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Seoung Joun Won, PhD
Direct Testimony
File Nos. ER-2022-0129 & ER-2022-0130

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Date Testimony Prepared:	*June 8, 2022*

MISSOURI PUBLIC SERVICE COMMISSION

FINANCIAL AND BUSINESS ANALYSIS DIVISION

FINANCIAL ANALYSIS DEPARTMENT

DIRECT TESTIMONY

OF

SEOUNG JOUN WON, PhD

Evergy Metro, Inc., d/b/a Evergy Missouri Metro
Case No. ER-2022-0129

Evergy Missouri West, Inc., d/b/a Evergy Missouri West
Case No. ER-2022-0130

Jefferson City, Missouri
June 2022

** Denotes Confidential Information **

TABLE OF CONTENTS OF

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Case No. ER-2022-0129

Evergy Missouri West, Inc., d/b/a Evergy Missouri West
Case No. ER-2022-0130

Q. Please state your name and business address.

A. My name is Seoung Joun Won 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") and my title is Regulatory Compliance Manager for the Financial Analysis Department, in the Financial and Business Analysis Division.

Q. What is your educational and employment background?

A. I received my Bachelor of Arts, Master of Arts, and Doctor of Philosophy in Mathematics from Yonsei University and my Bachelor of Business Administration in Financial Accounting from Seoul Digital University in Seoul, South Korea, and earned my Doctor of Philosophy in Economics from the University of Missouri - Columbia. Also, I passed several certificate examinations for Finance Specialist in South Korea such as Accounting Management, Financial Risk Manager, Enterprise Resource Planning Accounting Consultant, Derivatives Investment Advisor, Securities Investment Advisor, and Financial Planner. Prior to joining the Commission, I taught both undergraduate and graduate level mathematics at the Korean Air Force Academy and Yonsei University for 13 years. I served as the Director of the Education and Technology Research Center in NeoEdu for 5 years. A more detailed account of my educational background and occupational experience appears in Appendix 1, attached to this Direct Testimony.

Q. Have you previously filed testimony before the Commission?

A. Yes, I have appeared previously before the Commission. I have testified on rate of return, cost of capital, capital structure, finance issuance, feasibility analysis, valuation analysis on merger and acquisitions etc. Please refer to Appendix 1, attached to this Direct Testimony, for a list of my testimony, recommendations, or memorandums previously filed with the Commission and the associated issues.

Q. On behalf of whom are you testifying in this proceeding?

A. I am testifying in this Direct Testimony before the Commission on behalf of the Missouri Public Service Commission Staff ("Staff").

Q. What is the purpose of your direct testimony?

A. In this testimony, Staff presents evidence and provides a recommendation regarding the appropriate rate of return ("ROR") to be used in establishing the electric service rates of Evergy Metro, Inc., d/b/a Evergy Missouri Metro ("Evergy Metro" or "EMM") and Evergy Missouri West, Inc., d/b/a Evergy Missouri West ("Evergy West" or "EMW"), subsidiaries of Evergy, Inc. ("Evergy Inc." or "Evergy").

Staff's analyses and conclusions are supported by the data presented in Schedules SJW-d1 through SJW-d17 contained within Confidential Appendix 2. Staff's workpapers will be provided to the parties at the time of the filing of this Direct Testimony. Staff will make any additional source documents of specific interest available upon the request of any party to this case or the Commission.

I. EXECUTIVE SUMMARY

Q. Please provide the summary of your methodology and findings concerning the ROR that should be utilized in setting rates for Evergy Metro's and Evergy West's electric utility operations in this proceeding.

A. Staff estimated the market-based cost of common equity ("COE") for Evergy Metro and Evergy West using a comparative COE analysis. Staff's analysis takes into account changes in economic and capital market conditions over time by employing two widely-used and well-respected COE estimation methodologies: the discounted cash flow model ("DCF") and the capital asset pricing model ("CAPM").[1] The comparative COE analysis method allowed Staff to calculate the change in authorized return on equity ("ROE") based on the change in its COE estimate from period to period by using the Commission's most recent decision.[2] The Commission's most recent, fully-litigated electric rate case is The Empire District Electric Company's rate case, Case No. ER-2019-0374, ("2019 Empire rate case").[3] By using the decision made by the Commission in the 2019 Empire rate case as a benchmark, Staff calculated a reasonable range of authorized ROE and recommended a just and reasonable ROE for Evergy Metro and Evergy West.[4]

Staff also considered the current economic and financial market conditions when recommending an ROE. The current utility COE estimates are unusually and unsustainably high due to the effects of the coronavirus pandemic ("COVID-19"). When COVID-19 hit in

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[1] *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.,* Opinion No. 569, 169 FERC ¶ 61,129 (2019).
[2] The most recent Evergy Metro and Evergy West general rate case, Cases No. ER-2018-0145 and ER-2018-0146, was settled with no authorized ROE.
[3] *Amended Report and Order* issued July 23, 2020, in Case No. ER-2019-0374.
[4] COE is the return required by investors; 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 need not be. Observed utility COEs have been generally significantly lower than ROEs in recent years.

2020, it caused massive volatility in the economy and financial market.[5] Gross domestic product ("GDP") fell sharply, followed by an equally sharp recovery through 2021.[6] The recovery from the COVID-19 pandemic is spurring fears of higher inflation and, consequently, higher market risk.[7] Inflation fears can increase market risk for utilities as investors believe that regulators will not adjust revenues fast enough to compensate for rising input costs.[8] Staff agrees with the Federal Reserve ("Fed") that the current risk assessment could project a higher inflation than will actually happen in the future. The risks include (1) ongoing supply bottlenecks and rising energy and commodity prices, both of which were exacerbated by the Russian invasion of Ukraine; (2) recent COVID-19 related lockdowns in China that had the potential to further disrupt supply chains; and (3) the possibility that longer-run inflation expectations might become unanchored.[9]

Q. Please summarize the result of your comparative COE analysis and recommended ROR.

A. In the *Amended Report and Order* in Case No. ER-2019-0374, the Commission found that a 9.25% ROE was fair and reasonable for purposes of calculating the revenue requirement for The Empire District Electric Company ("Empire").[10] For the current rate cases, Staff recommends that the Commission set Evergy Metro and Evergy West's authorized ROE at 9.62%, the midpoint of a reasonable range of 9.37% and 9.87%.[11] Staff considered the

[5] Federal Reserve Economic Data, retrieved March 23, 2022, https://fred.stlouisfed.org/series/VIXCLS.
[6] Bureau of Economic Analysis, U.S. Department of Commerce, retrieved May 25, 2022, https://www.bea.gov/news/2022/gross-domestic-product-first-quarter-2022-advance-estimate.
[7] S&P Global, Markets in Motion, retrieved March 23, 2022, https://www.spglobal.com/en/research-insights/featured/inflation.
[8] Hertford Funds, Insight, Which Equity Sectors Can Combat Higher Inflation?, retrieved March 23, 2022, https://www.hartfordfunds.com/dam/en/docs/pub/whitepapers/WP597.pdf.
[9] Federal Reserve issues Federal Open Market Committee (FOMC) statement, published April 6, 2022, and, retrieved April 23, 2022, https://www.federalreserve.gov/monetarypolicy/fomcminutes20220316.htm.
[10] On page 38, *Amended Report and Order* issued July 23, 2020, in Case No. ER-2019-0374.
[11] Schedule SJW-d16, Won's Direct Testimony.

current high inflation rate and the expected rise in interest rates in making these recommendations. Staff's recommended authorized ROE takes into consideration that electric utilities' COE estimates rose by approximately 37 basis points since the period of the 2019 Empire rate case.[12] Staff's recommendation of a 9.62% authorized ROE will fairly compensate Evergy Metro and Evergy West for its current market COE and balance the interests of all stakeholders, particularly considering that the current market COE estimates for Evergy Metro and Evergy West are presently in the range of 7.40% to 8.96% (see Schedule SJW-d13).

Staff also recommends that the Commission use Evergy' Inc.'s, Evergy Metro's and Evergy West's target capital structure of 50.00% common equity and 50.00% long-term debt for purposes of setting ROR in this proceeding.[13] Consistent with Staff's capital structure recommendation, Staff also recommends at this time that the Commission use Evergy Metro's and Evergy West's proposed embedded cost of debt of 3.92% and 3.79%, resulting in the overall midpoint ROR of 6.77% and 6.70%, taken from the calculated range of 6.65% to 6.90% and 6.58% to 6.83%, respectively (see Schedule SJW-d16).

Q. Please explain how your direct testimony is organized.

A. Staff's testimony is organized into five sections. First, Staff discusses the applicable regulatory principles concerning cost of capital and ROR analysis that supports the just and reasonable rates for Evergy Metro and Evergy West's electric utility service. Second, Staff reviews the current economic environment and capital market conditions. Third, Staff presents the corporate analysis of Evergy Metro and Evergy West including Evergy Inc. and its parent companies' business profile and credit ratings. Fourth, Staff explains its cost of capital

[12] Schedule SJW-d15, Won's Direct Testimony.
[13] Staff Data Request No. 0120, Case Nos. ER-2022-0129 and ER-2022-0130.

and ROR analysis using Evergy Metro and Evergy West's capital structure. Fifth, Staff concludes with a presentation of Staff's recommended ROE, cost of debt and capital structure for Evergy Metro and Evergy West's allowed ROR for ratemaking purpose.

II. REGULATORY PRINCIPLES

Q. Please describe the regulatory principles that guide the determination of a just and reasonable ROR for a regulated utility.

A. The determination of a fair ROR is guided by principles of economic and financial theory and by certain minimum Constitutional standards. Investor-owned public utilities, such as Evergy Metro and Evergy West, are private property that the state may not confiscate without appropriate compensation. The United States Supreme Court has described the minimum characteristics of a constitutionally-acceptable ROR in two frequently-cited cases: *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia,* and *Federal Power Commission v. Hope Electric Co.*[14]

From these two decisions, Staff derives and applies the following principles to guide it in recommending a just and reasonable ROR:

1. A return consistent with returns of investments of comparable risk;
2. A return that allows the utility to attract capital; and
3. A return sufficient to assure confidence in the utility's financial integrity.

Embodied in these three principles is the economic theory of the opportunity cost of investment. The opportunity cost of investment is the return that investors forego in order

[14] *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia,* 262 U.S. 679, 43 S.Ct. 675, 67 L.Ed. 1176 (1923); *Federal Power Commission v. Hope Electric Co.,* 320 U.S. 591, 64 S.Ct. 281, 88 L.Ed. 333 (1943).

to invest in similar risk investment opportunities that vary depending on market and business conditions.

Methodologies of financial analysis have advanced greatly since the *Bluefield* and *Hope* decisions.[15] Additionally, today's utilities compete for capital in a global market rather than a local market. Nonetheless, the parameters defined in those cases are readily met using current methods and theory. The principle of commensurate return is based on the concept of risk. Financial theory holds that the return an investor may expect is reflective of the degree of risk inherent in the investment; risk being a measure of the likelihood that an investment will not perform as expected by that investor. Any line of business carries with it its own risks and it follows, therefore, that the return Evergy Metro and Evergy West's shareholders may expect is equal to that required by shareholders of comparable-risk utility companies.

Q. How do you estimate a just and reasonable authorized ROE regarding commensurate return and comparable-risk?

A. Staff employed a comparative COE analysis for authorized ROE estimation. COE is a market-determined, 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. An authorized ROE, on the other hand, 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. However, Staff can estimate a just and reasonable authorized ROE anticipated by the financial market by using changes in estimated

[15] Neither the Discounted Cash Flow ("DCF") nor the Capital Asset Pricing Model ("CAPM") methods were in use when those decisions were issued.

COEs over different periods of time, that are measured for a comparable group of companies having similar risks.

Q. What are your conclusions regarding the regulatory principles that guide the determination of a just and reasonable ROE in this proceeding?

A. Staff relied primarily on the analysis of a comparable group of companies to estimate the COE for Evergy Metro and Evergy West, applying this comparable-company approach through the use of both the DCF method and the CAPM analysis. Properly used and applied in appropriate circumstances, both the DCF and the CAPM can provide accurate estimates of utilities' COE. It is a well-accepted economic theory that a company that earns its cost of capital will be able to attract capital and maintain its financial integrity. Therefore, Staff's recommendation of authorized ROE based on the COE derived from the comparison of peer companies, is consistent with the principles set forth in *Bluefield* and *Hope*.

III. MARKET CONDITIONS

Q. Why is consideration of economic and capital market conditions important for ROE analysis?

A. Determining whether a cost of capital estimate is just and reasonable requires a good understanding of current economic and capital market conditions, with the former having a significant impact on the latter. In the comparative COE analysis, input values for COE estimate models change from the former time-period to the latter time-period to reflect the current economic and capital market conditions. With this in mind, Staff emphasizes that an estimate of a utility's COE and authorized ROE recommendations should pass the "common sense" test when considering the broader current economic and capital market conditions.

1. Economic Condition

Q. Please summarize the current economic conditions regarding COE.

A. After recovering from the COVID-19 pandemic recession in 2021, economic activity edged down the first quarter 2022 although household spending and business fixed investment remained strong. The unemployment rate has declined, but inflation remains elevated reflecting supply and demand imbalances related to the pandemic as well as higher energy prices. The invasion of Ukraine by Russia is creating upward pressure on inflation. COVID-19 related lockdowns in China are creating supply chain disruptions. The impact of these issues for the U.S. economy are highly uncertain.[16] Effective May 5, 2022, the Fed increased the federal funds target range to 0.75% to 1.00%.[17] Fed anticipates that ongoing increases to the target range will be appropriate in the future.[18]

The price investors are willing to pay for a share of stock includes the expectation of high inflation and potential increases to the federal funds rate and has already been factored in since the beginning of 2021.[19] This means that lower real returns from investments are already reflected in the current financial market. Therefore, high inflation rates do not necessarily mean higher cost of capital than presently reflected.

Q. Please explain the current economic conditions using economic indicators.

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[16] Federal Reserve issues Federal Open Market Committee (FOMC) Statement, published May 4, 2022 and retrieved May 6, 2022, https://www.federalreserve.gov/newsevents/pressreleases/monetary20220504a.htm.
[17] Federal Reserve issues Implementation Note issued May 4, 2022 and retrieved May 6, 2022, https://www.federalreserve.gov/newsevents/pressreleases/monetary20220504a1.htm#:~:text=%22Effective%20May%205%2C%202022%2C%20the%20Federal%20Open%20Market,a%20target%20range%20of%203%2F4%20to%201%20percent.
[18] Federal Reserve issues Federal Open Market Committee (FOMC) Statement, published May 4, 2022 and retrieved May 6, 2022, https://www.federalreserve.gov/newsevents/pressreleases/monetary20220504a.htm.
[19] Forbes, Jonathan Ponciano, Here's The Biggest Risk For The Stock Market This Year, According To Morgan Stanley Experts, Published January 4, 2021, retrieved November 22, 2021, https://www.forbes.com/sites/jonathanponciano/2021/01/04/biggest-risk-for-stock-market-this-year/?sh=31bfed21f80e.

A Since 2020, the economy experienced enormous volatility. Real GDP fell by 32.9% (on an annual basis) in the second quarter of 2020, after a 5% decline in the first quarter, and then the third and fourth quarters of 2020 saw real GDP increase by 33.4% and 4.3%, respectively.[20] Subsequently, the first, second, third and fourth quarters of 2021 had real GDP growths of 6.3%, 6.7%, 2.3%, and 6.9%, respectively. Real GDP decreased at an annual rate of negative 1.4% in the first quarter of 2022.[21] The Congressional Budget Office ("CBO") projects a real GDP growth rate of 3.1% and 2.2% for 2022 and 2023, respectively.[22] The Fed projects a long-term real GDP growth rate of 1.6% to 2.2%.[23] The U.S. Energy Information Administration ("EIA") projects a long-term real GDP growth rate of 2.2%.[24] In May 2022, the CBO projected a nominal GDP growth rate of 3.90%, up from the 3.80% it previously projected in February 2021.[25]

Regarding Covid-19, there has been an increased availability of vaccines, increased vaccination rates, and the Fed has given assurances that indicators of economic activity and employment have continued to strengthen.[26] During economic recovery, utilities tend to underperform the broader market which, consequently, pushes COE for utilities higher. Compounded by the current fears of inflation, the share prices of utility equities are currently

[20] Bureau of Economic Analysis, retrieved in November 19, 2021, https://www.bea.gov/news/2021/gross-domestic-product-first-quarter-2021-advance-estimate.
[21] Bureau of Economic Analysis, Gross Domestic Product, First Quarter 2022, retrieved April 30, 2022, https://www.bea.gov/news/glance.
[22] Congressional Budget Office, An Update to the Budget and Economic Outlook: 2022 to 2032, https://www.cbo.gov/system/files/2022-05/57950-Outlook.pdf.
[23] FOMC, Summary of Economic Projections, published March 16, 2022, https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20220316.pdf.
[24] Energy Information Administration, retrieved in April 23, 2022. https://www.eia.gov/outlooks/aeo/data/browser/#/?id=18-AEO2022&sourcekey=0.
[25] Congressional Budget Office, An Update to the Budget and Economic Outlook: 2022 to 2032, https://www.cbo.gov/system/files/2022-05/57950-Outlook.pdf.
[26] Federal Reserve, Press Release, March 16, 2022, https://www.federalreserve.gov/monetarypolicy/files/monetary20220316a1.pdf.

depressed and COEs are elevated. All else the same, high inflation expectations lead to higher interest rates. The Fed still expects inflation to slow down to 2.7% and 2.3% in 2023 and 2024, respectively, above the Fed's long-term target of 2.0%.[27]

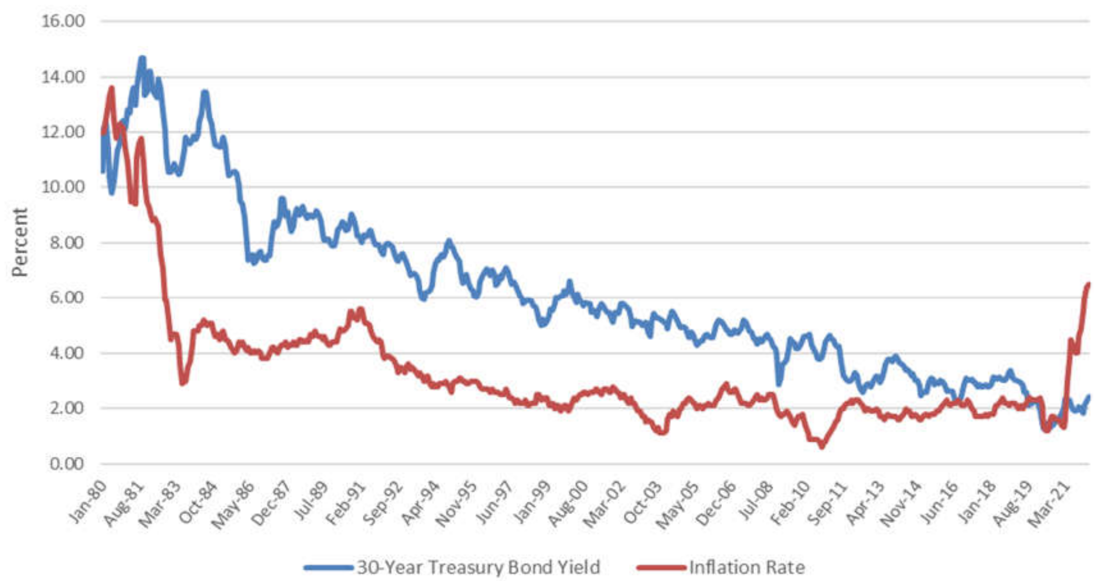
With COVID-19 causing widespread economic shutdown and pushing interest rates higher, the Fed intervened in March 2020 to cut the federal discount rate to a range of 0% to 0.25%.[28] On May 4, 2022, to fight against the worst inflation in 40 years, the Fed increased the target range for the federal funds rate at 0.75% to 1.00% and anticipates that ongoing increases in the target range will be appropriate.[29] The Fed already started to reduce the monthly pace of its net asset purchases due to the progress of the economy.[30] The aggregate effect of the Fed's actions was an incline in 30-year Treasury yields from 1.69% on December 3, 2021 to a high of 3.23% on May 6, 2022.[31]

Figure 1 compares 30-year Treasury yields and the U.S. inflation rate from January 2019 through March 2022. The effects of COVID-19, such as high inflation fears, have increased market risk and, consequently, pushed utilities' COE higher. As the Fed signals that it is about to start scaling back on the COVID-19 economic measures through tapering, it is expected that

[27] FOMC, Summary of Economic Projections, published March 16, 2022, https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20220316.pdf.
[28] Reuters, Federal Reserve statement - lowering federal funds rate to 0 to .25%, published March 15, 2021, https://www.reuters.com/article/us-health-coronavirus-central-banks-fed-idUSKBN2121A0.
[29] Federal Reserve issues Federal Open Market Committee (FOMC) Statement, published May 4, 2022 and retrieved May 6, 2022, https://www.federalreserve.gov/newsevents/pressreleases/monetary20220504a.htm#:~:text=May%2004%2C%202022%20Federal%20Reserve%20issues%20FOMC%20statement,household%20spending%20and%20business%20fixed%20investment%20remained%20strong.
[30] Federal Reserve issues FOMC statement, published in December 15, 2021, retrieved in December 25, 2021, https://www.federalreserve.gov/newsevents/pressreleases/monetary20211215a.htm.
[31] Federal Reserve Economic Data, Market Yield on U.S. Treasury Securities at 30-Year Constant Maturity, https://fred.stlouisfed.org/series/DGS30.

interest rates will begin to rise.[32] With interest rates expected to rise, it is reasonable to expect utilities' COEs to remain elevated:

Figure 1. 30-year Treasury yield and Inflation Rate 2019-2022[33]



The Fed has a dual mandate: maximum employment and stable prices.[34] The current unemployment rate (3.6%) nearly reached the pre-pandemic level (3.5%) of February 2020.[35] In the Federal Open Market Committee ("FOMC") meeting held on December 14-15, 2021, the Fed's growth forecast indicated policy makers expected the U.S. economy to grow by 4% in 2022 and unemployment to fall to 3.5% by year-end 2022.[36] Currently, the overall global and

[32] Tapering is a financial policy through central bank activities aiming at interest rates and at controlling investor perceptions of the future direction of interest rates. Tapering involves the slowing of asset purchases, which leads to the reversal of quantitative easing ("QE") policies implemented by a central bank.
[33] Won' Direct Workpaper.
[34] Fed, What economic goals does the Federal Reserve seek to achieve through its monetary policy? https://www.federalreserve.gov/faqs/what-economic-goals-does-federal-reserve-seek-to-achieve-through-monetary-policy.htm.
[35] Bureau of Labor Statistics, Unemployment Situation March 2022, retrieved April, 23, 2022, https://www.bls.gov/news.release/pdf/empsit.pdf.
[36] Fed, Summary of Economic Projections, Published December 15, 2021, https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20211215.pdf.

U.S. economic conditions indicate a higher COE than the 2019 Empire rate case because of expected rising interest rates in 2022.

2. Capital Market Condition

2.1 Utility Debt Markets

Q. Please explain the current utility debt market conditions.

A. The utility debt market has not been stable in terms of bond yield changes. Average public utility bond yields fell from a high of 4.48% in January 2019, to a low of 3.16% in February 2020 (see Schedule SJW-d4-1). This downward trend in public utility bond yields reversed when yields rose sharply by 43 basis points to 3.59% in March 2020 along with a subsequent sharp decline in the GDP. Public utility bond yields started to fall again in April 2020 after the Fed cut the federal funds rate to 0.00% from 0.25%, and ramped up Treasury bond-buying activity.[37] Effective May 5, 2022, the Fed decided to raise the target range for the federal funds rate at 0.75% to 1.00%.[38] The average public utility bond yield had fallen to 2.76% by August 2020 and rebounded to 4.02% by March 2022 (see Schedule SJW-d4-1). The changes in public utility bond yields mirrored the changes in the 30-Year Treasury bond yields. With a few exceptions, 30-Year Treasury bond yields have historically been positively correlated with public utility bond yields (see Schedule SJW-d4-3). The biggest factor currently driving interest rates is the fear of higher inflation.

[37] Brookings, The Hutchins Center Explains, https://www.brookings.edu/series/the-hutchins-center-explains/.
[38] Federal Reserve issues Implementation Note issued May 4, 2022 and retrieved May 6, 2022, https://www.federalreserve.gov/newsevents/pressreleases/monetary20220504a1.htm#:~:text=%22Effective%20May%205%2C%202022%2C%20the%20Federal%20Open%20Market,a%20target%20range%20of%203%2F4%20to%201%20percent.

Q. Have the utility debt market conditions changed since the Commission last ordered an authorized ROE in the 2019 Empire rate case?

A. Yes. Since the Commission last ordered an authorized ROE of 9.25% in the 2019 Empire rate case, [39] the 30-Year Treasury bond yield remained virtually the same, 2.26% in Q4 2019 to 2.25% in Q1 2022.[40] Average public utility bond yields increased from 3.46% in Q4 2019 to 3.58% in Q1 2022.[41] The average Baa public utility bond yields increased from 3.92% in Q4 2019 to 3.95% in Q1 2022.[42]

Q. Are the changed utility debt market conditions reflected in Staff's COE analysis in this case?

A. Yes. Staff's comparative COE analysis covers the two periods Q4 2019 and Q1 2022. Q4 2019 is the measurement period used to derive the last ordered authorized ROE from the Commission in Case No. ER-2019-0374 for Empire. Staff compared average utility bond yields for the three-month period October, November and December 2019 to the three-month period January, February, and March 2022. The three-month average utility bond yield was 3.46% in the Empire rate case compared to 3.58% in the current rate case, an increase of 12 basis points (see Schedule SJW-d4-1).

Q. Is there a correlation between utility debt yields and stock prices?

A. Although utilities' COE is not perfectly correlated to changes in utility debt yields, it is widely recognized in the investment community that regulated utility stocks are a close alternative to bond investments and, therefore, the two values are highly correlated over

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[39] On page 38, *Amended Report and Order* issued July 23, 2020, in Case No. ER-2019-0374.
[40] Schedule SJW-d4-2, Won' Direct Testimony.
[41] Schedule SJW-d4-1, Won' Direct Testimony.
[42] Schedule SJW-d4-5, Won' Direct Testimony.

time. In general, as interest rates increase, utility stock prices decrease, pushing COE up as investors substitute stock for debt in search for higher yields.[43]

Q. Please explain how the current utility debt market conditions affect COE estimation.

A. Usually, in the past, interest rates were the main driver of COE change. Lower interest rates would normally mean lower COEs, all other things being equal. Currently, we see higher COE based upon higher expected interest rates. Staff compared interest rates during the 2019 Empire rate case period (October, November and December 2019) to the current Evergy Metro and Evergy West rate case period (January, February and March 2022) and noticed that interest rates, as measured by the Mergent public utility yields, increased by about 0.19%.[44]

The combined net result of the increase in interest rates and the changes in overall market conditions is an increase in COE since the 2019 Empire rate case. Also, Staff's COE estimates of the electric proxy group have increased since the 2019 Empire rate case. The current COE as estimated by the DCF model rose by 37 basis points over the earlier data point.[45]

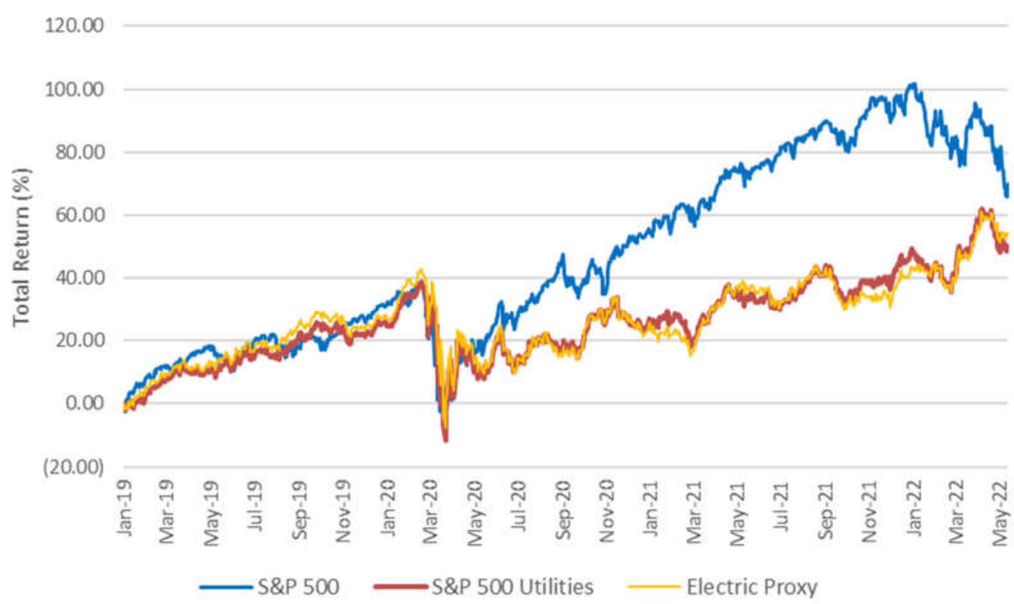
2.2 Utility Equity Markets

Q. Please explain the current utility equity market conditions.

[43] Forbes Advisor, How To Invest When Interest Rates Are Low, Updated: Apr 15, 2022 and retrieved May 7, 2022
https://www.forbes.com/advisor/investing/low-interest-rates/#:~:text=While%20bond%20prices%20are%20directly%20affected%20by%20interest,mean%20companies%20may%20borrow%20less%20to%20fund%20growth.
[44] Mergent Bond Record. Average Baa yields for Q4 2019 and Q1 2022. The Baa yields for Q4 2019 were 3.72%, 3.76%, and 3.73%. The Baa yields for Q1 2022 were 3.57%, 3.95%, and 4.28%. The average Baa yield for Q4 2019 was 3.74%. The average Baa yield for Q1 2022 was 3.93%. (3.93% - 3.74% = 0.19%).
[45] Schedule SJW-d15, Won' Direct Testimony.

A. After the 2020 stock market crash caused by the COVID-19 pandemic, the utilities sector underperformed the broader market. As shown in Figure 2, the S&P 500 had total returns of 76.29% compared to 53.46% for the S&P 500 Utilities sector. Staff's electric proxy group of companies also under-performed returning only 55.78% in the same period. A detailed analysis of the performance of the equity market since January 2019 reveals tremendous volatility. At the onset of the economic shutdown in March 2020, the index-value of the S&P 500 and the Dow Jones Industrial Average fell approximately 12.5% and 13.74%, respectively.[46] Figure 2 shows the volatility experienced by the stock market since January 2019. The total return of the S&P 500 Utilities changed from its January 2020 high of approximately 39% to approximately -12% by March of 2020:

Figure 2. Total Return 2019-2022



[46] S&P Capital IQ Pro.

The average of Staff's electric utility proxy group's stock price is currently similar to that when Staff presented testimony for the 2019 Empire rate case.[47] Similar stock prices, all else the same, means similar COE. But Staff also analyzed other variables that affect change in COE: dividend yields and expected growth rates. Higher dividend yields, all else the same, means higher COE. Staff compared dividend yields from the measurement period (October, November, and December 2019) in the 2019 Empire rate case to the dividend yields of the current period (January, February, and March 2022). Average dividend yields of Staff's electric utility proxy group were 2.97% during Q4 2019 compared to 3.49% in the current period of Q1 2022 an increase of 52 basis points.[48] Earnings per share ("EPS") growth rates for Staff's proxy group increased from 4.73% to 5.03% during the period of Q4 2019 and Q1 2022, respectively.[49] Higher estimated growth rates, all else the same, signal a higher required return to investors.

Q. Please explain how the current utility equity market conditions affect COE estimation.

A. The combined effect of the utility sector's unusual decline in 2020 and the subsequent sluggish recovery is that the utilities have not recovered fully from the COVID-19 recession. Average stock prices for Staff's proxy group of companies is at $73.03, as of Q1 2022, compared to the average pre-COVID-19 recession high of about $74.17 reached in Q4 2019.[50] Declining stock prices, all else remaining the same, means increasing COE.[51] The principal reason for stock prices to decline is adverse perception about the stock's risk and/or

[47] Wall Street Journal; Average Monthly Highest and Lowest.
[48] The Value Line Investment Survey: Ratings & Reports.
[49] Schedule SJW-d11, Won' Direct Testimony.
[50] Schedule SJW-d12, Won' Direct Testimony.
[51] In the DCF COE model, declining stock prices, all else the same, leads to higher dividend yields. Dividend yields are a component of COE.

risk in the economy. Currently, the utility sector faces two major risks that have the potential to keep stock prices depressed and COE elevated: fears of high inflation and increasing interest rates.[52] Consequently, the current economic climate justifies increasing COE estimates compared to 2019 Empire rate case. The net effect of the changes in stock prices, dividend yields, and growth rates indicates DCF COE estimate increased by up to 37 basis points since Staff conducted its analysis for the 2019 Empire rate case.[53]

IV. CORPORATE ANALYSIS

Q. Please provide the corporate profile of Evergy Inc.

A. According to its 10-K reported to the SEC, Evergy Inc. operates as a public utility holding company. Evergy Inc. operates primarily through the following wholly owned direct subsidiaries: Evergy Metro, Evergy West, Evergy Kansas Central, Inc., Evergy Kansas South, Inc., and Evergy Transmission Company, LLC. Collectively, the Evergy companies have approximately 15,400 MWs of owned generating capacity and renewable power purchase agreements and engage in the generation, transmission, distribution and sale of electricity to approximately 1.6 million customers in the states of Kansas and Missouri. Evergy Inc. serves approximately 1,640,800 customers located in Kansas and Missouri. Customers include approximately 1,433,500 residences; 199,400 commercial firms; and 7,900 industrials, municipalities and other electric utilities. Evergy Inc. was incorporated in 2017.

Q. Please provide the corporate profile of Evergy Metro.

[52] Whether inflation fears materialize or not, current utility stock prices are fluctuating on the fear that inflation will be higher.
[53] Schedule SJW-d13, Won' Direct Testimony.

A. According to its 10-K reported to the SEC, Evergy Metro engages in the generation, transmission, distribution, and sale of electricity in the states of Missouri and Kansas. Evergy Metro generates electricity through coal, hydroelectric, landfill gas, uranium, natural gas and oil sources as well as solar, wind, and other renewable sources. It serves approximately 571,500 customers, including 505,000 residences; 64,600 commercial firms; and 1,900 industrials, municipalities, and other electric utilities. Evergy Metro owns 47% of Wolf Creek Generating Station ("Wolf Creek"), which purchases uranium and has it processed for use as fuel in its reactor. The owners of Wolf Creek have on hand, or under contract, all of the uranium, uranium enrichment and conversion services needed to operate Wolf Creek through the first quarter of 2030 along with contracts for all of the uranium fabrication services required to operate Wolf Creek through the third quarter of 2045. Evergy Metro was formerly known as Kansas City Power & Light Company. Evergy Metro was incorporated in 1922 and is headquartered in Kansas City, Missouri.

Q. Please provide the corporate profile of Evergy West.

A. According to its 10-K reported to the SEC, Evergy West operates as an integrated electric and natural gas utility headquartered in Kansas City, Missouri. The electric utilities segment generates, transmits and distributes electricity to 400,804 customers in Missouri and Colorado. Its electric generating facilities and purchased power contracts supply electricity principally to its own distribution systems. Evergy West also sells excess power to other utilities and marketing companies. Evergy West's electric utilities include 1,849 MWs of generation and 15,190 pole miles of electric transmission and distribution lines. The company was founded in 1917 as Missouri Public Service Company, and changed its name to UtiliCorp United, Inc. in 1985. The company's name changed to Aquila, Inc. in 2002, KCP&L Greater Missouri Operations Company in 2008 and subsequently to Evergy Missouri West, Inc., a subsidiary of Evergy Inc., in October 2019.

Q. What is the credit rating for Evergy, Evergy Metro and Evergy West?

A. Evergy is currently rated by Moody's and Standard & Poor's ("S&P"). The corporate credit ratings assigned to Evergy by Moody's and S&P are 'Baa2' and 'A-', respectively.[54] Moody's and S&P currently rate Evergy Metro. The corporate credit ratings assigned to Evergy Metro by Moody's and S&P are 'Baa1' and 'A', respectively.[55] Moody's and S&P currently rate Evergy West. The corporate credit ratings assigned to Evergy West by Moody's and S&P are 'Baa2' and 'A-', respectively.[56]

Q. What is the implication of credit ratings to Evergy Inc., Evergy Metro and Evergy West for their estimated COE and authorized ROE?

A. The electric utilities have average bond ratings of 'Baa1' and 'BBB+' provided by Moody's and S&P, respectively.[57] For instance, Empire has bond ratings of 'Baa1' and 'BBB' provided by Moody's and S&P, respectively.[58] Overall agency ratings of Evergy Metro and Evergy West are higher than the average electric utilities in the U.S. This means Evergy Metro and Evergy West are perceived as having lower credit risks than the average electric utilities in the US. Considering the fundamental financial principle of a higher risk requiring a higher return, investors require a lower COE for a company with a higher credit rating.[59] This comparison of bond ratings indicates that Evergy Metro and Evergy West's authorized ROE

[54] S&P Rating Report – Evergy, Inc.
[55] S&P Rating Report - Evergy Metro, Inc.
[56] S&P Rating Report - Evergy Missouri West, Inc.
[57] S&P Capital IQ Pro.
[58] S&P Rating Report - The Empire District Electric Company.
[59] Arditti, F. D. (1967). Risk and the required return on equity. The Journal of Finance, 22(1), 19-36.

should be within a reasonable range compared to the average authorized ROE of electric utility companies in the U.S.

V. CAPITAL STRUCTURE

Q. What factors did Staff consider to determine its capital structure for Evergy Metro and Evergy West?

A. Staff considered two major factors to determine its capital structure for Evergy Metro and Evergy West. First, Staff reviewed the financial relationship between Evergy Inc., Evergy Metro, and Evergy West. Second, in response to Staff Data Request No. 0120, Evergy, Inc. states that it intends to maintain specific targeted capital structures for Evergy Inc., Evergy Metro, and Evergy West.

Q. Please explain the financial relationship between Evergy Inc., Evergy Metro, and Evergy West.

A. Evergy Metro and Evergy West are wholly owned operating subsidiaries of Evergy Inc. Evergy Metro and Evergy West have separate credit ratings issued by Moody's and S&P.[60] Evergy Metro and Evergy West's stand-alone capital structure support their individual credit ratings.[61] Evergy, Inc. provides all equity and partial debt financing to Evergy Metro and Evergy West.[62] Evergy Inc.'s assets secure none of Evergy Metro or Evergy West's debt.[63] Evergy Metro and Evergy West receive or provide short-term advances from or to Evergy Inc. through its regulated money-pool.[64] None of Evergy Metro or

[60] Staff's Data Request Nos. 0018 and 0130f for ER-2022-0129 & ER-2022-0130.
[61] Staff's Data Request No. 0129 for ER-2022-0129 & ER-2022-0130.
[62] Staff's Data Request Nos. 0126 and 0134 for ER-2022-0129 & ER-2022-0130.
[63] Staff's Data Request No. 0134 for ER-2022-0129 & ER-2022-0130.
[64] Staff's Data Request No. 0129 for ER-2022-0129 & ER-2022-0130.

Evergy West's assets secure Evergy Inc.'s debts nor do they secure each other's debts.[65] The management of Evergy Inc. are also included in the ultimate financial decision makers for Evergy Metro and Evergy West.[66]

Q. Has Evergy, Inc. indicated to Staff that they would target specific capital structures in the future for Evergy Metro and Evergy West?

A. Yes. Evergy, Inc.'s response to Staff Data Request No. 0120 says Evergy Inc. would target specific capital structures of 50% equity and 50% debt for Evergy Inc., Evergy Metro, and Evergy West.[67]

Q. What is the actual capital structure of Evergy Inc., Evergy Metro and Evergy West?

A. The average of actual capital structures as of March 31, 2022 for Evergy Inc., Evergy Metro and Evergy West show approximately 50% equity and 50% debt (see Schedule SJW-d6). Table 2 below shows the average capital structures of Evergy Inc., Evergy Metro, and Evergy West for 2020 through 2021. As seen in Table 1, the average capital structures for 2020 through 2021 were approximately 50% equity and 50% debt for Evergy Inc., Evergy Metro, and Evergy West:[68]

Table 1. Comparison Average Capital Structure 2020 - 2021

	Evergy Inc.	Evergy Metro	Evergy West
Common Equity	49.21%	49.47%	49.97%
Long-Term Debt	50.79%	50.53%	50.03%
Total	100.00%	100.00%	100.00%

[65] Staff's Data Request No. 0134 for ER-2022-0129 & ER-2022-0130.
[66] Staff's Data Request No. 0118 for ER-2022-0129 & ER-2022-0130.
[67] Staff's Data Request No. 0120 for ER-2022-0129 & ER-2022-0130.
[68] Schedule SJW-d5-2, Won' Direct Testimony.

Q. What is Staff's recommended capital structure for Evergy Metro and Evergy West in this proceeding?

A. Considering Evergy Inc. is targeting a specific capital structure, and the actual capital structures after approval of the merger represent that commitment, Staff recommends a capital structure of 50% equity and 50% debt for Evergy Metro and Evergy West. Staff's capital structure recommendation is subject to change depending on updated information and true-up data. Staff will keep monitoring Evergy's, Evergy Metro's and Evergy West's updated capital structure and cost of debt through the end of the true-up period and will make its final recommendation at that time.

VI. RATE OF RETURN

Q. Please summarize the procedure that Staff used in its ROR analysis.

A. In order to arrive at Staff's recommended ROR, Staff employed the comparative COE analysis. Staff specifically examined and evaluated: (1) the estimated COEs in the current Evergy Metro and Evergy West rate cases and the 2019 Empire rate case; (2) the authorized ROE approved by the Commission in the 2019 Empire rate case; (3) the current embedded cost of debt; and (4) the allowed ROR for the purpose of rate making in this proceeding. For this procedure, Staff started with the selection of an electric proxy group.

1. Proxy Group

Q. How did you select the electric proxy group for Staff's comparative COE analysis?

A. Staff used a proxy group consisting of U.S. utilities that the Edison Electric Institute classifies as Electric Utilities. Staff screened thirty-eight (38) companies (see Schedule SJW-d9) for the following criterions:

- Stock publicly traded;
- 80% of assets U.S. regulated;
- At least investment grade credit rating;
- Long-term growth rates from at least two sources;
- Positive dividend payout since 2018;
- At least 60% of regulated income from electric utility operations;
- At least 50% of plant from electric utility; and
- No pending merger or acquisitions.

Q. What is Staff's electric proxy group for its comparative COE analysis?

A. The fifteen (15) electric utilities that met these criterions are in Table 2 below:

Table 2. Electric Utility Proxy Group

Electric Utility Companies	Ticker
Alliant Energy Corporation	LNT
Ameren Corporation	AEE
American Electric Power Company, Inc.	AEP
Avista Corporation	AVA
CMS Energy Corporation	CMS
Duke Energy Corporation	DUK
Entergy Corporation	ETR
IDACORP, Inc.	IDA
MGE Energy, Inc.	MGEE
Northwestern Corporation	N W E
OGE Energy Corp.	OGE
Pinnacle West Capital Corporation	PNW
Portland General Electric Company	POR
The Southern Company	SO
Xcel Energy Inc.	XEL

2. Cost of Common Equity

Q. Please explain how Staff conducted its comparative COE analysis.

A. Staff conducted its COE analysis for Evergy Metro and Evergy West by comparing the change in the COE analysis between the fourth quarter of 2019 (the reference time period of the 2019 Empire rate case) and the first quarter of 2022 using the same proxy group of electric utility companies as shown in Table 2. The analysis Staff used to determine Evergy Metro and Evergy West's COE consisted of Staff's DCF COE analysis and CAPM COE analysis. These two analyses are widely accepted in the financial industry as a means to determine a fair and reasonable rate of return for regulated utility companies. [69]

Staff determined that the DCF COE comparative analysis is the most just and reasonable analysis to use in this case to recommend an ROE to the Commission for Evergy Metro and Evergy West. Staff estimated COE for each time period and COE change over time using its DCF COE comparative analysis. Staff then compared the result of its DCF COE analysis to the result of its CAPM COE analysis for testing reasonableness. Staff also used the result of a bond yield plus risk premium method as a check of reasonableness of its DCF COE estimates. Staff then compared the result of its current DCF COE estimate to the 2019 Empire rate case DCF COE estimate. Comparing these DCF COE estimates allowed Staff to recommend a range of authorized ROE.

Q. Please explain the DCF model used for Staff's COE analysis.

A. The DCF model used for Staff's COE comparative analysis is a widely used model by investors to evaluate stable-growth investment opportunities, such as regulated utility companies. The premise of the DCF model is that an investment in common stock is worth the

[69] *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.,* Opinion No. 569, 169 FERC ¶ 61,129 (2019).

present value of the infinite stream of dividends discounted at a market rate commensurate with the investment's risk. Using the following formula of the DCF model, investors determine a common stock price:

$$P = D/(k - g),$$

where P is the common stock price,
D is the current dividend,
k is investors' required return from the stock, and
g is the expected growth rate in dividends.

Staff uses an adjusted dividend yield $(1 + .5g)D$ to account for the fact that the dividends are paid on a quarterly basis.[70] For the growth rate, Staff used the average of analysts' projected earnings per share ("EPS"), dividends per share ("DPS"), and book value per share ("BVPS") and the projected nominal GDP growth rate (see Schedule SJW-d11).[71]

It is important that the growth rate used in Staff's constant-growth DCF model reflect the long-term investment horizon assumption implied in the constant-growth DCF model. Federal Energy Regulatory Commission ("FERC") also agreed as much when it ruled, in Opinion 569, that exclusive use of short-term analysts' growth rates in the constant-growth DCF was inappropriate.[72] The formulation of the COE using the constant-growth DCF formula is:

$$k = (1 + .5g)D / P + g.$$

Q. What is the result of the comparative COE analysis using the DCF model?

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[70] *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.,* Opinion No. 569, 169 FERC ¶ 61,129 (2019).
[71] *Entergy Arkansas, Inc*., Opinion No. 575, 175 FERC ¶ 61,136 (2021).
[72] *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.,* Opinion No. 569, 169 FERC ¶ 61,129 (2019).

A. For the current rate case, the DCF COE for the proxy group is in the range of 7.40% to 8.96%, with a proxy group average of 8.18% (see Schedule SJW-d13). For the 2019 Empire rate case, Staff recalculated COE using the DCF model and using the same proxy group of electric utility companies in Table 2. The 2019 recalculation resulted in a DCF COE in the range of 6.79% to 8.82%, with a proxy group average of 7.80% (see Schedule SJW-d13). Based on a comparative DCF analysis, the COE estimate has increased by approximately 37 basis points from the last 2019 Empire rate case.

Q. Please explain the CAPM analysis Staff used for testing the reasonableness of its COE analysis.

A. The CAPM is built on the premise that the variance in returns over time is the appropriate measure of risk, but only the non-diversifiable variance (systematic risk) is rewarded. Systematic risks, also called market risks, are unanticipated events that affect almost all assets to some degree because the effects are economy wide. Systematic risk in an asset, relative to the average, is measured by the beta of that asset.[73] Unsystematic risks, also called asset-specific risks, are unanticipated events that affect single assets or small groups of assets. Because unsystematic risks can be freely eliminated by diversification, the appropriate reward for bearing risk depends on the level of systematic risk.

The CAPM shows that the expected return for a particular asset depends on the pure time value of money (measured by the risk free rate), the amount of the reward for bearing systematic risk (measured by the market risk premium ("MRP")), and the amount of systematic risk incurred by the asset (measured by beta). Specifically, the CAPM methodology estimates

[73] Beta is a measure of the volatility—or systematic risk—of a security or portfolio compared to the market as a whole. (Investopedia, retrieved November 5, 2020).

the cost of equity by taking the risk-free rate and adding the MRP multiplied by beta.[74] The MRP is calculated by subtracting the risk-free rate from the expected market return. The general form of the CAPM is as follows:

$$k = R_f + \beta(R_m - R_f)$$

where,	k	is the expected return on equity for a security,
	R_f	is the risk-free rate,
	R_m	is the expected market return,
	β	is beta, and
	$R_m - R_f$	is the MRP.

For the risk-free rate, Staff used the average yield on 30-year U.S. Treasury bonds for the three-month period ending March 31, 2022, which was 2.25%. For Staff's CAPM analysis, it relied on betas provided by Value Line.[75] For the MRP estimate, Staff relied on four sets of data. The first data set is the long-term geometric mean of historical return differences between large company stocks and long-term government bonds from 1926-2021, resulting in an MRP estimate of 4.61%.[76] The second data set is the long-term arithmetic mean of historical return differences between large company stocks and long-term government bonds from 1926-2021, resulting in an MRP estimate of 6.03%.[77] The third data set is the long-term geometric mean of historical return differences between S&P 500 and long-term government bonds from 1928-2021, resulting in an MRP estimate of 5.13%.[78] The fourth data set is the long-term

[74] Roger A. Morin, New Regulatory Finance (Public Utilities Reports, Inc. 2006).
[75] Value Line, https://valueline.com/?msclkid=4ed36370d16911eca58154b129389016.
[76] Duff & Phelps, the Stocks, Bonds, Bills, and Inflation (SBBI®) Monthly Dataset.
[77] Ibid.
[78] Risk Premium, Damodaran Online, Stern School of Business, NYU.

arithmetic mean of historical return differences between S&P 500 and long-term government bonds from 1928-2021, resulting in an MRP estimate of 6.71%.[79]

Q. What is the result of the CAPM COE analysis?

A. The proxy group CAPM analysis resulted in a CAPM COE within the range of 5.83% to 8.62% for the current rate case (see Schedule SJW-d14) that supports Staff's DCF COE estimate of 8.18%.

3. Other Test of Reasonableness

Q. Did Staff test the reasonableness of its COE estimates using any other methods?

A. Yes. Staff used the bond yield-plus risk premium method to test the reasonableness of its COE estimates. The bond yield-plus risk premium method, called the "rule of thumb" test of reasonableness in the CFA study guide, estimates the COE by simply adding an equity risk premium to the yield-to-maturity ("YTM") of the subject company's long-term debt.[80] Based on general U.S. capital-market experience and regulated utilities, the equity risk premium is approximately in the range of 3.5% to 5.5%.[81] For the three months ended through March 31, 2022, "A" rated and "Baa" rated long-term utility bonds had average yields of 3.66% and 3.93%, respectively.[82] Adding the 3.5% to 5.5% risk premium, the "rule of thumb" indicates a cost of common equity between 7.16% and 9.43%. To the extent that the bond yield-plus risk premium COE estimate range of 7.16% to 9.43% overlaps Staff's DCF COE estimate range of 7.40% to 8.96%, the bond yield-plus risk premium COE estimate supports the reasonableness of Staff's COE estimate of 8.18%.

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[79] Ibid.
[80] Stowe, J. D., Robinson, T. R., Pinto, J. E., & McLeavey, D. W. (2002) Analysis of Equity Investment: Valuation. Association for Investment Management and Research.
[81] Roger A. Morin, New Regulatory Finance (Public Utilities Reports, Inc. 2006).
[82] Mergent Bond Record.

4. Return on Equity

Q. Please, explain Staff's methodology to determine the recommendation of its authorized ROE in this proceeding.

A. In the 2019 Empire rate case, the Commission authorized an ROE of 9.25%.[83] Based on the result of Staff's DCF analysis for the 2019 Empire rate case, the COE was 7.80% within a range of 6.79% to 8.82%. With the same proxy group, Staff's DCF analysis in the current Evergy Metro and Evergy West rate cases result in a COE of 8.18% with a range of 7.40% to 8.96%.[84] The difference between the two COEs is an increase of approximately 37 basis points since the 2019 Empire rate case. If there is no significant change in the Commission's perspectives on the relationship between the COE estimate and the authorized ROE, it is reasonable to conclude that the current ROE should be approximately 37 basis points higher than the authorized ROE of 9.25% in the 2019 Empire rate case.

To recommend a just and reasonable ROE, Staff considered Evergy Metro and Evergy West's unique risk profiles and the current financial and economic market conditions. The current U.S. inflation rate is at its highest level in 40 years.[85] The Fed previously forecasted that a higher inflation rate reflected "transitory" factors but not anymore.[86] To combat inflation, the Fed started to increase interest rates as Fed Chair Powell announced interest rate increases in 2022.[87] Considering all of the above information that Staff has reviewed, Staff recommends the Commission authorize an ROE of 9.62% for Evergy Metro and Evergy West in this proceeding.

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[83] On page 38, *Amended Report and Order* issued July 23, 2020, in Case No. ER-2019-0374.
[84] Schedule SJW-d15, Won's Direct Testimony.
[85] BBC News, https://news.yahoo.com/us-price-rises-hit-highest-140929152.html.
[86] Federal Reserve, Press Release, March 16, 2022, https://www.federalreserve.gov/monetarypolicy/files/monetary20220316a1.pdf.
[87] Transcript of Chair Powell's Press Conference, December 15, 2021.

Q. Do you have any supporting evidence that the Commission can consider to determine the reasonableness of Staff's ROE recommendation?

A. Yes. Staff recognizes that the Commission may be interested in recent authorized ROEs for other electric utility companies in the U.S. as a test of reasonableness of Staff's recommendation of authorized ROE. Table 3 presents information compiled and published by the Regulatory Research Associates ("RRA") which details the average fully litigated and settled authorized ROE's from Commissions around the U.S. in the years 2010 - 2022 along with the number of cases considered: [88]

Table 3: Authorized ROE's from Commissions in the U.S. (2010-2022)

	Electric Utility					
	Fully Litigated		Settled		Electric Total	
Year	ROE (%)	Case (No.)	ROE (%)	Case (No.)	ROE (%)	Case (No.)
2010	10.35	27	10.39	34	10.37	61
2011	10.39	26	10.12	16	10.29	42
2012	10.28	29	10.06	29	10.17	58
2013	9.85	17	10.12	32	10.03	49
2014	10.05	21	9.73	17	9.91	38
2015	9.66	16	10.04	15	9.84	31
2016	9.74	25	9.80	17	9.77	42
2017	9.73	24	9.75	29	9.74	53
2018	9.63	22	9.57	26	9.60	48
2019	9.58	27	9.76	20	9.66	47
2020	9.43	32	9.46	23	9.44	55
2021	9.28	27	9.57	25	9.42	52
2022	9.36	8	9.34	4	9.35	12

In 2022 to date, the average authorized ROE of electric utilities for fully litigated and settled cases is 9.36% and 9.34%, respectively, for an overall average of 9.35%. Considering the current trend of inclined interest rates, Staff's recommended authorized ROE of 9.62% is

[88] S&P Capital IQ Pro: Regulatory Research Association, retrieved May 11, 2022.

generally consistent with ROEs recently authorized for other utilities around the country. It is Staff's position in order for Evergy Metro and Evergy West to be competitive on the capital market; they need to have the opportunity to earn an ROE that is reasonably consistent with ROEs awarded to other utilities around the country.

5. Embedded Costs of Debt

Q. What embedded cost of debt should the Commission authorize for Evergy Metro and Evergy West in this proceeding?

A. The embedded cost of debt the Commission should authorize for Evergy Metro and Evergy West in this proceeding is Evergy Metro and Evergy West's projected embedded cost of debt, as of May 31, 2022, of 3.92% and 3.79%, respectively.[89] Staff will update its embedded cost of debt throughout this proceeding through the true-up period, as actual information becomes available.

VII. CONCLUSION

Q. What is the conclusion of your direct testimony?

A. Considering the current financial and economic markets, Evergy Metro and Evergy West's risk profiles and Staff's comparative COE analysis supports a just and reasonable ROE of 9.62%, the mid-point in a range of 9.37% to 9.87% for both Evergy Metro and Evergy West. Because of the rapidly changing economic outlook, Staff will update its ROE if there are significant changes in the economic outlook that necessitate an update.

Staff's recommended ROE of 9.62% for Evergy Metro and Evergy West and embedded costs of debt of 3.92% and 3.79% applied to a target capital structure of 50.00% long-term debt

[89] Table 1, Kirkland B. Andrews's Direct Testimony, ER-2022-0129 & ER-2022-0130.

and 50.00% common equity, results in an allowed ROR of 6.77% and 6.70%, respectively (see Schedule SJW-d16). Staff will continue to monitor Evergy Inc., Evergy Metro and Evergy West's capital structure and cost of debt through the true-up period and will make its final recommendation at that time.

Q. Does this conclude your direct testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Evergy Metro, Inc. d/b/a Evergy Missouri Metro's Request for Authority to Implement a General Rate Increase for Electric Service	))))	Case No. ER-2022-0129
In the Matter of Evergy Missouri West, Inc. d/b/a Evergy Missouri West's Request for Authority to Implement a General Rate Increase for Electric Service	))))	Case No. ER-2022-0130

AFFIDAVIT OF SEOUNG JOUN WON, PhD

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW SEOUNG JOUN WON, PhD and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Direct Testimony of Seoung Joun Won, PhD*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Seung Jun Won

SEOUNG JOUN WON, PhD

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 June 2022.

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