Exhibit No. 133

Staff – Exhibit 133
Randall T. Jennings
Surrebuttal Testimony
File No. WR-2022-0303

Exhibit No.:	
Issue(s):	*Return on Equity,* *Capital Structure*
Witness:	*Randall T. Jennings*
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MISSOURI PUBLIC SERVICE COMMISSION

FINANCIAL AND BUSINESS ANALYSIS DIVISION

FINANCIAL ANALYSIS DEPARTMENT

SURREBUTTAL TESTIMONY

OF

RANDALL T. JENNINGS

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2022-0303

Jefferson City, Missouri
February 2023

** Denotes Confidential Information **
*** Denotes Highly Confidential Information ***

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SURREBUTTAL TESTIMONY OF

RANDALL T. JENNNINGS

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2022-0303

Q. Please state your name and business address.

A. My name is Randall T. Jennings and my business address is P.O. Box 360, Jefferson City, Missouri 65102.

Q. Who is your employer and what is your present position?

A. I am employed by the Missouri Public Service Commission ("Commission") as a member of Commission Staff ("Staff") and my title is Senior Utility Regulatory Auditor for the Financial Analysis Department, in the Financial and Business Analysis Division.

Q. Are you the same Randall T. Jennings who filed direct testimony on November 22, 2022, and rebuttal testimony on January 18, 2023, in this case?

A. Yes, I am.

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of Missouri-American Water Company ("MAWC") witness Ann E. Bulkley. I will also respond to the rebuttal testimony of the Office of the Public Counsel ("OPC") witness David Murray.

Q. What issues will you address regarding Ms. Bulkley's rebuttal testimony?

A. Ms. Bulkley addresses MAWC's response to the capital structure, capital market conditions, and the return on equity ("ROE") recommendation.

Q. What issue will you address regarding David Murray's rebuttal testimony?

A. Mr. Murray addresses OPC's response to my ROE recommendation.

I. EXECUTIVE SUMMARY

Q. Please provide a summary overview of your surrebuttal testimony

A. In my direct testimony, Staff found an authorized ROE of 9.73%, within a range of 9.48% to 9.98%, to be reasonable.[1] Staff also found the consolidated capital structure of American Water Works Company, Inc. ("AWWC") to be reasonable and appropriate for calculating MAWC's rate of return ("ROR") in this proceeding.[2] Based on AWWC's financial statements as of June 30, 2022, Staff recommended AWWC's consolidated capital structure composed of 40.71% common equity, 0.02% preferred stock, and 59.28% long-term debt.[3]

In her rebuttal testimony, Ms. Bulkley updated her analysis reflecting data through November 30, 2022, but her recommended authorized ROE remains unfair and unreasonably high because of her inputs to her cost of equity ("COE") estimation models. Mr. Murray continues to recommend an authorized ROE that is too low when considering the overall capital market conditions.

For reasons discussed throughout Staff's surrebuttal testimony, none of the arguments raised by MAWC or OPC witnesses in their rebuttal testimonies have caused Staff to revise its recommendations. Compared to the first two quarters of 2022, more recent volatility in the capital market has been higher but appears to be slowing as evidenced by a decrease in the inflation rate and optimism that interest rates will stabilize.

[1] Page 4, Lines 16-17 and Page 5, Line 1, Randall T. Jennings Direct Testimony, Case No. WR-2022-0303.
[2] Page 5, Lines 8-10, Randall T. Jennings Direct Testimony, Case No. WR-2022-0303.
[3] Page 27, Line 14 through Page 28, Line 1, Randall T. Jennings Direct Testimony, Case No. WR-2022-0303.

II. RESPONSE TO MAWC WITNESS MS. ANN E. BULKLEY

A. Capital Structure

Q. Do you agree with Ms. Bulkley's statement that in the current proceeding, the Commission is establishing the cost of capital for MAWC's operations in Missouri?[4]

A. Yes, I do. Ms. Bulkley conveniently omits the important fact from her statement that due to MAWC obtaining over 97% of its debt financing through another subsidiary of AWWC, American Water Capital Corporation ("AWCC"), MAWC's cost of capital is in fact determined by AWCC, which obtains its capital based on AWWC's credit rating ** [redacted]

> [redacted] **[5]

As stated in my direct testimony, MAWC is not viewed nor managed as an independent company with capital costs based on its stand-alone business risk and financial risk.[6] MAWC is not publicly rated by either Moody's or Standard & Poor's ("S&P").[7] While AWCC can provide larger debt issuances more widely marketed and more cost efficient than MAWC can on its own, this also means that debt obtained through AWCC is not based on MAWC's capital structure but is rather based upon AWWC's consolidated capital structure and risk profile.

[4] Page 3, Lines 11-12, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.
[5] Staff Data Request No. 0040.3.
[6] Page 23, Lines 13-14, Randall T. Jennings Direct Testimony, Case No. WR-2022-0303.
[7] S&P Capital IQ Pro.

** [redacted] **[8] when debt investors are determining the required return on debt, they evaluate the amount of leverage in AWWC's capital structure, not MAWC or AWCC. Both MAWC and AWCC are one hundred percent owned subsidiaries of AWWC.

Q. Do you agree with Ms. Bulkley's statement that you stated in your direct testimony the capital structures of MAWC and AWWC are generally unchanged over the past three rate proceedings?[9]

A. No, I do not. I stated in direct testimony that in the past three MAWC general rate cases (Case Nos. WR-2015-0301, WR-2017-0285, and WR-2020-0344), Staff has recommended the Commission use AWWC's capital structure for MAWC's ratemaking capital structure. I further stated that there has been no discernible change to either AWWC or MAWC's capital structures since the last rate case, WR-2020-0344, to cause Staff to change that recommendation.[10]

Q. Do you agree with Ms. Bulkley that MAWC's standalone capital structure should be used as the ratemaking capital structure in this proceeding?

A. No, I do not. MAWC's standalone capital structure should not be used as the ratemaking capital structure in this proceeding because the regulatory standards indicate that AWWC's capital structure is appropriate to use in MAWC's ratemaking capital structure.

Q. Why is AWWC's capital structure appropriate for MAWC's ratemaking capital structure?

[8] Staff Data Request Nos. 0040.2 and 0040.3.
[9] Page 19, Lines 6-9, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.
[10] Page 23, Lines 3-12, Randall T. Jennings Direct Testimony, Case No. WR-2022-0303.

A. MAWC is not a financially independent subsidiary in terms of ratemaking purposes. The Society of Utility and Regulatory Financial Analysts ("SURFA") lists four guidelines for determining when to use a parent company's capital structure in its guidebook, The Cost of Capital – A Practitioner's Guide ("CRRA Guide").[11] According to the guidebook, first, analysts must consider whether the subsidiary utility obtains all of its capital from its parent, or issues its own debt and preferred stock. Second, analysts need to look at whether the parent guarantees any of the securities issued by the subsidiary. Third, analysts examine whether the subsidiary's capital structure is independent of its parent (i.e., existence of double leverage, absence of proper relationship between risk and leverage of utility and non-utility subsidiaries). Lastly, analysts consider whether the parent (or consolidated enterprise) is diversified into non-utility operations.

Q. Does MAWC obtain all of its capital from AWWC, or issue its own debt and preferred stock?

A. As I previously discussed in my direct testimony, more than 97% of MAWC's outstanding debt is from AWWC or its subsidiary.[12] This fact indicates AWWC's capital structure should be used.

Q. Does AWWC guarantee any of the securities issued by MAWC or its other subsidiaries?

A. As previously discussed above, ** [redacted]

[11] "The Cost of Capital – A Practitioner's Guide prepared for SURFA" by David C. Parcell.

[12] Staff Data Request Nos. 0039, 0052, and 0053.1.

[redacted]. **[13] This fact indicates AWWC's capital structure should be used.

Q. Is MAWC's capital structure independent of AWWC (i.e., existence of double leverage, absence of proper relationship between risk and leverage of utility and non-utility subsidiaries)?

A. As listed in Highly Confidential DM-R-2, *** [redacted]

[redacted]

[redacted] *** [14]

*** [redacted] *** and indicates AWWC's capital structure should be used.

Q. Is AWWC diversified into non-utility operations?

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[13] Staff Data Request Nos. 0040.2 and 0040.3.

[14] Highly Confidential DM-R-2, David Murray Rebuttal Testimony, Case No. WR-2022-0303.

A. From 2019 to 2021 AWWC, on average, had non-regulatory operations making up 10.18% of its total assets and contributing 14.00% of its total operating revenue.[15] At the end of the first quarter of 2022, AWWC was receiving less of its operating revenue (7.60%) from non-regulated operations despite AWWC's non-regulated assets increasing to 10.59% of its total assets.

To help put this in perspective, in other general rate cases (Case Nos. ER-2022-0337, Union Electric Company, d/b/a Ameren Missouri and ER-2022-0129, Evergy Metro Inc., d/b/a Evergy Missouri Metro) Staff recommended using the subsidiary's independent capital structure when the parent company's percentage of non-regulated assets were 1.19% and 0.95% respectively. The higher percentage of non-regulated operations as well as a higher debt ratio for AWWC could increase the financial risk to MAWC. To prevent an unfair burden on ratepayers, AWWC's percentage of non-regulated operations and higher debt ratio should be considered for MAWC's ratemaking capital structure.[16] As stated in my previous answer, *** [redacted] ***[17]

[15] Staff Data Request No. 0063.

[16] The debt capacity of a parent company can be increased when it owns a low risk regulatory subsidiary. If the parent company invests in its non-regulated operations using its higher debt capacity, the regulatory subsidiary's credit rating is lower, because the consolidated business risk of the parent company increases. Due to a lower credit rating, the subsidiary could have a higher cost of debt which is detrimental to the subsidiary's ratepayers.

[17] Highly Confidential DM-R-2, David Murray Rebuttal Testimony, Case No. WR-2022-0303.

Q. Do you agree with Ms. Bulkley's statement that in this general rate case, the appropriate ROE for MAWC is based on a COE analysis of a proxy group of publicly traded companies?[18]

A. Yes, I do. Unfortunately, Ms. Bulkley violates the matching principle by insisting upon the use of MAWC's independent capital structure. The companies listed in Ms. Bulkley's proxy group are publicly traded and consolidated parent companies, not individual subsidiary corporations, such as MAWC. Staff agrees with the principle that the COEs should be matched to the consolidated capital structures of the proxy companies. This principle also supports Staff's position of setting MAWC's authorized capital structure to be consistent with that of its publicly-traded parent company, AWWC, and prevents violation of the comparable return standards of *Hope* and *Bluefield*.[19]

Q. Do you agree with Ms. Bulkley's statement that if AWWC's capital structure is used for MAWC's ratemaking purposes, MAWC's funds from operations ("FFO")-to-debt ratio would match or be similar to AWWC's current credit metrics?[20]

A. No, I do not. Using AWWC's capital structure for ratemaking purposes would have no direct effect on MAWC's FFO-to-debt ratio because the setting of the capital structure would be used solely for the purposes of this proceeding and would have no immediate effect on that MAWC credit metric.

Q. Do you agree with Ms. Bulkley's statement that using AWWC's capital structure would negatively affect MAWC's ability to attract capital within AWWC?[21]

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[18] Page 26, Lines 10-11, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.
[19] Page 6, Lines 16-19, and Page 7, Lines 1-5, Randall T. Jennings Direct Testimony, Case No. WR-2022-0303.
[20] Page 4, Lines 13-18, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.
[21] Ibid.

A. No, I do not. As discussed in my rebuttal testimony, MAWC does not appear to "compete" for capital within AWWC. "MAWC does not track transfers of discretionary capital from AWWC to MAWC, or in the aggregate."[22]

Q. Do you agree with Ms. Bulkley's statement that using AWWC's capital structure would weaken MAWC's financial strength, thus limiting MAWC's options for access to capital financing outside of AWWC?[23]

A. No, I do not. In order for the use of AWWC's capital structure to limit MAWC's options for access to capital financing outside of AWWC, MAWC would have to be actively obtaining capital financing outside AWWC. As I previously discussed in my direct and rebuttal testimonies, more than 97% of MAWC's outstanding debt is from AWWC or its subsidiary.[24] As a result, Ms. Bulkley's statement carries no weight.

B. Capital Market Conditions

Q. Do you agree with Ms. Bulkley's statement that the Value Line Investment Survey ("Value Line") reports that would have been available for the water utilities as of the end of Q2/2022 would have been from April 8, 2022, and as a result, Staff's listed growth rates in your direct testimony are incorrect?

A. No, I do not. I used Value Line reports dated July of 2022 that included market activity, evaluations, and pricing that encompassed Q2 of 2022. If I had used reports from April of 2022, the reference time period would have been Q1 of 2022. Ms. Bulkley's assertion that I

[22] Staff Data Request No. 0270.
[23] Page 4, Lines 13-18, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.
[24] Staff Data Request Nos. 0039, 0052 and 0053.1.

should have used the April reports is an attempt to upwardly bias the results of my analyses when the data supports her position.

C. Cost of Equity

Q. Do you agree with Ms. Bulkley's statement that you do not directly rely on the results of your COE models for the purpose of your ROE recommendations, and that this is not surprising considering that your results are well below any recently authorized ROE for a water utility and are not reasonable estimates of MAWC's COE?[25]

A. No, I do not. I directly relied upon my COE model results when I recommended an authorized ROE of 9.73%, within the range of 9.48% to 9.98%. I used the COE estimates to assess a just and reasonable authorized ROE using my comparative COE analysis.

Q. Why did Ms. Bulkley insist that you do not directly rely on the results of your COE estimation when you recommended an authorized ROE?

A. According to Ms. Bulkley, I do not directly rely on the results of my COE analysis, considering that the results are well below any recently authorized ROE for a water utility and are not reasonable estimates of the cost of equity for MAWC. This statement is true because the COE is not the same as an ROE and the COE estimates will be much lower than recently authorized ROEs.[26]

Ms. Bulkley either misunderstood or intentionally ignored my explanation in my direct testimony. My methodology is based on the following financial basics. First, a market COE and an authorized ROE are different concepts. A market COE is a market-determined,

[25] Page 4, Lines 20-28, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.
[26] Steve Huntoon, Nice Work If You Can Get It, Public Utility Fortnightly, August 2016 (http://energy-counsel.com/docs/Nice-Work-If-You-Can-Get-It-Fortnightly-August-2016.pdf).

minimum return investors are willing to accept for their investment in a company, compared to returns on other available investments. Using market data, COE can be directly estimated. Second, an authorized ROE cannot be directly calculated using a formula or some specific model. An authorized ROE is a Commission-determined return granted to monopoly industries, allowing them the opportunity to earn just and reasonable compensation for their investments in the rate base. Stock market data cannot directly determine an authorized ROE. Third, a COE can be estimated using financial models and proper input values for a given time period. Fourth, the change in investors' expected market returns can be estimated by a comparative COE analysis. Fifth, I can estimate a just and reasonable authorized ROE anticipated by the financial market by using a previous Commission-determined ROE and changes in estimated COEs over different periods of time that are measured for a comparable group of companies having similar risks.[27]

In other words, the intent of my current COE estimates is not to directly or mechanically determine my recommended authorized ROE of 9.73%.

I used the results of my 2021 Q1 COE estimates and compared those results to the 2022 Q2 COE estimates to discern a change in COE. This amount of change in COE was then added to the ROE established in the Commission's most recent, fully-litigated rate case, Spire Missouri's natural gas rate case, Case No. GR-2021-0108 ("2021 Spire Case"). Because this general rate case involves a water utility and the 2021 Spire Case involved a natural gas utility, in an effort to have comparable calculations, I used the national averages of authorized ROE decisions for each utility type in 2021 to determine the difference between natural gas and water utilities' ROE decisions. This difference was then subtracted from the current rate case's

[27] Page 8, Lines 1-10, Randall T. Jennings Direct Testimony, Case No. WR-2022-0303.

calculation because in 2021, natural gas utilities were being granted higher authorized ROEs than water utilities.[28]

Q. Why is Ms. Bulkley's assumption that the market-based COE estimate is equal to the authorized ROE wrong?

A. Ms. Bulkley's assumption that a market-based COE and a regulatory authorized ROE are equal is not supported by theoretical or recent empirical evidence. COE is defined as a stock market value-based concept.[29] In contrast, an authorized ROE is an accounting book value-based concept.[30] Therefore, a simple calculation of COE does not produce a just and reasonable authorized ROE.

Q. Why is the market-based concept of COE not the same as the book-based concept of an authorized ROE?

A. COE is the return required by investors and an authorized ROE is the return set by a regulatory utility commission. Although some experts contend that COE and ROE are synonymous, Staff's position is that they are not. Observed utility COEs have been, generally, significantly lower than ROEs in recent years.[31] Because observed COEs have been volatile lately, instead of directly recommending the estimated COEs, Staff recommends the authorized ROE be based on the change in COE from one period to the next period.

The easiest way to understand the difference between COE and authorized ROE is to consider how the two return measures are used in practice. When investors buy common equity stock of a company, they want to know the expected rate of return and compare it to their

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[28] Schedule RTJ-d17, Randall T. Jennings Direct Testimony, Case No. WR-2022-0303.

[29] Page 378, CFA Program Curriculum, 2020, Level I, Volume 4.

[30] Page 389, CFA Program Curriculum, 2020, Level I, Volume 4.

[31] Steve Huntoon, Nice Work If You Can Get It, Public Utility Fortnightly, August 2016 (http://energy-counsel.com/docs/Nice-Work-If-You-Can-Get-It-Fortnightly-August-2016.pdf).

required rate of return from their investment. The COE can be thought of as the minimum expected rate of return that a company must offer its investors to induce the purchase of its shares in the primary market and to maintain its share price in the secondary market.[32] The important point here is that investors invest their money based on the market value of the common equity stock and not just on the book value of the equity of a company. To calculate the expected minimum rate of return of common equity, investors estimate COE using the stock valuation of models such as the Discounted Cash Flow ("DCF") or the Capital Asset Pricing Model ("CAPM").[33] Investors' expected return from their common stock can be easily calculated by multiplying the COE by the market value of a common stock.

In contrast, an authorized ROE has a very different financial context. The purpose of an authorized ROE is to calculate just and reasonable rates for utility companies. In utility rate cases, rates are based upon the revenue requirement determined by the Commission. The revenue requirement is calculated by multiplying its rate base by the allowed ROR. The allowed ROR is the weighted average cost of capital, which includes the authorized ROE and cost of debt. The rate base calculation is based on the book value of the utility's regulatory assets. The book value of equity is calculated by subtracting a company's total liabilities from its total assets. Clearly, the two concepts, COE and ROE, are different; therefore, there is no reason market COE estimates and recommended authorized ROEs should be the same.

Q. How do investors consider the Commission's authorized ROE differently from the market value COE?

[32] Page 378, CFA Program Curriculum, 2020, Level I, Volume 4.
[33] Page 379, CFA Program Curriculum, 2020, Level I, Volume 4.

A. The book value of common equity is not as volatile as stock prices. Since COE is associated with the market value of common stock, which can have a volatile value, if the COE is directly used to set an authorized ROE value and to calculate the revenue requirement, an authorized ROE would be as volatile as the stock market. With an authorized ROE as volatile as the stock market, the overall revenue requirement would be just as volatile. Investors of utility common stock expect and require a reliable revenue stream based on just and reasonable utility rates. Investors know that utility rates higher or lower than just and reasonable amounts are unsustainable and are eventually harmful to both ratepayers and investors. Therefore, for ratemaking purposes, a reliable and stable earning multiplier associated with the rate base, based on utility book value, needs to be produced. To properly meet the expectations and requirements of investors when they choose to invest in or lend their money to a utility company, rather than in some other investment opportunity, just and reasonable rates are required.

Q. Does this mean that COE estimation procedures are useless in the ratemaking process?

A. No, it does not. COE estimates provide valuable equity financial market information including investors' expected minimum rates of return based on the market value of stocks. Specifically, the comparison of COE estimates for two different rate cases provides important information to calculate and recommend a just and reasonable authorized ROE. In many rate cases, Staff found that the changes in the COE over time, for example between rate case periods, provide essential information on whether to increase or decrease authorized ROE recommendations considering financial market changes. However, simply equating COE estimates with ROE recommendations is not appropriate.

Q. Why does a simple calculation of COE estimates not produce a just and reasonable authorized ROE?

A. In its Amended Report and Order in the Spire Missouri rate cases, Case Nos. GR-2017-0215 and GR-2017-0216, the Commission stated:

> To determine a return on equity, the Commission must consider the expectations and requirements of investors when they choose to invest their money in Spire Missouri rather than in some other investment opportunity. As a result, the Commission cannot simply find a rate of return on equity that is unassailably scientifically, mathematically, or legally correct. Such a "correct" rate does not exist. Instead, the Commission must use its judgment to establish a rate of return on equity attractive enough to investors to allow the utility to fairly compete for the investors' dollar in the capital market without permitting an excessive rate of return on equity that would drive up rates for Spire's ratepayers.[34]

As the Commission explained above, setting authorized ROEs is not a purely mathematical exercise where the results of COE estimation models are simply accepted from the results of a mathematical formula. Setting fair and reasonable ROEs involves judgment, which means that in some cases the results of COE estimates are adjusted to account for what is considered just and fair. As I explained earlier, the COE and the authorized ROE are developed in different financial contexts. If COE estimates determined by market-value-based methods, such as the DCF and the CAPM, are simply quoted for the authorized ROE, the result would be neither just nor reasonable to investors or ratepayers.

More importantly, finding a just and reasonable authorized ROE in utility rate regulation is a long-term iterative procedure. After a utility rate case, a set of new utility rates go into effect based on an authorized ROE determined by the Commission. Under the new rates, the

[34] Page 28, Amended Report and Order, Case No. GR-2017-0215.

utility company will soon have its performance results. If the new rates are overpriced, ratepayers will overpay and the company and its stock price will generally outperform. If the new rates are underpriced, the company will have a lower net income than the market expected. Because of the disappointing earnings report, investors would not be attracted to the company's stock and its stock price will underperform the total stock market. Therefore, the company may file its next rate case sooner or later than originally expected based upon the performance results of the current set of rates.

Q. Do you agree with Ms. Bulkley's statement that you "inexplicably truncate[d] his comparative cost of equity analysis at June 30, 2022?"[35]

A. No, I do not. MAWC filed its application to implement a general rate increase on July 1, 2022. Because the application was made at the end of the second quarter of 2022, this was the data used for calculating MAWC's COE. I am hesitant to include data from the third and fourth quarters of 2022, a time during which the Federal Open Market Committee ("FOMC") increased its target range for the federal funds rate at each meeting for a total of 275 basis points. The CAPM COE estimate could be upwardly biased because of the rapid interest rate increases by the Federal Reserve due to uncommon economic conditions and the Federal Reserve's efforts to bring inflation under control. Because of these rises in interest rates, there may be corresponding increases in the risk-free rate, a key component in the CAPM analysis. Also, Staff does not typically adjust ROE recommendations with data outside of the test year, in this case the year ending June 30, 2022.

[35] Page 5, Lines 3-4, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.

Q. Do you agree with Ms. Bulkley's statement that you placed no weight on the results of your analysis and it would be reasonable and appropriate for the Commission to do the same?[36]

A. No, I do not. As illustrated in my direct testimony Schedule RTJ-d15 (Return on Equity), the average of my DCF and CAPM Q2 2022 estimate analyses was compared to the average of my DCF and CAPM Q1 2021 estimate to determine the amount of change in COE from one period to the next. This average of analyses indicates that my result places equal weight on each analysis; DCF and CAPM.

1. Discounted Cash Flows

Q. Do you agree with Ms. Bulkley's statement that the inclusion of MAWC's parent company, AWWC, would result in "circularity" since the market valuation of that entity could be affected by the outcome of this proceeding?[37]

A. No, I do not. Common sense dictates that because the outcome of this proceeding is yet to be determined, the possible outcomes cannot affect historical data documented by analysts and markets used by witnesses in this proceeding. Ms. Bulkley has not conducted a specific study of this issue, does not have supporting documentation or peer-reviewed papers supporting this statement, and has based this statement only upon her own experience.[38]

[36] Page 5, Lines 14-16, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.
[37] Page 50, Lines 6-9, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.
[38] Staff Data Request No. 0309.

Q. Do you agree with Ms. Bulkley's statement that the proxy group relied upon by OPC witness David Murray and yourself is small and that the inclusion of both natural gas utilities and Eversource Energy could improve the proxy group?[39]

A. No, I do not. First, as discussed in Staff's rebuttal testimony, introducing non-water utilities biased Ms. Bulkley's results.[40] Second, Ms. Bulkley states that Eversource Energy is an electric and natural gas distribution utility that also owns substantial water utility operations. Data received from MAWC indicates that in 2021, only 3.2% of Eversource Energy's operating income came from water utilities.[41] MAWC has clarified the phrase to state that "…Eversource Energy, which is an electric and a natural gas distribution utility that also owns water utility operations."[42] I am unsure how Ms. Bulkley previously considered 3.2% "substantial."

Q. Do you agree with Ms. Bulkley's revised DCF results listed in her summary titled "Figure 2: Updated Cost of Equity Model Results – Water Proxy Group" using only water utility companies?[43]

A. No, I do not. Ms. Bulkley continues to cherry-pick her results from her rebuttal Schedule AEB-R-3 for her testimony. Schedule AEB-R-3 includes DCF COE results from the inclusion of all of the water utility proxy companies listed, including Middlesex Water Company ("Middlesex"). Ms. Bulkley however, chose to ignore these results in her testimony due to the inclusion of Middlesex directly impacting her results and resulting in a lower COE.

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[39] Page 50, Lines 9-12, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.
[40] Table 2, Randall T. Jennings Direct Testimony, Case No. WR-2022-0303.
[41] Staff Data Request No. 0272.
[42] Staff Data Request No. 0313.
[43] Page 8, Line 4, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.

Q. How much impact does the inclusion of Middlesex Water Company have on Ms. Bulkley's results?

A. Below is a chart of Ms. Bulkley's revised results omitting Middlesex, including Middlesex, and the basis point change:

Table 1: Bulkley Updated Cost of Equity Model Results – Water Proxy Group[44]

		Growth Rates								
		Minimum Growth	Minimum w/ Middlesex	Change (Basis Points)	Average Growth	Average w/ Middlesex	Change (Basis Points)	Maximum Growth	Maximum w/ Middlesex	Change (Basis Points)
Constant Growth DCF Mean	30-Day Avg	8.77%	7.84%	93	10.48%	9.39%	109	12.41%	11.12%	129
	90-Day Avg	8.82%	7.86%	96	10.53%	9.41%	112	12.45%	11.13%	132
	180-Day Avg	8.87%	7.90%	97	10.58%	9.45%	113	12.51%	11.17%	134
	Average	8.82%	7.87%	95	10.53%	9.42%	111	12.46%	11.14%	132

Ms. Bulkley's omission of Middlesex biases her DCF COE results upward by a minimum of almost 100 basis points or more.

Q. Does Ms. Bulkley include Middlesex in her CAPM and ECAPM results listed in her Figure 2, and if so, why?

A. Ms. Bulkley seems to include Middlesex in her CAPM and ECAPM results, because it appears the inclusion of Middlesex does not have a negative effect on Ms. Bulkley's recommended ROE, despite the fact that CAPM and ECAPM analyses provide COE results, not ROE.

Q. Do you agree with Ms. Bulkley's statement that the results of the water only proxy groups support her recommended ROE of 10.50 percent for MAWC in this proceeding?

[44] Schedule AEB-R-3, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.

A. No, I do not. The inclusion of Middlesex reduces all of Ms. Bulkley's results from her mean DCF analyses by approximately 100 basis points and provides a Constant Growth DCF Mean average growth rate average COE of 9.42 percent.

Q. Do you agree with Ms. Bulkley's statement that you included unrealistically low growth rate projections in the DCF analysis?

A. No, I do not. As I discussed in my rebuttal testimony, Ms. Bulkley used only short-term projected earnings growth rates that she claims will continue in perpetuity.[45] Analysts are of the consensus that long-term growth rates for utilities will eventually converge to the level of long-term gross domestic product ("GDP").[46]

2. Capital Asset Pricing Model

Q. Do you agree with Ms. Bulkley's statement that you incorrectly calculated Market Risk Premium ("MRP") in your CAPM analyses?[47]

A. No, I do not. Ms. Bulkley's explanations why my use of the historical MRPs I relied upon are unreasonable and make no sense.

Q. Why does Ms. Bulkley insist that your use of historical MRP is unreasonable?[48]

A. Ms. Bulkley gave three reasons why she insisted my use of historical MRP is unreasonable:

> First, in addition to the arithmetic mean, Mr. Jennings has incorrectly relied on the geometric mean to calculate the risk premium;[49]

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[45] Page 12, Line 8 through Page 13, Line 3, Randall Jennings Rebuttal Testimony, Case No. WR-2022-0303.
[46] Morin, R. A. (2006) New Regulatory Finance. Public Utilities Reports, page 302.
[47] Page 5, Lines 12-13, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.
[48] Page 62, Lines 13-15, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.
[49] Page 62, Lines 15-16, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.

> Second, Mr. Jennings has incorrectly used the total return on long-term government bonds to calculate his historical MRP instead of the income-only return on long-term government bonds;[50]

> Third, Mr. Jennings's historical MRP fails to consider the inverse relationship between interest rates and the MRP under current market conditions.[51]

Q. Do you agree with Ms. Bulkley's first reason, which is that in addition to the arithmetic mean, you incorrectly relied on the geometric mean to calculate the risk premium?[52]

A. No, I do not. First, the use of a geometric mean normalizes the data set and the values are averaged out so that no range of extreme results dominates the weights, meaning the geometric mean is not influenced by skewed distributions that the arithmetic mean would be subject to. The geometric mean is appropriate for percentage changes, volatile numbers, and correlation data, especially investment portfolios. Most financial returns correlate with stocks, bond yields, and premiums. The longer period makes the compounding effect more critical and hence the use of a geometric mean.[53] In addition, research sponsored by the Society of Actuaries' Pension Section Research Committee found that the geometric mean was superior to the arithmetic mean in predicting long-term returns for calculating equity risk premium, and the arithmetic mean produces forecasts much higher than actual returns over most time-periods.[54]

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[50] Page 62, Lines 16-18, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.

[51] Page 62, Line 18-19, and Page 63, Lines 1-2, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.

[52] Page 62, Lines 15-16, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.

[53] Geometric Mean vs Arithmetic Mean | Top 9 Differences); https://www.wallstreetmojo.com/geometric-mean-vs-arithmetic-mean/.

[54] Modugno, V. (2012). Estimating Equity Risk Premiums; https://www.soa.org/49386e/globalassets/assets/files/research/projects/research-est-equity-risk-premiums-report.pdf.

Additionally, my analysis uses both the arithmetic mean and the geometric mean, both of which are generally accepted methods to calculate MRP. The results of each method, both using data from two sources, is listed for each proxy company and then I located the lower and upper bound of all the results. I then used an average of the lower and upper bounds to determine the CAPM COE for each reference period. Using both methods and determining the average of high and low bounds ensures a fair and reasonable result.

Q. Do you agree with Ms. Bulkley's second reason that you have incorrectly used the total return on long-term government bonds to calculate your historical MRP, instead of the income-only return on long-term government bonds?

A. No, I do not. Because I used long-term historical data over a 95-year span, 1926-2021, utilizing income return or total return does not make a material change. To justify her assertion of only using the income return, Ms. Bulkley quoted an article of Morningstar, which is the former publisher of the historical dataset I relied upon for my historical MRPs that is now published by Kroll.[55] It is interesting to note that the most recent Kroll equity risk premium in the United States, i.e. MRP,[56] is 6.0%.[57] This is consistent with my MRP estimation of 6.03% using Kroll's total return on long-term government bonds data.[58] In contrast, Ms. Bulkley utilized her rebuttal testimony MRP estimate range of 8.57% to 8.74%, more than 250 basis points higher than Kroll's MRP of 6.0%, using the income-only return on long-term government bonds.[59] This is more evidence of how Ms. Bulkley's MRP is overstated

[55] Page 64, Line 18, to Page 65, Line 2, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.

[56] Kroll's article lists this figure as "equity risk premium" and then describes it as a key input "used to calculate the cost of equity capital in the context of the Capital Asset Pricing Model (CAPM) and other models used to develop discount rates." CAPM identifies this figure as "Market Risk Premium" (MRP).

[57] Kroll, Impact of High Inflation and Market Volatility on Cost of Capital Assumptions – October 2022 Update.

[58] Schedule RTJ-d14, Randall T. Jennings Direct Testimony, Case No. WR-2022-0303.

[59] Schedule AEB-R-5, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.

in her CAPM estimate. Here, Ms. Bulkley incorrectly calculated the MRP, and I did not, as my use of an MRP of 6.03% is much more realistic.

Q. Do you agree with Ms. Bulkley's third reason, which is that your historical MRP fails to consider the inverse relationship between interest rates and the MRP under current market conditions?

A. No, I do not. I am aware of the inverse relationship between interest rates and the MRP under current market conditions. Because of this inverse relationship between interest rates and the MRP, CAPM estimates could be easily overestimated using a CAPM model under current market conditions where the Federal Reserve was under pressure to increase interest rates with unusual speed. Therefore, I am aware of upwardly biased CAPM COE estimates. Ms. Bulkley insisted her use of forecasted higher MRP estimates, as used in her CAPM analysis, specifically addresses this concern,[60] but a higher MRP only overstates what are already upward biased CAPM COE estimates. Therefore, I properly considered the inverse relationship between interest rates and the MRP under current market conditions, but Ms. Bulkley does not.

Q. Do you agree with Ms. Bulkley's statement that the results of your CAPM analysis does not support your recommended ROE?[61]

A. No, I do not. Once again, Ms. Bulkley either misunderstood or intentionally ignored my explanation in direct testimony and is incorrectly using the terms ROE and COE interchangeably.

[60] Page 67, Lines 9-10, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.
[61] Page 62, Lines 5-6, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.

Q. Do you agree with Ms. Bulkley's statement that the current MRP should be well above the long-term historical average MRP, which is 7.46% as shown on Schedule AEB-R-13?[62]

A. No, I do not. As I discussed earlier, Kroll, LLC recently (October 18, 2022) listed the United States MRP as increasing from 5.5% to 6.0%.[63]

3. Bond Yield Plus Risk Premium ("Rule of Thumb") Approach

Q. Do you agree with Ms. Bulkley's statement that your "rule of thumb" result does not support your DCF and CAPM results?[64]

A. No, I do not. Ms. Bulkley actually agrees that the average of my DCF and CAPM model results, 7.68%, falls within the range of results produced by my "rule of thumb" analysis which was 7.64% to 9.97%.[65]

III. RESPONSE TO OPC WITNESS MR. DAVID MURRAY

A. Return on Equity

Q. Please summarize Mr. Murray's recommendation in this proceeding.

A. Mr. Murray recommended MAWC's ROR be calculated based upon a 9% authorized ROE applied to a 40.45% common equity ratio and a 4.06% cost of long-term debt applied to the remaining 59.55% of his recommended capital structure. These recommendations

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[62] Page 68, Lines 8-14, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.

[63] Recommended U.S. Equity Risk Premium and Corresponding Risk-Free Rates (kroll.com); https://www.kroll.com/en/insights/publications/cost-of-capital/recommended-us-equity-risk-premium-and-corresponding-risk-free-rates.

[64] Page 75, Lines 13-15, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.

[65] Page 75, Line 17 to Page 76, Line 1, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.

are based on consideration of the proportion of debt AWWC targets for purposes of funding its regulated water utility subsidiaries, including MAWC.[66]

Q. Please summarize Mr. Murray's rebuttal testimony in response to your direct testimony.

A. Mr. Murray insisted the Commission should not set MAWC's ROE above levels previously authorized for Missouri's electric and natural gas utilities because his analysis shows the water industry has a lower cost of capital than the electric utility industry and the authorized ROE should not be greater than 9.25%.[67] I recommended a higher authorized ROE of 9.73% for MAWC as compared to Ameren Missouri, but Mr. Murray states the information he found logically justifies authorizing MAWC a lower ROE than that of Missouri's electric and gas utility companies.[68]

Q. Do you agree with Mr. Murray that the authorized ROE for MAWC should be lower than that of Missouri's electric and gas utility companies?

A. No, I do not. According to Regulatory Research Associates ("RRA"), in the first three quarters of 2022, the average water utility authorized ROE of 9.74% is higher than the average authorized ROE of 9.37% and 9.42% for electric and natural gas utilities, respectively.[69] Therefore, Mr. Murray's assertion that the authorized ROE for MAWC should be lower than that of Missouri's electric and gas utility companies should be rejected.

Q. Do you agree with Mr. Murray's statements that since you compared authorized ROEs of water utilities and natural gas utilities in 2021 (which water utilities were 10 basis

[66] Page 2, Lines 2-7, David Murray Rebuttal Testimony, Case No. WR-2022-0303.
[67] Page 40, Lines 13-18, David Murray Rebuttal Testimony, Case No. WR-2022-0303.
[68] Page 41, Lines 13-21, David Murray Rebuttal Testimony, Case No. WR-2022-0303.
[69] S&P Capital IQ Pro: Regulatory Research Association, retrieved November 3, 2022.

points lower), and Staff estimated a COE of 8.25% for Spire Missouri in its 2022 rate case compared to your 7.68% COE in this rate case, that your recommended ROE should be lower in this case than that awarded to Spire Missouri?[70]

A. No, I do not. As. Mr. Murray knows, Staff uses its COE estimates to assess a just and reasonable authorized ROE using a comparative COE analysis. Depending on multiple factors, the amount of change in COE from a base time period to the selected time period may be more, less, or equal to the amount of change in the COE in another general rate case involving a completely different industry.

IV. SUMMARY AND CONCLUSIONS

Q. Please summarize the conclusions of your rebuttal testimony.

A. Although Ms. Bulkley updated her analysis reflecting data through November 30,[71] her recommended authorized ROE of 10.50% remains unfair and unreasonable. This is because of her use of inappropriate and unreasonable inputs to her COE estimation models. I recommend the Commission reject Ms. Bulkley's erroneous characterizations of Staff's ROE methodology. Additionally, I continue to take the position that OPC witness Murray's recommended authorized ROE of 9.00% is too low when considering the overall capital market conditions. As both the rebuttal testimonies filed by MAWC and OPC witnesses fail to provide sufficient reason to change my original authorized ROE recommendation, I continue to recommend an authorized ROE of 9.73% within a reasonable range of 9.48% to 9.98%.

[70] Page 37, Lines 12-17, David Murray Rebuttal Testimony, Case No. WR-2022-0303.
[71] Page 9, Lines 3-5, Ann E. Bulkley Rebuttal Testimony, Case No. WR-2022-0303.

I also continue to recommend AWWC's consolidated capital structure to calculate MAWC's ROR in this proceeding, and Mr. Murray agrees with me in this regard. I continue to reject MAWC witnesses' proposed ratemaking capital structure based on MAWC's standalone capital structure because MAWC's capital structure does not represent how MAWC capitalizes its operations. Since AWWC's true-up data is not available at this time, I recommend an ROR of 6.38%, calculated using the consolidated capital structure of AWWC composed of ** [redacted] ** common equity, ** [redacted] ** long-term debt, and ** [redacted] ** preferred stock combined with embedded costs of debt and preferred stock of ** [redacted] ** and ** [redacted] **, respectively.[72] I will keep monitoring AWWC's updated consolidated capital structure and cost of debt until the true-up data is made available and will make my final recommendation at that time.

Q. Does this conclude your surrebuttal testimony?

A. Yes.

[72] Schedule RTJ-d16, Randall T. Jennings Direct Testimony, Case No. WR-2022-0303.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water Company's Request for Authority to Implement General Rate Increase for Water and Sewer Service Provided in Missouri Service Areas	)))))	Case No. WR-2022-0303

AFFIDAVIT OF RANDALL T. JENNINGS

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW RANDALL T. JENNINGS and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Surrebuttal Testimony of Randall T. Jennings*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Randall T. Jennings

RANDALL T. JENNINGS

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 6th day of February 2023.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2025
Commission Number: 12412070

D Suzie Mankin
Notary Public