BEFORE THE

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF WESTFIELD GAS, LLC, D/B/A CITIZENS GAS OF WESTFIELD FOR (1) AUTHORITY TO INCREASE RATES AND CHARGES FOR GAS UTILITY SERVICE AND APPROVAL OF A NEW SCHEDULE OF RATES AND CHARGES; (2) APPROVAL OF CERTAIN REVISIONS TO ITS TERMS AND CONDITIONS APPLICABLE TO GAS UTILITY SERVICE; AND (3) APPROVAL PURSUANT TO INDIANA CODE SECTION 8-1-1.5-6 OF AN ALTERNATIVE REGULATORY PLAN UNDER WHICH IT WOULD CONTINUE ITS ENERGY EFFICIENCY PROGRAM PORTFOLIO AND ENERGY EFFICIENCY RIDER	)	**CAUSE NO. 44731**

REBUTTAL TESTIMONY

of

ADRIEN M. MCKENZIE, CFA

Petitioner's Exhibit No. 10

REBUTTAL TESTIMONY OF ADRIEN M. MCKENZIE

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

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

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

A. Yes, my Direct Testimony was filed in this proceeding on June 17, 2016.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. My purpose is to respond to the testimony of Mr. Bradley E. Lorton, submitted on behalf of the Indiana Office of Utility Consumer Counselor ("OUCC"). Mr. Lorton addresses the cost of equity ("ROE") that Westfield Gas, LLC, d/b/a Citizens Gas of Westfield ("Westfield" or "the Company") is requesting on its original cost rate base, along with the return on fair value ("RFV") that it is requesting on its estimated fair value rate base. In addition, my testimony responds to several other issues discussed in Mr. Lorton's testimony including capital structure and Westfield's small size relative to the gas companies in the proxy group. I also emphasize the importance of testing ROE results from traditional approaches, such as the discounted cash flow ("DCF") model against the results of alternative methodologies.

A. Summary of Conclusions

Q. PLEASE SUMMARIZE THE PRINCIPAL CONCLUSIONS OF YOUR REBUTTAL TO MR. LORTON'S TESTIMONY.

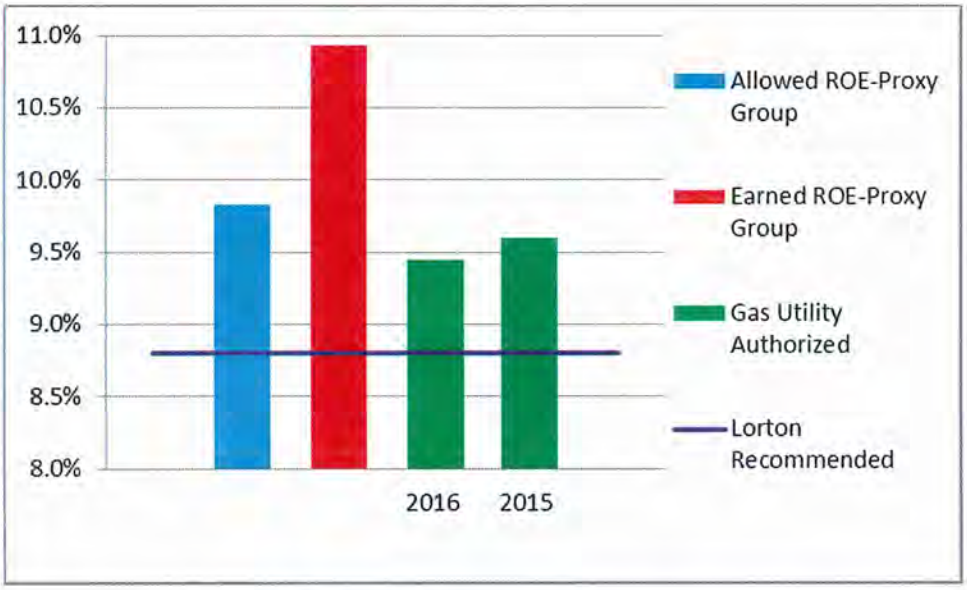
A. His ROE recommendation is extreme and out of the mainstream. At 8.8%, it is below any reasonable level. Mr. Lorton goes even further and says that his analyses "may be considered to justify a lower rate of return, as an 8.8% ROE is the higher end of the range of results in my DCF and CAPM analyses."[1] Although Mr. Lorton does not

[1] Lorton Direct Testimony at 4.

propose a change to Westfield's proposed capital structure, he discusses the Company's relationship with its parent company and says that a "capital structure that recognized the holding company debt serviced by Petitioner's required dividend payments would produce a lower WACC." Finally, Mr. Lorton does not make any adjustment to his recommended ROE to account for the Company's very small size. Taken as a whole, his recommendations are not balanced and not supportive of the Company's operations in Indiana.

The significant shortfall between Mr. Lorton's recommendations and the ROE benchmarks discussed in my rebuttal testimony is illustrated in the figure below.

FIGURE R1



Q. ARE THERE TECHNICAL FLAWS IN THE ROE ANALYSIS PROVIDED BY MR. LORTON?

A. Yes. There are key deficiencies in his quantitative applications that lead to a significant downward bias in his conclusions. My rebuttal testimony demonstrates that:

- His Discounted Cash Flow ("DCF") study contains numerous flaws centered on a faulty growth rate approach. His growth analysis is

misguided because it relies too heavily on historical data and on dividend and book value data. Furthermore, he makes no attempt to remove illogical DCF results stemming from unrealistically low growth rates.

- His Capital Asset Pricing Model ("CAPM") results are so low that they should be rejected on their face, especially after restating the contrived risk-free rate he uses in an attempt to produce a credible outcome. His CAPM results are even more suspect because his approach is based on historical data and is not forward-looking, as is required by the ROE estimation process.
- Beyond his flawed CAPM results, Mr. Lorton has failed to include any checks of reasonableness on his DCF results, with approaches such as Empirical CAPM ("ECAPM"), Utility Risk Premium, Expected Earnings, or Non-Utility DCF, as I did in my Direct Testimony. In addition, he failed to recognize the implications of the Company's small size in evaluating his ROE recommendation.
- His criticism of my RFV analysis is flawed because he wrongly claims that historical inflation, rather than expected inflation, should be excluded in setting the proper RFV.

Finally, while Mr. Lorton appears to accept the Company's actual capital structure, he implies throughout his testimony that differences from the parent company's capital structure should be considered in this case. I will show that this approach does not conform to proper regulatory practice and should be ignored.

B. Comparison of OUCC ROE Recommendation to Accepted Benchmarks

Q. HOW DOES OUCC'S ROE RECOMMENDATION COMPARE TO ACCEPTED BENCHMARKS?

A. Mr. Lorton recommends an ROE for the Company of 8.8%. This outcome would be unprecedented. I am aware of only one other allowed gas utility ROE in recent history of less than 9.0% and it was 8.83% for Yankee Gas Services, decided in June 2011 by the Connecticut Department of Public Utility Control.[2] His proposal is a dramatic decrease from the 10.1% ROE granted in Westfield's last case in Indiana (Cause No.

[2] State of Connecticut, Department of Public Utility Control, Docket No. 10-12-02.

43624, final order issued March 10, 2010). Furthermore, his recommendation falls far below equity returns that have been allowed by other state regulatory commissions around the country. In 2015 the average allowed ROE for gas utilities was 9.60% and through September 30, 2016 the average was 9.45%.[3] Of note, these averages do not account for the higher risks associated with the Company's small size and, for this reason, must be considered as extremely conservative comparisons to Westfield's required ROE.

Similarly, authorized ROEs reported for the companies in Mr. Lorton's proxy group are also much higher than his recommendation in this case. As shown on Attachment AMM-R1, these ROEs range from 9.58% for WGL Holdings to 10.30% for New Jersey Resources, and average 9.83%. Of course, the ROEs approved in other jurisdictions do not constrain the decision-making in this proceeding. However, it is important to understand that there would be a disincentive for investors to provide equity capital to Westfield if the Commission were to apply an unreasonably low ROE to Westfield, compared to entities of comparable, or in this case, lower risk. As the Commission has previously recognized:

> The only evidence we are now prepared to accept as conclusive of invalidity would be a cost of equity number that would have no credibility in the capital markets and that would be well below (or above) the cost rate which other state commissions are finding at the present time.[4]

An ROE below 9.0% is far out of line with returns allowed by other state commissions across the country (9.45%-9.60%), with returns allowed for the proxy group used by Mr. Lorton (9.83%), and with what the Commission allowed the Company in its last

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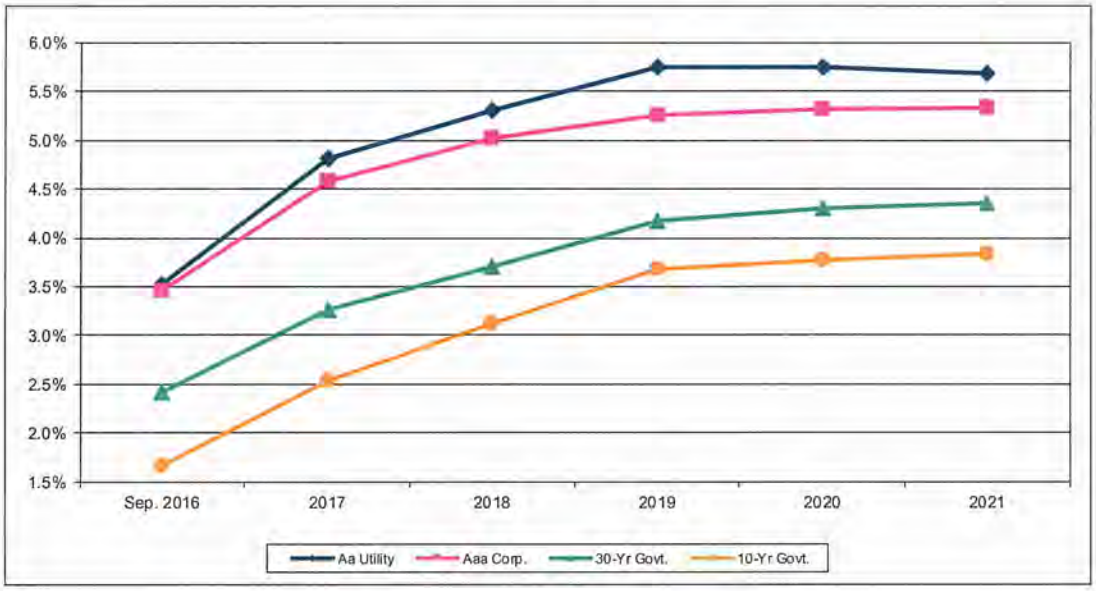
[3] Regulatory Research Associates, *Regulatory Focus: Major Rate Case Decisions – January-September 2016* (Oct. 14, 2016).
[4] *Indiana Michigan Power Co.*, Cause No. 38728 (Aug. 24, 1990).

case (10.1%). Investors would undoubtedly consider these facts in assessing the reasonableness of the outcome in this case.

Q. DO INVESTORS CONTINUE TO ANTICIPATE HIGHER LONG-TERM INTEREST RATES?

A. Yes. Below is an update of Figure 1 (Interest Rate Trends) from my Direct Testimony:

FIGURE R2
INTEREST RATE TRENDS



Source:

Value Line Investment Survey, Forecast for the U.S. Economy (Sep. 2, 2016)
IHS Global Insight (Apr. 6 & Jun. 27, 2016)
Energy Information Administration, Annual Energy Outlook 2016 Early Release (May 17, 2016)
Wolters Kluwer, Blue Chip Financial Forecasts, Vol. 35, No. 6 (Jun. 1, 2016)

As the figure shows, investors continue to anticipate that interest rates will increase significantly from present levels. These projections are from forecasting services that are highly regarded and widely referenced, as I discuss in my Direct Testimony (at 10).

Q. DOES MR. LORTON'S OWN DATA CONFIRM THAT CAPITAL COSTS ARE PROJECTED TO INCREASE OVER THE NEXT FEW YEARS?

A. Yes. Beginning on page 17 of his Direct Testimony, Mr. Lorton examines economic projections from the Congressional Budget Office ("CBO") and notes that the latest CBO projection for 10-year Treasury notes in 2016 is 2.8% and 3.5% in 2017. At the time this forecast was published (January 2016) the average rate on the 10-year Treasury bond was 2.08%. This data suggests that the CBO is anticipating interest rates to increase over the near term by anywhere from 70 to 140 basis points.[5]

Q. WHAT DO THESE EXPECTATIONS IMPLY WITH RESPECT TO THE ROE FOR WESTFIELD MORE GENERALLY?

A. Current capital market conditions continue to reflect the impact of unprecedented policy measures taken in response to recent dislocations in the economy and financial markets. As a result, current capital costs are not representative of what is likely to prevail over the near-term future. As the Federal Energy Regulatory Commission ("FERC") concluded:

> [W]e also understand that any DCF analysis may be affected by potentially unrepresentative financial inputs to the DCF formula, including those produced by historically anomalous capital market conditions. Therefore, while the DCF model remains the Commission's preferred approach to determining allowed rate of return, the Commission may consider the extent to which economic anomalies may have affected the reliability of DCF analyses …[6]

In a more recent opinion, FERC reiterated its position that current capital market conditions may undermine the reliability of the DCF model, for this reason, ROE model results should be evaluated with even more critical judgment and focus:

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[5] 2016 projection of 2.8% and 2017 projection of 3.5% less the January actual rate of 2.08%, respectively.
[6] Opinion No. 531, 147 FERC ¶ 61,234 at P 41 (2014).

> As described above, evidence in the record regarding historically low interest rates and Treasury bond yields as well as the Federal Reserve's large and persistent intervention in markets for debt securities are sufficient to find that current capital market conditions are anomalous.[7]
>
> Similarly, while Complainants provide evidence that interest rates have been trending downwards, the current levels may be so low as to cause irregularities in the outputs of the DCF. Despite such yields remaining low for several years, we find that they are anomalous and could distort the results of the DCF model.[8]

Current capital market conditions make the process of setting a fair ROE even more demanding. In this environment, it is imperative that ROE model results be thoroughly tested against accepted benchmarks and compared to other checks of reasonableness.

Q. IS IT NECESSARY THAT INTEREST RATE FORECASTS, LIKE THOSE SHOWN ABOVE, BE PERFECTLY ACCURATE IN ORDER TO BE RELIED UPON?

A. Absolutely not. I dealt with this topic in my Direct Testimony (at 29-30) in discussing the validity of analysts' growth forecasts, and the same principle applies here. In estimating investors' required rate of return, what investors expect, not what actually happens, is what matters most. While the projections of various services may be proven optimistic or pessimistic in hindsight, this is irrelevant in assessing expected interest rates and how they might influence Westfield's allowed ROE. Any difference in actual rates as compared to analysts' forecasts is beside the point. What is most important is that investors share analysts' views when the forecasts were made and incorporate those views into their decision making process, not the actual rates that ultimately transpire.

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[7] Opinion No. 551, 156 FERC ¶ 61,234 at P 124 (2016).
[8] *Id.*

Q. WHAT OTHER BENCHMARKS INDICATE THAT OUCC'S RECOMMENDED ROE IS TOO LOW TO BE CONSIDERED REASONABLE?

A. Expected earned rates of return for other utilities provide yet another useful benchmark to gauge the reasonableness of OUCC's ROE recommendation. The expected earnings approach is predicated on the comparable earnings test, which developed as a direct result of the Supreme Court decisions in *Bluefield* and *Hope,* as I discuss in my Direct Testimony.[9] This test recognizes that investors compare the allowed ROE with returns available from other alternatives of comparable risk.

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 DCF growth rates, or the limitations inherent in any theoretical model of investor behavior.

[9] McKenzie Direct Testimony at 45-47. The *Bluefield* and *Hope* decisions refer to *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679 (1923) and *Fed. Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

Q. HAS THE EXPECTED EARNINGS APPROACH BEEN RECOGNIZED AS A VALID ROE BENCHMARK?

A. Yes. This method predominated before the DCF model became fashionable with academic experts, and it continues to be used around the country.[10] A textbook prepared for the Society of Utility and Regulatory Analysts labels the comparable earnings approach the "granddaddy of cost of equity methods" and points out that the amount of subjective judgment required to implement this method is "minimal," particularly when compared to the DCF and CAPM methods.[11] The *Practitioner's Guide* notes that the comparable earnings test method is "easily understood" and firmly anchored in the regulatory tradition of the *Bluefield* and *Hope* cases,[12] as well as sound regulatory economics. Similarly, *New Regulatory Finance* concluded 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."[13]

Q. WHAT ROE IS IMPLIED BY THE EXPECTED EARNINGS APPROACH FOR THE PROXY GROUPS OF GAS UTILITIES REFERENCED BY OUCC?

A. The year-end returns on common equity projected by Value Line Investment Survey ("Value Line") over its forecast horizon for the firms in the gas utility proxy group referenced by OUCC are shown on Attachment AMM-R2. As shown there, once adjusted to mid-year, reference to expected earnings implied an annual average cost of

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[10] For example, the Virginia State Corporation Commission ("VSCC") is required by statute (Virginia Code § 56-585.1.A.2.a) to consider the earned returns on book value of electric utilities in its region. Similarly, FERC concluded that, "The returns on book equity that investors expect to receive from a group of companies with risks comparable to those of a particular utility are relevant to determining that utility's market cost of equity." Opinion No. 531-B, 150 FERC ¶ 61,165 at P 128 (2015). Another example is the Idaho Public Utilities Commission, which also references return on book equity evidence. *See, e.g.,* Order No. 29505, Case No. IC-E-03-13 at 38 (Idaho Public Utilities Commission, May 25, 2004).

[11] Parcell, David C., THE COST OF CAPITAL – A PRACTITIONER'S GUIDE at 115-116 (2010).

[12] *Id.*

[13] Morin, Roger A., NEW REGULATORY FINANCE, at 395 (Public Utilities Reports, Inc. 2006).

equity for the utilities referenced by Mr. Lorton of 10.9%. This book return estimate is an "apples to apples" comparison to the 8.8% ROE recommendation of OUCC.

Q. PLEASE EXPLAIN THE RATIONALE FOR THE ADJUSTMENT TO CONVERT YEAR-END RETURNS TO AVERAGE RETURNS WHEN APPLYING THIS METHOD.

A. The adjustment factor incorporated in my evaluation of expected returns is required because Value Line's reported returns are based on end-of-year book values. Since earnings is a flow over the year while book value is determined at a given point in time, the measurement of earnings and book value are distinct concepts. It is this fundamental difference between a flow (earnings) and point estimate (book value) that makes it necessary to adjust to mid-year in calculating the ROE. Given that book value will increase or decrease over the year, using year-end book value (as Value Line does) understates or overstates the average investment that corresponds to the flow of earnings. To address this concern, earnings must be matched with a corresponding representative measure of book value, or the resulting ROE will be distorted.

The need for this adjustment has been recognized in the financial literature.[14] Similarly, FERC has also cited the necessity to adjust year-end data from Value Line to reflect average values when computing earned rates of return.[15] In its June 2014 decision establishing new policies regarding ROE and confirmed in a recent September 2016 opinion, FERC relied directly on the expected earnings approach, which incorporates the exact same adjustment formula used in my Direct Testimony in this proceeding.[16] Similarly, the VSCC has determined that it is appropriate to rely on

[14] Morin, Roger A., NEW REGULATORY FINANCE, at 305-06 (Public Utilities Reports, Inc. 2006).
[15] *Bangor Hydro-Elec. Co.*, 122 FERC ¶ 61,265 (2008).
[16] Opinion No. 531, 147 FERC ¶ 61,234 at P 146 (2014) and Opinion No. 551, 156 FERC ¶ 61,234 at P 239 (2016).

average book equity, rather than year-end equity, when evaluating earned rates of return.[17]

Q. BASED ON YOUR COMPARISON OF OUCC'S ROE RECOMMENDATION WITH ACCEPTED BENCHMARKS AND, IN LIGHT OF THE PROSPECT FOR HIGHER INTEREST RATES, WHAT DO YOU CONCLUDE?

A. Based on these comparisons, the 8.8% ROE recommendation of Mr. Lorton is below any reasonable outcome. One fundamental standard underlying the regulation of public utilities, as set forth by the Supreme Court's *Bluefield* and *Hope* decisions, requires that the Company must have the opportunity to earn an ROE comparable to contemporaneous returns available from alternative investments of similar risk if it is to maintain its financial flexibility and ability to attract capital.

If the utility is unable to offer a return similar to the returns available from other opportunities of comparable risk, investors will become unwilling to supply capital to the utility on reasonable terms. For existing investors, denying the utility an opportunity to earn what is available from other similar risk alternatives prevents them from earning their cost of capital. Both of these outcomes violate regulatory standards.

Q. WHAT OTHER PITFALLS ARE ASSOCIATED WITH AN ROE THAT FALLS FAR BELOW THOSE AUTHORIZED FOR OTHER UTILITIES?

A. Adopting an ROE for Westfield that is well below the ROEs for utilities with even less investment risk could lead investors to view the Commission's regulatory framework as unsupportive, an outcome that would undermine investors' willingness to support future capital availability for investment in Indiana utilities. Security analysts study regulatory orders in order to advise investors where to invest their money. Moody's

[17] *See, e.g., Case No. PUE-2014-00026,* Final Order at n. 84 (2014).

noted that, "[f]undamentally, the regulatory environment is the most important driver of our outlook."[18] Similarly, S&P concluded that "[t]he regulatory framework/regime's influence is of critical importance when assessing regulated utilities' credit risk because it defines the environment in which a utility operates and has a significant bearing on a utility's financial performance."[19]

Utilities and their investors must lock up large sums of capital and are exposed to many risks over the long time horizon when they invest in utility infrastructure. At the level proposed by Mr. Lorton, the ability of Indiana utilities to attract and retain capital would be severely compromised, leading investors to view the Commission's regulatory framework as unstable.[20] This would have a long-term, chilling effect on investors' willingness to support capital investment in utility infrastructure, not just for Westfield, but for all utilities in the state. On the other hand, if Commission actions instill confidence that the regulatory environment is supportive, investors will provide the necessary capital, even in times of turmoil in the financial markets. In evaluating the Company's ROE in this case, the Commission has an opportunity to show that it recognizes the importance of continuity and a balanced regulatory regime.

Q. DO CUSTOMERS BENEFIT WHEN INVESTORS HAVE CONFIDENCE THAT THE REGULATORY ENVIRONMENT IS STABLE AND CONSTRUCTIVE?

A. Yes. Customers and the service area economy enjoy the benefits that come from ensuring that the utility has the financial wherewithal to take whatever actions are

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[18] Moody's Investors Service, *Regulation Will Keep Cash Flow Stable As Major Tax Break Ends*, INDUSTRY OUTLOOK (Feb. 19, 2014).
[19] Standard & Poor's Corporation, *Key Credit Factors For The Regulated Utilities Industry*, RATINGSDIRECT (Nov. 19, 2013).
[20] Given the higher relative risks associated with Westfield, the ROE recommendation of Mr. Lorton implies an even more punitive ROE for other utilities in Indiana. Alternatively, treating Westfield differently from other similarly situated utilities would raise issues of fairness that would violate accepted regulatory principles.

required to ensure reliable service. In evaluating the Company's ROE in this case, the Commission has an opportunity to show that it recognizes the importance of continuity and a balanced regulatory regime. OUCC's recommended ROE falls outside the norms established for other utilities, fail to meet regulatory standards, and would be viewed negatively by investors.

Q. DOES THE DUKE UNIVERSITY CFO SURVEY CITED BY MR. LORTON (AT 22), PROVIDE ANY MEANINGFUL CORROBORATION OR GUIDANCE AS TO INVESTORS' REQUIRED RATE OF RETURN?

A. No. According to Mr. Lorton, the survey apparently predicts that equity returns for the stock market as a whole will amount to 5.7% over the next 10 years. This figure falls 310 basis points *below* the return that Mr. Lorton recommends for Westfield in this case. Similarly, Mr. Lorton's reference to returns of 5.1% for the Energy industry and 6.8% as the highest expected market return are far out of line with any meaningful benchmark for a fair ROE for a utility.[21] Considering that these returns also fall far below Mr. Lorton's own downward biased cost of equity recommendation for Westfield, they are clearly nonsensical and have no relevance in this case.

Q. ARE YOU IN ANY WAY ALLEGING THAT THIS SURVEY IS INHERENTLY FLAWED?

A. No, not at all. However, a general survey of selected corporate executives does not substitute for a comprehensive analysis of investors' required returns for a specific industry or company like Westfield. The data cited by Mr. Lorton are for the S&P 500 or for the Energy industry over the next 10 years. They certainly do not appear to come from any sort of detailed ROE analysis specific to the gas utility industry (as presented in my Direct Testimony). The link that Mr. Lorton tries to make between

[21] Lorton Direct Testimony at 22.

unknown, untested, and unrelated survey data and the required ROE for a gas utility like Westfield is the very definition of an "apples to oranges" comparison. As such, his conclusions based on this data should be rejected.

Q. DOES THE MARCH 10, 2015 REPORT FROM MOODY'S CITED BY MR. LORTON (AT 3) SUPPORT A DRAMATIC DROP IN WESTFIELD'S ALLOWED RETURN FROM THOSE CURRENTLY BEING AUTHORIZED FOR COMPARABLE UTILITIES?

A. No. The Moody's report discusses only very generally the impacts of a "slow" decline in utilities' authorized ROEs, and how regulators may lower authorized ROEs without harming utilities' cash flow, such as by "targeting depreciation." The Moody's report does not identify a cost of equity for regulated utilities at all, much less discuss a cost of equity for Westfield, which is not even mentioned in the report. In my view, the Moody's report offers no relevant information about a fair ROE in this proceeding, and it certainly does not support the value recommended by Mr. Lorton.

Q. DOES THE MOODY'S REPORT INDICATE THAT EQUITY INVESTORS WOULD NOT BE CONCERNED IF WESTFIELD'S ROE WAS LOWERED TO THE LEVEL RECOMMENDED BY OUCC?

A. No. I believe no one can make such an inference based on this report.[22] First, it is important to note that the primary mission of credit rating agencies like Moody's is to provide *debt holders* with an accurate benchmark of the relative risks of default associated with long-term bonds and other debt securities. As the report cited by Mr. Lorton clearly observes, Moody's evaluation is premised "from the perspective of a probability of a default and expected loss given default."

[22] Moody's Investors Service, "Lower Authorized Equity Returns Will Not Hurt Near-Term Credit Profiles," *Sector In-Depth* (March 2015).

Bondholders, the constituency represented by Moody's, do not share in a utility's net income or profits. As a result, Moody's focus is on cash flows, which are viewed "as a more important rating driver."[23] On the other hand, *equity investors* are intensely focused on the ability of the utility to generate earnings, dividends and growth. This difference in the characteristics and priorities between debt and equity securities gives rise to the considerable distinction in the risks faced by debt holders and equity investors. While a moderate and gradual downturn in ROEs may not pose an immediate threat to the cash flow protection underlying the credit ratings on a utility's debt, it would have an immediate, negative impact on returns to common stockholders.

II. RESPONSE TO MR. LORTON'S ROE ANALYSES

Q. WHAT ROE DID MR. LORTON RECOMMEND FOR WESTFIELD?

A. Mr. Lorton recommended an ROE of 8.8% for the Company. This value comes from his DCF analysis, which is a straight forward application of the constant growth version of the model. He simply adds a 3.1% dividend yield and a growth rate of 5.7% to arrive at his final result of 8.8%. Mr. Lorton does perform a CAPM analysis but the result, at 7.52%, does not appear to be part of his final recommendation. Rather, it appears to form the lower bound of his ROE range and supports his notion that the ROE for the Company could even be lower than his 8.8% recommendation.

A. Discounted Cash Flow Analysis

Q. WHAT ARE YOUR PRIMARY CRITICISMS OF MR. LORTON'S APPLICATION OF THE DCF MODEL?

A. There are at least three fundamental flaws in the DCF analysis conducted by Mr. Lorton. First, he relied on historical growth rates when it is clear that the DCF

[23] *Id.*

approach calls for measuring investors' forward-looking expectations. Second, he relied on growth rates in dividends and book value when it is clear that investors give considerably more weight to analysts' earnings projections in forming their expectations for future growth. Finally, he failed to evaluate the reasonableness of the individual cost of equity estimates produced by his application of the DCF model. As a result, he included data that result in illogical cost of equity estimates.

Q. DO YOU BELIEVE THAT HISTORICAL TRENDS IN EARNINGS, DIVIDENDS, OR BOOK VALUE PROVIDE A MEANINGFUL GUIDE TO INVESTORS' EXPECTATIONS?

A. No. As discussed at length in my Direct Testimony (at 27-30), it is investors' future expectations – and not actual, historical results – that determine the current price they are willing to pay for commons stocks. If past trends are to be representative of investors' expectations for the future, then the historical conditions giving rise to these growth rates should be expected to continue. That is clearly not the case for utilities, which have experienced declining dividend payouts, earnings pressure, and, in certain cases, significant write-offs.

While past conditions for utilities serve to depress historical growth rates, they are not representative of long-term expectations for the utility industry. Moreover, to the extent historical trends for utilities are meaningful, they are also captured in projected growth rates, such as those published by Value Line and Zacks Investment Research ("Zacks"), since securities analysts also routinely examine and assess the impact and continued relevance (if any) of historical trends.

Q. IS THE DOWNWARD BIAS INHERENT IN HISTORICAL GROWTH RATES FOR GAS UTILITIES EVIDENT IN MR. LORTON'S DCF ANALYSIS?

A. Yes, it is. For example, consider the historical dividend per share ("DPS") growth measures displayed on Attachment BEL-6, page 3, of Mr. Lorton's testimony. As

shown there, six of the sixteen individual historical DPS growth rates for the companies in the proxy group fall at or below 3.0%. Combining a growth rate of 3.0% with Mr. Lorton's dividend yield of 3.1% (Attachment BEL-6, page 2) implies a DCF cost of equity of 6.1%, which is less than 170 basis points above the most recent six month average yield on triple-B utility bonds,[24] and falls below near-term forecasts.[25] As a result, these values provide no meaningful information regarding investors' expectations and requirements. Clearly, any consideration of Mr. Lorton's historical dividend growth measure results in a built-in downward bias to his DCF conclusions.

Q. BEYOND HIS MISGUIDED RELIANCE ON HISTORICAL MEASURES, MR. LORTON ALSO CONSIDERS GROWTH IN DIVIDENDS AND BOOK VALUE IN HIS DCF ANALYSIS. ARE THESE VALID CONSIDERATIONS?

A. No. As I discussed in my Direct Testimony (at 27-29), evidence supports the contention that investors rely primarily on earnings per share ("EPS") growth projections in forming their 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. Future trends in EPS, which provide the source for future dividends and ultimately support share prices, play a pivotal role in determining investors' long-term growth expectations. 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

[24] The average triple-B utility bond yield for the six month period ending September 2016, was 4.41% as reported by Moody's Analytics.
[25] See Table 4 to my Direct Testimony.

in EPS is far more influential than trends in DPS. 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].[26]

The availability of projected EPS growth rates also is key to investors relying upon this measure as compared to future trends in DPS. Apart from Value Line, investment advisory services do not generally publish comprehensive DPS growth projections, and this scarcity of dividend growth rates relative to the abundance of EPS forecasts attests to their relative influence. The fact that analyst EPS growth estimates are routinely referenced in the financial media and in investment advisory publications implies that investors use them as a primary basis for their expectations. As observed in *New Regulatory Finance*:

> The sheer volume of earnings forecasts available from the investment community relative to the scarcity of dividend forecasts attests to their importance. The fact that these investment information providers focus on growth in earnings rather than growth in dividends 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 than dividends.*[27] [Emphasis added]

While I did not rely solely on EPS projections in applying the DCF model,[28] my evaluation clearly supports greater reliance on EPS growth rate projections than other alternatives.

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[26] Morin, Roger A., "New Regulatory Finance," *Public Utilities Reports, Inc.* at 298 (2006).
[27] *Id.* at 302-303.
[28] As discussed in my Direct Testimony, I also examined the "br+sv", sustainable growth rates for the companies in my proxy groups.

Q. HAVE OTHER REGULATORS RECOGNIZED THAT ANALYSTS' EPS GROWTH RATE ESTIMATES ARE A MORE MEANINGFUL GUIDE TO INVESTORS' EXPECTATIONS THAN GROWTH IN DIVIDENDS?

A. Yes. FERC has expressed a clear preference for projected EPS growth rates from IBES in applying the DCF model to estimate the cost of equity for both electric and natural gas pipeline utilities, and has expressly rejected reliance on other sources.[29] FERC concluded that securities analysts' growth rates published by IBES "are the best available evidence of the short-term growth rates expected by the investment community," and are well known and widely used by investors.[30]

Similarly, the Kentucky Public Service Commission has affirmed the primacy of analysts' projections in applying the DCF model, concluding that analysts' projections are "more compelling" in forming investors' expectations. [31] The Public Utility Regulatory Authority of Connecticut has also noted that "there is not growth in DPS without growth in EPS," and concluded that securities analysts' growth projections have a greater influence over investors' expectations and stock prices.[32]

Q. DO YOU HAVE OTHER CONCERNS WITH MR. LORTON'S CONSTANT GROWTH DCF ANALYSIS?

A. Yes, Mr. Lorton's decision to average all individual growth rates together, and then compute a single DCF estimate for the entire proxy group, presents another serious flaw in the OUCC's DCF analysis. This approach ignores the reality that each growth rate represents a stand-alone estimate of investors' future expectations, and each value should be evaluated on its own merits. The fact that an average of several growth

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[29] *See, e.g., Midwest Independent Transmission System Operator, Inc.*, 99 FERC ¶ 63,011 at para. 53 (2002); *Golden Spread Elec. Coop. Inc.*, 123 FERC ¶ 61,047 (2008).
[30] *Kern River Gas Transmission Co.*, 126 FERC ¶ 61,034 at para. 121 (2009) (footnote omitted).
[31] *Order*, Case No. 2009-00548, at 30-31 (Jul. 30, 2010).
[32] *Decision*, Docket No. 13-02-20 (Sept. 24, 2013).

rates might produce a DCF estimate that could be considered reasonable does not absolve the need to evaluate each underlying growth rate separately.

For example, consider a utility with a dividend yield of 3.5% and three hypothetical growth estimates of 0.0%, 6.5%, and 14.0%. Under the OUCC's method, the DCF estimate would be computed by adding the 6.8% average of the three individual growth rates to the dividend yield, resulting in a cost of equity estimate of 10.3%. The problem with this method is that it disguises the fact that two of the underlying growth rates – 0.0% and 14.0% – do not provide a meaningful guide to investors' expectations. Rather than averaging the good with the bad, each implied cost of equity estimate (in this example, 3.5%, 10.0%, and 17.5%) should be evaluated on a stand-alone basis.[33] Mr. Lorton simply calculated the average of the individual growth rates with no consideration for the reasonableness of the underlying data. Because Mr. Lorton failed to perform this essential step, his DCF analysis included individual growth rates that do not reflect investors' expectations. Therefore, his results are biased downward.

Q. CAN YOU SHOW THE DOWNWARD BIAS IN MR. LORTON'S CONSTANT GROWTH ANALYSIS?

A. Yes. For example, Mr. Lorton reports a 10-year historical dividend growth rate of 2.0% for Atmos Energy.[34] Combining this growth rate with the OUCC's corresponding 12-month dividend yield of 2.4%[35], and adjusting for a half-year's growth, results in a cost of equity estimate for Atmos Energy of 4.4%. Likewise, Mr. Lorton reports a five-year historical book value growth rate of 2.5% for WGL Holdings. Combining this growth rate with OUCC's corresponding dividend yield of

[33] The implied cost of equity estimates are calculated as the sum of the dividend yield (3.5%) and the respective growth rates (0.0%, 6.5%, and 14.0%).
[34] Lorton Attachment BEL-6, page 3.
[35] *Id.* page 2.

3.0%, and again adjusting for a half year's growth, results in a cost of equity estimate of 5.5%. These implied costs of equity do not sufficiently exceed yields on current and projected public utility bonds. As a result, these illogical growth measures should have been removed from Mr. Lorton's constant growth DCF analysis.

Q. WHAT IS THE IMPACT OF ADJUSTING MR. LORTON'S DCF RESULTS TO REMOVE ALL ILLOGICAL ROE OUTCOMES THAT ARE HIDDEN IN HIS AVERAGING APPROACH?

A. Rather than lump all of the data into group averages that camouflage illogical results, in Attachment AMM-R3 I break out the discrete DCF calculations for each company in his proxy group. The individual company dividend yields are shown on page 1 of this attachment, with the corresponding growth rates being shown on page 2. Finally, on page 3, I combine the dividend yields and growth rates and show the individual DCF estimates for each company in the proxy group. The results shown on page 3 of Attachment AMM-R3 reveal the unreasonableness of many of his growth rate estimates. Of the 72 total outcomes (nine growth rate values for eight companies), 24 of them fall below 7.0%. Ten of the ROE results are between 6% and 7%, ten of the results are between 5% and 6%, and four of the results are less than 5%. These results are simply below any rational expectation for a reasonable ROE under current capital market conditions and it is inconceivable that investors are not requiring a substantially higher rate of return for holding common stock.

As I stated in my Direct Testimony, it is essential that model outcomes pass basic tests of reasonableness and economic logic. Accordingly, DCF estimates that are implausibly low or high should be eliminated when evaluating the results of this method. Since the rate of return required on equity is significantly higher than that required on debt, DCF results that are not sufficiently higher than the yield available on less risky utility bonds must be removed.

On page 3 of Attachment AMM-R3, I have highlighted all ROE results below 7.0%. This is the same threshold I applied in my Direct Testimony. The average and midpoint values, excluding the highlighted outliers, are provided for each growth rate source. These revised results reveal a much different picture than the one presented by Mr. Lorton. The average results range from 9.4% to 10.6% and the midpoint values range from 9.6% to 10.5%. In this light, the extreme nature of Mr. Lorton's 8.8% ROE recommendation is unmistakable.

Q. HAVE YOU FOUND OTHER TECHNICAL PROBLEMS WITH MR. LORTON'S DCF ANALYSIS?

A. Yes. On page 2 of attachment BEL-6, Mr. Lorton uses a growth rate of 5.6% in making the half-year adjustment to his dividend yield. However, on page 1 of that attachment, Mr. Lorton concludes that 5.7% is the proper growth rate for use in the DCF formula. This is the growth rate that he should have used in making the half-year adjustment to his dividend yield.

B. Capital Asset Pricing Model

Q. WHAT IS THE FUNDAMENTAL PROBLEM ASSOCIATED WITH THE APPROACH THAT MR. LORTON USED TO APPLY THE CAPM?

A. Like the DCF model, the CAPM is an *ex-ante,* or forward-looking model based on expectations of the future. As a result, in order to produce a meaningful estimate of investors' required rate of return, the CAPM must be applied using data that reflects the expectations of actual investors in the market. However, the CAPM application presented by Mr. Lorton was based entirely on *historical* – not projected – rates of return.[36] *Morningstar has* recognized the primacy of current expectations:

[36] Lorton Direct Testimony at 18: "I calculated long-term market risk premiums based on historical data from *Stocks, Bonds, Bills and Inflation, 2015 Yearbook*, by Morningstar, Inc. (formerly Ibbotson Associates). The Morningstar database covers the period between 1926 and 2014."

> The cost of capital is always an expectational or forward-looking concept. While the past performance of an investment and other historical information can be good guides and are often used to estimate the required rate of return on capital, *the expectations of future events are the only factors that actually determine cost of capital.*[37]

Because he failed to look directly at the returns investors are currently requiring in the capital markets, the 7.52% historical CAPM estimate developed by Mr. Lorton falls woefully short of investors' current required rate of return.

Q. IS THERE GOOD REASON TO ENTIRELY DISREGARD THE RESULTS OF MR. LORTON'S HISTORICAL CAPM ANALYSIS?

A. Yes. Applying the CAPM is complicated by the impact of the recent capital market turmoil and Federal Reserve policies on investors' risk perceptions and required returns. As the Staff of the Florida Public Service Commission concluded regarding historical applications of the CAPM:

> [R]ecognizing the impact the Federal Government's unprecedented intervention in the capital markets has had on the yields on long-term Treasury bonds, staff believes models that relate the investor-required return on equity to the yield on government securities, such as the CAPM approach, produce less reliable estimates of the ROE at this time.[38]

Similarly, in *Orange & Rockland Utilities*, FERC determined that CAPM methodologies based on historical data were suspect because whatever historical relationships existed between debt and equity securities may no longer hold.[39] FERC concluded that historical risk premiums are downward biased given recent trends of near-historic low yields for Treasury bonds,[40] and has endorsed the use of the same

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[37] Morningstar, *Ibbotson SBBI, 2013 Valuation Yearbook*, at 21 (emphasis added).
[38] *Staff Recommendation for Docket No. 080677-EI - Petition for increase in rates by Florida Power & Light Company*, Docket No. 080677-E1, at 280 (Dec. 23, 2009).
[39] *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).
[40] *See New York Independent System Operator, Inc.*, 146 FERC ¶ 61,043 at P 105 (2014).

application of the CAPM presented in my Direct Testimony to overcome the failings of the historical approach exemplified by Mr. Lorton's analysis.[41]

The CAPM cost of common equity estimate is calibrated from investors' required risk premium between Treasury bonds and common stocks. In response to heightened uncertainties, investors have repeatedly sought a safe haven in U.S. government bonds. Coupled with the Federal Reserve's stimulus policies, this "flight to safety" has pushed Treasury yields significantly lower. This distortion not only impacts the absolute level of the CAPM cost of equity estimate, but also affects estimated risk premiums. Economic logic would suggest that investors' required risk premium for common stocks over Treasury bonds has increased.

Meanwhile, the backward-looking approach used by Mr. Lorton incorrectly assumes that investors' assessment of the relative risk differences, and their required risk premium, between Treasury bonds and common stocks is constant and equal to some historical average. As the Commission has previously noted:

> Relying on historic market returns introduces some highly questionable assumptions, which must be taken on faith. Specificlaly [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. Mr. Brennan provided no support for either of these assumptions. Public Witness Kahal explained why these assumptions are unlikely to hold true.[42]

At no time in recent history has the fallacy of this assumption been demonstrated more concretely. The broken link between investors' current expectations and requirements and historical risk premiums is particularly relevant during periods of heightened

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[41] *See,* Opinion No. 531-B, 150 FERC ¶ 61,165 at P 109 (2015); Opinion No. 551, 156 FERC ¶ 61,234 at P 165 (2016).
[42] *Indiana Michigan Power Co.*, Cause No. 38728 (Aug. 24, 1990).

uncertainty and rapidly changing capital market conditions, such as those experienced recently.[43]

Q. MR. LORTON INCLUDES YIELDS ON UTILITY BONDS IN SETTING THE RISK-FREE RATE COMPONENT OF HIS CAPM ANALYSIS. IS THIS APPROPRIATE?

A. No. In my 35 years of experience as a rate of return analyst, I have never seen this approach taken in applying the CAPM, and Mr. Lorton granted that yields on public utility bonds do not represent a risk-free interest rate.[44] It seems to me that Mr. Lorton fell into a trap. If he had used Treasury bond yields as the basis for his risk-free rate, as all rate of return analysts do and as he has done in the past,[45] the ROE outcome from his historical CAPM analysis would have been so low that it would have had even less credibility. So, in an attempt to make his historical approach believable, he had to inject utility bond yields into the determination of the risk-free rate. As he puts it, "bond yields continue to fall and the addition of 30 year Treasuries and Utility bonds allow me more flexibility."[46]

To me, it is clear that Mr. Lorton could not obtain a legitimate outcome from his historical CAPM analysis, so he exercised "flexibility" to essentially create a number that suited him better. This is not acceptable rate of return analysis. There are several problems with using utility bond yields in setting the CAPM risk-free rate.

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[43] *See, e.g.,* Opinion No. 531, at P 158 (2014), finding that, "the capital market conditions since the 2008 market collapse and the record in this proceeding have shown that there is not a direct correlation between changes in U.S. Treasury bond yields and changes in ROE."

[44] Response to Request No. 1-7. Mr. Lorton further clarified that he "is not aware of the Commission articulating in its orders that it based cost of equity on CAPM results that were derived using public utility bond yields as the risk free rate." Response to No. 1-6.

[45] He says that "in previous years I have reviewed only 5, 10 and 20 year constant maturity Treasury bonds to derive my CAPM risk free rate" (Lorton Direct Testimony at 4) and "[Y]ields on U.S. Treasury Bonds are commonly used to establish the risk-free rate of return in CAPM and other risk premium analyses." (Lorton Direct Testimony at 23).

[46] Lorton Direct Testimony at 4.

One, such yields are obviously not "risk-free." Unlike U.S. Treasury debt which is backed by the full faith and credit of the U.S. government, utility bonds carry risks related to their customer mix and demand levels, competition from other energy sources, changes in weather, fluctuations in commodity prices, regulatory outcomes, facility aging and obsolescence, changes in technology, and on and on. The theory supporting the CAPM clearly calls for a "risk-free" rate in order for the model to function properly. By introducing risky utility bond yields into the process, Mr. Lorton is violating the theory behind the CAPM, rendering his approach meaningless.

Another flaw in his approach is that, by incorporating yields on public utility bonds, Mr. Lorton breaks the link between the risk-free rate and the market risk premium. On page 15 of his Direct Testimony, Mr. Lorton lays out the CAPM formula as:

$$K = R_f + \beta * (R_m - R_f)$$

where: R_f = Risk-free rate of return,
R_m = Market equity return,
$(R_m - R_f)$ = Market equity risk premium.

From this formula, it is easy to see that the same risk-free rate that is the first term in the equation is also part of the calculation of the market equity risk premium. In other words, there is a link between the risk-free rate and the calculation of the market equity risk premium. In Mr. Lorton's approach, this relationship is broken. His risk-free rate considers the yield on risk utility bonds, but his market risk premium (taken from Morningstar, Inc.) does not. The Morningstar market risk premium is based on data from the S&P 500 for the market equity return and yields on U.S. Treasury bonds for the risk-free rate. They absolutely do not consider utility bond yields as part of the risk-free rate. Mr. Lorton has created an improper mismatch in his CAPM data, casting further doubt on the reliability of his results.

Q. WHAT WOULD MR. LORTON'S CAPM RESULTS HAVE BEEN HAD HE CONSIDERED 20-YEAR TREASURY BOND YIELDS AS THE RISK-FREE RATE, AS HE HAS DONE IN THE PAST?

A. The six month average yield (through September 2016) for the 20-year Treasury bond has been 2.03%. Substituting this rate into the CAPM analysis that Mr. Lorton shows on Attachment BEL-7, page 1, in place of his own manufactured figure 3.75%, produces a CAPM result of 5.83%.[47] On its face, this result discredits the historical CAPM approach used by Mr. Lorton.[48] His attempt to be "flexible" and manipulate the risk-free rate to obtain a higher result should be rejected, along with his CAPM results.

Q. DID MR. LORTON FAIL TO CONSIDER OTHER IMPORTANT FACTORS IN APPLYING THE CAPM?

A. Yes. As noted in my Direct Testimony,[49] empirical research indicates that the CAPM does not fully account for observed differences in rates of return attributable to firm size. To account for this, *Morningstar* has 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. The size adjustment, which is documented by the primary source Mr. Lorton used to apply the CAPM,[50] corrects for an observed inability of the CAPM to fully reflect the risks perceived by investors. Because he ignored this fundamental relationship, Mr. Lorton's results are downward biased.

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[47] Risk-free rate of 2.03% plus beta of 0.73 multiplied by risk premium of 5.20% is 5.83%.
[48] Mr. Lorton granted that applying the historical CAPM approach in accordance with its assumptions "would have produced anomalously low results." Response to No. 1-5.
[49] McKenzie Direct Testimony at 38-39.
[50] Lorton Direct Testimony at 18: "I calculated long-term market risk premiums based on historical data from *Stocks, Bonds, Bills and Inflation, 2015 Yearbook*, by Morningstar, Inc. (formerly Ibbotson Associates)."

Mr. Lorton also places significant weight on a 1992 study by Annie Wong,[51] but a closer examination of this research reveals that it is largely inconclusive, and inconsistent with the CAPM. In fact, her results demonstrate no material difference between utilities and industrial firms with respect to size premiums, and her study finds no significant relationship between beta and returns, which contradicts modern portfolio theory and the CAPM. A more recent study published in the Quarterly Review of Economics and Finance reconsiders Wong's evidence and concludes that "new information . . . indicates there is a small firm effect in the utility sector."[52]

Q. WAS MR. LORTON JUSTIFIED IN RELYING ON GEOMETRIC MEANS AS A MEASURE OF AVERAGE RATE OF RETURN WHEN APPLYING THE HISTORICAL CAPM?[53]

A. No. While both the arithmetic and geometric means are legitimate measures of average return, they provide different information. Each may be used correctly, or misused, depending upon the inferences being drawn from the numbers. The geometric mean of a series of returns measures the constant rate of return that would yield the same change in the value of an investment over time. The arithmetic mean measures what the expected return would have to be each period to achieve the realized change in value over time.

In estimating the cost of equity, the goal is to replicate what investors expect going forward, not to measure the average performance of an investment over an assumed holding period. When referencing realized rates of return in the past, investors consider the equity risk premiums in each year independently, with the

[51] Lorton Direct Testimony at 20.
[52] Zepp, Thomas M., "Utility stocks and the size effect—revisited," Quarterly Review of Economics and Finance, 43 (2003) 578-582.
[53] Lorton Attachment BEL-7, page 1.

arithmetic average of these annual results providing the best estimate of what investors might expect in future periods. *New Regulatory Finance* had this to say:

> The best estimate of expected returns over a given future holding period is the arithmetic average. *Only arithmetic means are correct for forecasting purposes and for estimating the cost of capital.* There is no theoretical or empirical justification for the use of geometric mean rates of returns as a measure of the appropriate discount rate in computing the cost of capital or in computing present values.[54]

Similarly, *Morningstar* concluded that:

> For use as the expected equity risk premium in either the CAPM or the building block approach, the arithmetic mean or the simple difference of the arithmetic means of stock market returns and riskless rates is the relevant number. ... The geometric average is more appropriate for reporting past performance, since it represents the compound average return.[55]

Q. WHAT DOES THIS IMPLY WITH RESPECT TO MR. LORTON'S CAPM ANALYSES?

A. For a variable series, such as stock returns, the geometric average will *always* be less than the arithmetic average. Accordingly, Mr. Lorton's reference to geometric average rates of return provides yet another element of built-in downward bias.

[54] Morin, Roger A., "New Regulatory Finance" *Public Utilities Reports, Inc.* (2006) at 116-117, (emphasis added).
[55] Morningstar, *Ibbotson SBBI 2013 Valuation Yearbook* at 56.

C. Other ROE Issues

Q. MR. LORTON ARGUES THAT NO CONSIDERATION SHOULD BE GIVEN TO THE COMPANY'S SMALL SIZE IN SETTING ITS ROE.[56] DO YOU AGREE?

A. No. As I stated in my Direct Testimony, a firm's relative size has important implications for investors in their evaluation of alternative investments, and it is well established that smaller firms are more risky than larger firms.[57]

Q. ONE REASON GIVEN BY MR. LORTON FOR NOT MAKING A SIZE ADJUSTMENT IS THAT REGULATION REDUCES THE FINANCIAL RISKS FACED BY THE COMPANY?[58] IS THIS A VALID ARGUMENT?

A. No, Mr. Lorton is mixing up two arguments. The first argument, that regulation reduces the financial risks faced by the Company, is not relevant. This is because all of the proxy companies relied on by Mr. Lorton (and myself) have highly regulated operations. By using the proxy companies to set Westfield's ROE, regulation has already been accounted for. No additional adjustment to the Company's ROE is necessary to account for the presence of regulation.

The second argument, that the Company is much smaller than the companies in the proxy group and thus possesses higher relative risk, is a legitimate one. As I pointed out in my Direct Testimony, Westfield has total assets of approximately $11.4 million, while the average market capitalization for the firms in the proxy group is $3.0 billion.[59] This size difference deserves some consideration in the ROE estimation process. And while Mr. Lorton claims that the Commission has found a 400 basis-point size adjustment to be "questionable,"[60] that is not what I have proposed in this

[56] Lorton Direct Testimony at 20-22.
[57] McKenzie Direct Testimony at 18-21.
[58] Lorton Direct Testimony at 20.
[59] McKenzie Direct Testimony at 18.
[60] Lorton Direct at 21.

case. Rather, I have recommended that the Commission adopt an ROE at the upper end of the range that is indicated for large, publicly traded gas utilities, which represents a modest acknowledgement of the higher returns required to compensate for Westfield's relative size. One thing is clear, however, and that is that the size risk faced by the Company is not offset by the fact that it is regulated, since that risk has already been accounted for by referencing a proxy group of other regulated gas utilities.

Q. MR. LORTON CITES THE COMPANY'S NORMAL TEMPERATURE ADJUSTMENT ("NTA") MECHANISM AND INFERS THAT THIS REDUCES ITS RISK AND, THEREFORE, OFFSETS ITS SMALL SIZE RISK. HOW DO YOU RESPOND?

A. This argument is similar in nature to Mr. Lorton's "regulatory risk" argument I discussed above, and my rebuttal to this argument is the same. The proxy companies used to set Westfield's ROE all have a broad array of regulatory mechanisms, including revenue decoupling, weather normalization, and factors that provide for recovery of bad debt expenses, pension costs, infrastructure investments and energy efficiency costs, just to name a few. Because of this, "regulatory mechanism" risk is built into the ROE recommended for Westfield and no further adjustment, either up or down, is necessary.

Q. MR. LORTON CONTENDS THAT "THE APPLICABILITY OF A SMALL STOCK ADJUSTMENT TO REGULATED PUBLIC UTILITIES IS QUESTIONABLE."[61] HOW DO YOU RESPOND?

A. I disagree with his claim. Utility common stocks are included in the sample of firms used to quantify the size adjustments published by Duff & Phelps (formerly

[61] Lorton Direct Testimony at 20.

Morningstar) and there is no credible basis to conclude that utilities are immune from this well-documented relationship. For example, a study reported in *Public Utilities Fortnightly* noted that the betas of small companies do not fully account for the higher realized rates of return associated with small company stocks:

> The smaller deciles show returns not fully explainable by the CAPM. The difference in risk premium (realized versus CAPM) grows larger as one moves from the largest companies in decile 1 to the smallest in decile 10. The difference is especially pronounced for deciles 9 and 10, which contain the smallest companies.[62]

The study went on to conclude that a publicly traded utility with a market capitalization of $1.0 billion would require a small company premium of approximately 130 basis points above the rate of return for larger firms. As FERC concluded in adopting a size adjustment when using the CAPM to estimate the cost of equity for electric utilities, "[t]his type of size adjustment is a generally accepted approach to CAPM analyses."[63]

Q. DID MR. LORTON CONSIDER OTHER "CHECKS OF REASONABLENESS" IN FORMING HIS ROE OPINIONS?

A. Beyond his flawed application of the CAPM, Mr. Lorton did not provide any meaningful checks of reasonableness on his DCF result. This approach is in stark contrast to my ROE analysis where I considered reasonableness checks such as a forward-looking CAPM, the ECAPM, a bond yield plus risk premium approach, an Expected Earnings approach, and a Non-Utility DCF approach.

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[62] Annin, Michael, "Equity and the Small-Stock Effect", Public Utilities Fortnightly (Oct. 15, 1995), at 43.
[63] *Martha Coakley, et al.,* Opinion No. 531-B, 150 FERC ¶ 61,165 at para. 117 (2015).

Q. HOW COULD COMPARISONS TO THE RESULTS FROM OTHER ROE ESTIMATION METHODS HAVE SIGNALED TO MR. LORTON THAT HIS DCF RESULTS WERE OUT OF THE RANGE OF REASONABLENESS?

A. Current capital market conditions continue to reflect the impact of unprecedented policy measures taken in response to recent dislocations in the economy and financial markets, and are not representative of what is likely to prevail over the near-term future. As a result, the DCF model may be affected by potentially unrepresentative financial inputs. The Commission has previously expressed reservations regarding blind adherence to the results of the DCF model, concluding that:

> There are three principal reasons for our unwillingness to place a great deal of weight on the results of any DCF analysis. One is the reason given by Mr. Brennan: the failure of the DCF model to conform to empirical reality. The second is the undeniable fact that rarely if ever do two expert witnesses agree on the terms of a DCF equation for the same utility -- for example, as we shall see in more detail below, projections of future dividend cash flow and anticipated price appreciation of the stock can vary widely. And, the third reason is that the unadjusted DCF result is almost always well below what any informed financial analyst would regard as defensible, and therefore requires an upward adjustment based largely on the expert witness' judgment. In these circumstances, we find it difficult to regard the results of a DCF computation as any more than suggestive.[64]

In this light, it is important to consider alternatives to the DCF model. As shown in Attachment AMM-2 to my Direct Testimony, risk premium models (like the CAPM, ECAPM and Utility Risk Premium approaches) all show estimated ROE results in the 10% to 11% range. My Expected Earnings approach corroborated these outcomes. As I mentioned earlier in this rebuttal testimony, the Expected Earnings approach (as shown in Attachment AMM-R2) using Staff's proxy group implies an average ROE of 10.9%. A simple examination of alternative methodologies such as

[64] *Indiana Michigan Power Co.*, Cause No. 38728 (Aug. 24, 1990).

these would have revealed to Mr. Lorton that his 8.8% recommendation was below any basic range of reasonableness.

Q. HAVE SUCH ALTERNATIVE ROE METHODS BEEN ACCEPTED BY OTHER REGULATORS?

A. Yes. In its recent Opinion 551, issued September 28, 2016, FERC reiterated its support for several of the very same reasonableness checks that I referenced above and employed in my Direct Testimony. For example, FERC determined:

> For the reasons discussed below, we conclude that the record in this proceeding demonstrates the presence of unusual capital market conditions, such that we have less confidence that the central tendency of the DCF zone of reasonableness (the midpoint in this case) accurately reflects the equity returns necessary to meet *Hope* and *Bluefield*.[65]
>
> Rather, that finding supports a consideration of other cost of equity estimation methodologies in determining whether mechanically setting the ROE at the central tendency satisfies the capital attraction standards of *Hope* and *Bluefield*.[66]
>
> We therefore find it necessary and reasonable to consider additional record evidence, including evidence of alternative methodologies and state-commission approved ROEs, to gain insight into the potential impacts of these unusual capital market conditions on the appropriateness of using the resulting midpoint.[67]

The "alternative methodologies" referred to above include the very same CAPM, utility risk premium, and expected earnings approaches that I utilize in my Direct Testimony.

[65] Opinion No. 551, 156 FERC ¶ 61,234 at P 119 (2016).
[66] *Id.* at P 120.
[67] *Id.* at P 122.

Q. MR. LORTON REPEATEDLY REFERENCES 10.4% AS THE ROE THAT THE COMPANY WAS AUTHORIZED IN ITS LAST CASE.[68] IS THIS ACCURATE?

A. The Company's ROE was actually set at 10.1% in its last case.[69]

D. Capital Structure

Q. WHAT CAPITAL STRUCTURE DOES THE COMPANY USE IN THIS CASE?

A. According to the Direct Testimony of Company witness Sabine E. Karner, the Company's actual capital structure consists of 99.18% common equity and 0.82% customer deposits.

Q. WHAT CAPITAL STRUCTURE WAS APPROVED IN THE COMPANY'S LAST CASE?

A. In the final order from Cause No. 43624, the approved capital structure consisted of 98.56% common equity, 1.25% customer deposits, and 0.18% deferred income taxes.[70] This capital structure is very similar to the one proposed by the Company in this case.

Q. WHAT CAPITAL STRUCTURE DOES MR. LORTON RECOMMEND IN THIS CASE?

A. Mr. Lorton appears to accept the Company's actual capital structure. He acknowledges that the weighted average cost of capital that results from applying his recommended ROE to Westfield's actual capital structure is reasonable.[71] He does claim that "Petitioner's capital structure does not reflect the economic reality of the required dividend payments"[72] but that "while I did not allow this relationship to affect

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[68] Lorton Direct Testimony at 2 and 3.
[69] *Westfield Gas Corporation*, Cause No. 43624 (Mar. 10, 2010) at 25.
[70] *Id.*
[71] Lorton Direct Testimony at 40.
[72] *Id.*

the results I reached in my analysis and my estimated cost of equity, it does provide further support for these estimates being reasonable."[73]

Q. DOES THE FACT THAT WESTFIELD IS OWNED BY CITIZENS WESTFIELD UTILITIES, LLC ("CWU") IN ANY WAY ALTER THE STANDARDS THAT UNDERLIE THE DETERMINATION OF A FAIR RATE OF RETURN FOR THE COMPANY?

A. No. While Westfield has no publicly traded common stock and all equity capital is ultimately provided from CWU or retained earnings, this does not change the standards governing the determination of a fair rate of return for the Company. Ultimately, the rate of return, including the capital structure, should be reflective of other risk-comparable alternatives. As the Supreme Court noted in *Hope,* "the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks."[74] At the time of the rate case at issue in the Supreme Court's decision, Hope Natural Gas Company ("Hope") was a subsidiary of Standard Oil Company of New Jersey (the predecessor of ExxonMobil).[75] The standard of a fair rate of return articulated in the *Hope* case did not relate to the parent, but to the utility. Hope was the entity that undertook the utility obligations and the benchmark for the adequacy of returns was the end result for the utility, not for Standard Oil.

The logic underlying the Supreme Court's determination is consistent with financial principles, which hold that the required rate of return is determined by the risk of the investment, and not by the manner in which the investment is financed. In

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[73] *Id.* at 41.
[74] *Hope*, 320 U.S. 603.
[75] John D. Rockefeller's Standard Oil of New Jersey formed Hope in 1898. Standard Oil's natural gas subsidiaries (including Hope) were eventually spun off as Consolidated Natural Gas Company, which was ultimately acquired by Dominion Resources, Inc. in 2000.

other words, the cost of capital is dependent upon the *use* of the funds and not the *source* of the funds. As noted in *New Regulatory Finance,* "...an investment's required return depends on its particular risks."[76]

Q. IS IT REASONABLE FOR A SMALL UTILITY TO MAINTAIN A HIGH EQUITY RATIO?

A. Yes. As discussed in my Direct Testimony, small utilities such as Westfield do not have ready access to the public capital markets in which to sell debt securities and other sources of additional debt capital may also be limited. Although in some cases the utility may be able to place debt privately with insurance companies or pension funds, these sources may not always be available. And while banks may provide another potential source of debt financing, their loans are often relatively short-term and carry a variable interest rate tied to the prime rate. Moreover, small utilities face greater uncertainties than do their larger counterparts, which also supports a conservative financial posture. The facts and circumstances of this case support the use of Westfield's actual capital structure, with no reference to its parent company.

III. RESPONSE TO MR. LORTON'S RFV RECOMMENDATION

Q. ARE THERE AREAS OF AGREEMENT BETWEEN YOU AND MR. LORTON WITH RESPECT TO THE RFV?

A. Yes. Mr. Lorton and I are in agreement on the basic, conceptual issue concerning the impact of inflation in determining the RFV. For example, on page 32 of his testimony Mr. Lorton opines that, "Inflation should not be included in both the rate base and the fair rate of return." This is entirely consistent with the explanation presented on page 63 of my Direct Testimony, which notes that under current cost ratemaking, the rate base is adjusted to reflect changing price levels while the RFV reflects only the real

[76] Roger A. Morin, "New Regulatory Finance," *Public Utilities Reports, Inc.* at 528 (2006).

rent for the use of the capital. I also agree with Mr. Lorton that it would be inappropriate to apply a nominal ROE (i.e., a real rate of return plus an inflation premium) to a rate base that has been adjusted to account for the impact of historical inflation.

Q. WHERE DO YOU AND MR. LORTON PART COMPANY?

A. While Mr. Lorton acknowledges that inflation should be removed from the return on original cost rate base (ROE) in setting the RFV, he maintains that the measure of inflation that should be removed is the historical rate and not the expected rate. I strongly disagree with Mr. Lorton on this point.

Q. WHAT INFLATION MEASURE IS BUILT INTO THE ROE RECOMMENDATIONS PROPOSED IN THIS CASE?

A. The cost of equity estimation process is undoubtedly a forward-looking process. Both Mr. Lorton and I apply quantitative methods based on current capital market data that is based on investors' future expectations. In describing the DCF model, for example, Mr. Lorton recognizes that:

> The underlying principle of the "Constant Growth" DCF Model is that the price of a firm's stock reflects the *expected* cash flows (i.e., dividends) associated with that stock, discounted at a rate equal to the cost of equity capital.[77] [Emphasis in original]

In estimating the ROE in this proceeding, what matters is investors' expectations going forward. Built into investors' return expectations is their outlook for future risks, which includes an assessment of the impact that future inflation will have on their ability to earn the required real rent for the capital they provide to the utility. Actual inflation rates experienced during some past period, whether higher or lower, are irrelevant in this determination. As Mr. Lorton granted, "investors may be

[77] Lorton Direct Testimony at 11.

considered to base the cost of equity on their perceptions of future risks, returns, and economic conditions."[78] So, by Mr. Lorton's own definition, the ROEs recommended in this case contain an inflation component based on expectations for the future. This is true of my ROE estimate and that of Mr. Lorton.

Q. IS IT WELL UNDERSTOOD THAT THE INFLATION RATE CONSIDERED BY INVESTORS WHEN DETERMINING THEIR REQUIRED ROE IS PROSPECTIVE, AND NOT HISTORICAL?

A. Yes. The concept that required returns (be they debt returns or equity returns) contain a factor for expected inflation is a basic principle taught in every financial theory textbook. For example, in the textbook, *Financial Management, Theory and Practice*, the authors state:

> The four most fundamental factors affecting the cost of money are (1) production opportunities, (2) time preferences for consumption, (3) risk, and (4) inflation.[79]

> It is important to note that the inflation rate built into interest rates is the *inflation rate expected in the future*, not the rate experienced in the past.[80] [Emphasis in original]

Historical inflation actually experienced over some past period is not part of the returns proposed in this case, which are forward-looking estimates of the cost of equity. The only compensation for inflation risk built into the ROE analyses conducted by Mr. Lorton and me is based on investors' estimates of future inflation.

Q. BECAUSE THE RETURNS PROPOSED IN THIS CASE CONTAIN AN INFLATION FACTOR BASED ON EXPECTED INFLATION, IS IT

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[78] Response to Request No. 1-9.
[79] Brigham, Eugene F., Gapenski Louis C., and Ehrhardt, Michael C., "Financial Management, Theory and Practice," Ninth Edition (1999) at 126.
[80] *Id.* at 133.

APPROPRIATE TO REDUCE THEM BY HISTORICAL INFLATION WHEN SETTING THE RFV?

A. No. This is the key flaw in Mr. Lorton's RFV analysis. Rather that adjusting his ROE to remove the impact of future inflation that is built into this forward-looking estimate, he wrongly deducts an historical inflation rate. Such an adjustment is not proper and does not conform to financial theory. He has created a mismatch by subtracting historical inflation from a return that does not consider historical inflation. On these grounds, his RFV calculation should be ignored.

Q. MR. LORTON ASSERTS THAT USING A PROSPECTIVE INFLATION RATE TO CALCULATE THE RFV LEADS TO "DOUBLE COUNTING" OF INFLATION.[81] DO YOU AGREE?

A. Absolutely not. Mr. Lorton's incorrect supposition rests on a confusion between the price level adjustments that are required to adjust an original cost rate base for historical inflation, and the premium built into the nominal ROE to compensate investors for future inflation. As explained in my Direct Testimony, the difference between original cost and fair value ratemaking is a matter of where inflationary effects are accounted for – in the percentage rate of return figure or in the rate base. Under fair value ratemaking, inflation is accounted for by adjusting rate base to account for changing price levels. If inflation is accounted for in the rate base, as is the case with current cost ratemaking, then the compensation for inflation risk must be removed from the ROE. I agree with *Bonbright*, which Mr. Lorton quotes at page 33 of his testimony,[82] that combining a rate base that is adjusted for inflation with an ROE that includes compensation for inflation risk would be double counting. But as

[81] Lorton Direct Testimony at 34.
[82] Lorton Direct Testimony at 33 (*Bonbright* correctly notes that fair value ratemaking "would require that the return be in real and not nominal terms, as the rate base adjusted for inflation together with a rate of return adjusted for inflation would be double counting.")

discussed earlier, the only compensation for inflation that is included by investors in their required ROE is based on expectations of future inflation.

In other words, under fair value ratemaking, historical inflation is only relevant as it pertains to adjusting the original cost of a utility's plant to recognize the impact of price changes. Once the Commission has committed to offer investors this ongoing protection from the erosion in the value of their investment, they need no longer compensate them for bearing this risk in the future. Thus, the Commission should properly reduce the nominal ROE to deduct the premium that is built into this return to compensate for future inflation.

Q. WHAT IS THE PRACTICAL EFFECT OF MR. LORTON'S MISMATCH BETWEEN HISTORICAL AND PROSPECTIVE INFLATION?

A. Should investors come to expect the high inflation rates experienced during the late 1970s and early 1980s, Mr. Lorton's approach would lead to a RFV that is dramatically overstated. On the other hand, during periods when expected inflation rates are lower than those that have been experienced historically, Mr. Lorton's mismatch would lead to a RFV that is understated relative to investors' required return.[83] As the Indiana Court of Appeals has noted, investors are protected from confiscation with respect to the impact of inflation on the value of their property:

> We judicially know there has been inflation in values since 1939. A utility corporation and its stockholders take the gain from an increase in values of its property, and they stand the loss when values depreciate during a time of falling prices or a depression, just the same as any other corporation and its stockholders may benefit or lose when the value of the corporate property goes up or down. If the state condemns a shack in shanty town the owner is compensated according to its value when taken, and not according to what it cost him. The Federal Constitution and the Indiana Constitution both protect him, and they protect corporate enterprise with equal fairness by prohibiting

[83] This is the case presently. As Mr. Lorton noted in his testimony, "the United States remains subject to low inflation, . . . and nowhere near levels experienced in earlier decades." Lorton Direct at 29.

> confiscation of its property either directly or indirectly. Utilities are not bought and sold in any market place so that a market value can be thus established, and in an area like Indianapolis, with its growth or population and industry, reproduction cost new less depreciation cannot be disregarded in fixing a valuation for rate making purposes. [484 N.E. 2d at 640.][84]

Reducing the ROE by more than the amount of the expected inflation rate, as Mr. Lorton has proposed, would violate this standard.

Q. MR. LORTON SUGGESTS THAT COMMISSION PRECEDENT SUPPORTS HIS USE OF HISTORICAL INFLATION TO COMPUTE THE RFV.[85] IS HIS POSITION ACCURATE OR COMPLETE?

A. No. The Commission has referenced historical inflation in certain past proceedings, but this appears to have stemmed from a misguided premise that it is necessary to adjust the weighted debt cost for price level changes. For example, the Commission concluded in *Indiana-American Water Co., Inc.* that, "We will therefore eliminate the effects of historic inflation from only the debt component of the Petitioner's capital structure because the embedded cost of debt reflects historic inflation exclusively."[86] While fixed income investors also demand compensation for the risks of future inflation at the time the bonds are sold, debtholders receive only the contractual payments under the bond indenture. As a result, bond investors are not protected from inflation risk through subsequent adjustments to a utility's investment for price level changes. The utility's common shareholders are the only beneficiaries of the inflation protections offered through fair value ratemaking, and the only inflation rate that is relevant is the forward-looking inflation premium considered in their required ROE.

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[84] Indianapolis Water Company v. Public Serv. Comm'n. of Indiana, 484 N.E. 2d 635 (Ind. App. 1985), quoting the concurring opinion of Justice James Emmert in City of Indianapolis v. Public Serv. Comm'n. 131 N.E. 2d 308, 325 (Ind. 1956).

[85] Lorton Direct Testimony at 33.

[86] *Indiana-American Water Company, Inc.*, Cause No. 40103 (May 30, 1990).

Indeed, the Commission has correctly acknowledged that the effects of inflation are properly considered in the equity component of the cost of capital:

> As discussed earlier, the Court has directed that we must consider inflation in our determination of fair value. We have long recognized that the effects of inflation are considered in calculating the weighted cost of capital. *These effects are considered in that calculation in the fixing of the equity component.*[87]

In *Indianapolis Water*, the Commission noted that:

> Mr. Mulle recommended that the fair value cost rate should reflect a reduction in the common equity cost rate by the prospective rate of inflation. The Commission concurs.[88]

Q. WOULD IT BE REASONABLE OR APPROPRIATE TO REFERENCE HISTORICAL INFLATION RATES IN THIS PROCEEDING, BASED SOLELY ON THE FACT THAT THEY HAVE BEEN CITED IN A PRIOR COMMISSION ORDER?

A. No. As explained in the evidence provided in my Direct Testimony and supplemented here, there is no economic justification for referencing historical inflation when determining the RFV. Deducting historical inflation – however measured – from the ROE would result in a mismatch because the only inflation rate incorporated into the cost of equity is based on forward-looking expectations. Nor is there any basis to adjust the debt cost for historical inflation, since interest expense is a fixed cost of the utility that is unaffected by adjustments to original cost rate base to account for price level changes.[89] As the Commission has acknowledged:

> The prospect of a Commission repeatedly approving any type of adjustment conjures up images of a Commission so frozen by time worn custom that inappropriate adjustments are accepted, without

[87] *Suburban Utilities*, Cause Nos. 38233/38234 (Dec. 16, 1987) [emphasis added].
[88] *Indianapolis Water Co.*, Cause No. 38868 (May 16, 1990).
[89] This issue is moot in any event, as Westfield's capital structure does not include long-term debt.

> regard to the specific facts presented, because of a blind allegiance to the past.[90]

Mr. Lorton's proposal to adjust the ROE by subtracting a measure of historical inflation to arrive at an RFV is inconsistent with economic and financial principles, the logic underlying fair value ratemaking, and the facts presented in this proceeding. Accordingly, the Commission should reject his recommendation.

Q. WHAT INFLATION MEASURE WAS USED TO COMPUTE THE RFV IN THE COMPANY'S LAST CASE?

A. The *expected* rate of inflation was used in the Company's last case, Cause No. 43624. On page 30 of the final order in that case, the Commission stated:

> Petitioner's formula indeed reduces the cost of capital rate by the *expected* rate of *future* inflation and multiplies the net rate by the fair value rate base amount . . . [Emphasis added]

> Petitioner has proposed reducing cost of capital by an inflation amount of 2.54%, and the OUCC did not challenge the amount, instead proposing its original cost methodology. Accordingly, using the 10.1% cost of equity determined above in consideration of an inflation factor of 2.54%, we find the fair rate of return is 7.49% . . .[91]

Clearly, the Company proposed an RFV based on expected inflation and the Commission accepted that proposal.

Q. IS THIS CONSISTENT WITH OTHER RECENT ACTIONS OF THE COMMISSION?

A. Yes. In its March 2016 decision in Indianapolis Power & Light Company's last rate proceeding, the Commission arrived at an RFV by subtracting a forward-looking estimate of future inflation based on the 2% target rate promulgated by the Federal

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[90] *Indiana Bell*, Cause No. 37200-S1, 37200-S2 (PSCI 2/3/1984), at 7, citing *Indiana Gas Co.*, Cause No. 36816, 49 PUR 4th 594, 599 (PSCI 10/27/1982).

[91] *Westfield Gas Corporation*, Cause No. 43624 (Mar. 10, 2010).

Reserve, and noted that this was "a reasonable reflection of inflation over the expected life of the resulting rates."[92]

Q. DID MR. LORTON ADDRESS THE IMPLICATIONS OF DEPRECIATION EXPENSE UNDER FAIR VALUE RATEMAKING?

A. No. Mr. Lorton ignored this consideration entirely; nor did he take issue with the detailed explanation presented in my Direct Testimony.[93]

Q. DOES THIS CONCLUDE YOUR PRE-FILED REBUTTAL TESTIMONY?

A. Yes.

[92] *Indianapolis Power & Light Co.*, Cause No. 44576 (Mar. 16, 2016).
[93] McKenzie Direct Testimony at 67-70.

PROXY GROUP ALLOWED ROEs

Attachment AMM-R1
Page 1 of 1

OUCC PROXY GROUP

	Company	(a) Allowed ROE
1	Atmos Energy Corp.	9.81%
2	Chesapeake Utilities	NA
3	Spire, Inc. (formerly Laclede Group)	NA
4	New Jersey Resources	10.30%
5	Northwest Natural Gas	9.80%
6	South Jersey Industries	9.75%
7	Southwest Gas Corp.	9.75%
8	WGL Holdings, Inc.	9.58%
	Average	**9.83%**

(a) AUS Consultants, *AUS Monthly Reports*, September 2016.

OUCC PROXY GROUP

	Company	(a) Expected Return on Common Equity	(b) Mid-Year Adjustment Factor	(c) Adjusted Return on Common Equity
1	Atmos Energy Corp.	11.5%	1.0321	11.9%
2	Chesapeake Utilities	13.0%	1.0530	13.7%
3	Spire, Inc. (formerly Laclede Group)	10.0%	1.0304	10.3%
4	New Jersey Resources	11.0%	1.0284	11.3%
5	Northwest Natural Gas	9.5%	1.0159	9.7%
6	South Jersey Industries	8.0%	1.0573	8.5%
7	Southwest Gas Corp.	12.0%	1.0231	12.3%
8	WGL Holdings, Inc.	9.5%	1.0426	9.9%
	Average			**10.9%**

(a) The Value Line Investment Survey (September 2, 2016).

(b) Computed using the formula 2*(1+5-Yr. Change in Equity)/(2+5 Yr. Change in Equity).

(c) (a) x (b).

REMOVE ILLOGICAL ROE RESULTS

DIVIDEND YIELD

		(a)	(b) Yield Based on Past 10 Years Growth in:			Yield Based on Past 5 Years Growth in:			Yield Based on VL Projected Growth in:		
	Company	Yield	EPS	DPS	BVPS	EPS	DPS	BVPS	EPS	DPS	BVPS
1	Atmos Energy Corp.	2.4%	2.5%	2.4%	2.5%	2.5%	2.4%	2.5%	2.5%	2.5%	2.4%
2	Chesapeake Utilities	2.0%	2.1%	2.0%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
3	Spire, Inc. (formerly Laclede Group)	3.1%	3.1%	3.1%	3.2%	3.1%	3.1%	3.2%	3.2%	3.2%	3.2%
4	New Jersey Resources	2.9%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	2.9%	2.9%	3.0%
5	Northwest Natural Gas	3.6%	3.6%	3.7%	3.7%	3.5%	3.7%	3.6%	3.7%	3.6%	3.6%
6	South Jersey Industries	3.9%	4.0%	4.1%	4.1%	4.0%	4.1%	4.1%	4.0%	4.0%	4.1%
7	Southwest Gas Corp.	2.8%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.8%
8	WGL Holdings, Inc.	3.0%	3.0%	3.0%	3.1%	3.0%	3.1%	3.0%	3.1%	3.0%	3.1%
	Average	**3.0%**									

(a) Lorton Attachment BEL-6, page 2, "Last 12 months Average."
(b) Column (a) multiplied by one-half of corresponding growth rate from page 2 of this attachment.

REMOVE ILLOGICAL ROE RESULTS

GROWTH RATES

		(a)								
		Past 10 Years			Past 5 Years			Value Line Projected		
	Company	EPS	DPS	BVPS	EPS	DPS	BVPS	EPS	DPS	BVPS
1	Atmos Energy Corp.	5.5%	2.0%	5.0%	7.0%	2.5%	5.0%	6.5%	6.5%	3.5%
2	Chesapeake Utilities	8.0%	3.5%	9.0%	10.0%	5.0%	8.0%	8.5%	6.0%	6.5%
3	Spire, Inc. (formerly Laclede Group)	3.0%	2.5%	7.5%	-1.0%	3.0%	8.0%	9.0%	3.5%	4.5%
4	New Jersey Resources	7.5%	7.0%	8.0%	6.5%	7.0%	6.5%	1.0%	3.0%	6.5%
5	Northwest Natural Gas	1.0%	3.5%	3.0%	-5.0%	3.0%	2.5%	7.0%	2.0%	2.5%
6	South Jersey Industries	7.0%	9.0%	8.0%	4.0%	9.5%	8.5%	3.0%	6.5%	8.0%
7	Southwest Gas Corp.	8.5%	6.0%	5.5%	10.0%	9.0%	5.5%	7.0%	8.5%	3.0%
8	WGL Holdings, Inc.	2.5%	3.0%	4.0%	2.5%	3.5%	2.5%	3.5%	2.5%	6.0%

(a) Lorton Attachment BEL-6, page 3.

REMOVE ILLOGICAL ROE RESULTS

DCF RESULTS

		(a)								
		Past 10 Years			Past 5 Years			Value Line Projected		
	Company	EPS	DPS	BVPS	EPS	DPS	BVPS	EPS	DPS	BVPS
1	Atmos Energy Corp.	8.0%	4.4%	7.5%	9.5%	4.9%	7.5%	9.0%	9.0%	5.9%
2	Chesapeake Utilities	10.1%	5.5%	11.1%	12.1%	7.1%	10.1%	10.6%	8.1%	8.6%
3	Spire, Inc. (formerly Laclede Group)	6.1%	5.6%	10.7%	2.1%	6.1%	11.2%	12.2%	6.7%	7.7%
4	New Jersey Resources	10.5%	10.0%	11.0%	9.5%	10.0%	9.5%	3.9%	5.9%	9.5%
5	Northwest Natural Gas	4.6%	7.2%	6.7%	-1.5%	6.7%	6.1%	10.7%	5.6%	6.1%
6	South Jersey Industries	11.0%	13.1%	12.1%	8.0%	13.6%	12.6%	7.0%	10.5%	12.1%
7	Southwest Gas Corp.	11.4%	8.9%	8.4%	12.9%	11.9%	8.4%	9.9%	11.4%	5.8%
8	WGL Holdings, Inc.	5.5%	6.0%	7.1%	5.5%	6.6%	5.5%	6.6%	5.5%	9.1%
	Average (b)	**10.2%**	**9.8%**	**9.7%**	**10.4%**	**10.6%**	**9.9%**	**9.9%**	**9.7%**	**9.4%**
	Midpoint (c)	**9.7%**	**10.1%**	**9.6%**	**10.5%**	**10.3%**	**10.0%**	**9.6%**	**9.7%**	**9.9%**

(a) Sum of dividend yield for each corresponding growth rate (page 1 of this attachment) and growth rate (page 2).

(b) Excludes highlighted figures.

(c) Average of low and high values, excluding highlighted figures.