Exhibit No.:	_____
Issue(s):	Rate of Return
Witness:	Charles W. King
Type of Exhibit:	Rebuttal
Sponsoring Party:	Public Counsel
Case No.:	ER-2007-0002
Date Testimony Prepared:	January 31, 2007

REBUTTAL TESTIMONY

OF

CHARLES W. KING

Submitted on Behalf of
the Office of the Public Counsel

UNION ELECTRIC COMPANY, D/B/A AMERENUE

Case No. ER-2007-0002

January 31, 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 Service Provided to Customers in the Company's Missouri Service Area.	))))	**Case No. ER-2007-0002** Tariff No. YE-2007-0007

AFFIDAVIT OF CHARLES W. KING

CITY OF WASHINGTON)
) ss
DISTRICT OF COLUMBIA)

Charles W. King, of lawful age and being first duly sworn, deposes and states:

1. My name is Charles W. King. I am a Public Utility Consultant for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

Charles W. King
Public Utility Consultant

Subscribed and sworn to me this 30th day of January, 2006.

Angel Finch
Notary Public

My commission expires March 14, 2011.

Witness:	Charles W. King
Type of Exhibit:	Rebuttal
Sponsoring Party:	Public Counsel
Case No.:	ER-2007-0002
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REBUTTAL TESTIMONY OF CHARLES W. KING

INTRODUCTION

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

A. My name is Charles W. King. I am President of the economic consulting firm of Snavely King Majoros O'Connor & Lee, Inc. ("Snavely King"). My business address is 1111 14th Street, N.W., Suite 300, Washington, D.C. 20005.

Q. ARE YOU THE SAME CHARLES W. KING WHO SUBMITTED DIRECT TESTIMONY IN THIS CASE ON DECEMBER 15, 2006?

A. Yes. I am.

Q. DOES THAT TESTIMONY CONTAIN A STATEMENT OF YOUR QUALIFICATIONS AND EXPERIENCE?

A. Yes. Attachment A to that testimony is a brief summary of my educational and professional career. Attachment B is a listing of my appearances before regulatory agencies.

Q. WHAT IS THE OBJECTIVE OF YOUR REBUTTAL TESTIMONY?

A. The objective of this rebuttal testimony is to respond to the cost of capital testimony of Kathleen McShane and James VanderWeide which was submitted in July of last year on behalf of AmerenUE.

Q. WHAT ASPECTS OF THESE WITNESSES' TESTIMONY WILL YOU ADDRESS IN THIS REBUTTAL TESTIMONY?

A. I will begin with a discussion of the witnesses' overall conclusions with respect to the cost of AmerenUE's equity capital.

I will then comment on their application of the Discounted Cash Flow ("DCF") model, and specifically with their selection of proxy companies, their quarterly compounding procedure, their calculation of the next year's dividend, and their selection of earnings growth indicators.

I will then evaluate the Capital Asset Pricing Model ("CAPM") that each witness uses, and I will demonstrate that modest changes in the inputs to this model can result in very significant changes in the output.

I will next discuss the witnesses' various risk premium approaches. I will demonstrate the severe conceptual and computational weaknesses of each of these tests.

I will then comment on witness McShane's comparable earnings test, demonstrating its irrelevance to regulated public utilities.

I will next discuss the conceptual flaws in the adjustment that each witness makes for the difference between book and market capital structures.

I will conclude with a brief discussion of the improprieties in the witnesses' procedure for selecting their recommended rates of return on equity.

OVERALL COST OF EQUITY CONCLUSIONS

Q. WHAT RETURN ON EQUITY DOES EACH WITNESS RECOMMEND?

A. Witness McShane recommends a rate of return on equity of 12 percent. Witness VanderWeide proposes a return of 12.2 percent. The Company has adopted 12 percent as its requested return on equity capital.

Q. HOW DO THE WITNESSES ARRIVE AT THEIR RECOMMENDED EQUITY RETURN VALUES?

A. Not surprisingly, the witnesses use essentially the same methodologies. Both employ three types of tests: DCF, CAPM and risk premium. The witnesses find that the DCF approach yields return indications of approximately between 10 and 10.7 percent, that the CAPM procedure produces returns of about 12 percent, and that the risk premium tests show results between these two methods. Based on these results, each witness finds that their proxy group has an equity return requirement of approximately 11 percent. Each witness then inflates this proxy group return for the purportedly more risky book value capital structure of AmerenUE relative to the market value capital structures of the respective proxy groups.

Q. DO YOU HAVE ANY GENERAL COMMENTS ABOUT THIS APPROACH?

A. Yes. I disagree with the general approach of these two witnesses for two reasons. First, they assume that all equity return tests are created equal. As I shall discuss, that assumption is simply not true. The DCF approach is generally accepted as superior to the other methodologies. It does not involve the simplistic assumption of the CAPM that the beta statistic explains all differences in investment risk, nor does it require the CAPM's judgment as to the inputs. DCF is infinitely superior to the risk premium approaches, all

of which encounter serious conceptual and computational problems, as I shall demonstrate.

Second, the two witnesses inflate their proxy group rates of return for the allegedly greater risk associated with a book capital structure relative to the market-based capital structures of the proxy groups. As I shall explain, this adjustment is inappropriate when the proxy groups consist of utilities that are regulated in the same manner as AmerenUE. Like AmerenUE, the earnings of these proxy utilities are also tied to the book value of their assets.

DISCOUNTED CASH FLOW MODELS

Q. WOULD YOU PLEASE REVIEW THE DCF PROCEDURE?

A. Yes. The DCF model seeks to identify the percentage rate at which investors discount the future stream of cash derived from dividends. The discounted value of that stream is the market value of the stock. There are two elements to this calculation, (1) the immediate return, measured as the dividend yield in the immediate future period and (2) the future stream of dividend increases, conventionally measured as the rate of earnings growth over the long term. The sum of the dividend yield and the rate of long-term earnings growth rate equals the DCF rate-of-return indication.

Q. WOULD YOU PLEASE DESCRIBE THE DISCOUNTED CASH FLOW PRESENTATIONS OF THE TWO AMERENUE WITNESSES?

A. Yes. Each witness identifies a group of companies that purportedly are comparable in risk to AmerenUE. Witness McShane bases her analysis on 17 electric utilities; witness VanderWeide bases his on 34 electric utilities and 11 gas distribution companies.

For their dividend yields, both witnesses multiply the most recent dividend by 1 plus the growth rate and divide the result by a recent average of the market price of the stock. Dr. VanderWeide then compounds the quarterly dividends to account for the alleged time value of the quarterly dividend payments.

Both witnesses derive their growth indications from analysts' forecasts. Both use the forecasts provided by the Institutional Brokers Estimation System, or I/B/E/S, although Ms. McShane also uses Value Line's forecasts for her constant growth model. Ms McShane offers two formulations of the growth component, a constant growth model which assumes that the analysts' forecast growth rates continue indefinitely, and a two-stage growth model that assumes the analysts' growth rates for the first five years and the rate of Gross Domestic Product growth for the subsequent years.

Ms. McShane computes both mean and median results for her DCF analyses, arriving at a range from 9.2 percent to 11.0 percent. Dr. VanderWeide computes a 10.61 percent mean return for his electric proxy group and a 10.84 percent return for his gas group.

Q. WHAT ACCOUNTS FOR THE DIFFERENCE IN THE ELECTRIC UTILITY PROXY GROUPS OF THESE TWO WITNESSES?

A. Obviously, Ms. McShane's criteria for the proxy group are much more restrictive than Dr. VanderWeide's. Specifically, she applies two criteria missing from Dr. VanderWeide's list. She excludes electric utilities that do not have nuclear generation, and she requires that 80 percent of the company's assets be devoted to electric or gas distribution operations.

Q. WHICH OF THESE TWO PROXY GROUPS DO YOU PREFER?

A. Neither. Ms. McShane's group is unnecessarily limited by her criterion that only utilities with nuclear generation be included. Twenty years ago, the ownership of nuclear plants was a very distinguishing characteristic because it usually meant that the utility had incurred very sizeable debt and had assumed a significant safety risk. The newest nuclear plant is now over 20 years old, and the debt obligations and perceived safety risks associated with nuclear generation have receded in importance. Indeed, remaining indebtedness for some nuclear plants has been "securitized" with bond issues that are effectively removed from the balance sheets of the owning utilities.

Dr. VanderWeide's list is overly broad. It includes several utilities, e.g. MDU Resources, which have only limited involvement in regulated utility activities. It is important that only companies subject to rate base/rate-of-return regulation be included. That is because only such companies have their prices set in the same manner as AmerenUE. Only regulated companies realize their profits through the application of an allowed rate of return to the book value of their assets. A company that receives most of its revenue from unregulated activities experiences a totally different profit dynamic, one driven by competitive markets, not by regulation. Dr. VanderWeide's proxy companies include a number of such companies.

Q. HOW DO THE WITNESSES IDENTIFY THE NEXT YEAR'S DIVIDEND OF THEIR PROXY COMPANIES?

A. Each witness multiplies the current annualized dividend by one plus the growth rate. If the dividend is, say, $1.00 and the forecast growth rate is 5 percent, the witnesses would assume that next year's dividend will be $1.05.

Q. DO YOU AGREE WITH THIS APPROACH?

A. No. I do not. In some cases, it is highly unlikely that next year's dividend will be increased, even if profits increase. A good example is the Empire District Electric Company, which also provides electric utility service in Missouri. That company has been issuing dividends in excess of its earnings, essentially paying them out of retained earnings. It is highly unlikely that Empire District will increase its dividend next year, a fact that is recognized by Value Line. Value Line's analysts predict that this company's dividend next year will be the same as this year. Analysts' forecasts of future dividends take these company-specific factors into consideration. The witnesses' rather mechanical method of forecasting dividends does not.

Q. IS DR. VANDERWEIDE'S QUARTERLY COMPOUNDING MODEL APPROPRIATE?

A. No. Dr. VanderWeide believes that investors require additional compensation during the next year because their dividends are parceled out quarterly instead of being paid all at once at the beginning of the year. Accordingly, he compounds each dividend to the end of the year using the long-term growth rate as the compounding factor. He devotes an entire appendix to explaining the purported need for this adjustment.

There is no need for Dr. VanderWeide's adjustment because the investor has the money from each dividend to reinvest as he chooses. This reinvestment generates its own compounding, but outside of the earning stream of the issuing company. It is duplicatory to inflate that earnings stream for this compounding effect.

Q. WOULD YOU COMMENT ON THE WITNESSES' DERIVATION OF THE GROWTH RATES?

A. Yes. Again, there is a difference between Dr. VanderWeide's analysis and that of Ms. McShane. Dr. VanderWeide uses only the I/B/E/S consensus forecasts, while Ms.

McShane uses both the I/B/E/S and Value Line forecasts, albeit only for her constant growth model. In this matter, the more informed forecasts the better. For this reason, I much prefer Ms. McShane's use of two forecast sources to Dr. VanderWeide's reliance on a single source.

Q. BASED ON THE FOREGOING ANALYSIS, DO YOU RECOMMEND THAT THE COMMISSION IGNORE THE DCF ANALYSES OF THESE TWO WITNESSES?

A. No. The infirmities that I have identified in the witnesses' DCF analyses are not so severe as to justify total rejection of their results. Indeed, Ms. McShane's DCF results span the range of returns that I find in my own DCF studies. Her range is between 9.2 and 11.0 percent. I find the constant growth DCF return to be 9.9 percent and the two-step return to be 9.4 percent. Dr. VanderWeide's electric company DCF return of 10.61 percent can be viewed as a ceiling because of his inclusion of a number of largely unregulated companies in his comparison group. Aside from being more risky than fully regulated companies, these companies do not earn their profits in the same manner as does AmerenUE.

I give no credence, however, to Dr. VanderWeide's gas distribution company results. First, these companies are gas, not electric companies, and have a different risk profile. Second, the appearance of a gas company return higher than the electric company return contradicts Dr. VanderWeide's own testimony in the Empire District Electric Company case that gas companies are less risky than electric companies.[1]

[1] M.P.S.C. Case No. ER-2006-0315, Direct Testimony of James VanderWeide, page 33.

THE CAPITAL ASSET PRICING MODEL

Q. HAVE YOU PREVIOUSLY ADDRESSED THE RELATIVE MERITS OF THE CAPITAL ASSET PRICING MODEL ("CAPM")?

A. Yes. In my direct testimony, I noted that the CAPM involves somewhat subjective judgments as regards the selection of the beta measure, the risk-free rate of return, and the return to the overall market. I suggested that the CAPM may be used as a check on the much more reliable DCF results, but as an independent measure of the required rate of return, it is deeply flawed.

Q. CAN YOU DEMONSTRATE THE SUSCEPTIBILITY OF THE CAPM TO JUDGEMENT AS TO INPUTS?

A. Yes. In my direct testimony, I implemented the CAPM using very conventional inputs, and I arrived at a return of 9.03 percent for my list of comparable companies. The two AmerenUE cost-of-capital witnesses also implement the CAPM, using their chosen inputs. Ms McShane finds CAPM results in the range of 11.75 to 12.25 percent. Dr. VanderWeide finds CAPM indications of 11.78 and 12.91 percent for his electric company proxy group.

Q. HAVE ANY REGULATORY AGENCIES AGREED WITH YOUR REJECTION OF THE CAPM AS A PRIMARY DETERMINANT OF EQUITY RETURN REQUIREMENTS?

A. Yes. The Interstate Commerce Commission ("ICC") made the following finding with regard to the CAPM:

> Because of the numerous assumptions needed to implement the CAPM and our inability to examine data inputs, we do not believe that the CAPM should be used as the primary means of determining the cost of equity in

this proceeding. The CAPM was used to test the reasonableness of the DCF analysis.[2]

Twenty five years later, the ICC's successor agency, the Surface Transportation Board, has abandoned the use of the CAPM altogether. It relies entirely on the DCF methodology in identifying the cost of capital to the railroad industry. [3] So does the Federal Energy Regulatory Commission.[4]

Q. WHAT HAS THE FEDERAL COMMUNICATIONS COMMISSION HAD TO SAY ABOUT THE CAPM?

A. In its last major inquiry into the cost of capital for telephone companies, the FCC expressed its belief that the CAPM has the potential to provide estimates of the cost of capital with the same reliability as the DCF approach. However, it found that the telephone companies had submitted CAPM evidence that yielded unrealistically high returns. First, they submitted Value Line betas which had been adjusted upward. The FCC did not think the adjusted betas were consistent with the CAPM theory. Second, they presented risk premiums that were inflated by the use of historical risk premiums over extended periods of time. The FCC concluded that these CAPM estimates were likely to overstate the cost of equity, and it afforded no weight to them. [5]

Q. HAVE THE AMERENUE WITNESSES IN THIS PROCEEDING USED ADJUSTED VALUE LINE BETAS AND HISTORICAL RISK PREMIUMS OVER EXTENDED PERIODS OF TIME?

[2] *Railroad Cost of Capital – 1982*, 367 I.C.C. 662, July 22, 1983.
[3] Surface Transportation Board, *Railroad Cost of Capital – 2005*, Ex Parte No. 558 (sub-No 9), September 15, 2006.
[4] . See for example, *Wilston Basin Interstate Pipeline*, FERC Docket No. RP00-107-000, 104 FERC 61,036, 61,099.
[5] *In the Matter of Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers*, CC Docket No. 89-624, 5 FCC Rcd. 7507, December 7, 1990, as corrected December 21, 1990.

A. Yes. They have. Both Ms. McShane and Dr. VanderWeide use Value Line's adjusted betas, and both use historical risk premiums experienced since 1926. Ms McShane's also uses a historical risk premium from 1947.

Q. ARE THERE ANY OTHER WAYS THAT THE WITNESSES MAY HAVE INFLATED THEIR CAPM RESULTS?

A. Yes. Both witnesses use as their risk-free rates forecasts of the yield on long-term Treasury bonds. Current evidence suggests that these forecasts are inflated. Ms. McShane uses a forecast yield on 10-year Treasury bonds of 5.0 to 5.5 percent. The current yield on these bonds is 4.70 percent. [6] Dr. VanderWeide uses a forecast 20-year Treasury bond yield of 5.39 percent. The current yield on these bonds is 4.88 percent.[7] Had either of these witnesses used current yields, which are known and measurable, their CAPM results would have been approximately 50 basis points lower.

Dr. VanderWeide's DCF-based CAPM application arrives at a risk premium using what he purports to be the DCF return on S&P's 500 stocks. Yet his average market return of 13.75 percent reflects the DCF returns for only 175 companies. That Dr. VanderWeide may have cherry-picked his list of companies is suggested by Ms. McShane's testimony that the market return on S&P's 500 is 12.7 percent, 105 basis points lower than Dr. VanderWeide's estimate for the same set of companies.

[6] www.federalreserve.gov/releases/h15/data/weekly. Yield of the week ending January 12, 2007.
[7] Id.

RISK PREMIUM TESTS

Q. WHAT RISK PREMIUM TESTS DO THE WITNESSES USE?

A. Both witnesses apply what Dr. VanderWeide calls "ex-post" and "ex-ante" risk premium tests. The ex-post tests compare the achieved returns on electric utility stocks relative to the then-current yields on bonds over extended periods of time. They then apply the average differential as an equity risk premium over the current bond yield. The sum of the bond yield and the risk premium is purported to be the equity return indication.

Ms. McShane derives her risk premium by comparing the average of monthly changes in the S&P/Moody electric stock index for the years 1947 through 2005 with the average annual income returns from 20-year Treasury bonds for the same 58-year period. She finds that the difference averaged 5.2 percent. She performs the same comparison for the S&P/Moody gas distribution index and finds that this difference is 6.0 percent. She then adds 50 basis points to account for the difference between 10 and 20 year bond returns. Adding 5.7 percent and 6.5 percent to what must be a forecast of the 10-year Treasury bond yield generates her estimate of the cost of equity to electric stocks of 10.75 to 11.75 percent.

Dr. VanderWeide conducts two comparisons of the annual returns to stocks and bonds, both for the period 1937 through 2006. His first comparison is between S&P 500 stocks and Moody's A-rated utility bonds, which yields a risk premium of 5.10 percent. His second comparison is between S&P utility stocks and A-rated utility bonds, yielding a risk premium of 4.45 percent. Arguing that electric utilities have become more risky recently, he adds both of these premiums to the forecast yield on utility bonds of 6.64 percent to derive a range of 11.1 to 11.7 percent, for an average of 11.4 percent.

The witnesses' "ex-ante" risk premium tests use the DCF procedure to come up with equity returns for utility stocks over a somewhat shorter period of time. These returns are then compared with bond yields to derive a risk premium, and that premium is added to a current forecast of bond yields next year. Ms. McShane uses I/B/E/S forecasts, then-current dividend yields and the yield on 10-year Treasury bonds for each quarter from 1998 to the first quarter of 2006. She derives a risk premium of 5.3 percent. She states that the average 10-year bond yield was 5.0 percent. From this, she estimates a current cost of equity of 10.3 to 10.8 percent.

Dr. VanderWeide conducts a very similar study, comparing the monthly DCF returns for his proxy electric utilities with yields on A-rated utility bonds for the period September 1999 through April 2006. He applies regression analysis to these two series of numbers to derive an equity risk premium of 4.24 percent. He then adds this premium to his forecast utility bond yield of 6.64 percent to derive an equity return of 10.88 percent.

Q. IS THE EX-POST RISK PREMIUM METHODOLOGY A VALID PROCEDURE FOR ESTIMATING A RATE OF RETURN?

A. No. There are fatal objections to this approach from both a statistical and a conceptual standpoint. Statistically, one need only glance at the columns titled "Stock Return" and "Bond Return" in Dr. VanderWeide's Schedule JVW-5-1 to recognize that the variation in the observations is significantly greater than the mean. The differences between the two are even more variable, as demonstrated in the following data:

	Stock Return	Bond Yield	Difference
Mean	11.56%	6.47%	5.10%
Standard Deviation	16.30%	11.23%	16.53%

When the standard deviation exceeds the mean by a factor of three, as occurs in this case, the mean has little value as a predictor for yet another observation.

Even if one accepts the calculation of the historical risk premiums, the witnesses appear to have padded their return estimates. Ms. McShane does so by averaging the higher gas company risk premium with the electric company indicator. Dr. VanderWeide does so by averaging the risk premiums of electric companies with those of S&P's 500 companies. If either witness had accepted the historical electric utility premiums, their return indications would have been lower.

Conceptually, one must question whether realized rates of return equate to expected rates of return. Obviously, investors in electric utility stocks in 2002 did not expect to receive a return of negative 20.05 percent. Nor did 1998 investors expect to receive a positive 31.25 percent return. If they had, then probably every investor in the country would have bought electric utility stocks. The implicit assumption of the historical risk premium approach is that the average of these missed expectations, plus and minus, equals an accurate estimate of next year's expectation. This is simply not a logical conclusion. If investors consistently earn more or less than they expected, why should the average of those failed expectations match their actual expectation?

Moreover, this approach assumes that risk premiums do not change over time. That is undeniably not the case. When inflation is high, the risk associated with fixed income investments, i.e. bonds, increases correspondingly, and the risk of variable return investments declines. The risk premium of stocks over bonds shrinks. Conversely, when inflation and interest rates are low, and the economy is prospering, the benefit of stock investments relative to bonds increases. These changes are nowhere reflected in witnesses' historical risk premium analyses.

For the foregoing reasons, I conclude that very little credibility can be ascribed to ex post risk premium approach.

Q. DOES THE EX ANTE RISK PREMIUM APPROACH CONTRIBUTE TO OUR KNOWLEDGE OF THE APPROPRIATE RETURN TO AMEREN?

A. No. Both witnesses implement their ex-ante approaches by applying the DCF methodology to electric utilities over historical periods. In each case, the witness's conclusion using the risk premium test contradicts the DCF tests that were used to reach that conclusion. Ms. McShane finds that the DCF return for electric utilities has been 10.3 percent, but she concludes that the result of her risk premium test is a range of 10.3 to 10.8 percent. Dr. VanderWeide's Schedule JVW-3 shows that the DCF returns to his electric proxy group were consistently below 10 percent throughout 2005 and that the latest indication, for April 2006, is 10.95 percent. Yet he concludes that the indication from this analysis is 11.0 percent.

It seems somewhat circular to use DCF analysis to implement the risk premium test, and then assert that this test is an independent check on the results of the DCF analysis. While the ex-ante studies do not encounter the computational and conceptual problems of the ex-post tests, they contribute very little to the overall picture of equity return, other than a certain amount of confusion.

MCSHANE COMPARABLE EARNINGS TEST

Q. PLEASE DESCRIBE MS. MCSHANE'S COMPARABLE EARNINGS TEST.

A. Ms. McShane contends that this test reflects the "comparable earnings" standard embodied in *Hope Natural Gas* that the earnings allowed should be "commensurate with returns on investments in other enterprises having corresponding risks."[8] She argues that this standard justifies a comparison of her 12 percent recommended return with the returns on book equity forecast by Value Line for a group of very low-risk unregulated companies.

Accordingly, Ms. McShane culls through a list of 2,779 industrial and consumer service companies and, through a sequence of eliminations, arrives at a selection of 139 companies that she believes reflect very low levels of risk comparable to regulated public utilities. She finds that the average Value Line forecast return to book equity of these companies is 14.0 to 14.5 percent. She argues that this test supports the reasonableness of her recommended 12 percent return to AmerenUE's equity capital.

Q. IS MS. MCSHANE'S COMPARABLE EARNINGS TEST RELEVANT TO THE REASONABLENESS OF AMEREN'S EQUITY RETURN ALLOWANCE?

A. No. Ms. McShane's comparable earnings test is totally irrelevant to the reasonableness of any return allowance for AmerenUE. That is because Ms. McShane has compared a return recommended under the rate base/rate-of-return regulatory scenario with the returns to the book equity of unregulated industrial and consumer service companies. The two are simply not comparable.

[8] *Federal Power Commission v. Hope Natural Gas,* 320 U.S. 591, 603 (1944).

AmerenUE's return allowance, whatever it is, will be applied to a book value rate base. For AmerenUE, the book value of its equity has great significance. Indeed, the return allowance and the book value of AmerenUE's capital directly determine the earnings that the Company will likely realize in the immediate future. This is so because regulation makes it so.

That is not true of unregulated industrial and consumer service companies. For them, the book value of their equity is an historical number that has relatively little to do with the companies' prospective earnings. Those earnings are driven by the markets in which they compete. Their prices are set by those markets.

Moreover, their per-share book value return is not accessible to investors. Investors can access only the return to the market value of their shares. As a consequence, no investor, except possibly the company's founding owners, can realize the return on book equity value. Since it is not accessible to investors, the return on book value is irrelevant to the concept of "comparable earnings."

While it is true that utility investors also cannot realize the book value return when the market-to-book ratio differs from one, those investors know that regulation establishes the authorized level of earnings relative to book value, and they set the market value in light of that knowledge.

CAPITAL STRUCTURE ADJUSTMENT

Q. PLEASE DESCRIBE THE WITNESSES' CAPITAL STRUCTURE ADJUSTMENT.

A. Both witnesses adjust the results of their analyses of proxy companies upward for the difference between the market capital structure of the proxy groups relative to the book capital structure of AmerenUE. Their argument is that the proxy group DCF return is based on investor perceptions of the financial risk of each company as measured by the market-based capital structure, that is, the capital structure as determined by the market value of the equity and debt. This market capital structure is then applied to the book value of AmerenUE, which is much more leveraged, hence more risky, than the market structure of the proxy group.

Specifically, both witnesses find that their proxy groups' market capital structure consists of approximately 62 percent equity, while Ameren's book value capital structure is 52 percent equity. They then adjust the proxy group's equity return by holding the debt cost and the overall cost of capital constant and adjusting the equity cost upward. Ms. McShane applies two such adjustments, one based on a constant cost to total capital and another that recognizes that the interest cost of debt is tax exempt.

Ms. McShane adjusts her proxy group equity return of 11.0 percent up to a range of 11.6 to 12.3 percent. Dr. VanderWeide adjusts his 11.5 percent proxy group return up to 12.3 percent.

Q. IS THE CAPITAL STRUCTURE ADJUSTMENT APPROPRIATE?

A. No. It is altogether inappropriate. The proxy groups of both witnesses (Ms. McShane more than Dr. VanderWeide) consist of companies that are regulated in the same manner

as AmerenUE. In each case, the company's earnings are determined largely by rates of return authorized by regulatory commissions. Those commissions overwhelmingly use the same procedures to find their rates of return as are being used in this case for AmerenUE. Those procedures always include DCF analyses of proxy groups and the application of those groups' rate of return to the book value of the subject utility's rate base. I know of no case where an adjustment such as the witnesses recommend has been made to the proxy group's rate of return.

Q. BUT AREN'T THE MARKET PRICES OF REGULATED UTILITY STOCKS GENERALLY MORE THAN THE BOOK VALUES OF THOSE STOCKS?

A. Yes, but that is to be expected. When a proxy group rate of return is applied to a utility's book value rate base, the result will most probably be a market value of the stock that is higher than its book value. That is because the application of the proxy group return arguably overstates the required return on book value in the present time period. Investors do not require that the DCF return be earned immediately. All they require is that the earnings support the expected dividend and that there be sufficient earnings beyond the dividend to generate the growth they expect in the long run. Thus, when the DCF return is applied to the book value of the equity, investors will bid the market value of the stock up to a level above book value.

This expected result applies to all utilities, including Ameren. Ameren's book value per share is approximately $32 and its current market value is about $53, for a market-to-book ratio of 1.66. The market-to-book ratio of my proxy electric company group is 1.73. Yet Ameren and all of my proxy companies have their rates, hence their earnings, set by the application of a market-based return to a book value rate base.

SELECTION OF RECOMMENDED EQUITY RETURN

Q. HOW DO THE TWO WITNESSES ARRIVE AT THEIR RECOMMEND RATES OF RETURN?

A. In each case, the witness averages the return indications from the respective tests and adopts that average as the recommended return. Ms McShane does so in table 4 on page 40 of her pre-filed testimony. Dr. VanderWeide performs the same calculation in Table 3 on page 41 of his pre-filed testimony.

Q. IS THIS AVERAGING APPROPRIATE?

A. No. As I have discussed, not all equity return tests are created equal. By the consensus of all three of the Federal commissions that use rate base/rate-of-return rate regulation, DCF is by far the preferred methodology. The FCC has accepted the CAPM method but complains of its susceptibility to distortion through the selection of inputs. I have demonstrated this susceptibility in my direct testimony. No Federal commission puts any credence in risk premium tests such as have been espoused by the witnesses in this case.

Q. WHAT DO THE WITNESSES DCF STUDIES SHOW AS THE APPROPRIATE RETURN ON EQUITY?

A. I have identified a number of flaws in the witnesses' applications of the DCF procedure. Nevertheless, if we examine just their DCF studies of proxy electric companies, we find that Ms. McShane's DCF results average to 10.0 percent (Table 4, page 40), and Dr. VanderWeide's analysis yields a return indication of 10.61 percent (Schedule JVW-1-1). These results are much closer to my recommendation of 9.65 percent than they are to the 12.0 percent that the Company adopts.

Q. THE COMMISSION RECENTLY DISCUSSED A "ZONE OF REASONABLENESS" OF 100 BASIS POINTS AROUND THE AVERAGE OF RECENTLY AUTHORIZED RETURNS BY COMMISSIONS NATIONWIDE. WHAT IS THAT ZONE OF REASONABLENESS AT THE PRESENT TIME?

A. The third quarter 2006 "Rate Case Summary" by the Edison Electric Institute reports that the average return on equity awarded in that quarter was 9.98 percent. Based on this benchmark, the zone of reasonableness would be between 8.98 and 10.98 percent. My recommendation of 9.6 percent is within that zone. The Company's proposed 12 percent is outside of it.

Q. DOES THIS COMPLETE YOUR REBUTTAL TESTIMONY?

A. Yes. It does.