BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

In the Matter of the Application and	)	
Request of Mutal Telephone Company	)	
for an Increase in its Cost-Based Kansas	)	Docket No.
Universal Service Fund Support	)	25-MTLT-161-KSF

DIRECT TESTIMONY

PREPARED BY

Adam H. Gatewood

UTILITIES DIVISION

KANSAS CORPORATION COMMISSION

January 24, 2025

Contents

10   **Q.   Please state your name and business address.**

11   A.   Adam H. Gatewood, 1500 Arrowhead Road, Topeka, Kansas 66604.

12   **Q.   Who is your employer, and what is your title?**

13   A.   I am a Senior Managing Financial Analyst for the Kansas Corporation Commission

14   (Commission).

15   **Q.   What is your educational and professional background?**

16   A.   I graduated from Washburn University with a B.A. in Economics in 1987 and a Master of

17   Business Administration in 1996. I have filed testimony on cost of capital, capital structure,

18   and related issues before the Commission in more than 150 proceedings. I have also filed

19   cost of capital testimony before the Federal Energy Regulatory Commission in natural gas

20   pipeline and electric transmission revenue requirement complaint dockets.

21   **Q.   What is the purpose of your testimony?**

1   A.   My testimony contains Staff's rate of return (ROR) for Mutual Telephone Company

2   (Mutual or Applicant). The ROR is an input to Staff's revenue requirement study that

3   determines the Applicant's Kansas Universal Service Fund (KUSF) annual support.

4 **Executive Summary**

5   **Q.**   **Please summarize your recommendation.**

6   A.   I recommend that the Commission adopt an allowed ROR of 7.51% to set the Applicant's

7   KUSF revenue requirement, incorporating a 9.75% return on equity, a 60% equity ratio,

8   and a 4.14% cost of debt. Staff's recommendation adjusts the Applicant's proposed cost of

9   equity and debt and the weighting of both sources of capital.

Staff Cost of Capital Recommendation
Mutual Telephone Co.
25-MTLT-161-KSF

	Weight	Cost	Weighted Avg Cost
Equity	60.00%	9.75%	5.85%
Debt	40.00%	4.14%	1.66%
		Rate of Return	7.51%

10

11   **Q.**   **How did you conclude that a 9.75% return on equity (ROE) is a just and reasonable**

12   **return for rural local exchange carriers (RLEC)?**

13   A.   My analysis verifies that a 9.75% ROE is just and reasonable compensation for the RLECs'

14   equity investors in line with the legal principles espoused in several landmark cases specific

15   to this issue. My analysis is the same type of analysis performed by investors evaluating

16   returns available in the capital markets. It is consistent with the methodology Staff uses in

1   virtually every rate case.

2   In December of 2023, Staff raised its cost of equity recommendation for KUSF support

3   from 9.60% to 9.75%. Over the ensuing twelve months, expectations for the economy and

4   capital market have continued a trajectory of moderating inflation and moderating economic

5   growth, but with higher interest costs than prevalent over the past decade, reflecting a

6   normalization of monetary policies. Therefore, Staff's ROR testimony in this docket

7   essentially draws the same conclusions as that filed in February 2024 in Docket 24-THTT-

8   343-KSF except for the Application data unique to the Applicant.

9   Staff is mindful that consumers ultimately bear the costs of KUSF investigations; Staff

10   strives to keep those costs as low as possible while completing a thorough review of capital

11   markets and an application-specific analysis to determine a reasonable ROR. It is Staff's

12   goal to balance accurately reflecting the prevailing cost of equity capital while applying a

13   return uniformly across Kansas RLECs. Staff is willing to recommend a uniform number

14   across the KUSF dockets if it is appropriate and supported by rigorous analysis. Based on

15   the market data of the recent months, Staff finds that a 9.75% ROE continues to be

16   reasonable and provides Applicant's owners a return significantly above that available in

17   fixed-income investments and the broad equity market. Staff demonstrates in each KUSF

18   docket that its ROE recommendation provides the RLEC a just and reasonable return while

19   being fair to Kansasns contributing to the KUSF.

20   **Q.   Please summarize the Applicant's rate of return request.**

1   A.   The Applicant requests the Commission grant an ROR equal to the 9.75% ROR authorized

2   by the Federal Communications Commission (FCC) to calculate federal high-cost support;[1]

3   Section 7 of the Application does not state a specific ROE, just a 9.75% ROR.[2]

Rate of Return Requested By Mutual Telephone Co. 25-MTLT-161-KSF				
	Balance	Weight	Cost	Weighted Avg Cost
Equity	$ 6,466,310	97.64%		
Debt	$ 156,075	2.36%	5.52%	
	$ 6,622,385			
Mutual Telephone Co. Requested RoR			**9.75%**	

Source: Section 7; Schedule 1 of Application
Requested ROR based on FCC authorized ROR effective July 1, 2021

4

5   Since the beginning of KUSF audits, Staff has argued that the FCC's generic ROR does not

6   meet the cost-based standard set by Kansas law, which this Commission must apply when

7   setting revenue requirements for KUSF support.   Because the FCC's ROR does not

8   differentiate between the costs of debt and equity capital that a specific RLEC employs, it

9   does not recognize the cost savings that can result from utilizing debt capital. Nor does the

10   FCC's ROR reflect changes in the capital markets as the FCC issued the Order in July of

11   2016. A review of the FCC's Order indicates that the 10.75% ROR set by the FCC for

12   2017, dropping to 10.00% in 2020 and 9.75% in 2021, incorporates an ROE higher than the

13   cost of equity set by this Commission since the early 2000s. By some measures using data

14   from Kansas RLECs, the FCC's generic allowed ROR would result in an ROE over 14.00%

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[1] Connect America Fund, WC Docket No. 10-90, Rate of Return Order, March 23, 2016.
[2] Application at Section 7 & Direct Testimony of Stacey Bigham; p. 9; 25-MTLT-161-KSF.

1   mainly because it does not recognize an RLEC's actual cost of debt.[3] Based on the cost of

2   capital studies I have prepared from 2016 to the present, even with the uptick in capital costs

3   that began in 2022 and continued through 2023, the FCC's annual reduction is not reflective

4   of the current cost of capital.

Phase in of Authorized RoR Reduction From 11.25% to 9.75%		
Effective Date of Rate of Return	Authorized Rate of Return	
2016	11.00%	*Authorized rate of return is set at
2017	10.75%	9.75% and phased in over time
2018	10.50%	
2019	10.25%	*9.75% WACC embodies a 5.87% cost of debt
2020	10.00%	14.37% ROE with a 54.34% debt ratio
2021	9.75%	
FCC Report and Order and Order on Reconsideration, and Further Notice of Proposed Rulemaking; March 30, 2016 FCC 16-33; para 319-326		

6   The Applicant's requested rate of return has no link to returns available in the capital

7   markets, or the Applicant's embedded cost of debt. Therefore, it fails to conform to the

8   Commission's established practice and the basic principles set out in the critical legal

9   decisions rendered by the U.S. Supreme Court, commonly referred to as the "Hope and

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[3] Report and Order, Order and Order on Reconsideration, and Further Notice of Proposed Rulemaking In the Matter of Connect America Fund ETC Annual Reports and Certifications Developing a Unified Intercarrier Compensation Regime (WC Docket No. 10-90; WC Docket No. 14-58; and CC Docket No. 01-92) Released March 30, 2016. See paragraph 322.

   322.   We note that the WACC is supposed to compensate equity holders and debtholders who provide the funds used to finance the firm's assets. Given a rate of return set equal to 9.75 percent, an average capital structure based on our estimates of 54.34 percent debt, and a cost of debt based on our estimates of 5.87 percent, the implied cost of equity is 14.37percent. We find that not only is the WACC of 9.75 percent high enough adequately to compensate the firm's debtholders, but the implied rate of return on equity also provides equity holders with the opportunity to earn a reasonable rate of return on their investment. As support for our finding that a 9.75 percent rate of return is reasonable, we examine some benchmarks.

1   Bluefield" decisions that are the cornerstone to establishing a fair return.[4] For these reasons,

2   the Commission should reject the FCC ROR, as it has in all past KUSF Dockets. The

3   Applicant cites several states that adopted the FCC ROR for state support calculation.[5]

4   Kansas has not, and that is simply a difference in public policy decisions of state legislatures

5   and public utility commissions.

6 **Q.   Do staff have any additional concerns about this issue?**

7 A.   The Kansas Legislature established a cap on aggregate annual KUSF support to RLECs.

8   Applying the FCC ROR to KUSF support calculations could cause a substantial shift in

9   support dollars among the Kansas RLECs, transferring support dollars to those RLECs with

10   the greatest leverage in their capital structures and away from RLECs with balanced,

11   conservative capital structures. Staff believes such an outcome is far from desirable for

12   stakeholders to the KUSF support system. Staff urges the Commission not to waiver from

13   its past, established practice of rejecting the FCC ROR and instead looking closely at the

14   RLECs' actual capital costs.

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[4] *See Bluefield Water Works & Improvement Company v. Public Service Commission of West Virginia*, 262 U.S. 679, 692-3 (1923) (Bluefield); *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 591, 603 (1944) (Hope): "The rate-making process under the Act, i.e., the fixing of 'just and reasonable' rates, involves a balancing of the investor and the consumer interests. Thus, we stated in the Natural Gas Pipeline Co. case that 'regulation does not insure that the business shall produce net revenues.' But such considerations aside, the investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view, it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. By that standard, the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital. The conditions under which more or less might be allowed are not important here. Nor is it important to this case to determine the various permissible ways in which any rate base on which the return is computed might be arrived at. For we are of the view that the end result in this case cannot be condemned under the Act as unjust and unreasonable from the investor or company viewpoint."

[5] Direct Testimony of Stacey Brigham; 25-MTLT-161-KSF; Filed September 20, 2024; p. 10.

1 **Q.** **How do KUSF Dockets in which the Commission sets the KUSF support level for an**

2 **RLEC differ from a typical rate case?**

3 A. A typical rate case collects the revenue requirement from a utility's customers. In

4 determining an RLEC's KUSF support, the Commission is not setting a revenue

5 requirement to determine rates *solely* paid by the RLEC customers; instead, the KUSF

6 support is coming from *all* Kansans who pay into the KUSF, which transfers money from

7 users of telecommunications services in Kansas to the ratepayers of an RLEC so that they

8 do not have to pay the total cost of those RLEC telephony services. All Kansans, directly

9 or indirectly, are paying a portion of the RLECs' revenue requirements. In setting revenue

10 requirements for any rate-regulated industry, a regulatory agency must balance the interests

11 of a regulated entity and the consumer. In this instance, "consumers' interests" encompass

12 all who contribute to the KUSF support mechanism.

13 **Q.** **When establishing a reasonable rate of return for RLECs in KUSF Dockets, are there**

14 **unique issues that the Commission should be aware of that are not present in gas and**

15 **electric rate cases?**

16 A. Yes, in KUSF Dockets, we estimate the capital costs of providing a very narrow set of

17 telecommunications services.[6] The foremost challenging issue is a lack of publicly traded

18 companies whose primary business is providing land-line telephony services in rural areas.

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[6] In Kansas, Universal Service is defined by K.S.A. 66-1,187(p): "Universal service" means telecommunications services and facilities which include: single party, two-way voice grade calling; stored program controlled switching with vertical service capability; E911 capability; tone dialing; access to operator services; access to directory assistance; and equal access to long distance services."

1   Of the few companies that provide landline services to rural areas, that segment of their

2   operations is a small percent of their total revenues and earnings. As a result of this limited

3   exposure to RLEC services, investors do not evaluate those companies based on the risks

4   associated with providing RLEC services but instead on the risks and growth potential of

5   other telecommunications services such as cellular, internet, and cable television. Despite

6   these difficulties, it is possible to estimate the cost of equity for companies providing RLEC

7   services, with the caveat that the stakeholders in this process must accept a less precise

8   estimate than we would otherwise have if we had access to a robust proxy group for the

9   analysis. This data limitation creates a challenge, and it is a matter of fact that parties must

10   accept. Despite these challenges, Staff can demonstrate that there is ample evidence that its

11   recommended rate of return meets the legal requirements of a just and reasonable return to

12   the Applicant.

13 **Q.   How did you overcome those challenges?**

14 A.   Staff overcomes these challenges by relying on data that reflects long-run, forward-looking

15   returns in capital markets measured by the capital asset pricing model (CAPM) and similar

16   risk premium models. Seasoned financial industry experts and institutional investors

17   universally rely on these and similar models to evaluate investment opportunities. Staff is

18   not using a discounted cash flow (DCF) model as typically seen in gas and electric rate

19   cases and previous KUSF dockets. There are specific data requirements for a DCF analysis,

20   and, at this time, several of those requirements cannot be met by the small number of

21   publicly traded telecommunications companies that provide landline services.   The

1   companies in that group currently exhibit volatile earning growth projections and several

2   with negative earnings growth projections; those two characteristics are inconsistent with

3   the tenets of the DCF model. Removing the DCF model is not a substantial change in

4   Staff's cost of capital study as Staff has emphasized for several years that it was putting

5   little weight on the DCF model for the same reason.

6   Risk-Premium Provided by a 9.75% ROE

7   **Q.   How does your recommendation in this Docket compare to those in past KUSF**

8   **Dockets?**

9   A.   A picture of this comparison is the risk premium that the allowed ROE provides the RLEC

10   investors over bond yields that we observe in the capital markets and returns set for other

11   regulated utilities.   This table contains the KUSF Dockets since 2006.   Staff's

12   recommendations have been 10.50% in these Dockets, decreasing to 9.60% as interest rates

13   fell. As a clearer picture materialized of the economy after the Global Financial Crisis

14   (GFC), with slower economic growth rates and lower capital costs, Staff recommended an

15   ROE of 9.60% to 9.75%, aligning with the prevailing market trends. Staff believes the

16   increase in capital costs since 2022 has been situational concerning Federal Reserve policies

17   targeted at reducing inflationary pressures.   As I discuss later, those policies have

18   succeeded, and inflationary pressures have eased.

Staff Positions in Recent KUSF Dockets
25-MTLT-161-KSF

Docket	Testimony Date	Company	Equity Ratio	Staff ROE	Baa/BBB Yields*	Resulting Rp**
06-H&BT-1007-AUD	10/10/2006	H&B Communications, Inc.	60.00%	12.00%	6.47%	5.53%
06-RNBT-1322-AUD	2/9/2007	Rainbow Telephone Association, Inc.	60.00%	12.15%	6.33%	5.82%
07-MDTT-195-AUD	3/2/2007	Madison Telephone, LLC	6.46%	12.30%	6.16%	6.14%
07-PLTT-1289-AUD	10/26/2007	Peoples Telephone, LLC	60.00%	12.00%	6.39%	5.61%
08-MRGT-221-KSF	12/19/2007	Moundridge Telephone Co.	60.00%	12.00%	6.60%	5.40%
09-MTLT-091-KSF	11/26/2008	Mutual Telephone Co.	60.00%	14.00%	9.05%	4.95%
09-BLVT-913-KSF	9/30/2009	Blue Valley Telecommunications, Inc.	46.60%	12.50%	6.17%	6.33%
10-HVDT-288-KSF	6/24/2010	Haviland Telephone Co, Inc.	30.00%	11.00%	6.22%	4.78%
11-PRNT-315-KSF	5/25/2011	Pioneer Telephone Association, Inc.	54.40%	10.00%	5.77%	4.23%
11-RNBT-608-KSF	7/26/2011	Rainbow Telecommunications Assoc.	55.00%	10.00%	5.75%	4.25%
11-CNHT-659-KSF	9/2/2011	Cunningham Telephone Co., Inc.	37.40%	10.25%	5.20%	5.05%
12-S&TT-234-KSF	8/15/2012	S&T Telephone Assoc., Inc.	57.40%	10.50%	5.07%	5.43%
12-GRHT-633-KSF	10/18/2012	Gorham Telephone Company	29.69%	10.50%	4.58%	5.92%
12-LHPT-875-AUD	12/19/2012	LaHarpe Telephone Company	90.00%	10.00%	4.71%	5.29%
13-CRKT-268-KSF	3/13/2013	Craw-Kan Telephone Cooperative, Inc.	60.00%	10.00%	4.89%	5.11%
13-ZENT-065-AUD	5/17/2013	Zenda Telephone Company, Inc.	Confidential	10.00%	4.76%	5.24%
13-JBNT-437-KSF	5/23/2013	J.B.N. Telephone Company, Inc.	46.50%	9.75%	4.79%	4.96%
13-PLTT-678-KSF	9/24/2013	Peoples Telecommunications, LLC	55.83%	9.75%	5.35%	4.40%
14-WTCT-142-KSF	2/5/2014	Wamego Telecommunications Co.	61.43%	9.60%	5.12%	4.48%
14-S&TT-525-KSF	9/25/2014	S&T Telephone Cooperative, Inc.	54.86%	9.75%	4.79%	4.96%
15-MRGT-097-KSF	1/20/2015	Moundridge Telephone Co.	Confidential	9.75%	4.43%	5.32%
15-TWVT-213-AUD	9/4/2015	Twin Valley Telephone Co.	47.81%	9.75%	5.28%	4.47%
17-RNBT-555-KSF	10/26/2017	Rainbow Telecomm Assoc. Coop	60.00%	9.75%	4.37%	5.38%
19-GNBT-505-KSF	10/11/2019	Golden Belt Telephone Assoc. Cooperative	60.00%	9.60%	3.98%	5.62%
20-UTAT-032-KSF	12/13/2019	United Telephone Association	60.00%	9.60%	3.84%	5.76%
20-BLVT-218-KSF	3/20/2020	Blue Valley Telecommunications, Inc.	60.00%	9.60%	5.15%	4.45%
22-CRKT-087-KSF	12/15/2021	Craw-Kan Telephone Cooperative, Inc.	60.00%	9.60%	3.30%	6.30%
22-COST-546-KSF	10/6/2022	Columbus Communications Services, LLC	60.00%	9.60%	5.99%	3.61%
24-SNKT-131-KSF	12/14/2023	South Central Telephone Association, Inc.	60.00%	9.75%	5.49%	4.26%
24-TTHT-343-KSF	2/22/2024	Totah Communications, Inc.	55.87%	9.75%	5.82%	3.93%

			Average Risk Premium of Recent KUSF Dockets	**5.10%**
			Median	**5.18%**

*Moody's Seasoned Baa Corporate Bond Yield [DBAA], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org
**Risk premium of Staff's ROE Recommendation over the Baa/BBB Corporate Bond Yield

1

2   In the right column is the resulting risk premium provided by the return on equity advocated

3   by Staff in each docket; Staff recommended ROE minus the average yield on Baa/BBB

4   corporate bonds. From 2010 to the present, the risk premium averaged 492 basis points for

5   those years after the GFC. The downward trend of bond yields during 2019, 2020, and 2021

6   and ROE of 9.60% provided RLECs with a progressively higher risk premium, almost

7   justifying a lower ROE than the 9.60% that Staff recommended.   The higher interest rates

8   in 2022 through 2023 produce a lower risk premium, providing the Applicant with a risk

9   premium of approximately 376 basis points.

1   As a point of comparison, the following table contains the risk premium derived in gas and

2   electric utility cases. The broad trends observed in electric and natural gas rate cases are

3   the same as those observed in the KUSF dockets.

Risk Premium of Recent Electric and Gas Dockets

Docket	Testimony Date	Company	Equity Ratio	Staff Recmmd	*BBB/Baa Corporate Bond Yld.	Resulting Rp
15-KCPE-116-RTS	5/11/2015	Kansas City Power & Light	50.48%	9.25%	4.94%	4.31%
15-WSEE-115-RTS	7/9/2015	Westar Energy	53.12%	9.25%	5.20%	4.05%
16-KGSG-491-RTS	9/7/2016	Kansas Gas Service	55.00%	8.75%	4.19%	4.56%
16-ATMG-079-RTS	12/21/2016	Atmos Energy	56.12%	9.10%	4.81%	4.29%
18-KCPE-095-MER	1/29/2018	Kansas City Power & Light	*	9.30%	4.29%	5.01%
18-WSEE-328-RTS	6/11/2018	Westar Energy	51.24%	9.30%	4.85%	4.45%
18-KCPE-480-RTS	9/12/2018	Kansas City Power & Light	49.09%	9.30%	4.86%	4.44%
18-KGSG-560-RTS	10/29/2018	Kansas Gas Service	55.00%	9.15%	5.10%	4.05%
19-EPDE-223-RTS	5/13/2019	Empire District Electric Co	51.65%	9.30%	4.65%	4.65%
19-ATMG-525-RTS	10/31/2019	Atmos Energy	56.32%	9.10%	3.87%	5.23%
21-BHCG-418-RTS	9/10/2021	Black Hills Energy	42.96%	9.20%	3.23%	5.97%
23-ATMG-359-RTS	1/17/2023	Atmos Energy	59.16%	9.40%	5.44%	3.96%
23-EKCE-775-RTS	8/29/2023	Evergy, Inc.	48.50%	9.30%	5.96%	3.34%
24-KGSG-610-RTS	7/1/2024	Kansas Gas Service	60.21%	9.60%	6.03%	3.57%

Average Risk Premium from Recent Gas & Electric Dockets   **4.42%**
Median   **4.38%**

*Moody's Seasoned Baa Corporate Bond Yield [DBAA], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org

4

5   Providing investors a risk premium over less risky debt investments, as Staff has done,

6   follows the principles espoused by the Supreme Court in its *Hope* and *Bluefield* decisions.

7   These high-dividend, income-producing securities are considered alternatives to

8   investments in utility stocks because, like utility stocks, bonds offer stable valuations and

9   higher current income relative to the equity market. Risk premiums vary over time and

10   across economic and capital market conditions; thus, no benchmark risk premium or

11   formula sets a reasonable return on equity at a given interest rate. Risk premium

12   calculations place the allowed return in context with prevailing interest rates that are

13   market-determined and observable. The Court's decision makes it clear that a fair and

1   reasonable return for a utility's equity investors must offer the opportunity for investors to

2   earn a premium over less risky investment vehicles such as public utility bonds used in the

3   previous tables. The following table demonstrates that Staff's proposed 9.75% ROE meets

4   that standard in each instance; Staff's recommendation provides a premium ranging from

5   406 to 565 basis points over the returns offered by less risky fixed-income investments.

6   Furthermore, lenders supplying long-term debt capital to the Applicant accept a 4.14%

7   (weighted cost of debt) return, a lower return than the fixed income instruments cited in this

8   table, thus a risk premium of 561 basis points (9.75% minus the 4.14% weighted cost of

9   debt).

KCC Staff's Risk Premium Over Fixed Income Yields
Based on a 9.75% Return on Equity
25-MTLT-161-KSF

Monthly Averages	10-Year T-Bond	30-Year T-Bond	Baa Corporate Bond Yield	BBB/Baa Utility Bond Yield
June, 2024	4.31%	4.44%	5.82%	5.87%
July, 2024	4.25%	4.46%	5.85%	5.87%
August, 2024	3.87%	4.15%	5.63%	5.59%
September, 2024	3.72%	4.04%	5.42%	5.39%
October, 2024	4.10%	4.38%	5.60%	5.69%
November, 2024	4.36%	4.54%	5.78%	5.76%
Average	**4.10%**	**4.34%**	**5.68%**	**5.69%**

Staff's Risk Premium Over the Average 10-Year Treasury Bond Yield

Staff Recommended Allowed ROE	9.75%
Six Month Average 10-Year Treasury Bond Yield	4.10%
Premium Over Average 10-Year Treasury Bond Yield	**5.65%**

Staff's Risk Premium Over the Average 30-Year Treasury Bond Yield

Staff Recommended Allowed ROE	9.75%
Six Month Average 30-Year Treasury Bond Yield	4.34%
Premium Over Average 30-Year Treasury Bond Yield	**5.41%**

Staff's Risk Premium Over the Average BBB/Baa Corporate Bond Yield

Staff Recommended Allowed ROE	9.75%
Six-Month Average BBB/Baa Corporate Bond Yield	5.68%
Premium Over Average BBB/Baa Utility Bond Yield	**4.07%**

Staff's Risk Premium Over the Average BBB/Baa Utility Bond Yield

Staff Recommended Allowed ROE	9.75%
Six-Month Average BBB/Baa Utiilty Bond Yield	5.69%
Premium Over Average BBB/Baa Utility Bond Yield	**4.06%**

Sources:

1) Yield on U.S. 10-Year Treasury Bond reported at https://fred.stlouisfed.org/

2) Yield on U.S. 30-Year Treasury Bond reported at https://fred.stlouisfed.org/

3) Yield on Baa Corporate Bonds reported at https://fred.stlouisfed.org/

4) Yield on BBB/Baa Publicy Utility Bonds; Value-Line Investment Survey, Selections and Opinions

1

2 **Q.   For comparison, could you please summarize ROE decisions across the country?**

3 A.   There is ample information on the allowed returns granted to gas distribution and electric

4   utilities; unfortunately, there is no reporting of the returns granted to local exchange carriers

5   across the nation as most telephony services are deemed competitive or operate under some

1   price cap regulation. This comparison to other rate-of-return regulated industries is helpful

2   because it shows that allowed returns on other rate-of-return regulated industries have

3   moved in parallel with broad measures of capital costs. Thus, regulatory commissions have

4   had many opportunities to evaluate evidence on investors' required returns. This data shows

5   that regulatory commissions concluded that capital costs of regulated utilities have trended

6   downward over the past 24 years.

Median Allowed Return on Equity		
Date	Natural Gas	Electric
2000	11.16	11.50
2001	11.00	11.00
2002	11.00	11.28
2003	11.00	10.75
2004	10.50	10.70
2005	10.40	10.35
2006	10.50	10.23
2007	10.20	10.20
2008	10.45	10.30
2009	10.26	10.50
2010	10.10	10.30
2011	10.03	10.17
2012	10.00	10.08
2013	9.72	9.95
2014	9.78	9.78
2015	9.68	9.65
2016	9.50	9.75
2017	9.60	9.60
2018	9.60	9.58
2019	9.70	9.65
2020	9.44	9.45
2021	9.60	9.38
2022	9.60	9.50
2023	9.50	9.60
2024Q1	9.70	9.70
2024Q2	9.65	9.70
2023Q3	9.50	9.70

Source: S&P Market Intelligence; RRA

1

2   This table highlights that public service commissions nationwide recognize the decline in

3   capital costs for rate-of-return regulated companies over the past two decades. Decisions

4   by this Commission have followed the same downward trend through 2020 and 2021.

Macro-Economic Environment & Investor Expectations

Q.   **Is it necessary for the Commission to create a forecast of the broad economy to determine a reasonable return?**

A.   No, I advise the Commission that determining a fair and reasonable allowed return does not require making an independent forecast of the economy's future or adopting a specific perspective on the economy's direction. The focus of setting a fair and reasonable allowed return is on the *investors'* required return, which is a product of the *investors'* expectations for the economy (not the Commissioners'). Investors' expectations for the economy are captured within the Commission's cost of capital decision, provided the Commission's decision is based on market-derived data such as current stock prices, interest rates, and other market data that conveys investors' outlook for the economy. Staff's recommendation is based on current market-derived data.   It is not necessary, and very likely counterproductive, for regulators and cost of capital witnesses to second-guess the capital markets. It is a well-accepted premise that our capital markets are efficient, where investors factor all available information into their decisions to buy and sell debt and equity securities. Furthermore, rational, profit-maximizing investors are forward-looking.   Accordingly, investors incorporate their forecasts of the economy into their decisions in their best attempt to maximize returns.

Q.   **Do you believe the Commission benefits from some discussion of economic forecast when setting allowed returns?**

A.   Yes, particularly with the global events of the past five years, beginning with the Covid-19

1   pandemic followed by the Russian/Ukrainian war. The economic issues facing

2   governments and their central banks around the world directly related to the fallout from

3   these two global events as both caused disruptions of long-established global supply chains

4   and trade patterns, disruptions that reduced economic growth and spiked inflation rates to

5   levels not witnessed in 40 years.

6   Equity and fixed-income investors watch the actions of the Federal Reserve Open Market

7   Committee (FOMC) of the U.S. Federal Reserve Board (Fed) closely, likely more so than

8   any other published report on the U.S. economy. The opinions and expectations of the

9   FOMC members and staff economists are published weeks after each meeting. As of the

10   most recent meeting in November 2024, the Federal Reserve's economic perspective

11   reflects cautious optimism amid ongoing inflationary pressures and a slowing but resilient

12   economy, as summarized in their views on inflation, growth, and unemployment.

13   - **Inflation**: The Fed remains focused on bringing inflation down to its 2% target.[7]
14   While inflation has moderated from the highs of 2022, it is still above target,
15   particularly in core areas like services and shelter. Some members noted that the
16   process could take longer than previously expected.[8] The FOMC recognizes the
17   need to carefully monitor price pressures, particularly as economic demand remains
18   relatively strong.
19   - **Economic Growth**: U.S. economic growth has slowed but remains positive, with a
20   noticeable slowdown in the labor market, particularly in sectors like housing and
21   manufacturing. However, consumer spending has been relatively stable, supported
22   by a strong labor market and wages growing moderately.
23   - **Labor Market**: The job market shows signs of cooling, with job growth slowing
24   and the unemployment rate remaining low. The Fed is watching for signs of a more

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[7] P.12
[8] Minutes of the Federal Open Market Committee, November 6, 2024; p. 8.

1   sustainable labor market balance, as it is concerned about potential wage-price

2   spirals that could sustain inflation.

3   FOMC members acknowledge several risks, including global economic conditions, the

4   possibility of a more pronounced slowdown in consumer spending, and geopolitical

5   uncertainties that could disrupt markets. There is also concern about long-term inflation

6   expectations becoming unanchored if price pressures do not ease. [9]

7   In its November meeting, acting on the totality of the data, the FOMC reduced the federal

8   funds rate by 25 basis points, bringing it to a target range of 4.50%–4.75%.[10] This marks

9   the second rate cut since September, reflecting a gradual easing of monetary policy as

10   inflation moves closer to the Federal Reserve's 2% target. The FOMC continues to reduce

11   its U.S. Treasury and mortgage-backed securities holdings, maintaining its caps on monthly

12   reductions at $25 billion and $35 billion, respectively.[11] The FOMC's perspective is one

13   of caution—acknowledging that progress has been made in controlling inflation but

14   recognizing that more work is needed to ensure it moves sustainably toward the 2% target

15   without triggering a severe economic downturn. The FOMC members expressed cautious

16   optimism about the economy while maintaining a measured approach to monetary easing,

17   actions that reflect its dual-mandate to achieve maximum employment *and* stable prices.

18   Almost all FOMC members judged the risks to attaining their dual-mandate objective

19   roughly balanced.[12]

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[9] P.12
[10] P.12
[11] P.12
[12] P.10,12

1   **Q.**   **Please discuss the market participants' expectations for the economy.**

2   A.   The FOMC notes from its September meeting indicate its members' long-run targets are a

3   return to pre-pandemic inflation levels at 2.00% annually, real GDP at an annual growth of

4   1.80%, and unemployment at 4.20%.[13]   There are other views and forecasts published,

5   though most are in line with the expectations published by FOMC members.

6   ## Corporate Structure

7   **Q.**   **Please describe Applicant, Mutual Telephone Association.**

8   A.   The Applicant is organized as a cooperative association where the consumers served are the

9   only stockholders and provide equity capital.   The Applicant serves parts of Rice and

10   Ellsworth Counties in Kansas.

Standards for a Just & Reasonable Rate of Return

11   **Q.**   **What standards should public utility commissions consider when authorizing a rate**

12   **of return?**

13   A.   The standards for setting a just and reasonable rate of return require that, to be reasonable,

14   the allowed return must reflect the risks associated with an equity investment in the utility.

15   For the allowed return to be in that reasonable range, it must compensate for risks while

16   capturing a fair proportion of benefits for consumers.   The allowed ROE is best described

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[13] Table 1., Economic projections of Federal Reserve Board members and Federal Bank presidents, under their individual assumptions of projected monetary policy, December 2024.

1   as the forward-looking discount rate necessary to induce equity investors to commit capital

2   to the enterprise. Standards used to gauge the fairness and reasonableness of an allowed

3   ROE have been stated by courts as the result of appeals of decisions issued by regulatory

4   agencies. Financial analysts and policymakers rely on the courts' decisions to estimate the

5   appropriate cost of capital. The opinions do not articulate precisely how to calculate or

6   model a reasonable cost of capital. Instead, the decisions provide critical questions for

7   policymakers and analysts to consider in determining a reasonable return for a regulated

8   utility. There are several court cases that, as a group, are viewed as the keystone to

9   measuring the adequacy of a utility's allowed return. The earliest of these decisions go back

10   to an era when it was not only the "rate of return" at issue but also the fundamental

11   measurement of the investment in the utility enterprise, commonly referred to as rate base.

12   This is less of an issue today as regulators, utility management, and investors readily accept

13   historic depreciated value as the measure of investment to estimate the value of a utility's

14   rate base (as opposed to reproduction cost or market value). The Court's decision in

15   *Bluefield* addressed both rate base and ROR.[14]

16   The United States Supreme Court decisions state that returns granted to regulated public

17   utilities should: 1) be commensurate with returns on investments of similar risk; 2) be

18   sufficient to assure the financial integrity of the utility under efficient economic

19   management; and 3) change over time with changes in the money market and business

20   conditions.[15] An important takeaway from these decisions is that the United States Supreme

[14] *See Bluefield,* 262 U.S. 579, 692-93.
[15] *See id.; Hope,* 320 U.S. 591, 603; *Smyth v. Ames*, 169 U.S. 466 (1898); *Wilcox v. Consolidated Gas Co.*, 212 U.S. 19, 48-49 (1909).

1   Court has afforded regulatory agencies significant latitude in establishing an appropriate

2   ROR and ROE for a utility. The Kansas Supreme Court has recognized and follows this

3   body of law.[16] This Commission has noted this fact in Orders issued in previous dockets.[17]

4 **Q.   How do financial analysts apply the standards established by the Court?**

5 A.   For an allowed ROE to meet the legal standards, the return should be as specific as possible

6   to the utility in question. Financial analysts achieve this goal by analyzing the utility in

7   question when it is possible to do so and a proxy group of similarly situated utilities.

8   Treatises on rate of return for public utilities, such as The Cost of Capital – A Practitioner's

9   Guide, agree that *Bluefield* lays out the four standards for a fair return.

10   *1) Comparable Earnings* – a utility is entitled to a return similar to that
11   being earned by other enterprises with similar risks but not as high
12   as those earned by highly profitable or speculative ventures;

13   *2) Financial Integrity* – a utility is entitled to a return level reasonably
14   sufficient to assure financial soundness;

15   *3) Capital Attraction* – a utility is entitled to a return sufficient to
16   support its credit and raise capital; and

17   *4) Changing Level of Returns* – a fair return can change along with
18   economic conditions and capital markets.[18]

19   As a financial analyst formulating rate of return analyses for our state commission, I take

20   from *Bluefield* that the Court requires a rate Order that allows a utility an opportunity to

21   earn a return consistent with the utility's risk profile and consistent with observations in the

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[16] *Kansas Gas & Elec. Co. v. State Corp. Comm'n*, 239 Kan. 483, 491, 720 P. 2d 1063, 1072 (1986).

[17] Order: 1) Addressing Prudence; 2) Approving Application, in Part; and 3) Ruling on Pending Requests, pp. 37-38, Docket No. 10-KCPE-415-RTS (Nov. 22, 2010).

[18] The Cost of Capital – A Practitioner's Guide by David C. Parcell, Prepared for the Society of Utility and Regulatory Financial Analysts, 1997, pp. 3-13 to 3-14.

1   capital markets. The Court's decision in *Hope,*[19] like that in *Bluefield,* dealt with both the

2   valuation of the rate base and the rate of return on that rate base.   With respect to the rate

3   of return, the Court in *Hope* affirmed the four standards set out in *Bluefield.*

4 **Capital Structure**

5   **Q.   Please describe Applicant's capital structure presented in Section 7 of its Application.**

6   A.   Applicant reports a capital structure with 97.64% equity and 2.36% long-term debt.[20]   I

7   verified that the equity ratio in Section 7 accurately depicts the Applicant's actual

8   capitalization. The capital structure in Section 7 appears to be assigned to Mutual's RLEC

9   operations.

10   **Q.   Did you use Mutual's 97% equity ratio to calculate the ROR?**

11   A.   No, I did not. Instead, I recommend that the Commission calculate the ROR using a

12   hypothetical capital structure containing 40% debt and 60% equity capital.

13   **Q.   Why are you recommending something other than Mutual's actual capital structure?**

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[19] *Hope*, 320 U.S. 591, 603: **"**The rate-making process under the Act, i.e., the fixing of 'just and reasonable' rates, involves a balancing of the investor and the consumer interests. Thus, we stated in the Natural Gas Pipeline Co. case that 'regulation does not insure that the business shall produce net revenues.' But such considerations aside, the investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view, it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. By that standard, the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital. The conditions under which more or less might be allowed are not important here. Nor is it important to this case to determine the various permissible ways in which any rate base on which the return is computed might be arrived at. For we are of the view that the end result in this case cannot be condemned under the Act as unjust and unreasonable from the investor or company viewpoint."

[20] Application, Section 7; Docket 25-MTLT-161-KSF.

1 A. Because Staff's hypothetical capital structure balances the interests of the RLEC and Kansas

2   telecommunications consumers. Like most Kansas RLECs, Mutual has access to relatively

3   low-cost debt capital. The KUSF subsidy should recognize that RLECs can employ a

4   lower-cost capital structure than one that is nearly all equity. Establishing a subsidy

5   payment out of the KUSF must balance the interests of the RLECs that receive the subsidy

6   and Kansas telephony consumers who fund that subsidy.   That balancing act requires

7   estimating the revenue requirement using reasonable and cost-effective inputs. There is no

8   evidence that a 100% equity capital structure is cost-effective for an RLEC. Thus, it should

9   not be used in the KUSF calculations.

10 **Q. Did Mutual provide evidence that its capital structure is cost-effective?**

11 A. No, it did not.

12 **Q. Is Staff recommending that Mutual's management alter its equity ratio?**

13 A. No. My recommendation pertains only to the capital structure used to calculate the KUSF

14   subsidy.   Staff is not requesting that Mutual change its equity ratio.   Staff leaves

15   capitalization decisions to management while establishing Mutual's annual KUSF support

16   subsidy demands public policy considerations encompassing those who fund the KUSF

17   support mechanism.

18 **Q. How did you conclude that a hypothetical capital structure with 60% equity is**

19   **reasonable?**

1   A.   Throughout performing KUSF audits during the past decades, I have found that an equity

2   ratio of 60% has been the high-end range observed for publicly traded telecommunications

3   companies. This, coupled with the fact that Kansas RLECs have access to debt capital at

4   reasonable interest rates, leads me to conclude that a balanced capital structure for Kansas

5   RLECs should include a significant portion of debt. Staff believes the 60% equity ratio

6   provides RLECs with a reasonable return and cost structure for the KUSF subsidy.

7   **Cost of Debt**

8   **Q.   What cost of debt do you use in Applicant's ROR?**

9   A.   I recommend using the 4.14% cost of debt for the Applicant's debt as opposed to the 5.42%

10   cost of debt contained in its application.[21] The 5.42% cost of debt is derived from a subset

11   of debt issues contained in its Consolidated Financial Statements, whereas 4.14% reflects

12   the totality of the Applicant's embedded cost of debt. Staff's methodology is consistent

13   with the method it applies in traditional rate proceedings. The Applicant's debt cost

14   excludes two loans with a relatively low interest rate. Whether or not the Applicant obtained

15   the debt to directly finance KUSF-supported assets or indirectly by using those proceeds for

16   other corporate purposes, they are obligations of the Applicant and its affiliates. Therefore,

17   they should be included to provide a full picture of its capitalization and related costs.

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[21] Application (Confidential Version), Section 7 of Docket 25-MTLT-161-KSF and the Independent Accountant's Review Report and Consolidated Financial Statements with Supplementary Information, Notes to Consolidated Financial Statements December 31, 2022 & 2023.

1   **<u>Summary of Cost of Equity Models</u>**

2   **Q.   Please provide an overview of the methods you relied on to arrive at 9.75% ROE.**

3   A.   To estimate the RLEC's cost of equity, I used the same financial models as I do for regulated

4   natural gas distribution and electric utilities. I also performed a CAPM analysis and

5   reviewed the options for applying DCF models to a group of telecommunications

6   companies.

7   **Q.   Which models do you believe are the most informative in estimating an RLEC's cost**

8   **of equity capital?**

9   A.   The CAPM is the most informative tool for estimating an ROE for the Applicant and similar

10   RLECs. At this point, it is impossible to apply a DCF analysis to the publicly traded

11   companies that could serve as the proxy group for Kansas RLECs and produce meaningful

12   information. The DCF model requires a positive growth rate in earnings and dividends at

13   a singular, constant rate or occurring in several distinct, predictable phases.   All the

14   potential proxy group members fail this requirement, exhibiting growth forecasts that are

15   either negative or far too to expect them to continue beyond the analysts' three-to-five-year

16   horizon. The DCF model is merely an equation; with negative or volatile growth forecasts,

17   the DCF equation falls apart and cannot produce informative results. The CAPM is

18   instructive, particularly in this instance, because it can look at investors' required return in

19   the current capital markets without relying on analysts' forecasted earnings growth rates.

1   **<u>Discussion of Staff's Cost of Equity Analysis</u>**

2   **Q.   Please describe the CAPM.**

3   The CAPM is a robust financial tool that provides a tested explanation of the positive

4   relationship between risk and equity returns required by investors. Its reliability is a key

5   factor in our analysis.[22]   It is one of the cornerstone financial models, widely used in

6   practical scenarios. For example, every merger and acquisition analysis performed by an

7   investment banker involving a Kansas utility has incorporated a CAPM analysis as a critical

8   component of the valuation process.

9
10   Ke = Rf + Beta (Rm - Rf) or
11   Ke = Rf + Beta (Rp)
12   Where:
13   Ke =   required return on equity
14   Rf =   return on a risk-free security
15   Rm =   an expected return from the market as a whole
16   Rp =   risk premium available to investors through purchasing common stocks instead of risk-free
17   securities, often calculated as Rm - Rf
18   Beta =   volatility of the security's or portfolio's return relative to the volatility of the market's return
19   with the market beta equal to 1.0

20   **Rf**

21   The Rf estimate is the interest rate investors believe represents a riskless return readily

22   available in the financial markets. Although it is a simple concept, the answer is not

23   universally agreed upon. It is widely accepted that a debt instrument issued by the U.S.

24   Government is risk-free as there is no default risk even though the market price varies over

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[22] The theoretical support for the CAPM is the work done by Harry Markowitz ("Portfolio Selection," *Journal of Finance*, March, 1952). W.F. Sharpe added the concept of a risk-free rate of return to the Markowitz model ("A Simplified Model of Portfolio Analysis," *Management Science*, January, 1963).

1   time. Investing in U.S. Treasury Bonds is risk-free if the investor plans to hold it until

2   maturity. From this base risk-free return that is universally available to investors, investors

3   add a premium to justify taking on additional risks of an investment in equity securities,

4   namely accepting the volatility of stock prices as opposed to stable, periodic interest

5   payments from U.S. Treasury Bonds.

6   **Beta**

7   The beta coefficient measures the volatility of the return earned by the utility's stock relative

8   to the volatility of the returns earned by the broader equity market. The broad equity market

9   is frequently measured using the S&P 500 Index. This measure provides a look at the risk

10   and volatility of a stock relative to other investments. A stock with a beta of 1 is equally

11   volatile as the market. A stock with a beta of 0.5 is half as volatile as the market. Most

12   regulated utilities and telecommunications services companies exhibit beta coefficients that

13   are less than the broad market indexes and, therefore, less risky.

14   **Rm**

15   Rm is the expected return on the stock market as measured by a broad market index such

16   as the S&P 500. It represents the total return of the index's price change plus dividends

17   earned for the year. In most instances, the CAPM relies on investors' expected or forecasted

18   return on the market for this variable; historical data is also used to estimate the market

19   return. I will discuss the application of both sources of data.

20   **Rp**

1   The risk premium is the additional return investors demand when taking the added risks of

2   investing in equity capital instead of a U.S. Treasury Bond. It is the difference between

3   investors' expected return from the stock market and their expected return from the risk-

4   free investment over the same time. The market return and the risk-free return should be

5   taken from the same period to measure the additional return investors require to take on the

6   risk of common stocks over the risk-free investment over that forecasted or historical period.

7   **Q.   Does the CAPM meet the *Hope-Bluefield* legal standards discussed earlier in your**

8   **testimony?**

9   Yes, a cost of equity estimate derived from the CAPM meets the Hope-Bluefield legal

10   standards. The model incorporates information from the capital markets that investors rely

11   on to evaluate the potential returns of investment. This market-based information ensures

12   the cost of equity estimates evaluate investors' required rate of return or discount rate that

13   reflects the current economic environment for a given level of risk. The CAPM analysis

14   includes the expected returns in the broad equity market and the return available on risk-

15   free investment vehicles, thereby meeting the legal standards discussed earlier in my

16   testimony.

17   **Q.   Please discuss your CAPM analysis.**

18   A.   I took two approaches to the CAPM analysis commonly found in both cost of capital studies

19   in regulatory and asset-valuation arenas. The approaches are distinct perspectives of the

20   securities market, and analysts use both methods to make investment decisions. One

1   approach incorporates forecasted returns on the broad equity market indexes and

2   government fixed-income securities published by institutional investment services. The

3   second offers a perspective of capital costs using purely historical measures of returns from

4   the stock and bond markets over the past 90 years. The two approaches highlight the

5   difference in returns earned in the past relative to the returns institutional investors expect

6   going forward. There is support for using forecasted returns over historical data as the

7   forecasted returns embody the institutional investors' forecasts for growth in the broad

8   economy's most frequently measured government GDP accounts.

9   **Q.   How did you determine a beta coefficient representative of the KUSF services?**

10   A.   I relied on beta coefficients reported for the telecommunications services industry and

11   electric and gas utilities since they operate in the rate-of-return regulated industries. The

12   first observation is the average for the telecommunications services group, with a beta

13   coefficient of 0.78; granted, most companies in that group have little, if any, rate-regulated

14   services.[23] In many respects, the KUSF services resemble traditional, rate-of-return

15   regulated utility services more so than those of competitive telecommunications services

16   that make up most of the telecommunications industry's earnings; therefore, I believe it is

17   reasonable to include the average beta coefficient of those regulated industries. I completed

18   cost of capital analyses for electric and natural gas distribution utilities during the past two

19   years. My analysis in those dockets includes carefully selecting proxy groups representative

20   of that industry; as a result, all the proxy group members derive a vast majority of their

---

[23] Beta coefficients for the telecommunications services industry of 0.78 and utility services (not water) of 0.58 reported
at January 2024; https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/Betas.html

1   earnings from their rate of return regulated services. The natural gas and electric utilities in

2   those proxy groups used in my analyses exhibited beta coefficients averaging 0.87 and a

3   range of 0.75 to 1.05.[24] For the most part, rate-of-return regulated companies exhibit beta

4   coefficients of less than that of the broad market, which has a beta coefficient of 1.00. In

5   my analyses, one company had a beta coefficient just above 1.00, while most proxy

6   companies' beta coefficients were 0.80 to 0.90. No beta coefficient is derived from

7   securities specific to the RLEC services, so my CAPM analyses incorporate the range of

8   beta coefficients discussed above derived from rate-of-return regulated utilities.

9   **Q.   Please describe your CAPM analyses that use forecasted returns.**

10 A.   For the forecasted CAPM analyses, I obtained forecasts of long-run returns for common

11   equity and U.S. Treasury Bonds from three sources: J.P. Morgan Asset Management

12   (JPMAM), BlackRock Investments (BlackRock), and Kroll Corporation (Kroll).

13   BlackRock and JPMAM have over $11 trillion of assets under management with individual

14   and institutional clients worldwide. Other asset managers like Vanguard Group, which has

15   over $9 trillion in assets under management, have similar expectations for long-run returns.

16   Given the amount of capital these firms manage, it is reasonable to assume that their

17   published forecasts are not only the expectations of sophisticated money managers but also

18   influence investors' expectations beyond their client base. JPMAM and BlackRock each

19   annually publish their views of long-run (more than 15 years) returns available of numerous

20   asset classes. Their respective forecasts are similar, though not identical, but taken together,

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[24] Direct Testimony of Adam H. Gatewood in dockets 23-EKCE-775-RTS filed August 29, 2023; and 24-KGSG-610-RTS filed July 1, 2024.

1   they provide a range for long-run returns on asset classes by the largest asset management

2   companies. As a third input of projected returns, I looked to Kroll, a global advisory and

3   asset valuation service provider to the financial industry and corporations. The table below

4   summarizes the cost of equity estimates derived from the CAPM application using data

5   from these three sources.

Summary of Staff's Cost of Equity Estimates
Capital Asset Pricing Models
25-MTLT-161-KSF

	Low	High	Midpoint
Based on Historical Return Data, gathered from 1928 to 2023, Reported by Damodaran Online			
Geometric Returns	8.69%	10.26%	9.48%
Arithmetic Returns	9.87%	11.91%	10.89%
Based on Forecasted Return Data, gathered from J.P. Morgan Asset Management Long-Term Capital Market Assumptions (2025 edition)	6.20%	7.12%	6.66%
Based on Forecasted Return Data, gathered from BlackRock Investments Projected Long-run Returns Market Assumptions - Geometric Returns (2023 edition)	6.05%	6.94%	6.49%
Based on Forecasted Return Data, gathered from Kroll Projected Market Risk Premium & Risk Free Return	8.24%	9.74%	8.99%

6

7   **Q.   How is JPMAM data applied to the CAPM analysis?**

8   A.   For this CAPM analysis, we are interested in their forecasted returns on common stock in

9   the U.S. and U.S. Treasury Bonds published by JPMAM to establish the expected return for

10   the market. JPMAM publishes 10 to 15-year forecasts of expected returns on dozens of

11   investment asset classes in its annual publication, the Long-Term Capital Market Return

1   Assumptions (LTCMRA).[25]   In its 2025 edition, JPMAM forecasts a yearly return on

2   common stocks of 6.87% during the next decade. Following the calculations and inputs

3   through the CAPM equation in line 2 of the following table, the forecasted return on a risk-

4   free investment, 10-year U.S. Treasury Bonds, is subtracted from the expected return on

5   common stocks, resulting in a risk premium of 3.07%. This risk premium is the additional

6   return necessary to induce investors to take on the added risk associated with common

7   stocks over the risk-free investment in a U.S. Treasury Bond. The beta coefficient is applied

8   to the risk premium to ascertain how much of a risk premium is necessary for investors to

9   take on the risks of investing in utility stocks instead of the risk-free U.S. Treasury Bond.

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[25] J.P. Morgan Asset Management, Long-term Capital Market Return Assumptions, 2025 Edition, J.P. Morgan Asset Management (published October of 2024)
www.jpmorganinstitutional.com/pages/jpmorgan/am/ia/research_and_publications/long-term_capital_market

Capital Asset Pricing Model -- Forecasted Risk Premium
Using Forecasted Market Returns & Treasury Bond Yields
25-MTLT-161-KSF

			Low Beta	High Beta
1)	Forecasted Returns on Common Stocks		6.87%	6.87%
2)	Forecasted Total Return on 10-Year T-Bonds	-	3.80%	3.80%
3)	Equity Risk Premium		3.07%	3.07%
4)	Beta Coefficient	X	0.75	1.05
5)	Beta Adjusted Risk Premium		2.30%	3.22%
6)	Forecasted Yield on 10-Year T-Bonds	+	3.90%	3.90%
7)	For Cost of Equity		6.20%	7.12%

1)	Forecasted 10 to 15-year annual geometric return on stocks J.P. Morgan Asset Management, 2025 Edition.
2)	Forecasted 10 to 15-year annual geometric return on intermediate term U.S. Government bonds by J.P. Morgan Asset Management 2025 Edition.
3)	Resulting risk premium (1-2).
4)	Range of beta coefficient range of regulated gas and electric utilities as well as telecom services companies
5)	Row 3 x Row 4 = asset specific risk premium.
6)	Forecasted yield on 10-Year U.S. Treasury bonds forecasted by J.P. Morgan Asset Management, 2025 Edition (page 10).
7)	Forecasted cost of equity capital row 5 + row 6.

Sources:
J.P. Morgan Asset Management, Long-term Capital Market Return Assumptions,
2025 Edition, J.P. Morgan Asset Management

The expected risk-free yield of 3.90% forecasted by JPMAM is added to the beta-specific risk premium to arrive at the cost of equity for the given beta coefficients.

As you can see in the following table, a CAPM analysis that incorporates BlackRock's long-term return projections is slightly lower than those published by JPMAM. The application of the CAPM using the BlackRock data is the same as that discussed above.

Capital Asset Pricing Model -- Forecasted Risk Premium
Forecasted Market Returns & Treasury Bond Yields
by BlackRock Investments
25-MTLT-161-KSF

		Low Beta	High Beta
1) Forecasted Returns on Common Stocks		6.40%	6.40%
2) Forecasted Total Return on 10+ Year U.S. T-Bonds	-	3.42%	3.42%
3) Equity Risk Premium		2.98%	2.98%
4) Beta Coefficients of Proxy Group	x	0.75	1.05
5) Beta Adjusted Risk Premium		2.24%	3.13%
6) Forecasted Yield on 10-Year T-Bonds	+	3.81%	3.81%
7) Cost of Equity		6.05%	6.94%

1) Forecasted 25-year annual geometeric returns on U.S. common stocks; November 2024
2) Forecasted 25-year annual geometeric return on intermediate term Treasury bonds
3) Resulting risk premium (1-2)
4) Beta coefficient range observed in Telecommunications Services companies
5) Proxy Group risks premium
6) Survey of Prof. Forecasters; Median, Table 1; November 2024, Q4
7) Forecasted cost of equity capital row 5 + row 6.

Sources:
    https://www.blackrockblog.com/blackrock-capital-markets-assumptions/
    https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters/

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2   **Q.   What is the third data source used in the forward-looking CAPM analyses?**

3   A.   I relied on data published by Kroll, a global financial services company. Specific to the

4   cost of capital estimation, Kroll provides forward-looking estimates of an equity risk

5   premium (ERP) and a risk-free return. As in the previous CAPM equations, the ERP plus

6   the risk-free return equates to the expected return on common stocks. Kroll develops its

7   forecast risk-free rate as a normalized risk-free return that investors can expect across the

8   current economic cycle. The beta coefficient of the particular asset (in this case, the proxy

9   group) is applied to the ERP, and the product is added to the forecasted risk-free rate of

10   return. As capital markets change, Kroll adjusts its ERP and risk-free return estimates.

**Capital Asset Pricing Model -- Kroll Forecasted Risk Premium
Using Forecasted Market Returns & Treasury Bond Yields
25-MTLT-161-KSF**

			Low Beta	High Beta
1)	Kroll U.S. ERP		5.00%	5.00%
2)	Beta Coefficient	x	0.75	1.05
3)	Proxy Group Risk Premium		3.75%	5.25%
4)	Kroll U.S. Risk-Free Rate of Return*	+	4.49%	4.49%
5)	Proxy Group Cost of Equity		8.24%	9.74%

1) Kroll U.S. Equity Risk Premium as of June 5, 2024
2) Beta coefficient range observed in Telecommunications Services companies
3) Resulting risk premium for proxy group (1-2).
4) Kroll U.S. Risk-Free Rate of Return 20 Year Treasury Bond December 10, 2024
5) Forecasted Cost of Equity Range for Proxy Group

Kroll recommends a risk-free rate of the higher of 3.50% OR spot market yield on 20-Year U.S. Treasury Bond. At Dec 10, 2024 spot yield was 4.49% (Federal Reserve H.15)

Sources:
https://www.kroll.com/-/media/kroll-images/pdfs/kroll-increases-us-risk-free-rate.pdf
https://www.federalreserve.gov/releases/h15/

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2 **Q.   Does the CAPM using historical data corroborate the findings of your forecasted**

3   **CAPM analyses?**

4 A.   Only to a degree, JPMAM's and BlackRock's views of lower returns in the future relative

5   to the historical returns are universally accepted across the investment banking and asset

6   management industry. The cost of equity or expected returns calculated using purely

7   historical data are greater than scenarios using forecasted returns because economists and

8   the capital management industry forecast lower economic growth in the future than what

9   was witnessed in the past nine decades. There is a clear connection between broad measures

10   of economic growth and potential returns on common stocks, particularly over multi-year

11   horizons. Even though historical growth rates are unlikely to repeat, surveys of financial

1   professionals reveal a significant percentage of them utilizing historical returns. For the

2   historical CAPM, I relied on data on returns earned from 1928 through 2023, consistent

3   with the time used by financial professionals.

4   If we rely on purely historical data, we assume that specific trends, particularly economic

5   growth, observed in the past 90 years will continue. It is well established that the U.S.

6   economy is projected to grow slower than that experienced in the past. The projected long-

7   run growth rate for nominal Gross Domestic Product (nGDP) is 4.09% compared to the

8   historical growth rate of 6.10% over the past 90 years.[26] Beyond the change in economic

9   growth, there is some issue with measuring those historical returns. Evidence shows that

10   these frequently quoted historical returns do not present a complete picture in part due to

11   the beginning period often used in the calculation.[27] The simple step of beginning the

12   measurement period in the 1920's raises questions about whether the period represents all

13   modern-era securities trading. Regardless of whether the 1920s is an appropriate starting

14   point for measuring historical returns, historical returns are widely reported and frequently

15   referred to in discussions of capital markets and potential returns for the future. Some well-

16   regarded financial publications focus solely on this era of recorded data and how to apply it

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Historic Nominal GDP (Billion $'s)		
1929	$	104.60
2023	$	27,360.90
Annual Growth Rate		**6.10%**

Source: Bureau of Economic Analysis
www.bea.gov

[26]

[27] McQuarrie, Edward F, "The Myth of 1926: How Much Do We Know Long-Term Returns on U.S. Stocks?" The Journal of Investing; Winter 2009, p. 96.

1   in cost of capital studies. Thus, measurements from this period influence expectations

2   despite warnings surrounding historic economic growth rates and market returns. Still, it

3   has significant limitations, and policymakers should be aware of them in their final decision.

4   **Q.   Please describe the two model runs you performed with the historical data.**

5   A.   I prepared the historical perspective using two unique views of historical average returns:

6   arithmetic and geometric. The model calculations are identical to those presented earlier,

7   merely a different source for the data. The arithmetic average returns are the mean or

8   average of the returns occurring each year; they are expected in any given year and what

9   people call an average.   The geometric average is the compound return earned from 1928

10   through 2023. These two return measures differ because of the volatility in annual returns;

11   the greater the volatility in annual returns, the greater the difference between arithmetic and

12   geometric averages for those observations. In applying the CAPM, neither measure of

13   returns reigns supreme as countless academic papers argue each side of the issue. Both

14   methods offer an accurate perspective of historical returns; the arithmetic average represents

15   a year, and the geometric average is the change in value over a multi-year period. Since

16   investors are rarely concerned with the potential return for just one year, the geometric

17   averages are more important to investors. Both averages are widely reported or easily

18   calculated from publicly published data.

Capital Asset Pricing Model -- Historic Risk Premium
Based on Historic Geometric Risk Premiums
from 1928 to 2023
25-MTLT-161-KSF

		Low Beta	High Beta
1) Total Returns on Common Stocks		9.80%	9.80%
2) Total Return on Government Bonds	-	4.57%	4.57%
3) Resulting Risk Premium		5.23%	5.23%
4) Beta Coefficient	x	0.75	1.05
5) Risk Premium		3.92%	5.49%
6) Historic Yield on Government Bonds	+	4.77%	4.77%
7) Forecasted Cost of Equity Based on Historic Returns		8.69%	10.26%

1) Historic returns on common stocks 1928-2023

2) Historic returns on intermediate-term government bonds 1928-2023

3) Resulting risk premium (1-2)

4) Beta coefficient range observed in Telecommunications Services companies

5) Row 3 x Row 4 = Asset Specific Risk Premium

6) Historic year-end yield on intermediate-term government bonds 1928-2023

7) Forecasted cost of equity capital, row 5 + row 6

Sources: Damodaran Online

http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html

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Capital Asset Pricing Model -- Historic Risk Premium
Based on Historic Arithmetic Risk Premiums
from 1928 to 2023
25-MTLT-161-KSF

		Low Beta	High Beta
1) Total Returns on Common Stocks		11.66%	11.66%
2) Total Return on Government Bonds	-	4.86%	4.86%
3) Resulting Risk Premium		6.80%	6.80%
4) Beta Coefficient	x	0.75	1.05
5) Risk Premium		5.10%	7.14%
6) Historic Yield on Government Bonds	+	4.77%	4.77%
7) Forecasted Cost of Equity Based on Historic Returns		9.87%	11.91%

1) Historic returns on common stocks 1928-2023

2) Historic returns on intermediate-term government bonds 1928-2023

3) Resulting risk premium (1-2)

4) Beta coefficient range observed in Telecommunications Services companies

5) Row 3 x Row 4 = Asset Specific Risk Premium

6) Historic year-end yield on intermediate-term government bonds 1928-2023

7) Forecasted cost of equity capital, row 5 + row 6

Sources: Damodaran Online

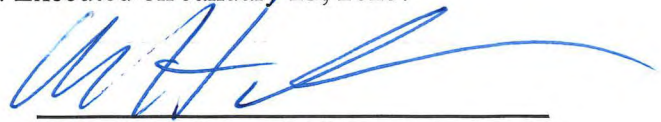http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html

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Q. Does that conclude your testimony?

A. Yes, thank you.

UNSWORN DECLARATION UNDER PENALTY OF PERJURY

Under penalties of perjury, I declare that I am Senior Managing Financial Analyst of the Utilities Division of the Kansas Corporation Commission, that I have read and am familiar with the foregoing Direct Testimony, and that the statements contained herein are true and correct to the best of my knowledge, information and belief. Executed on January 23, 2025.

Adam H. Gatewood
Senior Managing Financial Analyst
State Corporation Commission of the
State of Kansas

CERTIFICATE OF SERVICE

25-MTLT-161-KSF

I, the undersigned, certify that a true copy of the attached Testimony has been served to the following by means of electronic service on January 24, 2025.

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