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July 2, 2024

VIA ELECTRONIC MAIL

Mr. Adam J. Teitzman, Commission Clerk
Office of Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: *Docket 20240025-EI, Petition for Rate Increase by Duke Energy Florida, LLC*

Dear Mr. Teitzman,

Please find enclosed for electronic filing on behalf of Duke Energy Florida, LLC ("DEF"), DEF's Rebuttal Testimony and Exhibits AMM-14 through AMM-20 of Adrien M. McKenzie.

Thank you for your assistance in connection with this matter. Please feel free to call me at (727) 820-4692 should you have any questions concerning this filing.

Respectfully submitted,

/s/Dianne M. Triplett

Dianne Triplett

DMT/mh

Attachments

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CERTIFICATE OF SERVICE

Docket No. 20240025-EI

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by electronic mail this 2nd day of July, 2024, to the following:

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for rate increase,	**Docket No. 20240025-EI**
	Submitted for filing: July 2, 2024
by Duke Energy Florida, LLC	

REBUTTAL TESTIMONY
OF
ADRIEN M. MCKENZIE, CFA

ON BEHALF
OF
DUKE ENERGY FLORIDA, LLC

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EXHIBITS TO REBUTTAL TESTIMONY

GLOSSARY

CAPM	Capital Asset Pricing Model
Commission	Florida Public Service Commission
CPI	Consumer Price Index
DCF	Discounted Cash Flow
DPS	dividends per share
DEF or the Company	Duke Energy Florida, LLC
Duke Energy	Duke Energy Corporation
ECAPM	Empirical Capital Asset Pricing Model
EPS	earnings per share
FERC	Federal Energy Regulatory Commission
FINCAP, Inc.	Financial Concepts and Applications, Inc.
Fitch	Fitch Ratings, Inc.
FOMC	Federal Open Market Committee
FPL	Florida Power & Light Company
Moody's	Moody's Investors Service
MRP	market risk premium
MYP	multi-year rate plan
NARUC	National Association of Regulatory Utility Commissioners
NCUC	North Carolina Utilities Commission
PCE	Personal Consumption Expenditures
ROE	return on equity
RRA	S&P Global Market Intelligence, RRA Regulatory Focus
S&P	S&P Global Ratings
Value Line	The Value Line Investment Survey
Zacks	Zacks Investment Research

I. Introduction

Q. Please state your name and business address.

A. Adrien M. McKenzie, 3907 Red River, Austin, Texas, 78751.

Q. Did you previously file direct testimony in this proceeding?

A. Yes. I submitted pre-filed direct testimony in this docket on April 2, 2024.

Q. By whom are you employed and in what capacity?

A. I am President of FINCAP, Inc., a firm providing financial, economic, and policy consulting services to business and government.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to the direct testimony of Daniel J. Lawton submitted on behalf of Office of Public Counsel, concerning a fair ROE that DEF should be authorized to earn on its investment in providing electric utility service in Florida. My testimony also addresses the ROE comments of Steve W. Chriss submitted on behalf of the Florida Retail Federation, Jeffry Pollock submitted on behalf of the Florida Industrial Power Users Group, and Karl R. Rábago, on behalf of Florida Rising and League of United Latin American Citizens. Hereinafter, I refer to these witnesses collectively as the "Other Witnesses."

II. Overview and Summary

Q. Please summarize the ROE recommendations of the Other Witnesses.

A. Mr. Lawton recommends an ROE of 9.45% for DEF.[1] Witness Chriss did not recommend a specific ROE; rather, he recommended that the Commission consider customer impacts, a future test year, recovery clauses, ROEs awarded to other Florida utilities, ROEs awarded to other Duke utilities, as well as ROEs awarded by other state regulatory commissions. Witness Pollock also did not recommend a specific ROE; instead, he discusses future test years, national awarded ROEs, and DEF's relative risk. Witness Rábago likewise did not recommend a specific ROE or perform an ROE analysis; rather, his testimony recommends an ROE of no higher than 9.5% (midpoint) based principally upon other authorized ROEs.

Q. What are the principal conclusions of your rebuttal testimony?

A. The ROE recommendations of the Other Witnesses fall below a fair and reasonable level for the Company's electric operations. My rebuttal testimony demonstrates that:

- Mr. Lawton's 9.45% ROE recommendation falls below accepted benchmarks:
  - Adjusting national authorized ROEs for electric utilities to reflect current capital market conditions implies an ROE of approximately 10.5%.
  - Adjusting DEF's current ROE in a manner that is consistent with the terms of the 2021 Settlement Agreement implies a current cost of equity of approximately 11.0%.
  - Adjusting ROEs approved by the Commission in prior rate proceedings for increases in bond yields implies a current cost of equity of 11.6%.

[1] Lawton Direct at 6.

- Historical allowed ROEs for Duke Energy operating utilities imply an average ROE of 10.25% after accounting for today's higher interest rates.
- Expected earned returns for Mr. Lawton's proxy groups fall in the range of approximately 10.8% to 11.2%.

- Mr. Lawton's ROE analyses are undermined by errors and methodological flaws, including:
  - Errors in the specification of his proxy groups.
  - Inconsistent and contradictory stock price and growth rate data that undermine any ability to rely on the results of his DCF studies.
  - Inconsistent and unsupported DCF growth rate assumptions that do not reflect investors' expectations.
  - CAPM studies that double-count the impact of the electric utility industry's relative risk and violate the underlying assumptions of this method.
  - Failure to account for the impact of firm size in applying the CAPM.
  - Speculative and unsupported assumptions regarding future interest rates introduce significant downward bias in Mr. Lawton's CAPM and risk premium results.
  - Arbitrary and unsupported exclusion of model results.

My rebuttal testimony demonstrates that Mr. Lawton's ROE recommendation is significantly below a reasonable level and would violate the economic and regulatory standards underlying a fair ROE. In addition, my testimony shows that the recommendations of Messrs. Chriss, Pollock, and Rábago are incorrect, unsupported, and should be dismissed.

III. Mr. Lawton's ROE Recommendation Violates Economic Principles

Q. What is the basic conceptual framework underlying the cost of capital?

A. The cost of capital is premised on the concept that a dollar today is worth more than a

dollar in the future. The time value of money is a core principle of finance, and it applies equally to investments in debt and equity securities. For both debt and equity securities, the return required by investors can be conceptualized as a sum of several building blocks, including 1) a risk-free rate to compensate for foregoing current consumption, 2) a risk premium to account for uncertainty over the timing and payment of future cash flows, and 3) a premium to compensate for the erosion in purchasing power due to expected price inflation.

Q. Are there readily available benchmarks for general changes in capital costs?

A. Yes. The yields on 30-year Treasury bonds are accepted as a guide to the risk-free rate. While yields on long-term Treasury bonds can be impacted by monetary policy (e.g., quantitative easing) or a flight to safety in times of turmoil, they provide a directly observable benchmark for underlying trends in capital costs. Similarly, utility bonds are actively traded in the debt markets and the resulting yields offer a touchstone for the direction and magnitude of the return utilities must offer to attract capital. Although not specific to long-term capital costs, the target range for the Federal Funds rate established by the Federal Reserve is also widely followed by investors as a metric for monetary policies and underlying capital market conditions.

Q. Does Mr. Lawton agree that these benchmarks are relevant indicators in evaluating the cost of equity?

A. Yes. Mr. Lawton cites historic and projected trends in the Federal Funds rate as well as various bond market yields extensively in his testimony. For example, Mr. Lawton

references recent trends in the Federal Funds rate[2] as well as projections of the Federal Funds rate.[3] He also discusses historic and recent trends in U.S. Treasury yields,[4] and Treasury yields serve as direct inputs into Mr. Lawton's CAPM, ECAPM and risk premium models.[5] Mr. Lawton clearly recognizes the relevance of interest rate benchmarks as indicators of current capital costs.

Q. How have these key indicators of capital costs trended since DEF's last rate proceeding?

A. As I established in my direct testimony,[6] trends in bond yields since the 2021 Settlement Agreement document a substantial increase in the returns on long-term capital demanded by investors. This is consistent with Mr. Lawton's conclusion that, "Current economic conditions reflect … higher federal funds rates and higher interest rates."[7]

Paragraph 2(b) of the agreement allowed for a one-time 25 basis point increase in the ROE range and midpoint if the six-month average yield on 30-year Treasury bonds were to exceed the benchmark yield of 2.264%. The average yield on 30-year Treasury bonds during May 2024 was 4.62%, or an increase of approximately 236 basis points. Under the rationale used to calculate the trigger provision of the 2021 Settlement Agreement,

[2] *Id.* at 20, 22-24, 48.
[3] *Id.* at 22-25, 48, Table 8.
[4] *Id.* at 24, 48-49, 66, Table 12, Exhibit DLJ-3, Exhibit DLJ-10.
[5] *Id.* at 25-26, 48, 49, 50, 52.
[6] McKenzie Direct at 20-22.
[7] Lawton Direct at 20.

where the ROE increases by 50% of the rise in 30-year Treasury bond yields,[8] this implies a current ROE for DEF of 11.03%.[9]

Q. Is Mr. Lawton correct that "capital costs remain low in comparison to historical levels"?[10]

A. No. Mr. Lawton asserts that "the general economic data does not support substantially increasing capital costs."[11] But rather than looking to general economic data, the only support Mr. Lawton offers for his conclusion is a reference to average allowed ROEs for 2023. Focusing instead on actual data from the capital markets—in the form of observable bond yields—demonstrates that Mr. Lawton's position is incorrect. Consider the figure below, which illustrates the trend in bond yields since January 2020.

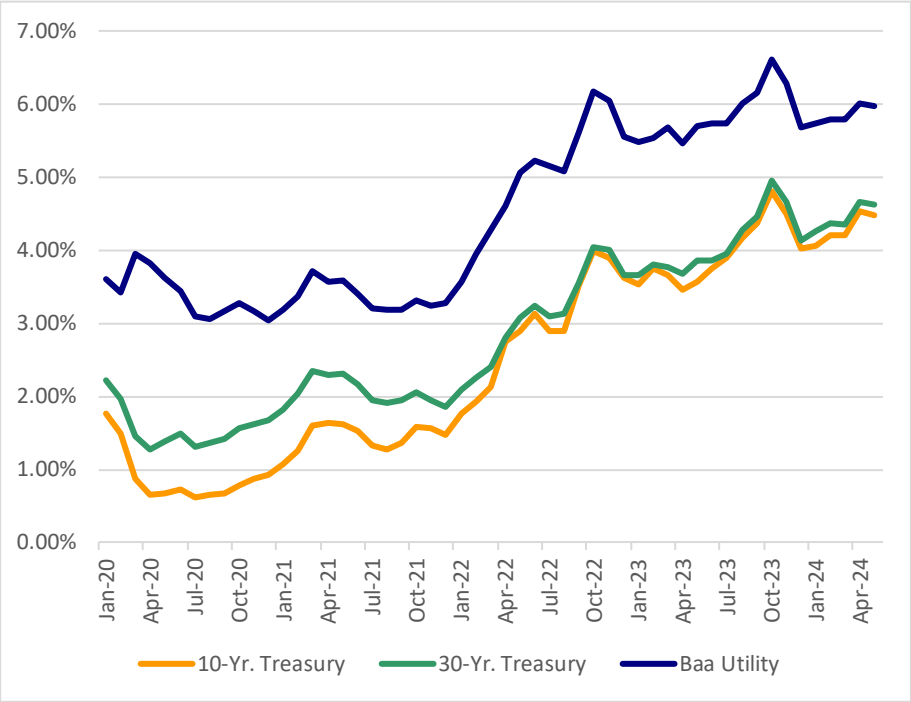
[8] This relationship is consistent with the findings of empirical research. *See, e.g.,* Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 129 (noting that, "The gist of the empirical research on this subject is that the cost of equity has changed only half as much as interest rates have changed in the past.").

[9] 9.85% + (2.36% / 2) = 11.03%.

[10] Lawton Direct at 26.

[11] *Id.*

FIGURE AMM-1R
BOND YIELD TRENDS



Source: https://fred.stlouisfed.org/; Moody's Investors Service.

Contradicting Mr. Lawton's unsupported contention, capital market data clearly support a substantial increase in capital costs.

Q. Do historical allowed ROEs, such as those cited by Mr. Lawton, provide a direct guide to capital market trends and investors' required returns?

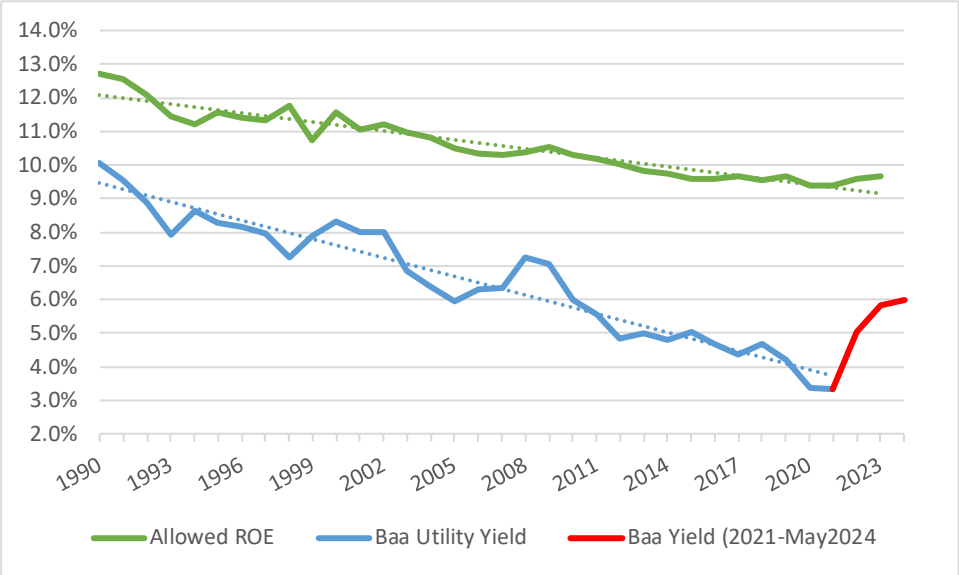
A. No. The data on which these historical allowed ROEs were based does not reflect investors' current requirements. As I discussed in my direct testimony,[12] a review of trends in key indicators since 2021 and the evidence presented in Figure AMM-1R above supports a finding that capital market conditions have changed dramatically, and

[12] McKenzie Direct at 20-23.

recent historical allowed ROEs significantly understate investors' current required returns.

The disconnect between historically allowed ROEs and the recent increase in capital costs is illustrated in the figure below. As shown there, authorized ROEs declined steadily from 1990 until 2021, in line with falling interest rates. While the decline in ROEs was more gradual than the decrease in bond yields, this is to be expected. As noted in my direct testimony and discussed in greater detail below, financial research supports the conclusion that equity risk premiums rise as bond yields decline, which partially offsets the decline in capital costs measured by changes in interest rates.

FIGURE AMM-2R
TRENDS IN AUTHORIZED ELECTRIC ROES AND BOND YIELDS



Source: Allowed ROEs from Exhibit AMM-10, page 2. Baa Utility bond yields from Moody's Investors Service and Mergent Public Utility Manual.

As the chart above demonstrates, the upward shift in capital costs that began in 2022 has been swift and dramatic. While it took 22 years for interest rates to fall by one-half,[13] the Baa utility bond yield almost doubled in just 22 months.[14] Figure AMM-2R also clearly shows that although allowed ROEs made a modest move upward in 2023, they do not yet reflect the sharp increase in utility bond yields that has occurred since early 2022. As RRA recently noted:

> [E]lectric and gas authorized ROEs are trending modestly higher as the high-interest-rate environment begins to impact authorized ROEs. The effect of interest rate increases on authorized returns is not proportional, however, as regulators are slower to adjust ROEs upward than downward, and affordability concerns persist as regulators contend with customer rate increases stemming from significant but necessary capital investment in the energy transition during a period of high inflation.[15]

Similarly, a recent Wall Street Journal article highlighted the cost pressures faced by utilities and noted that, "Investors should exercise caution when picking up utility stocks."[16] As the article observed, "Higher interest rates haven't only increased debt-financing costs for utility companies but also raised the cost of capital that they are expected to deliver." Meanwhile, Value Line noted that historical allowed ROEs are "based on a historically low and now out-of-date cost of capital."[17] Value Line advised

[13] In 1990 the average yield on Baa utility bonds was 10.06%. It was not until 2012 that the average yield fell below 5.03%.

[14] During December 2021, the yield on Baa utility bonds averaged 3.27%. Over the six months ending December 2023, monthly average bond yields ranged from 5.68% to 6.61%.

[15] S&P Global Market Intelligence, *Major energy rate case decisions in the US – January-March 2024*, Regulatory Focus (Apr. 19, 2024).

[16] Jinjoo Lee, *Utilities Get an Inflation Shock,* Wall Street Journal (Jan. 3, 2024). https://www.wsj.com/finance/investing/utilities-get-an-inflation-shock-cb821c4e.

[17] The Value Line Investment Survey, *Electric Utility (East) Industry* (May 10, 2024).

electric utility investors that, "New commitments should only be made when the midpoint of our annual total return projection is at or above 12%."[18]

Q. What is the obvious conclusion from this observable evidence?

A. The cost of capital—both debt and equity—has increased significantly since DEF's current ROE was established, and capital costs generally have been on an upward trend since 2020.

Q. Has there been any change in the risks of utilities in general or DEF specifically that might offset this clear upward move in the cost of capital?

A. No. My direct testimony documented the increasing challenges faced by utilities,[19] with S&P revising its outlook on the utility sector to "negative" in February 2024, noting that, "Credit quality for North American investor-owned regulated utilities has weakened over the past four years, with downgrades outpacing upgrades by more than three times.[20] Similarly, Fitch concluded that its "deteriorating outlook" for the utility sector "reflects continuing macroeconomic headwinds and elevated capex that are putting pressure on credit metrics in the high-cost funding environment."[21] Meanwhile, Duke Energy's credit ratings have remained unchanged. There is no evidence that the significant increase in capital costs since Docket No. 20220143-EI has been moderated by declining risk in the utility industry generally, or for DEF specifically.

[18] *Id.*
[19] McKenzie Direct at 18-19.
[20] S&P Global Ratings, Rising Risks: Outlook For North American Investor-Owned Regulated Utilities Weakens, Comments (Feb. 14, 2024).
[21] Fitch Ratings, Inc., North American Utilities, Power & Gas Outlook 2024 (Dec. 6, 2023).

Q. Does Mr. Lawton recognize the direct relationship between interest rates and utility ROEs?

A. Yes. Mr. Lawton notes that:

> Capital costs do move together – so if interest rates are rising (falling), the cost of other capital such as equity will increase (decrease), as well. The key difference is that equity and debt costs do not move in lock-step. In other words, debt costs may increase by 1.0%, but equity costs will change a smaller fraction of 1.0%.[22]

I agree with Mr. Lawton's characterization, which is also consistent with the findings of the risk premium study presented in my direct testimony.[23]

Q. Is Mr. Lawton's ROE recommendation consistent with the increase in capital costs documented above?

A. No. Mr. Lawton is recommending a 9.45% ROE for DEF.[24] In other words, Mr. Lawton is recommending a 65 basis point *reduction* in DEF's ROE, despite the fact that the 30-year Treasury yield is now approximately 186 basis points higher than the 2.764% benchmark cited by the Commission in approving DEF's current 10.10% ROE.[25] If 10.10% was a just and reasonable ROE for DEF in October 2022, it stands to reason that the Company's ROE is now higher. Mr. Lawton's ROE recommendation fails to account for these realities.

[22] Lawton Direct at 24.
[23] McKenzie Direct at 68-70.
[24] Lawton Direct at 6.
[25] Florida Public Service Commission, Order No. PSC-2022-0357-FOF-EI (Oct. 21, 2022) at 3. The average 30-year Treasury bond yield for May 2024 was 4.62%.

While I agree with Mr. Lawton that the cost of equity does not move one-for-one in lockstep with interest rates,[26] it is inconceivable that DEF's ROE could have *decreased* 65 basis points when other capital costs have increased significantly. This evidence demonstrates that Mr. Lawton's ROE recommendation is unmoored from fundamental principles of finance and violates the basic, common-sense relationship between interest rates and the cost of equity.

Q. Mr. Lawton repeatedly claims that capital markets are expecting inflation and interest rates to decline.[27] How do you respond?

A. The only support Mr. Lawton references for these claims is the FOMC's Summary of Economic Projections from March 20, 2024,[28] which forecasted declines in PCE inflation from 2024 to 2026, as well as a declining Federal Funds rate.[29] It should first be noted that in their most recent meeting, the FOMC decided to maintain the target range of 5.25% to 5.50% for the Federal Funds rate. Chairman Powell added:

> We have stated that we do not expect it will be appropriate to reduce the target range for the federal funds rate until we have gained greater confidence that inflation is moving sustainably toward 2 percent. So far this year, the data have not given us that greater confidence.[30]

[26] The evidence presented in my Direct Testimony indicates that allowed electric ROEs tend to increase about 58 basis points for every 100 basis point increase in utility bond yields. See Exhibit AMM-10.
[27] Lawton Direct at 20, 24-25, 48, 64-66, 68-69.
[28] *Id.* at 22-23, 25, Table 8.
[29] https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20240320.pdf (last visited Jun. 13, 2024).
[30] Federal Reserve, *Transcript of Chair Powell's Press Conference* (Jun 12, 2024). https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20240612.pdf.

While Chairman Powell indicated that median projections suggest the Federal Funds rate will be declining somewhat through 2026, he added that "these projections are not a Committee plan or any kind of decision."[31]

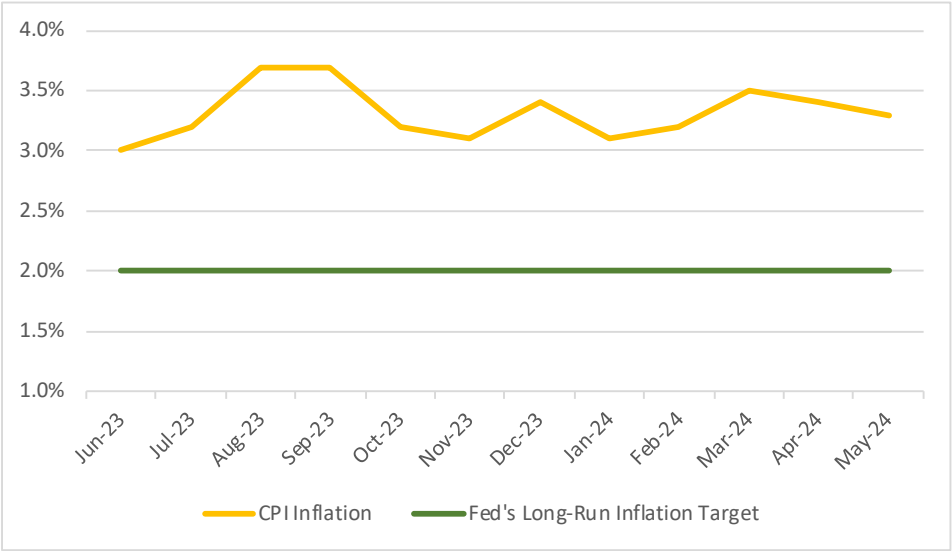
With this evidence in mind, Mr. Lawton is incorrect to extrapolate from the FOMC's projections to the expectations of capital markets more broadly. Mr. Lawton has not provided any evidence that investors are currently anticipating declining interest rates or inflation over the next several years. Indeed, Mr. Lawton's assertion of "declining interest rates and declining cost of capital"[32] is built upon a narrow consideration of only the FOMC's projections from March, and it overlooks other important other evidence.

Q. Mr. Lawton claims that "the most recent three months of activity adequately capture the market expectations and trends."[33] Does this data support his contention that inflation is declining?

A. No. This can be seen in Figure AMM-3R below, which shows CPI inflation over the past twelve months.

[31] *Id*.
[32] Lawton Direct at 25.
[33] *Id.*

FIGURE AMM-3R
CPI INFLATION RATE



Source: https://www.bls.gov/bls/news-release/cpi.htm.

As the figure above clearly shows, the inflation rate in the United States has not been on a downward trend in recent months, and it remains well above the Federal Reserve's target long run inflation rate of 2.0%. As Chairman Power recently stated, "The inflation data received earlier this year were higher than expected," and, "If the economy remains solid and inflation persists, we are prepared to maintain the current range for the federal funds rate as long as appropriate."[34]

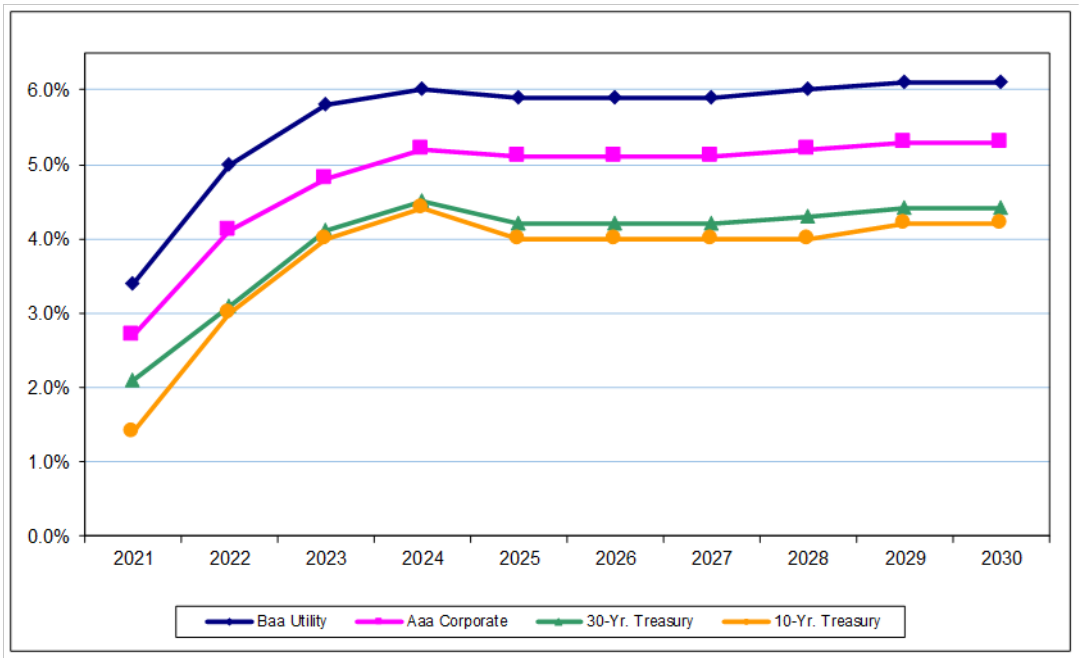
Q. Do independent forecasts support Mr. Lawton's unsupported view that interest rates are expected to decline?

A. No. As illustrated in Figure AMM-4R below, the long-term consensus projections from top economists published by Blue Chip on June 1, 2024 document that long-term bond

[34] *Id.*

yields are expected to remain elevated when compared to recent historical levels.

FIGURE AMM-4R
PROJECTED INTEREST RATES



Source: Wolters Kluwer, Blue Chip Financial Forecasts (Jun. 1, 2024); Moody's Investors Service; https://fred.stlouisfed.org/.

This evidence contradicts Mr. Lawton's unsupported assumption and shows that long-term capital costs—including the ROE—have increased substantially, and that investors expect these higher capital costs to be sustained at least through 2030. The objective data presented above, which documents significant increases in capital costs since DEF's current ROE was authorized along with investors' expectations that capital costs will remain elevated, contradicts Mr. Lawton's speculative claim of an "expectation of lower interest rates and declining cost of capital,"[35] as well as his recommendation that DEF's ROE be lowered 65 basis points.

[35] *Id.* at 25.

Q. Does the prospect for changes in monetary policy over the coming year change this conclusion?

A. No. At the conclusion of its June 2024 meeting, the FOMC indicated that the participants anticipate that the appropriate level of the Federal funds rate will be 5.1% at the end of 2024, declining to 3.1% by the end of 2026.[36] This potential easing of monetary policy presumably reflects the FOMC's view that inflation will be sustainably reduced to its target level of 2%. But as Chair Powell has repeatedly noted, "Longer-term inflation expectations appear to remain well anchored."[37] In other words, expected inflation rates incorporated into long-term bond and equity costs did not approach recent historical changes in the CPI, and the impact of any moderation in the Federal Reserve's policy rate would be subdued. This is consistent with the forecasts of leading economists illustrated in Figure AMM-4R, and any expectations of future declines in the federal funds rate on the part of market participants are already incorporated into current bond yields.

Moreover, while Chair Powell has observed that the Federal Funds rate "is likely at or near its peak for this tightening cycle," he has also stressed that "the economy has

[36] Federal Reserve, *Summary of Economic Projections* (Jun 12, 2024). https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20240612.pdf.

[37] Federal Reserve, *Transcript of Chair Powell's Press Conference* (Jun 12, 2024). https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20240612.pdf.. *See also,* Federal Reserve, *Transcript of Chair Powell's Press Conference* (Dec. 14, 2022, Sep. 21, 2022). https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm.

surprised forecasters in many ways"[38] and made clear that, "We will need to see more good data to bolster our confidence that inflation is moving sustainably toward 2 percent."[39] Reuters reported that Federal Reserve Bank of Dallas President Lorie Logan "is still worried about upside risks to inflation" and concluded "it's too soon to really be thinking about rate cuts."[40] Similarly, CNBC noted that Federal Reserve Governor Michell Bowen states that "the time is not right yet to start lowering interest rates, adding that she would be open to raising if inflation doesn't pull back."[41] As Chair Powell recently concluded, "we don't think it'll be appropriate to reduce rates and begin to loosen policy until we have more confidence that inflation is moving back down to 2 percent on a sustainable basis."[42]

Q. What do the facts indicate with regard to Mr. Lawton's ROE recommendation?

A. In light of these documented recent trends and forward-looking expectations of recognized capital cost benchmarks, the ROE recommendation of Mr. Lawton is demonstrably insufficient. Despite the fact that interest rates have increased substantially—which means the cost of equity has climbed—Mr. Lawton is arguing that DEF's ROE should be reduced. This outcome is not credible and would violate accepted

[38] Federal Reserve, *Transcript of Chair Powell's Press Conference* (Dec. 13, 2023). https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20231213.pdf.

[39] Federal Reserve, *Transcript of Chair Powell's Press Conference* (Jun 12, 2024). https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20240612.pdf.. *See also,* Federal Reserve, *Transcript of Chair Powell's Press Conference* (Dec. 14, 2022, Sep. 21, 2022). https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm.

[40] Ann Saphir and Michael S. Derby, *Fed Official see inflation falling, signal no rush to cut rates*, Reuters (May 30, 2024). https://www.reuters.com/markets/us/feds-williams-monetary-policy-well-positioned-lower-inflation-2024-05-30/ (last visited Jun. 20, 2024).

[41] Jeff Cox, *Fed Governor Bowen says she's still open to raising rates if inflation doesn't improve* (Jun. 25, 2024).

[42] Federal Reserve, *Transcript of Chair Powell's Press Conference* (Jun. 12, 2024). https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20240612.pdf.

principles of finance. The Commission should reject Mr. Lawton's ROE recommendation on this basis.

IV. Mr. Lawton's ROE Fails Benchmark Tests

Q. Do allowed ROEs provide a benchmark to evaluate whether the recommended equity returns in this case are sufficient to meet regulatory standards?

A. Yes. Allowed ROEs provide a gauge of reasonableness for the outcome of a cost of equity analysis. In considering utilities with comparable risks, investors will always prefer to provide capital to the opportunity with the highest expected return. If a utility is unable to offer a return similar to that available from other investment opportunities of equivalent risks, investors will become unwilling to supply the utility with capital on reasonable terms.

Q. Do the Other Witnesses agree that allowed ROEs for other utilities are relevant to the evaluation of a just and reasonable ROE for DEF?

A. Yes. For example, Mr. Lawton cites extensively to recent nationwide authorized electric ROEs in his testimony, as well as to the authorized ROEs for other Duke Energy utilities.[43] Similarly, Mr. Chriss and Mr. Pollock cite to recent ROEs approved by the Commission, authorized ROEs for other Duke utilities, and average authorized ROEs nationwide.[44] These references indicate that the Other Witnesses believe authorized ROEs are relevant to an evaluation of DEF's cost of capital.

[43] Lawton Direct at 26-29, 63-68, Table 9.
[44] Chriss Direct at 9-12; Pollock Direct at 4, 10, 13, Exhibit JP-1.

Q. Do the historical allowed ROEs cited by the Other Witnesses provide a direct guide to a fair ROE for DEF under current capital market conditions?

A. No. The data on which these historical allowed ROEs were based does not reflect investors' current requirements. As I have previously discussed, a review of trends in key indicators since 2021 and the evidence presented in Figures AMM-1R and AMM-2R above supports a finding that capital market conditions have changed dramatically, and recent historical allowed ROEs significantly understate investors' current required returns.

Q. After adjusting for current financial market conditions, what does a comparison with recent allowed ROEs indicate with respect to the ROE recommendations and comments of the Other Witnesses?

A. It demonstrates that Mr. Lawton's recommendation significantly understates DEF's cost of equity in today's capital markets, and that Mr. Chriss's and Mr. Pollock's comments lack proper context. This is shown on Exhibit AMM-14. On this exhibit I subtract the average Baa utility bond yield corresponding to the average allowed ROE for vertically integrated electric utilities reported by RRA to compute the implied risk premium. As discussed in my direct testimony,[45] the equity risk premium expands as interest rates decline and contracts as interest rates rise. Accordingly, I adjusted historical risk premiums to reflect the fact that interest rates are now higher than those corresponding

[45] McKenzie Direct at 68-70.

to the average allowed ROEs. My adjustment to the risk premium is equivalent to the method used by Mr. Lawton in his risk premium analysis.[46]

As shown on Exhibit AMM-14, adjusting historical average allowed ROEs from 2020 to Q1 2024 to reflect current capital market conditions results in an implied cost of equity of 10.51% for vertically integrated electric utilities. While this result does not consider the implications of DEF's specific exposures, it confirms that Mr. Lawton's 9.45% ROE recommendation is insufficient, and it illustrates that direct comparisons by the other Witnesses between DEF's cost of equity and ROEs authorized for other utilities in recent years look very different after properly accounting for current capital costs.

Q. Do past ROEs approved by the Commission also demonstrate that the Other Witnesses' ROE recommendations are far too low?

A. Yes. Mr. Chriss cites to ROEs approved for various Florida electric utilities in cases dating back to 2021.[47] Explicit consideration of bond yield increases since the conclusion of these rate proceedings further highlights the inadequacy of Mr. Lawton's ROE recommendation. As discussed earlier, under the rationale of DEF's 2021 Settlement Agreement, changes in bond yields would now imply a current ROE of 11.03%.

[46] Lawton Direct at 52, Exhibit DJL-10.
[47] Chriss Direct at 6, 9.

Data for the three other electric cases referenced by Mr. Chriss are displayed in Exhibit AMM-15. After adjusting for changes in bond yields, the current ROEs implied by the findings in those cases range from 11.28% to 12.09%, and average 11.61%. Once adjusted for today's higher capital costs, these prior ROE findings for Florida utilities provide additional confirmation that ROE proposed by Mr. Lawton is understated.

Q. Mr. Lawton asserts that your 11.15% recommended ROE for DEF would be "well above current authorized equity return levels."[48] How do you respond?

A. While Mr. Lawton's observation is nominally accurate, the conclusion he suggests is wrong. Historical ROEs do not provide a meaningful comparison for the current cost of equity under times of changing capital costs. As Mr. Lawton grants, current economic conditions reflect "tighter monetary policy with higher federal funds rates and higher interest rates."[49] My 11.15% ROE recommendation is within the 10.51% to 11.61% range produced by adjusting recent ROEs for changes in bond yields and is consistent with the 11.03% ROE for DEF that is implied by the terms of the 2021 Settlement Agreement.[50]

[48] Lawton Direct at 31.
[49] *Id.* at 20.
[50] Exhibits AMM-14 and AMM-15.

Q. Mr. Lawton and Mr. Chriss discuss DEF's ROE request in light of recent authorized ROEs for other Duke Energy operating companies.[51] What ROE is implied by these values after adjusting for current capital costs?

A. First, I would note that even ignoring changes in capital market conditions, the average ROE authorized in the eight cases cited by Mr. Lawton and Mr. Chriss is 9.74%, which again demonstrates that Mr. Lawton's recommendation is unreasonable.

After adjusting for recent changes in interest rates, the ROEs authorized for other Duke Energy operating companies would be substantially higher. The eight prior electric cases cited by Mr. Lawton and Mr. Chriss are displayed in Exhibit AMM-16. After accounting for changes in interest rates, the current ROEs implied by the findings in those cases range from 9.74% to 11.05%, and average 10.25%. Prior findings for other Duke Energy operating companies, once adjusted for today's interest rates, show that the ROE proposed by Mr. Lawton is understated.

Q. How does Mr. Lawton's ROE proposal compare to authorized returns for the specific electric utilities in his proxy groups?

A. Mr. Lawton's ROE recommendation is also below the current allowed returns reported to investors for the electric companies in his respective proxy groups. Current authorized rates of return for the utilities in Mr. Lawton's proxy groups, as reported by

[51] Lawton Direct at 27-29, Table 9; Chriss Direct at 10-11.

Value Line, are shown on Exhibit AMM-17, and summarized in the table below:

TABLE AMM-1R
LAWTON PROXY GROUP ALLOWED ROES

Proxy Group	Allowed ROE
Lawton - Proxy Group A	9.76%
Lawton - Proxy Group B	9.96%
Average	**9.86%**

Source: Exhibit AMM-17.

While these historical ROEs do not reflect the higher returns required under current capital market conditions, they provide further confirmation that Mr. Lawton's 9.45% recommendation is insufficient.

Q. What other benchmark indicates that Mr. Lawton's recommended ROE is too low?

A. Expected earned rates of return for other utilities provide another useful benchmark of reasonableness. The expected earnings approach is predicated on the comparable earnings test, which developed as a direct result of the Supreme Court decisions in *Bluefield*[52] and *Hope.*[53] This test recognizes that investors compare the allowed ROE with returns available from other alternatives of comparable risk.

[52] *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679 (1923) ("*Bluefield*").
[53] *Fed. Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) ("*Hope*").

Importantly, the expected earnings approach explicitly recognizes that regulators do not set the returns that investors earn in the capital markets. Regulators can only establish the allowed return on the value of a utility's investment, as reflected on its accounting records. As a result, the expected earnings approach provides a direct guide to ensure that the allowed ROE is similar to what other utilities of comparable risk will earn on invested capital. This opportunity cost 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 growth rates, or the limitations inherent in any theoretical model of investor behavior.

Q. Has the expected earnings approach been recognized as a valid ROE benchmark?

A. Yes. This method predominated before market-based methods were adopted by academic experts, and it has long been referenced and relied on in regulatory proceedings.[54] For example, in approving an ROE for electric utility operations, the North Carolina Utilities Commission recently concluded that:

> In prior cases, the Commission has given significant weight to the results of the Expected Earnings methodology, which stands separate and apart from the market-based methodologies (e.g., the DCF or CAPM) also used by ROE experts. The Commission chooses to do so again in this case.55

[54] *See, e.g.,* Nat'l Ass'n of Regulatory Util. Comm'rs, *Utility Regulatory Policy in the U.S. and Canada, 1995-1996* (Dec. 1996).

[55] North Carolina Utilities Commission, Docket No. E-7, Sub 1187, et al., *Order Accepting Stipulations, Granting Partial Rate Increase, and Requiring Customer Notice* (Mar. 31, 2021) at 94.

Similarly, the Ohio Public Utility Commission is required by statute to consider prospective earned rates of return in evaluating the impact of electric security plans.[56]

As S&P observed, "[h]istorically, there have been two approaches in calculating ROE in regulatory proceedings, a comparable earnings approach, and a market analysis. In a comparable earnings approach, similar investments with similar risks are analyzed to determine an appropriate ROE." A textbook prepared for the Society of Utility and Regulatory Financial Analysts points out that the comparable earnings method is firmly anchored in the regulatory tradition of the *Bluefield* and *Hope* cases, as well as sound regulatory economics.[57] *New Regulatory Finance* concludes that, "because the investment base for ratemaking purposes is expressed in book value terms, a rate of return on book value, as is the case with Comparable Earnings, is highly meaningful."[58] Meanwhile, Mr. Lawton states that, "Risk for shareholders is measured as the ability of a firm to earn a reasonable return on equity."[59]

Q. What ROEs are implied by the expected earnings approach for Mr. Lawton's proxy groups?

A. Mr. Lawton reports the expected returns on common equity for the firms in his two proxy groups on Exhibit DJL-4, with the results summarized in Table AMM-2R below.

[56] Ohio R.C. 4928.143(E).
[57] David C. Parcell, *The Cost of Capital—A Practitioner's Guide*, Society of Utility and Regulatory Financial Analysts (2010) at 115-116.
[58] Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 395.
[59] Lawton Direct at 29.

TABLE AMM-2R
LAWTON PROXY GROUP EXPECTED EARNINGS ROES

Proxy Group	All Values	Excluding Highest
Lawton - Proxy Group A	11.26%	10.77%
Lawton - Proxy Group B	11.10%	10.77%
Average	**11.18%**	**10.77%**

Source: Exhibit DJL-4.

This evidence implies an average cost of equity on the order of 11.18% for the electric utilities in Mr. Lawton's proxy groups, or 10.77% after excluding the highest values and retaining all low-end results. These book return estimates are an "apples to apples" comparison to Mr. Lawton's ROE recommendation.

Q. What other evidence indicates that Mr. Lawton's ROE recommendation fails to meet regulatory standards?

A. As discussed in my direct testimony,[60] expected rates of return for firms in the competitive sector of the economy are also relevant in determining the appropriate return to be allowed for rate-setting purposes. The idea that investors evaluate utilities against the returns available from other investment alternatives—including the low-risk companies in my non-utility proxy group—is a fundamental cornerstone of modern financial theory. Aside from this theoretical underpinning, any casual observer of stock market commentary and the investment media quickly comes to the realization that investors' choices are almost limitless. It follows that utilities must offer a return that

[60] McKenzie Direct at 79-83.

can compete with other risk-comparable alternatives, or capital will simply go elsewhere.

In fact, returns in the competitive sector of the economy form the very foundation for utility ROEs because regulation purports to serve as a substitute for the actions of competitive markets. The Supreme Court recognized in *Hope* that the degree of risk, not the nature of the business, is relevant in evaluating an allowed ROE for a utility. The cost of capital is an opportunity cost based on the returns that investors could realize by putting their money in other alternatives, and the total capital invested in utility stocks is only the tip of the iceberg of total common stock investment.

Q. Does Mr. Lawton recognize the central concept that underpins your non-utility analysis?

A. Yes. Mr. Lawton discusses the guidance of the Supreme Court and acknowledges that "a public utility is entitled to a return equal to that of investments of comparable risks."[61] The *Bluefield* ruling that Mr. Lawton references makes no distinction between investments in utilities versus investments in non-utilities, only requiring that these alternative investments have *comparable risks*.

Q. What are the results of your ROE analysis for the non-utility group?

A. As shown on page 3 of Exhibit AMM-13, the average ROEs for the non-utility group

[61] Lawton Direct at 17.

reported in my direct testimony range from 10.5% to 10.9%, and average 10.8%. Considering that a comparison of objective risk indicators shows my non-utility group to be less risky than the Utility Group or DEF,[62] these ROE results provide a conservative guideline for a fair ROE to the Company.

Q. What do these benchmarks you discuss imply with respect to Mr. Lawton's ROE recommendation?

A. Consideration of regulatory standards and alternative benchmarks demonstrate that the 9.45% ROE recommended by Mr. Lawton is below any reasonable estimate of DEF's cost of equity.

V. Response to Mr. Lawton

Q. What is the purpose of this section of your rebuttal testimony?

A. This section responds to Mr. Lawton's claims regarding DEF's relative risks and presents my evaluation of his quantitative analyses.

Q. How does Mr. Lawton arrive at his 9.45% recommended ROE for DEF?

A. Mr. Lawton provides constant growth DCF analyses supporting an average cost of equity of 8.85% and 9.23% for his Proxy Group A and Proxy Group B, respectively.[63] Mr. Lawton also conducts multi-stage DCF analyses that imply average ROEs of 9.98% and 9.73% for his two proxy groups.[64] Mr. Lawton's CAPM analyses produce average

[62] McKenzie Direct at Table 5.
[63] Lawton Direct at Exhibit DJL-7. Mr. Lawton's exhibits refer to Proxy Group A as "Company Proposed Comparable Group" and Proxy Group B as "Alternative Electric Utility Comparable Group."
[64] Lawton Direct at Exhibit DJL-8.

ROEs of 9.68% and 9.52%, while his ECAPM approach results in average ROEs of 9.78% and 9.66%.[65] Mr. Lawton also conducts an equity risk premium analysis, but ignores the 9.97% midpoint ROE estimate in arriving at his final ROE recommendation.[66] Ultimately, Mr. Lawton analyses the average of the midpoint ROEs for each of his remaining models, over his two proxy groups, and recommends a 9.45% ROE for DEF.[67]

Q. As an initial matter, are there apparent errors in the specification of Mr. Lawton's Proxy Group A?

A. Yes. On page 36 of his direct testimony, Mr. Lawton states that he "used Mr. McKenzie's comparable group of 9 companies (originally 10-companies but Allete Energy is removed)." I agree with Mr. Lawton's removal of Allete Energy due to its pending acquisition, and the resulting 9-company proxy group is correctly identified in Mr. Lawton's Table 11. However, the Proxy Group A that Mr. Lawton used in his analyses inexplicably excludes Ameren Corporation from my proxy group and includes Alliant Energy Corporation. This substitution is inconsistent with Mr. Lawton's own description of his approach, as well as my original screening criteria.

[65] *Id.* at Exhibit DJL-9.
[66] *Id.* at 52.
[67] *Id.* at 52-54, Table 15, Table 16.

VI. Evaluation of DEF's Risks is Flawed and Incomplete

Q. Mr. Lawton claims that DEF is less risky than electric utilities generally.[68] What support does he offer for this conclusion?

A. Mr. Lawton makes the following claim:

> There is no evidence that suggests Duke Florida operations are riskier than the average electric utility. Moreover, when you consider the risk reducing benefits of Florida rate mechanisms and the benefits of the negotiated multi-year rate plans of the past, along with the proposed multi-year rate plan … Duke is less risky."[69]

Apart from referencing the impact of regulatory mechanisms and MYPs, Mr. Lawton makes a historical comparison of DEF's actual earned rates of return with allowed ROEs.

Q. What is the fallacy underling Mr. Lawton's discussion of regulatory mechanisms?

A. While Mr. Lawton notes that the mechanisms approved by the Commission for DEF are viewed as supportive by the investment community, he fails to provide any basis of comparison to other electric utilities. I do not dispute the conclusion that DEF's regulatory mechanisms are a constructive means to partially mitigate exposure to attrition and regulatory lag. But as I demonstrated in my direct testimony,[70] such provisions are widely prevalent in the industry. Mr. Lawton provides no evidence to support the implication that DEF's regulatory mechanisms lower the Company's risk profile below what is captured in my proxy group of electric utilities.

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[68] *Id.* at 27-29.
[69] *Id.* at 63-64.
[70] McKenzie Direct at 29-31, Exhibit AMM-4.

Similarly, while Mr. Lawton contends that DEF is less risky than other Duke Energy utilities because of "the supportive regulatory environment in Florida," he performs no analysis of the regulatory environments in which these other Duke utilities operate, and so his assertion that DEF is less risky than these other Duke utilities goes unsupported. In fact, Duke Energy's other utilities benefit from a number of supportive regulatory mechanisms similar to those available to DEF. For example, Duke Energy Carolinas and Duke Energy Progress also operate under MYPs and residential decoupling has been approved in North Carolina and Ohio. Meanwhile, Duke Energy Ohio and Duke Energy Kentucky both operate under capital recovery trackers, with Kentucky employing a forecasted rate case.

Q. Mr. Lawton suggests that DEF's proposed MYP would "limit and reduce" the risks faced by DEF.[71] Does an MYP set DEF apart from the other utilities in your proxy group?

A. No. Mr. Lawton presents no objective evidence to support his conjecture that DEF's MYP would distinguish the Company from the proxy group, let alone how it might specifically affect DEF's cost of equity. As S&P's RRA publication has noted, "[MYPs] are a common form of alternative regulation in the US."[72] With respect to my proxy group in particular, Ameren Corporation, Consolidated Edison, Inc., NextEra Energy, Inc., OGE Energy Corporation, PPL Corporation, and Xcel Energy all have utilities that operate under multi-year rate provisions. Just as importantly, all of the proxy group

[71] Lawton Direct at 14.

[72] S&P Global, *Major energy utility cases in progress in the US*, RRA Regulatory Focus (Oct. 4, 2023).

firms benefit from a wide variety of regulatory provisions that mitigate the impact of earnings attrition and regulatory lag. In this respect, DEF's MYP simply brings the Company more in line with my Utility Group, rather than setting it apart.

Q. Have other regulators rejected similar arguments?

A. Yes. The NCUC recently concluded that approval of an MYP did not warrant consideration in evaluating a fair ROE, noting that it "is persuaded by the evidence that similar types of mechanisms are prevalent across the industry as well as within the proxy group."[73] As the NCUC concluded, "it is critical that the utility be in a position to access capital on reasonable terms and the Commission concludes that the availability of the [MYP] makes [the utility] competitive in terms of its ability to access capital on reasonable terms.[74] These findings also apply to DEF in this proceeding.

In considering allegations akin to Mr. Lawton's position here, the Washington Utilities and Transportation Commission also recognized that the impact of regulatory mechanisms is already accounted for in ROE analyses based on a proxy group:

> Circumstances in the industry today and modern regulatory practice . . . have led to a proliferation of risk reducing mechanisms being in place for utilities throughout the United States. . . **The effects of these risk mitigating factors was by 2013, and is today, built into the data experts draw from the samples of companies they select as proxies.**[75]

[73] North Carolina Utilities Commission, Docket No. E-7, Sub 1276, *Order Accepting Stipulations, Granding Partial Rate Increase, Requiring Public Notice and Modifying Lincoln CT CPCN Conditions* (Dec. 15, 2023) at 217.

[74] *Id.*

[75] *Wash. Utils. & Transp. Comm'n v. Puget Sound Energy, Inc.*, Dockets UE-130130 and UG-130138 consolidated) et al., Order 15.14 at 69, ¶ 155 (June 29, 2015). Internal citations omitted (Emphasis added).

Similarly, the Staff of the Kansas State Corporation Commission has concluded that no ROE adjustment was justified when approving certain tariff riders because the impact of similar mechanisms is factored into the proxy group analysis:

> Those mechanisms differ from company to company and jurisdiction to jurisdiction. Regardless of their nuances, the intent is the same; reduce cash-flow volatility year to year and place recent capital expenditures in rates as quickly as possible. Investors are aware of these mechanisms and their benefits are a factor when investors value those stocks. Thus, any risk reduction associated with these mechanisms is captured in the market data (stock prices) used in Staff's analysis.[76]

This observation is equally true of the proxy group results in this proceeding, and the Commission should reject Mr. Lawton's position on this issue.

Q. Mr. Lawton presents an analysis of authorized versus earned equity returns for DEF.[77] Does this show DEF to be "less risky," as Mr. Lawton claims?[78]

A. No. Mr. Lawton states that, "Risk for shareholders is measured as the ability of a firm to earn a reasonable return on equity."[79] Based on a table comparing DEF's actual earned return on equity to the Company's authorized ROE from 2014 to 2023,[80] Mr. Lawton concludes that "the Company has consistently earned its authorized returns—even in what can be described as a turbulent economic environment given the COVID-19 impacts on the economy in recent years."[81]

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[76] *Direct Testimony Prepared by Adam H. Gatewood*, State Corporation Commission of the State of Kansas, Docket No. 12-ATMG-564-RTS, pp. 8-9 (June 8, 2012). This proceeding was ultimately resolved through a stipulated settlement.
[77] Lawton Direct at 29-31.
[78] *Id.* at 29.
[79] *Id.* at 29.
[80] *Id.* at 30, Table 10.
[81] *Id.* at 31.

However, the data presented in Mr. Lawton's Table 10 contradicts his conclusion. DEF's earned rate of return fell below the midpoint of its ROE range in six of the ten years and its average "Achieved ROE" was 10.03%, which is 39 basis points *below* the Company's average "ROE Midpoint" of 10.42%. During the height of the COVID-19 pandemic in 2021, the Company's earned return on equity was over 100 basis points below the 10.5% midpoint of its authorized range. The fact that DEF has not, on average, been able to earn its authorized ROE for the past decade does not suggest less risk, a point which I explore in further detail below.

Mr. Lawton's table also does not compare DEF's earnings experience to any other utility group, and so his conclusion that DEF is "less risky" is unsupported by the evidence he presents.[82] Nor does Mr. Lawton consider expectations for earned returns on equity, which as discussed earlier and presented on his Exhibit DJL-4, clearly demonstrate that his ROE recommendation is unreasonable.

Q. Would investors associate DEF's inability to consistently earn the midpoint of its authorized ROE range with increased risk?

A. Yes. Attrition is the deterioration of the actual return on equity below the allowed ROE that occurs when the relationships between revenues, costs, rate base, and usage used to establish rates do not reflect the actual costs incurred to serve customers or the billing determinants during the period that rates are in effect. For example, if external factors

[82] After excluding Allete Energy due to its pending acquisition, historical earned returns for the nine remaining companies in my proxy group averaged 10.2% over the 2014-2023 period, versus 10.0% for DEF based on Mr. Lawton's Table 10. Thus, under Mr. Lawton's logic DEF would be considered more risky.

are driving costs to increase more than revenues, then the earned return on equity will fall short of the allowed ROE even if the utility is operating efficiently. Similarly, when growth in the utility's investment outstrips the rate base used for ratemaking, the earned return on equity will fall below the allowed ROE through no fault of the utility's management. These imbalances are exacerbated as the regulatory lag increases between the time when the data used to establish rates is measured and the date when the rates go into effect.

Despite approval of an MYP and other supportive regulatory mechanisms, regulatory lag and attrition have been consistent issues for DEF over the last decade, as the evidence in Mr. Lawton's Table 10 amply illustrates. The fact that DEF has fallen short of earning the midpoint of its authorized ROE range by almost 40 points annually, on average, points to elevated risk, not lower risk as Mr. Lawson claims.

Q. What is the misconception underlying Mr. Lawton's position regarding DEF's risk profile?

A. Mr. Lawton's position regarding the implications of DEF's risk profile is inconsistent. On the one hand, Mr. Lawton recognizes DEF's credit standing, as reflected in current credit ratings, as the basis to determine a proxy group that is generally reflective of the Company's risk profile. He also notes the impact of the Company's elevated capital expenditures on cash flow metrics and recognizes that "the risk of severe storms is always high in Florida."[83] But what Mr. Lawton conveniently ignores in his discussion of the regulatory climate in Florida is the impact of ROE on investors' risk perceptions,

[83] *Id.* at 34.

with investors' current assessment of the Company's risks—as embodied in DEF's credit ratings—being contingent on supportive ROE outcomes. Mr. Lawton is operating under the misguided notion that the Commission could somehow drastically reduce DEF's ROE from present levels without any ill effects on its credit standing or investors' risk perceptions.

Q. Mr. Lawton claims that his ROE recommendation would not cause DEF's bond ratings to fall.[84] Should the Commission accept this representation?

A. No. There is no logical connection between this position and what takes place in real-world capital markets. Mr. Lawton presents no evidence to support his claim that his recommended ROE "will not cause Duke's financial integrity to diminish."[85] In fact, it is illogical to presume that DEF's financial metrics are somehow "excessive" to maintain the Company's current credit ratings. First, if DEF's financial parameters exceeded those necessary for its current credit ratings, then the rating agencies would already have upgraded DEF. Second, as Mr. Lawton grants,[86] the rating agencies look far beyond any single financial ratio to consider the individual risk profile of each issuer. Mr. Lawton's argument amounts to nothing more than an unsupported attempt to second-guess the rating agencies, which is both unreliable and speculative.

[84] *Id.* at 61-63.
[85] *Id.* at 62-63.
[86] *Id.* at 62 (*noting that*, "A rating matrix or guideline is just that, a guideline, not a rule written in stone that guarantees a particular rating for a particular achieved financial metric level.").

Q. Can you illustrate the fallacy of Mr. Lawton's contention that his ROE recommendation would have no negative impact on DEF's financial standing?

A. Yes. Past experience in Florida confirms that investors react decisively to changes in financial prospects caused by adverse regulatory decisions. While Florida was for many years generally regarded as a supportive regulatory jurisdiction, the Commission's initial decision in FPL's 2009 rate case was viewed as punitive and inconsistent with past practice. As Moody's noted at the time:

> Moody's views the highly politicized atmosphere surrounding the base rate proceedings of Florida Power & Light Company . . . as negative to the credit quality . . . and an indication that the political and regulatory environment for investor-owned utilities in Florida may be deteriorating. . . . Moody's views political intervention in the utility regulatory process as detrimental to credit quality, sometimes resulting in adverse rate case outcomes. In some cases this has led to multi-notch credit rating downgrades of utilities in states where this has occurred . . .[87]

The subsequent reevaluation by the investment community led to downgrades of FPL's bond ratings by Moody's, S&P, and Fitch.

Similarly, Value Line informed investors that "FPL was hit by a harsh rate order."[88] Noting that the decision "came as a shock," Value Line cut FPL's Financial Strength rating and Safety rank.[89] While the negative impact of the Commission's initial decision was ultimately mitigated by the terms of subsequent settlement agreement that

[87] Moody's Investors Service, *Issuer Comment: Moody's Views Politicized Florida Rate Cases as Credit Negative*, Global Credit Research (Oct. 7, 2009).
[88] The Value Line Investment Survey (Feb. 26, 2010) at 157.
[89] *Id.*

provided flexibility to earn an ROE at the top of the range,[90] this highlights the key role that regulatory support—including a concomitant ROE—plays in achieving the goal of maintaining DEF's present level of financial strength.

As discussed in my direct testimony,[91] investors and bond rating agencies are highly focused on the importance of regulatory support. In this regard, the Commission has established a well-earned reputation of constructive regulation. If the Commission were to deviate from this path, it would cause investors and the credit rating agencies to reassess their risk perceptions of DEF. Adopting Mr. Lawton's ROE recommendation would sap the financial strength underpinning DEF's current ratings profile and undermine the Company's ability to meet the twin challenges of intensifying weather-related risk and the higher capital expenditures necessary to harden its system and meet clean energy goals.

VII. Discounted Cash Flow Model

Q. Can you please summarize Mr. Lawton's DCF approaches?

A. For his constant growth DCF analysis, Mr. Lawton combines an expected dividend yield component with his calculated "br+sv" or "sustainable" growth rate to arrive at an estimated ROE for each of the companies in his respective proxy groups.[92] Mr. Lawton's average ROEs under his constant growth methodology for his 9 and 16

[90] While FPL's credit ratings were not immediately returned to their previous higher levels, further deterioration was prevented.
[91] McKenzie Direct at 7-8.
[92] Lawton Direct at Exhibit DJL-7.

company proxy groups are 8.85% and 9.23%, respectively. Mr. Lawton also conducts a two-stage DCF model in which he assumes dividends will grow at one growth rate for five years, and then another growth rate for year six and beyond. This approach produces average ROEs of 9.98% and 9.73% for Mr. Lawton's 9 and 16 company proxy groups, respectively.

Q. Mr. Lawton describes the DCF as his "principal methodology."[93] How do you respond?

A. Mr. Lawton says that "the best analytical technique for measuring a utility's cost of common equity is the DCF methodology." I disagree. As discussed in my direct testimony,[94] financial analysts and regulators routinely consider the results of alternative approaches in determining allowed ROEs, and no single ROE model is inherently superior such that it would justify the exclusion or diminishment of other theoretically sound, generally accepted approaches. I also note that giving primacy to the DCF model is in conflict with Mr. Lawton's own statement that "there are no hard and fast mathematical formulae with which to measure investor expectations with regard to equity requirements and perceptions of risk."[95]

[93] *Id.* at 19.
[94] McKenzie Direct at 45-49.
[95] Lawton Direct at 18.

Q. Mr. Lawton says CAPM, ECAPM and risk premium models "are often used to check the reasonableness of the DCF results,"[96] seemingly casting them for supporting roles. Is this consistent with authoritative guidance?

A. No. For example, FERC has noted that "[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."[97] FERC's current ROE methodology for electric utilities is based on an averaging of the results produced by the DCF model, CAPM, and risk premium approaches.[98] *New Regulatory Finance* concluded that, "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."[99]

Similarly, a primer on cost of capital issues for utility regulators prepared by NARUC concluded:

> Investors, investment bankers, and corporate financial professionals use multiple models when estimating the cost of equity. Likewise, it is desirable for regulators to also use multiple models when evaluating the cost of equity.[100]

[96] *Id.* at 19.
[97] *Northwest Pipeline Co.*, Opinion No. 396-C, 81 FERC ¶ 61,036 at 4 (1997).
[98] *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569-A, 171 FERC ¶ 61,154 (2020).
[99] Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 429 (emphasis supplied).
[100] National Association of Regulatory Utility Commissioners, *A Cost of Capital, and Capital Markets Primer for Utility Regulators* (Dec. 2019).

This guidance from the national association representing the interests of state public service commissions directly contradicts Mr. Lawton's contention that the DCF model is a superior approach.

Q. Are there apparent errors and inconsistencies in Mr. Lawton's DCF studies?

A. Yes. There appear to be significant errors and inconsistencies associated with the stock price data Mr. Lawton uses to apply both his constant growth and two-stage DCF analyses. Exhibit DJL-5 presents the stock price data compiled by Mr. Lawton. The first discrepancy concerns his use of two different time periods to measure average stock prices for Proxy Group A (December 2023 – May 2024) and Proxy Group B (November 2023 – April 2024). Second, stock prices for the same company in the same month are not consistent between his analysis for Proxy Group A and Proxy Group B. For example, Mr. Lawton reports an average stock price of $59.23 for Xcel Energy Inc. in January 2024 in the upper panel pertaining to Proxy Group A, and a value for the same company in the same month of $68.00 in the bottom panel pertaining to Proxy Group B.[101]

These apparent errors are carried over to Mr. Lawton's constant growth DCF application. As shown on Exhibit DJL-7, the stock prices used to calculate the dividend yield in Mr. Lawton's constant growth DCF analysis are inconsistent for the six companies common to Mr. Lawton's two proxy groups. For example, Mr. Lawton uses

[101] There are numerous discrepancies for other companies.

an average price for Xcel Energy Inc. of $54.55 when that company is included in Proxy Group A versus $65.05 for the same firm in his analysis for Proxy Group B.

In addition, Mr. Lawton also uses inconsistent growth rates for NextEra Energy, Inc., in his constant growth DCF analyses for Proxy Group A and Proxy Group B. As shown on Exhibit DJL-6, Mr. Lawton reports a Zacks growth rate of 8.18% for NextEra Energy, Inc. in his DCF analysis for Proxy Group A, while using a Zacks growth rate of 6.18% for the same company in his analysis for Proxy Group B.

Similarly, Mr. Lawton's two-stage DCF analysis is plagued by the same apparent errors. The current price, which is a key variable necessary to compute the implied cost of equity under this approach, is different between his analysis for Proxy Group A and Proxy Group B. For example, Mr. Lawton solves for the internal rate of return that will discount his assumed cash flow stream to a present value of $69.28 when NextEra Energy, Inc. is included in Proxy Group A, while using a current stock price of $61.60 for that same company in his analysis for Proxy Group B. Mr. Lawton also uses a terminal growth rate for NextEra Energy, Inc. of 7.30% for Proxy Group A, versus 6.96% in his analysis for Proxy Group B.

These apparent errors and inconsistencies undermine the accuracy and reliability of Mr. Lawton's DCF studies, and the Commission should reject them out of hand.

Q. Do you have any other concerns regarding the methodology Mr. Lawton used to apply the DCF model?

A. Yes. In applying the constant growth DCF model, Mr. Lawton reviews nine other growth rate measures,[102] only to rely solely on his calculated "br+sv" growth rates. As discussed in my direct testimony,[103] there are significant shortcomings associated with the "br+sv" growth rate, including a heightened potential for measurement error and empirical research that casts doubt on the "br+sv" growth rate's efficacy as a measure of value.

Q. What growth rates should Mr. Lawton have looked to in applying the constant growth DCF model?

A. Mr. Lawton recognizes that "investor expectations of growth" play a central role in the DCF model,[104] and as I discuss in my direct testimony,[105] evidence supports the contention that investors rely primarily on EPS growth projections in forming their expectations. Future trends in EPS, which provide the source for future dividends and ultimately support share prices, play the pivotal role in determining investors' long-term growth expectations. The continued success of investment services such as IBES, Value Line, and Zacks, and the fact that projected growth rates from such sources are widely referenced, provides strong evidence that investors give considerable weight to analysts' earnings projections in forming their expectations for future growth.

[102] Lawton Direct at Exhibit DJL-6.
[103] McKenzie Direct at 55-56.
[104] Lawton Direct at 40.
[105] McKenzie Direct at 52-53.

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 EPS is far more influential than trends in other measures.[106] As explained in *New Regulatory Finance*:

> Because of the dominance of institutional investors and their influence on individual investors, analysts' forecasts of long-run growth rates provide a sound basis for estimating required returns. Financial analysts exert a strong influence on the expectations of many investors who do not possess the resources to make their own forecasts, that is, they are a cause of *g* [growth].[107]

The availability of projected EPS growth rates is also key to investors relying upon this measure as compared to "br+sv" growth rates. Apart from Value Line, investment advisory services do not generally publish the comprehensive projections necessary to develop Mr. Lawton's "sustainable" growth rates, and this scarcity of data relative to the abundance of EPS forecasts attests to their relative influence.[108] Mr. Lawton's sole reliance on the "br+sv" growth rate is a major shortcoming in his constant growth DCF analysis.

[106] Stanley B. Block, *A Study of Financial Analysts: Practice and Theory*, Financial Analysts Journal (July/August 1999).

[107] Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 298.

[108] Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 302-303 (*noting,* "The sheer volume of earnings forecasts available from the investment community . . . attests to their importance. The fact that these investment information providers focus on growth in earnings . . . indicates that the investment community regards earnings growth as a superior indicator of future long-term growth. Surveys of analytical techniques actually used by analysts reveal the dominance of earnings and conclude that earnings are considered far more important . . ."

Q. Mr. Lawton claims that analysts' EPS forecasts are "often … overstated and revised downward."[109] How do you reply?

A. Mr. Lawton provides no evidence to support his assertion and peer-reviewed empirical studies do not uniformly support his contention that analysts' growth projections are optimistically biased. For example, a study reported in *Analyst Forecasting Errors: Additional Evidence* found no optimistic bias in earnings projections for large firms (market capitalization of $500-$3,000 million), with data for the largest firms (market capitalization > $3,000 million) demonstrating a *pessimistic* bias.[110] Similarly, a 2005 article that examined analyst growth forecasts over the period 1990 through 2001 illustrated that Wall Street's forecasting is not inherently optimistic:

> The pessimism associated with profit firms is astonishing. Near the end of the sample period, almost three quarters of the quarterly forecasts for profit firms are pessimistic.[111]

Other research on this topic also concludes that there is no clear support for the contention that analyst forecasts contain upside bias:

> Our examples do demonstrate how some widely held beliefs about analysts' proclivity to commit systematic errors (e.g., the common belief that analysts generally produce optimistic forecasts) are not well supported by a broader analysis of the distribution of forecast errors. After four decades of research on the rationality of analysts' forecasts it is somewhat disconcerting that the most definitive statements observers and critics of earnings forecasters are willing to agree on are ones for which there is only tenuous empirical support.[112]

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[109] Lawton Direct at 65.

[110] Lawrence D. Brown, *Analyst Forecasting Errors: Additional Evidence*, Financial Analysts Journal (November/December 1997).

[111] Stephen Ciccone, *Trends in analyst earnings forecast properties*, International Review of Financial Analysis, 14:2-3 (2005).

[112] Jeffery Abarbanell and Lehavy Reuven, *Biased forecasts or biased earnings? The role of reported earnings in*

Moreover, while the projections of securities analysts may be proven optimistic or pessimistic in hindsight, this is irrelevant in assessing the expected growth that investors have incorporated into current stock prices, and any bias in analysts' forecasts—whether pessimistic or optimistic—is irrelevant if investors share analysts' views. As *New Regulatory Finance* concluded, "The accuracy of these forecasts in the sense of whether they turn out to be correct is not an issue here, as long as they reflect widely held expectations."[113] There is every indication that expectations for earnings growth are instrumental in investors' evaluation and the fact that analysts' projections deviate from actual results provides no basis to ignore this relationship.

Q. Does Mr. Lawton include projected EPS growth rates in his two-stage DCF analysis?

A. Yes. Mr. Lawton averages EPS growth rates from Value Line, Yahoo and Zacks, and then averages the resulting value with his calculated "br+sv" growth rates in order to develop an "average growth forecast" value, which is used as the terminal growth rate in year six and beyond in his two-stage DCF analysis. In this regard, Mr. Lawton confirms that forecasted EPS growth rates are a key consideration when estimating investors' long-run growth expectations within the two-stage DCF model, but he offers no explanation as to why EPS growth forecasts were omitted in his single stage DCF application. Mr. Lawton's inconsistency highlights the shortcomings of his DCF analysis.

explaining apparent bias and over/under reaction in analysts' earnings forecasts, Journal of Accounting and Economics, 36: 142 (2003).

[113] Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 298.

Q. What cost of equity is indicated by applying Mr. Lawton's constant growth DCF approach using projected EPS growth rates?

A. This analysis is presented in Exhibit AMM-18. As shown there, accepting the stock prices and dividend yields used by Mr. Lawton, this results in average cost of equity estimates for Mr. Lawton's two proxy groups of 11.16% and 10.43%, respectively. These results further illustrate the significant downward bias in Mr. Lawton's constant growth DCF analysis.

Q. What is the underlying rationale for Mr. Lawton's two-stage DCF analysis?

A. Mr. Lawton states that "the constant growth rate assumption is often not consistent with investor expectations," with one example being "where short-term growth estimates are not consistent with long-term sustainable growth projections."[114]

Q. Does Mr. Lawton present any evidence that documents such an inconsistency for the electric utilities in his proxy groups?

A. No. Mr. Lawton provides no support for the notion that investors anticipate a distinction between short-term and long-term growth rates for electric utilities, much less for the specific pattern of growth that he adopts.

[114] Lawton Direct at 44.

Q. Are there academic studies that recognize the shortcomings of adopting generic growth rate assumptions, such as those that underpin Mr. Lawton's two-stage DCF?

A. Yes. Professor Myron J. Gordon, who pioneered the application of the DCF approach, concluded that any assumption of a single time horizon for a growth rate transition was highly questionable and failed to reduce error in DCF estimates. Instead, Dr. Gordon specifically recognized that, "it is the growth that investors expect that should be used" in applying the DCF model, and he concluded: "A number of considerations suggest that investors may, in fact, use earnings growth as a measure of expected future growth."[115] Similarly, a subsequent paper co-authored by Professor Gordon concluded that:

> Analysts do not predict earnings beyond five years, which suggests that any consensus of opinion among investors probably deteriorates quickly after five years.[116]

Dr. Gordon further concluded that "the consensus among investors is that the future has a finite horizon of approximately seven years."[117] In other words, reference to long-term forecasts of GDP growth in applying the DCF model is inconsistent with investor behavior.

[115] Myron J. Gordon, *The Cost of Capital to a Public Utility*, MSU Public Utilities Studies (1974) at 89.

[116] Joseph R. Gordon and Myron T. Gordon, *The Finite Horizon Expected Return Model*, Financial Analysts Journal (May-Jun. 1997) at 52-61.

[117] *Id*.

Q. Apart from the fact that the assumptions of Mr. Lawton's two-stage DCF model are arbitrary and unsupported, are there also computational inaccuracies that bias the cost of equity estimates downward?

A. Yes. Under his two-stage DCF approach Mr. Lawton predicted the cash flows that would accrue to investors over the next 150 years.[118] To arrive at his estimated cost of equity, Mr. Lawton used the internal rate of return ("IRR") function available in Microsoft's Excel spreadsheet program to determine the discount rate (*i.e.*, investors' required rate of return) that would equate these cash flows with the current market price of the stock. This IRR calculation, however, assumes that annual cash flows are received at the end of each year, which is inconsistent with the periodic dividend payments that investors receive over the course of the year and results in a downward bias in the implied cost of equity.

Q. Mr. Lawton suggests that three of your DCF results should be thrown out because they are not "consistent with current market returns authorized by regulatory authorities."[119] How do you respond?

A. Mr. Lawton objects to these DCF results, which range from 10.2% to 10.6%, claiming that they "are substantially in excess of expected returns authorized by regulatory authorities."[120] Mr. Lawton also objects to my 11.15% ROE recommendation on the basis that it exceeds recently authorized ROEs nationwide, which Mr. Lawton says have

[118] Bates.No.8697.workingModelDUKE.xlxs at Tab 12 (DJL-8).
[119] Lawton Direct at 65.
[120] *Id.*

not exceeded 9.66% in recent years.[121]

But as Mr. Lawton correctly recognizes, "The cost of equity one seeks to estimate in this proceeding is the return investors expect prospectively when the rates from this case will be in effect."[122] With this in mind, Mr. Lawton presents no evidence to support the notion that a forward-looking ROE estimate should be constrained by historical authorized ROEs, or that my DCF results in the 10.2% to 10.6% range are flawed in any way. Indeed, Mr. Lawton's historical authorized ROE screen is contradicted by his earlier statement that referencing historical trends as a guide to future expectations "is often a suspect assumption."[123] And as shown on Exhibit AMM-14, DCF estimates in the 10.2% to 10.6% range are consistent with historical ROE findings, once adjusted for the significant rise in bond yields.

The idea that a reasonable ROE for DEF—which is inherently forward-looking and company-specific—should be constrained by historical allowed ROEs for other utilities in other jurisdictions is completely at odds with economic and regulatory principles. If taken to its logical conclusion, it would not allow the ROE to rise along with increases in capital costs, or vice versa. Mr. Lawton's authorized ROE ceiling makes no economic sense and should be rejected.

[121] *Id.* at 64-65.
[122] *Id.* at 18.
[123] *Id.* at 13.

Q. Did Mr. Lawton make an even-handed attempt to apply his screen based on allowed ROEs to his own DCF results?

A. No. Over one-half of the constant growth DCF estimates presented on Mr. Lawton's Exhibit DJL-7 fall below 9%. Under Mr. Lawton's logic, these values would not be considered "consistent with current market returns authorized by regulatory authorities" and should have been excluded. The fact that Mr. Lawton ignores the implications of historical ROEs for his own model results further illustrates the irrelevance of his "test."

VIII. Capital Asset Pricing Model

Q. How does Mr. Lawton apply the CAPM and ECAPM models?

A. Mr. Lawton combines an MRP of 6.58% with his own forecasted risk-free rate of 3.50% and Value Line beta values in order to generate CAPM cost of equity estimates for each of the companies in his two proxy groups.[124] Mr. Lawton's CAPM analysis results in average ROEs of 9.68% and 9.52% for his 9 and 16 company groups. Mr. Lawton also performs an ECAPM analysis which utilizes adjusted betas consistent with such an approach, and this model produces average ROEs of 9.78% and 9.66% for his proxy groups.

Q. What is the source of the 6.58% MRP used in Mr. Lawton's analysis?

A. The 6.58% MRP used in Mr. Lawton's applications of the CAPM and ECAPM is an average of three values:

[124] *Id.* at Exhibit DJL-9.

1) The difference between the historical rates of return realized by an investment in the stocks comprising the S&P 500 and on long-term Treasury bonds over the years 1926-2022, as reported by Kroll.

2) The difference between the average forecasted return on book equity for his electric utility proxy groups and his assumed Treasury bond yield of 3.5%.

3) The difference between average historical authorized ROEs for electric utilities and average yields on 30-year Treasury bonds over the years 1981-2023.

All of these risk premiums are understated or in error.

Q. Does the 7.03% historical MRP from Kroll used by Mr. Lawton reflect the most recent data reported by this source?

A. No. Kroll reports an historical MRP for 1926-2023 of 7.17%.[125]

Q. Is there another issue with Mr. Lawton's 7.03% MRP value?

A. Yes. Mr. Lawton calculated his 7.03% historical MRP as the difference between the historical rates of return realized by an investment in the stocks comprising the S&P 500 stocks and on long-term Treasury bonds,[126] but Mr. Lawton's calculation is problematic. When using historical rates of return to calculate the market risk premium, the correct risk-free interest rate is not the *total* return on long-term government bonds used by Mr. Lawton, but the historical *income* return on long-term government bonds. This is documented in the *Ibbotson SBBI 2015 Classic Yearbook*:

[125] Kroll, *Cost of Capital Navigator* (2024). Kroll reports that the MRP for the period 1926-2022 was also 7.17%.
[126] Lawton Direct at Table 13.

> Another point to keep in mind when calculating the equity risk premium is that the income return on the appropriate horizon Treasury security, rather than the total return, is used in the calculation.[127]

The income return on long-term government bonds corresponding to the 12.04% historical market return is 4.87%, which also produces an historical MRP of 7.17%.[128]

Q. What are the fundamental errors associated with the two MRP's Mr. Lawton calculated based on data for electric utilities?

A. Mr. Lawton's reference to a 7.27% MRP based on forecasted earned returns for electric utilities is wrong on two counts. First, Mr. Lawton looks at the forecasted rate of return that the firms in his proxy groups are expected to earn on *book* value, not at their expected *market* rates of return. The CAPM is a market-oriented approach to estimating the cost of equity and Mr. Lawton's reliance on an MRP using returns on book value is a misapplication of this method.

Second, the equity risk premium in the CAPM is based on the return expected from a large group of stocks representing the market as a whole. By looking at an expected return for the electric utilities in his proxy groups, Mr. Lawton not only ignores the basic premise underlying the CAPM, but he double-counts the lower risk of electric utilities versus the market (*i.e.*, once in a lower "market" risk premium and again by applying the electric utilities' lower betas to it). In this regard, Mr. Lawton's 7.27% MRP value

[127] Ibbotson SBBI 2012 Valuation Yearbook, Market Results for Stocks, Bonds, Bills, and Inflation 1926-2011, at 55.
[128] Kroll, Cost of Capital Navigator (2023) at 1.

is not a market risk premium at all—it is a proxy group risk premium—and it cannot be used in conjunction with Value Line betas, which are computed based on market returns. Mr. Lawton's 7.27% risk premium could only be salvaged by using it in conjunction with betas of 1.00 since each of the proxy group companies' stock returns are perfectly correlated with themselves.

Similarly, the 5.45% risk premium that Mr. Lawton calculates based on allowed ROEs for electric utilities is distinct from the MRP required to apply the CAPM. This risk premium is already specific to the risks of electric utilities and combining it with a beta value that accounts for risk differences between electric utilities and the market as a whole is nonsensical.

Q. Is there another problem with Mr. Lawton's 7.27% MRP value?

A. Yes. In his calculation of the MRP for his respective proxy groups, Mr. Lawton selectively removes forecasted return values of 15.19% and 15.96% for WEC Energy and Southern Company, respectively, as he deems them to be outliers. Mr. Lawton provides no basis to exclude these values, while simultaneously retaining values in the 8% range.

Q. Do you have any other issues with the two historical MRP values utilized by Mr. Lawton to apply the CAPM model?

A. Yes. As noted earlier, Mr. Lawton relies on historical MRPs based on Kroll data from 1926-2022 and his own analysis of historical authorized ROEs for electric utilities from

1981. Historical, backward-looking inputs like the ones Mr. Lawton adopts incorrectly assume that investors' assessment of relative risks and required risk premium between Treasury bonds and common stocks is constant and equal to some historical average. This is inconsistent with the forward-looking CAPM model, as well as Mr. Lawton's own future-oriented prescription that "any valid cost of equity recommendation must reflect investors' *expectations* of the risks facing a utility."[129] As I explain in my direct testimony,[130] 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.

Consistent with this view, FERC determined that CAPM methodologies based on historical data are suspect because whatever historical relationships existed between debt and equity securities may no longer hold.[131] Similarly, the Indiana Utility Regulatory Commission has previously concluded that:

> Relying on historic market returns introduces some highly questionable assumptions, which must be taken on faith. Specifically [sic], one must assume that marketplace returns experienced historically are what investors were expecting to receive and continue to guide investor expectations today. It also assumes that asset relationships prevailing over the past 62 years continue today unchanged.[132]

[129] Lawton Direct at 18 (emphasis added).
[130] McKenzie Direct at 59.
[131] *See Orange & Rockland Utils., Inc.*, 40 FERC ¶ 63,053 at 65,208-09 (1987), *aff'd*, Opinion No. 314, 44 FERC ¶ 61,253 at 65,208 (2008).
[132] Indiana Utility Regulatory Commission, *Indiana Michigan Power Co.*, Cause No. 38728 (Aug. 24, 1990).

Mr. Lawton's historical CAPM approaches ignore the returns investors are currently requiring in the capital markets, and the resulting estimates fall short of investors' current required rate of return.

Q. Mr. Lawton claims that his average 6.58% MRP is consistent with "a number of studies in the financial literature" and "current financial markets expectations for MRPs."[133] Is he correct?

A. No. The only support Mr. Lawton offers for his claims is a single citation to Dr. Roger Morin's *New Regulatory Finance*. Dr. Morin's textbook confirms, however, that the market risk premium is "the difference between the market return and the risk-free rate,"[134] while Mr. Lawton's 6.58% average MRP is based mostly on utility returns and is thus directly refuted by Dr. Morin. I would also note that the forward-looking 7.3% MRP used in my applications of the CAPM and ECAPM approaches also falls within the guideline range cited by Mr. Lawton.[135]

Q. Do you have any concerns about the 3.5% risk-free rate that Mr. Lawton uses in his CAPM and ECAPM analyses?

A. Yes. In his discussion surrounding the risk-free rate, Mr. Lawton states that, "I typically employ the most recent three-month average of the 30-Year U.S. Treasury Bond rates," which he calculates to be approximately 4.5%.[136] But then Mr. Lawton abandons his

[133] Lawton Direct at 50-51.
[134] Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports (2006) at 155 (emphasis added).
[135] Lawton Direct at 50.
[136] *Id.* at 48, Table 12.

own stated practice, claiming that "given the projections of federal funds rates to reverse course, a 3.0% to 4.0% expectation for U.S. Treasury yields is reasonable."[137] Mr. Lawton further claims that his own 3.0% to 4.0% Treasury yield forecast "capture[s] the impacts from the most recent statements in Federal Reserve policy."[138]

Mr. Lawton provides no interest rate forecasts or other sources to support his own projection of 30 year Treasury yields. In this regard, Mr. Lawton's 100 basis point downward adjustment to his estimate of the current 30 year Treasury yield is arbitrary and unsupported, and it introduces downward bias into his CAPM, ECAPM and risk premium results.

Mr. Lawton's downward adjustment to observable 30-year Treasury bond yields also contradicts his own testimony, which recognizes that current market-based capital costs already embody expectations of future inflation and interest rates. For example, Mr. Lawton states:

> Recent 2023 – 2024 declining trends in inflation, whether measured by the CPI or PCE have caused the Federal Reserve to cease increasing the federal funds rate and project lower federal funds rates in the immediate future. The end result is that cost of capital today includes expectations of declining interest rates.[139]

Consistent with Mr. Lawton's testimony, a current 30 year Treasury yield of 4.5% already includes investors' expectations of future moves in inflation as well as the

[137] *Id.* at 48.
[138] *Id.* at 25-26.
[139] *Id.* at 23-24.

Federal Funds rate. Mr. Lawton's 100 basis point downward adjustment is unwarranted, even by the logic of his own testimony.

Q. Mr. Lawton says your 4.4% risk-free rate does not reflect "a market expectation and monetary policy projections of lower future interest rates."[140] How do you respond?

A. As was previously discussed, Mr. Lawton does not present any evidence to support "a market expectation" of lower interest rates. The risk-free rate within my CAPM and ECAPM models is entirely market based, and thus it accounts for investors' current expectations of future interest rates, inflation, and monetary policy. Mr. Lawton's claim to the contrary is without merit.

Q. Does Mr. Lawton incorporate a size adjustment in his CAPM analysis?

A. No. As I state in my direct testimony, financial research indicates that the CAPM does not fully account for observed differences in rates of return attributable to firm size. To account for this, researchers have developed size premiums that need to be added to the theoretical CAPM cost of equity estimates to account for the level of a firm's market capitalization in determining the CAPM cost of equity. Mr. Lawton's CAPM analysis is further deficient because he omitted this crucial adjustment.

[140] *Id.* at 66.

Q. Given these problems, how did you correct Mr. Lawton's CAPM analysis?

A. As shown on Exhibit AMM-19, I employ the most recent MRP reported by Kroll of 7.17%. With respect to the risk premiums Mr. Lawton calculated based on data for electric utilities, I use a beta of 1.00, since this data already reflects the risks of electric utilities, and no further adjustment is warranted. Finally, I adopt Mr. Lawton's three month average yield on 30-year Treasury bonds as the risk-free rate and incorporate the size adjustment supported by Mr. Lawton's own source for the historical MRP. As shown there, this results in CAPM cost of equity estimates ranging from 9.90% to 11.72% and averaging 11.09%.

Q. Mr. Lawton takes issue with your 7.3% MRP, claiming it "is based on expected returns of the dividend paying stocks in the S&P 500."[141] Has Mr. Lawton really identified a problem in this respect?

A. No. As I explained above, the CAPM requires a market rate of return and a DCF study of the dividend-paying firms in the S&P 500 provides a widely accepted approach to estimate the MRP. The original basis for my CAPM approach was the methods used by the Staff at the Illinois Commerce Commission, which adopted forward-looking MRP estimates and Value Line betas to apply the CAPM.[142] FERC has also adopted a forward-looking CAPM approach directly comparable to the methodology applied in

[141] *Id.* at 66.

[142] *Direct Testimony of Michael McNally*, Illinois Commerce Commission, Docket No. 10-0467, filed October 26, 2010, at 27-29. The Illinois Commerce Commission relied on this CAPM approach in arriving at the authorized ROE in this proceeding. Illinois Commerce Commission, Docket No. 10-0467, Order (May 24, 2011) at 153.

my direct testimony.[143]

Similarly, research reported in the financial literature has used the DCF approach based on analysts' EPS growth rates to estimate a forward-looking rate of return for the S&P 500. For instance, *Harris and Marston* notes that "a 'market' required rate of return is calculated using each dividend paying stock in the S&P 500 index for which data are available."[144] In describing this process, the authors state:

> This expectational approach employs the dividend growth model (hereafter referred to as the discounted cash flow or DCF model) in which a consensus measure of financial analysts' forecasts (FAF) of earnings is used as a proxy for investor expectations.
>
> * * *
>
> For each month, a "market" required rate of return is calculated using each dividend paying stock in the S&P 500 index for which data are available. The DCF model in Equation (2) is applied to each stock and the results weighted by market value of equity to produce the market required return.[145]

Estimating investors' required rate of return by reference to current, forward-looking data is consistent with the theory underlying the CAPM methodology, peer-reviewed financial literature, and the practice of regulators.

[143] *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569-A, 171 FERC ¶ 61,154 at P 260 (2020), *vacated & remanded sub nom. MISO Transmission Owners v. FERC*, No. 16-1325 (D.C. Cir. 2022).

[144] Robert S. Harris and Felicia C. Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts*, Fin. Mgmt. (Summer 1992) ("*Harris and Marston*").

[145] *Id.*

Q. Mr. Lawton rejects your 11.6% CAPM result and characterizes it as "an outlier."[146] How do you respond?

A. Mr. Lawton states that "an 11.6% equity return is not consistent with declining capital costs or current authorized returns in the 9.6% range,"[147] and he rejects my 11.7% ECAPM result on the same basis. Mr. Lawton's suppositions regarding declining capital costs are inconsistent with actual trends and the expectations embodied in highly respected forecasts. Similarly, as discussed earlier, average historical allowed ROEs do not provide a meaningful benchmark to evaluate the forward-looking ROE required in current capital markets. Contrary to Mr. Lawton's assertion, as Exhibit AMM-15 demonstrates, my 11.6% CAPM estimate is equal to the indicated cost of equity based on Commission-approved ROEs, once adjusted for todays' higher interest rates.

IX. Risk Premium Model

Q. How does Mr. Lawton apply the risk premium model?

A. Mr. Lawton examines risk premiums calculated as the difference between average authorized ROEs for electric utilities and 30-year Treasury yields over the period 1981 to 2023. Similar to my risk premium study, Mr. Lawton estimates the relationship between risk premiums and interest rates in order to adjust for changes in bond yields from the study period to current levels. But rather than using current 30-year Treasury bond yields as the basis for his risk premium study, Mr. Lawton again adopts his subjective and unsupported assumption that Treasury bond yield will fall to the range

[146] Lawton Direct at 65-66.
[147] *Id.* at 66.

of 3.00% to 4.00%. Mr. Lawton arrives at a risk premium ROE range of 9.68% to 10.27%, with a midpoint of 9.97%. Mr. Lawton ultimately excludes his risk premium results from his evaluation of a fair ROE.

Q. What is Mr. Lawton's rationale for excluding the risk premium results from his final analysis?

A. The only explanation Mr. Lawton gives is that the risk premium results were excluded because they "exceed all other model results."[148] In other words, Mr. Lawton excluded the risk premium approach simply because it produced the highest of his various model results, according to his explanation. Mr. Lawton's exclusion criteria appear to be results-oriented and have an obvious downward bias on his final ROE recommendation.

Q. Is Mr. Lawton's risk premium analysis affected by the risk-free interest rate issue you discussed previously?

A. Yes. As with his CAPM and ECAPM models, Mr. Lawton incorporates his own unsupported projections of 30-year Treasury yields, instead of incorporating current market-based yields. Once again, Mr. Lawton's approach effectively adjusts the current interest rate downward by approximately 100 basis points, leading to downward bias in Mr. Lawton's risk premium ROE result.

[148] *Id.* at 52.

Q. What would be the effect of correcting Mr. Lawton's risk premium analysis to incorporate a current 30 year Treasury yield, in lieu of Mr. Lawton's unsupported projections?

A. Mr. Lawton's risk premium ROE result would be substantially higher. The calculations supporting this conclusion can be seen on Exhibit AMM-20, where I substitute Mr. Lawton's 3-month average 30 year Treasury yield of 4.45% for his unsupported range of 3.00% to 4.00%. This simple and appropriate substitution results in a risk premium ROE of 10.53%, and it highlights the substantial downward bias within Mr. Lawton's results.

X. Other ROE Issues

Q. Mr. Lawton rejects your risk premium and expected earnings ROE results on the basis that they "are excessive and can only be considered outliers."[149] How do you respond?

A. Mr. Lawton's subjective evaluation of what might constitute a reasonable ROE is based on a myopic focus on historical allowed ROEs and his unsupported speculation as to future trends in capital costs. As I have explained earlier, neither of these considerations represents a sound benchmark for DEF's ROE under current capital market conditions.

[149] *Id.* at 67.

Q. Is Mr. Lawton correct that your ROE recommendation is "based on averaging the highest results" from each of your ROE models?[150]

A. No. As I explained in my direct testimony, my recommended ROE range was premised on the results of the DCF, CAPM, ECAPM, risk premium, and expected earnings approaches, giving less weight to extremes at the high and low ends of the range. The 10.4% value that forms the bottom end of the range falls comfortably within my DCF results—the majority of which are in the range of 10.2% to 10.6%—and it is 40 basis points below the risk premium cost of equity of 10.8%. Meanwhile, the 11.5% upper end of the range is bracketed by the results of the expected earnings, CAPM, and ECAPM approaches, with two of the three estimates being higher than my range.

Q. Does Mr. Lawton offer any criticism of your non-utility DCF analysis or flotation cost adjustment?

A. No.

XI. Response to Messrs. Chriss, Pollock, and Rábago

Q. Do Messrs. Chriss, Pollock or Rábago conduct an independent evaluation of a fair ROE for DEF?

A. No. None of these three witnesses conduct any analyses of the cost of equity. Their testimony is limited to a presentation of selected data concerning previously authorized ROEs, and Mr. Chriss and Mr. Rábago also present various calculations concerning

[150] *Id.* at 68.

hypothetical customer impacts and revenue requirements at alternative ROEs. Based on this limited review, Messrs. Chriss, Pollock, and Rábago express concern about the reasonableness of the Company's proposed ROE.

Q. Do you agree with Messrs. Chriss, Pollock, and Rábago that allowed ROEs provide one benchmark worthy of consideration in the Commission's evaluation?

A. Yes, I do. Importantly, however, such comparisons of allowed ROEs are only one consideration. While this data can be useful in the Commission's deliberations, it is not a substitute for the detailed analyses presented in my direct testimony. Moreover, as discussed earlier, historical average ROEs do not reflect current capital market conditions. In fact, once adjusted for the recent increase in interest rates, the Florida and nationwide ROEs cited by these three witnesses imply a current cost of equity in a range of 10.25% to 11.61%.[151] Absent the adjustments quantified in my rebuttal testimony, these values do not provide a sound basis on which to assess a fair ROE for DEF in this case.

Q. From your position as a regulatory financial analyst, what do you make of Mr. Chriss's and Mr. Rábago's admonition to consider customer impacts when establishing a fair ROE?[152]

A. First, it is important to note that the determination of the ROE is made by investors in the capital markets and is not predicated on any notion of costs or savings to customers.

[151] Exhibit AMM-13, Exhibit AMM-14, Exhibit AMM-15.
[152] Chriss Direct at 7-8; Rábago Direct at 27-28.

The Supreme Court's regulatory standards embodied in the *Hope* and *Bluefield* decisions represent a balance between the interests of customers and investors, by setting forth the guidelines as to a fair ROE. Meanwhile, Mr. Chriss wrongly suggests that a lower ROE is *per se* to customers' benefit. This is not the case. While a downward-biased ROE may provide the illusion of customer "savings" in the form of a lower revenue requirement in the short-term, the long-term impact of an inadequate ROE can be injurious to customers and the Florida economy.

As discussed earlier, there is a very real connection between the ROE and the availability of capital, and Mr. Chriss and Mr. Rábago ignore the negative impact that an inadequate ROE would have on investment. The ROE is the primary signal to investors, not only with respect to attracting new capital investment, but also in supporting existing utility operations. If the utility is unable to offer a competitive ROE, existing shareholders will suffer a capital loss as investors take advantage of other, more favorable opportunities, and the utility's stock price would fall. Moreover, as investors' confidence is undermined, the ability of utilities to access equity capital markets and expand investment will suffer. While the Company would undoubtedly continue to meet its service obligations to customers, a downward-biased ROE would send an unmistakable signal to the investment community as they consider whether to commit capital in Florida, and at what cost.

Q. Mr. Chriss and Mr. Pollock suggest that regulatory mechanisms approved for DEF reduce risk and should translate into a lower ROE.[153] What is your response?

A. I addressed the fallacies of this argument earlier in response to Mr. Lawton. Neither Mr. Chriss nor Mr. Pollock provide evidence to support the implication that DEF's regulatory mechanisms lower the Company's risk profile below what is captured in my proxy group of electric utilities.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

[153] Chriss Direct at 7; Pollock Direct at 15-16.

IMPLIED COST OF EQUITY

NATIONAL ALLOWED ROES

		Vertically Integrated
1	Allowed ROE (2020 - Q1 2024)	9.66%
2	Average Baa UtilityYield (2020 - Q1 2024)	4.48%
3	Implied Risk Premium	5.18%
4	May 2024 Baa Utility Yield	5.97%
5	Change in Bond Yield	1.49%
6	Risk Premium/Interest Rate Relationship	-0.4273
7	Adjustment to Risk Premium	-0.63%
8	Adjusted Risk Premium	4.54%
9	**Adjusted ROE**	**10.51%**

1 S&P Global Market Intelligence, RRA Regulatory Focus (Apr. 19, 2024).
2 Moody's Credit Trends.
3 (1) - (2).
4 Moody's Credit Trends.
5 (4) - (2).
6 Exhibit AMM-10 at page 3.
7 (5) x (6).
8 (3) + (7).
9 (4) + (8).

IMPLIED COST OF EQUITY

COMMISSION APPROVED ROES CITED BY CHRISS

		Duke Energy Florida Docket No. 20210016-EI	Tampa Electric Co. Docket No. 20200264-EI	Florida Power & Light Docket No. 20210015-EI
1	Filed Date	1/14/2021	4/9/2021	3/12/2021
	Order Date	6/4/2021	11/10/2021	12/2/2021
1	Approved ROE	9.85%	9.95%	10.60%
2	Average Baa UtilityYield	3.47%	3.34%	3.37%
3	Implied Risk Premium	6.38%	6.61%	7.23%
4	May 2024 Baa Utility Yield	5.97%	5.97%	5.97%
5	Change in Bond Yield	2.50%	2.63%	2.60%
6	Risk Premium/Interest Rate Relationship	-0.4273	-0.4273	-0.4273
7	Adjustment to Risk Premium	-1.07%	-1.12%	-1.11%
8	Adjusted Risk Premium	5.31%	5.49%	6.12%
9	**Adjusted ROE**	**11.28%**	**11.46%**	**12.09%**
	Average		**11.61%**	

1 Order Nos. PSC-2021-0202-AS-EI, PSC-2021-0423-S-EI, PSC-2021-0446-S-EI.
2 Average yield on Baa utility bonds over the duration of the proceeding from Moody's Credit Trends.
3 (1) - (2).
4 Moody's Credit Trends.
5 (4) - (2).
6 Exhibit AMM-10 at page 3.
7 (5) x (6).
8 (3) + (7).
9 (4) + (8).

IMPLIED COST OF EQUITY

DUKE ENERGY APPROVED ROES

		Duke Energy Carolinas	Duke Energy Progress	Duke Energy Ohio	Duke Energy Progress	Duke Energy Progress	Duke Energy Kentucky	Duke Energy Carolinas	Duke Energy Carolinas
1	Filed Date	9/30/2019	10/30/2019	10/1/2021	9/1/2022	10/6/2022	12/1/2022	1/19/2023	1/4/2024
	Order Date	3/31/2021	4/16/2021	12/14/2022	3/8/2023	8/18/2023	10/12/2023	12/15/2023	5/17/2024
1	Approved ROE	9.60%	9.60%	9.50%	9.60%	9.80%	9.75%	10.10%	9.94%
2	Average Baa UtilityYield	3.47%	3.46%	4.68%	5.73%	5.74%	5.79%	5.84%	5.86%
3	Implied Risk Premium	6.13%	6.14%	4.82%	3.87%	4.06%	3.96%	4.26%	4.08%
4	May 2024 Baa Utility Yield	5.97%	5.97%	5.97%	5.97%	5.97%	5.97%	5.97%	5.97%
5	Change in Bond Yield	2.50%	2.51%	1.29%	0.24%	0.23%	0.18%	0.13%	0.11%
6	Risk Premium/Interest Rate Relationship	-0.4240	-0.4240	-0.4240	-0.4240	-0.4240	-0.4240	-0.4240	-0.4240
7	Adjustment to Risk Premium	-1.06%	-1.06%	-0.55%	-0.10%	-0.10%	-0.08%	-0.05%	-0.05%
8	Adjusted Risk Premium	5.07%	5.08%	4.27%	3.77%	3.96%	3.88%	4.20%	4.03%
9	**Adjusted ROE**	**11.04%**	**11.05%**	**10.24%**	**9.74%**	**9.93%**	**9.85%**	**10.17%**	**10.00%**
	Average	**10.25%**							

1 Orders in Docket No. E-7, Sub 1214 (Mar. 31, 2021); Docket No. E-2, Sub 1219 (Apr. 16, 2021); Case No. 21-887-EL-AIR (Dec. 14, 2022); DocketNo. 2022-254-E, Order No. 2023-138 (Mar. 8, 2023); Docket No. E-2, Sub 1300 (Aug. 18, 2023); Case No. 2022-00372 (Oct. 12, 2023); Docket No. E-7, Sub 1134 (Dec. 15, 2023); Docket No. 2023-388-E (May 17, 2024).
2 Average yield on Baa utility bonds over the duration of the proceeding from Moody's Credit Trends.
3 (1) - (2).
4 Moody's Credit Trends.
5 (4) - (2).
6 Exhibit AMM-10 at page 3.
7 (5) x (6).
8 (3) + (7).
9 (4) + (8).

ALLOWED ROEs

LAWTON PROXY GROUPS

	Proxy Group A	(a) Allowed ROE
1	Alliant Energy	10.00%
2	Consolidated Edison	9.23%
3	NextEra Energy, Inc.	10.80%
4	OGE Energy Corp.	9.50%
5	Pinnacle West Capital	9.70%
6	Portland General Elec.	9.50%
7	PPL Corp.	9.73%
8	WEC Energy Group	9.83%
9	Xcel Energy Inc.	9.60%
	Average	**9.76%**

	Proxy Group B	(a) Allowed ROE
1	Alliant Energy	10.00%
2	Ameren Corp.	n/a
3	American Elec Pwr	n/a
4	Avista Corp.	9.40%
5	Duke Energy Corp.	9.76%
6	Entergy Corp.	9.71%
7	Evergy Inc.	9.30%
8	IDACORP, Inc.	10.00%
9	MGE Energy	9.70%
10	NextEra Energy, Inc.	10.80%
11	NorthWestern Corp.	10.03%
12	OGE Energy Corp.	9.50%
13	Pinnacle West Capital	9.70%
14	Portland General Elec.	9.50%
15	Southern Company	12.50%
16	Xcel Energy Inc.	9.60%
	Average	**9.96%**

(a) The Value Line Investment Survey (Mar. 8, Apr. 19 and May 10, 2024).

LAWTON CONSTANT GROWTH DCF

EPS COST OF EQUITY ESTIMATES

		(a)	(a)		(b)		
	Company	**Annual Dividend**	**3-Month Avg. Stock Price**	**Base Dividend Yield**	**Avg. EPS Forecast**	**Adjusted Dividend Yield**	**ROE**
1	Alliant Energy	$1.92	$50.47	3.80%	6.38%	3.93%	10.31%
2	Consolidated Edison	$3.32	$93.97	3.53%	6.48%	3.65%	10.13%
3	NextEra Energy, Inc.	$2.06	$69.28	2.97%	8.01%	3.09%	11.10%
4	OGE Energy Corp.	$1.67	$35.10	4.76%	5.75%	4.89%	10.64%
5	Pinnacle West Capital	$3.52	$75.08	4.69%	6.32%	4.84%	11.16%
6	Portland General Elec.	$1.90	$42.68	4.45%	9.25%	4.66%	13.91%
7	PPL Corp.	$1.03	$27.53	3.74%	7.04%	3.87%	10.91%
8	WEC Energy Group	$3.34	$76.55	4.36%	7.05%	4.52%	11.57%
9	Xcel Energy Inc.	$2.19	$54.55	4.01%	6.57%	4.15%	10.72%
	Average	**$2.33**	**$58.36**	**4.04%**	**6.98%**	**4.18%**	**11.16%**
	Median	**$2.06**	**$54.55**	**4.01%**	**6.57%**	**4.15%**	**10.91%**

(a) Lawton Direct at Exhibit DLJ-5.
(b) Lawton Direct at Exhibit DLJ-6.

LAWTON CONSTANT GROWTH DCF

EPS COST OF EQUITY ESTIMATES

	Company	(a) Annual Dividend	(a) 3-Month Avg. Stock Price	Base Dividend Yield	(b) Avg. EPS Forecast	Adjusted Dividend Yield	ROE
1	Alliant Energy	$1.92	$49.51	3.88%	6.38%	4.00%	10.38%
2	Ameren Corp.	$2.52	$72.85	3.46%	5.93%	3.56%	9.49%
3	American Elec Pwr	$3.52	$85.29	4.13%	5.78%	4.25%	10.03%
4	Avista Corp.	$1.90	$34.45	5.52%	6.10%	5.68%	11.78%
5	Duke Energy Corp.	$4.10	$95.49	4.29%	6.05%	4.42%	10.47%
6	Entergy Corp.	$4.52	$104.42	4.33%	6.91%	4.48%	11.39%
7	Evergy Inc.	$2.57	$51.29	5.01%	5.00%	5.14%	10.14%
8	IDACORP, Inc.	$3.32	$91.52	3.63%	4.70%	3.71%	8.41%
9	MGE Energy	$1.71	$73.49	2.33%	5.70%	2.39%	8.09%
10	NextEra Energy, Inc.	$2.06	$61.60	3.34%	7.34%	3.47%	10.81%
11	NorthWestern Corp.	$2.60	$49.33	5.27%	4.25%	5.38%	9.63%
12	OGE Energy Corp.	$1.67	$33.30	5.02%	5.75%	5.16%	10.91%
13	Pinnacle West Capital	$3.52	$72.52	4.85%	6.32%	5.01%	11.33%
14	Portland General Elec.	$1.90	$41.64	4.56%	9.25%	4.77%	14.02%
15	Southern Company	$2.80	$70.51	3.97%	5.93%	4.09%	10.02%
16	Xcel Energy Inc.	$2.19	$65.05	3.37%	6.57%	3.48%	10.05%
	Average	**$2.68**	**$65.77**	**4.18%**	**6.12%**	**4.31%**	**10.43%**
	Median	**$2.55**	**$67.78**	**4.21%**	**5.99%**	**4.33%**	**10.26%**

(a) Lawton Direct at Exhibit DLJ-5.
(b) Lawton Direct at Exhibit DLJ-6.

LAWTON CAPM MODELS

CORRECTED

	Kroll Historical MRP		Electric Utility Risk Premium	
	Proxy Group A	**Proxy Group B**	**Projected Book Returns**	**Historical Allowed Returns**
(a) Risk Premium	7.17%	7.17%	7.27%	5.45%
(b) Beta	0.939	0.920	1.000	1.000
(c) Utility Risk Premium	6.73%	6.60%	7.27%	5.45%
(d) Risk-Free Rate	4.45%	4.45%	4.45%	4.45%
Unadjusted CAPM	11.18%	11.05%		
(e) Size Adjustment	0.51%	0.54%	--	--
Adjusted CAPM	**11.69%**	**11.58%**	**11.72%**	**9.90%**
(f) **Average**	**11.09%**			

(a) Kroll, *Cost of Capital Navigator* (2024); Lawton Direct at Table 14.
(b) Average proxy group betas from Exhibit DJL-9. Beta of 1.00 corresponding to electric utility risk premium.
(c) (a) x (b).
(d) Three-month average yield on 30-year Treasury bonds from Exhibit DJL-3.
(e) Kroll, 2023 CRSP Deciles Size Premium, Cost of Capital Navigator (2024); The Value Line Investment Survey (Mar. 8, Apr. 19 and May 10, 2024).
(f) Average of Kroll cost of equity estimates weighted by one-third.

LAWTON RISK PREMIUM MODEL

CORRECTED

		Risk Premium ROE
(a)	Current 30 year U.S. Treasury yield	4.45%
(b)	Average Yield in Study Period	5.97%
(c)	Change in Bond Yields	-1.52%
(d)	Risk Premium/Interest Rate Relationship	-0.4134
(e)	Adjustment to Risk Premium	0.63%
(f)	Basic Risk Premium Per Study	5.45%
(g)	Adjusted Risk Premium	6.08%
(h)	Risk Premium ROE	**10.53%**

(a) 3-month average 30-year Treasury yield from Exhibit DJL-3.
(b) Exhibit DJL-10.
(c) (a) - (b).
(d) Exhibit DJL-10.
(e) (c) x (d).
(f) Exhibit DJL-10.
(g) (e) + (f)
(h) (a) + (h).