MIEC Exh. 7

No.:
Witness: Michael P. Gorman
Type of Exhibit: Surrebuttal Testimony
Issues: Revenue Requirement
Sponsoring Party: Missouri Industrial Energy Consumers
Case No.: WR-2011-0337



# BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

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|---|---|
| **In the Matter of Missouri-American Water Company's Request for Authority to Implement a General Rate Increase for Water and Sewer Services Provided in Missouri Service Areas** | **Case No. WR-2011-0337** |

Surrebuttal Testimony and Schedules of

**Michael P. Gorman**

On behalf of

**Missouri Industrial Energy Consumers**



February 2, 2012

BAI
BRUBAKER & ASSOCIATES, INC.
CHESTERFIELD, MO 63017

Project 9498

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

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| **In the Matter of Missouri-American Water Company's Request for Authority to Implement a General Rate Increase for Water and Sewer Services Provided in Missouri Service Areas** | ) | **Case No. WR-2011-0337** |

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|---|---|---|
| **STATE OF MISSOURI** | ) | |
| | ) | **SS** |
| **COUNTY OF ST. LOUIS** | ) | |

**<u>Affidavit of Michael P. Gorman</u>**

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

1. My name is Michael P. Gorman. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. 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 surrebuttal testimony and schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. WR-2011-0337.

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

Michael P. Gorman

Subscribed and sworn to before me this 2nd day of February, 2012.

MARIA E. DECKER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis City
My Commission Expires: May 5, 2013
Commission # 09706793

Notary Public

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| **In the Matter of Missouri-American Water Company's Request for Authority to Implement a General Rate Increase for Water and Sewer Services Provided in Missouri Service Areas** | ) | **Case No. WR-2011-0337** |

## Surrebuttal Testimony of Michael P. Gorman

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

A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

**Q ARE YOU THE SAME MICHAEL P. GORMAN WHO PREVIOUSLY FILED DIRECT AND REBUTTAL TESTIMONY IN THIS CASE?**

A Yes.

**Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

A This information is included in Appendix A to my direct testimony regarding revenue requirement issues, filed on November 17, 2011.

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

A This testimony is presented on behalf of the Missouri Industrial Energy Consumers ("MIEC"). These companies purchase substantial amounts of water from Missouri-American Water Company ("Missouri-American" or "Company").

**Q WHAT IS THE PURPOSE OF THIS SURREBUTTAL TESTIMONY?**

A I will respond to the rebuttal testimony of Missouri-American witness Pauline M. Ahern.

**Q HAVE YOU REVIEWED MISSOURI-AMERICAN'S UPDATED PROPOSED CAPITAL STRUCTURE?**

A Yes. Missouri-American's revised capital structure is shown in Table 1 below:

**TABLE 1**

**Missouri-American's**
**Revised Capital Structure**

| Description | Capital Weight |
|---|---|
| Long-Term Debt | 49.18% |
| Preferred Equity | 0.26% |
| Common Stock | 50.57% |
| Total | 100.01% |

Source: Schedule PMA-39, page 1 of 36.

**Q HAVE YOU REVIEWED MISSOURI-AMERICAN'S REVISED RETURN ON EQUITY?**

A Yes. Missouri-American witness Ms. Ahern is proposing a return on equity of 11.85%. This is an increase from her original proposal in her direct testimony of 11.30%. Ms. Ahern updated her analyses in support of her new recommendation.

**Q IS MS. AHERN'S ESTIMATED RETURN ON EQUITY FOR MISSOURI-AMERICAN OF 11.85% REASONABLE?**

A No. Ms. Ahern's recommended return on equity of 11.85% for Missouri-American is excessive and unreasonable for a low-risk regulated water utility company. This recommendation should be rejected.

Ms. Ahern's inflated recommendation is evident when you compare her recommendation to current observable industry data. As described in my rebuttal testimony, there has been a clear and discernible downward trend in authorized returns on equity for electric and gas utilities. Gas utilities' authorized returns on equity have fallen below 10.0%. In addition, "A" and "Baa" rated utility bond yields exhibit the same downward trend and are now at very low levels.

**Q WHAT ISSUES DO YOU TAKE WITH MS. AHERN'S UPDATED ANALYSES SUPPORTING HER RECOMMENDED RETURN ON EQUITY?**

A I have several major issues with Ms. Ahern's updated analyses. These issues are similar to the issues I addressed in my rebuttal testimony. Ms. Ahern's results are summarized in Table 2 below.

**TABLE 2**

**Summary of Ms. Ahern's ROE Estimate**

| Model | Ms. Ahern's Estimate[1] | Adjusted[2] |
|---|---|---|
| DCF | 11.45% | 9.73% |
| RP | 10.34% | 9.14% |
| CAPM | 11.22% | 8.29% |
| CEM | 13.21% | Reject |
| | | |
| Indicated Return | 11.50% | 9.14% to 9.73% |
| Financial Risk Adjustment | (0.21%) | Reject |
| Flotation Cost Adjustment | 0.16% | Reject |
| Business Risk Adjustment | 0.40% | Reject |
| Adjusted ROE Range | 11.85% | 9.05% |

Sources:
[1]Schedule PMA-39, page 2 of 36.
[2]Schedule MPG-SR-1 and MPG-SR-2.

Using the same methodology described in my rebuttal, I have corrected Ms. Ahern's analyses with the use of more reasonable market-based data and excluding her size-premium adjustment. This shows an appropriate return on equity to be in the range of 9.2% to 9.7%.

**Q PLEASE SUMMARIZE YOUR CHANGES TO MS. AHERN'S UPDATED ANALYSES.**

A As shown on Schedule MPG-SR-1, page 1, Ms. Ahern's constant growth DCF model relies on average and median three- to five-year analysts' growth rate projections of 7.08% and 8.14%, respectively. These growth rates exceed reasonable estimates of long-term sustainable growth as required by this model. As described in my direct and rebuttal testimonies, a reasonable estimate of long-term sustainable growth is 4.9%, which is the consensus analysts' projected long-term growth rate of the U.S. GDP.

On Schedule MPG-SR-1, page 2, I created a three-stage growth DCF model using Ms. Ahern's three- to five-year analysts' growth rate projections, stock prices and dividends. Starting in year 5, the short-term growth rates transition into a reasonable estimate of long-term sustainable growth of 4.9%. This produced an average return estimate of 8.91%. I then averaged this result with Ms. Ahern's average return estimate from her constant growth DCF model of 10.55% to produce an average DCF return estimate of 9.73%. This I believe is a reasonable high-end return estimate for Missouri-American in this market.

I also believe that Ms. Ahern's risk premium estimate of 10.34% is overstated. Ms. Ahern relied on a projected utility bond yield of 4.89% and an equity risk premium of 5.45%. Ms. Ahern's equity risk premium of 5.45% was a simple average of her high-end equity risk premium of 6.78%, and low-end of 4.12%. I explained in my rebuttal testimony why Ms. Ahern's high-end risk premium based on her flawed beta adjustment model is unreliable. Again, I recommend the Commission reject it. Hence, relying on her historical achieved equity risk premium of 4.12%, and a current observable bond yield of 5.02%, would produce an equity risk premium for Missouri-American of 9.14%. I believe this estimate is more reasonable than Ms. Ahern's because it does not include the inflated and unreliable equity risk premiums derived from her beta-derived equity risk premium.

On Schedule MPG-SR-2, I show my adjustments to Ms. Ahern's CAPM return estimate. Using Ms. Ahern's lower market risk premium estimate of 6.70%, her risk-free rate of 3.45% and her *Value Line* beta estimates I developed a market CAPM return estimate for Missouri-American of 8.29%.

Q **ON PAGES 35-36 OF HER REBUTTAL TESTIMONY, MS. AHERN SAYS YOUR CONCLUSION THAT UTILITIES' COST OF CAPITAL HAS DECLINED IS MISLEADING AND INCOMPLETE BECAUSE YOU FAILED TO ACCOUNT FOR RISING MARKET EQUITY RISK PREMIUMS. PLEASE RESPOND.**

A Ms. Ahern's testimony in this regard simply is not supported by market evidence, and clearly is shown to be inaccurate based on a review of declining authorized returns on equity for utility companies, and declining utility bond yields. The evidence in declining utility capital market costs is evident in these two factors, and Ms. Ahern's proposal for an increase to Missouri-American's authorized return on equity is simply unwarranted, unjust and unreasonable.

Q **ON PAGE 37 OF HER REBUTTAL TESTIMONY, MS. AHERN ARGUES IT IS INADEQUATE TO RELY ON A NATURAL GAS PROXY GROUP TO DEVELOP THE COST OF CAPITAL FOR A WATER UTILITY. PLEASE RESPOND.**

A Ms. Ahern is incorrect. As described in my direct testimony, my use of a gas proxy group was necessary for several reasons. First, the gas proxy group's securities are more widely followed than are water utility stocks and second, considering water utility proxy groups in conjunction with gas utility proxy groups is consistent with industry reports published by Standard & Poors.

Further, use of the natural gas proxy group provides more evidence on commission-authorized returns on equity, and public utility bond yields which support what I believe to be clear evidence that utilities' capital market costs are very low in today's market.

Q **MS. AHERN SAYS, ON PAGE 38 OF HER REBUTTAL TESTIMONY, THERE WAS NO BASIS FOR YOU TO REJECT YOUR AVERAGE CONSTANT GROWTH DCF RETURN OF 10.81% FOR WATER UTILITIES. PLEASE RESPOND.**

A I disagree with Ms. Ahern's assessment. The reason for not relying on that growth rate is clearly spelled out in my testimony. The 10.81% return on equity reflects growth outlooks which are irrationally high, and a competent investor would not believe those growth rates to be sustainable indefinitely as required in the constant growth DCF model. Other cost of equity estimates clearly show that this number is an outlier, and should not be given primary consideration, or possibly no consideration in this case. At best, it is a high point estimate that should be viewed as an extremely high estimate in this case by the Commission in awarding Missouri-American a fair return on equity in this case. It should not be given primary consideration as Ms. Ahern suggests.

Q **MS. AHERN SAYS YOU IGNORED THE RECOMMENDATION OF AN 8% GROWTH RATE FOR USE IN YOUR MULTI-STAGE GROWTH DCF MODEL. PLEASE RESPOND.**

A Ms. Ahern's assertion is false. She is referring to a textbook I referenced – *Fundamentals of Financial Management*, published by Eugene Brigham and Joel F. Houston where the authors use a range of 5% to 8% as an expected growth rate. It is important to note that the date of the growth rate referenced in *Fundamentals of Financial Management* was not stated. The book was published in 2007. The market in 2007 and earlier was different than the market that exists today. In 2007, projected GDP growth reflected higher inflation than that currently and utility bond yields were higher than current yields. More importantly, the authors intended the range of 5% to 8% to be a proxy for nominal GDP growth. There is no reason to rely on GDP growth estimates stated in the textbook without a data reference when current independent economists' published GDP growth estimates are available.

**Q ON PAGE 43 OF HER REBUTTAL TESTIMONY, MS. AHERN SAYS YOUR SUSTAINABLE GROWTH DCF MODEL IS CIRCULAR AND IGNORES BASIC PRINCIPLES OF RATE BASE AND RATE OF RETURN REGULATION. PLEASE RESPOND.**

A Ms. Ahern's arguments here are simply without merit. The sustainable growth rate model explicitly does consider reinvestment of a utility's earnings and additional investment which grow rate base and earnings over time. Her argument to the contrary simply is erroneous and should be disregarded. While the parameters of the sustainable growth rate model should be used in my judgment only with the multi-growth rate outlooks and analysts' growth rate DCF models, and should not be used by themselves, the basic mathematical makeup and assumptions used to develop the sustainable growth model are sound and based on accepted financial principles. Ms. Ahern's arguments to the contrary are without merit.

**Q ON PAGE 44 OF HER REBUTTAL TESTIMONY, MS. AHERN SAYS THE TIME PERIOD USED IN YOUR RISK PREMIUM STUDIES IS TOO SHORT. PLEASE RESPOND.**

A I disagree with Ms. Ahern's assessment because this is based on an expectational risk premium study and not a historical realized return equity risk premium study. Further, the period I used was based on authorized returns on equity which supported market-to-book ratios in excess of one. This is clear market evidence that the authorized returns on equity during that historical time period supported utilities' access to equity capital and the implied equity risk premiums are reasonable. For these reasons, Ms. Ahern's critique of the risk premium study is without merit and should be disregarded.

**Q ON PAGE 48 OF HER REBUTTAL TESTIMONY, MS. AHERN SAYS THE HISTORICAL MARKET EQUITY RISK PREMIUM YOU DERIVED IS INCORRECT. PLEASE RESPOND.**

A My review of historical equity risk premiums was based on market perceptions of equity versus bond investment risk during the study period. To gauge the current market assessment of equity versus bond risk, I relied on spreads of utility bonds versus Treasury bonds to gauge where the market perceives utility investment risk is relative to the general market. To the extent the market is assessing utility risk to be high relative to historical periods, that would indicate an above-average equity risk premium. Conversely, if the market's perception of utility industry risk is relatively low to historical periods, then a below-average equity risk premium would be appropriate.

While utility bond yield spreads to Treasuries are relatively low currently, I conservatively used an average equity risk premium in my analysis. I was also conservative in using a relatively high equity risk premium relative to Treasury bonds recognizing very low Treasury bond yields currently.

**Q ON PAGE 49 OF HER REBUTTAL TESTIMONY, MS. AHERN SAYS YOU SHOULD HAVE INCLUDED AN ECAPM ANALYSIS. PLEASE RESPOND.**

A Ms. Ahern's proposal to develop an ECAPM analysis using adjusted betas is flawed, for the reasons outlined in my rebuttal testimony.

**Q ON PAGE 50 OF HER REBUTTAL TESTIMONY, MS. AHERN STATES YOU PROVIDED NO EVIDENCE THAT AMERICAN WATER IS AN APPROPRIATE RISK PROXY AFFILIATE FOR MISSOURI-AMERICAN WHEN DEVELOPING YOUR CREDIT METRICS. PLEASE RESPOND.**

A American Water Capital Corp. ("AWC") issues virtually all of Missouri-American's current bonds. Further, all equity investment capital comes from its parent company. Hence, there is an undisputable tie between Missouri-American and its affiliate AWC, and its parent company American Water Works' ("AWW") capital costs.

All of the benefits of Missouri-American's affiliation with its parent company and AWC are paid for by customers through affiliate charges. Hence, customers pay the cost of this affiliation, and are therefore entitled to the benefits of the AWW/AWC affiliation. Therefore, Missouri-American's return on equity should reflect the risk reduction aspects of participating in AWW's and AWC's consolidated structure. Therefore, it is reasonable and appropriate to use the parent company's and its affiliate AWC's bond ratings to develop a proxy group of companies that are reasonably similar in investment risk to measure Missouri-American's return on equity.

Q **DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

A Yes, it does.

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# Missouri-American Water Company

## Indicated Common Equity Cost Rate Using the Single-Stage DCF Model

| Line | Proxy Group | Average Dividend Yield | Value Line Projected Five Year Growth Rate | Reuters Mean Consensus Projected Five Year Growth Rate | Zack's Five Year Growth Rate | Yahoo! Finance Five Year Growth Rate | Average Projected Five Year Growth Rate | Adjusted Dividend Yield | Indicated Common Equity Cost Rate |
|---|---|---|---|---|---|---|---|---|---|
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| 1 | American States Water Co. | 3.22% | 5.50% | 7.50% | 12.00% | 7.57% | 8.14% | 3.35% | 11.49% |
| 2 | American Water Works Co., Inc. | 3.00% | 9.50% | 11.00% | 7.80% | 8.58% | 9.22% | 3.14% | 12.36% |
| 3 | Aqua America, Inc. | 2.86% | 10.50% | 7.80% | 8.30% | 7.28% | 8.47% | 2.98% | 11.45% |
| 4 | Artesian Resources Corp. | 4.18% | N/A | 4.90% | N/A | 4.40% | 4.65% | 4.28% | 8.93% |
| 5 | California Water Service Group | 3.38% | 6.00% | 9.80% | 10.00% | 12.40% | 9.55% | 3.54% | 13.09% |
| 6 | Connecticut Water Service, Inc. | 3.52% | N/A | 5.70% | N/A | 4.55% | 5.13% | 3.61% | 8.74% |
| 7 | Middlesex Water Company | 4.02% | 6.00% | -1.00% | N/A | 2.70% | 2.57% | 4.07% | 6.64% |
| 8 | SJW Corporation | 2.92% | 7.50% | N/A | N/A | 14.00% | 10.75% | 3.08% | 13.83% |
| 9 | York Water Company | 3.09% | N/A | 5.60% | N/A | 4.90% | 5.25% | 3.17% | 8.42% |
| 10 | **Average** | | | | | | **7.08%** | | **10.55%** |
| 11 | **Median** | | | | | | **8.14%** | | **11.45%** |

Source:
Schedule PMA-39, Page 5 of 36.

# Missouri-American Water Company

## Multi-Stage Growth DCF Model
## (Revision of Ahern's DCF Model)

| Line | Company | 60-Day AVG Stock Price[1] | Indicated Dividend[1] | First Stage Growth[1] | Second Stage Growth Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Third Stage Growth[2] | Multi-Stage Growth DCF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1 | American States Water Co. | $34.93 | $1.12 | 8.14% | 7.60% | 7.06% | 6.52% | 5.98% | 5.44% | 4.90% | 9.03% |
| 2 | American Water Works Co., Inc. | $30.75 | $0.92 | 9.22% | 8.50% | 7.78% | 7.06% | 6.34% | 5.62% | 4.90% | 9.02% |
| 3 | Aqua America, Inc. | $21.75 | $0.62 | 8.47% | 7.88% | 7.28% | 6.69% | 6.09% | 5.50% | 4.90% | 8.65% |
| 4 | Artesian Resources Corp. | $18.27 | $0.76 | 4.65% | 4.69% | 4.73% | 4.78% | 4.82% | 4.86% | 4.90% | 9.22% |
| 5 | California Water Service Group | $18.25 | $0.62 | 9.55% | 8.78% | 8.00% | 7.23% | 6.45% | 5.68% | 4.90% | 9.61% |
| 6 | Connecticut Water Service, Inc. | $27.22 | $0.96 | 5.13% | 5.09% | 5.05% | 5.01% | 4.98% | 4.94% | 4.90% | 8.64% |
| 7 | Middlesex Water Company | $18.29 | $0.74 | 2.57% | 2.96% | 3.34% | 3.73% | 4.12% | 4.51% | 4.90% | 8.53% |
| 8 | SJW Corporation | $23.73 | $0.69 | 10.75% | 9.78% | 8.80% | 7.83% | 6.85% | 5.88% | 4.90% | 9.29% |
| 9 | York Water Company | $17.08 | $0.53 | 5.25% | 5.19% | 5.13% | 5.08% | 5.02% | 4.96% | 4.90% | 8.21% |
| 10 | **Average** | **$23.36** | **$0.77** | **7.08%** | **6.72%** | **6.35%** | **5.99%** | **5.63%** | **5.26%** | **4.90%** | **8.91%** |
| 11 | **Median** | | | | | | | | | | **9.02%** |

Sources:
[1] Schedule PMA-39, Page 5 of 36.
[2] *Blue Chip Economic Indicators,* October 10, 2011 at 15.

# Missouri-American Water Company

## Indicated Common Equity Cost Rate Through Use of the Traditional Capital Asset Pricing Model (CAPM)

| Line | Company | Value Line Adjusted Beta[1] (1) | Market Risk Premium[2] (2) | Risk-Free Rate[1] (3) | CAPM (4) |
|---|---|---|---|---|---|
| 1 | American States Water Co. | 0.75 | 6.70 % | 3.45 % | 8.48 % |
| 2 | American Water Works Co., Inc. | 0.65 | 6.70 | 3.45 | 7.81 |
| 3 | Aqua America, Inc. | 0.65 | 6.70 | 3.45 | 7.81 |
| 4 | Artesian Resources Corp. | 0.60 | 6.70 | 3.45 | 7.47 |
| 5 | California Water Service Group | 0.70 | 6.70 | 3.45 | 8.14 |
| 6 | Connecticut Water Service, Inc. | 0.80 | 6.70 | 3.45 | 8.81 |
| 7 | Middlesex Water Company | 0.75 | 6.70 | 3.45 | 8.48 |
| 8 | SJW Corporation | 0.90 | 6.70 | 3.45 | 9.48 |
| 9 | York Water Company | 0.70 | 6.70 | 3.45 | 8.14 |
| 10 | **Average** | | | | **8.29** % |
| 11 | **Median** | | | | **8.14** % |

Sources:
[1] Schedule PMA-39, Page 21 of 36.
[2] Schedule PMA-39, Page 22 of 36.