Exhibit No.: 051
Issues: Return on Equity
Witness: Kathleen C. McShane
Sponsoring Party: Union Electric Company
Type of Exhibit: Surrebuttal Testimony
Case No.: ER-2007-0002
Date Testimony Prepared: February 27, 2007

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2007-0002

SURREBUTTAL TESTIMONY

OF

KATHLEEN C. McSHANE

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a AmerenUE

St. Louis, Missouri
February, 2007

TABLE OF CONTENTS

SURREBUTTAL TESTIMONY

OF

KATHLEEN C. McSHANE

CASE NO. ER-2007-0002

Q. Please state your name and business address.

A. My name is Kathleen C. McShane. My business address is 4550 Montgomery Avenue, Bethesda, Maryland 20814.

Q. Are you the same Kathleen C. McShane who filed Direct and Rebuttal Testimony in this proceeding?

A. Yes, I am.

Q. What is the purpose of your Surrebuttal Testimony in this proceeding?

A. I will address the Rebuttal Testimony of the following witnesses: Stephen G. Hill (Missouri Public Service Commission Staff), J. Randall Woolridge (State of Missouri),[1] and Charles W. King (Office of the Public Counsel).

Q. Please summarize your Surrebuttal Testimony.

A. The principal conclusions of my Surrebuttal Testimony are as follows:

(1) With respect to my financial risk adjustment, I conclude the following, in contrast to Mr. Hill's contentions:

(a) its adoption would not produce a return in excess of AmerenUE's cost of equity;

(b) it is not circular, and would not result in higher and higher allowed returns;

[1] Dr. Woolridge's January 31, 2007 testimony is (mistakenly, I believe) marked "Direct Testimony." For ease of exposition, I shall refer to it as Rebuttal Testimony.

(c) the financial literature does not support using book value capital structures;

(d) the fact that investors are exposed to information on book value capital structures does not detract from the conclusion that it is market value capital structures that determine the variability of returns to equity investors and thus their cost of equity;

(e) there are regulatory precedents for the use of market value capital structures for estimating the overall cost of capital or for recognizing financial risk differences;

(f) my approach combines accepted financial principles with the existing original cost regulatory paradigm;

(g) the application of the financial risk adjustment does not produce illogical results.

(2) With regard to the discounted cash flow test,

(a) the selection criteria that I used to select my proxy companies are reasonable;

(b) my reliance on analysts' forecasts of earnings growth is an objective means of estimating investors' growth expectations. In contrast, the other parties impute their own subjective estimates of growth, casting doubt on the reliability of their results.

(3) My risk premium analysis based on historic utility returns produces a reasonable measure of the forward-looking differential between the expected utility return and the risk-free rate;

(4) With respect to my DCF-based risk premium test:

(a) the period covered is appropriate in light of the similarity between the current and projected interest rate environment and the interest rate environment experienced during the period of analysis, as well as the changed business risk environment since FERC Order 888;

(b) the analysts' earnings growth forecasts that I used are an objective representation of investors' growth expectations;

(c) the criticism that the results of this study are inconsistent with my DCF test is without merit.

(5) My Capital Asset Pricing Model estimates incorporate an equity market risk premium and betas for my comparable companies that are, respectively, reasonable measures of the differential between the expected return for the equity market and the risk-free rate and the forward-looking relative risk of electric utilities.

Q. How is your Surrebuttal Testimony organized?

A. Since the witnesses identified above addressed similar portions of my Direct Testimony, I will address their comments by topic. Specifically, I will address my financial risk adjustment, my discounted cash flow analysis (including the selection of comparable companies), my application of the Capital Asset Pricing Model and the two other risk premium tests. I have already addressed the comparable earnings test in my Rebuttal Testimony in response to the Direct Testimony of Mr. Michael Gorman (Missouri Industrial Energy Consumers) and will not repeat my response here.

I. FINANCIAL RISK ADJUSTMENT

Q. Please review the premise of the financial risk adjustment that you make to your estimates of the cost of equity capital for the comparable companies.

A. The premise is as follows: The cost of equity capital is a function of total investment risk, where investment risk reflects the potential variability of equity returns generated in the capital market. The variability of returns on an equity investment, in turn, is a function of business and financial risk. Business risk reflects the composite of the operating elements of the underlying operations of the firm that determine the variability of future returns and the probability that future market returns to equity investors will fall short of their expected and required returns. Financial risk represents the additional variability in the market return to equity investors resulting from debt financing. Equity returns generated in the capital markets relate to the market value of the equity and financial risk in the context of the cost of equity capital is measured using market value capital structures.

An example may help demonstrate how the market value capital structures impact the variability of returns to the equity investor and determine financial risk. Assume that a company has both debt and equity financing, where the market value of its debt is $500 and the market value of its equity is also $500. The expected value of the earnings before interest is $100[2] and the interest payments on the debt are $25. Assume that there are three possible outcomes, each with equal probability, as set out in the table below.

[2] For simplicity, I am assuming that there are no income taxes.

Table 1

	Outcome 1	Outcome 2	Outcome 3
Earnings before Interest	$100	$110	$90
Earnings after Interest	$75	$85	$65
Return to Equity Investor (on $500 equity investment)	15%	17%	13%

Given the range of possible outcomes, the standard deviation of the returns to the equity holder is 2.0%.

Assume, in the alternative, that the market value of the debt of the firm remains at $500, but the market value of the equity is $750, i.e., the market value common equity ratio is higher than in the first case. The potential outcomes in terms of earnings before interest are unchanged, and the interest payments are unchanged. The potential returns to the equity investor are now 10.0%, 11.33% and 8.67%, and the standard deviation of possible equity returns is now lower, at 1.33%. The higher market value common equity ratio translates into a lower variability of possible returns to the equity investor, thus lower financial risk and a lower cost of equity.

I have estimated the cost of equity by reference to a sample of comparable companies whose financial risk, as reflected in their market value capital structures, is lower than that of AmerenUE as reflected in its common equity ratio proposed for ratemaking purposes. Thus the cost of equity estimated for comparable companies must be adjusted to recognize AmerenUE's higher financial risk.

Q. For what reasons do the intervenor witnesses criticize your financial risk adjustment?

A. Mr. Hill criticizes it on the following grounds: (1) it would result in a return for AmerenUE that would exceed its cost of capital; (2) it is circular; (3) a company cannot have two different levels of financial risk at the same time (market value and book value); (4) there is support for use of book value capital structures in the literature of corporate finance; (5) the information that investors are exposed to is book value capital structures; (6) the use of book value capital structures is a long-standing paradigm of regulation and impounded into the prices investors are willing to pay for utility stocks; and (7) the financial risk adjustment represents a departure from the approach I have taken in past testimony. Dr. Woolridge also criticizes the adjustment on the grounds that (1) in his view, when market-to-book ratios are in excess of 1.0, this constitutes evidence that utilities are earning more than their cost of equity; (2) capitalization ratios are reported on a book value basis; (3) no regulator before whom I have recommended such an adjustment has adopted it in a final order; and (4) it produces illogical results.

Q. Mr. Hill (at page 2 of his Rebuttal Testimony) claims that you are recommending the use of market value capital structure percentages to calculate the overall cost of capital to be applied to AmerenUE's original cost rate base. Is that what you are doing?

A. No. As I indicated in my Rebuttal Testimony (p. 16), my recommended return on equity is to be applied to the book value of the common equity that is financing AmerenUE's rate base assets (and thus to book value percentages of debt and equity). However, the recommended return on equity is developed from the cost of equity for proxy

companies using market data; their cost of equity reflects the level of financial risk inherent in their market value capital structures. A failure to properly recognize the relatively higher level of financial risk in AmerenUE's book value capital structure (to which the allowed return is applied) results in an underestimate of its cost of equity.

Q. Would the application of your recommended return allow AmerenUE to earn a return in excess of its cost of equity?

A. No. The financial risk adjustment accounts for the difference in the financial risk faced by the comparable companies as reflected in their market value capital structures and the financial risk inherent in the book value capital structure to be used in setting AmerenUE's rates, which results in a recommended return that equals AmerenUE's cost of equity.

Q. Is the financial risk adjustment circular, as Mr. Hill suggests, and would its adoption result in higher and higher allowed returns?

A. No. First, the adjustment is not circular, as it is based on the financial risk inherent in the market value capital structures of the comparable companies, not the market value capital structure of AmerenUE. To the extent that the prices of utility shares reflect allowed returns, circularity cannot be totally avoided when other regulated companies are used to determine the cost of equity for AmerenUE (or any other utility). However, the market value capital structures of the comparable companies are independent of the allowed return for AmerenUE. Thus, the circularity that exists when the cost of equity is estimated using data for the Company itself rather than for comparable companies is eliminated.

With respect to Mr. Hill's contention that adoption of the financial risk adjustment will result in higher and higher returns, that contention is erroneous. If investors

expect regulators generally to recognize the financial risk difference between the utilities' market and book value capital structures in setting allowed returns, allowed returns would equal the utilities' cost of equity, and the market price of utility shares would remain unchanged. If, on the other hand, regulators' decisions resulted in an increase in the market value of equity, those decisions would lead to a lower level of financial risk, and a lower cost of equity.

Q. What is your response to Mr. Hill's claim that a utility cannot have two different levels of financial risk at the same time?

A. Mr. Hill's claim is based on the proposition that the level of fixed charges incurred by a utility is the same whether the capital structure is measured on a market value or book value basis, and thus the income stream (and the potential volatility of the income stream) is the same whether the market value or the book value capital structure is used. I do not disagree with the Mr. Hill's statement that the level of fixed charges incurred by a utility is the same irrespective of how the capital structure is measured. However, the cost of equity is a function of the variability in equity market returns; the variability of returns to the equity shareholder, as illustrated in Table 1 and the subsequent paragraph at page 5 above, is higher when the market value common equity ratio is lower.

Q. Is there support in the financial literature for the use of book value capital structures for estimating the cost of capital?

A. The financial literature virtually uniformly relies on market value capital structures to estimate the cost of capital. Mr. Hill himself recognizes (at page 13 of his Rebuttal Testimony) that the Company's testimony on the existence of market value capital structure theory is correct.

Q. Mr. Hill states that there is also support for the use of book value capital structures and cites one textbook and two articles in that regard. Do you have any comments on his citations?

A. Yes. First, he cites two articles that were cited by an author who Mr. Hill concedes is a proponent of the use of market value capital structures in the estimation of the cost of capital.[3] The first article, Grover S. Elliott, "Analyzing the Cost of Capital", *Management Accounting*, December 1980, is clearly a cursory introduction to the subject of cost of capital aimed presumably (given the periodical) at accountants. The article does not deal in any substantive manner with key issues involved in estimating the cost of capital (including whether or not book or market value capital structures should be used), and in fact makes other recommendations that are clearly inconsistent with financial theory and practice.[4]

The second article, William Beranek, "The Weighted Average Cost of Capital and Shareholder Wealth Maximization", *The Journal of Financial and Quantitative Analysis*, Volume 12, No. 1, March 1977, demonstrates that, under restrictive assumptions (e.g., a one period model with the market value being equal to the present value of the firm's income), the use of a book value capital structure or a market value capital structure to calculate the cost of capital will result in the same net present value in capital budgeting. While the article concludes that the use of book value capital structures would give the same accept/reject decisions for capital budgeting purposes as market value capital structures, and that book

[3] Erhardt, Michael, *The Search for Value: Measuring the Company's Cost of Capital*, Harvard Business School Press, Boston, MA, 1994.

[4] For example, Mr. Elliott recommends using the average return on stockholders' equity for all industries as the cost of equity, without any recognition that different industries or companies or projects could face materially different costs of equity.

value capital structures may have operational advantages for that purpose, it does not conclude that the book value capital structure is the correct way to calculate the cost of capital.

The text to which Mr. Hill refers is Eugene F. Brigham, and Louis C. Gapenski, *Intermediate Financial Management*, Fort Worth, TX: Dryden Press, 5th edition, 1996. In the 8th edition, Dr. Brigham states,

> Back in Chapter 9, when we discussed the cost of capital, we stated that the weights used to find the WACC should be market values, not accounting values. The reason for that choice was based on the though process set forth in this chapter – the *optimal capital structure* is the one that maximizes the firm's *market value*, that structure should be estimated and then used as the target capital structure, and the target structure should be used to set the *weights for the* WACC. Before MM's work in the 1950s and 1960s, people generally focused on accounting book values, and found the WACC using book values. That was wrong, and it led to seriously incorrect estimates of WACC and thus to incorrect capital budgeting decisions. This is yet another example of how advances in finance theory have led to better financial decisions. (Eugene F. Brigham, and Phillip R. Daves, *Intermediate Financial Management,* Thomson Southwestern, 8th Edition, 2004, page 515)

It is clear that Dr. Brigham is of the view that using market value capital structures is the appropriate way to estimate the cost of capital.

Thus, none of the documents cited by Mr. Hill supports his assertion that "there is also support for the use of book-value capital structures in the literature of corporate finance" while, as acknowledged by Mr. Hill, "there is certainly support in the financial literature for the use of market-based capital structures."[5]

[5] Mr. Hill's Rebuttal Testimony, page 13.

Q. What about the argument made by both Mr. Hill and Dr. Woolridge that it is book value capital structure information to which investors are exposed?

A. Investors are exposed to information on both. However, to buy a share of stock in any company, the investor will have to pay market not book value. Therefore, investors make their investment decisions on the basis of market values, not book values. Market values determine the variability of equity returns to equity investors, not book values. So, while equity investors may be exposed to information regarding book value capital structures, the risk for which investors require compensation is a function of market prices and variability of market prices, not book values.

Q. Please address Mr. Hill's comment that his use of book value capital structures with original cost ratemaking is a long standing regulatory paradigm.

A. While it is true that most regulators in the U.S. use original cost rate base and book value capital structure ratios for the purpose of setting the allowed return, it is not universal. The Surface Transportation Board expressly uses market value capital structures to set railroad rates.[6] The Federal Communications Commission and state regulatory commissions also expressly use market value capital structures for determining the cost of capital to be used in setting the wholesale rates to be charged by incumbent telephone companies for unbundled network elements.

The Pennsylvania Public Utility Commission uses original cost ratemaking and book value capital structure percentages for the purpose of setting the allowed return (i.e., the same approach followed by the MPSC), but has also recognized that market based cost of equity estimates are derived from analyses that reflect a different level of financial

[6] Surface Transportation Board, Railroad Cost of Capital – 2005 STB Ex Parte No. 558 (Sub-No 9), September 15, 2006.

risk than reflected in the book value capital structures. The Pennsylvania PUC noted specifically that use of market based DCF cost of equity estimates creates a

> mismatch between the financial risk on which the DCF return on equity capital is based and the financial risk embodied in rate setting (book value capitalization). This results as the capitalization of a utility measured at its market value contains relatively less debt than the capitalization measured at its book value when market price is above book value. The capital structure ratios measured at the book value show more financial leverage (debt) and, therefore, higher risk than the capitalization measured at its market value. It is then necessary to adjust the market based DCF results to reflect the higher financial risk of the book value capital structure used for rate setting purposes.[7]

Thus, the Pennsylvania Public Utility Commission has recognized through the allowed return on equity the financial risk difference between the market value capital structures underpinning the cost of equity estimates without abandoning the original cost/book value capital structure ratemaking paradigm. Similarly, my proposed financial risk adjustment does not seek to abandon the regulatory paradigm followed by the Missouri Commission. Rather, it is intended to join financial theory and practice with the existing regulatory paradigm.

Q. Mr. Hill references a decision of the West Virginia Public Service Commission (at page 9 of his Rebuttal Testimony) in which the Commission rejected a financial risk adjustment as being inconsistent with original cost regulation. Do you have any comments?

A. It bears noting that the decision was appealed to the West Virginia Supreme Court, but never decided, since the company, West Virginia-American Water Company, settled the case with intervenors and withdrew its petition to the Court. In Pennsylvania, the

[7] Pennsylvania Public Utility Commission et al. v. PPL Electric Utilities Corporation, Rulemaking Proceeding 0049255, December 2, 2004.

same issue was taken to the Commonwealth Court of Pennsylvania and the financial risk adjustment was upheld.[8]

Q. Mr. Hill believes that the recent vintage of your proposed financial risk adjustment diminishes the credibility of the testimony. Please respond.

A. I have always recognized that, because the cost of equity is estimated by reference to market values, but in original cost ratemaking, the allowed return is applied to book values (and book value capital structures), the implications of a material divergence between the two need to be accounted for in the allowed return. Recognition of the financial risk difference between the market value capital structures of the proxy sample and AmerenUE's filed-for capital structure, as I have done in my testimony in this case (as well as in Docket Nos. 06-0070, 06-0071, and 06-0072 before the Illinois Commerce Commission), recognizes the divergence on the basis of accepted financial theory. In prior testimony before this Commission, I have accounted for the divergence by recognizing that the long-run equilibrium market value of equity is above book value. That approach is also grounded in economic theory.

Q. Mr. Hill quotes a piece of testimony that you filed with the Board of Public Utilities Commissioners of Newfoundland and Labrador in which you stated that the rate base is measured on the basis of original costs and that you informed the Board that "book value capital structure ratios were appropriate for setting utility rates"

[8] Popowsky v. Pennsylvania Public Utility Commission, Commonwealth Court of Pennsylvania, No. 301 C.D. 2004, March 1, 2005.

(page 26 of Mr. Hill's Rebuttal Testimony). Has Mr. Hill correctly characterized what you said?

A. No. The testimony to which Mr. Hill referred was a simple description of the Board's approach, and made no comment about whether it was appropriate or not. Nevertheless, as I stated earlier, I am not recommending in this case that the Missouri Commission abandon use of book value capital structures or original cost ratemaking, but rather that it recognize the lower financial risk in the market value capital structures of the comparable companies when it authorizes the allowed return for AmerenUE on its ratemaking (book value) capital structure.

Q. Dr. Woolridge claims that the financial risk adjustment is unwarranted because market-to-book ratios above 1.0 are evidence that utilities are earning rates of return higher than their cost of equity. Is this the case?

A. As I discussed in my Rebuttal Testimony, that conclusion is flawed on several counts. To reiterate, first, book values reflect accounting conventions that can result in a significant divergence between the recorded values and true economic values. Second, market values do not reflect current or past earnings, but future expected earnings. As I noted in my rebuttal testimony, Dr. Woolridge's own workpapers demonstrate that there are utilities that have earned returns equal to or below their cost of debt and which have market-to-book ratios in excess of 1.0. Third, market valuations are relative, not absolute. They will reflect the tenor of the overall market.[9] Fourth, there is no economic reason that market-to-book ratios should equal one. Economic theory holds that the market value should, in

[9] In my Rebuttal testimony, I stated that, at January 1, 2007, the market-to-book ratio of the S&P 500 was 3.1 times; the corresponding market-to-book ratio of the S&P Industrial Index was 3.6 times. In comparison, utility market-to-book ratios are quite modest.

equilibrium, be equivalent to the replacement cost of the assets, not the accounting book value.

Q. Dr. Woolridge also alleges that the results of the financial risk adjustment are illogical, that is, it increases the equity cost rate for a high market-to-book ratio company and decreases it for a low market-to-book ratio company. Do you agree with him?

A. No. The financial risk adjustment does not relate to the market-to-book ratio of a particular company, but to the market value capital structures of my sample of proxy companies relative to the ratemaking book value capital structure of the subject company (in this case, AmerenUE).

II. DISCOUNTED CASH FLOW ANALYSIS

Q. What issues with respect to your discounted cash flow analysis will you address?

A. I will deal with sample selection, the choice of growth rates, and the reliability of the DCF results.

Q. Mr. King criticizes your sample of comparable utilities because he believes it is too restrictive, inasmuch as you have only selected companies with nuclear generation. He claims that nuclear ownership is no longer a distinguishing characteristic. What is your response?

A. I disagree. As I indicated in my direct testimony, Moody's made a point of noting that AmerenUE is one of a declining number of single asset nuclear plant operators in the country. S&P has stated, with respect to nuclear generation that "Exposure to outages and their attendant costs is often exacerbated because nuclear outages tend to be lengthy

relative to outages at other types of generation units given the complexity of nuclear reactors and the safety and regulatory issues that must be addressed before a nuclear unit is returned to service."[10] S&P has also noted, with respect to new nuclear plant construction, S&P is of the view that, despite the recent excellent performance of nuclear plants, historic risks will persist throughout a new plant's life cycle. These risks include cost growth, design and scope changes, permitting delays, public opposition, regulatory changes, latent technical defects, and uncertain decommissioning costs. All else being equal, S&P has concluded, an electric utility with nuclear exposure has weaker credit than one without.[11] Using ownership of nuclear generation as a screen for comparability with AmerenUE, my sample of comparable utilities includes 17 companies, which is of sufficient size to produce reliable test results.

Q. Mr. Hill takes issue with your criterion that 80% of assets must be devoted to electric operations, because he says that selection screen does not recognize that some unregulated operations are not capital intensive, and thus a company like TXU, with only 22% of revenues from regulated operations pass the screen. Is that concern justified?

A. No. The 22% of revenues cited by Mr. Hill refers to revenues from electricity delivery (distribution and transmission), which account for approximately 35% of total assets. The remainder of the business, which is largely related to electricity generation (and thus is included in electricity operations), is very capital intensive (65% of total assets).

[10] S&P, *S&P Seeks Improved Risk –Assessment Metrics for U.S. Nuclear Power*, December 20, 2005.
[11] S&P, *Time for a New Start for U.S. Nuclear Energy?*, June 4, 2003.

III. GROWTH RATES

Q. What are the growth rate issues that you intend to address?

A. Both Mr. Hill and Dr. Woolridge take issue with the exclusive use of analysts' earnings forecasts as the measure of investor expected long term growth rates. Mr. Hill's basic assertions are that (1) analysts' estimates of earnings growth may or may not reflect investors' consensus view regarding long-term growth, (2) analysts may overstate growth expectations and (3) sustainable growth rate estimates are as good or better than those obtained from analysts' forecasts of earnings growth. Dr. Woolridge's contention is that analysts' forecasts of earnings growth are upwardly biased estimates of future growth.

Q. Why do you use forecast growth rates exclusively (in contrast to Mr. Hill, who uses both historical and forecast growth rates)?

A. The objective is to estimate investors' expectations of future growth. The analysts' forecasts are the most objective measure of what investors expect going forward. As I noted in my Direct Testimony, to the extent history is relevant in deriving the outlook for earnings, it should already be reflected in the forecasts. Therefore, reliance on historic growth rates is at best redundant, and, at worst, potentially double counts growth rates which are irrelevant to future expectations. Various studies have concluded that analysts' forecasts are a better predictor of growth than naïve forecasts equivalent to historic growth. Further, analysts' forecasts have been shown to be more closely related to investors' expectations.

Q. Mr. Hill states that while, "to your credit", you used *Value Line* projections as well as the IBES forecasts in the application of the constant growth DCF

model, you used only its earnings projections and not the dividend or book value growth projections. Can you explain why that is the case?

A. Yes. The growth rate to be estimated in the constant growth DCF model is a single growth rate that investors expect into perpetuity. Ultimately all cash flows (dividends and capital appreciation) to investors must be generated by earnings.

Q. Mr. Hill takes issue with your reliance on the article David A. Gordon, Myron J. Gordon, and Lawrence I. Gould, "Choice Among Estimates of Estimating Share Yield", *The Journal of Portfolio Management,* Spring 1989 in support of your sole reliance on earnings growth rates. He claims that the study supports use of retention growth rates as Mr. Hill did. Is that a fair representation of what the study in the article found?

A. No. The study tested the accuracy of four methods of estimating the growth component of the DCF model (past dividend growth, past retention growth, past earnings growth and security analysts' earnings forecasts) and concluded that security analysts' forecasts were the most accurate. The article makes the assertion that if they had made retention growth rate estimates, it is likely the correlations would have been as good as or better than the analysts' forecasts. However, the authors did not undertake that study.

Q. Doesn't the article suggest that the analysts' forecasts of earnings may have been based on estimates of retention growth?

A. Yes. However, in applying the DCF test, the growth component should be what investors expect the long-term growth rate to be, not what I expect it to be, or Mr. Hill expects it to be. To the extent that analysts have taken into account retention growth in their forecasts of future earnings, their earnings forecasts already reflect this information. Their

published estimates, widely available to, and relied on by, investors are the most objective measure of what investors expect and impound into share prices.

Q. Dr. Woolridge criticizes the use of analysts' forecasts on the grounds that they are upwardly biased estimates of investor growth expectations. Please comment on his conclusions in this regard.

A. First, little research has been done on the properties of the long-term forecasts, as noted in Harris, Robert S. and Marston, Felicia C., "The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts", *Journal of Applied Finance*, Vol. 11, 2001. The authors, who use analysts' long-term growth forecasts to develop DCF estimates and risk premiums for the equity market as a whole, go on to say, "Analysts' optimism, if any, is not necessarily a problem for the analysis in this paper. If investors share analysts' views, our procedures will still yield unbiased estimates of required returns and risk premia." Since the analysts' forecasts continue to be widely disseminated, and stock prices continue to react positively and negatively to differences between forecast and actual growth rates, investors clearly give significant weight to analysts' forecasts when forming their own expectations.

A relatively recent study entitled "The Level and Persistence of Growth Rates", *Journal of Finance*, Vol. LVIII, No. 2, 2003 by Louis C. Chan, Jason Karceski and Josef Lakonishok, which divided all US stocks with available IBES growth rates into value-weighted portfolios, found that the companies with the highest expected growth rates had actual growth rates in excess of the levels forecast five years previously, but the lowest growth portfolio (where utilities would fall) did not exhibit the same tendency. This outcome

would not be unexpected, since utility business models are relatively transparent compared to, for example, high tech firms.

Q. Dr. Woolridge provides some analysis of the differences between forecast and actual earnings for electric utilities that purports to show that analysts' forecasts overestimate actual growth. Do you have any concerns with his analysis?

A. Yes. First, Dr. Woolridge's study compares the actual growth in earnings reported in a particular quarter to the growth forecast made in the same quarter four years previously. This comparison is problematic since (1) individual analysts' forecast earnings for different time periods (i.e., not necessarily for four years as Dr. Woolridge's analysis assumes); (2) their earnings forecasts are typically normalized so that the earnings forecasts smooth over business cycle fluctuations; and (3) the forecasts are also normalized for unusual items (e.g., the earnings forecasts would exclude write-offs, impacts of discontinued operations, etc.). Further, the results of the study appear to be fundamentally influenced by the period of time covered by the analysis (1994-2006). The period covered would reflect not only the principal years of restructuring in the electric utility industry but also the western energy crisis, whose negative effects on earnings analysts would not necessarily have been able to accurately predict. Nevertheless, even if the growth in earnings turn out to be lower than forecast, that is not a reason to conclude that the forecasts did not constitute investors' estimates of future growth at the time they were made.

Q. Mr. Hill argues that the DCF test is more reliable than other tests for estimating the cost of equity. Does his own DCF analysis support that claim?

A. No. The outcome of the DCF test is dependent on the growth forecast (which, in the case of electric utilities can account for 50-75% of the cost of equity estimate). In his

Direct Testimony, in Appendix C, Mr. Hill developed his own growth estimate for each utility in his electric and gas samples, using various historic and forecast growth values. A review (see Table 2 below) of just the first company in his electric utility sample, Central Vermont Public Service, reveals how broad the range of potential growth rates was. This range does not even include an analysts' consensus forecast of long-term earnings growth, since Central Vermont is not a utility with significant analyst interest. Table 2 demonstrates that it is unlikely that a test that is applied using such a wide range of possible values for growth expectations would be viewed as more reliable than other cost of equity tests.

Table 2

Value Line Sustainable Growth-historic	2.28%
Value Line Sustainable Growth -forecast	3.25%
Value Line Book Value Growth -historic	2.50%
Value Line Book Value Growth-forecast	1.00%
Value Line Earnings Growth -historic	1.00%
Value Line Earnings Growth-forecast	9.50%
Mr. Hill's growth estimate	**4.22%**

Source: Direct Testimony of Steven G. Hill, Appendix C and Schedule 5-1.

IV. HISTORIC UTILITY RISK PREMIUM TEST

Q. Mr. Hill takes issue with your historic utility risk premium test on three grounds: (1) the historic risk premium is measured by reference to income returns, rather than total returns on bonds; (2) the historic risk premium for utilities is measured since the end of World War II, rather than the longest period available; and (3) the expected risk premium is estimated by reference to a 10-year Treasury bond

yield, rather than the 20-year bond that on which the historic income returns in the Ibbotson data set are based. Would you please address these criticisms?

A. With respect to the first criticism, that is, that I should have used the difference between the total returns on stocks and the total returns on bonds, this criticism was addressed in my Rebuttal Testimony. However, for completeness, I will summarize that testimony. My historic risk premium study is intended to estimate the utility equity risk premium required over the risk-free rate. Therefore, for the purpose of measuring the historic risk premium, I need a historical estimate of the risk-free rate. Ibbotson and Associates, *Stocks, Bonds, Bills and Inflation, Valuation Edition, 2006 Yearbook*, pages 75-76, explain why the income return, not the total return, on bonds should be used as the proxy for the historical risk-free rate when estimating the expected market risk premium. The same would apply to estimating the required utility equity risk premium in relation to the risk-free rate.

> Another point to keep in mind when calculating the equity risk premium is that the income return on the appropriate-horizon Treasury security, rather than the total return, is used in the calculation. The total return is comprised of three return components: the income return, the capital appreciation return, and the reinvestment return. The income return is defined as the portion of the total return that results from a periodic cash flow or, in this case, the bond coupon payment. The capital appreciation return results from the price change of a bond over a specific period. Bond prices generally change in reaction to unexpected fluctuations in yields. Reinvestment return is the return on a given month's investment income when reinvested into the same asset class in the subsequent months of the year. The income return is thus used in the estimation of the equity risk premium because it represents the truly riskless portion of the return.

Q. Why didn't you estimate the historic risk premium for electric utilities for the longest period available, as Mr. Hill suggests that you should have done?

A. I chose to estimate the historic electric utility risk premium from the end of World War II to avoid including data that could be characterized by a substantially different

growth and risk environment (e.g., it included the Great Depression and World War II, it was prior to the watershed *Hope* decision, there was less active regulation). Nevertheless, if the risk premium had been measured over the full period for which I have data (1926-2005), the results are as follows:

Table 3

S&P/Moody's Electric Index	U.S. Treasury Bond Income Returns	Risk Premium
10.8%	5.2%	5.6%

Source: For 1932-1946, 2003 Mergent Public Utility Manual.
For 1947-2005, Schedule KCM-E7.

The indicated risk premium is 40 basis points higher than the 5.2% I estimated using data from 1947-2005.[12]

Q. Why did you estimate the utility equity risk premium by reference to the 10-year Treasury bond rather than the 20-year Treasury bond that is used by Ibbotson Associates to estimate the equity market risk premium?

A. As I explained in my Direct (p. 29) and Rebuttal Testimony (p. 61), I have utilized the forecast yield on the 10-year Treasury bond as a proxy for the risk-free rate. In principle, a longer-term Treasury should be used, so as to more closely match the duration of the risk-free rate and common equities. However, in 2001 the U.S. Treasury stopped issuing new 30-year bonds. As a result, the yield on existing 30-year Treasuries became a less reliable proxy for the risk free rate. The ten-year note has been the benchmark bond against which new debt issues are priced ever since the U.S. government stopped issuing 30-year bonds in 2001. Although the Treasury has recommenced issuing 30-year bonds with a February 2006 auction, the 10-year Treasury bond remains the benchmark, and is likely to

[12] Returns are readily available for the gas distribution industry only from 1947.

remain so for some time. With respect to the 20-year Treasury bond, while the yields are available as Mr. Hill correctly indicates, there is no forecast 20-year Treasury bond yield. The U.S. government has not issued 20-year bonds since 1986, thus the published yields on 20-year bonds are somewhat artificial.

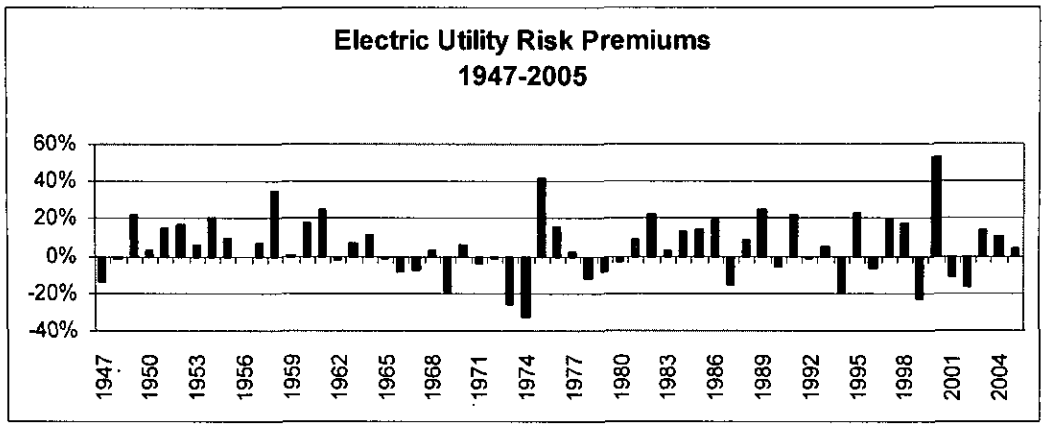
Q. Mr. King criticizes your historic utility equity risk premium test because he says that the annual results are too variable to provide a meaningful estimate of the expected risk premium and that the approach assumes that the equity risk premium does not change over time. Are his concerns valid?

A. No. Of course the achieved risk premium will change from year to year; that is the very nature of the equity market: it entails risk. Simply because the observed returns and risk premiums are variable, that does not mean that the average risk premium is not a useful estimate of what investors expect over the long-term looking forward. By using a long term average of achieved utility returns, the volatility in the year-to-year returns is reduced. Moreover, the cost of equity is not intended to be an estimate of the next year's return, as Mr. King's Rebuttal Testimony implies; rather, it is an estimate of the return that investors require and expect over the longer term.

Q. What is your response to Mr. King's concern that this methodology assumes that risk premiums do not change over time?

A. Figure 1 following, which shows the achieved equity risk premium in each year from 1947-2005 for the S&P/Moody's electric utilities, indicates that, based on history, there is no reason to conclude that the average electric utility risk premium has changed over time, that is, there is no evidence of an upward or downward trend.

Figure 1



Source: Standard & Poor's *Analysts' Handbook*, Ibbotson Associates, *Stocks, Bonds, Bills and Inflation Yearbook 2006*, Mergent *Corporate News Reports* and Standard & Poor's Research Insight.

Q. Both Mr. Hill and Dr. Woolridge criticize the use of a forecast risk-free rate in estimating the cost of equity. With respect to your use of forecast, rather than current or "spot", bond yields in your equity risk premium test, please explain why you use forecast yields.

A. I use them for two reasons: First, the cost of capital is always an expectational or forward-looking measure, as both Mr. Hill and Dr. Woolridge acknowledged (DR No. KCM-Staff-007 and DR No. KCM-AG-007 attached as Schedules KCM-SR-1 and KCM-SR-2). Second, new rates for AmerenUE will not be finalized for a number of months, and will likely remain in place for some time.

V. DCF-BASED RISK PREMIUM TEST

Q. Please describe briefly your DCF-based risk premium test and the criticisms of that test that you will address.

A. My DCF-based risk premium test measures the expected electric utility risk premium by estimating the monthly DCF cost of equity for my sample of comparable utilities for the period 1998-2006 from which the corresponding yield on 10-year Treasury bonds is subtracted. The result is an estimate of the required risk premium at the level of interest rates observed over that period, which is quite similar to the expected level of interest rates. The test has been criticized as follows: (1) Mr. Hill believes the time period used is inappropriate, because it includes a period of upheaval in the industry; (2) both Mr. Hill and Mr. Woolridge take issue with the exclusive reliance on analysts' forecasts of growth in the development of the DCF estimates.

Q. Do you believe the period you used is reasonable?

A. Yes. The 1998-2006 period chosen serves two purposes. First, it reflects a period of interest rates similar to the level of interest rates forecast for the future, and thus provides an estimate of the risk premium that investors in electric utilities (which are interest sensitive stocks) would likely expect in a similar interest rate environment. Second, it recognizes that the introduction of a more competitive environment in the industry (of which FERC Order 888 in 1997 was a watershed event) that altered the operating environment of the industry.

Q. With respect to the use of analysts' forecasts to derive the monthly DCF estimates that you used in your DCF- based risk premium test, have you already addressed that issue in the context of the DCF test itself?

A. Yes.

Q. Mr. King expresses concern that the results of your DCF test are different from the results of the DCF-based risk premium test. Is this a legitimate concern?

A. No. The DCF test itself is an estimate of the cost of equity at a specific point in time, independent of the values of any other variables that determine the cost of equity. The DCF-based risk premium test is intended to estimate the equity risk premium that investors in electric utilities require above the risk-free rate. A reliable estimate of that premium requires a series of observations, as (1) there is always measurement error in the any single point-in-time estimate of the cost of equity and (2) the measured difference between the DCF cost of equity and interest rates at any given point in time may not precisely represent the predicted relationship.

VI. CAPITAL ASSET PRICING MODEL

Q. What concerns with respect to your CAPM do you intend to address?

A. I will address my estimate of the market risk premium and the beta for my sample of comparable electric utilities.

Q. What are the issues with respect to your market risk premium estimate?

A. Dr. Woolridge believes that my market risk premium of 7.5% (relative to 10-year Treasury bond yields) is overstated due to (1) biased historic bond returns, (2) the arithmetic versus the geometric mean return, (3) unattainable and biased historic stock

returns, (4) survivorship bias, (5) the "Peso problem", (6) market conditions today are significantly different from the past, and (7) changes in risk and return in the market. Mr. Hill's criticism is principally related to how the bond component of the market risk premium is estimated.

Q. Please discuss each of Dr. Woolridge's issues.

A. Dr. Woolridge claims that historic bond returns are biased downward (and consequently the historic market risk premium is biased upward) because of capital losses suffered by investors in the past. That claim does not apply to my estimate of the market risk premium, because the bond return component of the market risk premium estimate is based on income returns and does not incorporate capital gains and losses (which is, as previously discussed, an appropriate manner in which to estimate the historical risk-free rate).

Dr. Woolridge next claims that the equity market risk premium is overstated because I measure the historic equity market risk premium using arithmetic averages rather than geometric averages. There is an extensive discussion of the rationale for using arithmetic averages instead of geometric averages in my Rebuttal Testimony (at pages 25-29). In brief, the use of a geometric average is premised on an investor achieving a constant annual return year after year and ignores the annual volatility of returns (risk). The arithmetic average is the measure of historic returns that accounts for volatility and estimates the compensation to investors for bearing equity market risk.

The third issue raised by Dr. Woolridge is the rebalancing assumption in the measurement of index returns. He concludes that, if investors were to rebalance their portfolios as assumed in the calculation of the returns of the stock indices, they would incur large transactions costs that would make the reported returns unachievable. However, since

investors can easily and inexpensively purchase index funds that mimic the various stock indices, they do not have to incur transactions costs to rebalance.

Dr. Woolridge next raises the issue of survivorship bias, which he claims creates an upward bias to historic returns as a measure of future returns. In this context, survivorship bias refers to the possibility that the returns of an index like the S&P 500 overestimate future returns because they exclude returns of failed firms. What Dr. Woolridge fails to mention is that an index like the S&P 500 (which is the index that the historic returns used to estimate the market risk premium are based on) does not include a firm until it has reached a certain size. Thus, the measured returns of such an index will exclude much of the rapid growth phase of companies that are later excluded. In addition, the index will continue to include firms that are faltering until a decision is made to remove them. Enron's price had dropped well below $1.00 per share before it was removed from the S&P 500. Consequently, it is not likely that survivorship bias is a substantive issue for the S&P 500.

The peso problem referred to by Dr. Woolridge relates to the fact that the United States has not experienced the types of economic misfortunes that other countries have, and thus its returns are higher than would have been expected. This argument is essentially a survivorship bias argument at the country level, as compared to the company level. As I have already indicated in my Rebuttal Testimony (p. 34), as stated in Ibbotson Associates, *Stocks, Bonds, Bills and Inflation: Valuation Edition, 2006 Yearbook* (p. 89), referring to analysis of survivorship from the history of world markets, "While the survivorship bias evidence may be compelling on a world-wide basis, one can question its

relevance to a purely U.S. analysis. If the entity being valued is a U.S. company, then the relevant data set should be the performance of equities in the U.S. market."

Dr. Woolridge next states that market conditions today are different than in the past, citing high price/earnings ratios and low interest rates, which he believes will lead to lower returns in the future than in the past. As I discuss in the next paragraph, the current relatively low level of interest rates does not support the conclusion that risk premiums will be lower going forward than historically. With respect to P/E ratios, the current P/E ratio based on 12 months trailing earnings of the S&P 500 is 18 times (*Barron's*, February 12, 2007), compared to an average of 15.9 times from 1926-2005. While the current P/E ratio is somewhat high relative to its historic average, it is well within historic norms,[13] it is in sharp contrast to the P/E ratio at the peak of the market bubble (33 times at the end of 1999), and is not out of line with current levels of interest rates. Thus, the level of the P/E ratio does not point to lower equity market returns in the future than in the past.

With regard to changes in risk and return, Dr. Woolridge argues that relying on historic returns fails to take into account changes in the relative riskiness of stocks versus bonds, that is, the higher risk of bonds today relative to history. Dr. Woolridge's comments on the relative risk of bonds were accurate when investors were concerned with relatively high and volatile rates of inflation, which caused them to build an additional premium for unanticipated inflation into interest rates. When inflation was brought under control in the early 1990s and inflationary fears abated, interest rates declined. The persistent decline in interest rates between late 1981 and 2002 did produce volatility in actual bond returns, as the decline in interest rates resulted in substantial capital gains in the bond market. However,

[13] The average P/E ratio from 1926-1990, before the market bubble, was 14 times, with a standard deviation of approximately 4.7.

interest rates are currently at relatively low levels relative to history, both in nominal and real terms.[14] With more stable inflationary conditions, the higher risk that been associated with bonds during uncertain has dissipated; in the current market environment, the risk associated with bonds is relatively low. Thus, the bond market environment today provides no basis for the conclusion that the equity risk premium should be lower in the future than was the case historically.

Q. Mr. Hill contends that the recent betas of electric utilities are unusually high, leading to unusually high equity cost estimates. What is your response to this claim?

A. I agree that they are considerably higher than they were during the equity market bubble and subsequent market bust, when they declined from a typical 0.75 (1996) to a level of 0.50 to 0.55 (1999-2000), as demonstrated in my Schedule (KCM)-E-3-2 in my Direct Testimony. Two factors explain the observed decline. The first is the turmoil in the electric utility industry, arising from the introduction of competition and restructuring, which caused electric utility share prices to decline. The second was the behavior of the overall market itself during the market bubble and subsequent bust. Betas covering five year periods ending 1998-2002 reflect a significant decoupling of utility stocks from the rest of the market. During 1998-1999, the stock market was in the midst of a bubble in which utility stocks did not participate. When the equity market as a whole collapsed beginning in 2000, investors fled to safer securities, including utility shares. During the anomalous "boom and bust" period, there was little correlation between utility shares and the rest of the market,

[14] The current (2.4% in mid-February 2007) yield on long-term U.S. inflation-indexed bonds (which is a proxy for the expected real return on bonds) compares to the average arithmetic real total return on Treasury bonds of 2.9% (geometric mean of 2.4%) for the period 1926-2005 as calculated by Ibbotson Associates, *Stocks, Bonds, Bills and Inflation, 2006 Yearbook,* Table 6-8, page 120.

resulting in uncharacteristically low utility betas. There are however good reasons to expect forward looking electric utility betas to be higher than they were before restructuring commenced, including the need for massive infrastructure investments, uncertainty around the impacts of environmental regulations and concern regarding utilities' ability to recover rising costs.

Q. Do you have any other comments regarding the other parties' Rebuttal Testimony?

A. Yes, I have a comment regarding Mr. King's reference to the EEI report that showed the average allowed return for third quarter 2006 to be 9.98%. The average allowed return during third quarter 2006 is not representative; four of the seven decisions reported by Regulatory Research Associates for the 3rd quarter of 2006 were for "wires only" utilities. The business risks of a "wires only" utility are lower than those of an integrated utility (particularly one with nuclear generation); thus their allowed rates of return cannot be viewed as indicative of a reasonable return for AmerenUE. As I stated in my Rebuttal Testimony (page 20), the average allowed return for all of 2006 for integrated utilities was 10.6%.[15]

Q. Does this conclude your Surrebuttal Testimony?

A. Yes, it does.

[15] Regulatory Research Associates, "Major Rate Case Decisions, January 2005-December 2006, Supplemental Study, *Regulatory Focus*, January 30, 2007.

Date Submitted to Staff: December 22, 2006 No. KCM-Staff-007

Data Information Request
From Union Electric Company d/b/a AmerenUE
MPSC Case No. ER-2007-0002

Requested From: Missouri Public Service Commission Staff

Requested By: Kathleen C. McShane

Date of Request: January 8, 2007

Information Requested:

1. State whether or not Steven G. Hill agrees with the following statements:
   A. "Opportunity cost of capital (hurdle rate, cost of capital): *Expected return* that is foregone by investing in a project rather than in comparable financial securities." [Source: Brealey, Myers, and Allen, PRINCIPLES OF CORPORATE FINANCE (2006), p. 1000]
   B. "The cost of capital is always an expectational or forward-looking concept." [Ibbotson Associates, STOCKS, BONDS, BILLS, AND INFLATION, 2006 YEARBOOK p. 23]
2. If Mr. Hill does not agree with the statements quoted in No. 1 a and b above,
   a. explain the basis for his disagreement;
   b. provide citations to any books, articles, or other written analyses, presentations, or documents on which his disagreement is based or which he believes justifies his disagreement; and
   c. provide copies of the articles, analyses, presentations, and documents, and of the relevant portions of the books cited in response to No. 2 (b) above.

Response:

1A. Yes.
1B. Yes.

The attached information provided to Union Electric Company in response to the above Data Information Request is accurate and complete and contains no material misrepresentations or omissions, based upon present facts of which the undersigned has knowledge, information or belief. The undersigned agrees to immediately inform Union Electric Company if, during the pendency of Case No. ER-2007-0002 before the Commission, any matters are discovered which would materially affect the accuracy or completeness of the attached information.

If these data are voluminous, please (1) identify the relevant documents and their location; (2) make arrangements with requestor to have documents available for inspection at a location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g., book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title, number, author, date of publication and publisher, addresses, date written, and the name and address of the person(s) having possession of the document. As used in this Data Request, the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control within your knowledge. The pronoun "you" or "your" refers to the person identified in the "Requested From"

block above and all other employees, contractors, agents or others employed by or acting on behalf of the organization, group or governmental unit associated with that person. When used with respect to a natural person, "identify" means state his or her name, address, telephone number, current employer, job title, and current work telephone number.

Response Provided By: Stephen G. Hill Date: 1/8/07

No. KCM-AG-007

Data Information Request
From Union Electric Company d/b/a AmerenUE
MPSC Case No. ER-2007-0002

Requested From: State of Missouri

Requested By: Kathleen C. McShane

Date of Request: February 26, 2007

Information Requested:

1. State whether or not Dr. J. Randall Woolridge agrees with the following statements:
   A. "Opportunity cost of capital (hurdle rate, cost of capital): *Expected return* that is foregone by investing in a project rather than in comparable financial securities." [Source: Brealey, Myers, and Allen, PRINCIPLES OF CORPORATE FINANCE (2006), p. 1000]
   B. "The cost of capital is always an expectational or forward-looking concept."
   [Ibbotson Associates, STOCKS, BONDS, BILLS, AND INFLATION, 2006 YEARBOOK p. 23]
2. If Dr. Woolridge does not agree with the statements quoted in No. 1 a and b above,
   a. explain the basis for his disagreement;
   b. provide citations to any books, articles, or other written analyses, presentations, or documents on which his disagreement is based or which he believes justifies his disagreement; and
   c. provide copies of the articles, analyses, presentations, and documents, and of the relevant portions of the books cited in response to No. 2 (b) above.

Response:

In a general sense, and under the assumption that all else is equal, Dr. Woolridge agrees with these statements.

The attached information provided to Union Electric Company in response to the above Data Information Request is accurate and complete and contains no material misrepresentations or omissions, based upon present facts of which the undersigned has knowledge, information or belief. The undersigned agrees to immediately inform Union Electric Company if, during the pendency of Case No. ER-2007-0002 before the Commission, any matters are discovered which would materially affect the accuracy or completeness of the attached information.

If these data are voluminous, please (1) identify the relevant documents and their location; (2) make arrangements with requestor to have documents available for inspection at a location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g., book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title, number, author, date of

publication and publisher, addresses, date written, and the name and address of the person(s) having possession of the document. As used in this Data Request, the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control within your knowledge. The pronoun "you" or "your" refers to the person identified in the "Requested From" block above and all other employees, contractors, agents or others employed by or acting on behalf of the organization, group or governmental unit associated with that person. When used with respect to a natural person, "identify" means state his or her name, address, telephone number, current employer, job title, and current work telephone number.

Response Provided By: J. Randall Woolridge Date: January 10, 2007

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Electric Provided to Customers in the Company's Missouri Service Area.	)))))	Case No. ER-2007-0002

AFFIDAVIT OF KATHLEEN C. McSHANE

STATE OF MARYLAND)
) **ss**
CITY OF BETHESDA)

Kathleen C. McShane, being first duly sworn on his oath, states:

1. My name is Kathleen C. McShane. I work in Bethesda, Maryland and I am employed by Foster Associates, Inc. as a Senior Consultant.

2. Attached hereto and made a part hereof for all purposes is my Surrebuttal Testimony on behalf of Union Electric Company d/b/a AmerenUE consisting of 32 pages, which has been prepared in written form for introduction into evidence in the above-referenced docket.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

Kathleen C. McShane
Executive Vice President

Subscribed and sworn to before me this 23rd day of February, 2007.

Notary Public

My commission expires:

SANDRA N POOLE
Notary Public-Maryland
Montgomery County
My Commission Expires
October 18, 2009

SURREBUTTAL TESTIMONY ERRATA SHEET

OF

KATHLEEN C. McSHANE

CASE NO. ER-2007-0002

Upon reading my Surrebuttal Testimony, the following changes should be made:

None.