has a significant bearing on a utility's financial performance."[61] Similarly, Moody's concluded:

> We evaluate the framework and mechanisms that allow a utility to recover its costs and investments and earn allowed returns. We are less concerned with the official allowed return on equity, instead focusing on the earned returns and cash flows.[62]

S&P observed that the benefits of regulatory mechanisms could be undermined without constructive outcomes in rate cases, and noted that, "Our assessment of whether the company is improving its regulatory outcomes will focus on whether its earned ROE is approaching authorized."[63]

Q52. ELL HAS OPERATED UNDER AN FRP. WHY IS ATTRITION AN ISSUE FOR THE COMPANY UNDER THESE CIRCUMSTANCES?

A52. While the investment community generally regards regulatory provisions such as FRPs to be supportive, the rate caps accompanying the FRP have contributed to ELL's experiencing attrition. As discussed in the testimony of Mr. O'Malley, ELL's earned return has frequently fallen below the midpoint of the ROE band specified in the FRP. For example, in both the Test Year 2021 and 2022 FRP filings, ELL's earned return on equity was 8.33%, or 117 basis points below the Company's authorized ROE of 9.50%.

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[61] Standard & Poor's Corporation, *Utilities: Key Credit Factors for The Regulated Utilities Industry* (November 19, 2013), Criteria.

[62] Moody's Investors Service, *Electric Utilities Face Challenges Beyond Near-Term* (January 2010), Industry Outlook.

[63] S&P Global, *Hawaiian Electric Co. Inc.* (November 21, 2011), RatingsDirect.

As discussed in the testimony of Mr. O'Malley, ELL has been subject to caps on the cumulative rate adjustments resulting from the FRPs. In the most recent extension of the FRP, the cumulative increase in the FRP Revenue was capped at $70 million for the 2021 and 2022 test years,[64] and ELL nearly exhausted the cap with the Test Year 2021 FRP filing. With the Test Year 2022 filing, ELL's allowed rate increase is only $5 million, when ELL would require a $117 million increase to reach the approved cost of equity of 9.50%. In addition, the risk presented by ELL's 100-basis point earnings bandwidth around the ROE midpoint on an $15.7 billion rate base exceeds what can be managed through operational efficiency. These features undermined the ability of the FRP to mitigate earnings attrition.

Q53. WHAT OTHER FACTORS SPECIFIC TO ELL'S SERVICE AREA WARRANT CONSIDERATION?

A53. As illustrated in the following table, ELL's service area is characterized by a high concentration of sales to industrial customers relative to the companies in Utility Group:

[64] *See*, LPSC Order No. U-35565 (May 19, 2021), *In re: Application for Extension and Modification of Formula Rate Plan, Docket No. U-35565 Order, Id.* at 3.

TABLE 3
INDUSTRIAL REVENUE CONCENTRATION

	Company	Industrial to Total Elec. Revenue		Company	Industrial to Total Elec. Revenue
1	ALLETE	43%	16	Exelon Corp.	10%
2	Alliant Energy	29%	17	IDACORP, Inc.	22%
3	Ameren Corp.	8%	18	NextEra Energy, Inc.	2%
4	American Elec Pwr	18%	19	NorthWestern Corp.	5%
5	Avista Corp.	10%	20	OGE Energy Corp.	11%
6	Black Hills Corp.	23%	21	Otter Tail Corp.	30%
7	CenterPoint Energy	16%	22	Pinnacle West Capital	5%
8	CMS Energy Corp.	15%	23	Portland General Elec.	14%
9	Dominion Energy	8%	24	PPL Corp.	11%
10	DTE Energy Co.	11%	25	Pub Sv Enterprise Grp.	4%
11	Duke Energy Corp.	13%	26	Sempra Energy	6%
12	Edison International	3%	27	Southern Company	19%
13	Entergy Corp.	27%	28	WEC Energy Group	18%
14	Evergy Inc.	11%	29	Xcel Energy Inc.	17%
15	Eversource Energy	5%		**Average - Utility Group**	**14%**
				Entergy Louisiana LLC	**36%**

Sources:
The Value Line Investment Survey (Feb. 10, Mar. 10 and Apr. 21, 2023), except: 2022 FERC Form 1 Reports for CenterPoint Energy, Exelon Corp., NextEra Energy, Pinnacle West, Pub Sv Enterprise Grp., Sempra Energy, WEC Energy and Xcel Energy.

The Company's exposure to industrial sales is more than twice the average for the Utility Group. Because these sales are more sensitive to business cycle changes, the price of alternative energy sources, and pressure from competitors, they are generally considered to be riskier than sales to residential or commercial customers. As Moody's noted, "ELL's service territory has local economies and customers that could be more sensitive to affordability issues, including exposure to commodity price sensitive industrial customers."[65] This exposure to a high concentration of industrial

[65] Moody's Investors Service, *Entergy Louisiana, LLC: Update to Credit Analysis* (January 26, 2021), Credit Opinion.

sales implies a significant degree of risk to ELL's operations that must be offset by sufficient financial fitness.

Q54. HAVE THE RATING AGENCIES RECOGNIZED THE IMPLICATIONS OF ELL'S HIGH PERCENTAGE OF INDUSTRIAL CUSTOMERS?

A54. Yes. Credit rating agencies, which investors routinely rely on for objective assessments of ELL's relative risks, have taken note of the Company's relatively high percentage of industrial customers. For example, Moody's recently identified "High exposure (i.e., around two-thirds of historical demand) to commercial and industrial customers" as one of ELL's credit challenges.[66] Similarly, S&P listed, "High dependence on industrial customers that could increase cash flow volatility" as a key risk for the Company.[67] S&P reiterated that ELL has "about 50% of operating revenues coming from industrial customers, which could expose the company to cash flow volatility, especially in an economic downturn."[68]

Q55. HAS THERE BEEN A RECENT EXAMPLE OF ELL'S HEIGHTENED EXPOSURE TO INDUSTRIAL CUSTOMER DEMAND?

A55. Yes. The onset of the COVID-19 pandemic in 2020 led to a wave of business shutdowns across the country. While household electricity demand remained relatively

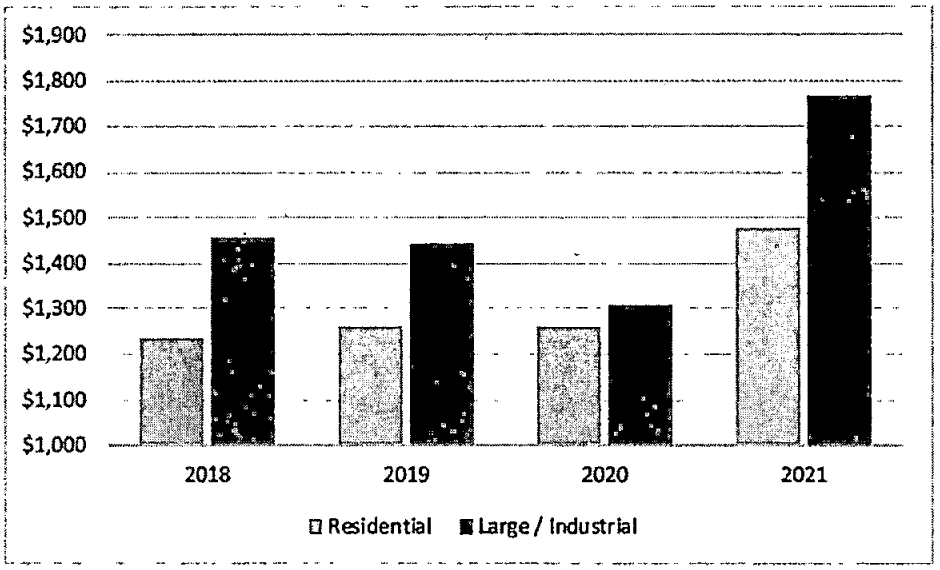
[66] Moody's Investors Service, *Entergy Louisiana, LLC: Update Following Outlook Change to Stable* (July 19, 2023), Credit Opinion.

[67] S&P Global Ratings, *Entergy Louisiana LLC* (August 25, 2022), RatingsDirect.

[68] *Id.*

stable, industrial demand waned in the wake of business and factory closures. This scenario played out for ELL, and can be seen in the figure below, which shows ELL's annual sales revenues broken out by residential and industrial customers.

FIGURE 2
ELL SALES REVENUES BY CUSTOMER CLASS



The figure above shows that ELL's sales revenue from residential customers remained virtually unchanged from 2019 to 2020, while revenues from large industrial customers declined 9.5%. ELL's relatively high percentage of industrial sales is a source of revenue volatility, and this recent example illustrates the heightened exposure to cyclical electricity demand that ELL faces, validating both S&P's and Moody's concerns.

Q56. DO THE EXPOSURES INHERENT TO ELL HIGHLIGHT THE NEED FOR ONGOING SUPPORT OF THE COMPANY'S FINANCIAL STRENGTH AND ABILITY TO ATTRACT CAPITAL ON REASONABLE TERMS?

A56. Yes. ELL faces a number of challenges that could require the relatively swift commitment of capital in order to maintain reliable service. For example, if the Nuclear Regulatory Commission ("NRC") mandated that licensees install additional safety equipment (possibly in response to events far from Louisiana), this mandate would impose significant additional capital requirements for ELL. In light of its storm-prone geography, weather emergencies have required ELL to fund enormous recovery efforts to protect the health and safety of its customers and restore utility service. These massive undertakings require ELL to mobilize financial resources (including credit) on a scale beyond the experience of utilities elsewhere in the U.S.

Apart from this exposure to the vagaries of capital and energy market conditions, ELL must simultaneously meet the long-term energy needs of its service area. As discussed in the testimony of Mr. O'Malley, capital expenditures are expected to total more than [redacted] for the years 2023 through 2027, which represents more than 50% of the Company's current rate base. To continue to meet these challenges successfully and economically, it is crucial that ELL receive adequate support for its credit standing. While providing an ROE that is sufficient to maintain ELL's ability to attract capital, even under duress, is consistent with the economic requirements embodied in the Supreme Court's *Hope* and *Bluefield* decisions, it is also in customers' best interests. Ultimately, it is customers and the service area economy that enjoy the benefits that come from ensuring that the utility has the financial wherewithal to invest

in infrastructure and take whatever actions are required to ensure a reliable energy supply. By the same token, customers and the service area economy suffer when the utility is unable to attract necessary capital.

Q57. CAN YOU SUMMARIZE HOW THESE SPECIFIC EXPOSURES HEIGHTEN THE IMPORTANCE OF MAINTAINING ELL'S FINANCIAL STRENGTH AND REGULATORY SUPPORT?

A57. Yes. ELL's location and fuel mix give its customers a larger stake in the Company's financial strength and regulatory support compared to other electric utilities. ELL's exposure to devastating storms requires that the Company mount huge recovery efforts that require ready availability of money and credit. ELL's nuclear generation, while saving customers significant energy costs and reducing carbon emissions, can necessitate huge, unexpected expenditures. The Company's operating risks are also heightened due to its relatively high dependence on industrial load. ELL must be prepared to meet these challenges even when confronting capital market conditions that might restrict access for utilities with weaker financial profiles or lacking effective regulatory support. The Commission should consider the benefits that a financially strong utility can provide, especially when faced with nuclear power plant risks, the devastation that can accompany extreme weather events, and potential cash flow volatility due to customer mix. While I did not make any specific adjustment for these considerations in arriving at my recommended ROE, these risk factors further support the reasonableness of my recommendations and the need for continued support of ELL's financial integrity through supportive regulatory actions.

C. Regulatory Mechanisms

Q58. DO YOU CONSIDER THE IMPLICATIONS OF REGULATORY MECHANISMS IN YOUR EVALUATION?

A58. Yes. Cost trackers and future test years have been increasingly prevalent in the utility industry, along with alternatives to traditional ratemaking such as formula rates and multi-year rate plans.[69]

Q59. WHAT REGULATORY MECHANISMS ARE APPLICABLE TO ELL'S UTILITY OPERATIONS IN LOUISIANA?

A59. In addition to a fuel and purchased power cost recovery mechanism, the LPSC approved a three-year FRP for ELL in 2013. The most recent extension of the FRP occurred in 2021 and will end with this filing[70]. Under the FRP, the Company has benefited from the opportunity to recover the costs associated with certain infrastructure improvements outside a base rate proceeding through the Additional Capacity Mechanism ("ACM"), Transmission Recovery Mechanism ("TRM"), and the Distribution Recovery Mechanism ("DRM"). Like the majority of other utilities, ELL also operates under an energy efficiency rider that recovers related program costs and lost contributions to fixed costs associated with customer participation,[71] as well as

[69] S&P Global Market Intelligence, *Adjustment Clause: A State-by-State Overview* (July 18, 2022), RRA Regulatory Focus.

[70] *In Re:* Application of Entergy Louisiana, LLC for Authority to Change Rates, Approval of Formula Rate Plan and for Related Relief.

[71] It is my understanding that the Commission staff has recently proposed modifications to ELL's energy efficiency rider that would impose an insurmountable evidentiary showing on a utility to obtain recovery of the lost contribution to fixed costs.

securitization-related riders. In addition, the Company is also proposing to establish a rider to recover eligible costs associated with the Entergy Future Ready Resilience Plan[72].

Q60. DO THE REGULATORY MECHANISMS APPROVED FOR ELL SET IT APART FROM OTHER FIRMS OPERATING IN THE UTILITY INDUSTRY?

A60. No. A broad array of adjustment mechanisms is also available to the companies in my proxy group of electric utilities. As documented on Exhibit AMM-3, the companies in my Utility Group operate under a wide variety of regulatory mechanisms, which are designed to address rising capital investments outside of a traditional rate case and environmental compliance measures, as well as riders to address the impact of energy conservation programs, bad debt expenses, certain taxes and fees, post-retirement employee benefit costs and transmission-related charges. The majority of firms included in the Utility Group also operate in states that allow formula rates or multi-year rate plans for utilities under their jurisdiction. Thus, while investors would consider the regulatory mechanisms approved and proposed for ELL to be supportive of the Company's financial integrity, this does not provide a basis to distinguish the risks of ELL from the companies in the Utility Group. Indeed, as I noted, ELL's inability to earn its allowed return in recent years, despite its FRP structure, evidences the ongoing potential for attrition, which would be exacerbated without the various mechanisms that I mentioned above.

[72] *See,* Docket No. U-36625 (December 19, 2022), *In Re: Application of Entergy Louisiana, LLC for Approval of the Entergy Future Ready Resilience Plan.*

D. Capital Structure

Q61. IS AN EVALUATION OF THE CAPITAL STRUCTURE MAINTAINED BY A UTILITY RELEVANT IN ASSESSING ITS RETURN ON EQUITY?

A61. Yes. Other things being equal, a higher debt ratio and lower common equity ratio, translates into increased financial risk for all investors. A greater amount of debt means more investors have a senior claim on available cash flow, thereby reducing the certainty that each will receive their contractual payments. This increases the risks to which lenders are exposed, and they require correspondingly higher rates of interest. From the standpoint of common shareholders, a higher debt ratio means that there are proportionately more investors ahead of them, thereby increasing the uncertainty as to the amount of cash flow that will remain.

Q62. WHAT COMMON EQUITY RATIO IS IMPLICIT IN ELL'S CAPITAL STRUCTURE?

A62. ELL's capital structure is presented in the testimony of Company witness Chris Barrilleaux. As summarized in his testimony, the Company is requesting a capital structure composed of 50.49% debt and 49.51% common equity.

Q63. HOW DOES THIS COMPARE TO THE AVERAGE EQUITY RATIOS MAINTAINED BY THE UTILITIES IN THE UTILITY GROUP?

A63. Exhibit AMM-4 presents the sources of long-term capital (long-term debt and common equity) used by the publicly traded firms in the Utility Group. As shown on page 1 of

this Exhibit, at year-end 2022, common equity ratios for the Utility Group ranged between 33.0% and 63.5% and averaged 44.1%.

Q64. HOW DO THESE HISTORICAL CAPITALIZATION RATIOS COMPARE WITH INVESTORS' FORWARD-LOOKING EXPECTATIONS?

A64. Also shown on page 1 of Exhibit AMM-4, Value Line expects an average common equity ratio of 44.6% for the Utility Group over its three-to-five-year forecast horizon. Projected equity ratios for the individual firms in the Utility Group range from 32.0% to 59.5%.

Q65. ARE THERE OTHER INDUSTRY BENCHMARKS THAT ARE MORE RELEVANT IN EVALUATING ELL'S CAPITAL STRUCTURE?

A65. Yes. Because this proceeding focuses on the ROE for the regulated electric utility operations of ELL, the capital structures maintained by other operating electric utilities provide a consistent basis of comparison.

Q66. WHAT CAPITALIZATION RATIOS ARE MAINTAINED BY COMPARABLE UTILITY OPERATING COMPANIES?

A66. Pages 2 to 4 of Exhibit AMM-4 display capital structure data for the group of utility operating companies owned by the firms in the Utility Group. As shown there, common equity ratios for these utilities ranged from 40.1% to 65.0% and averaged 52.1%.

Q67. DO ONGOING ECONOMIC AND CAPITAL MARKET UNCERTAINTIES ALSO INFLUENCE THE APPROPRIATE CAPITAL STRUCTURE FOR ELL?

A67. Yes. Financial flexibility plays a crucial role in ensuring the wherewithal of a utility to meet funding needs. Utilities with higher financial leverage may be foreclosed from or have limited access to additional borrowing, especially during times of financial market stress. As Moody's observed:

> Utilities are among the largest debt issuers in the corporate universe and typically require consistent access to capital markets to assure adequate sources of funding and to maintain financial flexibility. During times of distress and when capital markets are exceedingly volatile and tight, liquidity becomes critically important because access to capital markets may be difficult.[73]

S&P recently reiterated these concerns, noting that:

> Because of the industry's high capital spending and consistent dividends, negative discretionary cashflow is regularly more than $100 billion annually. To fund this large deficit, the industry requires consistent access to the capital markets. Rising interest rates, decreasing equity prices, and inflation could hamper consistent access to the capital markets, potentially pressuring credit quality.[74]

As a result, the Company's capital structure must maintain adequate equity to preserve the flexibility necessary to maintain continuous access to capital even during times of unfavorable energy or financial market conditions.

[73] Moody's Investors Service, *FAQ on Credit Implications of the Coronavirus Outbreak* (March 26, 2020), Sector Comment.

[74] S&P Global Ratings. *North American Regulated Utilities, the Industry's Outlook Remains Negative* (January 23, 2023), Industry Top Trends.

Q68. WHAT OTHER FACTORS DO INVESTORS CONSIDER IN THEIR ASSESSMENT OF A COMPANY'S CAPITAL STRUCTURE?

A68. Utilities, including ELL, are facing significant capital investment plans. Coupled with the potential for turmoil in capital markets, this warrants a stronger balance sheet to deal with an uncertain environment. As S&P recently noted:

> Under our base case, we expect that by 2024 the industry's capital spending will exceed $180 billion. Because of the industry's continued robust capital spending, we expect that industry will continue to generate negative discretionary cash flow. This requires that the industry has consistent access to the capital markets to finance capital spending and dividends requirements.[75]

In addition, the investment community also considers the impacts of other considerations, such as leases, purchased power agreements, and postretirement benefit and asset retirement obligations in its evaluation of a utility's financial standing.

A conservative financial profile, in the form of a reasonable common equity ratio, is consistent with the need to accommodate these uncertainties and maintain the continuous access to capital under reasonable terms that is required to fund operations and necessary system investments, even during times of adverse capital market conditions.

[75] S&P Global Ratings, *for the First Time Ever, The Median Investor-Owned Utility Ratings Falls to the 'BBB' Category* (January 20, 2022), RatingsDirect.

Q69. WHAT DOES THIS EVIDENCE SUGGEST WITH RESPECT TO ELL'S PROPOSED CAPITAL STRUCTURE?

A69. ELL's ratemaking capital structure falls within the range of capital structure ratios maintained by the proxy group and is consistent with industry benchmarks for other electric utility operating companies. While industry averages provide one benchmark for comparison, each firm must select its capitalization based on the risks and prospects it faces, as well as its specific needs to access the capital markets. ELL's proposed capital structure reflects the Company's ongoing efforts to maintain its credit standing and support access to capital on reasonable terms. The reasonableness of the Company's capital structure is reinforced by ELL's ongoing exposure to catastrophic storms and revenue volatility, along with the importance of supporting the enormous system investment required to increase resilience and expand access to renewable generation. Based on this evidence, I conclude that the Company's ratemaking capital structure represents a reasonable mix of capital sources from which to calculate ELL's overall rate of return. Moreover, financial policies to enhance ELL's financial metrics and credit standing by reducing debt leverage would be consistent with the Company's specific risks and the need to ensure access to capital even during times of adverse industry or market conditions.

V. CAPITAL MARKET ESTIMATES AND ANALYSES

Q70. WHAT IS THE PURPOSE OF SECTION V OF YOUR DIRECT TESTIMONY?

A70. Section V of my direct testimony presents capital market estimates of the cost of equity. First, I discuss the concept of the cost of common equity, along with the risk-return

tradeoff principle fundamental to capital markets. Next, I describe the quantitative analyses I conducted to estimate the cost of common equity for the Utility Group.

A. Economic Standards

Q71. WHAT FUNDAMENTAL ECONOMIC PRINCIPLE UNDERLIES THE COST OF EQUITY CONCEPT?

A71. The concept of the cost of equity concept is based on the tenet that investors are risk averse. In capital markets where relatively risk-free assets are available (e.g., U.S. Treasury securities), investors can be induced to hold riskier assets only if they are offered a premium, or additional return, above the rate of return on a risk-free asset. Because all assets compete for investor funds, riskier assets must yield a higher expected rate of return than safer assets to induce investors to invest and hold them.

Given this risk-return tradeoff, the required rate of return (k) from an asset (i) can generally be expressed as:

$$k_i = R_f + RP_i$$

where: R_f = Risk-free rate of return, and
RP_i = Risk premium required to hold riskier asset i.

Thus, the required rate of return for a particular asset at any time is a function of: (1) the yield on risk-free assets, and (2) the asset's relative risk, with investors demanding correspondingly larger risk premiums for bearing greater risk.

Q72. IS THERE EVIDENCE THAT THE RISK-RETURN TRADEOFF PRINCIPLE OPERATES IN THE CAPITAL MARKETS?

A72. Yes. The risk-return tradeoff can be documented in segments of the capital markets where required rates of return can be directly inferred from market data and where generally accepted measures of risk exist. Bond yields, for example, reflect investors' expected rates of return, and bond ratings measure the risk of individual bond issues. Comparing the observed yields on government securities, which are considered free of default risk, to the yields on bonds of various rating categories demonstrates that the risk-return tradeoff does, in fact, exist.

Q73. DOES THE RISK-RETURN TRADEOFF OBSERVED WITH FIXED INCOME SECURITIES EXTEND TO COMMON STOCKS AND OTHER ASSETS?

A73. It is widely accepted that the risk-return tradeoff evidenced with long-term debt extends to all assets. Documenting the risk-return tradeoff for assets other than fixed income securities, however, is complicated by two factors. First, there is no standard measure of risk applicable to all assets. Second, for most assets—including common stock—required rates of return cannot be observed. Yet there is every reason to believe that investors demonstrate risk aversion in deciding whether to hold common stocks and other assets, just as when choosing among fixed-income securities.

Q74. IS THIS RISK-RETURN TRADEOFF LIMITED TO DIFFERENCES BETWEEN FIRMS?

A74. No. The risk-return tradeoff principle applies not only to investments in different firms, but also to different securities issued by the same firm. The securities issued by a utility vary considerably in risk because they have different characteristics and priorities. As noted earlier, the last investors in line are common shareholders. They share in the net earnings, if any, that remain after all other claimants have been paid. As a result, the rate of return that investors require from a utility's common stock, the most junior and riskiest of its securities, must be considerably higher than the yield offered by the utility's senior, long-term debt.

Q75. WHAT ARE THE CHALLENGES IN DETERMINING A JUST AND REASONABLE ROE FOR A REGULATED ENTERPRISE?

A75. The actual return investors require is not directly observable. Different methodologies have been developed to estimate investors' expected and required return on capital, but these theoretical tools produce a range of estimates, based on different assumptions and inputs. The DCF method, which is frequently referenced and relied on by regulators, is only one theoretical approach to gain insight into the return investors require. There are a number of other methodologies for estimating the cost of capital and the ranges produced by these approaches can vary widely.

Q76. IS IT CUSTOMARY TO CONSIDER THE RESULTS OF MULTIPLE APPROACHES WHEN EVALUATING A JUST AND REASONABLE ROE?

A76. Yes. In my experience, financial analysts and regulators routinely consider the results of alternative approaches in evaluating a fair ROE. No single method can be regarded as failsafe, with all approaches having advantages and shortcomings. As the Federal Energy Regulatory Commission ("FERC") has noted, "[t]he determination of rate of return on equity starts from the premise that there is no single approach or methodology for determining the correct rate of return."[76] Similarly, a publication of the Society of Utility and Regulatory Financial Analysts concluded that:

> Each model requires the exercise of judgment as to the reasonableness of the underlying assumptions of the methodology and on the reasonableness of the proxies used to validate the theory. Each model has its own way of examining investor behavior, its own premises, and its own set of simplifications of reality. Each method proceeds from different fundamental premises, most of which cannot be validated empirically. Investors clearly do not subscribe to any singular method, nor does the stock price reflect the application of any one single method by investors.[77]

As this treatise succinctly observed, "no single model is so inherently precise that it can be relied on solely to the exclusion of other theoretically sound models."[78] Similarly, *New Regulatory Finance* concluded that:

> There is no single model that conclusively determines or estimates the expected return for an individual firm. Each methodology possesses its own way of examining investor behavior, its own premises, and its own set of simplifications of reality. Each method proceeds from different fundamental premises that cannot be validated empirically. Investors

[76] *Northwest Pipeline Co.*, Opinion No. 396-C, 81 FERC ¶ 61,036 at 4 (1997).

[77] David C. Parcell, *The Cost of Capital – A Practitioner's Guide*, (2010) Society of Utility and Regulatory Financial Analysts *Id* at 84.

[78] *Id.*

> do not necessarily subscribe to any one method, nor does the stock price reflect the application of any one single method by the price-setting investor. There is no monopoly as to which method is used by investors. [79]

Q77. IS THERE ANY JUSTIFICATION FOR ASSIGNING GREATER WEIGHT TO THE DCF METHOD?

A77. No. While the DCF model is a recognized approach, it is not without shortcomings and does not otherwise eliminate the need to ensure that the "end result" is fair by comparison to the results of other methods. The Indiana Utility Regulatory Commission has recognized this principle:

> There are three principal reasons for our unwillingness to place a great deal of weight on the results of any DCF analysis. One is. . . the failure of the DCF model to conform to reality. The second is the undeniable fact that rarely if ever do two expert witnesses agree on the terms of a DCF equation for the same utility – for example, as we shall see in more detail below, projections of future dividend cash flow and anticipated price appreciation of the stock can vary widely. And, the third reason is that the unadjusted DCF result is almost always well below what any informed financial analysis would regard as defensible, and therefore require an upward adjustment based largely on the expert witness's judgment. In these circumstances, we find it difficult to regard the results of a DCF computation as any more than suggestive.[80]

More recently, FERC recognized the potential for any application of the DCF model to produce unreliable results.[81]

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[79] Roger A. Morin, *New Regulatory Finance*, (2010) Pub. Utils. Reports, Inc. *Id.* at 429.

[80] *See,* Indiana Utility Regulatory Commission (August 24, 1990), *Petition of Indiana Michigan Power Company, and Indiana Corporation, for Authority to Increase its Rates and Charges, and to File New Schedules of Rates and Regulated Rules and Regulations, Cause No. 38728.*, 116 PUR4th 1, 17-18

[81] *Coakley v. Bangor Hydro-Elec. Co.*, Opinion No. 531, 147 FERC ¶ 61,234 at P 41 (2014).

Consideration of the results of alternative approaches reduces the potential for error associated with any single quantitative method. Just as investors inform their decisions using a variety of methodologies, my evaluation of a fair ROE for the Company considered the results of multiple financial models. As *New Regulatory Finance* concluded, "In the absence of any hard evidence as to which method outdoes the other, all relevant evidence should be used and weighted equally, in order to minimize judgmental error, measurement error, and conceptual infirmities."[82]

Q78. WHAT DOES THIS DISCUSSION IMPLY WITH RESPECT TO ESTIMATING THE ROE FOR A UTILITY?

A78. Although the ROE cannot be observed directly, it is a function of the returns available from other investment alternatives and the risks of the investment. Because it is not readily observable, the ROE for a particular utility must be estimated by analyzing information about capital market conditions generally, assessing the relative risks of the company specifically, and employing alternative quantitative methods that focus on investors' required rates of return. These methods typically attempt to infer investors' required rates of return from stock prices, interest rates, or other capital market data.

[82] Roger A. Morin, *New Regulatory Finance* (2006), Pub. Utils. Reports, Inc. *Id.* at 429.

B. Discounted Cash Flow Analyses

Q79. HOW IS THE DCF MODEL USED TO ESTIMATE THE COST OF COMMON EQUITY?

A79. DCF models assume that the price of a share of common stock is equal to the present value of the expected cash flows (i.e., future dividends and stock price) that will be received while holding the stock, discounted at investors' required rate of return. Rather than developing annual estimates of cash flows into perpetuity, the DCF model can be simplified to a "constant growth" form:[83]

$$P_0 = \frac{D_1}{k_e - g}$$

where: P_0 = Current price per share;
D_1 = Expected dividend per share in the coming year;
k_e = Cost of equity; and,
g = Investors' long-term growth expectations.

The cost of common equity (k_e) can be isolated by rearranging terms within the equation:

$$k_e = \frac{D_1}{P_0} + g$$

This constant growth form of the DCF model recognizes that the rate of return to stockholders consists of two parts: 1) dividend yield (D_1/P_0); and 2) growth (g). In

[83] The constant growth DCF model is dependent on a number of strict assumptions, which in practice are never met. These include a constant growth rate for both dividends and earnings; a stable dividend payout ratio; the discount rate exceeds the growth rate; a constant growth rate for book value and price; a constant earned rate of return on book value; no sales of stock at a price above or below book value; a constant price-earnings ratio; a constant discount rate (*i.e.*, no changes in risk or interest rate levels and a flat yield curve); and all the above extend to infinity. Nevertheless, the DCF method provides a workable and practical approach to estimate investors' required return that is widely referenced in utility ratemaking.

other words, investors expect to receive a portion of their total return in the form of current dividends and the remainder through price appreciation.

Q80. WHAT STEPS ARE REQUIRED TO APPLY THE CONSTANT GROWTH DCF MODEL?

A80. The first step in implementing the constant growth DCF model is to determine the expected dividend yield (D_1/P_0) for the firm in question. This is usually calculated based on an estimate of dividends to be paid in the coming year divided by the current price of the stock. The second, and more controversial, step is to estimate investors' long-term growth expectations (g) for the firm. The final step is to add the firm's dividend yield and estimated growth rate to arrive at an estimate of its cost of common equity.

Q81. HOW DO YOU DETERMINE THE DIVIDEND YIELDS FOR THE FIRMS IN THE UTILITY GROUP?

A81. I rely on Value Line's estimates of dividends to be paid by each of these utilities over the next twelve months as D_1. This annual dividend is then divided by a 30-day average stock price for each utility to arrive at the expected dividend yield. The expected dividends, stock prices, and resulting dividend yields for the firms in the Utility Group are presented on page 1 of Exhibit AMM-5. As shown there, dividend yields for the firms in the Utility Group range from 2.4% to 4.9% and average 3.6%.

Q82. WHAT IS THE NEXT STEP IN APPLYING THE CONSTANT GROWTH DCF MODEL?

A82. The next step is to evaluate long-term growth expectations, or "*g*", for the firm in question. In constant growth DCF theory, earnings, dividends, book value, and market price are all assumed to grow in lockstep, and the growth horizon of the DCF model is infinite. But implementation of the DCF model is more than just a theoretical exercise; it is an attempt to replicate the mechanism investors used to arrive at observable stock prices. A wide variety of techniques can be used to derive growth rates, but the only "*g*" that matters in applying the DCF model is the value that investors expect.

Q83. WHAT ARE INVESTORS MOST LIKELY TO CONSIDER IN DEVELOPING THEIR LONG-TERM GROWTH EXPECTATIONS?

A83. Implementation of the DCF model is solely concerned with replicating the forward-looking evaluation of real-world investors. In the case of utilities, dividend growth rates are not likely to provide a meaningful guide to investors' current growth expectations. Utility dividend policies reflect the need to accommodate business risks and investment requirements in the industry, as well as potential uncertainties in the capital markets. As a result, dividend growth in the utility industry generally lags growth in earnings as utilities conserve financial resources.

A measure that plays a pivotal role in determining investors' long-term growth expectations is future trends in EPS, which provide the source for future dividends and ultimately support share prices. The importance of earnings in evaluating investors' expectations and requirements is well accepted in the investment community, and

surveys of analytical techniques relied on by professional analysts indicate that growth in earnings is far more influential than trends in DPS.

The availability of projected EPS growth rates is also key to investors relying on this measure as compared to future trends in DPS. Apart from Value Line, investment advisory services do not generally publish comprehensive DPS growth projections, and this scarcity of dividend growth rates relative to the abundance of earnings forecasts attests to their relative influence. The fact that securities analysts focus on EPS growth, and that DPS growth rates are not routinely published, indicates that projected EPS growth rates are likely to provide a superior indicator of the future long-term growth expected by investors.

Q84. DO THE GROWTH RATE PROJECTIONS OF SECURITY ANALYSTS CONSIDER HISTORICAL TRENDS?

A84. Yes. Professional security analysts study historical trends extensively in developing their projections of future earnings. Hence, to the extent there is any useful information in historical patterns, that information is incorporated into analysts' growth forecasts.

Q85. WHAT GROWTH RATES ARE SECURITY ANALYSTS CURRENTLY PROJECTING FOR THE FIRMS IN THE PROXY GROUP?

A85. Earnings per share ("EPS") growth projections for each of the firms in the Utility Group reported by Value Line, IBES, and Zacks are displayed on page 2 of Schedule AMM-5.

Q86. WHAT OTHER TECHNIQUE CAN BE USED TO ESTIMATE INVESTORS' EXPECTATIONS OF FUTURE LONG-TERM GROWTH WHEN APPLYING THE CONSTANT GROWTH DCF MODEL?

A86. In constant growth theory, growth in book equity will be equal to the product of the earnings retention ratio (one minus the dividend payout ratio) and the earned rate of return on book equity. Furthermore, if the earned rate of return and the payout ratio are constant over time, growth in earnings and dividends will be equal to growth in book value. Even though these conditions are never met in practice, this "sustainable growth" approach may provide a rough guide for evaluating a firm's growth prospects and is sometimes proposed in regulatory proceedings.

The sustainable growth rate is calculated by the formula, g = br+sv, where "b" is the expected retention ratio, "r" is the expected earned return on equity, "s" is the percent of common equity expected to be issued annually as new common stock, and "v" is the equity accretion rate. Under DCF theory, the "sv" factor is a component of the growth rate designed to capture the impact of issuing new common stock at a price above, or below, book value. The sustainable, "br+sv" growth rates for each firm in the proxy group are summarized on page 2 of Exhibit AMM-5, with the underlying details being presented in Exhibit AMM-6.

The sustainable growth rate analysis shown in Exhibit AMM-6 incorporates an "adjustment factor" because Value Line's reported returns are based on year-end book values. Since earnings is a flow over the year while book value is determined at a given point in time, the measurement of earnings and book value are distinct concepts. It is this fundamental difference between a flow (earnings) and point estimate (book value)

that makes it necessary to adjust to mid-year in calculating the ROE. Given that book value will increase or decrease over the year, using year-end book value (as Value Line does) understates or overstates the average investment that corresponds to the flow of earnings. To address this concern, earnings must be matched with a corresponding representative measure of book value, or the resulting ROE will be distorted. The adjustment factor determined in Exhibit AMM-6, is solely a means of converting Value Line's end-of-period values to an average return over the year, and the formula for this adjustment is supported in recognized textbooks and has been adopted by other regulators.[84]

Q87. ARE THERE SIGNIFICANT SHORTCOMINGS ASSOCIATED WITH THE "BR+SV" GROWTH RATE?

A87. Yes. First, in order to calculate the sustainable growth rate, it is necessary to develop estimates of investors' expectations for four separate variables: namely, "b", "r", "s", and "v." Given the inherent difficulty in forecasting each parameter and the difficulty of estimating the expectations of investors, the potential for measurement error is significantly increased when using four variables, as opposed to referencing a direct projection for EPS growth. Second, empirical research in the finance literature indicates that sustainable growth rates are not as significantly correlated to measures of value, such as share prices, as are analysts' EPS growth forecasts.[85] The "sustainable

[84] *See,* Roger A. Morin, *New Regulatory Finance* (2006), Pub. Utils. Reports, Inc. *Id.* at 305-306; *Bangor Hydro-Electric Co. et al.* (2008), 122 FERC ¶ 61,265 *Id.* at n.12.

[85] Roger A. Morin, *New Regulatory Finance* (2006), Pub. Utils. Reports, Inc. *Id.* at 307.

growth" approach is included for completeness, but evidence indicates that analysts' forecasts provide a superior and more direct guide to investors' growth expectations. Accordingly, I give less weight to cost of equity estimates based on br+sv growth rates in evaluating the results of the DCF model.

Q88. WHAT COST OF COMMON EQUITY ESTIMATES ARE IMPLIED FOR THE UTILITY GROUP USING THE DCF MODEL?

A88. After combining the dividend yields and respective growth projections for each utility, the resulting cost of common equity estimates are shown on page 3 of Exhibit AMM-5.

Q89. IN EVALUATING THE RESULTS OF THE CONSTANT GROWTH DCF MODEL, IS IT APPROPRIATE TO ELIMINATE ILLOGICAL ESTIMATES AT THE EXTREME LOW OR HIGH END OF THE RANGE?

A89. Yes. It is essential that cost of equity estimates resulting from quantitative methods pass fundamental tests of reasonableness and economic logic. Accordingly, DCF estimates that are implausibly low or high should be eliminated.

Q90. HAVE OTHER REGULATORS EMPLOYED SUCH TESTS?

A90. Yes. FERC has noted that adjustments are justified where applications of the DCF approach and other methods produce illogical results. FERC evaluates low-end DCF results against observable yields on long-term public utility debt and has recognized that it is appropriate to eliminate estimates that do not sufficiently exceed this

threshold.[86] FERC's current practice is to exclude low-end cost of estimates that fall below the six-month average yield on Baa-rated utility bonds, plus 20% of the CAPM market risk premium.[87] In addition, FERC also excludes estimates that are "irrationally or anomalously high."[88] Similarly, the Staff of the Maryland Public Service Commission ("MDPSC") has also eliminated DCF values where they do not offer a sufficient premium above the cost of debt to be attractive to an equity investor.[89]

Q91. DO YOU EXCLUDE ANY ESTIMATES AT THE LOW OR HIGH END OF THE RANGE OF RESULTS?

A91. Yes. As highlighted on page 3 of Exhibit AMM-5, I eliminate low-end DCF estimates ranging from -7.8% to 7.3%, as well as high-end DCF estimates ranging from 20.6% to 24.9%. After removing these illogical values, the low end of the DCF results is set by a cost of equity estimate of 7.4%, while the upper end is established by a cost of equity estimate of 14.1%. While a 14.1% cost of equity estimate may exceed the majority of the remaining values, low-end DCF estimates in the 7.4% to 8.0% range are assuredly far below investors' required rate of return. Taken together and considered along with the balance of the results, the remaining values provide a

[86] *See, e.g., Southern California Edison Co.* (2010), 131 FERC ¶ 61,020 *Id.* at p. 55.

[87] Based on the six-month average yield at April 2023 of 5.63% and the 7.8% market risk premium shown on Exhibit AMM-7, this implies a current low-end threshold of approximately 7.2%.

[88] *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.* (2020), 171 FERC ¶ 61,154 *Id.* at p. 152.

[89] *Delmarva Power & Light Company's Application for Adjustments to its Retail Rates, Direct Testimony and Exhibits, Case No. 9670,* Maryland Public Service Commission (December 2, 2021), (Drew M. McAuliffe), *Id.* at 15-16

reasonable basis on which to frame the range of plausible DCF estimates and evaluate investors' required rate of return.

Q92. WHAT COST OF EQUITY ESTIMATES ARE IMPLIED BY YOUR DCF RESULTS FOR THE UTILITY GROUP?

A92. As shown on page 3 of Exhibit AMM-5 and summarized in Table 4, after eliminating illogical values, application of the constant growth DCF model resulted in the following cost of equity estimates:

TABLE 4
DCF RESULTS – UTILITY GROUP

Growth Rate	Average	Midpoint
Value Line	9.7%	10.8%
IBES	10.1%	10.5%
Zacks	9.8%	9.9%
br + sv	8.8%	9.1%

C. Capital Asset Pricing Model

Q93. PLEASE DESCRIBE THE CAPM.

A93. The CAPM is a theory of market equilibrium that measures risk using the beta coefficient. Assuming investors are fully diversified, the relevant risk of an individual asset (e.g., common stock) is its volatility relative to the market as a whole, with beta reflecting the tendency of a stock's price to follow changes in the market. A stock that tends to respond less to market movements has a beta of less than 1.0, while stocks that tend to move more than the market have betas greater than 1.0. The CAPM is mathematically expressed as:

$$R_j = R_f + \beta_j(R_m - R_f)$$

where: R_j = required rate of return for stock j;
R_f = risk-free rate;
R_m = expected return on the market portfolio; and,
β_j = beta, or systematic risk, for stock j.

Under the CAPM formula above, a stock's required return is a function of the risk-free rate (R_f), plus a risk premium that is scaled to reflect the relative volatility of a firm's stock price, as measured by beta (β). Like the DCF model, the CAPM is an *ex-ante,* or forward-looking model based on expectations of the future. As a result, to produce a meaningful estimate of investors' required rate of return, the CAPM must be applied using estimates that reflect the expectations of actual investors in the market, not with backward-looking, historical data.

Q94. WHY IS THE CAPM APPROACH A RELEVANT COMPONENT WHEN EVALUATING THE COST OF EQUITY FOR ELL?

A94. The CAPM approach (which also forms the foundation of the ECAPM) is generally considered to be the most widely referenced method for estimating the cost of equity among academicians and professional practitioners, with the pioneering researchers of this method receiving the Nobel Prize in 1990. Because this is the dominant model for estimating the cost of equity outside the regulatory sphere, the CAPM (and ECAPM) provides important insight into investors' required rate of return for utility stocks.

Q95. HOW DO YOU APPLY THE CAPM TO ESTIMATE THE ROE?

A95. Application of the CAPM to the Utility Group is based on a forward-looking estimate for investors' required rate of return from common stocks presented in Exhibit AMM-7. To capture the expectations of today's investors in current capital markets, the expected market rate of return was estimated by conducting a DCF analysis on the dividend paying firms in the S&P 500.

The dividend yield for each firm is obtained from Value Line, and the growth rate is equal to the average of the earnings growth projections for each firm published by IBES, Zacks, and Value Line, with each firm's dividend yield and growth rate being weighted by its proportionate share of total market value. After removing companies with growth rates that were negative or greater than 20%, the weighted average of the projections for the individual firms implies an average growth rate over the next five years of 9.5%. Combining this average growth rate with a year-ahead dividend yield of 2.1% results in a current cost of common equity estimate for the market as a whole (R_m) of 11.6%. Subtracting a 3.8% risk-free rate based on the average yield on 30-year Treasury bonds for the six month period ending April 2023 produced a market equity risk premium of 7.8%.

Q96. WHAT IS THE SOURCE OF THE BETA VALUES YOU USED TO APPLY THE CAPM?

A96. I relied on the beta values reported by Value Line, which in my experience is the most widely referenced source for beta in regulatory proceedings. As noted in *New Regulatory Finance*:

> Value Line is the largest and most widely circulated independent investment advisory service, and influences the expectations of a large number of institutional and individual investors. ... Value Line betas are computed on a theoretically sound basis using a broadly based market index, and they are adjusted for the regression tendency of betas to converge to 1.00.[90]

Q97. WHAT ELSE SHOULD BE CONSIDERED IN APPLYING THE CAPM?

A97. Financial research indicates that the CAPM does not fully account for observed differences in rates of return attributable to firm size. Accordingly, a modification is required to account for this size effect. As explained by Morningstar:

> One of the most remarkable discoveries of modern finance is that of a relationship between company size and return. ... The relationship between company size and return cuts across the entire size spectrum; it is not restricted to the smallest stocks. ... This size-rated phenomenon has prompted a revision to the CAPM, which includes a size premium.[91]

According to the CAPM, the expected return on a security should consist of the riskless rate, plus a premium to compensate for the systematic risk of the particular security. The degree of systematic risk is represented by the beta coefficient. The need for the size adjustment arises because differences in investors' required rates of return that are related to firm size are not fully captured by beta. To account for this, researchers have developed size premiums that need to be added to account for the level of a firm's market capitalization in determining the CAPM cost of equity.[92]

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[90] Roger A. Morin, *New Regulatory Finance* (2006), Pub. Utils. Reports, Inc. *Id.* at 71.

[91] Morningstar, *Ibbotson SBBI 2015 Classic Yearbook, Id.* at pp. 99, 108.

[92] Originally compiled by Ibbotson Associates and published in their annual yearbook entitled, *Stocks, Bonds, Bills and Inflation,* these size premia are now developed by Kroll and presented in its *2022 Supplementary CRSP Decile Size Study Data.*

Accordingly, my CAPM analysis also incorporates an adjustment to recognize the impact of size distinctions, as measured by the market capitalization for the firms in the Utility Group.

Q98. WHAT IS THE BASIS FOR THE SIZE ADJUSTMENT?

A98. The size adjustment required in applying the CAPM is based on the finding that *after controlling for risk differences reflected in beta*, the CAPM overstates returns to companies with larger market capitalizations and understates returns for relatively smaller firms. The size adjustments utilized in my analysis are sourced from Kroll, who now publish the well-known compilation of capital market series originally developed by Professor Roger G. Ibbotson of the Yale School of Management, and most recently published by Kroll. Calculation of the size adjustments involve the following steps:

1. Divide all stocks traded on the NYSE, NYSE MKT, and NASDAQ indices into deciles based on their market capitalization.

2. Using the average beta value for each decile, calculate the implied excess return over the risk-free rate using the CAPM.

3. Compare the calculated excess returns based on the CAPM to the actual excess returns for each decile, with the difference being the increment of return that is related to firm size, or "size adjustment."

New Regulatory Finance observed that "small market-cap stocks experience higher returns than large market-cap stocks with equivalent betas," and concluded that

"the CAPM understates the risk of smaller utilities, and a cost of equity based purely on a CAPM beta will therefore produce too low an estimate."[93]

Q99. WHAT IS THE IMPLIED ROE FOR THE UTILITY GROUP USING THE CAPM APPROACH?

A99. As shown on Exhibit AMM-7, after adjusting for the impact of firm size, the CAPM approach implies an average ROE for the Utility Group of 11.2%.

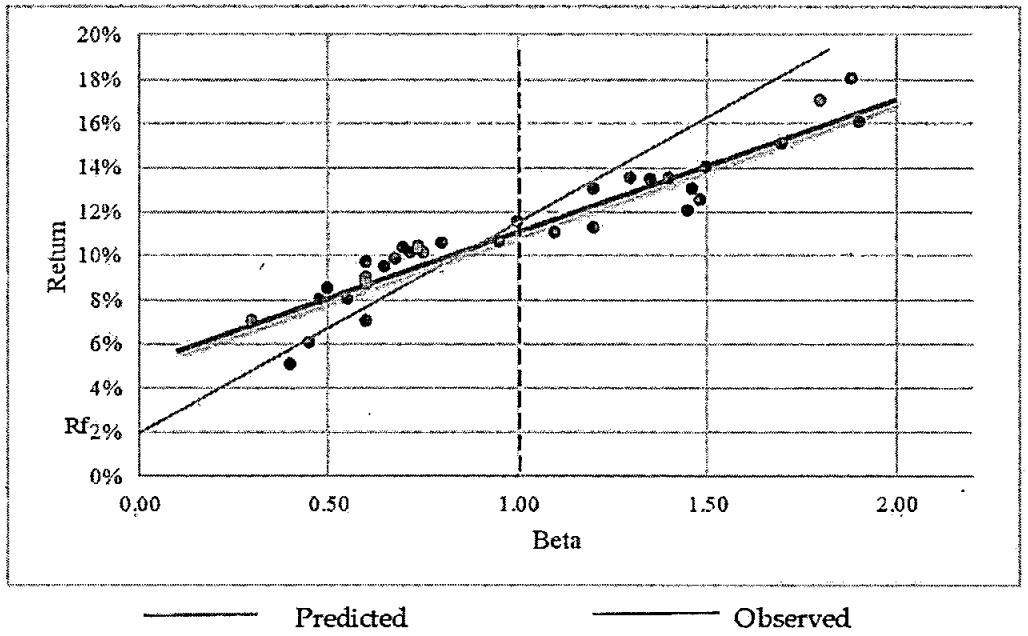
D. Empirical Capital Asset Pricing Model

Q100. HOW DOES THE ECAPM APPROACH DIFFER FROM TRADITIONAL APPLICATIONS OF THE CAPM?

A100. Empirical tests of the CAPM have shown that low-beta securities earn returns somewhat higher than the CAPM would predict, and high-beta securities earn less than predicted. In other words, the CAPM tends to overstate the actual sensitivity of the cost of capital to beta, with low-beta stocks tending to have higher returns and high-beta stocks tending to have lower risk returns than predicted by the CAPM. This is illustrated graphically in Figure 3:

[93] Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports (2006), Inc. *Id.* at 187.

FIGURE 3
CAPM – PREDICTED VS. OBSERVED RETURNS



Because the betas of utility stocks, including those in the Utility Group, are generally less than 1.0, this implies that cost of equity estimates based on the traditional CAPM would understate the cost of equity. This empirical finding is widely reported in the finance literature, as summarized in *New Regulatory Finance*:

> As discussed in the previous section, several finance scholars have developed refined and expanded versions of the standard CAPM by relaxing the constraints imposed on the CAPM, such as dividend yield, size, and skewness effects. These enhanced CAPMs typically produce a risk-return relationship that is flatter than the CAPM prediction in keeping with the actual observed risk-return relationship. The ECAPM makes use of these empirical relationships.[94]

[94] Roger A. Morin, *New Regulatory Finance* (2006), Pub. Utils. Reports, Inc. *Id.* at 189.

As discussed in *New Regulatory Finance*,[95] based on a review of the empirical evidence, the expected return on a security is related to its risk by the ECAPM, which is represented by the following formula:

$$R_j = R_f + 0.25(R_m - R_f) + 0.75[\beta_j(R_m - R_f)]$$

Like the CAPM formula presented earlier, the ECAPM represents a stock's required return as a function of the risk-free rate (R_f), plus a risk premium. In the formula above, this risk premium is composed of two parts: (1) the market risk premium (R_m - R_f) weighted by a factor of 25%, and (2) a company-specific risk premium based on the stock's relative volatility [$\beta_j(R_m - R_f)$] weighted by 75%. This ECAPM equation, and its associated weighting factors, recognizes the observed relationship between standard CAPM estimates and the cost of capital documented in the financial research, and corrects for the understated returns that would otherwise be produced for low beta stocks.

Q101. HAVE OTHER REGULATORS RELIED ON THE ECAPM?

A101. Yes. Staff witnesses for the MDPSC have relied on this approach in prior testimony, noting that "the ECAPM model adjusts for the tendency of the CAPM model to underestimate returns for low Beta stocks," and concluding that, "the ECAPM gives a more realistic measure of the ROE than the CAPM model does."[96] The Staff of the Colorado Public Utilities Commission has recognized that, "The ECAPM is an

[95] *Id.* at 190.

[96] Case No. 9299, *Direct Testimony and Exhibits*, Maryland Public Service Commission (Oct. 12, 2012), (Julie McKenna), *Id.* at 9.

empirical method that attempts to enhance the CAPM analysis by flattening the risk-return relationship,"[97] and relied on the same ECAPM equation presented above.[98]

The New York Department of Public Service also routinely incorporates the results of the ECAPM approach, which it refers to as the "zero-beta CAPM."[99] The Regulatory Commission of Alaska has also relied on the ECAPM approach, noting that:

> Tesoro averaged the results it obtained from CAPM and ECAPM while at the same time providing empirical testimony that the ECAPM results are more accurate then [sic] traditional CAPM results. The reasonable investor would be aware of these empirical results. Therefore, we adjust Tesoro's recommendation to reflect only the ECAPM result.[100]

The Wyoming Office of Consumer Advocate, an independent division of the Wyoming Public Service Commission, has also relied on this ECAPM formula,[101] as has a witness for the Office of Arkansas Attorney General.[102] In a 2018 decision, the Montana Public

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[97] *In the Matter of Advice Letter No. 77 Filed by Rocky Mountain Natural Gas LLC to Restructure and Unbundle its Service and to Replace Tariff No. 3 in its Entirety to Become Effective March 4, 2013, Answering Testimony and Schedules, Proceeding No. 13AL-0067G,* Public Utilities Commission of the State of Colorado (July 31, 2013), (Scott England), *Id.* at 47.

[98] *Id.* at 48.

[99] *See, e,g.,* New York Department of Public Service, Cases 19-E-0065 19-G-0066, *Prepared Fully Redacted Testimony of Staff Finance Panel* (May 2019) *Id.* at 94-95.

[100] *See,* Order No. P-97-004(151) (November 27, 2002), *In the Matter of the Correct Calculation and Use of Acceptable Input Data to Calculate the 1997, 1998, 1999, 2000, 2001, and 2002 Tariff Rates for the Intrastate Transportation of Petroleum over the Trans Alaska Pipeline System Filed by Amerada Hess Pipeline Corporation; ARCO Transportation Alaska, Inc.; BP Pipelines (Alaska) Inc.; Exxon Pipeline Company; Mobil Alaska Pipeline Company; Exxon Mobil Pipeline Company; Phillips Alaska Pipeline Corporation; Unocal Pipeline Company; Phillips Transportation Alaska, Inc,; and Williams Alaska Pipeline Company, L.L.C., and the Protest by Tesoro Alaska Petroleum Company of the 1997 and 1999 Tariff Rates, Id. at 145.*

[101] *In the Matter of the Application of Questar Gas Company d/b/a Dominion Energy Wyoming for Authority to Pass on a Wholesale Gas Cost Decrease of $0.75267 Per Dekatherm for All Firm Retail Rate Classes, Pre-Filed Direct Testimony, Docket No. 30011-97-GR-17,* Wyoming Public Service Commission (May 1, 2018), (Anthony J. Ornelas), *Id.* at 52-53.

[102] *In the Matter of the Application of Black Hills Energy Arkansas, Inc., for Approval of a General Change in Rates and Tariffs, Direct Testimony, Docket No. 17-071-U,* Arkansas Public Service Commission (May 29, 2018), (Marlon F. Griffing, PHD), *Id.* at 33-35.

Service Commission determined that "[t]he evidence in this proceeding has convinced the Commission that the [ECAPM] should be the primary method for estimating . . . the cost of equity."[103]

Q102. WHAT COST OF EQUITY IS INDICATED BY THE ECAPM?

A102. My application of the ECAPM is based on the same forward-looking market rate of return, risk-free rates, and beta values discussed earlier in connections with the CAPM. As shown on Exhibit AMM-8, applying the forward-looking ECAPM based on the average yield on 30-year Treasury bonds for the six month period ending April 2023 results in an average cost of equity estimate of 11.4% after incorporating the size adjustment corresponding to the market capitalization of the individual utilities.

E. Utility Risk Premium

Q103. BRIEFLY DESCRIBE THE RISK PREMIUM METHOD.

A103. The risk premium method extends the risk-return tradeoff observed with bonds to estimate investors' required rate of return on common stocks. The cost of equity is estimated by first determining the additional return investors require to forgo the relative safety of bonds and to bear the greater risks associated with common stock, and by then adding this equity risk premium to the current yield on bonds. Like the DCF model, the risk premium method is capital market oriented. However, unlike DCF models, which indirectly impute the cost of equity, risk premium methods directly

[103] *See,* Order No. 7575c (September 26, 2018), Montana Public Service Commission, *Docket No. D2017.9.80, Id.* at P 114.

estimate investors' required rate of return by adding an equity risk premium to observable bond yields.

Q104. IS THE RISK PREMIUM APPROACH A WIDELY ACCEPTED METHOD FOR ESTIMATING THE COST OF EQUITY?

A104. Yes. The risk premium approach is based on the fundamental risk-return principle that is central to finance, which holds that investors will require a premium in the form of a higher return to assume additional risk. This method is routinely referenced by the investment community and in academia and regulatory proceedings[104] and provides an important tool in estimating a just and reasonable ROE for ELL.

Q105. HOW DO YOU IMPLEMENT THE RISK PREMIUM METHOD?

A105. Estimates of equity risk premiums for utilities are based on surveys of previously authorized ROEs. Authorized ROEs presumably reflect regulatory commissions' best estimates of the cost of equity, however determined, at the time they issued their final orders. Such ROEs should represent a balanced and impartial outcome that considers the need to maintain a utility's financial integrity and ability to attract capital. Moreover, allowed returns are an important consideration for investors and have the potential to influence other observable investment parameters, including credit ratings and borrowing costs. Thus, when considered in the context of a complete and rigorous

[104] *See, e.g.,* James C. Bonbright, Albert L. Danielsen, David R. Kamerschen, *Principles of Public Utility Rates,* Pub. Util. Reports, Inc. (1988) at 322 (noting, "The risk premium approach is probably the second most popular approach to estimating the cost of equity.").

analysis, this data provides a logical and frequently referenced basis for estimating equity risk premiums for regulated utilities.

Q106. HOW DO YOU CALCULATE THE EQUITY RISK PREMIUMS BASED ON ALLOWED RETURNS?

A106. The ROEs authorized for electric utilities by regulatory commissions across the U.S. are compiled by S&P Global Market Intelligence and published in its *RRA Regulatory Focus* report. On page 2 of Exhibit AMM-9, the average yield on public utility bonds is subtracted from the average allowed ROE to calculate equity risk premiums for each year between 1974 and 2022.[105] As shown there, over this period these equity risk premiums average 3.89%, and the yields on public utility bonds average 7.83%.

Q107. IS THERE ANY CAPITAL MARKET RELATIONSHIP THAT MUST BE CONSIDERED WHEN IMPLEMENTING THE RISK PREMIUM METHOD?

A107. Yes. Equity risk premiums are not constant and tend to move inversely with interest rates. In other words, when interest rate levels are relatively high, equity risk premiums narrow, and when interest rates are relatively low, equity risk premiums widen. The implication of this inverse relationship is that the cost of equity does not move as much as, or in lockstep with interest rates. Accordingly, for a 1% increase or decrease in interest rates, the cost of equity may only rise or fall some fraction of 1%. Therefore, when implementing the risk premium method, adjustments may be required to

[105] My analysis encompasses the entire period for which published data is available.

incorporate this inverse relationship if current interest rate levels have diverged from the average interest rate level represented in the data set.

Current bond yields are lower than those prevailing over the risk premium study period. Given that equity risk premiums move inversely with interest rates, these lower bond yields also imply an increase in the equity risk premium. In other words, higher required equity risk premiums offset the impact of declining interest rates on the ROE.

Q108. IS THIS INVERSE RELATIONSHIP CONFIRMED BY PUBLISHED FINANCIAL RESEARCH?

A108. Yes. There is considerable empirical evidence that when interest rates are relatively high, equity risk premiums narrow, and when interest rates are relatively low, equity risk premiums are greater. This inverse relationship between equity risk premiums and interest rates has been widely reported in the financial literature. As summarized by *New Regulatory Finance*:

> Published studies by Brigham, Shome, and Vinson (1985), Harris (1986), Harris and Marston (1992, 1993), Carleton, Chambers, and Lakonishok (1983), Morin (2005), and McShane (2005), and others demonstrate that, beginning in 1980, risk premiums varied inversely with the level of interest rates – rising when rates fell and declining when rates rose.[106]

[106] Roger A. Morin, *New Regulatory Finance* (2006), Pub. Utils. Reports, Inc. *Id.* at 128.

Other regulators have also recognized that, while the cost of equity trends in the same direction as interest rates, these variables do not move in lockstep.[107] This relationship is illustrated in the figure on page 3 of Exhibit AMM-9.

Q109. WHAT ROE IS IMPLIED BY THE RISK PREMIUM METHOD USING SURVEYS OF ALLOWED RETURNS?

A109. Based on the regression output between the interest rates and equity risk premiums displayed on page 3 of Exhibit AMM-9, the equity risk premium increases by approximately 43 basis points for each percentage point drop in the yield on average public utility bonds. As illustrated on page 1 of Exhibit AMM-9 with an average yield on public utility bonds for the six month period ending April 2023 of 5.37%, this implies a current equity risk premium of 4.94%. Adding this equity risk premium to the average yield on Baa utility bonds for the six month period ending April 2023 implies a current ROE of 10.57%.

F. Expected Earnings Approach

Q110. WHAT OTHER ANALYSES DO YOU CONDUCT TO ESTIMATE THE ROE?

A110. I also evaluate the ROE using the expected earnings method. Reference to rates of return available from alternative investments of comparable risk can provide an

[107] *See, e.g.*, California Public Utilities Commission, Decision 08-05-035 (May 29, 2008); *See also, Entergy Mississippi, LLC Formula Rate Plan Rider Schedule FRP-7 (Second Revised), Docket No. 2018-UN-205,* Mississippi Public Service Commission (January 28, 2022), *available at* https://cdn.entergy-mississippi.com/userfiles/content/price/tariffs/eml_frp.pdf, *See also, Martha Coakley et al. v. Bangor Hydro-Elec. Co. et al.*, 147 FERC ¶ 61,234 at P 147 (2014).

important benchmark in assessing the return necessary to assure confidence in the financial integrity of a firm and its ability to attract capital. This expected earnings approach is consistent with the economic underpinnings for a just and reasonable rate of return established by the U.S. Supreme Court in *Bluefield* and *Hope*. Moreover, it avoids the complexities and limitations of capital market methods and instead focuses on the returns earned on book equity, which are readily available to investors.

Q111. WHAT ECONOMIC PREMISE SERVES AS THE FOUNDATION FOR THE EXPECTED EARNINGS APPROACH?

A111. The simple, but powerful concept underlying the expected earnings approach is that investors compare each investment alternative with the next best opportunity. If the utility is unable to offer a return similar to that available from other opportunities of comparable risk, investors will become unwilling to supply the capital on reasonable terms. For existing investors, denying the utility an opportunity to earn what is available from other similar risk alternatives prevents them from earning their opportunity cost of capital. While I am not a lawyer and do not offer a legal opinion, my position and experience as a financial economist suggests this outcome would violate the *Hope* and *Bluefield* standards and undermine the utility's access to capital on reasonable terms.

Q112. HOW IS THE EXPECTED EARNINGS APPROACH TYPICALLY IMPLEMENTED?

A112. The traditional comparable earnings test identifies a group of companies that are believed to be comparable in risk to the utility. The actual earnings of those companies on the book value of their investment are then compared to the allowed return of the utility. While the traditional comparable earnings test is implemented using historical data taken from the accounting records, it is also common to use projections of returns on book investment, such as those published by recognized investment advisory publications (*e.g.*, Value Line). Because these returns on book value equity are analogous to the allowed return on a utility's rate base, this measure of opportunity costs results in a direct, "apples to apples" comparison.

Moreover, regulators do not set the returns that investors earn in the capital markets, which are a function of dividend payments and fluctuations in common stock prices—both of which are outside their control. Regulators can only establish the allowed ROE, which is applied to the book value of a utility's investment in rate base, as determined from its accounting records. This is analogous to the expected earnings approach, which measures the return that investors expect the utility to earn on book value. As a result, the expected earnings approach provides a meaningful guide to ensure that the allowed ROE is similar to what other utilities of comparable risk will earn on invested capital. This expected earnings test does not require theoretical models to indirectly infer investors' perceptions from stock prices or other market data. As long as the proxy companies are similar in risk, their expected earned returns on invested capital provide a direct benchmark for investors' opportunity costs that is

independent of fluctuating stock prices, market-to-book ratios, debates over DCF growth rates, or the limitations inherent in any theoretical model of investor behavior.

Q113. WHAT ROE IS INDICATED FOR ELL BASED ON THE EXPECTED EARNINGS APPROACH?

A113. For the firms in the Utility Group, the year-end returns on common equity projected by Value Line over its forecast horizon are shown on Exhibit AMM-10. As I explained earlier in my discussion of the br+sv growth rates used in applying the DCF model, Value Line's returns on common equity are calculated using year-end equity balances, which understates the average return earned over the year.[108] Accordingly, these year-end values were converted to average returns using the same adjustment factor discussed earlier and developed on Exhibit AMM-6. As shown on Exhibit AMM-10, Value Line's projections for the Utility Group suggest an average ROE of 11.2%.

G. Flotation Costs

Q114. WHAT OTHER CONSIDERATION IS RELEVANT IN SETTING THE RETURN ON EQUITY FOR A UTILITY?

A114. The common equity used to finance the investment in utility assets is provided from either the sale of stock in the capital markets or from retained earnings not paid out as dividends. When equity is raised through the sale of common stock, there are costs

[108] For example, to compute the annual return on a passbook savings account with a beginning balance of $1,000 and an ending balance of $5,000, the interest income would be divided by the average balance of $3,000. Using the $5,000 balance at the end of the year would understate the actual return.

associated with "floating" the new equity securities. These flotation costs include services such as legal, accounting, and printing, as well as the fees and discounts paid to compensate brokers for selling the stock to the public. Also, some argue that the "market pressure" from the additional supply of common stock and other market factors may further reduce the amount of funds a utility nets when it issues common equity.

Q115. ELL DOES NOT SELL COMMON STOCK. WHY ARE EQUITY FLOTATION COSTS RELEVANT TO THE COMPANY?

A115. While ELL does not sell common stock directly to investors, the common equity supporting the Company's investment in utility infrastructure was obtained through the issuance of common stock by ELL's parent, Entergy. In order to finance a substantial capital expenditures program and maintain ELL's credit standing, Entergy will continue to rely on additional sales of common stock to raise new capital. For example, S&P recently noted "Equity issuance of about $830 million" as a principal source of liquidity for Entergy.[109] Similarly, Value Line expects Entergy to issue almost 19 million new common shares over its 2023-2027 forecast horizon.[110] Because the equity capital supporting ELL is ultimately provided by investors through the flotation of Entergy common stock, issuance costs are a relevant consideration in evaluating a fair ROE for the Company.

[109] S&P Global Ratings, *Entergy Corp.* (December 7, 2022), Ratings Direct.

[110] The Value Line Investment Survey, *Entergy Corp.* (March 10, 2023).

Q116. IS THERE AN ESTABLISHED MECHANISM FOR A UTILITY TO RECOGNIZE EQUITY ISSUANCE COSTS?

A116. No. While debt flotation costs are recorded on the books of the utility, amortized over the life of the issue, and thus increase the effective cost of debt capital, there is no similar accounting treatment to ensure that equity flotation costs are recorded and ultimately recognized. No rate of return is authorized on flotation costs necessarily incurred to obtain a portion of the equity capital used to finance plant investment. In other words, equity flotation costs are not included in a utility's rate base because neither that portion of the gross proceeds from the sale of common stock used to pay flotation costs is available to invest in plant and equipment, nor are flotation costs capitalized as an intangible asset. Unless some provision is made to recognize these issuance costs, a utility's revenue requirements will not fully reflect all of the costs incurred for the use of investors' funds. Because there is no accounting convention to accumulate the flotation costs associated with equity issues, they must be accounted for indirectly, with an upward adjustment to the cost of equity being the most appropriate mechanism.

Q117. IS THERE ACADEMIC EVIDENCE THAT SUPPORTS A FLOTATION COST ADJUSTMENT?

A117. Yes. The financial literature and evidence in this case provides a sound theoretical and practical basis to include consideration of flotation costs for ELL. An adjustment for flotation costs associated with past sales of common stock is appropriate, even when the utility is not contemplating any new sales of common stock. The need for a flotation cost adjustment to compensate for past common stock offerings has been recognized in

the financial literature. In a *Public Utilities Fortnightly* article, for example, Brigham, Aberwald, and Gapenski demonstrated that even if no further stock issues are contemplated, a flotation cost adjustment in all future years is required to keep shareholders whole, and that the flotation cost adjustment must consider total equity, including retained earnings.[111] Similarly, *New Regulatory Finance* contains the following discussion:

> Another controversy is whether the flotation cost allowance should still be applied when the utility is not contemplating an imminent common stock issue. Some argue that flotation costs are real and should be recognized in calculating the fair rate of return on equity, but only at the time when the expenses are incurred. In other words, the flotation cost allowance should not continue indefinitely, but should be made in the year in which the sale of securities occurs, with no need for continuing compensation in future years. This argument implies that the company has already been compensated for these costs and/or the initial contributed capital was obtained freely, devoid of any flotation costs, which is an unlikely assumption, and certainly not applicable to most utilities. ... The flotation cost adjustment cannot be strictly forward-looking unless all past flotation costs associated with past issues have been recovered.[112]

Q118. CAN YOU ILLUSTRATE WHY INVESTORS WILL NOT HAVE THE OPPORTUNITY TO EARN THEIR REQUIRED ROE UNLESS A FLOTATION COST ADJUSTMENT IS INCLUDED?

A118. Yes. Assume a utility sells $10 worth of common stock at the beginning of year 1. If the utility incurs flotation costs of $0.48 (5% of the net proceeds), then only $9.52 is

[111] E. F. Brigham, D. A. Aberwald, and L. C. Gapenski, *Common Equity Flotation Costs and Rate Making*(May 2, 1985), Pub. Util. Fortnightly.

[112] Roger A. Morin, *New Regulatory Finance* (2006), Pub. Utils. Reports, Inc. *Id.* at 335.

available to invest in rate base. Assume that common shareholders' required rate of return is 10.5%, the expected dividend in year 1 is $0.50 (*i.e.*, a dividend yield of 5%), and that growth is expected to be 5.5% annually. As developed in Table 5 below, if the allowed rate of return on common equity is only equal to the utility's 10.5% "bare bones" cost of equity, common stockholders will not earn their required rate of return on their $10 investment, since growth will only be 5.25%, instead of 5.5%:

TABLE 5
NO FLOTATION COST ADJUSTMENT

Year	Common Stock	Retained Earnings	Total Equity	Market Price	M/B Ratio	Allowed ROE	EPS	DPS	Payout Ratio
1	$ 9.52	$ -	$ 9.52	$10.00	1.050	10.50%	$ 1.00	$ 0.50	50.0%
2	$ 9.52	$ 0.50	$ 10.02	$10.52	1.050	10.50%	$ 1.05	$ 0.53	50.0%
3	$ 9.52	$ 0.53	$ 10.55	$11.08	1.050	10.50%	$ 1.11	$ 0.55	50.0%
Growth			**5.25%**	**5.25%**			**5.25%**	**5.25%**	

The reason that investors never really earn 10.5% on their investment in the above example is that the $0.48 in flotation costs initially incurred to raise the common stock is not treated like debt issuance costs (*i.e.*, amortized into interest expense and therefore increasing the embedded cost of debt), nor is it included as an asset in rate base.

Including a flotation cost adjustment allows investors to be fully compensated for the impact of these costs. One commonly referenced method for calculating the flotation cost adjustment is to multiply the dividend yield by a flotation cost percentage. Thus, with a 5% dividend yield and a 5% flotation cost percentage, the flotation cost adjustment in the above example would be approximately 25 basis points. As shown in Table 6 below, by allowing a rate of return on common equity of 10.75% (a 10.5%

cost of equity plus a 25-basis point flotation cost adjustment), investors earn their 10.5% required rate of return, since actual growth is now equal to 5.5%:

TABLE 6
INCLUDING FLOTATION COST ADJUSTMENT

Year	Common Stock	Retained Earnings	Total Equity	Market Price	M/B Ratio	Allowed ROE	EPS	DPS	Payout Ratio
1	$ 9.52	$ -	$ 9.52	$10.00	1.050	10.75%	$ 1.02	$ 0.50	48.9%
2	$ 9.52	$ 0.52	$ 10.04	$10.55	1.050	10.75%	$ 1.08	$ 0.53	48.9%
3	$ 9.52	$ 0.55	$ 10.60	$11.13	1.050	10.75%	$ 1.14	$ 0.56	48.9%
Growth			**5.50%**	**5.50%**			**5.50%**	**5.50%**	

The only way for investors to be fully compensated for issuance costs is to include an ongoing adjustment to account for past flotation costs when setting the return on common equity. This is the case regardless of whether the utility is expected to issue additional shares of common stock in the future.

Q119. WHAT IS THE MAGNITUDE OF THE ADJUSTMENT TO THE "BARE BONES" COST OF EQUITY TO ACCOUNT FOR ISSUANCE COSTS?

A119. The most common method used to account for flotation costs in regulatory proceedings is to apply an average flotation-cost percentage to a utility's dividend yield. In Exhibit AMM-11, I present a survey of recent open-market common stock issues for each company in Value Line's electric and gas utility industries. For all companies in the electric utility industry, flotation costs averaged approximately 2.6%. Applying the average 2.6% expense percentage to the Utility Group dividend yield of 3.6% produces a flotation cost adjustment on the order of 10 basis points.

Q120. HAVE OTHER REGULATORS RECOGNIZED FLOTATION COSTS IN EVALUATING A FAIR AND REASONABLE ROE?

A120. Yes. For example, in Docket No. UE-991606 the Washington Utilities and Transportation Commission concluded that a flotation cost adjustment of 25 basis points should be included in the allowed return on equity.[113] In Docket No. INT-G-16-02 the staff of the Idaho Public Utilities Commission noted that applying a flotation cost percentage to the dividend yield "is referred to as the 'conventional' approach. Its use in regulatory proceedings is widespread, and the formula is outlined in several corporate finance textbooks."[114]

More recently, the Wyoming Office of Consumer Advocate, an independent division of the Wyoming Public Service Commission, recommended a 10 basis point flotation cost adjustment.[115] Similarly, the South Dakota Public Utilities Commission has recognized the impact of issuance costs, concluding that, "recovery of reasonable flotation costs is appropriate."[116] Another example of a regulator that approves common stock issuance costs is the Mississippi Public Service Commission, which routinely includes a flotation cost adjustment in its Rate Stabilization Adjustment Rider

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[113] Washington Utilities and Transportation Commission, Docket No. UE-991606, *et al. Third Supplemental Order* (September 2000) *Id.* at 95.

[114] *In the Matter of the Application of Intermountain Gas Company's Application to Change its Rates and Charges for Natural Gas Service in the State of Idaho, Direct Testimony, Case No. INT-G-16-02,* Idaho Public Utilities Commission (December 16, 2016), (Mark Rogers), *Id* at 18.

[115] *In the Matter of the Application of Questar Gas Company d/b/a Dominion Energy Wyoming for Authority to Pass on a Wholesale Gas Cost Decrease of $0.75267 Per Dekatherm for All Firm Retail Rate Classes, Pre-Filed Direct Testimony, Docket No. 30011-97-GR-17,* Wyoming Public Service Commission (May 1, 2018), (Anthony J. Ornelas),.

[116] *See,* Order (2012), *The Matter of the Application of Northern States Power Company DBA Xcel Energy for Authority to Increase its Electric Rates, EL 11-019, Id.* at p. 22.

formula.[117] The Public Utilities Regulatory Authority of Connecticut[118] the Minnesota Public Utilities Commission,[119] and the Virginia State Corporation Commission[120] have also recognized that flotation costs are a legitimate expense worthy of consideration in setting a fair and reasonable ROE.

VI. NON-UTILITY BENCHMARK

Q121. WHAT IS THE PURPOSE OF SECTION VI OF YOUR DIRECT TESTIMONY?

A121. Section VI of my direct testimony presents the results of my DCF analysis applied to a group of low-risk firms in the competitive sector, which I refer to as the "Non-Utility Group." This analysis was not relied on to arrive at my recommended ROE range of reasonableness; however, it is my opinion that this is a relevant consideration in evaluating just and reasonable ROEs for the Company's utility operations.

Q122. DO UTILITIES HAVE TO COMPETE WITH NON-REGULATED FIRMS FOR CAPITAL?

A122. Yes. The cost of capital is an opportunity cost based on the returns that investors could realize by putting their money in other alternatives. Clearly, the total capital invested

[117] *See, Entergy Mississippi, LLC Formula Rate Plan Rider Schedule FRP-7 (Second Revised), Docket No. 2018-UN-205,* Mississippi Public Service Commission (January 28, 2022), *available at* https://cdn.entergy-mississippi.com/userfiles/content/price/tariffs/eml_frp.pdf.

[118] *See,* Decision (December 17, 2014), *Application of the Connecticut Light and Power Company to Amend its Rate Schedules, Docket No. 14-05-06, Id.* at 133-134.

[119] *See,* Minnesota Public Utilities Commission, Docket No. E001/GR-10-276, Findings of Fact, Conclusions, and Order, *Id.* at 9.

[120] *See,* Virginia State Corporation Commission, Roanoke Gas Company, Case No. PUR-2018-00013, *Final Order*, (Jan. 24, 2020) *Id.* at 6.

in utility stocks is only the tip of the iceberg of total common stock investment, and there is a plethora of other enterprises available to investors beyond those in the utility industry. Utilities must compete for capital, not just against firms in their own industry, but with other investment opportunities of comparable risk. Indeed, modern portfolio theory is built on the assumption that rational investors will hold a diverse portfolio of stocks, not just companies in a single industry.

Q123. IS IT CONSISTENT WITH THE *BLUEFIELD* AND *HOPE* CASES TO CONSIDER INVESTORS' COST OF EQUITY FOR NON-UTILITY COMPANIES?

A123. Yes. The cost of equity capital in the competitive sector of the economy forms the very underpinning for utility ROEs because regulation purports to serve as a substitute for the actions of competitive markets. The United States Supreme Court has recognized that it is the degree of risk, not the nature of the business, which is relevant in evaluating an allowed ROE for a utility. The *Bluefield* case refers to "business undertakings attended with comparable risks and uncertainties." It does not restrict consideration to other utilities. Similarly, the *Hope* case states:

> By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks.[121]

As in the *Bluefield* decision, there is nothing to restrict "other enterprises" solely to the utility industry.

[121] *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 391 (1944).

Q124. DOES CONSIDERATION OF THE RESULTS FOR THE NON-UTILITY GROUP IMPROVE THE RELIABILITY OF DCF RESULTS?

A124. Yes. The estimates of growth from the DCF model depend on analysts' forecasts. It is possible for utility growth rates to be distorted by short-term trends in the industry, or by the industry falling into favor or disfavor by analysts. Such distortions could result in biased DCF estimates for utilities. Because the Non-Utility Group includes low risk companies from more than one industry, it helps to insulate against any possible distortion that may be present in results for a particular sector.

Q125. WHAT CRITERIA DO YOU APPLY TO DEVELOP THE NON-UTILITY GROUP?

A125. My comparable risk proxy group was composed of those United States companies followed by Value Line that:

1) pay common dividends;

2) have a Safety Rank of "1";

3) have a Financial Strength Rating of "A" or greater;

4) have a beta value of 0.95 or less; and

5) have investment grade credit ratings from Moody's and S&P.

Q126. HOW DO THE OVERALL RISKS OF YOUR NON-UTILITY GROUP COMPARE TO THE PROXY GROUP OF ELECTRIC UTILITIES?

A126. Table 7 compares the Non-Utility Group to the Electric Group and ELL across the five key indices of investment risk discussed earlier.

TABLE 7
COMPARISON OF RISK INDICATORS

			Value Line		
	S&P	Moody's	Safety Rank	Financial Strength	Beta
Non-Utility Group	A-	A3	1	A+	0.80
Utility Group	BBB+	Baa2	2	A	0.90
ELL	BBB+	Baa1	2	B++	0.95

Note: ELL's Value Line ratings are for its parent company, Entergy.

As shown above, the risk indicators for the Non-Utility Group considered together suggest less risk than for the Utility Group and ELL.

The companies that make up the Non-Utility Group, which are shown in Exhibit AMM-12, represent the pinnacle of corporate America. These firms, which include household names such as Coca-Cola, McDonald's, and Procter & Gamble, have long corporate histories, well-established track records, and conservative risk profiles. Many of these companies pay dividends on a par with utilities, with the average dividend yield for the group exceeding 2%. Moreover, because of their significance and name recognition, these companies receive intense scrutiny by the investment community, which increases confidence that published growth estimates are representative of the consensus expectations reflected in common stock prices.

Q127. WHAT ARE THE RESULTS OF YOUR DCF ANALYSIS FOR THE NON-UTILITY GROUP?

A127. I applied the DCF model to the Non-Utility Group using the same analysts' EPS growth projections described earlier for the Utility Group. The results of my DCF analysis for the Non-Utility Group are presented in Exhibit AMM-12. As summarized in Table 8,

below, after eliminating illogical values, application of the constant growth DCF model resulted in the following cost of equity estimates:

TABLE 8
DCF RESULTS – NON-UTILITY GROUP

Growth Rate	Average	Midpoint
Value Line	11.1%	11.3%
IBES	10.5%	11.3%
Zacks	10.7%	11.4%

As discussed earlier, reference to the Non-Utility Group is consistent with established regulatory principles. Required returns for utilities should be in line with those of non-utility firms of comparable risk operating under the constraints of free competition. Because the actual cost of equity is unobservable, and DCF results inherently incorporate a degree of error, cost of equity estimates for the Non-Utility Group provide an important benchmark in evaluating a just and reasonable ROE for ELL.

Q128. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A128. Yes, at this time.

AFFIDAVIT

STATE OF TEXAS

COUNTY OF TRAVIS

NOW BEFORE ME, the undersigned authority, personally came and appeared, **ADRIEN M. MCKENZIE**, who after being duly sworn by me, did depose and say:

That the above and foregoing is his sworn testimony in this proceeding and that he knows the contents thereof, that the same are true as stated, except as to matters and things, if any, stated on information and belief, and that as to those matters and things, he verily believes them to be true.

Adrien M. McKenzie

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 14th DAY OF AUGUST 2023

NOTARY PUBLIC

My commission expires: 2/25/2027

BRUCE HARCUM FAIRCHILD
Notary ID #131906507
My Commission Expires
February 25, 2027