.38%	\$ 9,181,028
12	TOTAL DEBENTURES AND MTN'S	\$ 600,000,000	\$ 9,536,622	\$ 590,463,378	8.11%	\$ 47,871,328
13	TERM FACILITY			\$ 53,169,199	6.27%	\$ 3,332,516

REFERENCES:

COLUMN (A) LINES 1 THRU 12: COMPANY SCHEDULE D-2, PAGE 2
 COLUMN (B) LINES 1 THRU 12: COMPANY SCHEDULE D-2, PAGE 2
 COLUMN (C) LINES 1 THRU 12: COMPANY SCHEDULE D-2, PAGE 2
 COLUMN (D) LINES 1 THRU 12: COLUMN (B) - COLUMN (C)
 COLUMN (E) LINE 13: COMPANY SCHEDULE D-2, PAGE 3
 COLUMN (F) LINES 1 THRU 13: COLUMN (F) / COLUMN (D)
 COLUMN (F) LINES 1 THRU 12: COMPANY SCHEDULE D-2, PAGE 2
 COLUMN (F) LINE 13: COMPANY SCHEDULE D-2, PAGE 3

COST OF COMMON EQUITY CALCULATION

LINE
NO.

DCF METHODOLOGY

1 DCF - CONSTANT GROWTH MODEL ESTIMATE

9.73% SCHEDULE WAR-2, COLUMN (C), LINE 9

CAPM METHODOLOGY

2 CAPM - GEOMETRIC MEAN ESTIMATE

9.20% SCHEDULE WAR-7 PAGE 1, COLUMN (B), LINE 9

3 CAPM - ARITHMETIC MEAN ESTIMATE

10.83% SCHEDULE WAR-7 PAGE 2, COLUMN (B), LINE 9

4 AVERAGE OF CAPM ESTIMATES

10.02% (LINE 2 + LINE 3) / 2

5 AVERAGE OF DCF AND CAPM ESTIMATES

9.88% (LINE 1 + LINE 4) / 2

SOUTHWEST GAS CORPORATION
 TEST YEAR ENDED APRIL 30, 2007
 DCF COST OF EQUITY CAPITAL

DOCKET NO. G-01551A-07-0504
 SCHEDULE WAR - 2

LINE NO.	STOCK SYMBOL	COMPANY	(A) DIVIDEND YIELD	+	(B) GROWTH RATE (g)	=	(C) DCF COST OF EQUITY CAPITAL
1	ATG	AGL RESOURCES, INC.	4.67%	+	5.92%	=	10.59%
2	ATO	ATMOS ENERGY CORP.	4.83%	+	4.48%	=	9.31%
3	LG	LACLEDE GROUP, INC.	4.36%	+	5.25%	=	9.61%
4	GAS	NICOR, INC.	5.08%	+	5.09%	=	10.18%
5	NWN	NORTHWEST NATURAL GAS COMPANY	3.35%	+	4.73%	=	8.09%
6	PNY	PIEDMONT NATURAL GAS COMPANY	3.97%	+	3.51%	=	7.47%
7	SJI	SOUTH JERSEY INDUSTRIES, INC.	5.92%	+	8.65%	=	14.58%
8	WGL	WGL HOLDINGS, INC.	4.23%	+	3.80%	=	8.03%

AVERAGE 9.73%

REFERENCES:
 COLUMN (A): SCHEDULE WAR - 3, COLUMN C
 COLUMN (B): SCHEDULE WAR - 4, PAGE 1, COLUMN C
 COLUMN (C): COLUMN (A) + COLUMN (B)

SOUTHWEST GAS CORPORATION
 TEST YEAR ENDED APRIL 30, 2007
 DIVIDEND YIELD CALCULATION

DOCKET NO. G-01551A-07-0504
 SCHEDULE WAR - 3

LINE NO.	STOCK SYMBOL	COMPANY	(A) ESTIMATED DIVIDEND (PER SHARE) /	(B) AVERAGE STOCK PRICE (PER SHARE) /	(C) DIVIDEND YIELD
1	ATG	AGL RESOURCES, INC.	\$1.68 /	\$35.97 =	4.67%
2	ATO	ATMOS ENERGY CORP.	1.30 /	26.91 =	4.83%
3	LG	LACLEDE GROUP, INC.	1.50 /	34.39 =	4.36%
4	GAS	NICOR, INC.	1.86 /	36.60 =	5.08%
5	NWN	NORTHWEST NATURAL GAS COMPANY	1.50 /	44.74 =	3.35%
6	PNY	PIEDMONT NATURAL GAS COMPANY	1.00 /	25.21 =	3.97%
7	SJI	SOUTH JERSEY INDUSTRIES, INC.	2.06 /	34.78 =	5.92%
8	WGL	WGL HOLDINGS, INC.	1.36 /	32.15 =	4.23%
9	AVERAGE				4.55%

REFERENCES:

COLUMN (A): ESTIMATED 12 MONTH DIVIDEND REPORTED IN VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 03/14/2008

COLUMN (B): EIGHT WEEK AVERAGE OF CLOSING PRICES FROM 01/28/2008 TO 03/20/2008

COLUMN (C): STOCK QUOTES OBTAINED THROUGH BIG CHARTS WEB SITE - HISTORICAL QUOTES (www.bigcharts.com)

SOUTHWEST GAS CORPORATION
 TEST YEAR ENDED APRIL 30, 2007
 DIVIDEND GROWTH RATE CALCULATION

DOCKET NO. G-01551A-07-0504
 SCHEDULE WAR - 4
 PAGE 1 OF 2

LINE NO.	STOCK SYMBOL	COMPANY	(A) INTERNAL GROWTH (br)	+	(B) EXTERNAL GROWTH (sv)	=	(C) DIVIDEND GROWTH (g)
1	ATG	AGL RESOURCES, INC.	5.75%	+	0.17%	=	5.92%
2	ATO	ATMOS ENERGY CORP.	4.00%	+	0.48%	=	4.48%
3	LG	LACLEDE GROUP, INC.	4.25%	+	1.00%	=	5.25%
4	GAS	NICOR, INC.	5.00%	+	0.09%	=	5.09%
5	NWN	NORTHWEST NATURAL GAS COMPANY	4.70%	+	0.03%	=	4.73%
6	PNY	PIEDMONT NATURAL GAS COMPANY	3.50%	+	0.01%	=	3.51%
7	SJI	SOUTH JERSEY INDUSTRIES, INC.	7.90%	+	0.75%	=	8.65%
8	WGL	WGL HOLDINGS, INC.	3.75%	+	0.05%	=	3.80%
9	AVERAGE						5.18%

REFERENCES:
 COLUMN (A): TESTIMONY, WAR
 COLUMN (B): SCHEDULE WAR - 4, PAGE 2, COLUMN C
 COLUMN (C): COLUMN (A) + COLUMN (B)

SOUTHWEST GAS CORPORATION
 TEST YEAR ENDED APRIL 30, 2007
 DIVIDEND GROWTH RATE CALCULATION

DOCKET NO. G-01551A-07-0504
 SCHEDULE WAR - 4
 PAGE 2 OF 2

LINE NO.	STOCK SYMBOL	COMPANY	(A) SHARE GROWTH	(B) $\{ [((M / B) + 1) / 2] - 1 \}$	(C) EXTERNAL GROWTH (sv)
1	ATG	AGL RESOURCES, INC.	0.55%	$\{ [((1.61) + 1) / 2] - 1 \}$	= 0.17%
2	ATO	ATMOS ENERGY CORP.	5.25%	$\{ [((1.18) + 1) / 2] - 1 \}$	= 0.48%
3	LG	LACLEDE GROUP, INC.	3.00%	$\{ [((1.67) + 1) / 2] - 1 \}$	= 1.00%
4	GAS	NICOR, INC.	0.25%	$\{ [((1.76) + 1) / 2] - 1 \}$	= 0.09%
5	NWN	NORTHWEST NATURAL GAS COMPANY	0.07%	$\{ [((1.95) + 1) / 2] - 1 \}$	= 0.03%
6	PNY	PIEDMONT NATURAL GAS COMPANY	0.01%	$\{ [((2.02) + 1) / 2] - 1 \}$	= 0.01%
7	SJI	SOUTH JERSEY INDUSTRIES, INC.	1.50%	$\{ [((2.00) + 1) / 2] - 1 \}$	= 0.75%
8	WGL	WGL HOLDINGS, INC.	0.20%	$\{ [((1.52) + 1) / 2] - 1 \}$	= 0.05%
9	NATURAL GAS LDC AVERAGE				0.32%

REFERENCES:

COLUMN (A): TESTIMONY, WAR
 COLUMN (B): VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 03/14/2008
 COLUMN (C): COLUMN (A) x COLUMN (B)

LINE NO.	STOCK SYMBOL	WATER COMPANY NAME	OPERATING PERIOD	(A) RETENTION RATIO (b) x	(B) RETURN ON BOOK EQUITY (t) =	(C) DIVIDEND GROWTH (g)	(D) BOOK VALUE (\$/SHARE)	(E) SHARES OUTST. (MILLIONS)	(F) SHARE GROWTH
1	ATG	AGL RESOURCES, INC.	2003	0.4663	14.00%	6.53%	14.66	64.50	
2			2004	0.4956	11.00%	5.45%	18.06	76.70	
3			2005	0.4758	12.90%	6.14%	19.29	77.70	
4			2006	0.4559	13.20%	6.02%	20.71	77.70	
5			2007	0.3971	12.70%	5.04%	21.74	76.40	
6			[GROWTH 2003 - 2007			5.84%	10.50%		4.32%
7			2008	0.4000	12.50%	5.00%		76.00	-0.52%
8			2009	0.4069	13.00%	5.29%		76.00	-0.26%
9			2011-13	0.4250	14.50%	6.16%	1.50%	80.00	0.93%
10									
11	ATO	ATMOS ENERGY CORP.	2003	0.2982	9.30%	2.77%	16.66	51.48	
12			2004	0.2278	7.60%	1.73%	18.05	62.80	
13			2005	0.2791	8.50%	2.37%	19.90	80.54	
14			2006	0.3700	9.80%	3.63%	20.16	81.74	
15			2007	0.3402	8.70%	2.96%	22.01	89.33	
16			[GROWTH 2003 - 2007			2.69%	9.00%		14.77%
17			2008	0.3500	9.00%	3.15%		94.00	5.23%
18			2009	0.3714	9.50%	3.53%		99.00	5.27%
19			2011-13	0.4286	9.50%	4.07%	3.50%	115.00	5.18%
20									
21	LG	LACLEDE GROUP, INC.	2003	0.2637	11.60%	3.06%	15.65	19.11	
22			2004	0.2582	10.10%	2.61%	16.96	20.98	
23			2005	0.2789	10.90%	3.04%	17.31	21.17	
24			2006	0.4093	12.50%	5.12%	18.85	21.36	
25			2007	0.3723	11.60%	4.32%	19.79	21.65	
26			[GROWTH 2003 - 2007			3.63%	4.50%		3.17%
27			2008	0.3660	11.50%	4.21%		22.00	1.62%
28			2009	0.3489	11.00%	3.84%		22.50	1.94%
29			2011-13	0.3889	11.00%	4.28%	5.00%	25.50	3.33%
30									
31	GAS	NICOR, INC.	2003	0.1185	12.30%	1.46%	17.13	44.04	
32			2004	0.1622	12.30%	2.12%	16.99	44.10	
33			2005	0.1806	12.30%	2.26%	18.36	44.18	
34			2006	0.3519	12.30%	5.17%	19.43	44.90	
35			2007	0.3212	12.30%	4.34%	20.40	45.20	
36			[GROWTH 2003 - 2007			3.07%	2.50%		0.65%
37			2008	0.1733	12.30%	1.91%		45.00	-0.44%
38			2009	0.2692	12.30%	3.23%		45.00	-0.22%
39			2011-13	0.4154	12.30%	5.61%	4.00%	46.00	0.35%

REFERENCES:
 COLUMNS (A) & (B): VALUE LINE INVESTMENT SURVEY
 - RATINGS & REPORTS DATED 03/14/2008
 COLUMN (C): COLUMN (A) x COLUMN (B)
 COLUMN (D): LINES 6, 16, 26 & 36, SIMPLE AVERAGE GROWTH, 2002 - 2006
 COLUMN (E): VALUE LINE INVESTMENT SURVEY
 COLUMN (F): COMPOUND GROWTH RATES OF DATES SHOWN

SOUTHWEST GAS CORPORATION
 TEST YEAR ENDED APRIL 30, 2007
 DIVIDEND GROWTH COMPONENTS

DOCKET NO. G-01551A-07-0504
 SCHEDULE WAR - 5
 PAGE 2 OF 2

LINE NO.	STOCK SYMBOL	NATURAL GAS LDC NAME	OPERATING PERIOD	(A) RETENTION RATIO (b)	(B) 8.50% BOOK EQUITY (f) =	(C) DIVIDEND GROWTH (g)	(D) BOOK VALUE (\$/SHARE)	(E) SHARES OUTST. (MILLIONS)	(F) SHARE GROWTH
1	NWN	NORTHWEST NATURAL GAS COMPANY	2003	0.2784	9.00%	2.51%	19.52	25.94	
2			2004	0.3011	8.90%	2.68%	20.64	27.55	
3			2005	0.3744	9.90%	3.71%	21.28	27.58	
4			2006	0.4085	10.90%	4.45%	21.97	27.28	
5			2007	0.4783	12.50%	5.98%	22.52	26.41	
6			GROWTH 2003 - 2007			3.86%	3.50%		0.45%
7			2008	0.4154	11.00%	4.57%		26.00	-1.55%
8			2009	0.4182	11.00%	4.60%		26.00	-0.78%
9			2011-13	0.4388	11.00%	4.83%	3.50%	28.00	1.18%
10									
11	PNY	PIEDMONT NATURAL GAS COMPANY	2003	0.2613	11.80%	3.08%	9.36	67.31	
12			2004	0.3307	11.10%	3.67%	11.15	76.67	
13			2005	0.3106	11.50%	3.57%	11.53	76.70	
14			2006	0.2578	11.00%	2.84%	11.83	74.61	
15			2007	0.2929	11.90%	3.49%	11.99	73.23	
16			GROWTH 2003 - 2007			3.33%	6.50%		2.13%
17			2008	0.3067	12.00%	3.68%		73.00	-0.31%
18			2009	0.3032	12.00%	3.64%		72.75	-0.33%
19			2011-13	0.3143	12.50%	3.93%	3.50%	72.00	-0.34%
20									
21	SJI	SOUTH JERSEY INDUSTRIES, INC.	2003	0.4307	11.60%	5.00%	11.26	26.46	
22			2004	0.4810	12.50%	6.01%	12.41	27.76	
23			2005	0.4971	12.40%	6.16%	13.50	28.96	
24			2006	0.6260	16.30%	10.20%	15.11	29.33	
25			2007	0.5167	12.90%	6.67%	16.24	29.62	
26			GROWTH 2003 - 2007			6.81%	13.50%		2.86%
27			2008	0.5111	13.00%	6.64%		30.00	1.28%
28			2009	0.5265	13.50%	7.11%		30.50	1.47%
29			2011-13	0.5733	14.50%	8.31%	5.00%	32.00	1.56%
30									
31	WGL	WGL HOLDINGS, INC.	2003	0.4435	14.00%	6.21%	16.25	48.63	
32			2004	0.3434	14.00%	4.81%	16.95	48.67	
33			2005	0.3744	12.00%	4.49%	17.80	48.65	
34			2006	0.3093	10.20%	3.15%	18.28	48.89	
35			2007	0.3476	10.40%	3.62%	19.83	49.45	
36			GROWTH 2003 - 2007			4.46%	3.50%		0.42%
37			2008	0.3913	11.50%	4.50%		49.50	0.10%
38			2009	0.3872	11.00%	4.26%		49.60	0.15%
39			2011-13	0.3760	10.50%	3.95%	5.00%	50.00	0.22%

REFERENCES:
 COLUMNS (A) & (B): VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 03/14/2008
 COLUMN (C): COLUMN (A) x COLUMN (B)
 COLUMN (D): LINES 6, 16, 26 & 36, SIMPLE AVERAGE GROWTH, 2002 - 2006
 COLUMN (E): VALUE LINE INVESTMENT SURVEY
 COLUMN (F): COMPOUND GROWTH RATES OF DATES SHOWN

SOUTHWEST GAS CORPORATION
 TEST YEAR ENDED APRIL 30, 2007
 GROWTH RATE COMPARISON

DOCKET NO. G-01551A-07-0504
 SCHEDULE WAR - 6

NATURAL GAS LDC SAMPLE:

LINE NO.	STOCK SYMBOL	(A)		(B)		(C)		(D)		(E)		(F)	
		(br) + (sv)		ZACKS EPS	EPS	VALUE LINE PROJECTED DPS	BVPS	EPS	VALUE LINE HISTORIC DPS	BVPS	VALUE LINE & ZACKS AVGS.	EPS	5 - YEAR COMPOUND HISTORY DPS
1	ATG	5.92%	4.80%	3.50%	1.50%	4.00%	10.50%	15.00%	4.00%	10.50%	6.94%	10.25%	10.35%
2	ATO	4.48%	4.60%	4.50%	3.50%	2.00%	9.00%	7.50%	1.50%	9.00%	3.21%	1.63%	7.21%
3	LG	5.25%	-	3.50%	5.00%	2.50%	4.50%	9.50%	1.00%	4.50%	6.14%	1.99%	6.04%
4	GAS	5.09%	4.00%	4.00%	4.00%	0.50%	2.50%	-3.00%	2.50%	2.50%	6.75%	0.00%	4.46%
5	NWN	4.73%	5.30%	7.00%	3.50%	5.50%	3.50%	3.50%	1.50%	3.50%	11.90%	3.19%	3.64%
6	PNY	3.51%	5.50%	5.00%	3.50%	4.00%	6.50%	6.00%	4.50%	6.50%	5.97%	4.82%	6.39%
7	SJI	8.65%	7.50%	NMF	5.00%	5.50%	13.50%	12.00%	3.50%	13.50%	11.14%	6.67%	9.59%
8	WGL	3.80%	4.00%	3.50%	5.00%	2.50%	3.50%	5.00%	1.50%	3.50%	-2.25%	1.71%	5.10%
9	AVERAGES	5.18%	5.10%	4.43%	3.88%	3.31%	6.69%	6.94%	2.50%	6.69%	6.23%	3.78%	6.60%
10	AVERAGES			3.87%		5.38%		4.74%		5.54%			

REFERENCES:

- COLUMN (A): SCHEDULE WAR - 4, PAGE 1, COLUMN C
- COLUMN (B): ZACKS INVESTMENT RESEARCH (www.zacks.com)
- COLUMN (C): VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 03/14/2008
- COLUMN (D): VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 03/14/2008
- COLUMN (E): SIMPLE AVERAGE OF COLUMNS (B) THRU (D) LINES 1 THRU 8
- COLUMN (F): 5-YEAR ANNUAL GROWTH RATE CALCULATED WITH DATA COMPILED FROM VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 03/14/2008

BASED ON A GEOMETRIC MEAN:

LINE NO.	STOCK SYMBOL	(A)				(B)
		k	$=$	$r_f + [\beta \times (r_m - r_f)]$	$=$	EXPECTED RETURN
1	ATG	k	$=$	$1.65\% + [0.85 \times (10.40\% - 1.65\%)]$	$=$	9.09%
2	ATO	k	$=$	$1.65\% + [0.85 \times (10.40\% - 1.65\%)]$	$=$	9.09%
3	LG	k	$=$	$1.65\% + [0.90 \times (10.40\% - 1.65\%)]$	$=$	9.52%
4	GAS	k	$=$	$1.65\% + [1.00 \times (10.40\% - 1.65\%)]$	$=$	10.40%
5	NWN	k	$=$	$1.65\% + [0.80 \times (10.40\% - 1.65\%)]$	$=$	8.65%
6	PNY	k	$=$	$1.65\% + [0.85 \times (10.40\% - 1.65\%)]$	$=$	9.09%
7	SJI	k	$=$	$1.65\% + [0.80 \times (10.40\% - 1.65\%)]$	$=$	8.65%
8	WGL	k	$=$	$1.65\% + [0.85 \times (10.40\% - 1.65\%)]$	$=$	9.09%
9	AVERAGE			0.86		9.20%

REFERENCES:

COLUMN (A): SHARPE LITNER CAPITAL ASSET PRICING MODEL ("CAPM") FORMULA

$$k = r_f + [\beta (r_m - r_f)]$$

- WHERE:
- k = THE EXPECTED RETURN ON A GIVEN SECURITY
 - r_f = RATE OF RETURN ON A RISK FREE ASSET PROXY (a)
 - β = THE BETA COEFFICIENT OF A GIVEN SECURITY
 - r_m = PROXY FOR THE MARKET RATE OF RETURN (b)

COLUMN (B): EXPECTED RATE OF RETURN USING THE CAPM FORMULA

NOTES

(a) A 6-WEEK AVERAGE OF THE 91-DAY T-BILL RATES THAT APPEARED IN VALUE LINE INVESTMENT SURVEYS "SELECTION & OPINIONS" PUBLICATION FROM 02/22/2008 THROUGH 03/28/2008 WAS USED AS A RISK FREE RATE OF RETURN.

(b) THE MARKET RATE PROXY USED WAS THE GEOMETRIC MEAN FOR S&P 500 RETURNS OVER THE 1926 - 2006 PERIOD. THE DATA WAS OBTAINED FROM MORNINGSTAR, INC.'S STOCKS, BONDS, BILLS AND INFLATION: 2007 YEARBOOK.

BASED ON AN ARITHMETIC MEAN:

LINE NO.	STOCK SYMBOL	(A)	(B)
		$k = r_f + [\beta \times (r_m - r_f)] =$	EXPECTED RETURN
1	ATG	$k = 1.65\% + [0.85 \times (12.30\% - 1.65\%)] =$	10.70%
2	ATO	$k = 1.65\% + [0.85 \times (12.30\% - 1.65\%)] =$	10.70%
3	LG	$k = 1.65\% + [0.90 \times (12.30\% - 1.65\%)] =$	11.23%
4	GAS	$k = 1.65\% + [1.00 \times (12.30\% - 1.65\%)] =$	12.30%
5	NWN	$k = 1.65\% + [0.80 \times (12.30\% - 1.65\%)] =$	10.17%
6	PNY	$k = 1.65\% + [0.85 \times (12.30\% - 1.65\%)] =$	10.70%
7	SJI	$k = 1.65\% + [0.80 \times (12.30\% - 1.65\%)] =$	10.17%
8	WGL	$k = 1.65\% + [0.85 \times (12.30\% - 1.65\%)] =$	10.70%
9	AVERAGE	<u>0.86</u>	<u>10.83%</u>

REFERENCES:

COLUMN (A): SHARPE LITNER CAPITAL ASSET PRICING MODEL ("CAPM") FORMULA

$$k = r_f + [\beta (r_m - r_f)]$$

WHERE:
 k = THE EXPECTED RETURN ON A GIVEN SECURITY
 r_f = RATE OF RETURN ON A RISK FREE ASSET PROXY (a)
 β = THE BETA COEFFICIENT OF A GIVEN SECURITY
 r_m = PROXY FOR THE MARKET RATE OF RETURN (b)

COLUMN (B): EXPECTED RATE OF RETURN USING THE CAPM FORMULA

NOTES

- (a) A 6-WEEK AVERAGE OF THE 91-DAY T-BILL RATES THAT APPEARED IN VALUE LINE INVESTMENT SURVEY'S "SELECTION & OPINIONS" PUBLICATION FROM 02/22/2008 THROUGH 03/28/2008 WAS USED AS A RISK FREE RATE OF RETURN.
- (b) THE MARKET RATE PROXY USED WAS THE ARITHMETIC MEAN FOR S&P 500 RETURNS OVER THE 1926 - 2006 PERIOD. THE DATA WAS OBTAINED FROM MORNINGSTAR, INC.'S STOCKS, BONDS, BILLS AND INFLATION, 2007 YEARBOOK.

SOUTHWEST GAS CORPORATION
 TEST YEAR ENDED APRIL 30, 2007
 ECONOMIC INDICATORS - 1990 TO PRESENT

DOCKET NO. G-01551A-07-0504
 SCHEDULE WAR - 8

LINE NO.	YEAR	(A) CHANGE IN CPI	(B) CHANGE IN GDP (1996 \$)	(C) PRIME RATE	(D) FED. DISC. RATE	(E) FED. FUNDS RATE	(F) 91-DAY T-BILLS	(G) 30-YR T-BONDS	(H) A-RATED UTIL. BOND YIELD	(I) Baa-RATED UTIL. BOND YIELD
1	1990	5.40%	1.90%	10.01%	6.98%	8.10%	7.50%	7.49%	9.86%	10.06%
2	1991	4.21%	-0.20%	8.46%	5.45%	5.69%	5.38%	5.38%	9.36%	9.55%
3	1992	3.01%	3.30%	6.25%	3.25%	3.52%	3.43%	3.43%	8.69%	8.86%
4	1993	2.99%	2.70%	6.00%	3.00%	3.02%	3.00%	3.00%	7.59%	7.91%
5	1994	2.56%	4.00%	7.14%	3.60%	4.21%	4.25%	4.25%	8.31%	8.63%
6	1995	2.83%	2.50%	8.83%	5.21%	5.83%	5.49%	5.49%	7.89%	8.29%
7	1996	2.95%	3.70%	8.27%	5.02%	5.30%	5.01%	5.01%	7.75%	8.17%
8	1997	1.70%	4.50%	8.44%	5.00%	5.46%	5.06%	5.06%	7.60%	8.12%
9	1998	1.60%	4.20%	8.35%	4.92%	5.35%	4.78%	4.78%	7.04%	7.27%
10	1999	2.70%	4.50%	7.99%	4.62%	4.97%	4.64%	4.64%	7.62%	7.88%
11	2000	3.40%	3.70%	9.23%	5.73%	6.24%	5.82%	5.82%	8.24%	8.36%
12	2001	1.60%	0.80%	6.92%	3.41%	3.88%	3.40%	3.40%	7.59%	8.02%
13	2002	2.40%	1.60%	4.67%	1.17%	1.67%	1.61%	1.61%	7.41%	7.98%
14	2003	1.90%	2.50%	4.12%	2.03%	1.13%	1.01%	1.01%	6.18%	6.64%
15	2004	3.30%	3.90%	4.34%	2.34%	1.35%	1.37%	1.37%	5.77%	6.20%
16	2005	3.40%	3.20%	6.16%	4.19%	3.22%	3.15%	3.15%	5.38%	5.78%
17	2006	2.50%	3.30%	7.97%	5.96%	4.97%	4.73%	4.73%	5.94%	6.30%
18	2007	4.10%	2.20%	8.05%	5.86%	5.02%	4.36%	4.36%	6.07%	6.24%
19	CURRENT	4.00%	0.60%	5.25%	2.50%	2.25%	0.56%	4.72%	5.96%	6.14%

REFERENCES:

COLUMN (A): 1990 - CURRENT, U.S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS WEB SITE
 COLUMN (B): 1990 - CURRENT, U.S. DEPARTMENT OF COMMERCE, BUREAU OF ECONOMIC ANALYSIS WEB SITE
 COLUMN (C) THROUGH (G): 1990 - 2003, FEDERAL RESERVE BANK OF ST. LOUIS WEB SITE
 COLUMN (C) THROUGH (F): CURRENT, THE VALUE LINE INVESTMENT SURVEY, DATED 03/28/2008
 COLUMN (G) THROUGH (I): CURRENT, THE VALUE LINE INVESTMENT SURVEY, DATED 03/28/2008
 COLUMN (H) THROUGH (J): 1990 - 2000, MOODY'S PUBLIC UTILITY REPORTS
 COLUMN (H) THROUGH (I): 2001, MERGENT 2002 PUBLIC UTILITY MANUAL
 COLUMN (H) THROUGH (I): 2003, MERGENT NEWS REPORTS

AVERAGE CAPITAL STRUCTURES OF SAMPLE NATURAL GAS COMPANIES

LINE NO.	ATG	PCT.	ATO	PCT.	LG	PCT.	GAS	PCT.
1								
2								
3	\$ 1,622.0	50.2%	\$ 1,965.7	48.0%	\$ 355.5	45.3%	\$ 497.5	36.3%
4								
5	0.0	0.0%	0.0	0.0%	0.6	0.1%	0.6	0.0%
6								
7	1,609.0	49.8%	2,126.3	52.0%	428.3	54.6%	872.6	63.7%
8								
9	\$ 3,231.0	100.0%	\$ 4,092.0	100.0%	\$ 784.4	100.0%	\$ 1,370.7	100.0%
10								
11								
12								
13								
14	\$ 517.0	46.3%	\$ 824.8	48.4%	\$ 358.0	44.7%	\$ 616.4	37.9%
15								
16	0.0	0.0%	0.0	0.0%	0.0	0.0%	28.2	1.7%
17								
18	599.5	53.7%	878.3	51.6%	443.0	55.3%	980.7	60.3%
19								
20	\$ 1,116.5	100.0%	\$ 1,703.1	100.0%	\$ 801.1	100.0%	\$ 1,625.3	100.0%
21								
22								
23								
24								
25								
26	\$ 844.6	45.9%	\$ 1,191.5	52.7%				
27								
28	3.7	0.2%	100.0	4.4%				
29								
30	992.2	53.9%	970.3	42.9%				
31								
32	\$ 1,840.5	100.0%	\$ 2,261.8	100.0%				

NATURAL GAS LDC AVERAGE	PCT.	SOUTHWEST GAS CORP. AVERAGE	PCT.
\$ 844.6	45.9%	\$ 1,191.5	52.7%
3.7	0.2%	100.0	4.4%
992.2	53.9%	970.3	42.9%
\$ 1,840.5	100.0%	\$ 2,261.8	100.0%

REFERENCE:
 MOST RECENT ANNUAL REPORTS OR SEC 10-K FILINGS

SOUTHWEST GAS CORPORATION

DOCKET NO. G-01551A-07-0504

DIRECT TESTIMONY

OF

RODNEY L. MOORE

ON BEHALF OF

THE

RESIDENTIAL UTILITY CONSUMER OFFICE

March 28, 2008

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1 **INTRODUCTION**

2 Q. Please state your name, position, employer and address.

3 A. Rodney L. Moore, Public Utilities Analyst V

4 Residential Utility Consumer Office

5 1110 West Washington Street, Suite 220

6 Phoenix, Arizona 85007.

7

8 Q. Please state your educational background and qualifications in the utility
9 regulation field.

10 A. Appendix 1, which is attached to this testimony, describes my educational
11 background and includes a list of the rate case and regulatory matters in
12 which I have participated.

13

14 Q. Please state the purpose of your testimony.

15 A. The purpose of my testimony is to present RUCO's recommendations
16 regarding Southwest Gas Corporation's ("Company" or "SWG") application
17 for a determination of the current fair value of its utility plant and property
18 and for increases in its rates and charges based thereon for gas service.
19 The test year utilized by the Company in connection with the preparation
20 of this application is the 12-month period that ended April 30, 2007.

21

22

23

1 **BACKGROUND**

2 Q. Please describe your work effort on this project.

3 A. I obtained and reviewed data and performed analytical procedures
4 necessary to understand the Company's filing as it relates to operating
5 income, rate base, the Company's overall revenue requirement and rate
6 design. My recommendations are based on these analyses. Procedures
7 performed include the in-house formulation and analysis of seven sets of
8 data requests, the review and analysis of Company responses to
9 Commission Staff data requests, conversations with Company personnel
10 and the review of prior ACC dockets related to SWG.

11
12 The Commission in Decision No. 68487, dated February 23, 2006,
13 approved the Company's present rates and charges for utility service.
14 The test year used in that proceeding was the 12-month period ending
15 August 31, 2004.

16
17 Q. What areas will you address in your testimony?

18 A. I will address issues related to rate base, operating income and revenue
19 requirements. RUCO's witness William A. Rigsby will provide an analysis
20 of the cost of capital as presented on Schedule RLM-19. RUCO's witness
21 Marylee Diaz Cortez will address rate design in her testimony to be filed
22 April 11, 2008. I will sponsor the rate design exhibits that will be filed with
23 the testimony of Ms. Diaz Cortez.

1 Q. Please identify the exhibits you are sponsoring.

2 A. I am sponsoring Schedules numbered RLM-1 through RLM-19.

3

4 **SUMMARY OF ADJUSTMENTS**

5 Q. Please summarize the adjustments to rate base, operating income and
6 revenue requirements addressed in your testimony.

7 A. My testimony addresses the following issues:

8 **Rate Base**

9 Fair Value Rate Base – This adjustment states the fair value rate base by
10 giving equal weighting (50/50 split) to RUCO's adjusted original cost rate
11 base and RUCO's calculation of the reconstruction cost new depreciated
12 rate base.

13 Construction Completed Not Classified - This adjustment includes the
14 value of retired plant associated with the completed construction not
15 classified recommended for rate base treatment.

16 Annualized Intangible Assets - This adjustment removes those assets,
17 which will be fully amortized shortly after the end of the test year and
18 includes those intangible assets that entered service shortly after the end
19 of the test year.

20 Retired Plant Associated With the Sale of the "TEP Bypass" - This
21 adjustment includes the value of retired plant associated with Tucson
22 Electric Power Company's cancellation of gas transportation service
23 through the "TEP Bypass", SWG's corresponding normalization of test-

1 year revenue and the Company's acknowledgement of the upcoming sale
2 of these assets.

3 Accumulated Deferred Income Taxes Associated With Incentive
4 Compensation and the Supplemental Executive Retirement Plan - This is
5 a companion adjustment to recognize the deferred tax implications on
6 RUCO's operating income adjustments to the Company's incentive
7 compensation program and the supplemental executive retirement plan
8 discussed below.

9 Allowance For Working Capital - This adjustment is the difference in the
10 level of expense recommendations calculated by the Company and
11 RUCO.

12 **Operating Income**

13 Labor and Labor Loading Annualization Expense - This adjustment
14 reduces test-year operating expenses to reflect RUCO's recommended
15 level of annualized payroll and payroll taxes.

16 Injuries and Damages Expense - This adjustment reflects RUCO's
17 determination of an average annual level of expense.

18 Paiute Allocation Annualization Expense - This is a conforming
19 adjustment corresponding to the Company's acknowledgment of
20 omissions in the original filing expenses.

21 Depreciation and Amortization Annualization Expense - This adjustment
22 reflects depreciation and amortization expenses calculated on RUCO's
23 recommended gross plant in service.

1 Property Tax Expense - This adjustment reflects the appropriate level of
2 property tax expense given RUCO's recommended level of net plant in
3 service.

4 Unnecessary and/or Inappropriate Expenses – RUCO expanded the
5 scope of the Company's proposed adjustment to miscellaneous expense
6 adjustments and removed inappropriate expenditures not necessary in the
7 provisioning of gas service.

8 Management Incentive Program - This adjustment reflects RUCO's
9 determination to split the cost on a 50/50 basis for expenses associated
10 with employee incentive compensation.

11 Supplemental Executive Retirement Plan – This adjustment reflects
12 RUCO's determination to remove the cost of the supplemental executive
13 retirement plan.

14 Employee Recognition - This adjustment reflects RUCO's determination to
15 remove the costs of gifts and awards associated with employee
16 recognition.

17 Uncollectible Expense – This adjustment reduces test-year operating
18 expenses to reflect RUCO's recommended level of normalized
19 uncollectible expense.

20 Income Tax Expense – This adjustment reflects income tax expenses
21 calculated on RUCO's recommended revenues and expenses.

22
23

1 **Rate Design**

2 Q. Please explain your contribution to RUCO's recommended rate designs.

3 A. I was responsible for producing an accurate set of bill determinants (i.e.
4 test-year customer bill counts and therms consumed). After reviewing the
5 Company's workpapers, I accepted SWG's bill determinants adjusted for
6 weather normalization and customer annualization. I will be filing
7 Schedule RLM-18 on April 11, 2008 as part of RUCO's rate design
8 recommendations. An in-depth discussion of RUCO's proposed rate
9 design will be contained in the testimony of RUCO witness Marylee Diaz
10 Cortez, also to be filed on April 11, 2008.

11

12 **REVENUE REQUIREMENTS**

13 Q. Please summarize the results of RUCO's analysis of the Company's filing
14 and state RUCO's recommended revenue requirement.

15 A. As outlined in Schedule RLM-1, RUCO is recommending that the increase
16 in the Company's revenue requirement not exceed:

17

	<u>SWG</u>	<u>RUCO</u>	<u>DIFFERENCE</u>
18	\$50,219,828	\$31,296,285	(\$18,923,543)

19

20 My recommended revenue requirement percentage increase versus the
21 Company's proposal is as follows:

22

	<u>SWG</u>	<u>RUCO</u>	<u>DIFFERENCE</u>
23	12.58 %	7.84 %	-4.74 %

1 RUCO's recommended increase in Fair Value Rate Base ("FVRB") based
2 on the equal weighting of a 50/50 split between Original Cost Rate Base
3 ("OCRB") and Reconstruction Cost New Depreciated Rate Base ("RCND")
4 is summarized on Schedule RLM-1:

	<u>SWG</u>	<u>RUCO</u>	<u>DIFFERENCE</u>
	\$1,469,135,558	\$1,463,643,611	(\$5,491,947)

7 The detail supporting RUCO's recommended rate base is presented on
8 Schedules RLM-2, RLM-3, RLM-4, RLM-5 and RLM-6.

9
10 RUCO's recommended required operating income is shown on Schedule
11 RLM-1 as:

	<u>SWG</u>	<u>RUCO</u>	<u>DIFFERENCE</u>
	\$103,457,659	\$96,226,345	(\$7,231,314)

14 Schedule RLM-1 presents the calculation of RUCO's recommended
15 revenue requirement.

16
17 **RATE BASE**

18 Fair Value Rate Base

19 Q. Please explain the basis for your determination of the fair value rate base
20 ("FVRB").

21 A. RUCO's determination of the FVRB consists of three elements. First, as
22 shown on RLM-2, the value of the OCRB was restated to reflect RUCO's
23 adjustment to the various rate base determinants. Second, as shown on

1 RLM-3, the value of the RCND was computed. Third, as shown of RLM-1,
2 the FVRB was computed on an equal weighted basis (50/50 split)
3 between RUCO's OCRB and RCND.

4
5 Q. Please elaborate on the first element of RUCO's FVRB determination.

6 A. The first element consists of adjustments to the OCRB. As shown on
7 RLM-4, RUCO made three adjustments to the OCRB, each of which is
8 discussed in detail below.

9
10 Q. Please elaborate on the second element of RUCO's FVRB determination.

11 A. The second element is the computation of the RCND. RUCO's RCND
12 was computed by multiplying RUCO's OCRB by the percentage difference
13 between the Company's OCRB and its RCND as filed.

14
15 Q. Please elaborate on the third element of RUCO's FVRB determination.

16 A. The third element is the computation of the FVRB. RUCO computed the
17 FVRB by calculating a 50/50 split between RUCO's OCRB and its RCND.

18
19 This adjustment to fair value rate base decreased the test-year rate base
20 by \$5,491,947.

21
22
23

1 Rate Base Adjustment No. 1 – Completed Construction Not Classified

2 Q. Please explain your adjustment to completed construction not classified
3 ("CCNC").

4 A. In response to RUCO data request 2.1, the Company acknowledged there
5 were corresponding plant retirements associated with the CCNC identified
6 in its Adjustment No. 17.

7
8 Therefore, my adjustment recognizes these plant retirements, because it
9 is necessary to match the test-year plant additions not classified with the
10 test-year retirements not classified.

11
12 Thus the adjustment reduces the gross plant in service by the value of the
13 retirements (\$66,377); however, the adjustment also reduces the
14 accumulated depreciation by an equal amount, which offsets any effect on
15 the rate base.

16
17 As shown on Schedule RLM-4 page 1, columns (D) and (E) and
18 supporting Schedule RLM-5, my adjustment decreases the adjusted rate
19 base by \$0. However, this adjustment has an effect on the test-year
20 depreciation expense, which is discussed later in my testimony on
21 operating income.

22
23

1 Rate Base Adjustment No. 2 – Annualized Intangible Assets

2 Q. Please explain the Company's proposed adjustment to annualize its test-
3 year intangible plant balances.

4 A. The Company's adjustment reflects construction expenditures made
5 before the end of the test year. However, the actual recording of this
6 construction activity into the plant accounts was made after the end of the
7 test year due to delays in entering the required information into the
8 Company's computer system.

9
10 Q. Do you agree with this adjustment?

11 A. No, not entirely. In response to Staff data requests 6.59 and 11.4, the
12 Company acknowledged it had over-estimated costs of certain intangible
13 plant additions in its original filing. My adjustment decreases the
14 Company's proposed estimates of intangible plant additions with the
15 actual plant additions.

16
17 These additional plant assets were system allocable miscellaneous
18 intangible items primarily related to computer software. RUCO accepts
19 the Company's recommendation to assign a three-year service life on
20 these intangible plant assets, which will be discussed later in my testimony
21 regarding operating income.

22
23

1 Thus the adjustment consists of determining the difference between the
2 estimated and actual costs, and adjusting SWG's rate base to reflect the
3 actual intangible plant additions.

4
5 As shown on Schedule RLM-4 page 2, column (E) and supporting
6 Schedule RLM-10, page 3, column (B), my adjustment decreases the
7 adjusted rate base by \$79,231.

8
9 Rate Base Adjustment No. 3 – Retired Plant Associated With the Sale of
10 the “TEP Bypass”

11 Q. Please explain your adjustment to retire plant associated with Tucson
12 Electric Power Company's (“TEP”) cancellation of gas service provided
13 through the “TEP bypass”.

14 A. In the testimony of Company witness Mr. Cattnach, he states SWG
15 annualized the test-year bills and volumes to reflect TEP's cancellation of
16 gas service pursuant to the “TEP bypass”. Moreover, in response to
17 RUCO data request 7.2, the Company acknowledged there was an
18 upcoming sale of the meters and pipes that service TEP planned for
19 March 31, 2008 to transfer ownership to TEP. Because SWG annualized
20 the end of test-year revenues based on end of test-year customer levels; it
21 is also appropriate to annualize rate base items, such as plant in service
22 and accumulated depreciation to reflect this adjusted customer level.

23

1 Therefore, my adjustment recognizes the plant that will be retired as a
2 result of the "TEP bypass". This adjustment is necessary to match the
3 test-year plant balances with the test-year customer level.

4
5 Thus, this adjustment reduces the gross plant in service by the value of
6 the retirements (\$210,619); however, the adjustment also reduces the
7 accumulated depreciation by an equal amount, which offsets any effect on
8 the rate base.

9
10 As shown on Schedule RLM-4 page 1, columns (G) and (H), my
11 adjustment decreases the adjusted rate base by \$0. This adjustment
12 however has an effect on the test-year depreciation expense, which is
13 discussed later in my testimony on operating income.

14
15 Rate Base Adjustment No. 4 – Accumulated Deferred Income Taxes
16 Associated With Management Incentive Program and the Supplemental
17 Executive Retirement Plan

18 Q. Please explain your adjustment to accumulated deferred income tax
19 ("ADIT").

20 A. In response to Staff data request 11.11, the Company identified the ADIT
21 associated with the management incentive program ("MIP") and the
22 supplemental executive retirement plan ("SERP").

23

1 Q. Have you removed the entire ADIT balance related to MIP and SERP from
2 rate base?

3 A. No. Since these two expenses have only been excluded from rates since
4 SWG's last rate case, I have only removed the ADIT that has accrued
5 since rates last went into effect through the end of the current test year. In
6 this manner I have properly matched the MIP and SERP expense
7 disallowances with the applicable ADIT accruals.

8
9 Furthermore, as shown on Schedule RLM-4, page 3, I have limited my
10 ADIT adjustment related to MIP to 50 percent, since this was the portion of
11 MIP expenses that was disallowed in SWG's prior rate order.

12
13 This is a companion adjustment to the MIP and SERP adjustments
14 discussed below.

15 As shown on Schedule RLM-2, column (B), line 8, and supporting
16 Schedule RLM-4, page 3, my adjustment decreases the adjusted rate
17 base by \$880,989.

18

19 Rate Base Adjustment No. 5 – Allowance For Working Capital

20 Q. What level of working capital is the Company requesting?

21 A. The Company is requesting a total working capital allowance of
22 \$5,681,932. This is comprised of cash working capital of (\$10,379,937),
23 materials and supplies of \$12,389,898, and prepayments of \$3,671,971.

1 Q. What is the basis of the Company's cash working capital request?

2 A. The Company's cash working capital request is based on the results of a
3 lead/lag study.

4
5 Q. Please explain cash working capital and how a lead/lag study is used to
6 measure cash working capital.

7 A. Cash working capital is the amount of cash needed by the Company to
8 pay for goods and services in advance of the receipt of the associated
9 revenues. The most accurate way to determine the necessary cash
10 working capital requirement is through a lead/lag study. A lead/lag study
11 measures the time between when service is rendered to customers and
12 when the associated cash revenues are collected from customers
13 (revenue lead/lag). The lead/lag study also measures the time between
14 when goods and services are consumed in the production of utility service
15 and when the utility makes payment for those goods and services
16 (expense lead/lag). If the average lag in the receipt of revenues exceeds
17 the average lag in payment of expenses, the utility has a positive cash
18 working capital requirement. If the lead/lag study reveals that the average
19 lag in the receipt of revenues is less than the average lag in the payment
20 of expenses, the utility has a negative cash working capital requirement.
21 In the first situation, stockholders must provide cash working capital to
22 span the timing difference. In the latter situation, customers are supplying
23 the cash working capital necessary to pay expenses through their earlier

1 payment of utility bills. The first situation requires an addition to rate base,
2 the latter situation requires a rate base reduction.

3

4 Q. Does the Company's cash working capital calculation reflect an accurate
5 and appropriate level of cash working capital?

6 A. No. The Company has made several errors in its calculation of cash
7 working capital.

8

9 Q. Please discuss these errors.

10 A. The Company-proposed interest lag of 84.65 days is incorrect because it
11 fails to include the interest expense related to its tax-deductible preferred
12 stock and fails to include the interest expense related to its customer
13 deposits. I have corrected both of these errors and recomputed an
14 interest expense lag of 83.80 days.

15

16 Q. Did you review the Company's other calculations of revenue and expense
17 lags?

18 A. Yes.

19

20 Q. Do you agree with all of the revenue and expense lags calculated by the
21 Company?

22 A. No. In addition to the interest lag, I believe the 7.5-day expense lag
23 calculated by the Company for Other O&M Expenses is understated.

1 Q. How did the Company calculate the Other O&M Expense lag?

2 A. The Company examined each test-year expense voucher that exceeded
3 \$10,000 and for each of these vouchers computed the lead/lag days
4 between the service period and the date of payment. The resultant 7.5-
5 day lag is the average of each of the individual test-year O&M expense
6 lags.

7

8 Q. Why do you believe the Other O&M Expenses lag is understated?

9 A. In response to a data request, the Company provided samples of the
10 vouchers it had included in its calculation of the Other O&M Expense lag.
11 My examination of these vouchers revealed that a number of the vouchers
12 included in the Other O&M Expense lag calculation were misclassified as
13 expenses, when in fact these expenditures were Prepayments.

14

15 The inclusion of these prepayments as expenses in the lead/lag
16 calculation has the effect of understating the true expense lag.

17

18 Q. What types of expenditures had the Company misclassified as expenses?

19 A. A number of large expenditures that the Company included in O&M
20 expense were payments for annual maintenance contracts, annual rental
21 payments, and extended warranties.

22

23

1 Under Generally Accepted Accounting Principles companies are required
2 to record expenditures that provide future benefit as Prepayments and to
3 amortize the expenditures over the period in which they provide benefit.
4

5 Q. What adjustment have you made?

6 A. I have removed those vouchers that represent Prepayments from the
7 Company's calculation of the Other O&M Expense lag. I also removed
8 two invoices for unnecessary expenses (\$17,200 as a sponsor for a golf
9 tournament and \$19,548 for an advertisement in "Restaurateur of
10 Arizona").
11

12 Q. Have you made any other adjustments to the Other O&M Expense lag?

13 A. Yes. In response to RUCO data request 6.1, the Company indicated that
14 it had made some errors in the compilation of the lag days for three
15 invoices. As shown on Schedule RLM-6, page 4, column (B), I have
16 corrected those errors.
17

18 Removal of the vouchers and correcting the lag days results in an
19 adjusted Other O&M Expense lag of 17.72 days.
20
21
22
23

1 Q. Are any other corrections and/or adjustments necessary to the Company's
2 lead/lag calculations?

3 A. Yes. As shown on Schedule RLM-6, page 2, column (B), I have adjusted
4 the expense levels included in the lead/lag study to reflect RUCO's
5 proposed level of expenses. This adjustment is necessary to synchronize
6 the lead/lag study with RUCO's pro-forma operating expenses.

7

8 Q. Did you review the other components the Company included in its working
9 capital request?

10 A. Yes. I reviewed the Materials and Supplies and Prepayment balances the
11 Company included in its working capital request.

12

13 Q. Are any adjustments necessary to these components?

14 A. Yes. The 13-month average Prepayment balance should be adjusted.
15 As just discussed above, the Company had misclassified several test-year
16 expenditures as O&M expenses, when in fact these expenditures were
17 Prepayments. I have removed these expenditures from the O&M
18 expenses included in the lead/lag study and I made a corresponding
19 adjustment to include these amounts in the test year Prepayments
20 balance (except for the two invoices deemed unnecessary - \$17,200 as a
21 sponsor for a golf tournament and \$19,548 for an advertisement in
22 "Restaurateur of Arizona").

23

1 As shown on Schedule RLM-6, page 5, I have transferred these
2 expenditures into the applicable month of the Prepayments account. I
3 have also reflected the effect on the Prepayment balance in each ensuing
4 month of the amortization of the prepayment.

5
6 This adjustment increases the 13-month average Prepayment balance by
7 \$4,013,462.

8
9 Q. Please summarize your adjustment to working capital?

10 A. RUCO recommends that the Company's cash working capital request be
11 adjusted to correct certain errors the Company made in its lead/lag study,
12 to reclassify certain test-year expenditures from O&M expense to
13 Prepayments, remove unnecessary expenditures and to synchronize with
14 RUCO's operating expense adjustments.

15
16 As shown on Schedule RLM-6, page 1, a decrease in the Company's
17 working capital request of \$4,507,854 is necessary.

18
19
20
21
22
23

1 **OPERATING INCOME**

2 Operating Income Summary

3 Q. Is RUCO recommending any changes to the Company's proposed
4 operating expenses?

5 A. Yes. As shown on Schedule RLM-8, pages 1 through 2, columns (B)
6 through (Q), I analyzed the Company's sixteen adjustments to its historical
7 test-year operating income and made several adjustments to the operating
8 income as filed by the Company. My review, analysis and adjustments
9 are explained below.

10
11 SWG Operating Income Adjustment No. 1 – Labor and Labor Loading

12 Annualization Expense

13 Q. Please explain your adjustment to labor and labor loading expenses.

14 A. RUCO does not generally vary from the strict implementation of the
15 Historical Test-Year principle to avoid mismatches in the ratemaking
16 elements. Therefore, I disallowed the Company's proposed wage
17 increases to be effective in June 2008.

18
19 Q. Please explain your computation associated with your adjustment.

20 A. After an analysis of the Company's workpapers, I accepted SWG's values
21 and methodology utilized to annualize the labor and labor loading, which
22 included annualization of the test-year payroll plus a 3 percent post test-
23 year payroll increase. However, to adhere to the Historical Test-Year

1 principle I made one adjustment to the Company's formula. I adjusted the
2 Company's proposed wage increase to be effective in June 2008 to zero;
3 no other adjustments to the Company's calculation of the annualization of
4 the labor and labor loading expense were made.

5
6 Q. Why is RUCO disallowing the June 2008 wage increase?

7 A. The inclusion of the June 2008 wage increase has the effect of triple-
8 counting the increases in the salary and wage accounts - once for
9 annualization of the test-year salaries, a second time for the post test-year
10 2007 three percent increase, and a third time for the 2008 increase. The
11 Company's annualization adjustment to reflect estimated levels that will be
12 in effect in June 2008 creates a mismatch between rate base, revenues
13 and expenses at the end of the test year. If the Commission were to
14 authorize rate recovery of the June 2008 payroll increases, the Company
15 would be creating biased rates by picking and choosing which rate base,
16 expense and revenue items it will reflect on an actual, projected or
17 annualized basis. The Company's logic that the June 2008 wage
18 increases should be allowed because they will be known and measurable
19 prior to the hearing in this proceeding could be extended to all other
20 operating income elements, since the Company will have recorded data
21 through May 2008 by the time the hearing commences; yet SWG did not
22 request post test year treatment of any other rate base, expense, or
23 revenue items.

1 Q. Please explain the rationale of RUCO's recommendation to include the
2 within grade movement and general wage increase effective May 2007
3 and June 2007 respectively, in the context of RUCO's strict adherence to
4 the Historical Test-Year principle.

5 A. RUCO carefully analyzed the timeliness of the labor cost increases
6 effective May 2007 and June 2007. Since the increases occurred within
7 days of the end of the test year, RUCO will accept as reasonable the
8 allowance of such annual adjustments for ratemaking treatment. This is
9 reasonable because these annual increases do not accurately coincide
10 with the staggered test year used in this case. Had SWG choose a test
11 year ending two months later these wage increases would have
12 automatically been included in operating expenses.

13
14 As shown on Schedule RLM-8, column (B) and supporting Schedule RLM-
15 9, my adjustment decreases adjusted test-year expenses by \$2,613,490.

16
17 Operating Income Adjustment No. 2 – Injury and Damages Expenses

18 Q. Please explain your adjustment to injury and damages expenses.

19 A. This is a conforming adjustment corresponding to the Company's
20 responses to RUCO Data Request 2.5 and Staff Data Request 1.53,
21 which recognized a failure to acknowledge \$283,664 in expenses in the
22 Company's original filing.

23

1 Therefore, as shown on Schedule RLM-8, column (C), this adjustment
2 increased test-year expenses by \$283,664.

3
4 Operating Income Adjustment No. 3 – Pauite Allocation Annualization
5 Expense

6 Q. Please explain your adjustment to the Pauite allocation expense.

7 A. This is a conforming adjustment corresponding to the Company's
8 responses to RUCO Data Request 2.5 and Staff Data Request 1.85,
9 which acknowledged a failure to remove an aggregate \$17,702 in
10 expenses in the Company's original filing.

11
12 Therefore, as shown on Schedule RLM-8, column (D), this adjustment
13 decreased test-year expenses by \$17,702.

14
15 Operating Income Adjustment No. 4 – Depreciation and Amortization
16 Annualization Expense

17 Q. Please explain your adjustment to depreciation and amortization
18 expenses.

19 A. The adjustment is primarily attributable to RUCO's rate base adjustments.
20 RUCO agrees with the set of depreciation rates that SWG is proposing to
21 implement on a going-forward basis and to amortize the intangible plant
22 included in the annualization adjustment over a three-year period.

23

1 As shown on Schedule RLM-8, column (E) and supporting Schedule RLM-
2 10, pages 1 through 3, my adjustment decreases adjusted test-year
3 expenses by \$58,204.

4
5 Operating Income Adjustment No. 5 – Property Tax Expense

6 Q. Do you agree with SWG's methodology for computing gas utility property
7 taxes?

8 A. Yes. I have used the same methodology to compute RUCO's
9 recommended level of property taxes. The difference in the amount I
10 calculated versus the Company is solely a result of our respective levels of
11 recommended net plant in service.

12
13 As shown on Schedule RLM-8, column (F) and supporting Schedule RLM-
14 11, RUCO and the Company, at the time of this filing, are in agreement on
15 the level of test-year net plant in service; therefore, the adjustment
16 increases adjusted test-year expenses by \$0.

1 Operating Income Adjustment No. 6 – Disallowance of Inappropriate
2 and/or Unnecessary Expenses

3 Q. Please explain your analysis of the various operating expense accounts
4 that result in your removal of inappropriate or unnecessary costs for the
5 provisioning of gas service.

6 A. After review of all the journal entries in various FERC accounts and the
7 Company's response to RUCO Data Request 5.1, I determined there were
8 numerous expenditures that were questionable, inappropriate, extravagant
9 and/or unnecessary.

10
11 Therefore, as summarized on Schedule RLM-12, I have made an
12 adjustment to remove test-year expenses related to payments to
13 chambers of commerce, non-profit organizations, donations, club
14 memberships, gifts, awards, extravagant corporate events, advertising
15 and for various meals, lodging and refreshments, which are not necessary
16 in the provisioning of gas service. The back-up documentation denoting
17 each individual expense removed is recorded in Revised Exhibit A: FERC
18 Account Code 880, pages 1 to 18, FERC Account 921, pages 1 to 14,
19 FERC Account 923, page 1, and FERC Account 930, page 1.

20
21 RUCO provided SWG with a copy of the original Exhibit A in a data
22 request to the Company. SWG concurred with RUCO in certain
23 transactions and withdrew its request for recovery. The Company also

1 responded with comments as to the appropriateness and necessity of
2 each expense. After analyzing the Company's response, RUCO removed
3 \$312,932 from the \$517,302 test-year expenses submitted on the original
4 Exhibit A.

5
6 However, of the questionable invoices originally submitted by RUCO on
7 Exhibit A there still remain expenditures that are questionable,
8 inappropriate, extravagant and/or unnecessary and that the Company
9 deems as appropriate charges for recovery from customers in rates. Such
10 "appropriate charges" include:

- 11 1. Massages for \$2,160;
- 12 2. Gift certificates to theaters, restaurants and shopping malls for
13 \$18,230;
- 14 3. Water, ice, coffee, beverages and refreshments for Company
15 offices for \$66,422;
- 16 4. Breakfast, lunch and dinners for meetings for \$71,358;
- 17 5. Management off-site meetings at the Crowne Plaza Hotel, J W
18 Marriott Starr Pass Resort and Spa, Orange Tree Golf Resort for
19 \$8,835; and
- 20 6. One Board of Directors' Meeting at the Southern Highlands Golf
21 Course (Company adjusted) for \$5,365. (SWG agreed to remove
22 \$3,107.51 itemized as beverages).

23

1 As shown on Schedule RLM-8, column (G) and supporting Schedule
2 RLM-12, this adjustment decreased test-year expenses by \$204,370.

3
4 Operating Income Adjustment No. 7 – Management Incentive Program

5 Q. Please provide an explanation for RUCO's adjustment to the management
6 incentive program ("MIP") expenses.

7 A. After reviewing the Commission's position on MIP expense as authorized
8 in the recent UNS Gas rate case (Decision No. 70011, dated November
9 27, 2007); RUCO recommends a 50/50 sharing as a reasonable balancing
10 of the interests between ratepayers and shareholders. The MIP is
11 comprised of elements that relate to the Company's financial performance
12 and cost containment goals, matters that primarily benefit shareholders;
13 plus elements based on meeting customer service goals, which offers
14 opportunity for the Company's customers to benefit from improved
15 performance.

16
17 Therefore, I split the MIP expense level on a 50/50 basis.

18
19 As shown on Schedule RLM-8, column (H) and supporting Schedule RLM-
20 13, this adjustment decreased test-year expenses by \$1,905,048.

1 Operating Income Adjustment No. 8 – Supplemental Executive Retirement
2 Plan

3 Q. Please explain the basis for the adjustment you made to Supplemental
4 Executive Retirement Plan (“SERP”) expenses.

5 A. The SERP is a retirement plan that is provided to a small select group of
6 high-ranking officers of the Company. The high-ranking officers who are
7 covered under the SERP receive these benefits in addition to the regular
8 retirement plan.

9
10 Q. Should ratepayers be required to pay the cost of supplemental benefits for
11 the high-ranking officers of the Company?

12 A. No. The cost of supplemental benefits for high-ranking officers is not a
13 necessary cost of providing electric service. These individuals are already
14 fairly compensated for their work and are provided with a wide array of
15 benefits including a medical plan, dental plan, life insurance, long term
16 disability, paid absence time, and a retirement plan. If the Company feels
17 it is necessary to provide additional perks to a select group of employees it
18 should do so at its own expense.

19
20 Q. In recent ACC Decisions did the Commissioners determine whether SERP
21 expenses were recoverable?

22 A. Yes. Recently, the Commission agreed with RUCO that SERP expenses
23 should not be the burden of ratepayers. In Southwest Gas’ latest rate

1 case, (Decision No. 68487, dated February 23, 2006) the Commission
2 agreed with RUCO that SERP should be excluded from operating
3 expenses. In Arizona Public Service's most recent rate case, (Decision
4 No. 69663, dated June 28, 2007), the Commission voted to disallow
5 SERP. Moreover, the Commission voted to disallow SERP in the UNS
6 Gas rate case (Decision No. 70011, dated November 27, 2007). There is
7 no reason to depart from this precedent; therefore, RUCO recommends
8 the removal of the test-year cost of the SERP from operating expenses.

9
10 As shown on Schedule RLM-8, column (I) and supporting Schedule RLM-
11 14, this adjustment decreased test-year expenses by \$1,940,914.

12
13 Operating Income Adjustment No. 9 – Employee Recognition

14 Q. Please explain the basis for your adjustment to operating expenses for the
15 removal of costs associated with employee recognition.

16 A. As previously explained in Operating Expense Adjustment No. 6, RUCO
17 believes it is inappropriate to burden ratepayers with expenses related to
18 payments to chambers of commerce, non-profit organizations, donations,
19 club memberships, gifts, awards, extravagant corporate events,
20 advertising and for various meals, lodging and refreshments, which are
21 not necessary in the provisioning of gas service.

22
23

1 Therefore, in the Company's responses to RUCO data request 2.4 and
2 Staff Data Request 1.42, SWG acknowledged \$54,174 was recorded in
3 the test-year general ledger for employee recognition, this amount
4 included expenses for such things as gift certificates to theaters,
5 restaurants and shopping malls, etc.. The Company's response also
6 states that no portion of the \$54,174 has been removed in any other
7 adjustment.

8
9 As shown on Schedule RLM-8, column (J), this adjustment decreased
10 test-year expenses by \$54,174.

11
12 Operating Income Adjustment No. 10 – Uncollectible Expense

13 Q. Please explain the basis for your adjustment to operating expenses for the
14 decrease in the uncollectible expense.

15 A. Through discovery I reviewed and analyzed three years of expenses
16 recorded in FERC account 904 – uncollectible accounts from 2004
17 through 2006.

18
19 My analysis indicated this expense was sufficiently volatile to recommend
20 a test year adjustment to acknowledge the wide variation in annual costs
21 and to provide recovery of a normalized level of uncollectibles.

1 My adjustment to the test year uncollectible expense in the instant case
2 consisted of two elements. First, I calculated the annual three-year
3 average of the ratio of the yearly uncollectible expense to that year's
4 revenue for 2004 through 2006. Second, I multiplied this computed
5 average ratio by RUCO's adjusted test-year revenue.

6
7 As shown on Schedule RLM-8, column (K) and supporting Schedule RLM-
8 15, this adjustment decreased test-year expenses by \$752,652.

9
10 Operating Income Adjustment No. 11 – Gain On The Sale Of Property

11 Q. Please explain your adjustment to operating expenses for the equity
12 realized from the Company's sale of property.

13 A. In its response to Staff data request 9.1, the Company acknowledged it is
14 appropriate to share the gain on the disposition of assets with the
15 ratepayers on a 50/50 basis. Therefore, my adjustment reflects a 50
16 percent share of the net proceeds realized from the sale of land and
17 structures identified through discovery.

18
19 Historically, the Commission has determined similar adjustments should
20 be amortized over a multi-year period; so to be consistent with the
21 Commission's decision and other adjustments in this case, the gain has
22 been amortized over a three-year period.

23

1 As shown on Schedule RLM-8, column (L) and supporting Schedule RLM-
2 16, this adjustment decreased test-year expenses by \$69,699.

3
4 Operating Income Adjustment No. 12 – Income Tax Expense – This
5 adjustment reflects income tax expenses calculated on RUCO's
6 recommended revenues and expenses.

7 As shown on Schedule RLM-8, column (Q) and supporting Schedule
8 RLM-17, this adjustment increased test-year expenses by \$3,118,244.

9
10 **RATE DESIGN AND PROOF OF RECOMMENDED REVENUE**

11 Q. Please explain your contribution to RUCO's recommended rate designs.

12 A. I was responsible for producing an accurate set of bill determinants (i.e.
13 test-year customer bill counts and therms consumed). I am in agreement
14 with the bill determinants normalized by the Company. My recommended
15 bill determinants are an integral part of the rate design presented on
16 Schedule RLM-19, pages 1 through 4, to be filed on April 11, 2008.

17
18 Ms. Marylee Diaz Cortez will discuss RUCO's proposed rate design and
19 structure in her testimony.

1 Q. Have you prepared a Schedule presenting proof of your recommended
2 revenue?

3 A. Yes, I have. Proof that my recommended rate design will produce the
4 recommended required revenue as illustrated, is presented also on
5 Schedule RLM-19.

6

7 **COST OF CAPITAL**

8 Q. Is RUCO proposing any adjustments to the Company proposed cost of
9 capital?

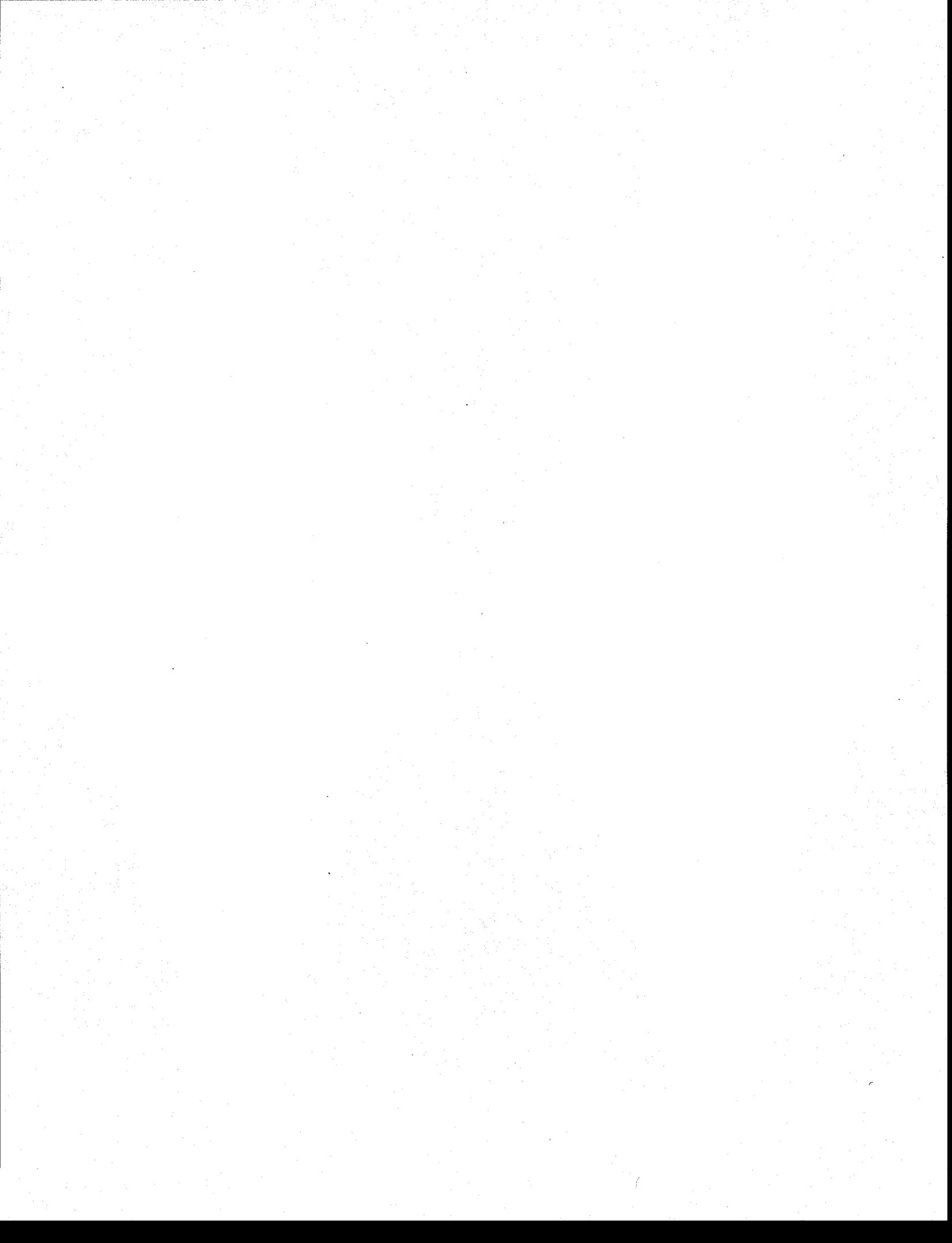
10 A. Yes, as shown on RLM-18, this adjustment decreases the Company's cost
11 of common equity and therefore its weighted cost of capital by 62 basis
12 points from 9.45 to 8.83 percent to reflect current market conditions.

13 This adjustment is fully explained in the testimony of RUCO witness
14 William A. Rigsby.

15

16 Q. Does this conclude your direct testimony?

17 A. Yes, it does.



APPENDIX 1

Qualifications of Rodney Lane Moore

EDUCATION: Athabasca University
Bachelor's Degree in Business Administration - 1993

EXPERIENCE: Public Utilities Analyst V
Residential Utility Consumer Office
Phoenix, Arizona 85007
May 2001 - Present

My duties include review and analysis of financial records and other documents of regulated utilities for accuracy, completeness, and reasonableness. I am also responsible for the preparation of work papers and Schedules resulting in testimony and/or reports regarding utility applications for increase in rates, financings, and other matters. Extensive use of Microsoft Excel and Word, spreadsheet modeling and financial statement analysis.

Auditor
Arizona Corporation Commission
Phoenix, Arizona 85007
October 1999 - May 2001

My duties include review and analysis of financial records and other documents of regulated utilities for accuracy, completeness, and reasonableness. I am also responsible for the preparation of work papers and Schedules resulting in testimony and/or reports regarding utility applications for increase in rates, financings, and other matters. Extensive use of Microsoft Excel and Word, spreadsheet modeling and financial statement analysis.

RESUME OF RATE CASE AND REGULATORY PARTICIPATION

<u>Utility Company</u>	<u>Docket No.</u>
Rio Verde Utilities, Inc	WS-02156A-00-0321
Black Mountain Gas Company	G-03703A-01-0283
Green Valley Water Company	W-02025A-01-0559
New River Utility Company	W-01737A-01-0662

Utility Company**Docket No.**

Dragoon Water Company	W-01917A-01-0851
Roosevelt Lake Resort, Inc.	W-01958A-02-0283
Southwest Gas Company	G-01551A-02-0425
Arizona-American Water Company	W-01303A-02-0867 et al.
Rio Rico Utilities, Inc.	WS-02676A-03-0434
Qwest Corporation	T-01051B-03-0454
Chaparral City Water Company	W-02113A-04-0616
Southwest Gas Company	G-01551A-04-0876
Arizona-American Water Company	W-01303A-05-0405
Far West Water and Sewer Company	WS-03478A-05-0801
Gold Canyon Sewer Company	SW-02519A-06-0015
Arizona-American Water Company	WS-01303A-06-0403
UNS Gas, Inc.	G-04204A-06-0463 et al.
UNS Electric, Inc.	E-04204A-06-0783
Tucson Electric Power Company	E-01933A-07-0402

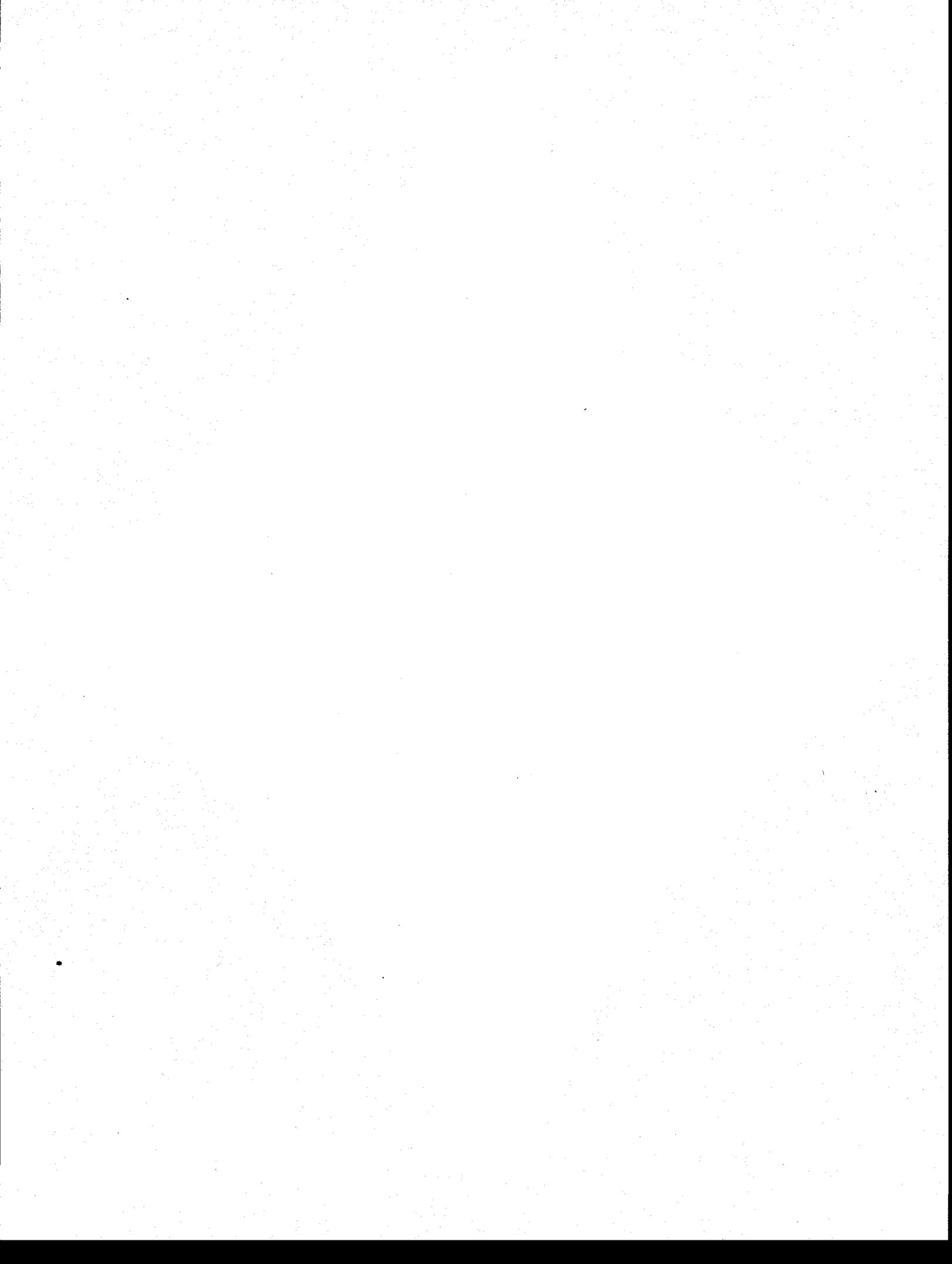


TABLE OF CONTENTS TO RUCO SCHEDULES

LINE NO.	SCH. NO.	PAGE NO.	TITLE
1	RLM-1	1 & 2	REVENUE REQUIREMENT
2	RLM-2	1	RATE BASE - ORIGINAL COST
3	RLM-3	1	RATE BASE - RECONSTRUCTED COST NEW DEPRECIATED
4	RLM-4	1 & 2	SUMMARY OF TEST-YEAR PLANT ADJUSTMENTS
5	RLM-5	1 & 2	RATE BASE ADJUSTMENT NO. 1 - COMPLETED CONSTRUCTION NOT CLASSIFIED
6	TESTIMONY, RLM		RATE BASE ADJUSTMENT NO. 2 - MISCELLANEOUS INTANGIBLE PLANT
7	TESTIMONY, RLM		RATE BASE ADJUSTMENT NO. 3 - RETIRED TEP BYPASS PLANT
8	RLM-4	3	RATE BASE ADJUSTMENT NO. 4 - ADIT ASSOCIATED WITH MIP AND SERP
9	RLM-6	1 TO 5	RATE BASE ADJUSTMENT NO. 5 - CALCULATION OF WORKING CAPITAL
10	RLM-7	1	OPERATING INCOME
11	RLM-8	1 & 2	SUMMARY OF OPERATING INCOME ADJUSTMENTS
12	RLM-9	1	OPERATING INCOME ADJUSTMENT NO. 1 - LABOR ANNUALIZATION
13	TESTIMONY, RLM		OPERATING INCOME ADJUSTMENT NO. 2 - INJURIES AND DAMAGES EXPENSES
14	TESTIMONY, RLM		OPERATING INCOME ADJUSTMENT NO. 3 - PAIUTE ALLOCATION ANNUALIZATION
15	RLM-10	1 & 2	OPERATING INCOME ADJUSTMENT NO. 4 - ANNUALIZED DEPRECIATION AND AMORTIZATION EXPENSE
16	RLM-11	1	OPERATING INCOME ADJUSTMENT NO. 5 - PROPERTY TAX
17	RLM-12	1	OPERATING INCOME ADJUSTMENT NO. 6 - UNNECESSARY/INAPPROPRIATE EXPENSES
18	RLM-13	1	OPERATING INCOME ADJUSTMENT NO. 7 - MANAGEMENT INCENTIVE PROGRAM
19	RLM-14	1	OPERATING INCOME ADJUSTMENT NO. 8 - SUPPLEMENTAL EMPLOYEE RETIREMENT PLAN
20	TESTIMONY, RLM		OPERATING INCOME ADJUSTMENT NO. 9 - EMPLOYEE RECOGNITION
21	RLM-15	1	OPERATING INCOME ADJUSTMENT NO. 10 - UNCOLLECTIBLE EXPENSE
22	RLM-16	1	OPERATING INCOME ADJUSTMENT NO. 11 - GAIN ON SALE OF PROPERTY
23	RLM-17	1	INCOME TAX CALCULATION
24	RLM-18	1	COST OF CAPITAL
25	RLM-19	1 TO 4	RATE DESIGN AND PROOF OF RECOMMENDED REVENUE (FILED SEPERATELY)

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)	(E)	(F)
		COMPANY ORIGINAL COST	COMPANY RCND	COMPANY FAIR VALUE	RUCO ORIGINAL COST	RUCO RCND	RUCO FAIR VALUE
1	Adjusted Rate Base	\$ 1,094,790,046	\$ 1,843,481,069	\$ 1,469,135,558	\$ 1,089,321,967	\$ 1,837,965,254	\$ 1,463,643,611
2	Adjusted Operating Income (Loss)	\$ 73,180,098	\$ 73,180,098	\$ 73,180,098	\$ 77,394,464	\$ 77,394,464	\$ 77,394,464
3	Current Rate Of Return (Line 2 / Line 1)	6.68%	3.97%	4.98%	7.10%	4.21%	5.29%
4	Required Operating Income (Line 5 X Line 1)	\$ 103,457,659	\$ 103,457,659	\$ 103,457,659	\$ 96,226,345	\$ 96,226,345	\$ 96,226,345
5	Required Rate Of Return	9.45%	5.61%	7.04%	8.83%	5.24%	6.57%
6	Operating Income Deficiency (Line 4 - Line 2)	\$ 30,277,561	\$ 30,277,561	\$ 30,277,561	\$ 18,831,882	\$ 18,831,882	\$ 18,831,882
7	Gross Revenue Conversion Factor (Schedule RLM-1, Page 2)	1.6586	1.6586	1.6586	1.6619	1.6619	1.6619
8	Increase In Gross Revenue Requirement (Line 7 X Line 6)	\$ 50,219,828	\$ 50,219,828	\$ 50,219,828	\$ 31,296,285	\$ 31,296,285	\$ 31,296,285
9	Adjusted Test Year Revenue	\$ 399,234,678	\$ 399,234,678	\$ 399,234,678	\$ 399,234,678	\$ 399,234,678	\$ 399,234,678
10	Proposed Annual Revenue Requirement (Line 8 + Line 9)	\$ 449,454,506	\$ 449,454,506	\$ 449,454,506	\$ 430,530,964	\$ 430,530,964	\$ 430,530,964
11	Required Percentage Increase In Revenue (Line 8 / Line 9)	12.58%	12.58%	12.58%	7.84%	7.84%	7.84%
12	Rate Of Return On Common Equity	11.25%	11.25%	11.25%	9.88%	9.88%	9.88%

References:
Columns (A) Thru (C): Company Schedule A-1, C-1 And D-1
Columns (D) Thru (F): Schedules RLM-2, RLM-5, RLM-6 And RLM-18

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	REFERENCE	(A)
CALCULATION OF GROSS REVENUE CONVERSION FACTOR:			
1	Revenue		1.0000
2	Less: Uncollectibles	Adjusted 3-Yr Average Uncollectible Expense (See RLM-15)	0.0022
3	Subtotal	Line 1 - Line 2	0.9978
4	Less: Combined Federal And State Tax Rate	Line 14	39.60%
5	Subtotal	Line 3 - Line 4	0.6017
6	Revenue Conversion Factor	Line 1 / Line 5	1.6619
CALCULATION OF EFFECTIVE TAX RATE:			
7	Arizona Taxable Income		1.0000
8	Arizona State Income Tax Rate		0.0697
9	Federal Taxable Income	Line 7 - Line 8	0.9303
10	Applicable Federal Income Tax Rate	Tax Table	35.17%
11	Effective Federal Income Tax Rate	Line 9 X Line 10	0.3272
12	Subtotal	Line 8 + Line 11	0.3969
13	Revenue Less Uncollectibles	Line 3	0.9978
14	Combined Federal And State Income Tax Rate	Line 12 X Line 13	39.60%

RATE BASE - ORIGINAL COST

LINE NO.	DESCRIPTION	(A) COMPANY FILED AS OCRB	(B) RUCO OCRB ADJUSTMENTS	REF.	(C) RUCO ADJUSTED AS OCRB
1	Gas Plant In Service	\$ 2,053,847,890	\$ (356,233)	(1)	\$ 2,053,491,657
	Less:				
2	Accumulated Depreciation And Amortization	752,275,563	(276,996)	(1)	751,998,567
3	Net Gas Plant In Service (Line 1 - Line 2)	<u>\$ 1,301,572,327</u>	<u>\$ (79,237)</u>		<u>\$ 1,301,493,090</u>
	Additions:				
4	Allowance For Working Capital (RLM-6, Page 1)	\$ 5,681,932	\$ (4,507,854)	(2)	\$ 1,174,078
5	Total Additions (Line 4)	<u>\$ 5,681,932</u>	<u>\$ (4,507,854)</u>		<u>\$ 1,174,078</u>
	Deductions:				
6	Customer Advances In Aid Of Construction	\$ (37,910,017)	\$ -		\$ (37,910,017)
7	Customer Deposits	(31,921,898)	-		(31,921,898)
8	Deferred Income Taxes	(142,632,297)	(880,989)	(3)	(143,513,286)
9	Total Deductions (Sum Of Lines 6, 7 & 8)	<u>\$ (212,464,212)</u>	<u>\$ (880,989)</u>		<u>\$ (213,345,201)</u>
10	TOTAL ORIGINAL COST RATE BASE (Sum Of Lines 3, 5 & 9)	<u>\$ 1,094,790,047</u>	<u>\$ (5,468,080)</u>		<u>\$ 1,089,321,967</u>

References:

- Column (A): Company Schedule B-1
- Column (B): References:
 - (1) Schedule RLM-4, Page 1
 - (2) Schedule RLM-6, Page 1
 - (3) Schedule RLM-3, Page 3
- Column (C): Column (A) + Column (B)

RATE BASE - RECONSTRUCTED COST NEW DEPRECIATED

LINE NO.	DESCRIPTION	(A) COMPANY FILED AS RCND	(B) RUCO RCND ADJUSTMENTS	(C) RUCO ADJUSTED AS RCND
1	Gas Plant In Service	\$ 3,224,193,614	\$ (559,226)	\$ 3,223,634,388
	Less:			
2	Accumulated Depreciation And Amortization	1,173,930,265	(432,254)	1,173,498,011
3	Net Gas Plant In Service (Line 1 - Line 2)	<u>\$ 2,050,263,349</u>	<u>\$ (126,972)</u>	<u>\$ 2,050,136,377</u>
	Additions:			
4	Allowance For Working Capital	\$ 5,681,932	\$ (4,507,854)	\$ 1,174,078
5	Total Additions (Line 4)	<u>\$ 5,681,932</u>	<u>\$ (4,507,854)</u>	<u>\$ 1,174,078</u>
	Deductions:			
6	Customer Advances In Aid Of Construction	\$ (37,910,017)	\$ -	\$ (37,910,017)
7	Customer Deposits	(31,921,898)	-	(31,921,898)
8	Deferred Income Taxes	(142,632,297)	(880,989)	(143,513,286)
9	Total Deductions (Sum Lines 6, 7 & 8)	<u>\$ (212,464,212)</u>	<u>\$ (880,989)</u>	<u>\$ (213,345,201)</u>
10	TOTAL RCND RATE BASE	<u>\$ 1,843,481,069</u>	<u>\$ (5,515,815)</u>	<u>\$ 1,837,965,254</u>

References:

- Column (A): Company Schedule B-1
- Column (B): Column (C) - Column (A)
- Column (C): OCRB (RLM-2, Column (C)) X Same Ratio As The Company's RCND Is To Its OCRB (144.84%)

EXPLANATION OF TEST-YEAR RATE BASE ADJUSTMENT NO. 1
"DIRECT" TEST-YEAR PLANT SCHEDULES
YEAR ENDED APRIL 30, 2007

LINE NO.	ACCT NO.	ACCOUNT NAME	(A) DEP RATE	(B) COMPANY TEST YEAR AS FILED TOTAL PLANT VALUE	(C) ACCUMULATED DEPRECIATION	(D) ADJUSTMENT NO. 1 RETIREMENTS CONC PLANT	(E) ADJUSTMENT NO. 1 RETIREMENTS CONC ACC. DEP.	(F) ADJ. NO. 2 SYS. ALLOC. ONLY	(G) ADJUSTMENT NO. 3 RETIREMENTS PLANT	(H) ADJUSTMENT NO. 3 RETIREMENTS TEP BYPASS ACC. DEP.	(I) TOTAL PLANT VALUE	(J) RUCO AS ADJUSTED ACCUMULATED DEPRECIATION	(K) NET PLANT VALUE
Intangible Plant:													
1	301.0	Organization		\$ 42,653	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 42,653	\$ -	\$ 42,653
2	302.0	Franchises & Consents	Amor'd	1,877,392	663,783	-	-	-	-	-	1,877,392	663,783	1,213,609
3	303.0	Miscellaneous Intangible	Amor'd	1,957,665	1,950,332	-	-	-	-	-	1,957,665	1,950,332	7,333
4		Total Intangible Plant		\$ 3,877,710	\$ 2,614,115	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,877,710	\$ 2,614,115	\$ 1,263,595
Distribution Plant:													
5	374.1	Land & Land Rights	N/A	\$ 1,084,811	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,084,811	\$ -	\$ 1,084,811
6	374.2	Rights Of Way	2.17%	1,064,064	324,955	-	-	-	-	-	1,064,064	324,955	739,109
7	375.0	Structures	0.39%	110,557	64,023	-	-	-	-	-	110,557	64,023	46,534
8	376.0	Mains	3.82%	984,805,304	355,501,160	(22,897)	(22,897)	-	(28,526)	-	984,753,881	355,449,737	629,304,144
9	378.0	Measuring & Regulating Station	4.12%	32,754,093	3,128,320	(41,047)	(41,047)	-	-	-	32,713,046	3,087,273	29,625,773
10	380.0	Services	5.30%	605,265,994	284,242,868	(1,288)	(1,288)	-	-	-	605,264,706	284,241,580	321,023,126
11	381.0	Meters	1.98%	226,663,229	30,494,483	(1,145)	(1,145)	-	-	-	226,663,229	30,494,483	196,168,746
12	385.0	Industrial Measuring & Reg. Station	4.31%	7,567,081	3,321,866	(1,145)	(1,145)	-	(182,093)	-	7,383,843	3,138,628	4,245,215
13	387.0	Other Equipment	5.26%	462,730	560,209	(66,377)	(66,377)	-	-	-	462,730	560,209	(97,479)
14		Total Distribution Plant		\$ 1,859,777,863	\$ 677,637,884	\$ (66,377)	\$ (66,377)	\$ -	\$ (210,619)	\$ (210,619)	\$ 1,859,500,867	\$ 677,360,888	\$ 1,182,139,979
General Plant:													
15	389.0	Land & Land Rights	N/A	\$ 8,418,416	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,418,416	\$ -	\$ 8,418,416
16	390.1	Structures	1.84%	26,092,410	7,802,105	-	-	-	-	-	26,092,410	7,802,105	16,290,305
17	390.2	Structures - Leasehold Improv'ts	Amor'd	986,219	717,875	-	-	-	-	-	986,219	717,875	268,344
18	391.0	Office Furniture And Equipment	2.73%	5,665,651	920,003	-	-	-	-	-	5,665,651	920,003	4,735,648
19	391.1	Computer Equipment	14.87%	8,563,368	(861,384)	-	-	-	-	-	8,563,368	(861,384)	9,424,752
20	392.1	Transportation Equipment	7.65%	31,153,543	3,183,715	-	-	-	-	-	31,153,543	3,183,715	27,969,828
21	393.0	Stores Equipment	2.08%	542,520	26,553	-	-	-	-	-	542,520	26,553	515,967
22	394.0	Tools, Shop And Garage Equip.	2.17%	5,225,024	(3,434,620)	-	-	-	-	-	5,225,024	(3,434,620)	8,659,644
23	395.0	Laboratory Equipment	3.93%	279,065	(272,649)	-	-	-	-	-	279,065	(272,649)	561,714
24	396.0	Power Operated Equipment	3.88%	4,309,295	892,513	-	-	-	-	-	4,309,295	892,513	3,416,782
25	397.0	Communication Equipment	8.88%	2,658,259	2,623,207	-	-	-	-	-	2,658,259	2,623,207	35,052
26	397.2	Telemetering Equipment	6.19%	789,376	229,416	-	-	-	-	-	789,376	229,416	559,960
27	398.0	Miscellaneous Equipment	4.53%	892,349	18,215	-	-	-	-	-	892,348	18,215	874,133
28		Total General Plant		\$ 95,565,494	\$ 11,844,949	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 95,565,494	\$ 11,844,949	\$ 83,720,545
29		TOTAL DIRECT PLANT		\$ 1,959,221,068	\$ 692,096,947	\$ (66,377)	\$ (66,377)	\$ -	\$ (210,619)	\$ (210,619)	\$ 1,958,944,072	\$ 691,819,951	\$ 1,267,124,121
30		Allocated Plant (See RLM-4, Page 2, Line 31)		94,626,822	60,178,616	-	-	(79,237)	-	-	94,547,585	60,178,616	34,368,969
31		TOTAL PLANT		\$ 2,053,847,890	\$ 752,275,563	\$ (66,377)	\$ (66,377)	\$ (79,237)	\$ (210,619)	\$ (210,619)	\$ 2,053,451,657	\$ 751,988,567	\$ 1,301,493,090
32		Direct Plant As Per Company		\$ 1,959,221,068	\$ 692,096,947	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,959,221,068	\$ 692,096,947	\$ 1,267,124,121
33		Common Plant As Per Company		\$ 94,626,822	\$ 60,178,616	\$ -	\$ -	\$ (79,237)	\$ (210,619)	\$ (210,619)	\$ 94,626,822	\$ (79,237)	\$ 34,448,206
33		Difference		\$ -	\$ -	\$ (66,377)	\$ (66,377)	\$ -	\$ (210,619)	\$ (210,619)	\$ (356,233)	\$ -	\$ (79,237)

References:

- Columns (A) (B) (C): Company Workpapers
- Column (D): Retirements Associated With CCNC (See RLM-5)
- Column (E): Accumulated Depreciation Associated CCNC (See Testimony, RLM)
- Column (F): System Allocable Adjustment Only (See RLM-4, Page 2)
- Column (G): Retirements Associated With The Sale Of The TEP Bypass (See Testimony, RLM)
- Column (H): Accumulated Depreciation Associated With The Sale Of The TEP Bypass (See Testimony, RLM)
- Column (I): Sum Of Cois. (B), (D) & (G)
- Column (J): Sum Of Cois. (C), (E) & (H)
- Column (K): Column (I) - Column (J)

EXPLANATION OF TEST-YEAR RATE BASE ADJUSTMENT NO. 2
"SYSTEM ALLOCABLE" TEST-YEAR PLANT SCHEDULES
YEAR ENDED APRIL 30, 2007

LINE NO.	ACCT NO.	ACCOUNT NAME	(A)		(B)		(C)		(D)		(E)		(F)		(G)		(H)	
			DEP RATE	COMPANY TEST-YEAR AS FILED	TOTAL PLANT VALUE	ACCUMULATED DEPRECIATION	ADJ. NO. 1 DIRECT ADJMT ONLY	ADJ. NO. 2 INTANGIBLES RLM-10, PG 3.	TOTAL PLANT VALUE	RUCO AS ADJUSTED ACCUMULATED DEPRECIATION	NET PLANT VALUE							
1	301.0	Intangible Plant:																
2	302.0	Organization	0.00%	\$ 61,816	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 61,816
3	303.0	Franchises & Consents	Amor'd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4		Miscellaneous Intangible	Amor'd	113,344,261	80,931,738	(139,748)	113,204,513	80,931,738	80,931,738	32,272,775	32,272,775							
		Total Intangible Plant		\$ 113,405,077	\$ 80,931,738	\$ (139,748)	\$ 113,265,329	\$ 80,931,738	\$ 80,931,738	\$ 32,334,591	\$ 32,334,591							
5	374.1	Distribution Plant:																
6	374.2	Land & Land Rights	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	375.0	Rights Of Way	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	376.0	Structures	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	378.0	Mains	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	380.0	Measuring & Regulating Station	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	381.0	Services	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	385.0	Meters	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	387.0	Industrial Measuring & Reg. Station	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14		Other Equipment	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Distribution Plant		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	389.0	General Plant:																
16	390.1	Land & Land Rights	0.00%	\$ 391,307	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 391,307
17	390.2	Structures	2.50%	13,961,544	3,733,837	-	13,961,544	3,733,837	-	10,227,707	3,733,837	10,227,707	3,733,837	3,733,837	3,733,837	3,733,837	10,227,707	
18	391.0	Office Furniture And Equipment	Amor'd	4,232,644	3,118,764	-	4,232,644	3,118,764	-	1,113,880	3,118,764	1,113,880	3,118,764	3,118,764	3,118,764	3,118,764	1,113,880	
19	391.1	Computer Equipment	8.16%	9,441,847	1,264,958	-	9,441,847	1,264,958	-	8,176,889	1,264,958	8,176,889	1,264,958	1,264,958	1,264,958	1,264,958	8,176,889	
20	392.1	Trans. Equip. - Light Vehicles	16.15%	14,791,422	12,836,794	-	14,791,422	12,836,794	-	1,954,628	12,836,794	1,954,628	12,836,794	12,836,794	12,836,794	12,836,794	1,954,628	
21	393.0	Trans. Equip. - Heavy Vehicles	7.20%	3,495,826	646,045	-	3,495,826	646,045	-	2,849,781	646,045	2,849,781	646,045	646,045	646,045	646,045	2,849,781	
22	394.0	Stores Equipment	7.20%	86,303	(37,694)	-	86,303	(37,694)	-	123,997	(37,694)	123,997	(37,694)	(37,694)	(37,694)	(37,694)	123,997	
23	395.0	Tools, Shop And Garage Equip.	16.03%	24,106	5,299	-	24,106	5,299	-	18,807	5,299	18,807	5,299	5,299	5,299	5,299	18,807	
24	396.0	Laboratory Equipment	11.16%	232,096	(24,943)	-	232,096	(24,943)	-	257,039	(24,943)	257,039	(24,943)	(24,943)	(24,943)	(24,943)	257,039	
25	397.0	Communication Equipment	4.77%	281,078	75,601	-	281,078	75,601	-	205,477	75,601	205,477	75,601	75,601	75,601	75,601	205,477	
26	397.2	Telemetering Equipment	8.51%	5,376,875	3,611,659	-	5,376,875	3,611,659	-	1,765,216	3,611,659	1,765,216	3,611,659	3,611,659	3,611,659	3,611,659	1,765,216	
27	398.0	Miscellaneous Equipment	40.23%	286,958	27,661	-	286,958	27,661	-	259,297	27,661	259,297	27,661	27,661	27,661	27,661	259,297	
28		Total General Plant	11.09%	\$ 53,484,260	\$ 25,203,389	\$ (54,592)	\$ 53,484,260	\$ 25,203,389	\$ (54,592)	\$ 28,280,871	\$ 25,203,389	\$ 28,280,871	\$ 25,203,389	\$ 25,203,389	\$ 25,203,389	\$ 25,203,389	\$ 28,280,871	
29		TOTAL ALLOCABLE PLANT		\$ 166,890,337	\$ 106,135,127	\$ (139,748)	\$ 166,750,589	\$ 106,135,127	\$ (139,748)	\$ 56,700	\$ 106,135,127	\$ 106,135,127	\$ 106,135,127	\$ 106,135,127	\$ 106,135,127	\$ 106,135,127	\$ 56,700	
30		Allocation Factor		56.70%	56.70%	56.70%	56.70%	56.70%	56.70%	56.70%	56.70%	56.70%	56.70%	56.70%	56.70%	56.70%	56.70%	56.70%
31		TOTAL ALLOCATE PLANT		\$ 94,826,822	\$ 60,178,616	\$ (79,237)	\$ 94,547,585	\$ 60,178,616	\$ (79,237)	\$ 34,388,967	\$ 60,178,616	\$ 34,388,967	\$ 60,178,616	\$ 60,178,616	\$ 60,178,616	\$ 60,178,616	\$ 34,388,967	

References:
Columns (A) (B) (C): Company Workpapers
Column (D): Direct Plant Adjustment Only (See RLM-4, Page1)
Columns (E): Company Response To Staff Data Request 11.4 (See RLM-10, Page 3, Column (B))
Column (F): Sum Of Cols. (B) & (D)
Column (G): Sum Of Cols. (C) & (D)
Column (H): Column (F) - Column (G)

**EXPLANATION OF TEST-YEAR RATE BASE ADJUSTMENT NO. 4
ACCUMULATED DEFERRED INCOME TAX (ADIT) ASSOCIATED WITH MIP AND SERP**

LINE NO	DESCRIPTION	(A)	(B)	(C)	REFERENCE
		ADIT ASSOCIATED WITH MIP ACCT 20701371	ADIT ASSOCIATED WITH MIP ACCT 24201371	ADIT ASSOCIATED WITH SERP ACCT 24201387	
	Deferred Income Tax Asset (Liability)				
1	April 30, 2007	\$ 406,289	\$ 1,775,833	\$ 7,804,183	Co. Response To Staff DR 11-11
2	April 30, 2006	631,459	497,556	7,449,748	Co. Response To Staff DR 11-11
3	Test-Year ADIT	<u>\$ 225,170</u>	<u>\$ (1,278,277)</u>	<u>\$ (354,435)</u>	Sum Lines 1 And 2
4	Total ADIT Associated With MIP		\$ (1,053,107)		Sum Columns (A) & (B), Line 3
5	RUCO Adjustment To Split MIP 50% - Ratepayers & Shareholders		50.00%		See RLM Testimony & RLM-13
6	RUCO Adjusted MIP		<u>\$ (526,554)</u>		Line 4 X Line 5
7	RUCO Adjusted SERP			<u>\$ (354,435)</u>	Line 3, Column (C)
8	Total Adjustment To Test-Year ADIT			<u>\$ (880,989)</u>	Sum Line 6 And 7
9	RUCO Adjustment (See RLM-2, Column (B), Line 8)			<u>\$ (880,989)</u>	Line 8

EXPLANATION OF SWG TEST-YEAR RATE BASE ADJUSTMENT NO. 1 - CONT'D
COMPLETED CONSTRUCTION NOT CLASSIFIED

LINE NO.	ACCT. NO.	DESCRIPTION	(A) CONST. WK ORDER	(B) RETIRE'T WK ORDER	(C) IN-SER. DATE	(D) ACTUAL CONST. COST	(E) ACTUAL RETIRE'T COST
ARIZONA DIRECT							
Intangible Plant							
1	303	Miscellaneous Intangible				\$ -	\$ -
2		Total Intangible				\$ -	\$ -
Distribution							
3	374	Land and Land Rights				\$ 733,126	\$ -
Mains							
4	376	Franchise Replacements				\$ 527,574	\$ -
5	376	Regular Replacement				190,569	-
6	376	Pressure Reinforcement				121,747	-
7	376	Cathodic Protection				171,752	-
8	376	High Pressure Dist.				518,422	-
9		Total Acct 376				\$ 1,530,064	\$ (22,897)
10	378	Regulator Station				\$ 325,675	\$ (41,047)
11	380	Services				-	(1,288)
12	385	Regulator Station-Lrg				117,130	(1,145)
13		Total Distribution Plant				\$ 2,705,995	\$ (66,377)
General							
14	390.1	Structures and Improve.				\$ 27,443	\$ -
15	391	Office Furniture & Equip.				215,492	-
16	392	Transportation Equip.				27,184	-
17	391.1	Computer Equipment				-	-
18		Total General Plant				\$ 270,120	\$ -
19		SUBTOTAL ARIZONA DIRECT CCNC PLANT				\$ 2,976,115	\$ (66,377)
SYSTEM ALLOCATE PLANT							
Intangible Plant							
20	303	Miscellaneous Intangible				\$ 1,696,000	\$ -
21		Total Intangible				\$ 1,696,000	\$ -
General							
22	390.1	Structures and Improve.				\$ 265,254	\$ -
23	391	Office Furniture & Equip.				28,258	-
24	392	Transportation Equip.				-	-
25	391.1	Computer Equipment				432,587	-
26		Total General Plant				\$ 726,099	\$ -
27		SUBTOTAL SYSTEM ALLOCATE CCNC PLANT				\$ 2,422,099	\$ -
28		Allocation Factor (Arizona 4-Factor)				56.70%	56.70%
29		SUBTOTAL AMOUNT ALLOCATED TO ARIZONA CCNC PLANT				\$ 1,373,330	\$ -
30		TOTAL CCNC PLANT				\$ 4,349,445	\$ (66,377)
31		RUCO RECOMMENDED TOTAL CCNC PLANT				\$ 4,349,445	\$ (66,377)
32		Company As Filed				4,349,445	-
33		RUCO ADJUSTMENT TO ARIZONA DIRECT CCNC				\$ -	\$ (66,377)

Reference

Columns (A) (B): Company Response To RUCO Date Request No. 1.17 And 2.1

**EXPLANATION OF TEST-YEAR RATE BASE ADJUSTMENT NO. 5
SUMMARY OF THE ALLOWANCE FOR WORKING CAPITAL**

			(A)
LINE NO.	DESCRIPTION	REFERENCE	AMOUNT
1	Cash Working Capital Per SWG	SWG SCH. B-5, Page 1	\$ (10,379,937)
2	Cash Working Capital Per RUCO	RLM-6, Page 2, Line 14	(15,229,282)
3	Adjustment	Line 2 - Line 1	\$ (4,849,345)
4	Materials And Supplies Per SWG	SWG SCH. B-5, Page 1	\$ 12,389,898
5	Materials And Supplies Per RUCO	SWG SCH. B-5, Page 1	12,389,898
6	Adjustment	Line 5 - Line 4	\$ -
7	Prepayments Per SWG	SWG SCH. B-5, Page 1	\$ 3,671,971
8	Prepayments Per RUCO	RLM-6, Page 5, Line 15	4,013,462
9	Adjustment	Line 8 - Line 7	\$ 341,491
10	Total Adjustment	Sum Lines 3, 6, & 9	\$ (4,507,854)

EXPLANATION OF TEST-YEAR RATE BASE ADJUSTMENT NO. 5 - CONT'D
ALLOWANCE FOR WORKING CAPITAL
LEAD/LAG DAY SUMMARY

LINE NO.	DESCRIPTION	(A) COMPANY EXPENSES AS FILED	(B) RUCO ADJUSTM'TS	(C) RUCO EXPENSES AS ADJUSTED	(D) (LEAD)/LAG DAYS	(E) DOLLAR DAYS
1	Cost Of Gas	\$ 540,064,385	\$ -	\$ 540,064,385	42.30	\$ 22,842,405,297
2	Labor Cost	117,038,570	(6,513,626)	110,524,944	12.33	1,363,305,727
3	Provision For Uncollectible Accts	2,977,729	(752,652)	2,225,077	120.00	267,009,303
4	Other O & M	54,826,860	(8,127)	54,818,733	17.72	971,137,425
	Total O & M Expenses	<u>\$ 714,907,544</u>	<u>\$ (7,274,405)</u>	<u>\$ 707,633,139</u>	<u>35.96</u>	<u>\$ 25,443,857,753</u>
5	Interest	\$ 48,035,008	1,675,397	\$ 49,710,405	82.73	\$ 4,112,541,775
6	Taxes Other Than Income Taxes	33,124,880	-	33,124,880	185.34	6,139,365,177
7	Income Taxes	21,699,571	9,975,295	31,674,866	37.00	1,171,970,019
8	Revenue Taxes	97,747,450	3,201,610	100,949,060	51.75	5,224,113,855
9	Total Operating Expenses	<u>\$ 915,514,453</u>	<u>\$ 4,376,287</u>	<u>\$ 923,092,350</u>	<u>45.60</u>	<u>\$ 42,091,848,579</u>
10	Revenue Lag				<u>39.53</u>	Co. Workpapers
11					<u>(6.07)</u>	Line 10 - Line 9
12	Number Of Days In Test Period	365	Test Year			
13	Average Daily Operating Expenses \$	2,508,259	Col. (A) Line 9 / Line 12			
14	Net Difference Rev - Exp Lag	(6.07)	Col. (D) Line 11			
15	Cash Working Capital	<u>\$ (15,229,282)</u>	Col. (A), Line 13 X Line 14			

EXPLANATION OF TEST-YEAR RATE BASE ADJUSTMENT NO. 5 - CONT'D
ALLOWANCE FOR WORKING CAPITAL
CALCULATION OF PREFERRED EQUITY LAG

LINE NO.	MID-POINT OF SERVICE PERIOD	(A) PAYMENT DATE	(B) PERCENT PAYMENT	(C) (LEAD)/LAG DAYS	(D) DOLLARS DAYS
1	7/1/2006	3/31/2006	25.00%	(92)	(23.00)
2	7/1/2006	6/30/2006	25.00%	(1)	(0.25)
3	7/1/2006	9/30/2006	25.00%	91	22.75
4	7/1/2006	12/31/2006	25.00%	183	45.75
5	Totals		<u>100.00%</u>		<u>45.25</u>
6	Preferred Equity Lag			<u>45.25</u>	

EXPLANATION OF TEST-YEAR RATE BASE ADJUSTMENT NO. 5 - CONT'D
ALLOWANCE FOR WORKING CAPITAL
CALCULATION OF OTHER O & M LAG

LINE NO.	MONTH	(A) COST	(B) LAG DAYS	(C) DOLLAR DAYS
1	May 2006	\$ 2,596,715	0.22	\$ 566,253
2	June	2,611,117	35.16	91,799,499
3	July	2,546,481	18.55	47,227,421
4	August	2,460,510	36.74	90,404,740
5	September	2,021,521	35.60	71,973,470
6	October	3,018,228	52.99	159,935,937
7	November	2,733,777	45.29	123,820,351
8	December	3,394,550	(6.46)	(21,943,520)
9	January 2007	5,019,712	(2.82)	(14,168,034)
10	February	5,258,382	9.77	51,397,591
11	March	4,466,924	29.44	131,524,579
12	April	2,608,462	(17.75)	(46,306,652)
13	Total	<u>\$ 38,736,380</u>	<u>17.72</u>	<u>\$ 686,231,635</u>

EXPLANATION OF TEST-YEAR RATE BASE ADJUSTMENT NO. 5 - CONT'D
ALLOWANCE FOR WORKING CAPITAL
CALCULATION OF ADJUSTED PREPAYMENTS

LINE NO.	MONTH	(A) BALANCE	(B) DEBITS	(C) CREDITS	(D) ADJUSTED BALANCE
1	April 2006	\$ 5,367,019	\$ -	\$ -	\$ 5,367,019
2	May	4,571,452	18,221	-	4,589,673
3	June	3,756,402	-	1,518	3,773,104
4	July	5,219,958	22,000	1,518	5,257,142
5	August	9,299,535	195,806	3,352	9,529,173
6	September	8,623,454	15,186	19,669	8,848,609
7	October	7,836,438	66,720	20,934	8,107,379
8	November	6,430,014	128,656	26,494	6,803,117
9	December	9,144,710	163,132	37,216	9,643,729
10	January 2007	8,343,687	112,506	50,810	8,904,402
11	February	7,723,320	126,085	60,186	8,349,935
12	March	6,044,664	76,149	70,693	6,676,735
13	April	<u>5,600,962</u>	13,396	77,038	<u>6,169,390</u>
14	Total	\$ 87,961,615			\$ 92,019,406
15	13 Month Average	\$ 6,766,278		56.70%	<u>\$ 4,013,462</u>

References:

- Column (A): Company Schedule B-5, Page 4
- Column (B): Company Schedule B-5, Workpaper Sheets 30 - 59
- Column (C): Column (B) Prior Months Accruals / 12 Months
- Column (D): Column (D) Prior Month + Column (B) Current Month - Column (C) Current Month + Column (A) Current Month - Column (A) Prior Month

OPERATING INCOME

LINE NO.	DESCRIPTION	(A) COMPANY AS FILED	(B) RUCO TEST YEAR ADJTMENTS	(C) RUCO TEST YEAR AS ADJUSTED	(D) RUCO PROPOSED CHANGES	(E) RUCO AS RECOMMENDED
1	Revenues	\$ 399,234,678	\$ -	\$ 399,234,678	\$ 31,296,285	\$ 430,530,964
2	Gas Cost	-	-	-	-	-
3	TOTAL MARGIN	<u>\$ 399,234,678</u>	<u>\$ -</u>	<u>\$ 399,234,678</u>	<u>\$ 31,296,285</u>	<u>\$ 430,530,964</u>
EXPENSES:						
4	Other Gas Supply	\$ 701,601	\$ (25,254)	\$ 676,347	\$ -	\$ 676,347
5	Distribution	89,528,455	(2,467,490)	87,060,965	-	87,060,965
6	Customer Accounts	38,730,909	(1,811,510)	36,919,399	-	36,919,399
7	Customer Information	1,126,796	(20,117)	1,106,679	-	1,106,679
8	Sales	-	-	-	-	-
Administrative & General						
9	Direct	4,009,539	(290,519)	3,719,020	-	3,719,020
10	System Allocable	52,937,155	(2,659,515)	50,277,640	-	50,277,640
Depreciation & Amortization						
11	Direct	80,956,247	(11,621)	80,944,625	-	80,944,625
12	System Allocable	6,646,938	(46,583)	6,600,356	-	6,600,356
13	Regulatory Amortizations	284,528	-	284,528	-	284,528
14	Other Taxes	33,124,880	-	33,124,880	-	33,124,880
15	Interest On Cust. Deposits	1,915,314	-	1,915,314	-	1,915,314
16	Income Taxes	16,092,218	3,118,244	19,210,462	12,464,404	31,674,866
17	TOTAL EXPENSES	<u>\$ 326,054,578</u>	<u>\$ (4,214,365)</u>	<u>\$ 321,840,214</u>	<u>\$ 12,464,404</u>	<u>\$ 334,304,618</u>
18	NET INCOME (LOSS)	<u>\$ (2)</u>		<u>\$ 77,394,464</u>		<u>\$ 96,226,345</u>

References:

- Column (A): Company Schedule C-1
- Column (B): Testimony, RLM And Schedule RLM-8
- Column (C): Column (A) + Column (B)
- Column (D): Testimony, RLM And Schedule RLM-1, Pages 1 & 2
- Column (E): Column (C) + Column (D)

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 1
LABOR AND LABOR LOADING ADJUSTMENT**

LINE NO.	DESCRIPTION	(A)	(B)	(C)
		COMPANY LABOR & LABOR LOADING ADJUSTMENT	RUCO LABOR & LABOR LOADING AS ADJUSTED	RUCO LABOR & LABOR LOADING ADJUSTMENT
1	Other Gas Supply	\$ 16,522	\$ 1,452	\$ (15,070)
2	Distribution	1,539,648	175,380	(1,364,268)
3	Customer Accounts	694,914	75,208	(619,707)
4	Customer Information	13,313	1,402	(11,910)
5	Sales	-	-	-
Administrative & General				
6	Direct	24,518	2,803	(21,716)
7	System Allocable	578,837	(1,982)	(580,819)
8	TOTAL	<u>\$ 2,867,752</u>	<u>\$ 254,262</u>	<u>\$ (2,613,490)</u>
9	RUCO ADJUSTMENT TO LABOR AND LABOR LOADING (See RLM-7, Page 1, Col (B))			<u>\$ (2,613,490)</u>

References:

- Column (A): Company WP's C-2, Column (d)
- Column (B): See RUCO WP's Labor & Loading Adj. # 1 (Deficiency / C-2 Adjustments / Column (d))
- Column (C): Column (B) - Column (A)

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 4
DIRECT PLANT TEST YEAR DEPRECIATION EXPENSE**

LINE NO.	ACCT. NO.		(A) TOTAL PLANT VALUE	(B) CO. PROPOSED DEPRECIATION RATE	(C) TEST YEAR DEPRECIATION EXPENSE
Intangible Plant:					
1	301	Organization	\$ 42,653	Amortized	\$ -
2	302	Franchises & Consents	1,877,392	Amortized	61,015
3	303	Miscellaneous Intangible	1,957,665	Amortized	12,594
4		Total Intangible Plant	<u>\$ 3,877,710</u>		<u>\$ 73,609</u>
Distribution Plant:					
5	374.1	Land & Land Rights	\$ 1,084,811	NA	\$ -
6	374.2	Rights Of Way	1,064,064	2.17%	23,051
7	375	Structures	110,557	0.39%	431
8	376	Mains	984,753,881	3.82%	37,617,598
9	378	Measuring & Regulating Station	32,713,046	4.12%	1,347,777
10	380	Services	605,264,706	5.30%	32,079,029
11	381	Meters	226,663,229	1.98%	4,487,932
12	385	Industrial Measuring & Regulating Station	7,383,843	4.31%	318,244
13	387	Other Equipment	462,730	5.26%	24,340
14		Total Distribution Plant	<u>\$ 1,859,500,867</u>		<u>\$ 75,898,402</u>
General Plant:					
15	389	Land & Land Rights	\$ 8,418,416	NA	\$ -
16	390.1	Structures	26,092,410	1.84%	480,100
17	390.2	Structures - Leasehold Improvements	986,219	Amortized	53,321
18	391	Office Furniture And Equipment	5,655,651	2.73%	154,399
19	391.1	Computer Equipment	8,563,368	14.87%	1,273,373
20	392.1	Transportation Equipment	31,153,543	7.65%	2,383,246
21	393	Stores Equipment	542,520	2.08%	11,284
22	394	Tools, Shop And Garage Equipment	5,225,024	2.17%	113,383
23	395	Laboratory Equipment	279,065	3.93%	10,967
24	396	Power Operated Equipment	4,309,295	3.88%	167,201
25	397	Communication Equipment	2,658,259	8.88%	236,053
26	397.2	Telemetry Equipment	789,376	6.19%	48,862
27	398	Miscellaneous Equipment	892,348	4.53%	40,423
28		Total General Plant	<u>\$ 95,565,494</u>		<u>\$ 4,972,614</u>
29		Total Direct Plant, Depreciation And Amortization	\$ 1,958,944,071		\$ 80,817,695
30		Total Amortization - Limited Term Gas Plant			126,930
31		Total Depreciation and Amortization			<u>\$ 80,944,625</u>
32		Company As Filed	1,959,221,067		80,956,247
33		Difference	<u>(276,996)</u>		<u>\$ (11,621)</u>
34		RUO ADJUSTMENT TO TEST YEAR DIRECT DEPRECIATION EXPENSE (See RLM-8, Page 1, Column (E))			<u>\$ (11,621)</u>

References:

- Column (A): RLM-4, Page 1, Column (M)
- Column (B): Company Workpapers
- Column (C): Column (A) X Column (B)

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 4 - CONT'D
SYSTEM ALLOCABLE PLANT TEST YEAR DEPRECIATION EXPENSE**

LINE NO.	ACCT. NO.		(A) TOTAL PLANT VALUE	(B) CO. PROPOSED DEPRECIATION RATE	(C) TEST YEAR DEPREC'N EXPENSE
		Intangible Plant:			
1	301.0	Organization	\$ 61,816	0.00%	\$ -
2	302.0	Franchises & Consents	-	Amortized	-
3	303.0	Miscellaneous Intangible	113,204,513	Amortized	# 7,058,485
4		Total Intangible Plant	<u>\$ 113,266,329</u>		<u>\$ 7,058,485</u>
		Distribution Plant:			
5	374.1	Land & Land Rights	\$ -	0.00%	\$ -
6	374.2	Rights Of Way	-	0.00%	-
7	375.0	Structures	-	0.00%	-
8	376.0	Mains	-	0.00%	-
9	378.0	Measuring & Regulating Station	-	0.00%	-
10	380.0	Services	-	0.00%	-
11	381.0	Meters	-	0.00%	-
12	385.0	Industrial Measuring & Regulating Station	-	0.00%	-
13	387.0	Other Equipment	-	0.00%	-
14		Total Distribution Plant	<u>\$ -</u>		<u>\$ -</u>
		General Plant:			
15	389.0	Land & Land Rights	\$ 391,307	0.00%	\$ -
16	390.1	Structures	13,961,544	2.50%	348,983
17	390.2	Structures - Leasehold Improvements	4,232,644	Amortized	184,348
18	391.0	Office Furniture And Equipment	9,441,847	8.16%	770,455
19	391.1	Computer Equipment	14,791,422	16.15%	2,388,755
20	392.1	Transportation Equipment	3,495,826	7.20%	251,699
21	393.0	Stores Equipment	86,303	7.20%	6,214
22	394.0	Tools, Shop And Garage Equipment	24,106	16.03%	3,864
23	395.0	Laboratory Equipment	232,096	11.16%	25,902
24	396.0	Power Operated Equipment	281,078	4.77%	13,407
25	397.0	Communication Equipment	5,376,875	8.51%	457,594
26	397.2	Telemetry Equipment	286,958	40.23%	115,443
27	398.0	Miscellaneous Equipment	882,254	11.09%	97,845
28		Total General Plant	<u>\$ 53,484,260</u>		<u>\$ 4,664,510</u>
29		Total System Allocable Plant, Depreciation And Amortization	\$ 166,750,589		\$ 4,480,162
30		Total Amortization - Limited Term Gas Plant (See RLM-10, Page 3 For Clarification)			7,160,677
31		Total Depreciation and Amortization			<u>\$ 11,640,839</u>
32		Company As Filed	\$ 166,890,337		\$ 11,722,995
33		Difference	<u>\$ (139,748)</u>		<u>\$ (82,156)</u>
34		Allocation Factor	56.70%		56.70%
35		TOTALS	<u>\$ (79,237)</u>		<u>\$ (46,583)</u>
36		RUCO ADJUSTMENT TO TEST YEAR SYSTEM ALLOCATED DEPRECIATION (See RLM-8, Page 1, Column (E))			<u>\$ (46,583)</u>

References:

- Column (A): RLM-4, Page 2, Column (M)
- Column (B): Company Workpapers
- Column (C): Column (A) X Column (B) Plus Further Clarification RLM-10, Page 3

EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 4 - CONT'D
ANNUALIZATION SYSTEM ALLOCABLE PLANT DEPRECIATION AND AMORTIZATION

LINE NO.	DESCRIPTION	(A) ESTIMATED CWIP INTANGIBLES	(B) ADJMT TO INTANGIBLES	(C) ACTUAL PIS INTANGIBLES	(D) ANNUALIZED PROVISION	(E) REFERENCE
Projects in CWIP Which Closed Before 12/31/07 (Per Co. Response To STF 11.4)						
1	Autocad Map 3D 2007	\$ 180,000	\$ (51,871)	\$ 128,129	\$ 42,710	
2	Pi Data Access	24,000	1,900	25,900	8,633	
3	Receivables Software	105,000	(28,916)	76,084	25,361	
4	Load Balancer	38,000	(219)	37,781	12,594	
5	MacKinney VS/Cobol License	10,500	(10,500)	-	-	
6	Citrix Presentation License	83,000	(372)	82,628	27,543	
7	San Lefthand Network Expan	15,500	(11)	15,489	5,163	
8	EMRS/LMR Software Module	430,000	(430,000)	-	-	
9	EMRS Software	350,000	(350,000)	-	-	
10	Oracle UPK Licenses	250,000	(60,602)	189,398	63,133	
11	Oracle PUI Licenses	210,000	(37,600)	172,400	57,467	
Revised List Of Projects in CWIP Which Closed Before 12/31/07 (Per Co. Supplement Response To STF 6.49)						
12	Comm Vault Licenses	-	10,419	10,419	3,473	
13	ACD Reporting License	-	20,678	20,678	6,893	
14	Powerbroker License	-	10,926	10,926	3,642	
15	Tivoli Workload Scheduler	-	110,638	110,638	36,879	
16	Powerbroker License	-	11,960	11,960	3,987	
17	Trident OS/EM Licenses	-	55,300	55,300	18,433	
18	MAPX GIS Software	-	35,030	35,030	11,677	
19	Oracle Internet Licenses	-	49,177	49,177	16,392	
20	HP Licenses	-	54,728	54,728	18,243	
21	Ops Mgr Server Licenses	-	61,285	61,285	20,428	
22	WMS Test Project	-	301,580	301,580	100,527	
23	TOTALS	\$ 1,696,000	\$ (246,470)	\$ 1,449,530	\$ 483,177	Sum Of Lines 1 Thru 22
24	RUCO System Allocable Adjustment		\$ (246,470)			Line 23, Column (B)
25	Arizona 4-Factor		56.70%			Co. W/P Dep-Amort Adjmt
26	RUCO Allocated Arizona Rate Base Adjustment		\$ (139,748)			Line 24 X Line 25
27	RUCO RB Adjmt No. 2 (See RLM-4, Pg 2, Col (E))		\$ (139,748)			Line 26
28	RUCO Adjusted Amort. CWIP Transferred To PIS			\$ 483,177		Line 23, Column (D)
29	Recorded Amort. Intangible Plant			6,493,152		Co. W/P Dep-Amort Adjmt
30	Recorded Amort. Leasehold Improvements			184,348		Co. W/P Dep-Amort Adjmt
31	RUCO Adjusted Dep/Amort Expense			\$ 7,160,677		Sum Of Lines 28 Thru 30
32	Recorded Dep/Amort Expense			7,560,997		Co. W/P Dep-Amort Adjmt
33	RUCO Adjusted Total System Allocable Amortization			(400,320)		Line 31 - Line 32
34	Recorded Total System Allocable Depreciation			186,182		Co. W/P Dep-Amort Adjmt
35	RUCO Adjusted Total System Allocable Dep/Amort			(214,138)		Line 33 + Line 34
36	Arizona 4-Factor			56.70%		Co. W/P Dep-Amort Adjmt
37	RUCO Adjusted System Allocated Dep/Amort			(121,416)		Line 35 X Line 36
38	Company Adjusted System Allocated Dep/Amort			(74,834)		Co. Adjmt No. 14
39	Difference In Adjusted System Allocated Dep/Amort			(46,582)		Line 37 - Line 38
40	RUCO Adjustment (See RLM-8, Pages 1 & 2, Column (M))			(46,582)		Line 39

References:

- Column (A): Company Workpapers "Dep-Amort Adjustment"
- Column (B): Column (C) - Column (A)
- Column (C): Company Response To Staff Data Request 11.4 And Response To Staff Dr 6.49
- Column (D): Column (C) Amortized Over Three Years

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 5
PROPERTY TAX COMPUTATION**

LINE NO.	DESCRIPTION	(A)	(B)
Calculation Of The Company's Full Cash Value:			
1	Net Plant In Service		\$ 1,267,124,121
ADD:			
2	Materials And Supplies (RLM-6, Page 1, Line 5)	\$ 12,389,898	
3	Total (Line 2)		\$ 12,389,898
SUBTRACT:			
4	Original Cost New Balance Of Transportation Equipment (Company Workpapers)	\$ 27,969,828	
5	Land Rights (Company Workpapers)	\$ 1,823,920	
6	Total (Line 2)		\$ (29,793,748)
7	COMPANY'S FULL CASH VALUE (Sum Of Lines 1, 3, & 6)		<u>\$ 1,249,720,271</u>
Calculation Of The Company's Tax Liability:			
MULTIPLY: Company Full Cash Value By Valuation Assessment Ratio And Then By Property Tax Rates:			
8	Assessment Ratio (Per House Bill 2779)		23.0%
9	Assessed Value (Line 7 X Line 8)	\$ 287,435,662	
Property Tax Rates:			
10	Primary Tax Rate (2004 Tax Notice - Co.'s Data Response - "Property Tax")		11.52%
11	Secondary Tax Rate (2004 Tax Notice - Co.'s Data Response - "Property Tax")		<u>0.00%</u>
12	Estimated Tax Rate Liability (Line 10 + Line 11)		11.52%
13	COMPANY'S TAX LIABILITY - Based On Full Cash Value (Line 12 X Line 13)		<u>\$ 33,112,588</u>
14	Test Year Adjusted Property Tax Expense Per Company's Filing (Co. Sch. C-2, Adj No. 15))	\$ 33,112,588	
15	Increase (Decrease) In Property Tax Expense (Line 13 - Line 14)	\$ -	
16	RUCO ADJUSTMENT TO PROPERTY TAX EXPENSE (See RLM-8, Page 1, Column (F))		<u>\$ -</u>

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 6
MISCELLANEOUS ADJUSTMENTS**

LINE NO	DESCRIPTION	(A)	(B)	(C)	(D)
		ALLOCABLE TOTAL	ALLOC'N FACTOR	ARIZONA TOTAL	RUCO AS ADJUSTED
1	Arizona Direct Accounts 880 - Other Expenses	(110,809)	100.00%	(110,809)	
2	Sub Total Arizona Direct Accounts	<u>\$ (110,809)</u>			<u>\$ (110,809)</u>
	System Allocable Accounts To Arizona				
3	921 - Office Supplies And Expenses	\$ (148,689)	56.70%	\$ (84,306)	
4	930 - Miscellaneous General Expenses	(16,322)	56.70%	(9,254)	
5	Sub Total Administrative And General Expenses	<u>\$ (165,010)</u>		<u>\$ (93,561)</u>	
6	Sub Total System Allocable Accounts To Arizona	<u>\$ (165,010)</u>			<u>\$ (93,561)</u>
7	TOTAL				<u>(204,370)</u>
8	RUCO ADJUSTMENT TO MISCELLANEOUS ADJUSTMENTS (See RLM-8, Page 1, Column (G))				<u>\$ (204,370)</u>

References:

- Column (A): Workpapers Exhibit A (880) Pages 1 To 18, (921) Pages 1 To 14, (923) Page 1, And (930) Page 1
- Column (B): Company Workpapers
- Column (C): Column (A) X Column (B)
- Column (D): Sums Of Column (C)

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 7
MANAGEMENT INCENTIVE PROGRAM**

LINE NO	DESCRIPTION	(A) ALLOCABLE TOTAL	(B) ALLOCN FACTOR	(C) ARIZONA TOTAL	(D) RUCO AS ADJUSTED
<i>Arizona Direct Accounts</i>					
1	Exempt Special Incentive	-	100.00%	-	
2	Service Planning Quality Incentive Award	290,004	100.00%	290,004	
3	Sub Total Arizona Direct Accounts	<u>\$ 290,004</u>		<u>\$ 290,004</u>	
4	Allocation Factor At A 50/50 Split			-50.00%	<u>\$ (145,002)</u>
<i>System Allocable Accounts To Arizona</i>					
5	Management Incentive Plan	\$ 5,919,502	56.70%	\$ 3,356,358	
6	Exempt Special Incentive	151,250	56.70%	85,759	
7	Service Planning Quality Incentive Award	137,522	56.70%	77,975	
8	Sub Total Administrative And General Expenses	<u>\$ 6,208,274</u>		<u>\$ 3,520,091</u>	
9	Allocation Factor At A 50/50 Split			-50.00%	
10	Sub Total System Allocable Accounts To Arizona	<u>\$ 6,208,274</u>			<u>\$ (1,760,046)</u>
11	TOTAL				<u>(1,905,048)</u>
12	RUCO ADJUSTMENT TO MISCELLANEOUS ADJUSTMENTS (See RLM-8, Page 1, Column (H))				<u>\$ (1,905,048)</u>

References:

- Column (A): Company Response To Staff Data Request 1.78
- Column (B): Company Workpapers
- Column (C): Column (A) X Column (B)
- Column (D): Sums Of Column (C)

**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 8
SUPPLEMENTAL EMPLOYEE RETIREMENT PLAN**

LINE NO	DESCRIPTION	(A) COMPANY AS FILED	(B)	(C)	(D) RUCO ADJUSTMENT
	ALLOCATIONS:	WP C-2, Adj #3, Sh 8, L 11			Distributed Total RUCO DR 14-1.a
1	Arizona	\$ 1,395,781			\$ (1,395,781)
2	Corporate Direct	54,102			(54,102)
3	Other Jurisdictions	1,041,113			-
4	System Allocable	866,016			(866,016)
5	Total (Sum Of Lines 1, 2, 3 & 4)	<u>\$ 3,357,012</u>			<u>\$ (2,694,668)</u>

FUNCTIONALIZATION:

	DISTRIBUTION PERCENTAGE See NOTE A	DISTRIBUTION Of Col (D), Line 1	ALLOCATION FACTOR	RUCO ADJUSTMENT RLM-8, Pg 2, Col (H)	
6	Other Gas Supply	0.73%	\$ (10,184)	100.00%	\$ (10,184)
7	Distribution	67.99%	(949,044)	100.00%	(949,044)
8	Customer Accounts	30.69%	(428,347)	100.00%	(428,347)
9	Customer Information	0.59%	(8,206)	100.00%	(8,206)
10	SUBTOTAL Sum Of Lines 6 Thru 9)	<u>100.00%</u>	<u>(1,395,781)</u>		<u>\$ (1,395,781)</u>
	Administrative & General		DISTRIBUTION Of Col (D), L 2 & L4		
11	Direct		(54,102)	100.00%	(54,102)
12	System Allocable		(866,016)	56.70%	(491,031)
13	TOTAL (Sum Of Lines 10, 12 & 13) (See RLM-8, Pg 2, Col (H))				<u>\$ (1,940,914)</u>

NOTE A

To Determine The Distribution Ratio Of Arizona Direct SERP
By Allocating Expenses At The Same Percentage As Labor Loading In SWG's Adjustment No. 3

	SWG ADJ'MT NO.3 SWG SCH. C-2	DISTRIBUTION PERCENTAGE
14	Operating Expenses	
	Other Gas Supply	\$ 16,522 0.73%
15	Distribution	1,539,648 67.99%
16	Customer Accounts	694,914 30.69%
17	Customer Information	13,313 0.59%
18	SUBTOTAL	<u>\$ 2,264,397 100.00%</u>
	Administrative & General	
19	Direct	\$ 24,518
20	System Allocable	578,837
21	SUBTOTAL	<u>\$ 603,355</u>
22	TOTAL	<u>\$ 2,867,752</u>

**OPERATING INCOME ADJUSTMENT NO. 10
NORMALIZATION OF THE UNCOLLECTIBLE EXPENSE**

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
		UNCOLLECTIBLES COMPANY DATA RUCO D.R. 1.12	OPERT'G REVENUES COMPANY DATA E-2 & 2004 A. R.	RATIO OF UNCL'TIBLES TO REV COLUMN (A) / (B)	RUCO ADJUSTMENT
1	2004 Year-End	1,355,278	\$ 693,070,359	0.00196	
2	2005 Year-End	1,447,967	748,627,816	0.00193	
3	2006 Year-End	2,538,849	895,549,006	0.00283	
4	Three Year Ratio Total (Sum Of Lines 1 Thru 3)			0.00672	
5	RUCO Adjusted Ratio Uncollectible Expense To Revenue - 3-Yr Average (Ln 4 / 3 Yrs)			0.00224	
6	RUCO Adjusted TY Rev. (Sch. RLM-7, Col. (C), Ln 1 + Gas Costs Of \$593,424,664)		\$ 992,659,342		
7	RUCO Adjusted Uncollectible Expense (Ln 5 X Ln 6)		\$ 2,225,077		
8	Company Recorded Uncollectible Expense (Per Co. W. P.'s)		\$ 2,977,729		
9	Difference (Ln 7 - Ln 8)				\$ (752,652)
10	RUCO Adjustment (Line 9) (See RLM-8, Pages 1 & 2, Column (K))				<u>\$ (752,652)</u>

EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 11
GAIN ON SALE OF PROPERTY

(A)

LINE NO	DESCRIPTION	RUCO AS ADJUSTED
1	Gain On Sale Of Property (Per Co. Response To Staff Data Request 1.96)	\$ 418,196
2	Sharing Percentage Between Ratepayers And Shareholders	50.00%
3	Ratepayers Portion Of The Gain (Line 1 X Line 2)	<u>\$ 209,098</u>
4	Amortization Period	3 Years
5	Decrease In Test-Year Operating Expenses (Line 3 / Line 4)	<u>\$ (69,699)</u>
6	RUCO Adjustment (Line 5) (See RLM-8, Pages 1 & 2, Column (L))	<u><u>\$ (69,699)</u></u>

**EXPLANATION OF OPERATING INCOME ADJUSTMENT
INCOME TAX EXPENSE**

LINE NO.	DESCRIPTION	(A) REFERENCE	(B) AMOUNT
FEDERAL INCOME TAXES:			
1	Operating Income Before Taxes	Schedule RLM-6, Column (C), Line 18 + Line 16	\$ 96,604,926
LESS:			
2	Arizona State Tax	Line 11	(3,401,069)
3	Interest Expense	Note (A) Line 21	(47,795,091)
4	Federal Taxable Income	Sum Of Lines 1, 2 & 3	\$ 45,408,766
5	Federal Tax Rate	Schedule RLM-1, Page 2, Column (A), Line 10	35.17%
6	Federal Income Tax Expense	Line 4 X line 5	\$ 15,972,492
STATE INCOME TAXES:			
7	Operating Income Before Taxes	Line 1	\$ 96,604,926
LESS:			
8	Interest Expense	Note (A) Line 21	(47,795,091)
9	State Taxable Income	Line 7 + Line 8	\$ 48,809,835
10	State Tax Rate	Tax Rate	6.9680%
11	State Income Tax Expense	Line 9 X Line 10	\$ 3,401,069
TOTAL INCOME TAX EXPENSE:			
12	Federal Income Tax Expense	Line 6	\$ 15,972,492
13	State Income Tax Expense	Line 11	3,401,069
14	South Georgia Amortization	Company Schedule C-1, Sheet 17, Column (C), Line 8 + Line 18	365,253
15	Investment Tax Credit	Company Schedule C-1, Sheet 17, Column (C), Line 19	(528,352)
16	Total Income Tax Expense Per RUCO	Sum Of Lines 12, 13, 14 & 15	\$ 19,210,462
17	Total Income Tax Expense Per Company Filing (Schedule C-1)		16,092,218
18	RUCO ADJUSTMENT TO INCOME TAX EXPENSE (See RLM 7, Page 2, Column (Q))	Line 16 - Line 17	\$ 3,118,244
NOTE (A):			
Interest Synchronization:			
19	Adjusted Rate Base (Schedule RLM-2, Column (C), Line 10)	\$ 1,089,321,967	
20	Weighted Cost Of Debt (Schedule RLM-18, Column (F), Line 1 + Line 2)	4.39%	
21	Interest Expense (Line 19 X Line 20)	\$ 47,795,091	

COST OF CAPITAL

LINE NO.	DESCRIPTION	(A) CAPITAL RATIO	(B) COST	(C) WEIGHTED COST
1	Long-term Debt	51.00%	7.96%	4.06%
2	Preferred Stock	4.00%	8.20%	0.33%
3	Common Equity	45.00%	9.88%	4.45%
4	TOTAL CAPITAL	100.00%		
5	WEIGHTED COST OF CAPITAL			8.83%

References:

- Column (A): Company Schedule D-1
- Column (B): Testimony, WAR
- Column (C): Column (A) X Column (B)
- Column (C) Line 5: Sum Of Column (C) Lines 1 Thru 3