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Witness:	*Roberta A. McKiddy*
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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

REBUTTAL TESTIMONY

OF

ROBERTA A. McKIDDY

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2000-281 et al

Jefferson City, Missouri
May, 2000

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ROBERTA A. MCKIDDY

MISSOURI-AMERICAN WATER COMPANY

CASE NOS. WR-2000-281 AND SR-2000-282

Q. Please state your name.

A. My name is Roberta A. McKiddy.

Q. Are you the same Roberta A. McKiddy who filed direct testimony in this proceeding on behalf of the Staff of the Missouri Public Service Commission (Staff)?

A. Yes, I am.

Q. In your direct testimony, did you recommend a fair and reasonable rate of return for the Missouri jurisdictional water utility ratebase for Missouri-American Water Company (MAWC)?

A. Yes, I did.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to the direct testimony of Mr. Harold Walker, III. Mr. Walker sponsored rate of return testimony on behalf of MAWC. I will address the issues of appropriate capital structure, embedded costs of preferred stock, long-term debt, and return on common equity (ROE) to be applied to MAWC for ratemaking purposes in this proceeding.

Capital Structure and Embedded Cost of Long-Term Debt & Preferred Stock

Q. Has an agreement been reached concerning the appropriate embedded cost of long-term debt and embedded cost of preferred stock to be applied to MAWC for ratemaking purposes in this proceeding?

A. No. There has not been an agreement reached on the appropriate capital structure or the embedded cost of preferred stock or long-term debt. However, both MAWC and the Office of Public Counsel (OPC) have tentatively agreed to true-up the capital structure and embedded cost of preferred stock and long-term debt as of the true-up period ending date of April 30, 2000.

Mr. Harold Walker III's Return on Common Equity for MAWC

Q. Please summarize Mr. Walker's required ROE analysis for MAWC.

A. Mr. Walker did not perform a company-specific discounted case flow (DCF) model ROE analysis for MAWC, as I did. Instead, Mr. Walker performed his DCF analysis on a Value Line group of water utility companies which consisted of the following companies: (1) American Water Works Company (2) The Aquarion Company; (3) California Water Services; (4) E'Town Corporation; (5) Philadelphia Suburban Corporation; and (6) United Water Resources.

A summary of Mr. Walker's DCF) model ROE analysis for MAWC is as follows:

Dividend Yield	3.6%
Growth in Dividends	0.1%
Stock Appreciation	6.8%
DCF Cost Rate	10.5%

Although there is no problem with Mr. Walker's approach on an analytical basis, there is a problem with his approach from a fundamental standpoint. First, Mr. Walker fails to acknowledge in his comparable group analysis that American Water Works Company (AWWC), MAWC's parent, and United Water Resources both own and operate Missouri jurisdictional water utility companies. Mr. Walker also fails to recognize that the authorized rates of return for these companies are directly impacted by decisions set forth by this Commission. Traditionally, it has been Staff's belief that any Missouri jurisdictional companies should be eliminated from a comparable companies analysis in order to create a truly comparable return on equity for the water utility industry, minus any influence from this Commission. Second, Mr. Walker fails to perform a company-specific analysis for Missouri-American Water with which to compare the results of his comparable group analysis performed on the Value Line group of water utility companies.

As pointed out in my direct testimony at page 29, lines 11 through 21, MAWC and AWWC are in the same general line of business. Also, MAWC and AWWC (consolidated basis) both have comparable capital structures; therefore, I do not believe there is a need to adjust AWWC's cost of equity before applying it to MAWC. In addition, the Financial Analysis Department of the Commission Staff believes that, whenever possible, actual market data should be used to determine the cost of equity for a company. Investors in AWWC are investing in the consolidated company of AWWC, which includes MAWC, and there seems to be minimal risk differences to justify an adjustment up or down to the investors required ROE. Therefore, I believe it is reasonable to apply the required ROE of AWWC on a consolidated basis as a reasonable authorized ROE for MAWC. In its February 4, 2000 issue of <u>The Value Line Investment Survey: Ratings & Reports,</u> Value Line predicts that the water utility industry will earn 11.0 percent on common equity in 2000. This supports the high end of Staff's recommended range for return on common equity for MAWC using the DCF model.

Mr. Walker also performed a capital asset pricing model (CAPM) analysis. Again, there is no problem with Mr. Walker's approach on an analytical basis. However, there is a problem with his CAPM analysis from a fundamental standpoint. Mr. Walker used a risk-free rate that is similar to the one I used; 6.0 percent used by Mr. Walker versus a high/low risk-free rate range of 6.07 percent to 5.55 percent used in my analysis. Mr. Walker and I used an identical market risk premium of 7.5 percent. However, Mr. Walker also chose to use a projected market risk premium of 9.0 percent, whereas I did not, to provide a range of 10.8 percent to 11.8 percent. Finally, Mr. Walker adjusted this range by 0.5 percent to account for what he refers to in his direct testimony as an "understatement" of beta. On page 16, lines 22 through 23 and page 17, lines 1 through 2 and lines 6 through 15, of his direct testimony, Mr. Walker claims that,

> The size of a company affecting access to capital markets is also called liquidity risk. Investors require compensation for the lack of marketability and liquidity of their investments. If no compensation is provided, then investors, or at least sophisticated investors, shy away.
>
> ...Due to small size and less interest by financial institutions, fewer security analysts follow the comparable companies and none follow MAWC.
>
> The lack of trading activity may affect the cost of equity estimates for small companies such as MAWC and the comparable group. When stock prices do not change because of inactive trading activity, estimates of dividend yield for use in a dividend cash flow model and beta estimates for use in the capital asset pricing model are effected. In a stock market that is generally up, the beta estimates for the comparable group are understated due to thin trading and the associated lack of stock price change.

On page 37, lines 14 and 15, of his direct testimony, Mr. Walker goes on to state that, "This adjustment is necessary because beta (systematic risk) does not capture or reflect the Water Group's small size." Based on this analogy, Mr. Walker claims the results of his CAPM analysis should be adjusted upward by 50 basis points in order to acknowledge the small size of Missouri-American. Mr. Walker does acknowledge that MAWC does not trade publicly. However, Mr. Walker fails to acknowledge that since MAWC does not trade stock publicly, it would not be possible for financial analysts to track MAWC on an actively traded basis. Instead, stock is publicly traded by its parent company, American Water Works Company under the ticker symbol AWK. This is why Staff chose to base the return on equity for MAWC on the available information for its parent company, AWWC.

As stated earlier in this testimony, investors in AWWC are investing in the consolidated company of AWWC, which includes MAWC, and there seems to be minimal risk differences to justify an adjustment up or down to the investors required ROE. Mr. Walker also fails to provide evidence showing that the adjustment used in his CAPM analysis is standard practice for financial analysts who perform CAPM analyses on smaller companies. Beta is calculated and published by several sources that include Merrill Lynch and Value Line. Value Line Investment Survey defines beta as follows:

> Beta – a relative measure of the historical sensitivity of the stock's price to overall fluctuations in the New York Stock Exchange Composite Index. A Beta of 1.50 indicates a stock tends to rise (or fall) 50% more than the New York Stock Exchange Composite Index. The "Beta coefficient" is derived from a regression analysis of the relationship between weekly percentage changes in the price of a stock and weekly percentage changes in the NYSE Index over a period of five years. In the case of shorter price histories, a smaller time period is used, but two years is the minimum. The Betas are adjusted for their long-term tendency to converge toward 1.00. Additionally, Value Line shows betas computed based on monthly total returns for the trailing three-year, five-year, and 10-year periods.

To explain this more simply, I will provide the following explanation. Total risk associated with a company or asset is composed of two components: systematic and unsystematic risk. Systematic risk is a risk that influences a large number of companies or assets. It is also known as "market risk" which is defined as any uncertainty about general economic conditions. Examples of market risk are changes in GDP, interest rates, or inflation. In contrast, unsystematic risk is a risk that affects at most a small number of companies or assets. It is also referred to as "unique" or "company-specific" risk. Mr. Walker's argument related to the small size of MAWC would be considered an unsystematic risk.

Beta is a measure of systematic risk for a particular company or asset relative to an average company or asset. By definition, an average company or asset has a beta of 1.0 relative to a measure of market, such as the S&P 500. A company or asset with a beta of .50 reflects systematic risk that is half as much as an average company or asset. Likewise, a company or asset with a beta of 2.0 has twice as much systematic risk. Therefore, Mr. Walker's adjustment to the result of his CAPM analysis is inappropriate since beta is not a measure of unsystematic risk.

Q. What is the underlying theory behind the DCF and CAPM models?

A. The underlying theory behind the DCF and CAPM models is the Efficient Market Hypothesis. This hypothesis holds that securities are typically in equilibrium meaning they are fairly priced in the sense that the price reflects all publicly available information on each security. Therefore, one could conclude that the public is fully aware of the small size of MAWC. However, we must remember that investors in AWWC are investing in the consolidated company of AWWC, which includes MAWC and not in MAWC on a stand-alone basis.

Q. Are there any limitations in using the DCF model for estimating cost of common equity?

A. Yes. The assumptions used by the DCF model do create some limitations. Several studies have shown that these assumptions do not hold true in a technical sense. However, an important factor to consider in evaluating the reliability of a model is not the strict real-world existence of its assumptions, but rather whether the relaxation of these assumptions affects the overall reliability of the model. Staff believes that the Efficient Market Hypothesis, as defined above, validates the assumptions used by the DCF model. Staff believes the DCF model is a very reliable tool in estimating the cost of common equity and one that is widely recognized and most commonly used by regulatory commissions including the Missouri Public Service Commission. Therefore, Staff does not agree with Mr. Walker's contention that his resultant DCF cost rate should be given less weight than the cost rates derived using other models in his calculation of MAWC's recommended cost of equity.

Q. Are there any limitations in using the CAPM model for estimating cost of common equity?

A. Yes. Again, the assumptions of the CAPM, like those of other models, are not necessarily representative of actual experience. However, as noted previously in Staff's discussion of the DCF model, an analyst should evaluate whether the relaxation of the technical assumptions affects the overall reliability of the model. As with the DCF model, Staff believes that the Efficient Market Hypothesis validates the assumptions used by the CAPM.

As stated in my direct testimony on page 28, lines 22 through 23 and page 29, lines 1 through 4, recent debate has somewhat diminished the reliability of CAPM as a cost of equity evaluation tool. As a result, I do not believe that CAPM analysis should be given equal weight to DCF cost of equity. However, I believe, as does the financial community at large, that CAPM analysis is still a valuable tool in testing the reasonableness of the results derived from the use of the DCF model. Therefore, I believe Mr. Walker's decision to give greater weight to his CAPM analysis in evaluating MAWC's cost of equity is inappropriate.

Q. Is it the responsibility of the Commission to ensure that MAWC maintains a specific bond rating?

A. No. On page 46, lines 19 through 24 of Mr. Walker's direct testimony, he states the following:

> …if my recommendation is actually earned, it will give MAWC financial benchmark ratios that are much closer to those published by S&P for an A Bond rating while allowing an improvement over MAWC's current pro forma present rates ratios. I believe it is necessary that MAWC be allowed to present a financial profile that will enable it to attract the large amount of capital necessary to provide safe and reliable water service, at reasonable terms.

It may be helpful to define how Standard & Poor's (S&P) assesses a credit rating Outlook. In determining a rating Outlook, S&P considers any changes in the economic and/or fundamental business conditions. A rating is not necessarily a precursor of a rating change or future CreditWatch action. "Positive" indicates that a rating may be raised. "Negative" means a rating may be lowered. It may also be helpful to define the true role of a credit rating as defined by S&P:

A Standard & Poor's issue credit rating is a current opinion of the creditworthiness of an obligor with respect to a specific financial obligation, a specific class of financial obligations or a specific financial program (including ratings on medium-term note programs and commercial paper programs.) It takes into consideration the creditworthiness of guarantors, insurers, or other forms of credit enhancement on the obligation and takes into account the currency in which the obligation is denominated.

A credit rating is not a recommendation to purchase, sell or hold a particular security. The rating performs the isolated function of credit risk evaluation, which is only one element of the entire investment decision-making process. A rating cannot constitute a recommendation inasmuch as it does not take into consideration other factors, such as market price and risk preference of the investor.

Ratings do not create a fiduciary relationship between S&P and users of the ratings since there is no legal basis for the existence of such a relationship.

It is commonplace for companies to structure financing transactions to reflect S&P's credit criteria so they qualify for higher ratings...Many companies go one step further and incorporate specific rating objectives as corporate goals...S&P does not encourage companies to manage themselves with an eye toward a specific rating. The more appropriate approach is to operate for the good of the business as management sees it, and to let the rating follow.

Issue credit ratings are based, in varying degrees, on the following considerations:

- Likelihood of payment --capacity and willingness of the obligator to meet its financial commitment on an obligation in accordance with the terms of the obligations;
- Nature of and provisions of the obligation;
- Protection afforded by and relative position of, the obligation in the event of bankruptcy, reorganization, or other arrangement under the laws of bankruptcy and other laws affecting creditors' rights.

Q. Please summarize the conclusions of your rebuttal testimony.

A. I conclude the following:

1. The tentative agreement reached between MAWC, OPC and Staff concerning the appropriate capital structure, embedded cost of long-term debt and embedded cost of preferred stock to be applied to MAWC for ratemaking purposes in this proceeding is appropriate and reasonable; and

2. Staff's DCF methodology should be adopted as the appropriate method used in calculating MAWC's cost of common equity and that the Commission approve a return on common equity based on a range of 9.50 percent to 10.75 percent as recommended by Staff in its direct testimony.

Q. Does this conclude your prepared direct testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water Company's Tariff Sheets Designed to Implement General Rate Increases for Water and Sewer Service provided to Customers in the Missouri Service Area of the Company.	))))))	Case No. WR-2000-281 et al.

AFFIDAVIT OF ROBERTA A. McKIDDY

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Roberta A. McKiddy, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Rebuttal Testimony in question and answer form, consisting of 10 pages to be presented in the above case; that the answers in the foregoing Rebuttal Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of her knowledge and belief.

Roberta A. McKiddy

Roberta A. McKiddy

Subscribed and sworn to before me this 3rd day of May 2000.

Toni Willmeno

TONI M. WILLMENO
NOTARY SEAL
NOTARY PUBLIC
STATE OF MISSOURI