

FILED

AUG 18 2008

Missouri Public
Service Commission

Exhibit No
Witness
Type of Exhibit
Issue
Sponsoring Parties
Case No

Brian Janous
Direct Testimony
Cost of Capital
Missouri Industrial Energy Consumers
WR-2008-0311

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Missouri-American
Water Company's Request for
Authority to Implement a General Rate
Increase for Water and Sewer Service
Provided in Missouri Service Areas)

Case No. WR-2008-0311

Direct Testimony and Exhibits of

**Brian A. Janous
on Cost of Capital Issues**

FILED
NOV 12 2008
Missouri Public
Service Commission

On Behalf of

Missouri Industrial Energy Consumers



BRUBAKER & ASSOCIATES, INC.
ST LOUIS MO 63141-2000

August 18, 2008
Project 8980

MIEC
Exhibit No. 1
Case No(s) WR-2008-0311
Date 10-30-08 Rptr pk

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Missouri-American)
Water Company's Request for)
Authority to Implement a General Rate)
Increase for Water and Sewer Service)
Provided in Missouri Service Areas)

Case No. WR-2008-0311

STATE OF MISSOURI)
)
COUNTY OF ST. LOUIS)

SS

Affidavit of Brian Janous

Brian Janous, being first duly sworn, on his oath states:

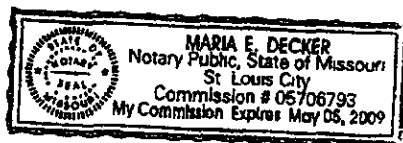
1 My name is Brian Janous. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.


2 Attached hereto and made a part hereof for all purposes are my direct testimony and schedules on revenue requirement issues, which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. WR2008-0311.

3 I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things they purport to show.


Brian Janous

Subscribed and sworn to before me this 18th day of August, 2008




Notary Public

**In the Matter of Missouri-American)
Water Company's Request for)
Authority to Implement a General Rate) Case No. WR-2008-0311
Increase for Water and Sewer Service)
Provided in Missouri Service Areas)**

1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

4 Q WHAT IS YOUR OCCUPATION?

7 Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND
8 EXPERIENCE.

10 Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

11 A I am appearing on behalf of the Missouri Industrial Energy Consumers (MIEC)
12 Member companies purchase substantial amounts of water from Missouri-American
13 Water Company (Missouri-American or Company)

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

2 A I will recommend an appropriate return on common equity (ROE), and overall rate of
3 return (ROR) for Missouri-American Water Company

4 **Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS.**

5 A I recommend the Missouri Commerce Commission (Commission) authorize a return
6 on common equity for Missouri-American of 10.03%. A 10.03% ROE is fair
7 compensation in today's low cost capital market and would allow Missouri-American
8 to maintain access to capital under reasonable terms and at reasonable prices.
9 American Water Capital Corp. is the affiliate entity which issues debt on behalf of all
10 American Water Works water utility affiliates, including Missouri-American.

11 My recommended return on equity for Missouri-American is based on the
12 Discounted Cash Flow (DCF) model, the Risk Premium Model, and the Capital Asset
13 Pricing Model (CAPM). These analyses estimate a fair return on equity based on
14 observable market information for a group of publicly traded risk proxy companies
15 comparable in risk to Missouri-American.

16 **Q PLEASE DESCRIBE HOW MISSOURI-AMERICAN ATTRACTS EXTERNAL DEBT**
17 **AND EQUITY CAPITAL.**

18 A Missouri-American does not access external capital markets on its own; rather, it gets
19 all of its external capital through its parent company or affiliate companies. All
20 external equity comes from its parent company, American Water Works, and all
21 corporate debt capital is issued by American Water Capital Corp. As such,
22 Missouri-American's entire access to external corporate debt and equity capital is
23 determined by its parent company and affiliates' credit standing and access to capital.

1 **Q WHAT RATE OF RETURN ARE YOU PROPOSING FOR MISSOURI-AMERICAN IN**
2 **THIS PROCEEDING?**

3 A As shown on Schedule BAJ-1, I recommend an overall rate of return of 8.02%.

4 **Q PLEASE DESCRIBE AMERICAN WATER CAPITAL CORP.'S CREDIT RATING.**

5 A American Water Capital Corp. has a credit rating of "A-" from Standard & Poor's and
6 "Baa1" from Moody's. Standard & Poor's states the following concerning American
7 Water Works' credit rating and assessment of its credit quality:

8 The ratings on the Voorhees, N.J.-based AWW reflect our assessment
9 of the company's stand-alone credit quality based on its proposed
10 post-IPO business plan, which includes improvements in the utility's
11 financial profile above current levels. AWW has received all regulatory
12 approvals necessary for its divestiture from RWE AG. The ratings are
13 also based on our expectation of regulatory support to fund the
14 company's sizable capital-spending requirements through rate cases
15 or supportive policies, such as infrastructure surcharges,
16 forward-looking test years, and single tariff pricing.

17 AWW's excellent business risk profile is characterized by an excellent
18 competitive position with high barriers to entry, a diverse and
19 supportive regulatory environment that provides reasonably allowed
20 ROEs, incentives for infrastructure improvements and support for
21 acquiring small water companies, an above-average service territory
22 that provides some market, cash flow, and regulatory diversification, a
23 stable customer base that is predominantly residential and
24 commercial, and the relatively low operating risk of regulated and
25 nonregulated operations. AWW's aggressive financial profile,
26 uncertainties associated with its planned equity and equity unit
27 offerings, elevated capital-spending requirements for infrastructure
28 replacement, increased compliance costs with water-quality standards,
29 and the company's reliance on acquisitions to provide growth partly
30 offset these strengths.¹

¹ Standard & Poor's Credit RatingsDirect Research Update "American Water Works, Sub Ratings Remain On CreditWatch, IPO Timing Still Uncertain," January 29, 2008

1 **Q SHOULD THE COMMISSION PLACE HEAVY RELIANCE ON PROJECTED**
2 **INTEREST RATES AND FUTURE CAPITAL MARKET COSTS RELATIVE TO**
3 **TODAY'S OBSERVABLE CAPITAL MARKET COSTS?**

4 **A No While projected interest rates should be given some consideration, the**
5 **determination of Missouri-American's cost of capital today should be based primarily**
6 **on observable and verifiable actual current market costs. The accuracy of projected**
7 **changes to interest rates is highly problematic. In fact, over the past five years, the**
8 **actual interest rate experienced at the time an interest rate projection was made has**
9 **been a better indicator of the interest rate that would be experienced two years later**
10 **than the then projected interest rate.**

11 An analysis supporting this conclusion is illustrated on my Schedule BAJ-2.
12 This analysis clearly illustrates that interest rate projections based on current interest
13 rates are likely to be as accurate as economists' consensus projections of future
14 interest rates.

15 On Schedule BAJ-2, under Column 1, I show the actual market yield at the
16 time a projection was made for Treasury bond yields two years in the future. In
17 Column 2, I show the projected yield two years out. As shown in Columns 1 and 2,
18 over the last several years, Treasury yields were projected to increase relative to the
19 current Treasury yields at the time of the projection.

20 In Column 4, I show the actual Treasury yield two years after the forecast.
21 Under Column 5, I show the difference between the actual yield and the originally
22 projected yield.

23 As shown on this exhibit, over the last five years, economists have
24 consistently been projecting increases to interest rates. However, as demonstrated
25 under Column 5, those yield projections have turned out to be overstated in virtually
26 every case. Indeed, Treasury yields have actually decreased or remained flat over

1 the last five years, rather than increase as the economists' projections indicated
2 Further, as shown under Column 6, interest rates have stayed relatively flat compared
3 to the prevailing interest rate at the time the forecast was made

4 The experience with projected interest rates over the last five years shown on
5 Schedule BAJ-2 clearly establishes that interest rate projections can be highly
6 inaccurate. Indeed, current observable interest rates are just as likely a reasonable a
7 proxy for future interest rates as are economists' projections. Accordingly, while I will
8 use projected interest rates to provide some sense of the market's expectations of
9 future capital market costs in my models, I will not use them exclusively. Rather, my
10 cost of equity analyses will be based on the combination of current observable
11 interest rates and projected interest rates. Thus, my analyses will capture a return on
12 equity range reflecting a broad range of potential actual capital market costs during
13 the period rates determined in this proceeding will be in effect.

14 **Q ARE THERE OTHER REASONS NOT TO PROVIDE EXCLUSIVE RELIANCE ON**
15 **UNCERTAIN PROJECTED INCREASES TO INTEREST RATES?**

16 **A** Yes. The ratemaking process in itself provides utility protection against increased
17 cost of capital. Indeed, if Missouri-American's utility subsidiaries' rates of return are
18 set based on today's market cost of capital, and capital costs increase in the future,
19 then the utilities are free to file for a rate change to reflect those higher costs. Hence,
20 the regulatory mechanism itself provides utilities a hedge against increasing capital
21 costs.

1 **Return On Common Equity**

2 **Q PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED**
3 **COMPANY'S COST OF COMMON EQUITY.**

4 **A Two United States Supreme Court decisions are often cited as establishing the**
5 **framework for determining a fair cost of common equity for a regulated utility**
6 **Bluefield Water Works vs. West Virginia PSC (1923); and Federal Power Commission**
7 **vs. Hope Natural Gas Company (1944) These decisions identified the general**
8 **standards to be considered in establishing the cost of common equity for a public**
9 **utility These standards are that the authorized return should (1) be sufficient to**
10 **allow the utility to maintain financial integrity, (2) allow the utility to attract capital**
11 **under reasonable terms, and (3) be commensurate with returns investors could earn**
12 **by investing in other enterprises of comparable risk**

13 **Q PLEASE DESCRIBE WHAT IS MEANT BY "UTILITY'S COST OF COMMON**
14 **EQUITY."**

15 **A A utility's cost of common equity is the return investors expect, or require, in order to**
16 **make an investment Investors expect to achieve their return requirement from**
17 **receiving dividends and stock price appreciation**

18 **Q PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE THE COST**
19 **OF COMMON EQUITY FOR MISSOURI-AMERICAN.**

20 **A I have used financial models to estimate Missouri-American's cost of common equity.**
21 **These models are (1) the Discounted Cash Flow (DCF) model (utilizing Constant**
22 **Growth, Two-stage Growth and Three-Stage Growth), (2) the Risk Premium Model,**
23 **and (3) the Capital Asset Pricing Model (CAPM)**

1 Q HOW DID YOU DEVELOP DCF AND CAPM ANALYSES FOR
2 MISSOURI-AMERICAN?

3 A Since Missouri-American is not a publicly traded entity, I performed the DCF and
4 CAPM analyses on two risk proxy utility groups consisting of publicly traded utilities
5 that represent the investment risk of a water utility similar to Missouri-American. First,
6 I relied on a group of publicly traded companies that are predominantly involved in the
7 water utility business. Second, I used a group of natural gas local distribution
8 companies (LDC). While the business risk of a gas LDC group is generally greater
9 than that of a water utility company, gas utilities are more widely followed. Also, the
10 water utility industry continues to be impacted by acquisition and mergers which can
11 impact valuation and the reliability of return on equity estimates. Hence, the use of
12 the gas LDC group will help improve the reliability of my return on equity estimate.

13 Q HOW DOES M&A ACTIVITY INHIBIT YOUR ABILITY TO ESTIMATE A WATER
14 UTILITY'S ROE?

15 A Stock prices, which are utilized in DCF analyses, may be reflective of merger or
16 acquisition value as opposed to the stand alone operating value of the utility. This
17 might also result in the betas being impacted by this non-enterprise activity.

18 Q HOW DID YOU SELECT YOUR WATER UTILITY GROUP?

19 A I relied on the water utilities included in the Value Line Investment Analyzer.

20 Q IS YOUR WATER UTILITY PROXY GROUP COMPARABLE IN RISK TO
21 MISSOURI-AMERICAN?

22 A Yes. This group reflects reasonably comparable investment risk as compared to
23 Missouri-American. As shown on my Schedule BAJ-3, page 1, this group has a group

1 average bond rating of "A+" from S&P, and "A2" from Moody's, which is reasonably
2 comparable to American Water Capital's bond ratings of "A-" and "Baa1" from each of
3 these rating agencies The group's average common equity ratio, which is
4 representative of financial risk, from Value Line and AUS Utility Reports is 53% and
5 49%, respectively, is reasonable comparable to the common equity ratio for
6 Missouri-American of 48% Overall, the group's total risk is comparable to
7 Missouri-American's

8 **Q HOW DID YOU SELECT YOUR GAS LDC GROUP?**

9 **A** I started with the natural gas distribution companies followed by Value Line and I
10 excluded the companies that did not meet the following criteria

- 11 (1) Investment grade credit rating from Standard & Poor's (S&P) and Moody's
- 12 (2) Common equity ratio equal to or greater than 40 0%
- 13 (3) No suspended or reduced dividends over the last two years
- 14 (4) Consensus analysts' growth rate estimates from Zack's, Reuters and SNL
- 15 (5) No involvement in recent merger and acquisition activities

16 This group is shown on Schedule BAJ-3, page 2

17 **Q IS YOUR GAS LDC PROXY GROUP COMPARABLE IN RISK TO**
18 **MISSOURI-AMERICAN?**

19 **A** Yes As shown on my Schedule BAJ-3, page 2, the gas LDC group has similar risk
20 profile measures to Missouri-American The average gas proxy group bond rating is
21 "A" and "A3" from Standard & Poor's and Moody's, respectively, which is reasonably
22 comparable to American Water Capital Corp 's current bond rating Also, the group's
23 average common equity ratio of 53% to 55%, as reported by AUS and Value Line,
24 indicates slightly less financial risk as compared to Missouri-American's ratio of 48%

1 Q DO GAS UTILITIES GENERALLY HAVE MORE OPERATING RISK THAN WATER
2 UTILITIES?

3 A Yes While gas and water utilities face similar risks related to cost recovery or
4 infrastructure, gas utilities must manage gas commodity cost recovery risk as well
5 Considering the slightly lower financial risk and slightly higher operating risk, the total
6 risk of this gas proxy group is reasonably comparable to Missouri-American's

7 **Discounted Cash Flow (DCF) Model**

8 Q PLEASE DESCRIBE THE DCF MODEL.

9 A The premise of the DCF model is that the price of an individual stock is determined by
10 the present value of all expected future cash flows discounted at the investors'
11 required rate of return or cost of capital This model is expressed mathematically as
12 follows:

13
$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \frac{D_\infty}{(1+K)^\infty} \quad \text{where} \quad \text{(Equation 1)}$$

14 P_0 = Current stock price

15 D = Dividends in periods 1 - ∞

16 K = Investor's required return

17 This model can be rearranged in order to estimate the discount rate or
18 investor required return, "K "

19
$$K = D_1/P_0 + G \quad \text{(Equation 2)}$$

20 K = Investor's required return

21 D_1 = Dividend in first year

22 P_0 = Current stock price

23 G = Expected constant dividend growth rate

24 Equation 2 is referred to as the "constant growth" annual DCF model since it
25 assumes that earnings and dividends will grow at a constant rate
26

1 Q PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.

2 A As shown under Equation 2 above, the DCF model requires a current stock price,
3 expected dividend, and expected growth rate in dividends

4 Q WHAT STOCK PRICE HAVE YOU RELIED ON IN YOUR CONSTANT GROWTH
5 DCF MODEL?

6 A For my proxy groups I relied on the average of the weekly high and low stock prices
7 over a 13-week period ending July 25, 2008. An average stock price over a period of
8 time is less susceptible to market price movements than a price on a single day

9 A 13-week average stock price is short enough to contain data that
10 reasonably reflects current market expectations, but it is not too short to be
11 susceptible to market price variations that may not be reflective of the security's
12 long-term value. Therefore, in my judgment, a 13-week average stock price is a
13 reasonable balance between the need to reflect current market expectations and to
14 capture sufficient data to smooth out aberrant market movements

15 Q WHAT DIVIDEND DID YOU USE IN YOUR CONSTANT GROWTH DCF MODEL?

16 A I used the most recently paid quarterly dividend, as reported in the Value Line
17 Investment Survey. This dividend was annualized (multiplied by 4) and adjusted for
18 next year's growth to produce the D1 factor for use in Equation 2 above

19 Q WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR DCF MODEL?

20 A The growth rate used for the DCF model should be based upon the likely growth
21 estimate that is built into stock prices. Although an individual investor may use a
22 number of methods to estimate the expected growth in dividends, one must
23 determine the consensus of investor expectations with respect to growth rates.
24 Security analyst growth estimates have been shown to be more accurate predictors

1 of future growth than historical growth rates. Assuming that markets are generally
2 rational, one can reasonably assume that investors are using security analyst
3 estimates in determining how to correctly value a stock. In other words, security
4 analyst growth estimates are the most likely growth estimates that are built into stock
5 prices. Consequently, I have used consensus security analyst growth estimates as a
6 reasonable proxy for investor's expectations of future growth.

7 For my gas proxy group, I used the average of two analyst sources of
8 customer growth rate estimates for my proxy group of companies: SNL and Zacks.
9 SNL does not report on water companies, so for my water proxy group I used SNL
10 and Value Line. All analyst projections were reported between July 25 and July 29,
11 2008. The consensus estimate is a simple average of surveyed analysts' earnings
12 growth forecasts.

13 A simple average of the growth forecasts gives equal weight to all surveyed
14 analysts' projections. To avoid using only one particular analyst's forecast, which
15 may or may not be more representative of general market expectations, I used a
16 simple average, or arithmetic mean, of multiple analyst forecasts to arrive at a good
17 proxy for market consensus expectations. The growth rates I used in my DCF
18 analysis are shown on my Schedule BAJ-4, pages 1 and 2.

19 **Q WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?**

20 **A** The results of my DCF analyses are shown on Schedule BAJ-5. As shown on
21 Schedule BAJ-5, page 1, the average DCF cost of common equity for the water proxy
22 group is 12.96%. On Schedule BAJ-5, page 2, the gas proxy group DCF cost of
23 common equity is 10.51%.

24 My constant growth DCF study indicates a return on equity of 10.51% to
25 12.96%, with a mid-point of 11.74%.

1 Q DO YOU HAVE ANY COMMENTS CONCERNING THE RESULTS OF YOUR
2 WATER UTILITY DCF ANALYSIS?

3 A Yes The comparable water group average five-year growth rate is 9.7%, which is too
4 high to be sustainable over an indefinite period of time. Though not as excessive, the
5 gas proxy group's three- to five-year growth rate is also above a sustainable level of
6 growth. The three- to five-year growth rates, in each case, exceed the growth rate of
7 the overall U.S. economy. Based on consensus economic projections, as published
8 by Blue Chip Economic Indicators, over a five- to ten-year period, the U.S. economy
9 (GDP) is estimated to grow at nominal rates of 5.0% and 4.8%, respectively.² A
10 company cannot grow, indefinitely, at a faster rate than the market in which it sells its
11 products or services. The U.S. economy growth projection represents a ceiling, or
12 high end, sustainable growth rate for a utility over an indefinite period of time.

13 A utility cannot sustain a growth rate that exceeds the growth rate of the
14 overall economy, because a utility's earnings/dividend growth is created by increased
15 utility investment, which in turn is driven by service area economic growth. In other
16 words, utilities invest in plant to meet sales demand growth, and sales growth in turn
17 is tied to economic growth in their service area. Hence, nominal GDP growth is a
18 proxy for sales growth, utility rate base growth, and earnings growth. Therefore, GDP
19 growth is the highest sustainable long-term growth rate of a utility.

20 Moreover, the water proxy group's projected growth rate of 9.7% is
21 considerably higher than the historical growth rate the proxy group has achieved over
22 the last five to ten years. As shown on Schedule BAJ-6, page 1, the historical growth
23 of my proxy group's dividend is substantially lower than the nominal GDP growth.

24 The result of this excessive 9.7% growth rate is a ROE estimate of 12.96%,
25 which, as I will demonstrate, is so far above the results of my other ROE estimates as

² Blue Chip Economic Indicators, March 10, 2008

1 to call into question its validity

2 **Q HAVE ANY REGULATORY COMMISSIONS RECOGNIZED THAT CURRENT**
3 **ANALYST PROJECTED GROWTH RATES ARE NOT SUSTAINABLE?**

4 **A** Yes In Illinois-American Water Companies' (IAWC) recent rate case (Docket No 07-
5 0507) the Illinois Commerce Commission concluded the following

6 The record seems to support a conclusion that, at least in the
7 near-term, growth in EPS for water utilities may be unusually
8 high as water utilities upgrade facilities and replace aging
9 infrastructure The Commission, however, has a much more
10 difficult time accepting the proposition that EPS growth for
11 water utilities will exceed the growth rate for the U S economy
12 into perpetuity Instead, the argument that the high growth for
13 water companies will, at some point in the future, slow to
14 something approximating the growth rate for the U S. economy
15 is simply more logical and convincing

16 **Q DO YOU HAVE ANY COMMENTS CONCERNING THE RESULTS OF YOUR GAS**
17 **PROXY GROUP DCF RESULT?**

18 **A** Yes The gas proxy DCF growth rate of 6.42%, while not as excessive as the growth
19 rate indicated by my water group, is still above the long-term sustainable growth for a
20 utility company As noted above, the maximum sustainable growth rate is proxied by
21 the GDP growth rate which is projected to be 4.8 to 5.0% Also, note that the gas
22 proxy group's projected growth rate of 6.42% is very high in comparison to historical
23 growth for these proxy companies Further, as shown on Schedule BAJ-6, page 2,
24 the historical growth has been much closer to the inflation rate than it has been to
25 actual GDP growth Hence, the current projected growth, which is higher than
26 forward-looking GDP growth, is not a reasonable growth outlook for these proxy
27 groups

1 **Q WHY DO YOU BELIEVE GROWTH RATES FOR WATER UTILITY COMPANIES**
2 **ARE PROJECTED TO BE SO HIGH OVER THE NEXT THREE TO FIVE YEARS?**

3 **A**Water utility companies are in the midst of major construction programs which are
4 significantly increasing their outstanding capital and net plant investment
5 Replacement of infrastructure and the improvements to water treatment plants to
6 meet more stringent environmental requirements results in strong growth to utilities'
7 rate base, and growth in earnings. This growth in earnings will be realized over the
8 next five years or so, but will eventually return to more sustainable long-term levels

9 It is simply not reasonable to expect that the earnings projections over the
10 next three to five years will be sustainable indefinitely

11 **Q SINCE YOU HAVE CONCLUDED THAT YOUR GROWTH RATES USED IN YOUR**
12 **CONSTANT GROWTH DCF MODEL ARE NOT SUSTAINABLE, DO YOU BELIEVE**
13 **THAT THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL ARE**
14 **REASONABLE?**

15 **A**No, the results of constant growth DCF model are unreasonably high because they
16 reflect growth rates that are not sustainable over an indefinite period of time
17 However, the growth rate is based on consensus analysts' growth rate projections, so
18 it is a reasonable reflection of rational investment expectations over the next three to
19 five years. The limitation on the constant growth DCF model is that it does not reflect
20 a rational expectation that this short-term growth rate will likely be followed by slower
21 growth at a more long-term sustainable level thereafter. Hence, I have performed a
22 two-stage and a three-stage DCF analysis to reflect this expectation and to test the
23 impact on the DCF results

1 **Two-Stage DCF Model**

2 **Q WHY DO YOU PROPOSE TO USE A TWO-STAGE DCF MODEL TO TEST THE**
3 **RESULTS OF YOUR CONSTANT GROWTH DCF STUDY?**

4 **A** I propose to use a two-stage DCF model because the growth rates used in my
5 constant growth model do not reflect reasonable estimates of sustainable long-term
6 growth. While consensus analysts' growth rate estimates are likely reflective of
7 investors' expectations over the next three to five years, professional investors would
8 not expect those growth rates to remain in effect indefinitely. As noted above, utilities
9 cannot grow faster than the economies in which they sell their services. Historically,
10 utility sales have grown at a rate that trails the growth in the overall U S economy.

11 As such, a two-stage DCF model can capture the value of this extraordinary
12 growth over the next five years, followed by a period of sustainable long-term growth
13 thereafter.

14 **Q PLEASE DESCRIBE YOUR TWO-STAGE DCF MODEL.**

15 **A** The two-stage DCF growth model reflects the possibility of non-constant growth to the
16 company over time. The two-stage model reflects two growth periods: (1) a short-
17 term growth period, which consists of the first five years, and (2) a long-term growth
18 period, which consists of each year starting in year six through perpetuity. For the
19 short-term growth period, I relied on the consensus analysts' growth projections
20 described above in relationship to my constant growth model. For the long-term
21 growth period, I assumed each company's growth would revert to the maximum
22 sustainable growth rate for a utility company using as a proxy the consensus
23 analysts' projected growth of the U S GDP.

1 Q WHAT STOCK PRICE, DIVIDEND AND GROWTH RATE DID YOU USE IN YOUR
2 TWO-STAGE DCF ANALYSIS?

3 A I relied on the same 13-week stock price, the most recent quarterly dividend payment,
4 and consensus analysts' growth rate projections discussed above in my constant
5 growth DCF model. However, for the long-term sustainable growth rate starting in
6 year six, I used the mid-point of consensus economists' five- to ten-year projected
7 GDP nominal growth rate, or 4.9%.

8 Q WHAT ARE THE RESULTS OF YOUR TWO-STAGE GROWTH DCF MODEL?

9 A As shown on the attached Schedule BAJ-7, pages 1 and 2, the resulting common
10 cost of equity from my two-stage DCF growth estimate for my water proxy group is
11 8.73% and the gas proxy group is 9.2%. As such, the two-stage DCF model
12 indicates a return on equity for Missouri-American in the range of 8.73% to 9.2%, with
13 a mid-point of 8.97%.

14 **Three-Stage DCF Model**

15 Q WHY DO YOU ALSO INCLUDE A THREE-STAGE DCF MODEL WITH YOUR DCF
16 ANALYSIS?

17 A As with my two-stage analysis, my three-stage analysis tempers the results of my
18 constant growth results by relying on a more optimistic expectation of how long the
19 abnormally risk short-term growth rates can be sustained. Unlike the two-stage
20 model, the three-stage model provides a more staggered transition between the
21 higher near-term growth rates and the more sustainable longer-term growth rates.
22 Consequently, my three-stage model provides a more conservative result than my
23 two-stage model.

1 **Q PLEASE DESCRIBE THE GROWTH RATES USED IN YOUR THREE-STAGE DCF**
2 **MODEL.**

3 A For the first stage (years 1-5), I used consensus analyst projections for near term
4 growth rates. For the second stage (years 6-9), I decreased my first stage growth by
5 an equal amount each year until I arrived at my third stage (years 10-perpetuity)
6 which is represented by the maximum sustainable growth rate for a utility company,
7 or the consensus analysts' projected growth of the U.S. GDP. This model then
8 projects abnormally risk growth for 10 years and adding to sustained growth in years
9 For the stock price and dividend, I relied on the same inputs as I used for my other
10 DCF analyses.

11 **Q WHAT ARE THE RESULTS OF YOUR THREE-STAGE DCF ANALYSIS?**

12 A As shown in attached Schedule BAJ-8, pages 1 and 2, the recommended common
13 equity for my water proxy group is 9.02% and for my gas proxy group is 9.3%, with a
14 mid-point of 9.16%.

15 **Risk Premium Model**

16 **Q PLEASE DESCRIBE YOUR RISK PREMIUM MODEL USED TO ESTIMATE**
17 **RETURN ON COMMON EQUITY.**

18 A This model is based on the principle that investors will require higher rates of return
19 from securities which have a higher perceived risk. Bonds will typically provide a
20 lower rate of return than common equity because they offer more certainty in the form
21 of coupon payments and seniority in the event of a bankruptcy filing. In exchange for
22 giving up some of the certainty afforded to bond holders, common equity holders will
23 demand a higher rate of return.

24 I used two different methods to estimate the equity risk premium required by
25 investors for utility companies. In both cases, I used historical regulatory commission

1 authorized returns for gas utility companies as a proxy for the market required return
2 on utility common equity securities. In the first case, I compared these returns to the
3 annual returns of Treasury bonds. In the second case, I compared commission
4 authorized returns to "A" rated utility bond yields. I have included my Treasury bond
5 and utility bond yield comparison as Schedule BAJ-9, pages 1 and 2, respectively.
6 For both of these analyses, I selected the period between 1986 and 2008 during
7 which utility common stock has traded at a premium to book value. This is significant
8 because regulatory authorized return on equity supported utilities' ability to attract
9 capital through the issuance of common stock without diluting existing shares.

10 As illustrated in my Schedule BAJ-9, page 1, the average equity risk premium
11 of commission authorized electric utility common equity returns over U.S. Treasury
12 bonds has been 5.0%. As shown in Schedule BAJ-9, page 2, the average equity risk
13 premium on commission authorized electric utility common equity returns over utility
14 bond yields has been 3.59%.

15 **Q HOW DID YOU USE THESE EQUITY PREMIUMS TO ESTIMATE WPSC'S COST**
16 **OF COMMON EQUITY?**

17 **A** In the first case, I added the equity risk premium over Treasury bond yields to current
18 projections of long-term Treasury bond yields. According to Blue Chip financial
19 forecasts, long-term Treasury bond yields are projected to be 5.1%³. This projected
20 long-term bond yield of 5.1% and an equity risk premium of 5.0% resulted in an
21 estimated common equity return of 10.1%.

22 For the second part of my analysis, I added the equity risk premium over utility
23 bond yields to the current yields on "A" rated utility bonds. As shown on
24 Schedule BAJ-10, the average "A" rated utility bond yield over the 13-week period

³ Blue Chip Financial Forecasts, August 1, 2008 at 2

1 ending July 25, 2008 was 6.34%. Adding the bond yield of 6.34% to the estimated
2 equity risk premium of 3.59% results in a return on common equity of 9.93%.

3 These two methods result in a range of 9.93% to 10.1% with a mid-point of
4 10.02%.

5 Capital Asset Pricing Model

6 Q PLEASE DESCRIBE THE CAPM

7 A The foundation of the CAPM method is that the risk of an individual stock that is
8 relevant to an investor is not the standalone risk of that stock, but rather its
9 contribution of risk to an investor's overall portfolio. The theoretical basis for the
10 CAPM method is that the market requires a rate of return for security that is equal to
11 the risk-free rate of return plus a risk premium that is adjusted for a particular stock's
12 risk relative to the overall market risk. The formula for calculating the market required
13 return under the CAPM method is as follows.

14
$$R_i = R_f + B_i \times (R_m - R_f) \text{ where}$$

15 R_i = Required ROR for stock i

16 R_f = Risk-free rate

17 R_m = Expected return for the market portfolio

18 B_i = Measure of the risk for stock i

19 As demonstrated above, the market premium is the difference between the
20 expected market return, less the risk-free rate of return. Under the CAPM method,
21 this risk premium is adjusted by the beta coefficient to determine the particular risk
22 premium that the market would assign to a specific security.

23 The CAPM theory maintains that investors will only be compensated for risks
24 that cannot be diversified away by holding a well diversified portfolio of securities.
25 These risks that are diversifiable are generally considered business specific risks and
26 are not systematic to the market as a whole. In a well diversified portfolio, these

1 non-systematic risks are eliminated by balancing in the portfolio with securities that
2 react differently to firm specific risk factors

3 The remaining risk, which is non-diversifiable, is referred to as systematic risk
4 and is represented for a particular stock by the beta coefficient. The beta of a
5 particular security is determined by its volatility relative to the market as a whole. A
6 stock with a beta of 1.0 has volatility that is equal to the market, whereas a stock with
7 a beta of 0.5 has half the volatility, or risk, of the market as a whole.

8 **Q HOW DID YOU DETERMINE THE RISK-FREE RATE USED IN YOUR CAPM**
9 **ANALYSIS?**

10 **A** The risk-free rate is typically represented by U.S. Treasury securities. In my analysis
11 I used Blue Chip Financial Forecasts' projected long-term Treasury bond yield of
12 5.1%.

13 **Q WHY DID YOU USE LONG-TERM TREASURY BOND YIELDS AS AN ESTIMATE**
14 **OF THE RISK-FREE RATE?**

15 **A** Treasury securities are backed by the full faith and credit of the United States
16 government. Therefore, long-term Treasury bonds are considered to have negligible
17 credit risk. Also, long-term Treasury bonds have an investment horizon similar to that
18 of common stock. As a result, investor-anticipated long-run inflation expectations are
19 reflected in both common stock required returns and long-term bond yields.
20 Therefore, the nominal risk-free rate (or expected inflation rate and real risk-free rate)
21 included in a long-term bond yield is a reasonable estimate of the nominal risk-free
22 rate included in common stock returns.

23 Treasury bond yields, however, include risk premiums related to unanticipated
24 future inflation and interest rates. Therefore, a Treasury bond yield is not a truly

1 risk-free rate Risk premiums related to unanticipated inflation and interest rates are
2 systematic or market risks Consequently, for companies with betas less than one,
3 using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis
4 can produce an overstated estimate of the CAPM return

5 **Q WHAT DID YOU USE FOR THE BETA TERM IN YOUR CAPM ANALYSIS?**

6 A I used the median beta estimates for my comparable groups Using the median beta
7 for a group of comparable companies provides a more complete picture of the
8 systematic risk facing an industry or a particular company in that industry Using the
9 group median beta, as opposed to an individual company beta, will result in a more
10 reliable return on equity estimate The current average beta for my water group 0.95
11 and for my gas proxy group is 0.82 (Schedule BAJ-11, pages 1 and 2)

12 **Q HOW DID YOU DETERMINE THE RETURN ON THE OVERALL MARKET IN**
13 **ORDER TO DEVELOP YOUR RISK PREMIUM ESTIMATE?**

14 A I developed two market risk premium estimates for my CAPM analysis The first is
15 based on long-term historical market returns and the second is based upon forward
16 looking projections

17 The historical market return used to estimate the risk premium was provided
18 by Morningstar in the Stocks, Bonds, Bills and Inflation 2008 Yearbook (Morningstar
19 Study) The Morningstar Study concluded that the arithmetic average of the total
20 return on the S&P 500 for the period of 1926 through 2007 was 12.3% For the same
21 period, the total return on long-term Treasury bonds was 5.8% Hence, the indicated
22 market risk premium is 6.5% ($12.3\% - 5.8\% = 6.5\%$)

23 I developed my forward-looking risk premium estimate by adjusting the
24 historical real market return for projected inflation Again, using the Morningstar

1 Study, I took the historical arithmetic average real market return between 1926 and
2 2007 of 9.0% and added the current consensus analyst inflation projection of 2.4% as
3 measured by the Consumer Price Index (CPI). The expected market return using
4 these estimates is 11.62%⁴ and the resulting market risk premium is 6.52%
5 (11.62% - 5.1% = 6.52%)

6 **Q HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE COMPARE TO**
7 **THAT ESTIMATED BY MORNINGSTAR?**

8 **A** Morningstar estimates a forward-looking market risk premium based on actual
9 achieved data from the historical period of 1926 through year-end 2007. Using this
10 data, Morningstar estimates a market risk premium derived from the total return on
11 large company stocks (S&P 500), less the income return on Treasury bonds. The
12 total return includes capital appreciation, dividend or coupon reinvestment returns,
13 and annual yields received from coupons and/or dividend payments. The income
14 return, in contrast, only reflects the income return received from dividend payments or
15 coupon yields. Morningstar argues that the income return is the only true riskless rate
16 associated with the Treasury bond and is the best approximation of a truly risk-free
17 rate. While I disagree with this assessment from Morningstar, because it does not
18 reflect a true investment option available to the marketplace, and therefore does not
19 produce a legitimate estimate of the expected premium of investing in the stock
20 market versus that of Treasury bonds, I will use Morningstar's conclusion to show the
21 reasonableness of my market risk premium estimates.

22 Morningstar's analysis indicates that a market risk premium falls somewhere
23 in the range of 6.2% to 7.1%. This range is based on several methodologies. First,
24 Morningstar estimates a market risk premium of 7.1%, which is based on the

⁴ $[(1 + 0.090) * (1 + 0.024) - 1] * 100$

1 difference between the total market return on common stocks (S&P 500) less the
2 income return on Treasury bond investments. Second, Morningstar found that if the
3 New York Stock Exchange (the NYSE) was used as the market index rather than the
4 S&P 500, that the market risk premium would be 6.8% and not 7.1%. Third, if only
5 the two deciles of the largest companies included in the NYSE were considered, the
6 market risk premium would be 6.35%.⁵

7 Finally, Morningstar found that the 7.1% market risk premium based on the
8 S&P 500 was impacted by an abnormal expansion of price-to-earnings (P/E) ratios
9 relative to earnings and dividend growth during the period 1980 through 2001.
10 Morningstar believes this abnormal P/E expansion is not sustainable. Therefore,
11 Morningstar adjusted this market risk premium estimate to normalize the growth in the
12 P/E ratio to be more in line with the growth in dividends and earnings. Based on this
13 alternative methodology, Morningstar published a long-horizon supply-side market
14 risk premium of 6.2%.⁶

15 Thus, based on all of Morningstar's estimates, the market risk premium falls
16 somewhere in the range of 6.2% to 7.1%. The midpoint is 6.65%, which is generally
17 consistent with my estimated range of 6.50% to 6.52% used in my CAPM study.

18 **Q PLEASE SUMMARIZE THE RESULTS OF YOUR CAPM ANALYSIS.**

19 **A** As shown on Schedule BAJ-12, page 1 for my water proxy group, the CAPM method
20 using both historical and projected market risk premiums provides an estimate return
21 on equity of 11.28% and 11.29%, respectively, with an average of 11.28%. As shown
22 on Schedule BAJ-12, page 2, for my gas proxy group, the CAPM model returns

⁵ Morningstar observes that the S&P 500 and the NYSE Decile 1-2 are both large capitalization benchmarks. Ibbotson S&P 2008 Valuation Yearbook (Morningstar, Inc.) at 72 and 74.

⁶ Id. at 92-98.

1 results of 10.76% and 10.77% with an average of 10.76%. The mid-point of my water
2 and gas proxy group CAPM results is 11.02%.

3 **Q DO YOU HAVE ANY COMMENTS ABOUT THE RESULTS OF YOUR CAPM**
4 **ANALYSES?**

5 **A** Yes. The results of my CAPM analysis for my water proxy group represents an
6 unreasonably high estimate of the return on common equity for Missouri-American
7 due to the current relatively high betas. As shown in my Schedule BAJ-11, page 1,
8 the current betas for my water proxy group are 35% higher than the average betas for
9 the previous 5-year period. This is a result of the current period of relatively high
10 growth due to the significant investment in rate base. However, this growth (and
11 resulting betas) gives off the false impression that the systematic risk for the water
12 industry is comparable to that of the overall economy (i.e., a beta of 0.95 versus 1.0
13 for this overall economy), and this is simply not the case. The water industry is still a
14 relatively low risk industry as compared to the overall market.

15 **Return On Equity Summary**

16 **Q BASED ON THE RESULTS OF YOUR RATE OF RETURN ON COMMON EQUITY**
17 **ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO**
18 **YOU RECOMMEND FOR MISSOURI-AMERICAN?**

19 **A** Based on my analyses, I estimate an appropriate return on equity for
20 Missouri-American to be 10.03%.

TABLE 2	
<u>ROE Summary Results</u>	
<u>Description</u>	<u>Result</u>
Three-Stage DCF	9.16%
Risk Premium	10.02%
CAPM	
Water & Gas Groups	11.02%
Gas Group	10.76%

1 My analysis resulted in a range for my estimated return on equity for
2 Missouri-American of 9.16% to 11.02%, with an average of 10.09%. The low end
3 represents the results of my three-stage DCF analysis. The upper end represents the
4 results of my CAPM analysis, including my water group results. If I exclude my water
5 group CAPM for the reasons I discussed above, my range becomes 9.16 to 10.76,
6 with an average of 9.96%. To give only partial weight to my water group CAPM, the
7 average of these results, or 10.03% $((10.09 + 9.96)/2)$, is my recommended ROE that
8 should be used to set Missouri-American's rates in this proceeding.

9 I rejected the use of my constant growth DCF analysis for reasons discussed
10 above. Namely, I found that analyst consensus growth estimates do not provide a
11 reasonable estimate of sustainable growth rates as required by the constant growth
12 DCF model. I choose, instead, to use the results of my three-stage DCF model.
13 Using my three-stage DCF estimate results in a more conservative estimate due to its
14 greater reliance on short-term growth rates as compared to my two-stage model.

1 Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

2 A Yes

Qualifications of Brian A. Janous

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

2 A Brian A Janous My business address is 1215 Fern Ridge Parkway, Suite 208,
3 St Louis, Missouri 63141

4 **Q WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?**

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

7 **Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8 A I was graduated from the University of Missouri at Columbia in 2000 with a Bachelor
9 of Science degree in Finance and Banking and a Bachelor of Arts degree in
10 Philosophy Upon graduation, I accepted a position with Brubaker & Associates, Inc
11 Since that time, I have participated in numerous rate and restructuring matters
12 throughout the United States and Canada and I have testified before the Illinois
13 Commerce Commission and the Public Service Commission of Wisconsin I have
14 also worked in several competitive markets to assist clients with the development of
15 purchasing strategies I am currently a Senior Consultant in the firm

16 In May 2004, I completed a Master of Business Administration degree from
17 Webster University

18 The firm of Brubaker & Associates, Inc provides consulting services in the
19 field of energy procurement and public utility regulation to many clients including large
20 industrial and institutional customers, some utilities and, on occasion, state regulatory
21 agencies More specifically, we provide analysis of energy procurement options

1 based on consideration of prices and reliability as related to the needs of the client,
2 prepare rate, feasibility, economic and cost of service studies relating to energy and
3 utility services, prepare depreciation and feasibility studies relating to utility service,
4 assist in contract negotiations for utility services, and provide technical support to
5 legislative activities

6 In addition to our main office in St Louis, the firm also has branch offices in
7 Phoenix, Arizona and Corpus Christi, Texas

\\Huey\Shares\PLDocs\MVS\6980\Testimony - BA\141138 doc

Missouri-American Water Company

Proposed Rate of Return

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Weight</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)
1	Long-Term Debt	\$ 374,411,531	51.99%	6.17%	3.21%
2	Preferred Stock	\$ 2,600,573	0.36%	9.17%	0.03%
3	Common Equity	<u>\$ 343,216,593</u>	<u>47.65%</u>	<u>10.03%</u>	<u>4.78%</u>
4	Total	\$ 720,228,697	100.0%		8.02%

Source
Schedule SWR-1

Missouri-American Water Company

Accuracy of Interest Rate Forecasts

(Long-Term Treasury Bond Yields - Projected Vs. Actual)

Line	Date	Publication Data			Actual Yield in Projected Quarter	Projected Yield Higher (Lower) Than Actual Yield*	Actual Yields Differential**
		Actual Yield (1)	Projected Yield (2)	For Quarter (3)			
1	Dec-00	5.8%	5.8%	1Q, 02	5.6%	0.2%	0.2%
2	Mar-01	5.7%	5.6%	2Q, 02	5.8%	-0.2%	-0.1%
3	Jun-01	5.4%	5.8%	3Q, 02	5.2%	0.6%	0.2%
4	Sep-01	5.7%	5.9%	4Q, 02	5.1%	0.8%	0.6%
5	Dec-01	5.5%	5.7%	1Q, 03	4.9%	0.8%	0.6%
6	Mar-02	5.3%	5.9%	2Q, 03	4.7%	1.2%	0.6%
7	Jun-02	5.6%	6.2%	3Q, 03	5.2%	1.0%	0.4%
8	Sep-02	5.8%	5.9%	4Q, 03	5.2%	0.7%	0.6%
9	Dec-02	5.2%	5.7%	1Q, 04	4.9%	0.8%	0.3%
10	Mar-03	5.1%	5.7%	2Q, 04	5.4%	0.3%	-0.3%
11	Jun-03	5.0%	5.4%	3Q, 04	5.1%	0.3%	-0.1%
12	Sep-03	4.7%	5.8%	4Q, 04	4.9%	0.9%	-0.2%
13	Dec-03	5.2%	5.9%	1Q, 05	4.8%	1.1%	0.4%
14	Mar-04	5.2%	5.9%	2Q, 05	4.6%	1.3%	0.6%
15	Jun-04	4.9%	6.2%	3Q, 05	4.5%	1.7%	0.4%
16	Sep-04	5.4%	6.0%	4Q, 05	4.8%	1.2%	0.6%
17	Dec-04	5.1%	5.8%	1Q, 06	4.6%	1.2%	0.4%
18	Mar-05	4.9%	5.6%	2Q, 06	5.1%	0.5%	-0.3%
19	Jun-05	4.8%	5.5%	3Q, 06	5.0%	0.5%	-0.2%
20	Sep-05	4.6%	5.2%	4Q, 06	4.7%	0.5%	-0.2%
21	Dec-05	4.5%	5.3%	1Q, 07	4.8%	0.5%	-0.3%
22	Mar-06	4.8%	5.1%	2Q, 07	5.0%	0.1%	-0.2%
23	Jun-06	4.6%	5.3%	3Q, 07	4.9%	0.4%	-0.3%
24	Sep-06	5.1%	5.2%	4Q, 07	4.6%	0.6%	0.5%
25	Dec-06	5.0%	5.0%	1Q, 08	4.4%	0.6%	0.6%
26	Jan-07	4.7%	5.1%	2Q, 08	4.6%	0.5%	0.2%
29	Apr-07	4.8%	5.0%	3Q, 08			
30	May-07	4.8%	5.1%	3Q, 08			
31	Jun-07	4.8%	5.1%	3Q, 08			
32	Jul-07	5.0%	5.4%	4Q, 08			
33	Aug-07	5.0%	5.2%	4Q, 08			
34	Sep-07	5.0%	5.2%	4Q, 08			
35	Oct-07	4.9%	5.2%	1Q, 09			
36	Nov-07	4.9%	5.1%	1Q, 09			
37	Dec-07	4.9%	4.8%	1Q, 09			
38	Jan-08	4.6%	4.9%	2Q, 09			
39	Feb-08	4.6%	4.6%	2Q, 09			
40	Mar-08	4.6%	4.8%	2Q, 09			
41	Apr-08	4.4%	4.8%	3Q, 09			
42	May-08	4.4%	4.9%	3Q, 09			
43	Jun-08	4.4%	4.9%	3Q, 09			
44	Jul-08	4.6%	5.1%	4Q, 09			
45	Aug-08	4.6%	5.1%	4Q, 09			

Source

Blue Chip Financial Forecasts, Various Dates

* Col 2 - Col 4

** Col 1 - Col 4

Missouri-American Water Company

Water Proxy Group

<u>Line</u>	<u>Proxy Group</u>	<u>Bond Ratings¹</u>		<u>Common Equity Ratios</u>	
		<u>S&P</u> (1)	<u>Moody's</u> (2)	<u>AUS¹</u> (3)	<u>Value Line²</u> (4)
1	American States Water Co	A	A2	49.0%	51.4%
2	Aqua America Water Co	AA-	N/R	43.0%	48.4%
3	California Water Service Group	N/R	N/R	55.0%	55.9%
4	Connecticut Water Services	AAA	N/R	49.0%	55.1%
5	Middlesex Water Company	A	N/R	48.0%	49.0%
6	SJW Corporation	N/R	N/R	52.0%	58.2%
7	Southwest Water Company	N/R	N/R	46.0%	56.3%
8	York Water Company	A-	N/R	47.0%	51.7%
9	Average	A+	A2	48.6%	53.3%
10	Missouri-American Water ³	A-	Baa1		47.7%

Sources:

¹ *AUS Utility Reports*, July 2008

² *The Value Line Investment Analyzer*

³ Schedule SWR-1

Missouri-American Water Company

Gas Distribution Proxy Group

<u>Line</u>	<u>Proxy Group</u>	<u>Bond Ratings¹</u>		<u>Common Equity Ratios</u>	
		<u>S&P</u> (1)	<u>Moody's</u> (2)	<u>AUS¹</u> (3)	<u>Value Line²</u> (4)
1	AGL Resources	A-	A3	47.0%	49.8%
2	Atmos Energy	BBB	Baa3	50.0%	48.0%
3	Laclede Group	A	A3	48.0%	54.6%
4	New Jersey Resources	A+	N/R	55.0%	62.7%
5	Nicor Inc	AA	A1	65.0%	69.0%
6	Northwest Nat Gas	AA-	A2	52.0%	53.7%
7	Piedmont Natural Gas	A	A3	51.0%	51.6%
8	South Jersey Inds	A	Baa1	56.0%	57.3%
9	Southwest Gas Corp	BBB-	Baa3	46.0%	41.9%
10	WGL Holdings Inc	AA-	A2	58.0%	60.3%
11	Average	A	A3	52.8%	54.9%
12	Missouri-American Water ³	A-	Baa1	47.7%	

Sources

¹ *AUS Utility Reports*, July 2008

² *The Value Line Investment Survey*, June 13, 2008

³ Schedule SWR-1

Missouri-American Water Company

Water Proxy Group Growth Rate Estimates

<u>Line</u>	<u>Proxy Group</u>	<u>Value Line¹</u>		<u>Zack's²</u>		<u>Average of Estimates</u>
		<u>Estimated Growth %</u>	<u>Number of Estimates</u>	<u>Estimated Growth % (1)</u>	<u>Number of Estimates (2)</u>	
1	American States Water Co	10.00%	1	10.00%	1	10.00%
2	Aqua America Water Co.	9.00%	1	9.60%	5	9.30%
3	California Water Service Group	8.50%	1	9.25%	4	8.88%
4	Connecticut Water Services	N/A	N/A	N/A	N/A	N/A
5	Middlesex Water Company	N/A	N/A	8.00%	1	8.00%
6	SJW Corporation	N/A	N/A	10.00%	1	10.00%
7	Southwest Water Company	12.00%	1	8.50%	2	10.25%
8	York Water Company	N/A	N/A	11.50%	2	11.50%
9	Average	9.88%	1	9.55%	2	9.70%

Sources

¹ The Value Line Investment Survey, July 25, 2008

² www.zackselite.com, downloaded on July 29, 2008

Missouri-American Water Company

Gas Distribution Proxy Group Growth Rate Estimates

<u>Line</u>	<u>Proxy Group</u>	<u>Zack's</u>		<u>SNL</u>		<u>Average of Estimates</u>
		<u>Estimated Growth %¹</u>	<u>Number of Estimates</u>	<u>Estimated Growth %²</u>	<u>Number of Estimates</u>	
		(1)	(2)	(3)	(4)	(5)
1	AGL Resources	4.75%	4	5.30%	2	5.03%
2	Atmos Energy	5.29%	7	5.00%	3	5.15%
3	Laclede Group	10.00%	1	N/A	N/A	10.00%
4	New Jersey Resources	8.00%	2	6.00%	1	7.00%
5	Nicor Inc	5.75%	4	4.50%	2	5.13%
6	Northwest Nat Gas	6.50%	4	5.00%	3	5.75%
7	Piedmont Natural Gas	5.40%	5	6.00%	4	5.70%
8	South Jersey Inds	8.33%	3	7.00%	3	7.67%
9	Southwest Gas Corp	8.00%	2	6.00%	2	7.00%
10	WGL Holdings Inc	7.50%	2	4.00%	1	5.75%
11	Average	6.95%	3.4	5.42%	2	6.42%

Sources

¹ www.zackselite.com, downloaded on July 29, 2008

² www.snl.com, downloaded on July 29, 2008

Missouri-American Water Company

Water Proxy Group Constant Growth DCF Model

<u>Line</u>	<u>Proxy Group</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Average Growth (%)</u> (2)	<u>Annual Dividend²</u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	American States Water Co	\$34.63	10.00%	\$1.00	3.18%	13.18%
2	Aqua America Water Co	\$16.83	9.30%	\$0.50	3.25%	12.55%
3	California Water Service Group	\$35.26	8.88%	\$1.17	3.62%	12.48%
4	Connecticut Water Services	\$24.26	N/A	\$0.87	N/A	N/A
5	Middlesex Water Company	\$18.06	8.00%	\$0.70	4.19%	12.19%
6	SJW Corporation	\$29.03	10.00%	\$0.64	2.44%	12.44%
7	Southwest Water Company	\$10.40	10.25%	\$0.24	2.54%	12.79%
8	York Water Company	\$14.95	11.50%	\$0.48	3.61%	15.11%
9	Average	\$22.93	9.70%	\$0.70	3.26%	12.96%

Sources

¹ <http://moneycentral.msn.com>, downloaded on July 29, 2008

² *The Value Line Investment Survey*, July 25, 2008

Missouri-American Water Company

Gas Distribution Proxy Group Constant Growth DCF Model

<u>Line</u>	<u>Proxy Group</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Average Growth (%)</u> (2)	<u>Annual Dividend²</u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	AGL Resources	\$34 74	5 03%	\$1 68	5 08%	10 10%
2	Atmos Energy	\$27 19	5 15%	\$1 30	5 03%	10 17%
3	Laclede Group	\$39 92	10 00%	\$1 50	4 13%	14 13%
4	New Jersey Resources	\$33 09	7 00%	\$1 12	3 62%	10 62%
5	Nicor Inc	\$40 50	5 13%	\$1 86	4 83%	9 95%
6	Northwest Nat Gas	\$45 62	5 75%	\$1 50	3 48%	9 23%
7	Piedmont Natural Gas	\$26 50	5 70%	\$1 04	4 15%	9 85%
8	South Jersey Inds	\$37 87	7 67%	\$1 08	3 07%	10 74%
9	Southwest Gas Corp	\$30 00	7 00%	\$0 90	3 21%	10 21%
10	WGL Holdings Inc	\$34 69	5 75%	\$1 44	4 39%	10 14%
11	Average	\$35 01	6.42%	\$1.34	4 10%	10.51%

Sources

¹ [http //moneycentral msn com](http://moneycentral.msn.com), downloaded on July 29, 2008

² *The Value Line Investment Survey*, June 13, 2008

Missouri-American Water Company

Water Proxy Group GDP and Dividend Growth Rates

Line	Proxy Group	Dividend Growth		Inflation (CPI)			Nominal GDP			
		Past		Past		3-5 Years	Past		Projected*	
		10 Years	5 Years	5 Years	10 Years	Projection	5 Years	10 Years	5 Years	10 Years
		(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	American States Water Co	1 0%	1 5%							
2	Aqua America Water Co	7 0%	7 5%							
3	California Water Service Group	1 0%	0 5%							
4	Connecticut Water Services	N/A	1 5%							
5	Middlesex Water Company	N/A	2 0%							
6	SJW Corporation	N/A	5 5%							
7	Southwest Water Company	9 5%	9 0%							
8	York Water Company	N/A	N/A							
9	Average	4 6%	3.9%	2.9%	2 6%	2.5%	5.8%	5.3%	5.0%	4.8%

Source

The Value Line Investment Survey, July 25, 2008

* *Blue Chip Economic Indicators*, March 10, 2008, at 15

Missouri-American Water Company

Gas Distribution Proxy Group GDP and Dividend Growth Rates

<u>Line</u>	<u>Proxy Group</u>	<u>Dividend Growth</u>		<u>Inflation (CPI)</u>			<u>Nominal GDP</u>			
		<u>Past</u>		<u>Past</u>		<u>3-5 Years</u>	<u>Past</u>		<u>Projected*</u>	
		<u>10 Years</u>	<u>5 Years</u>	<u>5 Years</u>	<u>10 Years</u>	<u>Projection</u>	<u>5 Years</u>	<u>10 Years</u>	<u>5 Years</u>	<u>10 Years</u>
		(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	AGL Resources	2.5%	4.0%							
2	Atmos Energy	2.5%	1.5%							
3	Laclede Group	1.0%	1.0%							
4	New Jersey Resources	3.5%	4.0%							
5	Nicor Inc	3.5%	1.0%							
6	Northwest Nat Gas	1.5%	2.0%							
7	Piedmont Natural Gas	5.0%	4.5%							
8	South Jersey Inds	2.0%	3.5%							
9	Southwest Gas Corp	N/A	N/A							
10	WGL Holdings Inc	1.5%	1.5%							
11	Average	2.6%	2.6%	2.9%	2.6%	2.5%	5.8%	5.3%	5.0%	4.8%

Source

The Value Line Investment Survey, June 13, 2008

* *Blue Chip Economic Indicators*, March 10, 2008, at 15

Missouri-American Water Company

Water Proxy Group Two-Stage Growth DCF Model

<u>Line</u>	<u>Proxy Group</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Annual Dividend²</u> (2)	<u>First Stage Growth</u> (3)	<u>Second Stage Growth³</u> (4)	<u>Two-Stage Growth DCF</u> (5)
1	American States Water Co	\$34.63	\$1.00	10.00%	4.90%	8.68%
2	Aqua America Water Co	\$16.83	\$0.50	9.30%	4.90%	8.67%
3	California Water Service Group	\$35.26	\$1.17	8.88%	4.90%	9.04%
4	Connecticut Water Services	\$24.26	\$0.87	N/A	4.90%	N/A
5	Middlesex Water Company	\$18.06	\$0.70	8.00%	4.90%	9.55%
6	SJW Corporation	\$29.03	\$0.64	10.00%	4.90%	7.80%
7	Southwest Water Company	\$10.40	\$0.24	10.25%	4.90%	7.96%
8	York Water Company	\$14.95	\$0.48	11.50%	4.90%	9.41%
9	Average	\$22.93	\$0.70	9.70%	4.90%	8.73%

Sources

¹ <http://moneycentral.msn.com>, downloaded on July 29, 2008

² *The Value Line Investment Survey*; July 25, 2008

³ *Blue Chip Economic Indicators*, March 10, 2008

Missouri-American Water Company

Gas Distribution Proxy Group Two-Stage Growth DCF Model

<u>Line</u>	<u>Proxy Group</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Annual Dividend²</u> (2)	<u>First Stage Growth</u> (3)	<u>Second Stage Growth³</u> (4)	<u>Two-Stage Growth DCF</u> (5)
1	AGL Resources	\$34.74	\$1.68	5.03%	4.90%	10.00%
2	Atmos Energy	\$27.19	\$1.30	5.15%	4.90%	9.97%
3	Laclede Group	\$39.92	\$1.50	10.00%	4.90%	9.80%
4	New Jersey Resources	\$33.09	\$1.12	7.00%	4.90%	8.79%
5	Nicor Inc	\$40.50	\$1.86	5.13%	4.90%	9.76%
6	Northwest Nat Gas	\$45.62	\$1.50	5.75%	4.90%	8.48%
7	Piedmont Natural Gas	\$26.50	\$1.04	5.70%	4.90%	9.16%
8	South Jersey Inds	\$37.87	\$1.08	7.67%	4.90%	8.28%
9	Southwest Gas Corp	\$30.00	\$0.90	7.00%	4.90%	8.35%
10	WGL Holdings Inc	\$34.69	\$1.44	5.75%	4.90%	9.42%
11	Average	\$35.01	\$1.34	6.42%	4.90%	9.20%

Sources

¹ <http://moneycentral.msn.com>, downloaded on July 29, 2008

² *The Value Line Investment Survey*, June 13, 2008

³ *Blue Chip Economic Indicators*, March 10, 2008

Missouri-American Water Company

Water Proxy Group Three-Stage Growth DCF Model

<u>Line</u>	<u>Proxy Group</u>	<u>13-Week AVG</u>	<u>Annual</u>	<u>First Stage</u>	<u>Second Stage Growth</u>				<u>Third Stage</u>	<u>Three-Stage</u>
		<u>Stock Price</u> ¹	<u>Dividend</u> ²	<u>Growth</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Growth</u> ³	<u>Growth DCF</u>
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	American States Water Co	\$34.63	\$1.00	10.00%	8.98%	7.96%	6.94%	5.92%	4.90%	8.98%
2	Aqua America Water Co	\$16.83	\$0.50	9.30%	8.42%	7.54%	6.66%	5.78%	4.90%	8.94%
3	California Water Service Group	\$35.26	\$1.17	8.88%	8.08%	7.29%	6.49%	5.70%	4.90%	9.30%
4	Connecticut Water Services	\$24.26	\$0.87	N/A	N/A	N/A	N/A	N/A	4.90%	N/A
5	Middlesex Water Company	\$18.08	\$0.70	8.00%	7.38%	6.76%	6.14%	5.52%	4.90%	9.76%
6	SJW Corporation	\$29.03	\$0.64	10.00%	8.98%	7.96%	6.94%	5.92%	4.90%	8.05%
7	Southwest Water Company	\$10.40	\$0.24	10.25%	9.18%	8.11%	7.04%	5.97%	4.90%	8.23%
8	York Water Company	\$14.95	\$0.48	11.50%	10.18%	8.86%	7.54%	6.22%	4.90%	9.86%
9	Average	\$22.93	\$0.70	9.70%	8.74%	7.78%	6.82%	5.86%	4.90%	9.02%

Sources

¹ <http://moneycentral.msn.com>, downloaded on July 29, 2008

² *The Value Line Investment Survey*, July 25, 2008

³ *Blue Chip Economic Indicators*, March 10, 2008

Missouri-American Water Company

Gas Distribution Proxy Group Three-Stage Growth DCF Model

Line	Proxy Group	13-Week AVG	Annual	First Stage	Second Stage Growth				Third Stage	Three-Stage
		Stock Price ¹	Dividend ²	Growth	Year 6	Year 7	Year 8	Year 9	Growth ³	Growth DCF
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	AGL Resources	\$34.74	\$1.68	5.03%	5.00%	4.98%	4.95%	4.93%	4.90%	10.01%
2	Almos Energy	\$27.19	\$1.30	5.15%	5.10%	5.05%	5.00%	4.95%	4.90%	9.99%
3	Laclede Group	\$39.92	\$1.50	10.00%	8.98%	7.96%	6.94%	5.92%	4.90%	10.17%
4	New Jersey Resources	\$33.09	\$1.12	7.00%	6.58%	6.16%	5.74%	5.32%	4.90%	8.92%
5	Nicor Inc.	\$40.50	\$1.86	5.13%	5.08%	5.04%	4.99%	4.95%	4.90%	9.78%
6	Northwest Nat. Gas	\$45.62	\$1.50	5.75%	5.58%	5.41%	5.24%	5.07%	4.90%	8.53%
7	Piedmont Natural Gas	\$26.50	\$1.04	5.70%	5.54%	5.38%	5.22%	5.06%	4.90%	9.21%
8	South Jersey Inds	\$37.87	\$1.08	7.67%	7.11%	6.56%	6.01%	5.45%	4.90%	8.43%
9	Southwest Gas Corp	\$30.00	\$0.90	7.00%	6.58%	6.16%	5.74%	5.32%	4.90%	8.46%
10	WGL Holdings Inc	\$34.69	\$1.44	5.75%	5.58%	5.41%	5.24%	5.07%	4.90%	9.48%
11	Average	\$35.01	\$1.34	6.42%	6.11%	5.81%	5.51%	5.20%	4.90%	9.30%

Sources

¹ <http://moneycentral.msn.com>, downloaded on July 29, 2008

² *The Value Line Investment Survey*, June 13, 2008

³ *Blue Chip Economic Indicators*, March 10, 2008

Missouri-American Water Company

Equity Risk Premium - Treasury Bond

<u>Line</u>	<u>Date</u>	<u>Authorized Gas Returns¹</u> (1)	<u>Treasury Bond Yield²</u> (2)	<u>Indicated Risk Premium</u> (3)
1	1986	13.46%	7.78%	5.68%
2	1987	12.74%	8.59%	4.15%
3	1988	12.85%	8.96%	3.89%
4	1989	12.88%	8.45%	4.43%
5	1990	12.67%	8.61%	4.06%
6	1991	12.46%	8.14%	4.32%
7	1992	12.01%	7.67%	4.34%
8	1993	11.35%	6.59%	4.76%
9	1994	11.35%	7.37%	3.98%
10	1995	11.43%	6.88%	4.55%
11	1996	11.19%	6.71%	4.48%
12	1997	11.29%	6.61%	4.68%
13	1998	11.51%	5.58%	5.93%
14	1999	10.66%	5.87%	4.79%
15	2000	11.39%	5.94%	5.45%
16	2001	10.95%	5.49%	5.46%
17	2002	11.03%	5.43%	5.60%
18	2003	10.99%	4.96%	6.03%
19	2004	10.59%	5.05%	5.54%
20	2005	10.46%	4.65%	5.81%
21	2006	10.44%	4.91%	5.53%
22	2007 ³	10.24%	4.84%	5.40%
23	2008 ³	10.44%	4.41%	6.03%
24	Average	11.49%	6.50%	5.00%

Sources

¹ Regulatory Research Associates, Inc., *Regulatory Focus*,
Jan 85 - Dec 06

² Economic Report of the President 2007 Table 73
The yields from 2002 to 2005 represent the 20-Year
Treasury yields obtained from the Federal Reserve Bank

³ Regulatory Research Associates, Inc. *Special Report -
January-March 2008, Major Rate Case Decisions*

Missouri-American Water Company

Equity Risk Premium - Utility Bond

<u>Line</u>	<u>Date</u>	<u>Authorized Gas Returns¹</u> (1)	<u>Average "A" Rating Utility Bond Yield²</u> (2)	<u>Indicated Risk Premium</u> (3)
1	1986	13.46%	9.58%	3.88%
2	1987	12.74%	10.10%	2.64%
3	1988	12.85%	10.49%	2.36%
4	1989	12.88%	9.77%	3.11%
5	1990	12.67%	9.86%	2.81%
6	1991	12.46%	9.36%	3.10%
7	1992	12.01%	8.69%	3.32%
8	1993	11.35%	7.59%	3.76%
9	1994	11.35%	8.31%	3.04%
10	1995	11.43%	7.89%	3.54%
11	1996	11.19%	7.75%	3.44%
12	1997	11.29%	7.60%	3.69%
13	1998	11.51%	7.04%	4.47%
14	1999	10.66%	7.62%	3.04%
15	2000	11.39%	8.24%	3.15%
16	2001	10.95%	7.76%	3.19%
17	2002	11.03%	7.37%	3.66%
18	2003	10.99%	6.58%	4.41%
19	2004	10.59%	6.16%	4.43%
20	2005	10.46%	5.65%	4.81%
21	2006	10.44%	6.07%	4.37%
22	2007 ³	10.24%	6.07%	4.17%
23	2008 ³	10.44%	6.17%	4.27%
24	Average	11.49%	7.90%	3.59%

Sources

¹ Regulatory Research Associates, Inc., *Regulatory Focus*,
Jan 85 - Dec 06

² *Mergent Public Utility Manual*, Mergent Weekly News
Reports, 2003. The utility yields for the period 2001-2006
were obtained from the Mergent Bond Record

³ Regulatory Research Associates, Inc. *Special Report -
January-March 2008, Major Rate Case Decisions*

Missouri-American Water Company

Utility Bond Yields

<u>Line</u>	<u>Date</u>	<u>"A" Rating Utility Bond Yield</u> (1)	<u>"Baa" Rating Utility Bond Yield</u> (2)
1	07/25/08	6.54%	7.11%
2	07/18/08	6.51%	7.07%
3	07/11/08	6.33%	6.90%
4	07/03/08	6.33%	6.89%
5	06/27/08	6.31%	6.86%
6	06/20/08	6.40%	6.95%
7	06/13/08	6.48%	7.03%
8	06/06/08	6.29%	6.85%
9	05/30/08	6.36%	6.93%
10	05/23/08	6.22%	6.78%
11	05/16/08	6.27%	6.78%
12	05/09/08	6.20%	6.69%
13	05/02/08	6.24%	6.73%
14	Average	6.34%	6.89%

Source.

www.moodys.com, Bond Yields and Key Indicators

Missouri-American Water Company

Water Proxy Group Beta

<u>Line</u>	<u>Proxy Group*</u>	<u>2003</u> (1)	<u>2004</u> (2)	<u>2005</u> (3)	<u>2006</u> (4)	<u>2007</u> (5)	<u>Present</u> (6)
1	American States Water Co.	0.65	0.70	0.70	0.80	0.90	1.05
2	Aqua America Water Co.	0.70	0.75	0.80	0.85	0.85	0.95
3	California Water Service Group	0.60	0.70	0.75	0.85	0.95	1.15
4	Connecticut Water Services	0.60	0.65	0.70	0.85	0.85	0.85
5	Middlesex Water Company	0.55	0.60	0.70	0.80	0.80	0.90
6	SJW Corporation	0.50	0.55	0.60	0.75	0.85	1.15
7	Southwest Water Company	0.60	0.65	0.65	0.80	0.90	1.05
8	York Water Company	0.50	0.55	0.50	0.50	0.55	0.50
9	Average	0.59	0.64	0.68	0.78	0.83	0.95

Source

The Value Line Investment Survey, July 25, 2008.

* The historical data was obtained from the *Value Line Investment Analyzer*

Missouri-American Water Company

Gas Distribution Proxy Group Beta

<u>Line</u>	<u>Proxy Group*</u>	<u>2003</u> (1)	<u>2004</u> (2)	<u>2005</u> (3)	<u>2006</u> (4)	<u>2007</u> (5)	<u>Present</u> (6)
1	AGL Resources	0.75	0.80	0.85	0.95	0.85	0.85
2	Atmos Energy	0.65	0.65	0.70	0.75	0.80	0.85
3	Laclede Group	0.65	0.70	0.75	0.85	0.90	0.90
4	New Jersey Resources	0.65	0.70	0.75	0.80	0.80	0.85
5	Nicor Inc	0.95	1.00	1.10	1.20	1.05	0.95
6	Northwest Nat Gas	0.60	0.65	0.70	0.75	0.80	0.80
7	Piedmont Natural Gas	0.70	0.75	0.75	0.80	0.80	0.85
8	South Jersey Inds	0.50	0.55	0.60	0.70	0.70	0.85
9	Southwest Gas Corp	0.70	0.80	0.75	0.85	0.85	0.90
10	WGL Holdings Inc	0.65	0.75	0.80	0.80	0.85	0.90
11	Average	0.68	0.74	0.78	0.85	0.84	0.87

Source.

The Value Line Investment Survey; June 13, 2008

* The historical data was obtained from the *Value Line Investment Analyzer*

Missouri-American Water Company

Water Proxy Group CAPM

<u>Line</u>	<u>Description</u>	<u>Historical Premium (1)</u>
1	Risk-Free Rate ¹	5 10%
2	Risk Premium ²	6 50%
3	Beta ³	0 95
4	CAPM	11 28%

<u>Line</u>	<u>Description</u>	<u>Prospective Premium (1)</u>
5	Risk-Free Rate ¹	5 10%
6	Risk Premium ²	6 52%
7	Beta ³	0 95
8	CAPM	11 29%
9	CAPM Average	11.28%

Sources.

¹ *Blue Chip Financial Forecasts*, August 1, 2008 at 2

² *SBB*, 2008 at 31 and 120

³ *The Value Line Investment Survey*; July 25, 2008

Missouri-American Water Company

Gas Distribution Proxy Group CAPM

<u>Line</u>	<u>Description</u>	<u>Historical Premium (1)</u>
1	Risk-Free Rate ¹	5 10%
2	Risk Premium ²	6 50%
3	Beta ³	0 87
4	CAPM	10 76%

<u>Line</u>	<u>Description</u>	<u>Prospective Premium (1)</u>
5	Risk-Free Rate ¹	5 10%
6	Risk Premium ²	6 52%
7	Beta ³	0 87
8	CAPM	10 77%
9	CAPM Average	10.76%

Sources

¹ *Blue Chip Financial Forecasts*, August 1, 2008 at 2

² *SBI*, 2008 at 31 and 120

³ *The Value Line Investment Survey*, June 13, 2008