STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF MIDWEST NATURAL GAS CORPORATION FOR AUTHORITY TO CHANGE ITS RATES, CHARGES, TARIFFS, RULES, AND REGULATIONS	))))	**CAUSE NO. 44880**

REBUTTAL TESTIMONY
OF
JOHN A. BOQUIST, Ph.D.

ON BEHALF OF

MIDWEST NATURAL GAS CORPORATION

REBUTTAL TESTIMONY OF JOHN A. BOQUIST, PH.D.
ON BEHALF OF MIDWEST NATURAL GAS CORPORATION

Q1. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

A1. My name is John A. Boquist. I am a Professor Emeritus of Finance and, before my retirement, held the Edward E. Edwards Chair of Finance at the Indiana University Graduate School of Business in Bloomington, Indiana. My home and business address is 8344 North Bayshore Drive, Elk Rapids, Michigan.

Q2. ARE YOU THE SAME JOHN A. BOQUIST THAT SUBMITTED DIRECT TESTIMONY IN THIS CAUSE?

A2. Yes, I am. Further, my full professional credentials were listed as part of that testimony.

Q3. HAVE YOU REVIEWED THE DIRECT TESTIMONY AND EXHIBITS OF BRADLEY E. LORTON SUBMITTED IN THIS PROCEEDING ON BEHALF OF THE OFFICE OF UTILITY CONSUMER COUNSELOR ("OUCC")?

A3. Yes.

Q4. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?

A4. I was retained by Midwest Natural Gas Company ("Midwest" or the "Company") as an expert witness to testify regarding the appropriate fair rate of return for the Company. In that connection I submitted direct testimony. In my rebuttal testimony I will respond to the pre-filed testimony of Mr. Lorton.

Q5. PLEASE SUMMARIZE YOUR CONCLUSIONS REGARDING THE PREFILED TESTIMONY OF MR. BRADLEY E. LORTON.

A5. I find Mr. Lorton's estimate of a 8.80% cost of common equity capital for Midwest not to be supported by proper application of the Discounted Cash Flow (DCF) model or Capital Asset Pricing Model (CAPM). Such a low cost of equity capital, if adopted by the Commission, would jeopardize the financial integrity of Midwest, particularly if it is subsequently applied to the book value of Midwest's property. Use of such a low cost of common equity capital to determine Midwest's authorized return would result in a level of net operating income that would not constitute a fair rate of return on the fair value of Midwest's property. Mr. Lorton's recommendation is well below his recommendation of a 9.0% cost of equity capital in the Midwest's last rate case, Cause No. 44063. His 8.80% recommendation for Midwest is clearly too low relative to current economic conditions.

Q6. IN YOUR DIRECT TESTIMONY, YOU RECOMMEND TO THE COMMISSION THAT THE COMPANY'S COST OF EQUITY CAPITAL IS 11.0%. IS THAT STILL YOUR RECOMMENDATION?

A6. Yes. There is nothing persuasive in the testimony of Mr. Lorton that would cause me to alter my recommendation. In my opinion, the Commission should find the Company's cost of common equity capital to be 11.0%.

Elements of Risk

Q7. MR. LORTON ASSERTS THAT MIDWEST'S RISK IS SIGNIFICANTLY LOWER BECAUSE IT HAS A NORMAL TEMPERATURE ADJUSTMENT ("NTA"). DO YOU AGREE?

A7. No. The company has substantial business risk. I would remind Mr. Lorton that the company faces regulatory risk as evidenced by this proceeding. Furthermore the proxy sample companies that both Mr. Lorton and I use in our analysis have such normalizations mechanisms in place. Therefore any effects of normalization on risk are already captured in my analysis. Further I believe it is relevant to point out that in the last Midwest rate case, Cause No. 44063, Midwest had a NTA mechanism and was authorized another tracker as well. There Mr. Lorton recommended an ROE 20 basis points higher than he is recommending now for Midwest.

Q8. DO YOU AGREE WITH MR. LORTON'S REASONING CONCERNING THE EFFECT OF INFLATION ON THE COST OF EQUITY CAPITAL?

A8. No. Mr. Lorton seems to be saying since US Treasury bond rates are low, the cost of equity is low and no adjustments are needed to be made to the cost of equity capital. Of course we know this is not true and that is why both Mr. Lorton and I used the normalized Treasury rate in our application of the CAPM to determine the cost of equity capital for Midwest. The interest rates are already captured in the analysis and, therefore, require no further adjustment or explanation as was done by Mr. Lorton. In addition, his discussion of core inflation, which excludes the cost of energy and food, is of no relevance to this proceeding. All participants in the capital markets partake of food and rely on energy for their basic needs. Since food and oil prices are rising, investors seek returns to compensate them for these increases. Although Mr. Lorton cites the CBO forecasts in his testimony

as support for his conclusions regarding inflation, it needs to be pointed out that such forecasts have been notoriously off target in the past.

Discounted Cash Flow Model

Q9. DO YOU AGREE WITH MR. LORTON'S METHOD OF CALCULATING THE FORWARD DIVIDEND YIELD IN HIS DCF MODEL?

A9. No. Mr. Lorton begins by defining "D_1" as the "expected annual dividend for the next year" (Lorton Testimony, page 6) in the annual formulation of the dividend growth model and then proceeds to calculate a forward dividend yield by taking one half of the expected growth rate for the year. How can this be consistent with the annual rate, as he has defined it? This is inconsistent with the mathematical derivation of the DCF model. (See, for example, the widely used Ross and Westerfield finance textbook, Corporation Finance, Times Mirror Publishing 1988, page 99). Thus, Mr. Lorton's procedure understates the forward dividend yield for the upcoming year as specified by the model. Also, his half-year growth calculation does not disclose how to calculate the dividend growth for the dividends in subsequent years in his model. In my opinion his half-year procedure will result in the investor perpetually being short one half of the expected dividend growth. All textbooks I have read during my long career support using the annual dividend growth rate to determine the forward yield. This is the procedure I used in my direct testimony.

Q10. IS THERE ANOTHER REASON WHY MR. LORTON'S HALF-YEAR METHOD UNDERSTATES THE DCF RESULT?

A10. Yes. Mr. Lorton's method does not recognize the fact that the market price of the stock used to determine the dividend yield reflects investor expectations of receiving quarterly dividends. It should be noted that all of the proxy group companies in both my analysis and Mr. Lorton's analysis pay dividends quarterly. The ability to get dividends quarterly (and put that money to other profitable uses) has value, which increases the stock price and, thus, decreases the dividend yield calculated by Mr. Lorton. To properly adjust for the timing of dividends, a quarterly DCF model would have to be used. The Commission had the following to say about the quarterly model in the PSI Energy, Inc. case, Cause No. 40003 (September 27, 1996), pages 28-29:

> We find the logic of the quarterly DCF a useful alternative, and no sufficiently sound reason has been presented for rejecting it. We find it difficult to believe that the timing of dividend payments is not reflected in the price of a stock. We agree with Dr. Morin that it is inconsistent to use a stock price which reflects quarterly dividends in a model which assumes annual dividend payments unless the model is adjusted to reflect the quarterly dividends which lend to the investor expectations which give rise to the stock price. Again, Dr. Morin's quarterly feature of his DCF analysis will be weighted among all of the acceptable forms of analysis presented in this proceeding.

This is the same Dr. Morin I cite in my direct testimony.

Q11. DO YOU AGREE WITH MR. LORTON'S POSITION THAT HISTORICAL AND PROJECTED GROWTH IN DIVIDENDS PER SHARE, EARNINGS PER SHARE, AND BOOK VALUE PER SHARE SHOULD BE USED TO HELP DETERMINE THE DIVIDEND GROWTH RATE FOR MIDWEST?

A11. No, not in this case. Mr. Lorton calculates and uses an adjusted average of the Value Line projections as well as the historical five year and ten year growth rates in Earnings per Share (EPS), Dividends per Share (DPS), and Book Value per Share (BVPS) for his proxy group. Since investors are looking for dividends, numbers like earnings and book value may lead to problems in assessing the expected dividend growth. That is why I used the long-term (10-Year) dividend growth to estimate dividend-paying potential for my proxy sample. In particular, the historical book value of a company is a very poor indicator of dividend paying ability, particularly when inflation increases the replacement value of property, as is the case for Midwest and other firms.

Q12. IS IT SURPRISING THAT DPS GROWTH IS DIFFERENT FROM EPS GROWTH AND BVPS GROWTH?

A12. No. As long as investors are willing to supply debt and equity capital to a firm and inflation increases the replacement value of property, I would expect the growth rates of EPS, DPS, and BVPS to be different. As his data shows, the variables can and will grow at different rates over extended time periods. In my opinion a more reasonable approach in this case is to use a two-stage quarterly dividend growth model and employ the historical dividend growth rate for each company as the first stage growth rate as I have done in my direct testimony. Mr. Lorton's approach factors out all of the individual company differences in growth rates.

Q13. DO YOU HAVE ANY OTHER CONCERNS ABOUT MR. LORTON'S USE OF EPS AND BVPS GROWTH RATES IN ASSESSING THE

APPROPRIATE GROWTH RATE TO USE IN THE DCF MODEL?

A13. Yes, I have. During any twelve-month period companies will increase dividends at different times over the year. Subsequent future years will each have a full measure of growth since the timing of the dividend payment could be considered stable year to year. Mr. Lorton apparently is concerned with the 12-month period to justify his use of the half-year method of calculating forward dividend yields. Therefore, to be consistent he should be sensitive to the 12-month average dividend yield for his proxy sample. The entire growth rate, not one-half of it, is what the investor expects in the long run. In the DCF model, "g" must be the full year estimate as I have used in my analysis.

Q14. DOES YOUR TWO-STAGE QUARTERLY DCF MODEL REFLECT THE STANDARD APPLICATION OF THIS MODEL?

A14. Yes. As discussed in my direct testimony, I have followed procedures outlined by Morin and Ibbotson and that are commonly used in financial analysis.

Capital Asset Pricing Model

Q15. WHAT ARE YOUR SPECIFIC OBJECTIONS TO MR. LORTON'S APPLICATION OF THE CAPM MODEL?

A15. One of the main problems with Mr. Lorton's application of the CAPM lies in his use of two different market risk premiums in the model -- the geometric mean and the arithmetic mean. He then compounds the problem by averaging the results generated by both approaches. For reasons previously discussed in my direct testimony, the arithmetic average is the correct one to use according to CAPM

theory. I also disagree with Mr. Lorton's methods of determining the risk free rate, the equity risk premium, and the size premium.

Q16. CAN USE OF THE GEOMETRIC MEAN TO DETERMINE THE MARKET RISK PREMIUM IN THE CAPM BE JUSTIFIED?

A16. No, not in my opinion. This is confirmed by Ibbotson Associates, SBBI Valuation Edition 2011 Yearbook. Ibbotson Associates compiles the data used by Mr. Lorton and me in our CAPM analyses. The Ibbotson Associates publication states on page 56.

> The equity risk premium data presented in this book are arithmetic average risk premia as opposed to geometric average risk premia. The arithmetic average equity risk premium can be demonstrated to be most appropriate when discounting future cash flows. 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. This is because both the CAPM and the building block approach are additive models, in which the cost of capital is the sum of its parts. The geometric average is more appropriate for reporting past performance, since it represents the compound average return.
>
> The argument for using the arithmetic average is quite straightforward. In looking at projected cash flows, the equity risk premium that should be employed is the equity risk premium that is expected to actually be incurred over the future time periods.

Ibbotson gives the following example on page 101 of its publication Stocks Bonds Bills and Inflation 2003 Yearbook, Market Results For 1926-2002 which Ibbotson Associates refers to as the "Classic Edition" of its Yearbook and which is a companion volume to the valuation yearbook.

> Stated another way, the arithmetic mean is correct because an investment with uncertain returns will have a higher expected ending wealth value than an investment which earns, with certainty, its compound or geometric rate of return every year. In the above example, compounding at the rate of 8.2 percent for two years yields a terminal wealth of $1.17, based on a dollar invested. But holding the uncertain investment, with a possibility of high returns (two + 30 percent years in a row) as well as low returns (two - 10 percent years in a row), yields a higher expected terminal wealth, $1.21. In other words, more money is gained by higher-than-expected returns than is lost by lower-than-expected returns. Therefore, in the investment markets, where returns are described by a probability distribution, the arithmetic mean is the measure that accounts for uncertainty, and is the appropriate one for estimating discount rates and the cost of capital.

Q17. CAN YOU CITE OTHER AUTHORITY CONFIRMING THE NEED TO USE THE ARITHMETIC AVERAGE IN ESTIMATING THE COST OF CAPITAL?

A17. Yes. Dr. Roger A. Morin in his book Regulatory Finance: Utilities' Cost Of Capital (1994) states on pages 275-276:

> **Geometric v. Arithmetic Averages.** One major issue relating to the use of realized returns is whether to use the ordinary average (arithmetic mean) or the geometric mean return. Only arithmetic means are correct for forecasting purposes and for estimating the cost of capital. When using historical risk premiums as a surrogate for the expected market risk premium, the relevant measure of the historical risk premium is the arithmetic average of annual risk premiums over a long period of time. This is formally shown in *Principles of Corporate Finance*, a widely used and respected textbook on corporate finance by Brealey and Myers (1991). Appendix 11-A illustrates that only arithmetic averages can be used as estimates of cost of capital, and that the geometric mean is not an appropriate measure of cost of capital. A widely-used Ibbotson Associates publication title contains a rigorous discussion

of the impropriety of using geometric averages in estimating the cost of capital (Ibbotson Associates, 1993).

The use of the arithmetic mean appears counter-intuitive at first glance, because we commonly use the geometric mean return to measure the average annual achieved return over some time period. In estimating the cost of capital, the goal is to obtain the rate of return that investors expect, that is, a target rate of return. On average, investors expect to achieve their target return. This target expected return is in effect an arithmetic average. The achieved or retrospective return is the geometric average. In statistical parlance, the arithmetic average is the unbiased measure of the expected value of repeated observations of a random variable, not the geometric mean.

The geometric mean answers the question of what constant return an investor would have to achieve in each year to have his or her investment growth match the return achieved by the stock market. The arithmetic mean answers the question of what growth rate is the best estimate of the future amount of money that will be produced by continually reinvesting in the stock market. It is the rate of return that, compounded over multiple periods, gives the mean of the probability distribution of earning wealth.

. . .

In capital markets, where returns are a probability distribution, the answer that takes account of uncertainty, the arithmetic mean, is the correct one for estimating discount rates and the cost of capital.

Also, Bradford Cornell in Corporate Valuation: Tools For Effective Appraisal and Decision Making, Irwin Professional Publishing (1993) states at page 217:

Which average should be used when calculating the market risk premium to be substituted into the capital asset pricing model? Because valuation is forward looking, the appropriate average is the one that most accurately approximates the expected future rate of return. As shown by Bodie, Kane, and Marcus, the best estimate of expected returns over a given future holding period is the arithmetic average of past returns over the same holding period. For

> instance, if the valuation is based on annual cash flow forecasts, so that an annual discount rate is needed, then the market risk premium should be estimated by the arithmetic average of annual returns.

Mr. Lorton's methodology, which considers both geometric and historical averages, biases his CAPM result downward.

Q18. IS IT YOUR POSITION THAT GEOMETRIC MEANS SHOULD NOT BE USED FOR ANY PURPOSE?

A18. No. It is my position that Mr. Lorton's use of the geometric mean cannot properly be used in the CAPM approach for this Petitioner for determining the cost of common equity capital. The use of geometric means for this purpose is not supported by financial theory.

Q19. ARE YOU AWARE OF PREVIOUS COMMISSION ORDERS SUGGESTING THAT WEIGHT SHOULD BE GIVEN TO BOTH THE ARITHMETIC AVERAGE AND THE GEOMETRIC AVERAGE?

A19. Yes. As stated in my direct testimony, I am aware of these orders. However, I have not found that the Commission dictates the procedure used by Mr. Lorton; i.e. taking an average of the arithmetic and geometric results. If the Commission considers both averages, I would urge the Commission to give the bulk of the weight (at least 90% weight) to the result obtained with the arithmetic average which I used in my testimony.

Q20. DO YOU AGREE WITH THE MANNER IN WHICH MR. LORTON CALCULATED THE EQUITY RISK PREMIUMS FROM THE IBBOTSON RETURN DATA?

A20. No. Mr. Lorton used the simple average of geometric and arithmetic stock returns over long-term bonds. In each case, the stock returns used by Mr. Lorton are the large company (S&P 500) stock returns for the period of 1926-2014 reported by Ibbotson Associates and the bond returns are total returns (interest plus or minus changes in value) for the same period reported by Ibbotson Associates. As I explained in my direct testimony, the income return (interest) should be subtracted from the stock return to determine the equity risk premium. Mr. Lorton disagrees with Ibbotson Associates and with my direct testimony on this point.

Q21. WHY DO YOU DISAGREE WITH MR. LORTON'S USE OF THE TREASURY BOND TOTAL RETURN AS THE RISKLESS RATE IN DETERMINING THE MARKET RISK PREMIUM?

A21. As I discussed in my direct testimony, the long-term Treasury bond income return is the appropriate one to represent the riskless rate when determining the equity risk premium. Investors can only expect the income return from their Treasury bond investments to be truly riskless. Mr. Lorton provides no authoritative support for his use of total returns and his approach is at odds with Ibbotson Associates, which provides the data he uses.

Company Specific Risk

Q22. DO YOU AGREE WITH MR. LORTON THAT NO COMPANY SPECIFIC RISK ADJUSTMENT FOR MIDWEST IS WARRANTED?

A22. No, I believe an adjustment is warranted. The risks of Midwest are clearly greater than that of the proxy companies. Midwest is significantly smaller than the

companies in the proxy group. Midwest serves a small territory in one state. Midwest's stock is not listed which is the very reason we began with a proxy group. Thus, company specific risk adjustments for Midwest as compared to the proxy groups is, in fact, warranted. Further, it is absolutely imperative to understand that the small stock risk premium specified by Ibbotson is to be made after adjusting for the firm's beta risk in the CAPM. Thus, the small firm effect is a size effect after controlling for beta risk. In addition, Midwest's risk associated with its lack of marketability must be taken into consideration. Since the stock of Midwest is not traded, an upward adjustment in the required return is also needed to compensate Midwest's investors for this lack of marketability. The investment quality of the company also needs to be considered. The risk associated with ownership of a small, closely held company will be greater, even in light of the control such firms offer their owners.

Q23. IS THERE A SPECIFIC FORMULA OR CALCULATION WHICH CAN BE USED TO COVER THE ABOVE RISKS?

A23. There is no exact formula to make the necessary adjustments. Further, because the rating agencies guard the internal formulas they use, and quality spreads vary over time, judgment is required to determine the proper adjustments. I believe an appropriate review of the representative yields on various quality bond issues and consideration of the Ibbotson small company premium, ultimately leads to the adjustment I have described in my direct testimony. Thus, the issue is not whether an adjustment should be made but how much that adjustment should be. Mr. Lorton made no small firm adjustment even though it is clear that the

Commission provides for such an adjustment. In fact the Commission noted in Midwest's last rate order, Cause No. 44063 page 22, ... "However, we do not believe that Mr. Lorton's recommended 9.00% adequately covers any size based differential. Accordingly, we find that a 10.10% COE is appropriate for Petitioner at this time." We ask the commission to order a similar adjustment in this case.

Q24. MR. LORTON STATES THAT AN IBBOTSON SMALL STOCK PREMIUM IS "QUESTIONABLE" IN THIS CASE BECAUSE MIDWEST IS A REGULATED UTILITY. DO YOU AGREE?

A24. No. Mr. Lorton's arguments do not eliminate the appropriateness of the Ibbotson small company premium. It must be remembered that Mr. Lorton and I both determined the equity risk premium for the CAPM using Ibbotson's data for the Standard & Poor's 500 index of the largest companies in the U.S. economy. For this reason, Ibbotson Associates repeatedly identifies the historical stock returns since 1926 used by Mr. Lorton as "large company stock returns." Thus, a small company premium is appropriate when the S&P 500 market data is used to estimate the cost of common equity for any small company, regulated or unregulated. The fact that a small company is regulated, or has a lower beta than another regulated company, does not change this fact. All small companies, regardless of their beta, receive an upward adjustment to adjust for the fact that the beta coefficient based on the S&P 500 does not capture the size effect of company returns. SBBI Valuation Edition 2011 Yearbook, p. 201, defines "size premium" as "[t]he return on small company stocks in excess of that predicted by the CAPM" and "the additional return that cannot be explained by the betas of

small companies." Therefore, a small company will have a cost of common equity that is greater than the cost of common equity for a larger company of equivalent beta. Similarly, a small company with a lower beta than a large company may have a larger required return after the adjustment. The SBBI Valuation Edition 2011 Yearbook, p. 45 includes such an example of the size premium added to the cost of equity capital calculation for a regulated electric utility company. Likewise, since Midwest is smaller than the average of the proxy group used by Mr. Lorton and me, it warrants a size premium addition.

Q25. MR. LORTON CITES A COUPLE OF COMMISSION ORDERS AND A COUPLE OF ARTICLES TO ARGUE AGAINST YOUR SIZE PREMIUM ADJUSTMENT FOR MIDWEST. IN FACT HE SUGGESTS A "BLIND APPLICATION" OF THE RISK PREMIUM IS NOT WARRANTED. DO YOU AGREE?

A25. No. I use a 358 basis point adjustment, which is the Ibbotson micro-cap adjustment to cover a number of risks. I believe this satisfies the Commission's concern. Additionally, most analysts writing in peer reviewed publications agree that a small firm risk premium is warranted in the case of utilities. For example an article by M. Thomas Zepp ("Utility Stocks and the Size Effect – Revisited", *The Quarterly Journal of Economics and Finance* 43 (2003) pages 578 – 582) uses water utility data to support the inclusion of the small firm effect for the utility industry. Again, the key elements here include the fact that Midwest lacks any significant size or marketability. The fact that Midwest is a regulated utility does not eliminate the risk that flows from the fact that it is a small company. Nor

does this regulation eliminate the risk of marketability. Notably, utilities are periodically challenged over a failure to gain regulatory approval of the sale of stock. In fact I believe Westfield Gas Cause No. 43624 was one of those utilities that was challenged. Thus the company specific risks I described here and in my direct testimony are real, and must be considered in establishing a fair ROE.

Q26. DOES THE IBBOTSON ASSOCIATES PUBLICATION THAT MR. LORTON AND YOU USED FOR YOUR CAPM ANALYSIS CONFIRM THAT A SMALL STOCK PREMIUM IS APPROPRIATE?

A26. Yes. The Ibbotson publication states:

> The need for this premium when using the CAPM arises because, even after adjusting for the systematic (beta) risk of small stocks, they outperform large stocks. The betas for small companies tend to be greater than those for large companies; however, these higher betas do not account for all of the risks faced by those who invest in small companies.

SBBI Valuation Edition 2011 Yearbook, p. 44 - 45. Note that this quote clearly states that the adjustment is required for all small stocks. As discussed in my direct testimony, the Ibbotson data advocates a size premium of 3.58%, for micro-cap companies. Mr. Lorton may think the adjustment is far too large, but it is the proper one to make, is regularly made by financial analysts, and certainly it is better than no adjustment as he suggests.

Q27. DOES MR. LORTON HIMSELF CONFIRM THAT A SMALL SIZE PREMIUM IS APPROPRIATE?

A27. He does. Mr. Lorton acknowledges that the Commission made a size adjustment in Midwest's last rate case. Since Mr. Lorton focuses on his CAPM result of

8.03% but then recommends a 8.80% ROE; Mr. Lorton apparently acknowledges a 77 basis point adjustment for Midwest's small size. What I believe Mr. Lorton fails to recognize as he provides this testimony is that the Commission in Midwest's last rate case applied the small size adjustment to the recommended ROE.

Q28. ON PAGE 13 MR. LORTON STATES THAT "REGULATION REDUCES PETITIONER'S FINANCIAL RISKS". DO YOU AGREE?

A28. No. Regulation does not eliminate or even minimize the need for a size, quality, and marketability adjustment. Regulation does not make Midwest a large company. Regulation does not change the fact that Midwest is selling energy of choice in a small defined service territory. Regulation does not make Midwest more marketable. Thus I disagree with Mr. Lorton's assessment.

Macroeconomic Trends

Q29. MR. LORTON'S TESTIMONY DISCUSSES MACRO ECONOMIC TRENDS TO SUPPORT HIS COST OF EQUITY CAPITAL RECOMMENDATION. DO YOU FIND HIS ARGUMENTS CONVINCING?

A29. No. Mr. Lorton cites survey data from CFO Magazine to suggest that the estimated return on S&P 500 return is expected to be low. Such data are meaningless to this case since we have already established that the S&P 500 returns must be adjusted for a size premium in order to be applicable to Midwest. Furthermore there is no evidence to support whether or not this survey data has proven to be a reliable forecast. Likewise, the inflation, interest rate, and

economic growth forecasts provided by economists are notoriously deficient in predicting the future.

Q30. MR. LORTON'S TESTIMONY STATES THAT RECENT YEARS HAVE BEEN DESCRIBED AS A PERIOD OF "LOW COST OF CAPITAL". DO YOU AGREE?

A30. No. Mr. Lorton cites lower interest rates and bond yields as indicative of this trend. However, all the rates and yields he cites pertain to U.S. Treasury bonds. I agree that Treasury rates are low, as reflected in my Rf estimate in my CAPM calculations. The same low rates are not necessarily available to companies, since the U. S. government's appetite for debt is crowding out many other seekers of capital in the market. This effect was noted in a recent order from the Commission in Cause No. 44809 related to a Midwest Gas financing case. As this January 25, 2017 Order indicates, Midwest had filed its case in July of 2016. It sought to borrow money from a local bank for a period of up to five years. At the time of the filing, Midwest anticipated the interest rate would be 3.53%. Though it requested authority of up to 3.75% for potential changes in the interest rate, the actual interest rate by December 2016 was 4.52%. My assumption is that this change of almost 1% in the interest rate demanded by a local bank would also reflect that investors in Midwest would seek a significant increase above the ROE last authorized by the Commission in 2012. In other words, investors continue to avoid risks in their investments without an increase in expected returns from holding such investments. Low government bond rates do not necessarily

translate into similarly low rates for the cost of equity of very small private firms like Midwest.

Q31. MR. LORTON ARGUES THAT THE NTA LOWERS RISKS. DO YOU AGREE WITH MR. LORTON'S CONCLUSION?

A31. No. The issue before this Commission is not whether the NTA reduces risk, but rather what is Midwest's risk compared to other gas utilities. The proxy group used by me and Mr. Lorton also have NTA mechanisms. Certainly Midwest is much smaller than the gas companies in the proxy group thus requiring an upward adjustment. If the Commission does nothing more than examine what it authorized for Midwest in the last rate case and consider the additional risks facing Midwest, then clearly Midwest is much riskier now.

Market Value to Book Ratio Adjustment

Q32. DO YOU STILL THINK A MARKET VALUE TO BOOK VALUE ADJUSTMENT IS APPROPRIATE?

A32. Yes. Mr. Lorton, in his testimony, has neglected to give any consideration to the fact that virtually all stocks sell above book value at the current time, even in light of the recession. Yet his use of a market-derived cost of capital and an original cost rate base as advocated would cause an understatement in Midwest's required return. This is because the cost of equity capital models used by Mr. Lorton determines the rate of return investors expect to earn on the market price of common stock. The market price of stock represents the opportunity cost of the investor to maintain an investment in a company since he or she can always sell the stock in the market and reinvest the proceeds in another investment. If the

market price of a stock exceeds book value and a market-based rate of return is applied to an original cost rate base (based on book values), a shortfall will be created. An example of this effect, as described by the Commission in its order dated February 2, 1994 in Cause No. 39595, an Indiana American Water Company, Inc. rate case, was included in my direct testimony. Another example of this shortfall is contained in the Commission's order dated November 12, 1993 in an Indiana Michigan Power Company rate case, Cause No. 39314.

Q33. CAN YOU DEMONSTRATE THAT MR. LORTON HAS SOUGHT TO DETERMINE THE REQUIRED RETURN ON MARKET VALUE, RATHER THAN THE REQUIRED RETURN ON BOOK VALUE?

A33. Yes. On page 7 of his testimony, Mr. Lorton specifies the current dividend yield as "D_0/P_0" where "P_0" is the current stock price, i.e., the market value of the stock. Also, Mr. Lorton uses the CAPM to estimate the required rate of return on market value. The historical return he uses is the total return for the S&P 500 stock index which reflects dividends and the change in the market price of the stock. Accounting book value simply is not a component of either the DCF model or the CAPM.

Q34. IS THERE ANY OTHER REASON WHY MR. LORTON'S FAILURE TO RECOGNIZE THE DIFFERENCE BETWEEN MARKET VALUE AND BOOK VALUE SKEWS HIS RECOMMENDATION?

A34. Yes. In the 1996 Indiana American Rate Order in Cause No. 40103, the Commission on page 42 acknowledged the understatement caused by combining a market-derived cost of capital with an original cost rate base when market prices

exceed book values, but concluded that "recognition of the current value of Petitioner's property in the fair value rate base, as we have done here, rather than its historical cost, alleviates much of the problem." However in Midwest's rate case it is historical cost that is being used for the rate base, not the fair value rate base. Therefore, the understatement referred to in the rate order cited above would not be alleviated in this case.

Conclusion

Q35. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY?

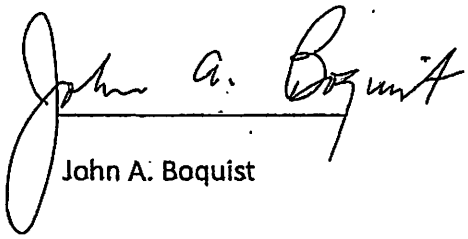
A35. The 8.8% equity return proposed by Mr. Lorton is unreasonably low for Midwest and would not represent a fair return on the fair value of the company's property. It is way below the 9.0% cost of equity capital he recommended in the company's last rate. My rebuttal testimony addresses the problems with his analysis and his application of the financial models. Since there is no reason to deviate from the cost of equity capital requested and supported in my direct testimony in this cause, the Commission should find Midwest's cost of equity capital to be 11.0%.

Q36. DOES THIS CONCLUDE YOUR PREPARED REBUTTAL TESTIMONY?

A36. Yes.

Verification

I affirm under the penalties of perjury that the forgoing is true to the best of my knowledge, information, and belief as of the date here filed.

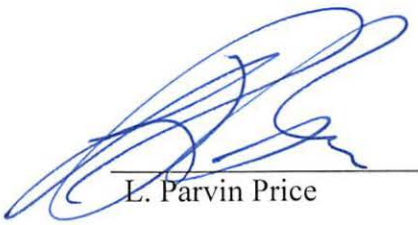


John A. Boquist

CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing has been served upon the following counsel of record by electronic mail this 20th day of March, 2017:

Tiffany T. Murray
Indiana Office of Utility Consumer Counselor
115 West Washington Street, Suite 1500S
Indianapolis, IN 46204
TiMurray@oucc.IN.gov
infomgt@oucc.in.gov



L. Parvin Price

DMS 4815482v1