Exhibit No.:
Witness: Michael Gorman
Type of Exhibit: Rebuttal Testimony
Issues: Return on Equity, Rate of Return, and Cost of Service
Sponsoring Parties: Missouri Industrial Energy Consumers
Case No.: WR-2007-0216

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 Service Provided in Missouri Service Areas	)))))	**Case No. WR-2007-0216**

Rebuttal Testimony of

Michael Gorman

On Behalf of

Missouri Industrial Energy Consumers

July 13, 2007

Project 8751

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

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 Service Provided in Missouri Service Areas	)))))	**Case No. WR-2007-0216**

STATE OF MISSOURI)
) **ss**
COUNTY OF ST. LOUIS)

Affidavit of Michael Gorman

Michael Gorman, being first duly sworn, on his oath states:

1. My name is Michael Gorman. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. 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 rebuttal testimony and schedules, which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. WR-2007-0216.

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.

Michael Gorman

Subscribed and sworn to before this 5th day of July, 2007.

TAMMY S. KLOSSNER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Charles County
My Commission Expires: Mar. 14, 2011
Commission # 07024862

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION
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In the Matter of Missouri-American Water Company's Request for Authority to Implement a General Rate Increase for Water Service Provided in Missouri Service Areas	)))))	**Case No. WR-2007-0216**

Rebuttal Testimony of Michael Gorman

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A My name is Michael Gorman and my business address is 1215 Fern Ridge Parkway, Suite 208, St. Louis, MO 63141.

Q ARE YOU THE SAME MICHAEL GORMAN THAT FILED DIRECT TESTIMONY IN THIS PROCEEDING?

A Yes.

Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A I am appearing on behalf of the Missouri Industrial Energy Consumers (MIEC).

Q WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A The purpose of my rebuttal testimony is to respond to Missouri-American's witness Ms. Pauline M. Ahern's return on equity testimony and the Staff of the Public Service Commission class cost of service study.

Response to Missouri-American Witness Pauline Ahern

Q WHAT RETURN ON COMMON EQUITY IS MISSOURI-AMERICAN PROPOSING FOR THIS PROCEEDING?

A Missouri-American's proposed return on equity is supported by its witness Ms. Pauline Ahern. She recommends a return on equity for Missouri-American of 11.30%, which is at the midpoint of her proposed range of 11.025% to 11.575%.

Q PLEASE DESCRIBE MS. AHERN'S METHODOLOGY SUPPORTING HER RETURN ON COMMON EQUITY.

A Ms. Ahern estimates the appropriate return on equity for Missouri-American based on the Discounted Cash Flow (DCF) model, the Risk Premium (RP) model, the Capital Asset Pricing Model (CAPM), and the Comparable Earnings Model (CEM) applied to two proxy groups. The first proxy group consists of six AUS Utility Reports water companies. The second proxy group consists of four Value Line (Standard Edition) water companies. To interpret the results of her DCF, RP, CAPM, and CEM analyses, Ms. Ahern evaluated business and financial risk factors that influence the determination of the appropriate return on equity for Missouri-American.

Q IS MS. AHERN'S ESTIMATED RETURN ON EQUITY FOR MISSOURI-AMERICAN REASONABLE?

A Ms. Ahern's recommended return on equity of 11.025% to 11.575% for Missouri-American is excessive and unreasonable for a low risk regulated water utility company. The excessiveness and unreasonableness of Ms. Ahern's recommendation is evident from both a comparison of recent authorized returns on equity for electric and gas utilities, and from a detailed assessment of Ms. Ahern's

rate of return model supporting her recommendation in this proceeding. Such evaluations clearly show that fair compensation for Missouri-American in this proceeding is under 10%, and indeed, clearly show that my recommended return on equity for Missouri-American of 9.7% is reasonable.

Q WHY DO YOU BELIEVE THAT RECENT AUTHORIZED RETURNS ON EQUITY FOR ELECTRIC AND GAS UTILITIES SHOW THAT MS. AHERN'S PROPOSED RETURN ON EQUITY IS EXCESSIVE?

A As shown on the attached Schedule MPG-1, recent authorized returns on equity for electric and gas utilities have averaged around 10.4% over the last year, which corresponded to a capital structure used to develop the overall rate which included a common equity component of 48%. As such, since there is discernable difference in the common equity component of capital structure for Missouri-American relative to gas utilities, Missouri-American's authorized return on equity should be lowered to reflect its lower operating risk relative to higher risk gas and electric companies. In fact, both electric and gas authorized returns have experienced a downward trend over the last five years as shown on the graph of my Schedule MPG-1.

Further, Standard & Poor's business risk assessment clearly shows that electric and gas utilities have greater operating risk than do water utilities.

> Standard & Poor's Ratings Services views the overall business risk of the highly rated water utility sector as generally being lower than that of electric and gas utilities. This is mainly due to a mostly favorable regulatory environment, a lack of competition from other water utilities, and relatively low operating risk.
>
> (Standard & Poor's RatingsDirect, July 17, 2006)

Q PLEASE DESCRIBE THE ISSUES YOU HAVE WITH MS. AHERN'S ANALYSES.

A I have several major issues with Ms. Ahern's analyses. First, Ms. Ahern's DCF analysis is based on growth rates that are highly overstated and cannot be sustained in the long run. Second, Ms. Ahern's application of the empirical CAPM and her historical market risk premium is severely flawed. Third, Ms. Ahern's risk premium analysis fails to reflect the current capital markets environment and her beta-derived equity risk premium is not supported by any academic research. Fourth, the use of the accounting-based comparable earnings model is flawed and should be rejected. Finally, Ms. Ahern's business risk ("size-premium") adjustment of 7.5 basis points is without merit and should be rejected.

As set forth below, use of more reasonable market-based data in Ms. Ahern's analysis and excluding her size-premium adjustment, will show a return on equity no higher than 10.0%.

Q PLEASE SUMMARIZE MS. AHERN'S RESULTS.

A Ms. Ahern's results are summarized in the table below.

TABLE 1

Summary of Ms. Ahern's ROE Estimate

Model	AUS Utility Water Group (1)	Value Line Water Group (2)	Adjusted Results (3)
DCF	10.3%	10.5%	9.2%
RP	10.7%	10.9%	10.2%
CAPM	10.4%	10.7%	10.5%
CEM	14.0%	14.0%	Reject
Indicated Range	10.95%	11.50%	
Business Risk Adjustment	0.075	0.075	Reject
Adjusted ROE Range	11.025%	11.575%	
ROE	**11.30%**		**10.00%**

Sources: Ahern Direct, Table 2 at 5.

Q DO THESE RESULTS SUPPORT MS. AHERN'S PROPOSED RETURN ON EQUITY OF 11.30% FOR MISSOURI-AMERICAN?

A No. A more prudent examination of Ms. Ahern's analyses will show that her results are supportive for a return on equity no higher than 10.0%.

Q PLEASE DESCRIBE MS. AHERN'S DCF ANALYSIS.

A Ms. Ahern estimates a dividend yield for each company included in her two comparable groups based on the average of the current dividend yield as of November 10, 2006 and the average dividend yield for the three-month period ending October 31, 2006. Then, the dividend yield component is adjusted to reflect one-half the annual dividend growth rate.

In addition, Ms. Ahern has reviewed analysts' projected earnings per share growth estimates, as well as historical and projected five-year compounded growth rate estimates of earnings per share (EPS), dividends per share (DPS), and the sustainable growth rates (BR + SV), obtained from the data published by Value Line. The analysts' projected growth rate estimates were obtained from Value Line and Thomson Financial/First Call. The average projected five-year growth rates for the AUS and VL comparable groups are 10.2% and 9.1%, respectively. The average historical and projected growth rate estimates for the AUS and VL groups are 6.9% and 6.8%, respectively. (Schedule PMA-7).

Based on her dividend yield and growth rate estimates, Ms. Ahern calculates the return on equity of 10.3% and 10.5% for her AUS and VL comparable groups, respectively. She excludes low-end estimates below 8.3% (A-rated utility yield of 6.3% + 200 basis points) and high-end estimates above 12.0% because she does not believe that a water utility company is likely to be authorized a return on equity higher than 12.0%.

Q PLEASE SUMMARIZE THE ISSUES YOU HAVE WITH MS. AHERN'S DCF ANALYSIS.

A Ms. Ahern's historical and projected growth rates as well as her analysts' projected growth rate estimates are not reasonable estimates of sustainable long-term growth. The constant growth version of the DCF model, which Ms. Ahern is relying on, requires a growth rate that is sustainable indefinitely. However, for the reasons set forth in my direct testimony, current three to five-year growth rate projections for water companies are abnormally high due to the current abnormally large capital expenditures utilities are making, thus driving abnormally high growth in rate base

earnings and earnings growth. This three to five-year earnings outlook is reasonable over that time period, but is not a reasonable estimate of long-term sustainable growth. Further, in some respects Ms. Ahern's use of a single analyst's growth rate is not a reasonable proxy of consensus market expectations and therefore is not a reasonable estimate of the growth rate likely built in to the stock prices she uses in her DCF study. Therefore, it cannot be relied upon to produce a reliable estimate of the investor required return for water utilities stock.

Q WHY DO YOU BELIEVE MS. AHERN RELIED ON GROWTH RATES WHICH ARE NOT REASONABLE PROXIES OF CONSENSUS MARKET EXPECTATIONS?

A Ms. Ahern derived her growth rate estimates from the Value Line Investment Survey, which provides historical and projected growth rates calculated by a single analyst. As I mentioned at pages 12-13 of Appendix B of my direct testimony, for the purpose of estimating the return on equity, one must rely on consensus analysts' growth rates, not on what an individual security analyst might use to form expectations. Therefore, relying on Value Line single-analyst growth rate estimates when calculating the DCF return on equity is biased and should be rejected.

Q WHY DO YOU BELIEVE MS. AHERN'S DCF GROWTH RATES ARE NOT REASONABLE PROXIES FOR LONG-TERM SUSTAINABLE GROWTH AS REQUIRED BY THE CONSTANT GROWTH DCF MODEL?

A The growth rate estimates used to derive the return on equity for Missouri-American range from 6.8% to 10.2%, with a midpoint of 8.5%. The five and ten-year consensus analysts' projected growth rate, based on the Blue Chip Economic Indicators is 5.1%. The GDP growth represents the maximum growth rate of the U.S. economy, which

serves as a ceiling, or high-end, sustainable growth rate for a utility over an indefinite period of time. Ms. Ahern's range exceeds the GDP growth rate by 170-510 basis points and produces an excessive DCF return on equity of 10.3% and 10.5% for her AUS and Value Line comparable groups, respectively. Therefore, they should be adjusted to reflect the expectations of a rational investor.

Q DO YOU HAVE ANY COMMENTS CONCERNING MS. AHERN'S RELIANCE ON A SINGLE-STAGE DCF ANALYSIS?

A The results from her single-stage DCF model are unreasonable because they reflect growth rate estimates that cannot be sustained in the long run. As I mentioned at page 16 of Appendix B of my direct testimony, water utilities are going through a major construction cycle, which significantly increases their net plant investment and drives the water utility growth rate estimates higher. However, this cycle is not going to continue indefinitely, which means that growth rate expectations will revert to their natural levels, not exceeding the growth of the U.S. economy.

Even though consensus analysts' growth rate estimates reflect investors' expectations in the short run (3 to 5 years), a rational investor would not expect these growth rates to remain in effect in the long run. Therefore, using the two-stage DCF model will capture the value of these abnormal growth rate estimates over the next five years, followed by a period of a sustainable long-term growth rates thereafter.

Q CAN THE DATA RELIED ON BY MS. AHERN BE USED IN THE DCF ANALYSIS TO PRODUCE A MORE REASONABLE DCF RETURN ON EQUITY ESTIMATE FOR HER WATER SAMPLE GROUPS?

A Yes. That can be done by reflecting a two-stage growth DCF model. The initial stage of growth reflects the abnormally high growth expectations for water utilities that coincide with exceptionally large capital expenditure programs, followed by a period where growth will subside to a more reasonable estimate of long-term sustainable growth.

Q HAVE YOU REPLICATED MS. AHERN'S MODEL TO REFLECT A TWO-STAGE DCF GROWTH OUTLOOK?

A Yes. I have replicated Ms. Ahern's Schedule PMA-7 by applying the two-stage DCF model, which consists of two growth rate periods. The short-term growth rate period includes the first five years. For this period, I used Ms. Ahern's analysts' projected growth rate estimates. The long-term growth rate period starts in year six and continues through perpetuity. For this period, I applied the consensus projected GDP growth rate of 5.1%.

Applying the two-stage DCF model reduces Ms. Ahern's AUS and Value Line return on equity estimates from 10.3% and 10.5% to 8.4% and 8.2%, respectively, with a midpoint of 8.3%. These results are shown on my Schedule MPG-2.

Q BASED ON MS. AHERN'S DCF ANALYSIS, WHAT RETURN ON EQUITY DO YOU BELIEVE IS INDICATED FOR MISSOURI-AMERICAN?

A As shown in Table 1, excluding her DCF estimates based on historical and projected growth rates and giving weight to both her other single-stage DCF return on equity of

10.0% and the two-stage DCF return of 8.3%, as discussed above, the DCF return on equity for Missouri-American is 9.2%, the same as my DCF return on equity.

Q PLEASE DESCRIBE MS. AHERN'S RISK PREMIUM MODEL.

A Ms. Ahern's risk premium model is based on the expected A-rated utility yield and on two equity risk premiums: (1) a beta-derived historical risk premium and (2) mean historical equity risk premium. Ms. Ahern derives the expected equity risk premium from the average "Aaa" corporate bond yield of 5.8% for the period starting the fourth quarter of 2006 and ending the first quarter of 2008 as published in Blue Chip Financial Forecasts (November 1, 2006). She adjusts this yield for the "Aaa-A" spread on public utility bonds of 0.5% to arrive at her expected A-rated utility yield of 6.3%.

Ms. Ahern estimates her beta-derived historical risk premium by averaging her historical risk premium of 6.2% and her forecasted risk premium of 5.3%, which produces an equity risk premium of 5.8%. Applying the average beta for the AUS and Value Line comparable groups of 0.75 and 0.83, respectively, she estimates an equity risk premium for the two comparable groups of 4.4% and 4.8%, respectively.

Her mean historical equity risk premium represents the difference of the arithmetic mean holding period returns on the S&P Public Utility Index of 11.0% and the arithmetic mean yield on A-rated public utility bonds of 6.6% over the period 1928-2005. The resulting equity risk premium for both comparable groups is 4.4%.

Ms. Ahern's beta-derived and mean historical equity risk premiums produce an average equity risk premium of 4.4% for her AUS comparable group and 4.6% for her Value Line comparable group. She adds her expected A-rated utility yield of

6.3% to these estimates to produce a risk premium return on equity for the AUS and Value Line comparable groups of 10.7% and 10.9%, respectively.

Q PLEASE DESCRIBE THE ISSUES YOU HAVE WITH MS. AHERN'S RISK PREMIUM ANALYSIS.

A I have two major issues with Ms. Ahern's risk premium analysis. First, her reliance on projected bond yields overstates the results from her risk premium analysis. Her reliance on projected growth rates overstates her results because her yield projections are much higher than current observable yields. Second, Ms. Ahern's use of corporate bond yield as a risk-free rate and applying it to the group average beta is flawed and should be rejected.

Q WHY SHOULD THE COMMISSION NOT PLACE HEAVY RELIANCE ON MS. AHERN'S EXPECTED BOND YIELD?

A Ms. Ahern's expected bond yield is based on analysts' projected yields. As mentioned at pages 2-3 of Appendix B of my direct testimony, analysts' projections are not always accurate. As a matter of fact, in the last several years they have overstated actual yields. Therefore, projected estimates should not be used exclusively. Placing reliance on more recent estimates that reflect the current capital markets environment, the average A-rated utility bond yield was 6.0% for the 13-week period ending June 14, 2007, shown on my Schedule MPG-3.

Q WHAT ARE YOUR CONCERNS REGARDING MS. AHERN'S BETA-DERIVED EQUITY RISK PREMIUM?

A To arrive at her beta-derived equity risk premium, Ms. Ahern applies her beta estimates to her average equity risk premium of 5.8%. The average equity risk premium is obtained by averaging her historical and forecasted risk premiums. The historical equity risk premium (6.2%) represents the difference between the returns on the S&P 500 Index and the arithmetic mean yield on "Aaa" and "Aa" corporate bonds. Her forecasted equity risk premium (5.3%) represents the difference between the forecasted three to five-year annual appreciation and the prospective yield on Aaa-rated corporate bonds. (Schedule PMA-11, Page 6). This methodology is flawed for two main reasons.

First, the beta is a measure of a company's specific risk premium from the market risk premium relative to a risk-free security. The group average beta should be applied to a risk-free rate. As discussed in Appendix B of my direct testimony, the appropriate risk-free rate is the long-term Treasury bond yield, which has negligible credit risk and is backed by the United States government. Ms. Ahern implicitly used a corporate bond yield as a risk-free proxy. This is flawed because corporate bonds do have default risk.

Second, corporate bond yield can go into default and thus the market will include a company-specific risk premium relative to the risk-free rate in a corporate bond yield. Using a corporate bond yield as a proxy for the risk-free rate as Ms. Ahern has implicitly done, results in an excessive risk premium estimate for the underlying company, because the amount of risk premium included in the corporate bond yield is not adjusted by the beta factor. As such, this analysis is severely flawed and unreliable. Further, I am not aware of any academic research that supports the

use of a corporate bond yield as a risk-free rate proxy, or use of a beta estimate in the manner proposed by Ms. Ahern in this proceeding.

Therefore, Ms. Ahern's historical beta derived-equity risk premium is flawed and should be rejected.

Q HOW WOULD MS. AHERN'S RISK PREMIUM RESULTS CHANGE CORRECTING FOR THE FLAWS DISCUSSED ABOVE?

A Applying the average beta of Ms. Ahern's AUS and Value Line comparable groups of 0.75 and 0.83, respectively, to her risk-free rate of 5.0% will result in equity risk premiums of 3.8% and 4.2%, respectively. Averaging these results with Ms. Ahern's mean historical risk premium of 4.4% developed at page 8 of her Schedule PMA-11, results in an equity risk premium of 4.1% and 4.3%, for the two comparable groups. Then, adding the 13-week average A-rated utility bond yield of 6.0% produces a risk premium return on equity for the AUS and Value Line comparable groups of 10.1% and 10.3%, respectively. The midpoint for this adjusted risk premium analyses is 10.2%.

Q PLEASE DESCRIBE MS. AHERN'S CAPITAL ASSET PRICING MODEL.

A Ms. Ahern applied two methods to estimate the cost of equity for Missouri-American using the CAPM analysis. The first method is the traditional CAPM as discussed at page 49 of her direct testimony, which produces a CAPM return on equity of 10.4% for her AUS comparable group and 10.5% for her Value Line comparable group. The second method is the empirical version of the CAPM and it produces a return on equity for the AUS and Value Line comparable groups of 10.4% and 10.8%, respectively. These results are shown on Schedule PMA-12 of Ms. Ahern's direct

testimony. Averaging the results of her two CAPM analyses, Ms. Ahern concludes that her estimated return on equity based on her two models is 10.4% for her AUS comparable group and 10.7% for her Value Line comparable group.

Q PLEASE DESCRIBE THE ISSUES YOU HAVE WITH MS. AHERN'S CAPM ANALYSIS.

A I have two major issues with Ms. Ahern's CAPM analysis. First, her market risk premium based on the difference of the historical market return and the Treasury bond income return is overstated. Second, as discussed below, Ms. Ahern's reliance on the empirical CAPM model to account for the beta tendencies to overstate the model results, is flawed.

Q HOW DID MS. AHERN DEVELOP HER MARKET RISK PREMIUM ESTIMATES?

A Ms. Ahern develops two market risk premium estimates. The first one is based on the total market appreciation of 43%, which produces an annual market return of 9.35%. Adding the annual forecasted dividend yield of 1.70% results in a total market return of 11.1%. Ms. Ahern derives her market risk premium of 6.1% by subtracting the risk-free rate of 5.0% from the total market return of 11.1%.

The second market risk premium is derived from the Ibbotson & Associates 2006 Valuation Edition Yearbook, which identifies the historical market risk premium of 7.1% as the difference between the large company stock total returns (12.3%) and the long-term government bond income returns (5.2%).

Q IS MS. AHERN'S HISTORICAL MARKET RISK PREMIUM ESTIMATE OF 7.1% REASONABLE?

A No. There are two major flaws in Ms. Ahern's historical market risk premium. The source of her data, Ibbotson & Associates, estimates a historical total return on equity securities above the achieved return on Treasury bonds to be 6.5% for the period 1926 through 2005.[1] This 6.5% equity risk premium is the actual historical market risk premium earned on market investments (12.3%) relative to the returns earned on long-term Treasury bond investments (5.8%).

Q DO YOU HAVE ANY CONCERNS WITH MS. AHERN'S EMPIRICAL CAPM ("ECAPM") ANALYSIS?

A The proposed ECAPM analysis should be rejected. The ECAPM increases the beta estimate to reflect a more gradual increase in security risk across the risk spectrum. In other words, the ECAPM will reduce a CAPM estimate for a beta estimate greater than 1, and increase the CAPM estimate for a beta less than 1.

This flattening of the security market line, or the CAPM return estimate, is redundant with the use of Value Line's adjusted betas and, therefore, is unreasonable. The Value Line beta Ms. Ahern relied on to estimate a utility beta is already adjusted for the tendencies of betas lower than 1 to increase toward the market beta of 1 over time. That is, an adjusted beta will increase a CAPM return estimate for companies with raw betas less than 1, and decrease CAPM return estimates for companies with raw betas greater than 1. A raw beta is an unadjusted beta. Value Line adjusts its raw beta by weighting the raw beta with a market beta

[1] SBBI Valuation Edition 2006 Yearbook at 28.

of 1. Specifically, Value Line's adjusted beta formula is to apply a weight as follows:

Adjusted Beta = Raw Beta X 65% + Market Beta X 35%.

The practical effect of Value Line's beta adjustment is that it flattens the security market line in the same way that the ECAPM does. Consequently, Value Line's beta adjustment formula accomplishes the same thing as the ECAPM analysis. Hence, the use of Value Line adjusted betas in an ECAPM double-counts this return adjustment.

Ms. Ahern's use of an adjusted beta in an ECAPM analysis double-counts the increase to a CAPM return estimate for utility betas less than 1. I am not aware of any academic support for use of an adjusted beta in an ECAPM analysis. Consequently, Ms. Ahern's application of an ECAPM analysis with an adjusted beta distorts and erroneously increases the CAPM return estimate for her utility proxy group.

Second, capturing investors' expectations is the primary objective, not manipulating data to increase the return estimate. This is the significant deficiency in Ms. Ahern's ECAPM study. Specifically, Value Line publishes beta estimates that are widely followed by the investment market. These beta estimates reflect stock return estimates and are used by investors to make stock purchase and sale decisions. In significant contrast, Ms. Ahern's manipulation of the beta estimate in a CAPM analysis is not reflective of market information used by investors to value stock. Therefore, Ms. Ahern's ECAPM should be rejected.

Q HOW WOULD MS. AHERN'S CAPM ANALYSIS CHANGE CORRECTING FOR THE FLAWS DISCUSSED ABOVE?

Setting aside the issues I had with Ms. Ahern's market risk premium and disregarding the results derived from Ms. Ahern's ECAPM, the CAPM return on equity for Ms. Ahern's AUS comparable group is 10.4%. Based on her Value Line comparable group the CAPM return on equity is 10.5%. Averaging these results produces a return on equity of 10.45%, rounded up to 10.5% as shown in Table 1 above.

Q PLEASE DESCRIBE MS. AHERN'S COMPARABLE EARNINGS MODEL (CEM).

A Ms. Ahern used two comparable groups to develop her CEM estimates. The first comparable group consists of 100 companies with similar risk to Ms. Ahern's AUS comparable group. The second comparable group includes 125 companies, which have comparable risk to Ms. Ahern's Value Line group. She used the Value Line beta to determine the group systematic risk and the standard error to identify the companies' unsystematic or specific risk. Both of the comparable groups produced a return on equity of 14.0%.

Q DOES MS. AHERN'S COMPARABLE EARNINGS MODEL PRODUCE REASONABLE RESULTS FOR ESTIMATING MISSOURI-AMERICAN'S AUTHORIZED RETURNS ON EQUITY?

A No. Ms. Ahern's comparable earnings result of 14.0% is seriously flawed on its face. Importantly, this accounting-based return on equity method produces returns that are significantly higher than the market-based (DCF and risk premium) return on equity results. The accounting-based return does not measure the current cost of capital necessary to attract capital in the marketplace. An accounting return is not derived

from the market valuation of security prices. Consequently, it does not measure investors' return requirements. This is an important distinction because if the accounting returns on equity are lower than the market required return on equity, then the utility's ability to attract capital could be impaired. Conversely, if the accounting return on equity significantly exceeds the utility's market cost of capital, then utility rates would be adjusted much higher than necessary to fairly compensate investors and maintain their ability to attract capital. Hence, the methodology is flawed because it does not estimate a fair risk adjusted return on equity that fairly compensates Missouri-American for making utility plant investments.

Because of the severe deficiencies in this methodology, and her failure to accurately account for Missouri-American's lower operating risk, Ms. Ahern's comparable earnings analysis should be rejected.

Q PLEASE EXPLAIN HOW MS. AHERN DEVELOPS HER BUSINESS RISK ADJUSTMENT OF 7.5 BASIS POINTS.

A Ms. Ahern compares the average size of the companies included in her two comparable groups and she concludes that based on market capitalization the AUS and the Value Line comparable groups are 1.4 and 2.1 times greater than Missouri-American, respectively. Then, Ms. Ahern calculates size adjustments of 0.55% and 0.88%, respectively (Ahern Direct at 13 and 67). To be conservative, she concludes that the appropriate business risk or small size premium for Missouri-American is 7.5 basis points.

Q IS MS. AHERN'S PROPOSED SIZE PREMIUM ADJUSTMENT REASONABLE?

A No. Small company risk is part of a company's total investment risk. By selecting companies with similar risk to Missouri-American, the proxy group can be used to estimate a fair return to compensate investors with Missouri-American's investment risk characteristics. Most importantly, Missouri-American's investment risk characteristics include the increased risks that are attributable to the size of its operations, access to capital and therefore, fairly reflect this investment risk in my recommended return on equity.

Q HOW WOULD A COMPANY'S SIZE IMPACT ITS RISK?

A Normally, a company's size would impact its operating risk in the following ways:

1. Small companies typically have less ability to attract qualified management pools.

2. Small companies usually do not have the economies of scale to minimize operating expenses by spreading expertise over a larger customer base and buying materials and supplies in larger quantities.

3. Small companies do not have the geographic diversification to mitigate sales variations caused by weather and local economic cycles.

Q HOW WERE YOU ABLE TO SELECT A COMPARABLE GROUP THAT ENCAPSULATED MISSOURI-AMERICAN'S SMALL COMPANY RISK IN ESTIMATING A FAIR RETURN FOR MISSOURI-AMERICAN IN THIS CASE?

A These small company risk factors certainly are considered by credit rating analysts and security analysts in assessing a utility's investment risk and valuation. Hence, when selecting a group of comparable risk companies, if one relies on a group of companies with bond ratings that are comparable to the proxy company and business profile scores in particular, that reasonably compare to the utility's business profile score, then the proxy group itself would reflect these risk factors.

As such, it is unreasonable and would be redundant to add a size premium to a proxy group return if that proxy group already reasonably captures Missouri-American's total investment risk. For example, Missouri-American's small company risk can be offset by differences in other risk elements. As such, focusing on a single aspect of investment risk, rather than reviewing proxy groups on the basis of total investment risk, is inappropriate and produces unreasonable results.

Since my proxy group and Ms. Ahern's proxy group reasonably emulate an investment grade bond rating, with a higher than average integrated water utility business profile, the proxy group reasonably captures Missouri-American's small size risk and all other risk factors. As such, there is no need to add a size premium to the return on equity estimated from this proxy group.

Q ARE THERE OTHER FLAWS IN MS. AHERN'S PROPOSED SMALL COMPANY RETURN ON EQUITY RISK PREMIUM?

A Yes. Ms. Ahern appears to ignore the fact that Missouri-American is a wholly owned subsidiary of American Water Company. American Water Company in turn is owned by RWE, an international company. Missouri-American's small company risk is significantly mitigated by its corporate structure. Specifically, American Water has a subsidiary, American Capital Corp., which issues all debt on behalf of all subsidiaries including Missouri-American. This affiliate, American Capital Corp., increases Missouri-American's access to debt capital. Also, Missouri-American has access to tax-free debt capital through various entities in the state of Missouri. This government-sponsored low cost debt also mitigates Missouri-American's small company operating risk. Also, American Water Company has service companies that provide executive, engineering, treasury, legal and accounting expertise to Missouri-

American, which provides it a greater breadth of management experience than small companies could typically support on their own. Hence, being incorporated within American Water Company's structure mitigates to a large extent Missouri-American's small company risk. As such, Missouri-American's access to capital through its parent company and access to management expertise through its parent company and regulated service territory, significantly mitigates if not completely eliminates any small company risk for this affiliate. For these reasons, a small company equity return add-on is wholly inappropriate and based on competent, credible evidence should be rejected.

Response to Staff's Class Cost of Service Study

Q HAVE YOU REVIEWED THE STAFF'S COST OF SERVICE STUDY WITH RESPECT TO THE ST. LOUIS DISTRICT AS CONTAINED IN THE DIRECT TESTIMONY OF STAFF WITNESS JAMES RUSSO?

A Yes.

Q IS THE STAFF'S COST OF SERVICE STUDY WITH RESPECT TO THE ST. LOUIS DISTRICT REASONABLE?

A No, it is not. The cost of service study for the St. Louis District contains errors in the development of its allocation factors and inappropriate allocations that result in erroneous costs being allocated to certain customer classes in the St. Louis District.

Q AS A RESULT OF YOUR FINDINGS WITH RESPECT TO THE COST OF SERVICE STUDY PERFORMED BY STAFF FOR THE ST. LOUIS DISTRICT, WHAT IS YOUR RECOMMENDATION?

A I recommend that Staff's cost of service study for the St. Louis District not be used to allocate costs to the customer rate classes in the district.

Q PLEASE DESCRIBE THE ERRORS YOU HAVE FOUND IN THE STAFF'S COST OF SERVICE STUDY AS IT RELATES TO THE ST. LOUIS DISTRICT.

A When developing Factor 1 in the Staff's cost of service study, Staff did not include any water consumption volumes for Rate H or Rate K. This results in incorrect allocations.

Q PLEASE DESCRIBE FACTOR 1 AS USED IN THE STAFF'S COST OF SERVICE STUDY.

A Factor 1 is used in the Staff's cost of service study to allocate costs that vary with the total volume of water consumed, such as chemical costs. Factor 1 allocates these costs based on the total volume of water consumed by the rate classes. Factor 1 is also used as an input to develop other allocation factors in the Staff's cost of service study, including Factor 2, Factor 3, Factor 4, Factor 5, Factor 6, and Factor 7. The error in the development of Factor 1 causes these other factors to contain errors as well.

Q WHAT IS THE SIGNIFICANCE OF NOT INCLUDING CONSUMPTION VOLUMES FOR ALL RATE CLASSES WHEN DEVELOPING THE FACTOR 1 ALLOCATOR FOR THE ST. LOUIS DISTRICT?

A The effect is an under-allocation of costs to the Rate H and Rate K customer classes and an over-allocation of costs to all other rate classes in the district, including the Rate J customer class. These significant errors render the results of the Staff's cost of service study unreliable.

Q HAVE YOU ALSO FOUND INAPPROPRIATE COST ALLOCATIONS IN THE STAFF'S COST OF SERVICE STUDY FOR THE ST. LOUIS DISTRICT?

A Yes. In my review of the cost of service study, I found two inappropriate cost allocations. These are:

- The use of Factor 1 to allocate purchased water expense; and
- The use of Factor 1 to allocate Fuel for Power Production and Purchased Fuel/Power expense.

Q PLEASE EXPLAIN WHY STAFF'S USE OF FACTOR 1 IS INAPPROPRIATE FOR ALLOCATING PURCHASED WATER EXPENSE.

A Instead of allocating purchased water expense using Factor 1, these costs should be allocated using Factor 2. Factor 1 uses an allocation based on total water consumed by the customer classes. However, there is typically a peaking element to the Company's purchase of water. Some purchased water expense should be allocated to extra capacity. Therefore, these costs should be allocated using Factor 2, which contains an extra capacity or peaking element for cost allocation.

Q PLEASE EXPLAIN WHY STAFF'S USE OF FACTOR 1 IS INAPPROPRIATE FOR ALLOCATING FUEL FOR POWER PRODUCTION AND PURCHASED FUEL/POWER EXPENSE.

A The Staff's use of Factor 1 for allocating power production and purchased fuel/power expense allocates this expense based on total water usage. The Staff's allocation of this expense does not recognize that there is an extra capacity or peaking component to power production and purchased fuel/power expense. This is inappropriate. The extent to which electric power expenses are allocated to the extra capacity cost component depends on the variations in electric demands incurred in pumping and the energy/demand electric rate structure applicable to the pumping of water. Customers with a high peak water usage relative to their average demand will receive an under-allocation of these costs, while customers with a low peak water usage relative to their average demand, particularly industrial customers, will receive an over-allocation of these costs.

Q WHICH FACTOR SHOULD STAFF USE TO ALLOCATE FUEL FOR POWER PRODUCTION AND PURCHASED FUEL/POWER EXPENSE?

A Staff should use Factor 6 (Allocation of Costs Associated with Power and Pumping Facilities) instead of Factor 1 to allocate this expense. Factor 6 recognizes maximum day, maximum hour and fire flow demands. Staff properly uses Factor 6 to allocate pumping plant, pumping plant depreciation expense, and labor, supervision and engineering, and other operating expenses associated with pumping plant. Factor 6 recognizes that pumping plant must be sized to meet peak rates of flow.

Q HAVE YOU CORRECTED THE STAFF'S COST OF SERVICE STUDY FOR THE ERRORS AND INAPPROPRIATE COST ALLOCATIONS YOU HAVE DISCOVERED IN YOUR REVIEW?

A No. Due to a lack of review time as well as not receiving responses to data requests prior to preparing my rebuttal testimony, I have not corrected Staff's cost of service study.

Q ABSENT A CORRECT COST OF SERVICE STUDY FROM STAFF, DO YOU HAVE A PROPOSAL WITH RESPECT TO COST OF SERVICE AND RATE DESIGN FOR THE ST. LOUIS DISTRICT?

A Yes. I continue to recommend the proposal contained in my Direct Testimony on Rate Design Issues. I still propose a uniform percent increase to the current bills paid by each rate class and a uniform percent increase in components deriving Other Revenue. However, the percent change to each rate class base rate elements will be different to allow for a "roll-in" of ISRS revenues into base rates. This is reasonable and results in a fair and appropriate rate for all classes in the St. Louis District.

Q HAS THE OFFICE OF PUBLIC COUNSEL PREPARED A COST OF SERVICE STUDY FOR MISSOURI-AMERICAN WATER?

A Yes. According to the Direct Testimony of Barbara A. Meisenheimer submitted on behalf of the Office of Public Counsel, she has performed a cost of service study for Missouri-American. According to her direct testimony at page 7, her primary interest was to evaluate whether a readjustment to rates is warranted.

Q HAVE YOU REVIEWED MS. MEISENHEIMER'S COST OF SERVICE?

A I have reviewed the preliminary results of her cost of service study for the St. Louis District attached as Schedule BAM 1-8 to her direct testimony. According to her study results, there appears to be significant variation in the cost of service for the commercial and industrial classes with respect to current revenues. Since the underlying detail of her cost of service study was not available for review, I cannot endorse her cost of service study as being correct and do not recommend its use with respect to allocating costs to the St. Louis District.

Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A Yes, it does.

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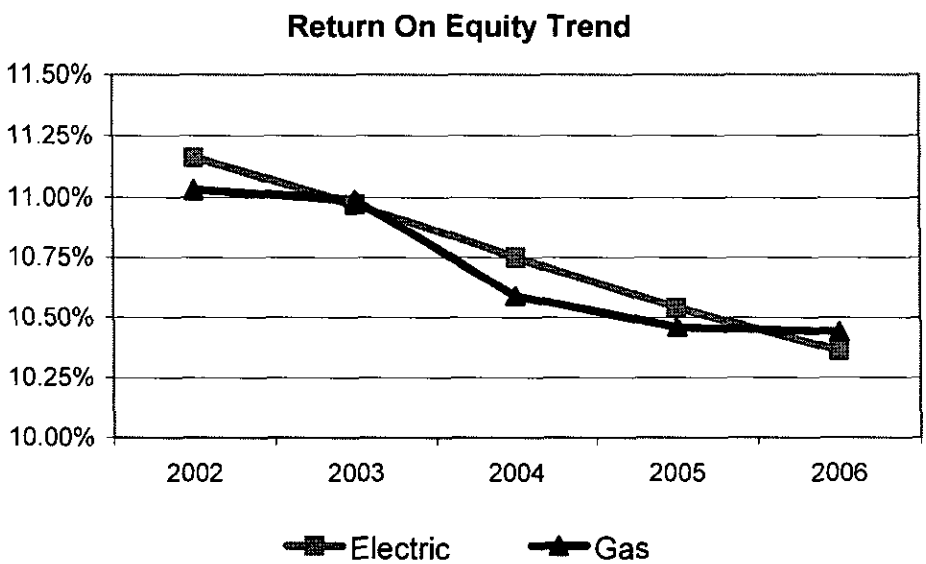
Missouri-American Water Company

Authorized Returns & Common Equity Ratios

Line	Year	Return on Equity Electric	Return on Equity Gas	Common Equity Ratio Electric	Common Equity Ratio Gas
1	2002	11.16%	11.03%	46.27%	48.29%
2	2003	10.97%	10.99%	49.41%	49.93%
3	2004	10.75%	10.59%	46.84%	45.90%
4	2005	10.54%	10.46%	46.73%	48.66%
5	2006	10.36%	10.44%	48.67%	47.60%



Source:
Regulatory & Research Associates, Inc., Regulatory Focus, Jan. 85 - Dec. 06.

Missouri-American Water Company

Two-Stage Growth DCF Model (Ahern)

Line	Ahern's Comparable Groups	Stock Price[1] (1)	Dividend[2] (2)	Growth Rate[3] (3)	GDP Growth[4] (4)	Two-Stage DCF (5)
	AUS Utiity Group					
1	American States Water Co.	$ 37.43	$ 0.94	8.3%	5.10%	8.1%
2	Aqua America, Inc	$ 23.96	$ 0.46	11.3%	5.10%	7.7%
3	Artesian Resources	$ 19.11	$ 0.64	10.0%	5.10%	9.4%
4	California Water Service Group	$ 38.53	$ 1.15	5.9%	5.10%	8.3%
5	SJW Corporation	$ 29.42	$ 0.57	14.0%	5.10%	8.1%
6	York Water Company	$ 18.04	$ 0.45	11.5%	5.10%	8.5%
7	**Average**	**$ 27.75**	**$ 0.70**	**10.2%**	**5.10%**	**8.4%**
	Value Line Utiity Group					
8	American States Water Co.	$ 37.43	$ 0.94	8.3%	5.10%	8.1%
9	Aqua America, Inc	$ 23.96	$ 0.46	11.3%	5.10%	7.7%
10	California Water Service Group	$ 38.53	$ 1.15	5.9%	5.10%	8.3%
11	Southwest Water Company	$ 12.50	$ 0.21	11.0%	5.10%	7.4%
12	**Average**	**$ 28.10**	**$ 0.69**	**9.1%**	**5.1%**	**8.2%**

Sources:

[1] Ahern's WP 14-9. The average stock price for the 3-month period ending October 31, 2006.

[2] Ahern's WP 14-9.

[3] Schedule PMA-10, Column 7.

[4] Blue Chip Economic Indicators; March 10, 2007.

Missouri-American Water Company

Series "A" and "Baa" Utility Bond Yields

Line	Date	A-Rated Yield (1)	Baa-Rated Yield (2)
1	06/14/07	6.39%	6.65%
2	06/08/07	6.33%	6.59%
3	06/01/07	6.15%	6.40%
4	05/25/07	6.09%	6.33%
5	05/18/07	6.04%	6.29%
6	05/11/07	5.91%	6.15%
7	05/04/07	5.88%	6.13%
8	04/27/07	5.97%	6.22%
9	04/20/07	5.94%	6.21%
10	04/12/07	6.02%	6.30%
11	04/05/07	5.99%	6.27%
12	03/30/07	5.97%	6.25%
13	03/22/07	5.91%	6.16%
14	**Average**	**6.0%**	**6.3%**

Source:
[1] www.moodys.com, Bond Yields and Key Indicators.