Exhibit No.:	______________
Issue:	Fair Rate of Return
Witness:	Frank J. Hanley
Sponsoring Party:	Missouri Gas Energy
Case No.:	GR-2009-0355
Date Testimony Prepared:	October 14, 2009

MISSOURI PUBLIC SERVICE COMMISSION

MISSOURI GAS ENERGY

CASE NO. GR-2009-0355

SURREBUTTAL TESTIMONY OF

FRANK J. HANLEY, PRINCIPAL & DIRECTOR
AUS CONSULTANTS

OCTOBER 2009

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I. INTRODUCTION

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

A. My name is Frank J. Hanley and I am Principal and Director of AUS Consultants. My business address is 155 Gaither Drive, Suite A, Mount Laurel, New Jersey 08054.

Q. ARE YOU THE SAME FRANK J. HANLEY WHO PREVIOUSLY FILED DIRECT AND REBUTTAL TESTIMONIES ON BEHALF OF MISSOURI GAS ENERGY ("MGE") IN THIS PROCEEDING BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION ("COMMISSION")?

A. Yes, I am.

Q. HAVE YOU CAUSED TO BE PREPARED SCHEDULES IN SUPPORT OF THIS SURREBUTTAL TESTIMONY?

A. Yes, I have. They have been marked for identification as Schedules FJH-31 through FJH- 37.

II. SUMMARY

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimonies of Office of Public Counsel ("OPC") witness Daniel J. Lawton and David Murray, witness for the Missouri Public Service Commission Staff ("Staff"). In this testimony, I will correct misleading comments made by Mr. Lawton regarding my testimony in Nevada on behalf of Southwest Gas as well as those relating to the issue of decoupling related to my proxy companies. I also respond to Mr. Lawton's criticisms of my Risk Premium ("RP") and Capital Asset Pricing Models ("CAPM").

As to Mr. Murray, I respond to his conclusion of the short-term debt cost rate utilized and in so doing correct for an error in the updated short-term debt cost rate presented in my rebuttal testimony. I also explain why Mr. Murray's position regarding market/book ratios is incorrect as is his conclusion about my testimony in a 1980 Kentucky Power case.

I also address Mr. Murray's criticisms of my application of the RP and CAPM methods and also explain why Mr. Murray's criticism of the need for a small adjustment for MGE is without merit. Also, I explain why Mr. Murray's criticism of the information I provided to reach my conclusion that there is no need for a downward adjustment for MGE's Straight Fixed Variable ("SFV") rate design is incorrect and should be disregarded. Finally, I address Mr. Murray's comment regarding the Southern Union capital structure and explain why it is inappropriate to include Panhandle Energy's debt, but exclude the costs related to such debt. Of course, for all of the reasons explained in the direct testimonies of Mr. Murray and myself, the use of Southern Union's capital structure is inappropriate for use in establishing a fair rate of return for MGE.

III. OPC WITNESS DANIEL J. LAWTON

Q. AT PAGE 4 OF HIS REBUTTAL TESTIMONY, MR. LAWTON CLAIMS THAT YOU ARE INCONSISTENT BY VIRTUE OF YOUR FAILURE TO MAKE A DEDUCTION TO COMMON EQUITY COST RATE FOR MGE'S SFV RATE DESIGN. HE REFERS TO YOUR TESTIMONY IN A SOUTHWEST GAS CASE BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA. HOW DO YOU RESPOND?

A. His criticism is not valid.

Q. WHY?

A. Southwest currently has no protection against the vagaries of weather or declining usage per customer in its major jurisdictions, namely, Arizona and Nevada, which together comprise 90% of its gas distribution operations. Even if the requested decoupling mechanism is approved by the Nevada Commission in that case, Nevada accounts for only 35% of Southwest's operating margin, while Arizona would continue to have no protection at all from the vagaries of weather or declining usage per customer.

Q. DO YOU HAVE A DOCUMENT THAT SUPPORTS YOUR POSITION?

A. Yes. I attach Schedule FJH-31, which is a copy of the summary exhibit of my updated cost of capital recommendation in the Southwest case. It should be noted that on Line 9 is a 9 basis point deduction for decoupling which is explained in Note

7 at the bottom of the schedule. It should be apparent that there is a huge distinction between the Southwest case and the Nevada jurisdiction where presently there are no tariff tools in place which account for the vagaries of weather and conservation on the one hand, and on the other hand, the Missouri jurisdiction where MGE's SFV rate design has been in effect since MGE's last rate case.

Q. **PLEASE SPEAK TO MR. LAWTON'S COMMENTS AT THE TOP OF PAGE 5 OF HIS REBUTTAL TESTIMONY WHERE HE CLAIMS THAT YOU ASSUME THAT A SFV RATE DESIGN IS THE ECONOMIC EQUIVALENT OF A WEATHER NORMALIZATION CLAUSE.**

A. First, I assume no such thing and Mr. Lawton's presumption is wrong. However, it is significant that Mr. Lawton himself confirms that weather is a substantial portion of the variance from normal weather. Indeed, his example on Schedule (DJL-1R) shows it to be approximately 60%. It is a form of decoupling, albeit partial. The point is that all of my proxy companies have protection from the vagaries of weather. Those that do not have separate weather normalization adjustment clauses in fact have decoupling mechanisms that account for weather and conservation, or changes in customer usage. A careful examination of Schedule FJH-3 and my recap at page 10, line 2 through page 11, line 13 of my rebuttal testimony confirms that a majority of the proxy companies, including the major jurisdictions for the multi-jurisdiction proxy companies, have decoupling mechanisms in place. This reality is analogous to the issue involving Union Electric Company and fuel adjustment clauses as addressed by this Commission in its Report and Order of January 27, 2009 in Case No. ER-2008-0318 as discussed in my rebuttal testimony at pages 40-41.

Q. DID YOU ASSUME, AS SUGGESTED BY MR. LAWTON AT PAGE 6, THAT THE GRIP TARIFF MECHANISM APPLICABLE TO ATMOS ENERGY IN ITS TEXAS JURISDICTION IS A DECOUPLING MECHANISM?

A. No, Mr. Lawton is wrong again. It is indicated that Atmos has it, but nowhere did I say or assume that it was a decoupling mechanism. Moreover, it is folly for Mr. Lawton to disregard the impact of weather normalization adjustment clauses, as well as the many full decoupling mechanisms in place by a number of my proxy companies by erroneously focusing on only the weather portion and a GRIP mechanism in Texas, which I did not claim is a decoupling mechanism. Such obfuscation of reality does not change the fact that myriad factors affect the market prices that investors pay for stocks, including company-specific factors, industry factors, national and global economic, financial, and political events. Consequently, no one can determine with any degree of quantitative precision the impact that partial or full decoupling mechanisms have on common equity cost rate. It is clear, however, that risk mitigation from partial and full decoupling is reflected in the market prices paid by investors. Because the proxy companies overwhelmingly utilize mechanisms which mitigate the vagaries of weather and declining per customer usage, it is wrong for Mr. Lawton to disregard these realities and act as if they did not exist.

Q. PLEASE COMMENT ON MR. LAWTON'S DISCUSSION OF CUSTOMER CHARGES AND MINIMUM CHARGES AT THE TOP OF PAGE 7 OF HIS REBUTTAL TESTIMONY.

A. Mr. Lawton obfuscates the difference between customer charge and minimum charge. The minimum charge paid by customers allows for a certain amount of usage in MCF or therms. The customer charge is simply a charge for which there is no allowance for a certain level of usage. To the extent that there are actual customer charges in effect for each proxy company, then the proxy group experiences decoupling to an even greater extent than I have indicated which makes Mr. Lawton's criticism even more invalid.

Q. MR. LAWTON, AT PAGES 8-11 OF HIS REBUTTAL TESTIMONY, CRITICIZES YOUR, NOW SUPERSEDED, FORECASTED TOTAL ANNUAL MARKET RETURN OF 28.85% WHICH INDICATED A FORECASTED EQUITY RISK PREMIUM OF 23.77%. PLEASE RESPOND.

A. First of all, early in 2009, the potential for market price appreciation was huge. In fact, the market, as measured by the Dow Jones Industrial ("DJI") average increased by about 47% between March 9 and September 11. Thus, giving only 20% weight to the potential for market price appreciation at that time was conservatively reasonable. Nonetheless, in my update contained in Schedule FJH-21 and shown on line 6 of page 39, the current forecasted market equity risk premium is just 11.49%. Consequently, it is reasonable to assign a 40% weight to it at this time and Mr. Lawton's criticism is unwarranted.

Q. PLEASE RESPOND TO MR. LAWTON'S CRITICISM OF YOUR RISK PREMIUM ANALYSIS AS SET FORTH AT PAGE 11 OF HIS REBUTTAL TESTIMONY.

A. Mr. Lawton seems to have "three basic problems" with my analysis. I will address each in turn. His first problem is that I relied on outdated data. As stated *supra*, my direct testimony was prepared in mid-February 2009. The 2009 *Morningstar* Yearbook was not then available. I have remedied this via my update presented with my rebuttal testimony including a reduction in my recommended common equity cost rate to 10.50%.

Q. WHAT ABOUT THE "SECOND PROBLEM"?

A. Mr. Lawton's second problem seems to be my use of Value Line's forecasted market appreciation potential. I should point out that Mr. Lawton himself relies significantly upon Value Line. Therefore, he must consider Value Line to be investor influencing because he relies upon Value Line for its historical and projected information with regard to EPS, dividends per share (DPS) and book value per share and data in calculating his SV factor. All of those data are derived from the same forecasted economy utilized by Value Line in making its forecasts of market appreciation potential. Value Line's forecast average annual market return has declined as indicated *supra*. In any event, from the market lows reached in March 2009, it is not surprising that there has been a significant increase in capital appreciation due to the substantial decline in the market as a result of the sub-prime initiated global financial crisis. This potential is explained by Dr. Roger Ibbotson, whose comments are contained at pages 56-57 of my direct testimony. Dr. Ibbotson indicates that when markets pull out of calamities, they often have their highest returns. As mentioned *supra*, an indication of what Dr. Ibbotson was referring to has been confirmed by the nearly 47% increase in value for the DJI between March 9 and September 11, 2009 as indicated at page 18 of my rebuttal testimony. Moreover, as a result of the increase in value in the market from the 2009 low, the Value Line potential market appreciation has declined substantially from earlier in the year which was reflected in my update.

Q. **WHAT ABOUT MR. LAWTON'S THIRD CRITICISM?**

A. In Mr. Lawton's third criticism he claims that I mix and match premiums based on bond ratings. Such a comment is an example of the pot calling the kettle black. Mr. Lawton himself uses yield spread differentials in order to formulate an opinion. This is evident by the yield spreads shown by him on his Schedule (DJL-4), which I discussed in my rebuttal testimony. The fact of the matter is that equity risk premia vary inversely with interest rate levels as confirmed by a number of studies published in the financial literature[1]. In other words, the equity risk premia associated with lower rated bonds with higher interest rates are smaller than the equity risk premia associated with higher rated bonds with lower interest rates.

In view of the foregoing, Mr. Lawton's criticisms of my risk premium analysis are without merit.

Q. AT PAGE 12 OF HIS REBUTTAL TESTIMONY, MR. LAWTON SUGGESTS THAT YOUR CAPM IS FLAWED BECAUSE YOU RELIED UPON THE ARITHMETIC MEAN OF THE INCOME RETURN ON LONG-TERM GOVERNMENT BONDS. HOW DO YOU RESPOND?

A. His criticism lacks merit.

Q. WHY?

A. It should be clear from the *Morningstar* discussion relative to the income return shown in its entirety on page 44 of Schedule FJH-21 and discussed at page 22 of my rebuttal testimony, that only the income return is proper to utilize when estimating the cost of capital. In addition to the *Morningstar* comments, I also pointed out, at pages 22-23 of my rebuttal testimony, that in the ratemaking paradigm no concern is given to capital gains or losses to holders of bonds but rather only their yield is relevant (in addition, of course, to the necessary expenses associated with issuance). As *Morningstar* points out:

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1 Morin, Roger A., "New Regulatory Finance", Public Utilities Reports, Inc., 2006, pp. 128-132.

The income return is thus used in the estimation of the equity risk premium because it represents the truly riskless portion of the return.

(Page 44 of Schedule FJH-21.)

The CAPM, after all, is predicated upon a risk-free rate of return. Market fluctuations represent risk associated with any holder who trades the government security in the secondary market. If held to maturity, the yield is the only relevant and riskless portion.

As to Mr. Lawton's criticism of my use of the arithmetic mean, he is wrong. *Morningstar* clearly explains why *only* the use of the arithmetic mean is appropriate when estimating the cost of capital for the reasons explained clearly at pages 45-46 of Schedule FJH-21 and at pages 23-26 of my rebuttal testimony.

In view of the foregoing, Mr. Lawton's comments relative to my CAPM are without merit.

IV. STAFF WITNESS DAVID MURRAY

Q. AT PAGES 23-26 OF HIS REBUTTAL TESTIMONY, MR. MURRAY ADDRESSES YOUR RECOMMENDED COST OF SHORT-TERM DEBT. HOW DO YOU RESPOND?

A. His criticism is not valid.

Q. PLEASE EXPLAIN.

A. Surely Mr. Murray would acknowledge that rates set as a result of this proceeding are to be effective over a period of time in the future. Since it has been approximately 3 years since the last rate case and could be 3 years before MGE's next rate case, a short-term debt cost rate should be indicative of a representative future period of time when new rates would be in effect. Mr. Murray's focus on historical short-term borrowings is not at all consistent with the ratemaking paradigm. The rate utilized by Mr. Murray is a commercial paper rate which is not at all applicable to MGE. The use of commercial paper by the proxy companies, which are substantially larger than MGE, is the result of arrangements made well before the financial crisis, which disrupted the capital markets in late summer and early fall of 2008. Since the financial crisis, the commercial paper market has been closed to all but the largest and highest credit rating companies.

Q. DOES MGE HAVE ACCESS TO THE COMMERCIAL PAPER MARKET?

A. No. A company such as MGE's parent, Southern Union, because of its bottom of investment grade credit rating, its size, and lack of consistent need to issue commercial paper is shut out of that market. Southern Union's current credit facility established several years ago will expire in May of 2010. If Southern Union had to go out in the market today, it would not be able to issue commercial paper and a new credit facility would be extremely costly as indicated by the recent credit facility arrangements by other companies shown on pages 2 and 3 of Schedule FJH-27. It is clear from the information contained on pages 2-3 of Schedule FJH-27 that even for a 364-day credit facility, the rate would be substantially over the current LIBOR rate plus a significant upfront fee.

Q. DOES MR. MURRAY SUPPORT THE INCLUSION OF AN UPFRONT FEE?

A. Yes. He states so at the bottom of page 24 of his rebuttal testimony.

Q. DO YOU HAVE A NEED TO CORRECT THE UPDATED SHORT-TERM DEBT COST RATE PRESENTED AT PAGE 1 OF SCHEDULE FJH-21?

A. Yes, I do. In that update, I erroneously included a 50 basis point adjustment which was a commitment fee on undrawn funds. Since the extent of undrawn funds is unknown, it should be excluded in order to be conservative. In calculating the correct short-term debt cost rate, I based it upon a 364-day credit facility similar to that for Integrys Energy which shows on page 2 of Schedule FJH-27. That arrangement was at a three-month LIBOR rate plus 300 basis points as shown on page 2 of Schedule FJH-27. On page 3 of Schedule FJH-27, it is shown that also there was an upfront fee of 200 basis points. Consequently, with an average rating for my proxy group of Standard & Poor's ("S&P") A and Moody's A3, a spread over the projected three-month LIBOR rate is 262.5 basis points plus an upfront fee of 200 basis points as explained in Note 3 on Schedule FJH-32 which shows that the corrected updated short-term debt cost rate is 5.492%. Also shown on Schedule FJH-32 is the resultant updated, corrected overall cost of capital of 8.137%.

Q. IN THE CURRENT MARKET, COULD MGE RAISE MONEY VIA THE COMMERCIAL PAPER MARKET?

A. No. It is much too small to do so. The commercial market is essentially eliminated, except for the very largest AA or AAA rated organizations. MGE would have to go into the market and experience current market rates such as those indicated in the short-term debt cost rate which I have proposed and is discussed *supra*.

Q. CAN SOUTHERN UNION CONTINUE TO RAISE MONEY ON A SHORT-TERM BASIS AT EXTRAORDINARILY LOW RATES, BASED ON CREDIT FACILITIES ARRANGED YEARS AGO, ON A SUSTAINED BASIS GOING FORWARD?

A. No. As indicated *supra*, Southern Union's credit facility expires in May 2010. With a BBB-/Baa3 rating, Southern Union would likely have to pay, in the current market, the LIBOR rate plus perhaps 375 or more basis points plus a substantial upfront fee due to the bottom of investment grade bond ratings as can be inferred from the information on pages 2 and 3 of Schedule FJH-27.

Q. AT PAGES 6-8 OF HIS REBUTTAL TESTIMONY, MR. MURRAY DISCUSSES THE PROPOSTION THAT IF THE MARKET-TO-BOOK RATIO OF A COMPANY IS ABOVE 1.00 TIME, THIS MEANS THAT A COMPANY IS EARNING MORE THAN ITS COST OF CAPITAL. DO YOU AGREE?

A. No. Regulation is a substitute for the competition of the marketplace. That being the case, one should be able to look at non-price regulated entities operating in the marketplace to determine if this proposition is true. Accordingly, I performed an analysis to determine whether or not there exists such a relationship between market-to-book ratios and earned rates of return on book common equity. That is, if Mr. Murray's contention is valid, non-price regulated companies operating freely in the marketplace should sell at the approximate book values of their common stocks, consistently, over time.

Q. WHAT DOES YOUR ANALYSIS SHOW?

A. As indicated by the analysis, Schedule FJH-33, there is no validity to such presumption. Schedule FJH-33 contains the market-to-book ratios and earned rates of return on book common equity for the S&P Industrial Index and its successor, the S&P 500 Composite Index (which does not include public utilities) over a long period of time. Also shown are the market-to-book ratios, rates of return on book common equity (earnings/book ratios), annual inflation rates, and the earnings/book ratios net of inflation (real rates of earnings) annually for the years 1947 through 2008. In each and every year, the market-to-book ratios equal or exceeded 1.00 time. In 1949, the only year in which the market-to-book ratio was 1.00, the real rate of earnings on book equity, adjusted for deflation, was 18.1% (16.3% + 1.8%). In contrast, in 1961, when the S&P Industrial Index experienced a market-to-book ratio of 2.01 times, the real rate of earnings on book equity for the Index was only 9.1% (9.8% - 0.7%). In 2008 the preliminary market-to-book ratio for the Index was 2.02

times, while the average real rate of earnings on book equity was a meager 2.6%, a rate which common sense confirms is not over-earning.

Q. WHAT CAN ONE CONCLUDE FROM YOUR ANALYSIS?

A. This analysis clearly demonstrates that competitive, non-priced regulated companies have never sold below book value, on average, and have sold at book value in only one year since 1947. Thus, it is clear that there is no relationship between the rates of earnings on book equity and market-to-book ratios. Moreover, as indicated at pages 34-35 of my direct testimony, Phillips and Bonbright confirm that the earnings of utilities should be sufficiently high to achieve market-to-book ratios which are consistent with those prevailing for stocks of unregulated companies (Phillips) and that market prices are beyond the control, but not beyond the influence of rate regulation (Bonbright).

Mr. Murray's contention is without merit and should be disregarded.

Q. AT PAGE 8, LINES 12-20 OF HIS REBUTTAL TESTIMONY, MR. MURRAY CITES AN ARTICLE BY FAMA AND FRENCH REGARDING EQUITY PREMIUM. PLEASE COMMENT.

A. The evidence presented in Schedule FJH-33 covers a period of 62 years, a period far longer than analysts agree is representative of a period of time for the present value of an expected stream of future earnings to be zero or, for all practical purposes, essentially zero. Fama and French, in their conclusions, implicitly confirm that a

DCF cost rate tends to be downwardly biased and that earnings are a better forecast of capital gain than dividends when they state:

> *If we are interested in the unconditional expected annual simple return, the estimates for 1951 to 2000 from fundamentals are downward biased. The bias is rather large when the average growth rate of dividends is used to estimate the expected rate of capital gain, but it is small for the average growth rate of earnings.* ...But our bottom line inference does not depend on whether one is interested in the expected annual simple return or long-term return expected wealth. In either case, the bias-adjusted expected return estimates for 1951 to 2000 from fundamentals are a lot (more than 2.6 percent per year) lower than bias-adjusted estimates from realized returns. *Based on this and other evidence, our main message is that the unconditional expected equity risk premium of the last fifty years is probably far below the realized premium.*
> (Emphasis added)

Basically, the authors are saying that the DCF methodology over the fifty-year period 1951 through 2000 understated the realized actual capital gains but that earnings growth was a better predictor of capital gains than dividend growth.

Q. AT PAGE 9 OF HIS REBUTTAL, MR. MURRAY CONTINUES HIS DISCUSSION ABOUT MARKET-TO-BOOK RATIOS AND MENTIONS A 1980 CASE IN WHICH YOU TESTIFIED ON BEHALF OF KENTUCKY POWER COMPANY. HOW DO YOU RESPOND TO HIS COMMENTS?

A. Mr. Murray's discussion of my 1980 testimony takes the quoted sentence out of context from my Kentucky Power testimony.

Q. PLEASE EXPLAIN HOW YOUR 1980 TESTIMONY CITED BY MR. MURRAY IS TAKEN OUT OF CONTEXT.

A. The late 1970s and early 1980s were a period of extraordinarily high inflation and interest rates. This caused market-to-book ratios to decline substantially, especially for capital-intensive public utilities. Because public utilities are extremely capital-intensive and their need to attract additional capital so important, the very high level of interest rates during that period of time had such an extraordinarily adverse impact on their market prices that their market-to-book ratios fell below 1.00 time. My 1980 comment about the achieved rates of earnings on the book equity of electric utilities being too low was simply a statement of fact. The residual of a cost of service analysis, and hence in an income statement, is the earnings available for common equity. Those earnings provide the margin for the coverage of fixed charges, including interest on debt capital. It is because the levels of fixed charges declined to such a great extent that bond ratings were adversely impacted and, in turn, market-to-book ratios. Thus, the achieved rates of earnings on book equity did adversely affect public utilities, especially the electric utilities, resulting in bond downgradings and market-to-book ratios of less than 1.00 time. Moreover, Mr. Murray's citation of my testimony is misleading in that it fails to reveal that in 1980, as now, I never relied upon a single methodology in order to formulate my recommended common equity cost rate. My recommendations then were lower than indicated by use of the DCF model. In other words, DCF cost rates of 15%-18% were not uncommon, but my recommend common equity cost rates were mitigated by also taking into account the results of other cost of equity models. Currently, exclusive reliance upon the DCF model usually understates the true cost of common equity capital. By consistently using multiple cost of common equity models to formulate my recommendations of common equity cost rate over the years, my testimonies have been consistent and mitigate extreme variances of any single cost of equity model.

Q. AT PAGES 10-12 OF HIS REBUTTAL TESTIMONY, MR. MURRAY DISCUSSES ADJUSTMENTS TO ROE TO ACCOUNT FOR HIGHER MARKET VALUE. DID YOU MAKE SUCH AN ADJUSTMENT?

A. No, I did not. The fact that I did not is indicated by Mr. Murray at the top of page 12 of his rebuttal testimony. He erroneously states that I used this argument to discredit my DCF cost rate result. His contention is without merit.

Q. PLEASE EXPLAIN.

A. If I discredited my DCF cost of common equity, I would not have utilized it. However, as I have indicated a number of times in my direct and rebuttal testimonies, the Efficient Market Hypothesis ("EMH") requires that investors would consider multiple cost of equity models. This is precisely what I have done. I utilized and relied upon the results of three different cost of equity models to formulate my initial and updated recommendations in this proceeding. Moreover, as indicated *supra*, I have used multiple cost of equity models throughout my career as an expert witness.

Q. AT PAGES 12-13 OF HIS REBUTTAL TESTIMONY, MR. MURRAY SUGGESTS THAT RELYING ON OTHER METHODOLOGIES THAN THE DCF ALLOWS YOU TO ADJUST YOUR COST OF EQUITY RECOMMENDATION HIGHER. HOW DO YOU RESPOND?

A. He is simply wrong. His view is contrary to the EMH and the financial literature which encourages the reliance upon multiple models. Moreover, his criticism of my other models is without merit.

Q. ON PAGE 12, LINE 9 THROUGH PAGE 13, LINE 11 OF HIS REBUTTAL TESTIMONY, MR. MURRAY ADDRESSES YOUR RISK PREMIUM ANALYSIS. HE SUGGESTS THAT IT IS MORE APPROPRIATE TO USE A RECENT AVERAGE BOND YIELD THAN A PROJECTED YIELD IN A RISK PREMIUM ANALYSIS. IS HE CORRECT?

A. No. As indicated *supra*, the cost of capital and the ratemaking paradigm are both prospective. Investor expectations are influenced by forecasts by sophisticated economists such as the top 50 economists in the U.S. as surveyed and reported monthly in Blue Chip Financial Forecasts. Thus, such forecasts are reflected in the market prices investors pay both for equity securities as well as debt securities. Indeed, the DCF model upon which Mr. Murray relies so heavily is designed to reflect investors' expectations of the future. Consequently, it is most appropriate to reflect investor expectations with regard to interest rate levels, including yields on long-term debt capital in a risk premium analysis. This concept is consistent with the ratemaking paradigm wherein costs are to be representative of the future when new rates would be in effect. While investors' expectations may not become an actuality, they are reflected in the market prices they pay.

When long-term interest rates started to decline rapidly in the early 1980s as inflation was brought under control, there was little question about using expected lower interest rate levels in such analyses rather than "recent" higher interest rate levels on utility bonds. It is most appropriate to reflect investors' expectations in the application of the DCF model as well as in the risk premium model. Expectations affect risk perception and in turn market prices and yields.

Q. AT PAGE 13 OF HIS REBUTTAL TESTIMONY, MR. MURRAY DISCUSSES THE NEW JERSEY NATURAL GAS SUBSDIARY OF NEW JERSEY RESOURCES BOND RATING. YOU HAD INDICATED THAT IT WAS NOT RATED. HOW DO YOU RESPOND?

A. On this point, Mr. Murray is correct. However, on page 35 of Schedule FJH-21 in connection with my update, I show a Moody's average bond rating of A3 for my proxy group and an S&P rating of A. The update showed no rating for New Jersey Natural Gas by Moody's. Schedule FJH-34 corrects that to show that New Jersey Natural has debt rated Aa3 by Moody's. However, it should be noted from Schedule FJH-34 that the Moody's average bond rating for the proxy group remains A3, and that for S&P remains A. Consequently, my update set forth in Schedule FJH-21 in its entirety remains correct.

Q. AT PAGES 15-16 OF HIS REBUTTAL TESTIMONY, MR. MURRAY DISCUSSES RISK PREMIUMS AND CITES SOME FROM VARIOUS INVESTMENT COMPANIES. SHOULD THEY BE RELIED UPON?

A. No. Equity Research Reports from the referenced organizations including those shown in corrected schedules 20-1 through 20-7 are not available to the general public. Consequently, such information is incompatible with the EMH which means that "information is widely and cheaply available to investors…"[2]. Moreover, Mr. Murray has provided no details, though requested, of the basis of those inputs, how and when derived. In view of the foregoing, no weight should be given to them as support for Mr. Murray's recommended range of ROE.

Q. PLEASE ADDRESS MR. MURRAY'S CONCERNS WITH YOUR CAPM ANALYSIS AT PAGES 17-19 OF HIS REBUTTAL TESTIMONY.

A. My response to his concerns is essentially the same as they were regarding my risk premium analysis, as discussed *supra*.

Q. AT PAGES 19-20 OF HIS REBUTTAL TESTIMONY, MR. MURRAY TAKES ISSUE WITH YOUR SIZE ADJUSTMENT IN RECOGNITION OF MGE'S SMALLER SIZE VIS-À-VIS THE PROXY COMPANIES. HOW DO YOU RESPOND?

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2 Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance, 5th Edition, McGraw-Hill, 1996, p. 323.

A. Both Mr. Murray and Professor Wong, whom he cites, are incorrect. The financial literature is quite clear about the small size effect. See, for example, the quotes from Professor Eugene Brigham and *Morningstar* at page 12 of my direct testimony. Moreover, as noted by *Morningstar*, the size relationship "cuts across the entire size spectrum but is most evident among smaller companies…"

It is true that the study upon which I rely was based upon all stocks in the New York Stock Exchange, the American Stock Exchange and the NASDAQ. As shown on page 4 of Schedule FJH-1 and page 4 of Schedule FJH-21, all of the companies in my proxy group of gas distribution companies, as well as all of the companies in Mr. Murray's proxy group are traded on the New York Stock Exchange. Schedule FJH-35 which consists of three pages, compares the size effect within industries from *Morningstar* upon which I relied. Page 3 of Schedule FJH-35 shows that for the utility grouping S.I.C. Code 49, Electric, Gas & Sanitary Services, there was indeed a size premium for small companies of 3.02% over larger companies in the same S.I.C. Code 49 based upon data contained in *Morningstar*'s Ibbotson SBBI 2008 Valuation Yearbook. This means that there was an average size premium of 302 basis points in absolute terms, which was 27.12% greater than the arithmetic mean return of 11.10% for the large Electric, Gas & Sanitary Services company group (or 14.11% for the small Electric, Gas & Sanitary Services company group) over the same period, 1926 through 2007.

Q. **WHAT ABOUT PROFESSOR WONG'S STUDY?**

A. Professor Wong's study is flawed because she attempted to relate a change in size to beta, and beta accounts for only a small percentage of diversifiable company-specific risk. Size is company-specific and it is a diversifiable risk. For example, the average R-Squared ("R^2"), or coefficient of determination, for Mr. Murray's seven proxy companies is 0.2146 while the median is 0.2039 as shown on Schedule FJH-36.

What those R-squareds mean is that the beta for Mr. Murray's seven company proxy group accounts for only 20-21% of diversifiable company risk. In other words, about 80% of total risk is unexplained by beta. Mr. Murray's contention is incorrect as are the conclusions drawn by Professor Wong. They should be disregarded.

Q. AT PAGE 3, LINES 8-9 OF HIS REBUTTAL TESTIMONY, MR. MURRAY, IN ATTEMPTING TO DENIGRATE THE SMALL SIZE ADJUSTMENT WHICH YOU MADE FOR MGE STATES: "ADDITIONALLY, MGE IS A DIVISION OF A LARGER COMPANY." PLEASE COMMENT.

A. By relying upon the proxy LDCs that he utilized to formulate a recommended range of common equity cost rate, Mr. Murray has equated MGE to a stand-alone company trading in the marketplace because he has assigned cost rates, albeit incorrect, derived from stand-alone proxy companies whose common stocks are actively traded in the marketplace. As indicated at pages 20-21 of my direct testimony, based upon the financial literature from Brealey and Myers and Brigham and Daves, it is very clear that the true cost of capital depends on the use to which capital is put, in other words, where capital is invested. In this instance, it is invested in MGE's rate base. The fair rate of return allowed on that rate base is applied to that rate base and only that rate base. Consequently, the common equity cost rate must relate to the risk associated with investment in that rate base including size differential which the financial literature confirms goes across the entire size spectrum. Moreover, as discussed *supra* and shown by the data in Schedule FJH-35, it applies as well to utilities by comparing large utilities to small utilities.

In addition, Eugene Fama and Kenneth French, whom Mr. Murray cites as to "the Equity Premium" which I discussed *supra*, make clear in their 2004 paper, "The Capital Asset Pricing Model: Theory and Evidence" mentioned at page 11 of my direct testimony include size as one of three critical factors in the application of their three-factor CAPM.

Q. AT PAGES 21-22 OF HIS REBUTTAL TESTIMONY, MR. MURRAY DISCUSSES YOUR DECISION TO NOT MAKE ANY DOWNWARD ADJUSTMENT TO COMMON EQUITY COST RATE ATTRIBUTABLE TO MGE'S SFV RATE DESIGN. HE DISCUSSES WHAT HE BELIEVES TO BE A MORE BALANCED COMPARISON OF REVENUES BY INCLUDING EACH ENTITY'S TOTAL REVENUES, I.E., INCLUDING REVENUES FROM NON-REGULATED OPERATIONS. IS HE CORRECT?

A. No. As discussed *supra*, the cost rate of common equity capital in this proceeding is applied only to MGE's regulated rate base. Under the EMH, investors looking to proxy companies for insight into common equity cost rate would be aware of this. Consequently, they would glean from publicly-available information, as did I, the percentage of revenues from regulated gas operations. Moreover, on page 22 of his rebuttal testimony, Mr. Murray acknowledges that my proxy companies are appropriate to utilize in estimating common equity cost rate for MGE. Mr. Murray's rationale is flawed and no amount of doublespeak can change the fact that my proxy companies have tariff tools which substantially protect from the vagaries of weather and conservation, thus eliminating any basis or need to make any sort of compensating adjustment to ROE on account of the SFV rate design, a concept recognized by this Commission in its January 27, 2009 Report & Order in Case No. ER-2008-0318 re: Union Electric Company d/b/a AmerenUE as discussed at pages 40-41 of my rebuttal testimony.

Q. PLEASE RESPOND TO MR. MURRAY'S "PRIMARY CONCERN" WITH MR. LAWTON'S APPROACH TO THE DETERMINATION OF A FAIR RATE OF RETURN IN THIS CASE AS EXPRESSED AT PAGES 26-27 OF HIS REBUTTAL TESTIMONY.

A. It is very clear from Mr. Murray's direct testimony and at page 28 of his rebuttal testimony that he believes that the use of a hypothetical capital structure based upon proxy gas distribution companies is appropriate to use to establish a fair rate of return for MGE in this proceeding. Nonetheless, Mr. Murray suggests that this

Commission's past precedent should be applied if it intends to use Southern Union's capital structure, namely, to include Panhandle Eastern's debt and exclude the costs associated therewith.

Q. WHAT DO YOU HAVE TO SAY ABOUT MR. MURRAY'S APPROACH?

A. Such an approach is entirely incorrect. As Mr. Murray notes at page 27 of his testimony, in citing this Commission's Report and Order in Case No. GR-2004-0209, Panhandle Eastern's debt is not the debt of Southern Union; it was raised for its own purposes and is rated separately by the rating agencies; such debt is non-recourse to Southern Union; and if Panhandle were in default on its debt, the debtholders would not be able to seize assets of Southern Union to collect the debt. In view of these facts, it is very clear that the Panhandle Eastern debt cannot be assumed to have been, or be, available to finance MGE's rate base. Therefore, it would be totally incorrect to include the Panhandle Eastern debt in calculating the capital structure ratios, while excluding the costs associated with such debt. Frankly, I believe that is more of a matter common sense than it is a level of financial acumen.

Q. PLEASE EXPLAIN.

A. In essence, if the Southern Union capital structure were to be a beginning point, the foregoing facts confirm that the Panhandle Eastern debt should not be included and consistency and common sense would mandate that the costs associated therewith also not be included. Such a ratemaking capital structure, which excludes both Panhandle Eastern's debt and associated costs and the cost rates of its component parts would be as indicated on page 1 of Schedule FJH-37. Shown on the left-hand side of page 1 of Schedule FJH-37 is the consolidated capital structure and component cost rates of Southern Union's consolidated capital structure also shown on Schedule FJH-21, page 1 of 55. To the right-hand side of page 1 of Schedule FJH-37, I have shown the capital structure of Southern Union excluding both the Panhandle Eastern debt and costs associated therewith. The long-term debt cost rate changes somewhat and is 6.173% as determined from the supporting data on page 2 of Schedule FJH-37. The short-term debt cost rate remains the same as does the cost rate of preferred securities. As indicated in Note 3 on page 1 of Schedule FJH-37, inasmuch as the common equity ratio is 47.82% based on a capital structure excluding Panhandle Eastern debt, the common equity cost rate has been reduced to 12.480% from the 13.90% relative to the 38.61% consolidated common equity ratio. I have relied upon a Hamada adjustment in order to reflect a lower common equity cost rate applicable to a 47.82% common equity ratio from the 13.90% associated with the consolidated common equity ratio of 38.66%. The 13.90% common equity cost rate was reduced by 142 basis points to 12.480%. As shown, the resultant overall cost of capital is 9.225%.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes, it does.