MIEC Exh 5

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

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 Services Provided in Missouri Service Areas	**Case No. WR-2011-0337**

Rebuttal Testimony and Schedules of

Michael P. Gorman

On behalf of

Missouri Industrial Energy Consumers

January 19, 2012

BRUBAKER & ASSOCIATES, INC.
CHESTERFIELD, MO 63017

Project 9498

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 Services Provided in Missouri Service Areas	Case No. WR-2011-0337

STATE OF MISSOURI)
) SS
COUNTY OF ST. LOUIS)

Affidavit of Michael P. Gorman

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 rebuttal 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 19th day of January, 2012.

TAMMY S. KLOSSNER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Charles County
My Commission Expires: Mar. 14, 2015
Commission # 11024862

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

Rebuttal 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 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"). Member companies purchase substantial amounts of water from Missouri-American Water Company ("Missouri-American" or "Company").

Q WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A I will respond to the Company rate of return witness Ms. Pauline Ahern's recommended return on equity of 11.30% for Missouri-American.

Response to Missouri-American Witness Ms. 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. Ahern. She recommends a return on equity of 11.30% for Missouri-American. As shown in Table 2 on page 5 of Ms. Ahern's testimony, her recommended return on equity is based on an indicated cost of equity of 10.85%, plus adders for financial risk (0.07%), flotation cost adjustments, 0.12%, and business risk, 0.40%.[1]

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

A Ms. Ahern estimates a 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").

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

A No. Ms. Ahern's recommended return on equity of 11.30% for Missouri-American is excessive and unreasonable for a low risk regulated water utility company. The unreasonableness of Ms. Ahern's recommendation is evident from a comparison of

[1] 11.30% = 10.85% - 0.07% + 0.12% +0.40%.

her recommendation to recent authorized returns on equity for water, electric and gas utilities. As I noted in my direct testimony, authorized returns on equity for affiliates of Missouri-American have ranged from 9.34% to 10.60% over the last several years. Importantly, authorized returns on equity for electric utilities and gas utilities have been declining significantly over the last two years. As shown in Table 1 below, on a quarterly basis, there has been a clear and discernible downward trend in authorized returns on equity for electric and gas utilities. Further, the decline in "A" and "Baa" rated utility bond yields exhibits the same downward cost trend.

TABLE 1

Authorized Utility Capital Cost

Quarterly Basis	Electric Utilities[1]	Gas Utilities[1]	"A" Bond Yields[2]	"Baa" Bond Yields[2]
1Q 2009	10.29%	10.24%	6.37%	7.88%
2Q 2009	10.55%	10.11%	6.39%	7.70%
3Q 2009	10.46%	9.88%	5.74%	6.45%
4Q 2009	10.54%	10.27%	5.65%	6.19%
1Q 2010	10.66%	10.24%	5.83%	6.21%
2Q 2010	10.08%	9.99%	5.59%	6.11%
3Q 2010	10.26%	9.93%	5.09%	5.69%
4Q 2010	10.30%	10.09%	5.33%	5.83%
1Q 2011	10.32%	10.10%	5.60%	6.04%
2Q 2011	10.12%	9.85%	5.38%	5.79%
3Q 2011	10.00%	9.65%	4.81%	5.34%
4Q 2011	10.34%	9.88%	4.37%	5.09%

Sources:

[1]Regulatory Research Associates *Regulatory Focus*, October 5, 2011 at 2.
[2]www.Moodys.com, Bond Yields and Key Indicators.

As shown in Table 1 above, observable utility cost of capital and authorized rates of return have decreased in the last few years. This decline in capital costs has resulted in regulatory commissions authorizing returns on equity for electric and gas

utilities down near 10% and lower for most of 2011. This same trend is evident for water companies, although there is no public source available that I am aware of to collect authorized returns on equity awards for water utilities. This evidence clearly shows that Ms. Ahern's proposal for an 11.30% return on equity is excessive and should be rejected outright.

Q PLEASE DESCRIBE THE ISSUES YOU HAVE WITH MS. AHERN'S ANALYSES SUPPORTING HER RETURN ON EQUITY RECOMMENDATION.

A I have several major issues with Ms. Ahern's analyses. First, Ms. Ahern's DCF analysis is based on growth rates that are not reasonable estimates of long-term sustainable growth rates. Second, Ms. Ahern's risk premium analysis relies on inflated utility risk premiums and should be adjusted. Third, Ms. Ahern's CAPM is not based on a reasonable market risk premium. Fourth, Ms Ahern's application of the empirical CAPM is flawed and should be rejected. Also, Ms. Ahern's use of the accounting-based comparable earnings model is flawed and should be rejected. Finally, Ms. Ahern's business risk adjustment of 40 basis points is without merit and should be rejected.

Further, Ms. Ahern's adders to her proxy group return on equity estimate for financial risk, flotation cost, and business risk are unjust and will not produce a reasonable return on equity for Missouri-American in this proceeding. These analyses are fundamentally flawed and should therefore be disregarded. 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 to be in the range of 9.20% to 9.60%.

Q PLEASE SUMMARIZE MS. AHERN'S RESULTS.

A Ms. Ahern's results are summarized in Table 2 below.

TABLE 2

Summary of Ms. Ahern's ROE Estimate

Model	ROE[1]	Adjusted[2]
DCF	9.54%	9.16%
RP	10.40%	9.46%
CAPM	10.33%	9.62%
CEM	13.26%	Reject
Indicated Return	10.85%	9.41%
Financial Risk Adjustment	(0.07%)	Reject
Flotation Cost Adjustment	0.12%	Reject
Business Risk Adjustment	0.40%	Reject
Adjusted ROE Range	11.30%	9.41%

Sources:
[1]Schedule PMA-1, page 2.
[2]Schedule MPG-R-1 and MPG-R-2.

Q DO THESE RESULTS SUPPORT MS. AHERN'S PROPOSED RETURN ON COMMON 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 of 9.4%.

Q PLEASE DESCRIBE MS. AHERN'S DCF ANALYSIS.

A Ms. Ahern estimates a dividend yield for each company included in her proxy group based on the average dividend yield for the 60 days ending June 13, 2011. Then, the

dividend yield component is adjusted to reflect one-half the annual dividend growth rate.

Ms. Ahern used analysts' projected earnings per share growth estimates from *Value Line*, Reuters, Zacks and Yahoo Finance. The average projected three- to five-year growth rates for the proxy group was 6.51%.

Ms. Ahern determined her DCF return on equity estimates relying on her group's median results. (Schedule PMA-8).

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

A Ms. Ahern's three- to five-year analysts' growth rate projections used in her study were 6.51% on average, and 6.10% reflecting the median return estimate. These growth rates exceed reasonable estimates of long-term sustainable growth. A reasonable estimate of long-term sustainable growth is 4.9%, which is the projected long-term growth rate of the U.S. GDP. Ms. Ahern's three- to five-year analysts' growth rate estimates are not reasonable estimates of long-term sustainable growth, because these short-term growth projections substantially exceed the expected long-term growth of the U.S. economy.

As outlined in my direct testimony, a growth rate for a utility company cannot exceed the growth rate of the U.S. economy for an indefinite period of time. It is unreasonable to believe that a utility's growth rate could exceed the growth of the economy in which it sells its goods and services, because the utility makes investments in order to serve the public demands for utility service which in turn is linked to the service area economy. In other words, a utility does not create economic activity in its service area, but rather responds to it by making investments

needed to supply utility service to its service territory economy. Further, as outlined in my direct testimony, it is well documented in both academic and practitioner studies that the long-term sustainable growth rate cannot exceed the U.S. GDP rate of long-term growth. For these reasons, Ms. Ahern's DCF studies are overstated and unreasonable, because they reflect three- to five-year growth rate estimates which are not reasonable estimates of long-term sustainable growth as required by the constant growth DCF study.

Q CAN MS. AHERN'S DCF STUDIES BE CORRECTED TO PRODUCE MORE REASONABLE ESTIMATES OF MISSOURI-AMERICAN'S CURRENT MARKET COST OF EQUITY?

A Yes. A non-constant growth study can be used to reflect the expectations of abnormally high short-term growth rates, and the rational outlook that these growth rates will eventually subside down to lower sustainable long-term levels.

I created a three-stage growth DCF model using Ms. Ahern's three- to five-year growth rate projections as stage 1, and a long-term sustainable growth rate estimate of 4.9% – based on long-term projected GDP growth starting in Year 11 – as stage 3. In the stage 2 growth, I estimated a transitional growth stage that phases in these short-term growth rates to long-term sustainable growth rates during the intermediate growth term. This multi-stage growth DCF model produced a DCF estimate of 8.78%, as developed in my Schedule MPG-R-1.

Q WHAT DCF RETURN ESTIMATE WOULD BE APPROPRIATE FOR MISSOURI-AMERICAN CONSIDERING MS. AHERN'S CONSTANT GROWTH DCF STUDY, AND YOUR PROPOSED EXPANSION OF HER DCF STUDY TO INCLUDE A MULTI-STAGE GROWTH MODEL?

A Giving equal weight to Ms. Ahern's constant growth DCF return estimate of 9.54%, and my multi-stage growth DCF return estimate of 8.78%, Ms. Ahern's DCF study data expanded to include a multi-stage model would support a return on equity of 9.16%.

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

A Ms Ahern estimated a risk premium return of 10.40% based on a projected utility bond yield of 5.97% and an equity risk premium of 4.43%. (Schedule PMA-10).

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

A I have several issues with Ms. Ahern's risk premium analysis. First, her reliance on projected bond yields is inappropriate. Second, Ms. Ahern's estimated risk premium of 4.43% is inflated and unreliable.

Q SHOULD THE COMMISSION PLACE HEAVY RELIANCE ON MS. AHERN'S PROJECTED BOND YIELD?

A No. Ms. Ahern projects a utility bond yield of 5.97% to reflect the proxy group companies. The current observable marginal bond yield for an "A" and a "Baa utility is 4.81% and 5.34%, respectively.

The bond yield used by Ms. Ahern significantly exceeds current observable bond yields.

Q DO YOU HAVE ANY ISSUES WITH HOW MS. AHERN DEVELOPED HER EQUITY RISK PREMIUM?

A Yes. Ms. Ahern's equity risk premium is developed on her Schedule PMA-10. As shown on that schedule, she relies on a holding period risk premium for utility companies of 4.12%, and a calculated equity risk premium using a beta approach of 4.73%. The average of these two produce her equity risk premium of 4.43%.

Ms. Ahern's beta approach equity risk premium of 4.73% is severely flawed and unreliable. She develops this risk premium on her Schedule PMA-10, page 6. The beta approach equity risk premium is produced by subtracting the investment return on the market from corporate bond yield, then adjusting this market premium by beta. There are several flaws with this study.

First, this study uses beta to measure a risk premium over a corporate bond yield rate – not a risk-free rate. A corporate bond yield rate is not a risk-free instrument and does not properly correlate with adjustments to a market risk premium with use of a beta. Indeed, a corporate bond yield includes systematic market risk which should be adjusted by beta to arrive at a utility-adjusted common stock risk premium.

Therefore, Ms. Ahern's calculated equity risk premium based on her beta estimate is severely flawed, and it reflects an improper and inflated risk premium for a water utility. Second, Ms. Ahern inaccurately estimates a market risk premium by subtracting the total return on the stock market from the income return on bond investments. This does not accurately estimate the risk premium an investor would

have by owning equity investments versus bond investments. It misestimates this risk premium because it does not consider the annual changes in total return on bond investments caused by capital gains and losses on the bond investment. However, these capital gains and losses are considered in the stock investments. Performing an apples-to-apples comparison would consider both total return on stock investments versus total return on bond investments to measure the expected risk premium an investor would earn by owning stock rather than bonds. As such, Ms. Ahern has not accurately estimated the expected return premium by owning a stock investment versus a bond investment. Therefore, her estimated market risk premium is overstated and based on a faulty premise.

Q CAN MS. AHERN'S RISK PREMIUM MODEL BE MODIFIED TO PRODUCE A REASONABLE ESTIMATE OF COST OF EQUITY FOR MISSOURI-AMERICAN?

A Yes. Using a current observable "Baa" bond yield of 5.34%, and Ms. Ahern's historical achieved equity risk premium estimate of 4.12% produces a return on equity of 9.46%.

Q HOW DID MS. AHERN DERIVE HER CAPM RETURN ESTIMATE FOR MISSOURI-AMERICAN?

A Ms. Ahern developed her CAPM return estimate as shown on her Schedule PMA-12. As shown on that schedule, she relied on *Value Line* beta estimates for her proxy companies, a market risk premium of 7.52%, and a risk-free rate of 4.78%.

Q DO YOU HAVE ANY ISSUES WITH MS. AHERN'S CAPM STUDY?

A Yes. I believe her market risk premium of 7.52% is excessive and inflated.

Q WHY DO YOU BELIEVE MS. AHERN'S MARKET RISK PREMIUM IS EXCESSIVE AND INFLATED?

A Ms. Ahern averages two market risk premium estimates to develop her recommended market risk premium of 7.52%. Her first market risk premium is based on *Value Line* projected data from which she derived an expected return on the *Value Line* index of 13.12%. From that, she subtracts her risk-free rate of 4.78% to produce a market risk premium of 8.34%.

Her second market risk premium is based on Ibbotson data, which observes the historical achieved return on the stock market less the income return on bonds which indicates a market risk premium of 6.70%. The average risk premium of 7.52% is the average of these two estimates (8.34% and 6.70%).

Q ARE MS. AHERN'S MARKET RISK PREMIUM ESTIMATES REASONABLE?

A No. Ms. Ahern's derived equity risk premium of 8.34% based on *Value Line* data is inflated and unreliable. This market risk premium is based on an expected return on the market of 13.12% which is not reliable. This expected return on the market is based on an expected growth rate of 11.22% and dividend yield of 1.90%. A growth rate of 11.22% may be supportable in the short term but is not supportable over the long term. As such, it is unreasonable and flawed to develop an expected return on the market using a sustainable long-term growth rate of 11.22% as Ms. Ahern has done. As described above, growth on investments cannot be sustained at substantially higher levels than the GDP growth rate. That is, companies cannot grow faster than the markets in which they sell their goods and services. Ms. Ahern's growth rate for the market is more than twice the expected growth of the U.S. GDP. Clearly, that is not a sustainable level of growth.

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

Adjusted Beta = Raw Beta x 67% + 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 CAN MS. AHERN'S CAPM RETURN ESTIMATE BE USED TO PRODUCE A REASONABLE ESTIMATE FOR MISSOURI-AMERICAN?

A Yes. Using Ms. Ahern's lower market risk premium estimate of 6.70%, and the other parameters included in her CAPM study, indicate a market CAPM return for Missouri-American of 9.47%, as developed on my Schedule MPG-R-2.

Q IS MS. AHERN'S NON-PRICE REGULATED COMPANIES' EARNED RETURN ON EQUITY ESTIMATE OF 13.26% A REASONABLE METHODOLOGY OF ESTIMATING MISSOURI-AMERICAN'S CURRENT MARKET COST OF EQUITY?

A No. Ms. Ahern's non-price regulated return on equity estimate is based on a comparable earnings analysis of a proxy group of non-regulated companies (15.00%), and a DCF and CAPM return on these same proxy companies (11.51%). The average result of her comparable earning analysis (15.00%) and her market-

based study (11.51%), on her non-price regulated companies produced her estimated return on equity from this methodology of 13.26% ((15.00% + 11.51%)÷2).

Q IS A COMPARABLE EARNINGS ANALYSIS APPROPRIATE FOR ESTIMATING A FAIR RETURN ON EQUITY FOR MISSOURI-AMERICAN IN THIS PROCEEDING?

A No. A comparable earnings analysis is not a competent method of estimating the current return requirements of investors who assume the risk of a water utility investment. As such, the Comparable Earnings Model ("CEM") is a flawed methodology that is inconsistent with historical practice for estimating authorized returns on equity for water utility companies, and should not be given significant weight in this proceeding.

Q DO THE RESULTS OF MS. AHERN'S DCF AND CAPM STUDIES PRODUCE REASONABLE RESULTS FOR MISSOURI-AMERICAN?

A No. Her DCF return estimate is not reliable. The median proxy group DCF return of 12.48% includes a growth rate of 11.13%.[2] This growth rate is far too high to be a long-term sustainable growth for use in a constant growth DCF model in the way Ms. Ahern uses it. Hence, her DCF study on these non-price regulated companies is flawed and unreliable.

Ms. Ahern's risk premium on these price regulated companies is also flawed and unreliable. As shown on her Schedule PMA-15, page 2, she uses a projected "Baa" bond yield of 6.33%, and an equity risk premium of 5.06% to produce her risk premium estimate of 11.39%. This analysis is flawed because her equity risk premium of 5.06% improperly uses beta to estimate a risk premium for corporate

[2] 12.48% less 1.35% (Adj. Div. Yield) = 11.13%, Schedule PMA-15 at 1.

bonds. As such, her forecasted market risk premium of 7.69% substantially exceeds reasonable estimates of market risk premiums in the area of 6.70%. Market risk premium estimates have already been discussed above, and in my direct testimony. Because she overstates her market risk premium estimate, her risk premium for non-price regulated companies is unreliable and should be disregarded.

Finally, Ms. Ahern's CAPM and ECAPM estimates for the companies of 10.66% should also be disregarded. Her CAPM study is flawed because it is based on a market risk premium of 7.52%. Again, these market risk premiums used by Ms. Ahern are excessive and are not consistent with reasonable measures of estimating a market risk premium. Further, her proposed ECAPM study is flawed and should be disregarded because it is based on both adjusted beta, and the ECAPM. This use of adjusted betas in an ECAPM has no empirical or academic support, and double counts the adjustments to a traditional CAPM study to account for the movement of beta estimates toward the mean market beta of 1 over time. Therefore, Ms. Ahern's CAPM return estimates for non-price regulated companies are also flawed and should be disregarded.

Q ARE THERE OTHER REASONS TO DISREGARD THE NON-PRICE RISK PROXY GROUP ESTIMATE OF MISSOURI-AMERICAN'S CURRENT RETURN ON EQUITY?

A Yes. Ms. Ahern has done insufficient proof that these companies are risk comparable to Missouri-American. While these companies may have comparable beta estimates, she has not shown that they have comparable business and operating risk to a low-risk regulated utility company. Therefore, it is necessary to show that these companies have comparable risk factors that are commonly used by investment

professionals to compare investment risk between different investment alternatives. Because she has not shown that these companies are indeed risk comparable to Missouri-American, her estimated return on this proxy group is not reliable and should be disregarded.

Q DID MS. AHERN INCLUDE A FLOTATION COST ADJUSTMENT TO HER RECOMMENDED RETURN ON EQUITY?

A Yes. As shown on her Schedule PMA-16, Ms. Ahern developed a flotation cost adjustment of 0.12%. This flotation cost adjustment was tied to an estimate of net proceeds relative to market sales price for common stock of American Water Works ("AWW") stock sales during the period April 2008 through November 2009. Based on that study, for both secondary market offerings and primary market offerings, Ms. Ahern asserts that American Water Works incurred flotation cost percentages of total stock sales of 3.3%. She then used that factor to adjust the dividend yield component of her proxy group average DCF return estimate, to produce a flotation cost adder of 0.12%.

Q IS MS. AHERN'S FLOTATION COST ADJUSTMENT APPROPRIATE?

A Ms. Ahern's flotation cost analysis does not accurately demonstrate whether or not Missouri-American should receive an allocation of total system flotation costs as outlined by Ms. Ahern. While American Water Works has issued stock to the public, as she shows on her Schedule PMA-16, many of those stock transactions were secondary market transactions. These are negotiated transactions between the buyer and seller of the securities. As such, it is not clear whether or not those transactions reflect a cost between shareholders or costs to the utility company. If

they are not costs to the utility company, they should not be built in to cost of service. Rather, they should simply be reflected as a cost to investors of undertaking a secondary market transaction. Further, she has not shown that if costs were incurred by the Company, and should be passed on to customers, that the costs should be borne by Missouri-American customers in the manner she prescribes. As such, her proposed flotation cost adjustment should be rejected.

Q PLEASE EXPLAIN HOW MS. AHERN DEVELOPS HER BUSINESS RISK ADJUSTMENT OF 40 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 proxy group is 1.6 times larger than Missouri-American. Then, Ms. Ahern calculates size adjustments of 40 basis points (Ahern Direct at 69) to be "conservative."

Q IS MS. AHERN'S PROPOSED BUSINESS RISK ADJUSTMENT REASONABLE?

A No, this adjustment should be rejected.

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 DID MS. AHERN PROPERLY ESTIMATE MISSOURI-AMERICAN'S SMALL-SIZE RISK?

A No. Small companies' risk can be mitigated if they are owned by a larger company that reduces risk via affiliate consolidated management. That is precisely what AWW

does. In effect, Missouri-American's operating and financial risks are mitigated because it is owned by AWW. That is, small company risk such as the ability to attract management, and retain expertise for complex environmental and operating considerations is all mitigated by AWW's ability to attract management, capital and resources.

Q DO CUSTOMERS GET THE BENEFIT OF MISSOURI-AMERICAN'S ASSOCIATION WITH AWW AND AMERICAN WATER CAPITAL CORP. ("AWC") WITHOUT PAYING ANY FEES FOR THIS BENEFIT?

A No. Affiliate services are charged to Missouri-American and other affiliates of AWW at cost. Hence, the cost associated with providing the service company fees, and risk reduction aspects are fully paid for by retail customers in the revenue requirement in this case by reflecting service company fees in the cost of service. Hence, these risk benefits of the AWW affiliations should be reflected in cost of service because all the cost associated with this relationship are reflected in cost of service. Ms. Ahern would have customers pay the cost associated with the AWW affiliation, but deprive them of the benefits of the AWW affiliation.

Response to Staff Witness Mr. Barnes

Q WHAT RETURN ON COMMON EQUITY IS THE MISSOURI STAFF PROPOSING FOR THIS PROCEEDING?

A Staff's recommended return on equity is supported by its witness Mr. Matthew J. Barnes. He recommends a return on equity in the range of 9.40% to 10.40%, with a midpoint of 9.90% for Missouri-American.

Q HOW DID MR. BARNES ARRIVE AT HIS RECOMMENDED RETURN ON COMMON EQUITY FOR MISSOURI-AMERICAN?

A Mr. Barnes performed two market-based DCF return estimates for Missouri-American, which produced a return on equity in the range of 8.97% to 9.97%. He then added 43 basis points to these DCF estimates to produce his recommended return range of 9.40% to 10.40%. Mr. Barnes asserts that the 0.43% return adder was an attempt to account for the credit rating differential of AWC ("BBB+") and his proxy utility group bond rating ("A").

Mr. Barnes also developed a CAPM return on equity estimate in the range of 6.34% to 7.54%. However, he expressed a concern about the current reliability of the CAPM and he did not use the CAPM to support his recommended return in this case.

Q DO YOU HAVE ANY COMMENTS CONCERNING STAFF'S RETURN ON EQUITY RECOMMENDATION?

A Yes. Mr. Barnes' proposed 43 basis points return on equity adjustment, reflecting the difference in credit risk between AWC and his proxy group, is only reasonable if Mr. Barnes' proposal to use the parent company's capital structure, rather than Missouri-American's capital structure, is adopted. The parent company's capital structure is more highly leveraged and reflects more financial risk than the capital structure of Missouri-American on a stand-alone basis. Hence, I would not take issue with Mr. Barnes' proposal for a return on equity adjustment if his capital structure is adopted.

However, if Mr. Barnes' capital structure is rejected, and Missouri-American's stand-alone capital structure is adopted, then I recommend his 43 basis point return on equity adder be rejected, and the Commission find an appropriate return on equity falls within his unadjusted range of 8.97% to 9.97%. I propose to round this range to

9.0% to 10.0%, and thus recommend a return on equity of 9.5% based on Mr. Barnes' study, if Missouri-American's capital structure is used to set rates rather than the parent company capital structure proposed by Mr. Barnes.

Q WHY WOULD THE 43 BASIS POINT ADDER BE DEPENDENT ON WHICH CAPITAL STRUCTURE IS USED TO SET RATES?

A Missouri-American's capital structure has a higher common equity ratio (percentage point) than does the AWW/AWC affiliate capital structure (42.95%). Missouri-American's higher common equity ratio (50.37%) represents lower financial risk and indicates that had the AWW/AWC capital structure reflects more financial risk, which is reflected in its credit rating. Mr. Barnes' objective of the higher return on equity reflects a difference in credit rating between AWC and that of his proxy group. Hence, if the capital structure that reflects the bond rating underlying AWC's credit rating is used to set rates, then the return on equity adder might be justified. However, if the rate of return reflects the lower financial risk capital structure of Missouri-American, then the return on equity adder is not justified because the credit rating spread for AWC and the proxy group does not consider the lower financial risk of Missouri-American's capital structure. Hence, there is simply a trade-off between a higher return on equity and a lower common equity ratio based capital structure.

As such, if Mr. Barnes' proposed capital structure is adopted, I do not take issue with his return on equity adder. If, however, Missouri-American's proposed capital structure is used to set rates, then Mr. Barnes' proposed common equity return adder is unjustified.

1 **Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

2 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 (1)	Value Line Projected Five Year Growth Rate (2)	Reuters Mean Consensus Projected Five Year Growth Rate (3)	Zack's Five Year Growth Rate (4)	Yahoo! Finance Five Year Growth Rate (5)	Average Projected Five Year Growth Rate (6)	Adjusted Dividend Yield (7)	Indicated Common Equity Cost Rate (8)
1	American States Water Co.	3.27%	8.00%	5.50%	N/A	5.50%	6.33%	3.37%	9.71%
2	American Water Works Co., Inc.	3.06%	8.50%	11.00%	8.70%	8.70%	9.23%	3.20%	12.43%
3	Aqua America, Inc.	2.78%	10.00%	7.20%	6.50%	6.00%	7.43%	2.88%	10.31%
4	Artesian Resources Corp.	3.93%	3.60%	4.50%	3.60%	4.53%	4.06%	4.01%	8.07%
5	California Water Service Group	3.34%	3.00%	6.30%	N/A	9.00%	6.10%	3.44%	9.54%
6	Connecticut Water Service, Inc.	3.70%	4.00%	5.50%	4.00%	3.00%	4.13%	3.78%	7.90%
7	Middlesex Water Company	4.00%	3.00%	-1.00%	3.00%	3.00%	3.00%	4.06%	7.06%
8	SJW Corporation	3.04%	9.00%	14.00%	N/A	14.00%	12.33%	3.23%	15.56%
9	York Water Company	3.09%	6.00%	6.00%	6.00%	6.00%	6.00%	3.18%	9.18%
10	Average						6.51%		9.97%
11	Median						6.10%		9.54%

Source:
Schedule PMA-8, Page 1 of 10.

Missouri-American Water Company

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

Line	Company	60-Day AVG Stock Price[1] (1)	Indicated Dividend[1] (2)	First Stage Growth[2] (3)	Second Stage Growth Year 6 (4)	Year 7 (5)	Year 8 (6)	Year 9 (7)	Year 10 (8)	Third Stage Growth[3] (9)	Multi-Stage Growth DCF (10)
1	American States Water	$34.29	$1.12	6.33%	6.09%	5.86%	5.62%	5.38%	5.14%	4.90%	8.65%
2	American Water Works Co.	$28.76	$0.88	9.23%	8.50%	7.78%	7.06%	6.34%	5.62%	4.90%	9.10%
3	Aqua America, Inc.	$22.32	$0.62	7.43%	7.00%	6.58%	6.16%	5.74%	5.32%	4.90%	8.32%
4	Artesian Resources	$19.23	$0.76	4.06%	4.20%	4.34%	4.48%	4.62%	4.76%	4.90%	8.81%
5	California Water Serv. Grp.	$18.43	$0.62	6.10%	5.90%	5.70%	5.50%	5.30%	5.10%	4.90%	8.68%
6	Connecticut Water Services	$25.21	$0.93	4.13%	4.25%	4.38%	4.51%	4.64%	4.77%	4.90%	8.59%
7	Middlesex Water Company	$18.28	$0.73	3.00%	3.32%	3.63%	3.95%	4.27%	4.58%	4.90%	8.62%
8	SJW Corporation	$22.78	$0.69	12.33%	11.09%	9.86%	8.62%	7.38%	6.14%	4.90%	9.90%
9	York Water Company	$16.98	$0.52	6.00%	5.82%	5.63%	5.45%	5.27%	5.08%	4.90%	8.37%
10	**Average**	**$22.92**	**$0.76**	**6.51%**	**6.24%**	**5.97%**	**5.71%**	**5.44%**	**5.17%**	**4.90%**	**8.78%**
11	**Median**										**8.65%**

Sources:
[1] Workpaper PMA-8.
[2] Schedule PMA-8, Page 1 of 10.
[3] *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]	Market Risk Premium[2]	Risk-Free Rate[1]	CAPM
1	American States Water Co.	0.75	6.70 %	4.78 %	9.81 %
2	American Water Works Co., Inc.	0.65	6.70	4.78	9.14
3	Aqua America, Inc.	0.65	6.70	4.78	9.14
4	Artesian Resources Corp.	0.60	6.70	4.78	8.80
5	California Water Service Group	0.70	6.70	4.78	9.47
6	Connecticut Water Service, Inc.	0.80	6.70	4.78	10.14
7	Middlesex Water Company	0.75	6.70	4.78	9.81
8	SJW Corporation	0.90	6.70	4.78	10.81
9	York Water Company	0.70	6.70	4.78	9.47
10	Average				9.62 %
11	Median				9.47 %

Sources:
[1]Schedule PMA-12, Page 1 of 2.
[2]Schedule PMA-12, Page 2 of 2.

Missouri-American Water Company

Multi-Stage Growth DCF Model
(Revision of Barnes' DCF Model)

Line	Company	60-Day AVG Stock Price[1] (1)	Indicated Dividend[1] (2)	First Stage Growth[2] (3)	Second Stage Growth Year 6 (4)	Year 7 (5)	Year 8 (6)	Year 9 (7)	Year 10 (8)	Third Stage Growth[3] (9)	Multi-Stage Growth DCF (10)
1	American States Water	$33.83	$1.18	5.70%	5.57%	5.44%	5.30%	5.17%	5.03%	4.90%	8.75%
2	Aqua America, Inc.	$21.35	$0.69	7.98%	7.46%	6.95%	6.44%	5.93%	5.41%	4.90%	9.01%
3	California Water Serv. Grp.	$18.15	$0.65	4.79%	4.81%	4.83%	4.85%	4.86%	4.88%	4.90%	8.63%
4	Connecticut Water Services	$26.09	$0.93	5.00%	4.98%	4.97%	4.95%	4.93%	4.92%	4.90%	8.66%
5	SJW Corporation	$22.87	$0.75	6.84%	6.51%	6.19%	5.87%	5.55%	5.22%	4.90%	8.78%
6	York Water Company	$17.07	$0.52	6.09%	5.89%	5.69%	5.49%	5.30%	5.10%	4.90%	8.34%
7	**Average**	**$23.23**	**$0.79**	**6.07%**	**5.87%**	**5.68%**	**5.48%**	**5.29%**	**5.09%**	**4.90%**	**8.69%**
8	**Median**										**8.70%**

Sources:
[1] Staff Report, Schedule 17.
[2] Staff Report, Schedule 15.
[3] *Blue Chip Economic Indicators, October 10, 2011 at 15.*