EXHIBIT

Exhibit No.:	
Issue(s):	Rate of Return
Witness:	Charles W. King
Type of Exhibit:	Direct
Sponsoring Party:	Public Counsel
Case No.:	ER-2007-0002
Date Testimony Prepared:	December 15, 2006

DIRECT 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

December 15, 2006

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 direct 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 15th day of December 2006.

Angel Finch
Notary Public

My commission expires March 14, 2011.

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DIRECT TESTIMONY OF CHARLES W. KING

QUALIFICATIONS

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. PLEASE DESCRIBE SNAVELY KING.

A. Snavely King, formerly Snavely, King & Associates, Inc., was founded by the late Carl M. Snavely and myself in 1970 to conduct research on a consulting basis into the rates, revenues, costs and economic performance of regulated firms and industries. The firm has a professional staff of 12 economists, accountants, engineers and cost analysts. Most of its work involves the development, preparation and presentation of expert witness testimony before federal and state regulatory agencies. Over the course of its 36-year history, members of the firm have participated in over 1000 proceedings before almost all of the state commissions and all Federal commissions that regulate utilities or transportation industries.

Q. HAVE YOU PREPARED A SUMMARY OF YOUR QUALIFICATIONS AND EXPERIENCE?

A. Yes. Attachment A is a summary of my qualifications and experience.

Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN REGULATORY PROCEEDINGS?

A. Yes. Attachment B is a tabulation of my appearances as an expert witness before state and federal regulatory agencies.

Q. FOR WHOM ARE YOU APPEARING IN THIS PROCEEDING?

A. I am appearing on behalf of the Office of the Public Counsel for the State of Missouri.

Q. WHAT IS THE OBJECTIVE OF YOUR TESTIMONY?

A. The objective of my testimony is to recommend the appropriate rates of return to capital devoted to the retail electric utility services of the Union Electric Company d/b/a AmerenUE ("AmerenUE" or "the Company").

SUMMARY

Q. WHAT HAVE YOU FOUND TO BE THE APPROPRIATE RATE OF RETURN TO AMERENUE'S ELECTRIC UTILITY RATE BASE?

A. Based on the analyses presented in this testimony, I find that the appropriate after-tax return to the AmerenUE's electric utility rate base is **7.55 percent.** This recommendation reflects the application of a **9.65 percent** return to AmerenUE's equity capital within the Company's June 30, 2006 capital structure, inclusive of an attribution of parent company debt.

Q. DO YOU HAVE A SCHEDULE THAT DISPLAYS THE DEVELOPMENT OF THIS RECOMMENDED RATE OF RETURN?

A. Yes. Schedule CWK-1 of my exhibit presents the calculation of my recommended rate of return. Columns B and C show AmerenUE's capital structure as of June 30, 2006 as presented in Schedule LRN-G5-1 attached to AmerenUE witness Lee R. Nickloy's Supplemental Direct Testimony. Columns D and E present the parent company's unconsolidated capital structure as shown in the Company's response to Bible (Commission Staff) Data Request No. 001, and column E shows AmerenUE's capital structure adjusted for the "double leverage" effect of parent debt, which I will discuss in this testimony.

Columns F of Schedule CWK-1 shows the cost rates for each component of the capital structure as of June 30, 2006, and Column G shows the weighted return. The bottom line at column F shows the overall return to capital for AmerenUE's electric service.

CAPITAL STRUCTURE

Q. WHAT IS MEANT BY "CAPITAL STRUCTURE?"

A. Capital structure refers to the mix of the various forms of investor-supplied capital: long-term debt, short-term debt, preferred stock and common equity.

Q. WHAT IS THE RELEVANCE OF CAPITAL STRUCTURE TO THE OVERALL RATE OF RETURN?

A Capital structure is highly relevant to the overall rate of return because the cost of the respective forms of capital varies considerably. In general, debt capital is much less costly than equity capital, not only because it requires a lower return, but because it is

tax-deductible. Equity capital is more costly because it bears more risk. Since the return to equity – dividends and retained earnings – are not tax deductible, equity capital also affects ratemaking by requiring a gross-up for income taxes.

Standing alone, these considerations would suggest that debt capital is always preferable to equity, but debt has limits. As the proportion of debt increases, the financial risk that the Company might not be able to honor its debt instruments increases. At some point, that risk overwhelms the benefit of lower debt costs, and the capital structure becomes too "leveraged," that is, it has too much debt for the earnings to sustain. In theory, there is an ideal mix of debt and equity that minimizes the composite cost of capital. Finding that ideal is a major challenge to most companies, and particularly to companies in capital-intensive industries such as electric utilities.

Q. WHAT IS AMERENUE'S CAPITAL STRUCTURE?

A. AmerenUE's capital structure is shown in columns B and C of Schedule CWK-1. I have taken the values in these columns directly from Schedule LRN-G5-1 attached to the Supplemental Direct Testimony of Company witness Lee R. Nickloy.

Q. IS THIS THE APPROPRIATE CAPITAL STRUCTURE TO USE IN CALCULATING THE COST OF AMERENUE'S CAPITAL DEVOTED TO UTILITY SERVICE?

A. No. This capital structure reflects the implicit assumption that the equity component is the proportion of capital that is held by the shareholders of AmerenUE's parent, the Ameren Corporation. That is not the case. A small proportion – 5.2 percent -- of AmerenUE's "equity" takes the form of long-term debt at the parent company level. And an even smaller portion – 0.5 percent – takes the form of parent company short-term debt. The effect is to overstate the equity portion of AmerenUE's capital as it ultimately

reaches Ameren Corporation's shareholders. To correct for this "double leverage" effect, I adjust AmerenUE's capital structure in columns D and E of Schedule CWK-1.

Q. CAN YOU CITE ANY REGULATORY PRECEDENT FOR THIS "DOUBLE LEVERAGE" ADJUSTMENT?

A. Yes. There is extensive precedent for double leverage adjustments in telephone company regulation. Most telephone operating companies have debt in their own name. Their parent companies, such as AT&T (prior to 1984), General Telephone, Continental Telephone, United Telephone, also issued debt in their name. The parent company debt provided funds that were then invested as "equity" capital into the operating companies. The FCC[1] and most state commissions[2] recognized that these "equity" infusions were not equity at all, but debt capital taken out by the parent company. Accordingly, they made double leverage adjustments very similar to the adjustment I am proposing for AmerenUE.

Q. HOW CAN YOU DETERMINE WHETHER THE CAPITAL STRUCTURE YOU HAVE IDENTIFIED IN YOUR SCHEDULE CWK-1 IS REASONABLE?

A. The appropriate capital structure is a mix of debt and equity that would be employed by prudent management in a company devoted exclusively to regulated electric service.

Q. HAVE YOU PERFORMED ANY ANALYSES TO CONFIRM THAT AMERENUE'S CAPITAL STRUCTURE IS CONSISTENT WITH THAT OF WELL-MANAGED ELECTRIC UTILTIES?

[1] 86 F.C.C.2d 221 (1981), aff'd *United States v. FCC*, 707 F.2d 610 (D.C. Cir 1983).
[2] See, for example, Alabama Sup.Ct, *Contenental Teleph. Co. of the South-Alabama v. Alabama PSC*, 427 So.2d 981 (1982); rehearing denied Feb. 11, 1983; New Mexico Sup.Ct., *General Telephone Co. of the Southwest v. New Mexico State Corp. Commission* (1982) 98 NM 749, 652 P2d 1200; Texas Ct.App. *General Telephone Co. of the Southwest v. Texas Public Utility Commission* (1982) 928 SW2d 832, rehearing denied March 3, 1982; Arkansas

A. Yes. I have compared AmerenUE's capital structure with the capital structures of comparison groups of electric utility companies.

Q. HOW DID YOU SELECT YOUR COMPARISON GROUP OF ELECTRIC UTILITIES?

A. I began with the list of 34 electric companies and 11 gas companies that AmerenUE's rate of return witnesses James VanderWeide and Kathleen McShane used for comparison purposes to AmerenUE. Dr. VanderWeide's list is found on his Schedule JVW-1-1 in the electric case, and Ms. McShane's list is on her Schedule KCM-G3-1 in the gas case. According to Dr. VanderWeide, his list consists of *Value Line's* electric utility companies that (1) paid dividends during every quarter of the last two years; (2) did not decrease dividends during any quarter of the past two years; (3) had at least three analysts included in the I/B/E/S mean growth forecast; (4) have an investment grade bond rating and a *Value Line* Safety Rank of 1, 2, or 3; and (5) have not announced a merger. Ms McShane testifies that her list consists of *Value Line* gas distribution companies with no less than 80 percent of their assets devoted to gas distribution operations, with Standard & Poor's ratings of BBB- or better, and with both *Value line* and I/B/E/S forecasts. To these lists, I added two more companies, Constellation Energy and FPL Group, that had been excluded from Dr. VanderWeide's list because they were in merger negotiations. Those negotiations have broken off since Dr. VanderWeide prepared his testimony.

I present this list on Schedule CWK-2 of my exhibit. There are 46 companies in all.

I then examined the 2005 10K reports of these companies to determine how much of their revenue was derived from regulated electric and gas utility service. The results of this

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PSC, *Re. General Telephone Co. of the Southwest,* Docket No. 85-127-U, Order No. 10, March 11, 1986; Connecticut DPUC *Re Southern New England Telephone Co.* 71 PUR4th 446 (1895).

analysis are set forth on Schedule CWK-2 of my exhibit. I found that four companies on Dr. VanderWeide's electric utility list are more heavily involved in gas distribution than electric service and that one Company, MDU Resources, is most heavily involved in non-utility activities, including construction, mining, and gas and oil production. I eliminated OGE Energy because it is predominantly a gas pipeline company, although it does have some electric utility operations. TXU had to be eliminated because it has written down its equity to the point that it displays unreasonable financial risk. One company, SCANA Corporation, appears equally involved in electric and gas operations, so I included it in both comparison groups.

I then examined the proportion of revenue of each company that is non-regulated relative to that which is subject to regulation. I found that AmerenUE derives virtually all of its revenue from regulated services, both electric and gas. It is, however, predominantly an electric utility. Many of the companies listed as electric utilities derive very significant proportions of their revenue from non-regulated merchant power production and marketing. I therefore established a threshold of 60 percent regulated utility revenue as a basis for inclusion in the comparison groups to be used in this analysis. The result of this effort is two comparison groups, an electric utility group of 25 companies and a gas distribution group of 16 companies. The electric companies are listed on Schedule CWK-3 in my exhibit.

Q. WHY DID YOU ESTABLISH A CRITERION OF 60 PERCENT REGULATED IN SELECTING YOUR COMPARISON GROUPS?

A. It is necessary to confine the comparison groups to heavily regulated companies because only such regulated companies set their prices in the same manner as AmerenUE. The prices of unregulated companies are established by the market, or more specifically by the prices that competitors charge. By contrast, the prices charged by regulated utilities are determined by regulation. Those regulated prices are based on the cost of service,

which includes operating expenses and an allowed return on net invested capital. That net invested capital is measured by book value, that is, the original cost of the assets used to provide utility service. No other category of businesses uses this price-setting mechanism.

It is this orientation to book investment value that sets regulated utilities apart from all other companies. For competitive companies, book value of assets (plant, working capital) or liabilities (debt and equity) has little relevance. For regulated utilities, book value has great relevance because regulation makes it so. The prices that regulated utilities can charge are constrained by the record of past investments on the companies' books. Only such regulated companies can be compared to AmerenUE, a totally regulated enterprise. That is why I have limited my comparison groups to companies that are subject to rate base/rate-of-return regulation.

Q. RETURNING TO THE ISSUE OF CAPITAL STRUCTURE, HAVE YOU COMPARED THE CAPITAL STRUCTURE OF AMERENUE WITH THE CAPITAL STRUCTURES OF COMPARABLE UTILITY COMPANIES?

A. Yes. The capital structures of electric comparison group companies are presented on Schedule CWK-3. The schedule reveals that the electric comparison group has an average equity percentage of total capital of 45.3 percent and of permanent capital of 47.4 percent. These percentages are lower than AmerenUE's equity percentages of 52.2 percent and 52.6 percent, respectively, even after the double-leverage adjustment.

Q. WHAT DO YOU CONCLUDE FROM THIS COMPARISON OF CAPITAL STRUCTURES?

Based on this comparison, I believe that AmerenUE's capital structure, inclusive of the double-leverage adjustment, is reasonably comparable to the average capital structure of

the comparison group. AmerenUE has a slightly greater equity proportion than the comparison group, which suggests a slightly lower level of financial risk.

Q. WHAT DEFINITION OF EQUITY HAVE YOU USED IN YOUR SCHEDULES, BOOK VALUE OR MARKET VALUE?

A. I have used book value consistently.

Q. MIGHT YOU HAVE USED THE MARKET VALUE OF AMEREN'S STOCK IN DETERMINING THE CAPITAL STRUCTURE?

A. No. The reason is circularity. Market values depend on earnings, and the earnings of a regulated enterprise depend on the rate of return set by the regulators. If that rate of return is in turn affected by the level of market value, the whole process becomes circular.

This issue was addressed by the Supreme Court when it reviewed the use of book value versus "fair value," which may be measured as market value, in its landmark *Hope Natural Gas* case.

> ... "fair value" is the end product of the process of rate-making not the starting point as the Circuit Court of Appeals held. The heart of the matter is that rates cannot be made to depend upon "fair value" when the value of the going enterprise depends on earnings under whatever rates may be anticipated.[3]

Were the Commission to use market value in determining the AmerenUE's capital structure, the result would be circular regulation:

- Because of a high authorized rate of return, the utility's stock value is bid well above book value.

[3] *Federal Power Commission et. al vs. Hope Natural Gas Company*, 320 U.S. 592, at 601 (1944)

- This inflated market value is then used by the Commission in weighting equity and debt capital.
- The much higher equity weighting increases the composite rate of return.
- The higher return increases earnings.
- The increased earnings further inflate the market value of the stock.

COST OF DEBT AND PREFERRED STOCK

Q. WHAT COSTS HAVE YOU ASSIGNED TO THE DEBT AND PREFERRED STOCK COMPONENTS OF AMERENUE'S CAPITAL STRUCTURE?

A. I have adopted the cost rates shown in Schedule LRN-G5-1, attached to the Supplemental Direct Testimony of Ameren witness Lee R Nickloy in the gas case. These cost rates are as of June 30, 2006. It is my understanding that they may be updated before the hearing in this case.

STANDARDS FOR FINDING EQUITY CAPITAL COST

Q. WHAT IS THE BASIS FOR FINDING A RATE OF RETURN TO AMERENUE'S COMMON EQUITY SHAREHOLDERS?

A. In its *Hope Natural Gas* decision, the United States Supreme Court established the following standards for the return to equity that must be allowed a regulated public utility:

> ..the return to the equity owner should be commensurate with the returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure

> confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.[4]

It can be seen from this excerpt that there are essentially three standards for determining an appropriate return to equity. The first is the "comparable earnings" standard, i.e., that the earnings must be "commensurate with the returns on investments in other enterprises having corresponding risks." The second is that earnings must be sufficient to assure "confidence in the financial integrity of the enterprise," and the third is that they must allow the utility to attract capital and maintain credit.

Q. HOW CAN THE COMPARABLE EARNINGS STANDARD BE APPLIED IN ESTIMATING THE RATE OF RETURN TO EQUITY CAPITAL?

A. There is a certain circularity to the comparable earnings standard because the competitive nature of the capital markets virtually ensures that the returns to all enterprises having corresponding risks are comparable with each other. Investors establish the price of each traded stock based on that stock's present and prospective earnings in comparison with the present and prospective earnings of all other stocks and other investments available to them. If the earnings of a firm are depressed or highly uncertain, then investors will pay only a low price for that firm's stock. As a result, the return on the market value of that stock will be comparable to the return on the market value of the stock of other companies that are highly profitable but which, as a consequence of their profitability, have been bid up to a very high price. Thus, if "return" is defined as the earnings of an equity investment relative to its current market price, then the comparable earnings test becomes a cipher. All returns are comparable with all other returns.

In public utility regulation the conventional procedure for resolving this circularity is to identify the required equity return based on the market value of a utility's stock. That

[4] Id. at 603

return is combined with the cost of debt and preferred stock, using either the actual or a hypothetical minimum-cost capital structure. The blended return to total capital is then applied to a rate base reflective of the book value of the utility's investment. The book value is the accountant's quantification of the original cost of the utility's assets adjusted for ratepayer contributions such as deposits and deferred taxes. Under this procedure, the market price of a stock is used only to determine the return that investors expect from that stock. That expectation is then applied to the book value of the utility's investment to identify the level of earnings that regulation will allow the utility's common shareholders to recover. As noted earlier, this procedure is peculiar to regulated public utilities.

Q. HOW CAN THE FINANCIAL INTEGRITY AND CAPITAL ATTRACTION STANDARDS BE APPLIED IN ESTIMATING THE RATE OF RETURN TO EQUITY CAPITAL?

A. If a utility can earn a return on its investment comparable to that required by enterprises of comparable risk, then it should have no difficulty in maintaining financial integrity or attracting capital. Investors would have no reason to shun such a utility in favor of other investment opportunities. Thus, if the comparable earnings test is met, then the financial integrity and capital attraction standards are met as well.

Q. HOW DO YOU DEFINE "ENTERPRISES OF COMPARABLE RISK" AS REQUIRED BY *HOPE NATURAL GAS?*

A. I shall use the list of 25 electric companies in Schedule CWK-3. All of these companies derive at least 60 percent of their revenue from regulated utility service.

Q. HOW WILL YOU IDENTIFY THE MARKET-DETERMINED RATE OF RETURN TO THE EQUITY CAPITAL OF THESE COMPARISON GROUP COMPANIES?

A. In developing the equity returns for the comparison groups, I shall apply the Discounted Cash Flow ("DCF") procedure. I consider the DCF procedure to be the most credible test of a market return. I shall present two versions of this test. The first, which I shall describe as the "classic" DCF, employs the forecasts of investment analysts in estimating the growth component of the DCF formula. The other procedure employs both analysts' forecasts and a forecast of the annual growth of Gross Domestic Product in the "out" years beyond 2012. Additionally, I shall consider the Capital Asset Pricing Model ("CAPM") as a check on the DCF results. Finally, I shall examine the trend in rates of return allowed by public utility commissions to electric utilities during the past 16 years.

DISCOUNTED CASH FLOW PROCEDURE

Q. PLEASE DESCRIBE THE DISCOUNTED CASH FLOW PROCEDURE.

A. The basic premise of the Discounted Cash Flow (" DCF") procedure is that the market price of each stock is the discounted present value of all expected future flows of cash to the investor. The discount rate that equates those future cash flows with the market value of the stock is the investor's required rate of return.

The DCF approach is usually represented by the following formula:

$$k = {}^{d}/_{P} + g$$

where k = required rate of return
d = dividend in the immediate period
p = market price
g = expected growth rate in dividends

While the DCF method is usually presented in mathematical notation format (as above), it can also be described in narrative fashion. The formula says that the return that any investor expects from the purchase of a stock consists of two components. The first is the immediate cash flow in the form of a dividend. The second is the prospect for future growth in dividends. The sum of the rates of these two flows, present and future, equals the return that investors require. Investors adjust the price they are willing to pay for the stock until the sum of the dividend yield and the annual rate of expected future growth in dividends equals the rate of return they expect from other investments of comparable risk. The DCF test thus determines what the investing community requires from the company in terms of present and future dividends relative to the current market price.

Q. DON'T MOST INVESTORS REGARD CAPITAL APPRECIATION AS A PORTION OF THEIR EXPECTED RETURN?

A. Yes. The expectation of capital appreciation is captured in the "g" or growth portion of the DCF formula. If dividends grow, then it follows that the market price of the stock will grow as well. It is this growth that most equity investors seek, at least in part, in purchasing shares in a traded company.

Q. HOW DO YOU IDENTIFY THE FIRST TERM, "d/p," FOR PURPOSES OF THE APPLYING DCF PROCEDURE?

A. The "d" is the dividend in the next period, that is, the next year. There is a somewhat mechanical procedure for predicting this value which applies a factor of .5 to the "g" or growth factor, on the assumption that dividends will increase in lock step with earnings growth. Alternatively, there are analysts' predictions of next year's dividends that presumably reflect a fairly close scrutiny of the companies' cash flow requirements and their apparent desire (or lack thereof) to increase dividends to their stockholders. Because the latter procedure takes into account company-specific considerations, I believe it is

more appropriate. For this purpose, I have used *Value Line's* forecast of dividends. For the "next period," I have assumed that the investment horizon at this point is the year 2007, and so I have used *Value Line's* forecast of 2007 dividends.

The "p" or price denominator of the dividend yield fraction requires the exercise of some judgment. Given the volatility of the stock market, it is inappropriate to use any one day's price, but it is also necessary to reflect the market's current perception of each stock's value. For purposes of this analysis, I have used the average of prices for the most recent 90 calendar days preceding December 8, 2006 as reported by Yahoo finance.

Columns A, B, and C of Schedule CWK-4 present the dividend yields of each of the comparison group companies. The schedule shows that the average dividend yield of the electric group is 3.9 percent.

Q. IS THERE A CONVENTIONAL PROCEDURE FOR CALCULATING THE "g" GROWTH COMPONENT OF THE DCF FORMULATION?

A. Yes. There is a conventional procedure for calculating equity return under the DCF formula that is often referred to as the "classic" DCF calculation. The Federal Communications Commission ("FCC") adopted this method in 1986 and concluded that it should be given the greatest weight in determining the rate of return to equity.[5] I should note also that the Surface Transportation Board[6] routinely uses this method each year to determine the revenue adequacy of each of the nation's Class I railroads.[7]

[5] *Authorized Rates of Return for the Interstate Services of AT&T Communications and Exchange Telephone Carriers, Memorandum Opinion and Order on Reconsideration,* CC Docket No. 84-800, Phase II, 104 FCC 2d 1404, at 1407 (1986); *Resubscribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers, Order,* CC Docket No. 89-624, 5 FCC Rcd 7507, 7512 (1990); *Notice Initiating a Prescription Proceeding and Notice of Proposed Rulemaking,* CC Docket No. 98-166, October 5, 1998.

[6] Successor agency to the Interstate Commerce Commission.

[7] Comments of the Association of American Railroads and Its Member Railroads, Surface Transportation Board Ex Parte No. 558 (Sub-No.9), *Railroad Cost of Capital – 2005,* pp. 2-3.

According to the DCF theory, the relevant measure of "g" should be the growth in dividends. Dividends, however, are largely a function of management discretion, and in the near term they do not necessarily reflect the underlying driver of earnings. In the long run, however, any rate of dividend growth that differs significantly from earnings growth is unlikely to be sustainable. For this reason, it is generally accepted that the growth rate of earnings per share ("EPS") is the most reliable indicator of the "g" factor.

The classic DCF calculation employs predictions of EPS growth, usually in the three to five year time horizon. Investment analysts routinely attempt to forecast the future earnings of traded companies. *Value Line* provides such forecasts based on the research of its own and other organizations' analysts. Another commonly cited source is the Institutional Brokers Estimation System, or I/B/E/S, now part of Thomson Financial's research program. I/B/E/S does not conduct independent research but surveys investment analysts for their predictions of future earnings growth. I have used the forecasts from these two sources for my development of the classic DCF return.

The long-term earnings growth forecasts for AmerenUE and each comparison company are presented in columns D and E of Schedule CWK-4 of my exhibit. Column F shows the average of these forecasts for each company. Schedule CWK-4 shows that the average forecast rate of earnings growth for the electric comparison group is 6.0 percent.

Q. WHAT IS THE EQUITY RETURN INDICATION FROM YOUR APPLICATION OF THE CLASSIC DCF PROCEDURE?

A. The final column of Schedule CWK-4 presents the results of my classic DCF analysis. The schedule reveals that when the average electric company earnings growth rate of 6.0 percent is added to those companies' 3.9 percent dividend yield, the result is an average DCF return of 9.9 percent to the electric utility comparison group.

Q. WHAT IS THE CLASSIC DCF RETURN INDICATION FOR AMERENUE?

A. The top line of Schedule CWK-4 shows that the classic DCF return for AmerenUE is 8.3 percent. This very low indication is principally due to *Value* Line's prediction that Ameren's earnings will increase only 1.5 percent on average over the coming five years. The discussion in *Value Line's* report suggests that this forecast is a function of the expectation that Ameren's earnings will decline by four percent in 2006 owing to two one-time negatives, poor weather and an unplanned outage at the Calloway nuclear plant. For this reason, I do not place much confidence in the AmerenUE result.

Q. WHAT IS YOUR ASSESSMENT OF THE QUALITY OF THE CLASSIC DCF RETURN INDICATIONS?

A. I agree with the FCC (and other commissions) that the "classic" formulation of the DCF model is a reliable basis for estimating returns to equity. That is because it uses market data for the dividend yield portion of the formula, and it relies on the informed judgment of market analysts for its projection of future growth.

I do not believe, however, that the classic DCF formulation can be considered as providing a hard and fast statement of investors' requirements for earnings from any one company, or even groups of companies such as the comparison groups I am using in this analysis. Other approaches must be applied to offer guidance as to whether the classic DCF results provide appropriate estimates of the rate of return to equity.

Q. IS THERE ANOTHER DCF FORMULATION BESIDE THE "CLASSIC" FORM THAT YOU HAVE JUST DISCUSSED?

A. Yes. An arguable weakness in the classic DCF formulation is that it assumes that the rates of earnings growth predicted by investment analysts will continue indefinitely. That

is not the prediction of the analysts. They are quite explicit that their forecasts are only to a time horizon of about five years. Beyond that, the companies' earnings growth rates are unknown and unknowable.

It is not realistic to expect that a growth in earnings that departs significantly from the overall growth of the economy can last indefinitely. Sooner or later, any company's earnings growth must be constrained by the performance of the economy in which it operates.

In establishing authorized equity returns for pipeline companies, the Federal Energy Regulatory Commission ("FERC") recognizes this ultimate constraint on earnings growth. Accordingly, it uses a two-step procedure in estimating the "g" factor in the DCF formula. The first step is the same analysts' forecasts used in the classic formulation. The second step is an estimate of long-term nominal rate of growth in Gross Domestic Product ("GDP").[8] This procedure acknowledges that disparities between the short-term rate of growth and the growth in the overall economy cannot last forever. Ultimately, earnings growth will trend toward the rate of increase in the total market. In developing its "g" factor for the DCF formula, FERC assigns two-thirds weighting to the analysts' forecasts and one-third weighting to the GDP growth forecast.[9]

Q. WHAT FORECAST RATE OF GDP GROWTH DO YOU PROPOSE TO USE IN IMPLEMENTING THE FERC 2-STEP GROWTH PROCEDURE?

A. The Congressional Budget Office ("CBO") produces forecasts of most of the major economic indicators. CBO's current forecast for the years 2010 through 2015 calls for an annual rate of increase of 4.5% in nominal GDP.

[8] See for example, *Wilston Basin Interstate Pipeline*, FERC Docket No. RP00-107-000, 104 FERC 61,036, 61,099.
[9] Id.

Q. WHAT IS THE DCF RETURN INDICATION USING THE FERC 2- STEP GROWTH FORMULATION FOR THE ELECTRIC COMPARISON GROUP?

A. The calculation of the DCF return using the FERC two-step growth factor is presented in Schedule CWK-5. I calculate a rate of return indication for the electric comparison group of 9.4 percent.

THE CAPITAL ASSET PRICING MODEL

Q. PLEASE DESCRIBE THE CAPITAL ASSET PRICING MODEL?

A. The Capital Asset Pricing Model ("CAPM") employs a measure called "beta," which tests the covariance of the stock at issue with that of the overall market, to assess the relative risk of any stock against the market. As conventionally used by rate-of-return analysts, the beta is assumed to measure the cost of the company's equity on a continuum between the average required return of the overall equity market and a risk-free return.

The CAPM formula is as follows:

$$k = R_f + \beta(R_m - R_f)$$

Where

k = the prospective market cost of common equity for a specific investment
R_f = the "risk-free" rate of return
β = the company-specific beta
R_m = the overall stock market return on stocks for the prospective period

Q. WHAT IS YOUR ASSESSMENT OF THE CAPM?

A. I believe that CAPM has value in assessing the relative risk of different stocks and portfolios of stocks. It can therefore be useful in checking the results of other, more reliable methods of measuring equity return, such as the DCF procedure. However,

because of the extensive requirement for judgment in selecting each of the inputs, I question its value in directly estimating a return to equity.

Q. WHAT JUDGMENT IS REQUIRED FOR THE FIRST INPUT, β, OR BETA?

A. As noted, beta measures the degree of covariance of the stock with that of the market overall. But neither the fluctuations of the stock nor those of the market are constant, or even consistent with each other over any extended period of time. As a result, there are as many estimates of beta for a given company as there are analysts making the measurement.

Schedule CWK-6 in my exhibit presents the betas for the electric comparison group as derived by *Value Line* and Thomson Financial, the publishers of I/B/E/S. Both of these sources purport to be reliable and respected. As can be seen from the exhibit, there is little or no consistency among the beta values for the respective companies. Indeed, there is no case where the betas from these two sources match.

Q. WHAT JUDGMENT IS REQUIRED IN SELECTING THE INPUT R_f, THE RISK-FREE RATE OF RETURN?

A. There is general consensus that yields to U.S. government securities are risk-free in the sense that they are free from the risk of default. The difficulty is that there are quite a number of U.S. government securities of differing maturities that have very different yields. Most utility-sponsored rate-of-return witnesses assert that because stocks exist in perpetuity, the yield of long-term government bonds is the appropriate risk-free rate. The rationale is that because stocks are held in perpetuity, the corresponding risk-free rate should be that of very long-term government bonds.

There are two difficulties with this rationale. The first is that stocks are not held in perpetuity. To the contrary, the New York Stock Exchange has a turnover rate of about 100 percent annually, suggesting that the average share of stock is held only about a year. The second difficulty is that long-term bonds are not free from risk. To the contrary, they carry a substantial risk that inflation will erode their eventual value at maturity. Stocks do not bear this inflation risk because generally the stock market rises when inflation rises.

Q. WHAT JUDGMENT IS REQUIRED IN SELECTING THE INPUT R_m, THE RETURN TO THE OVERAL MARKET?

A. The complexities and uncertainties associated with measuring the return to equity of an individual company are not reduced when the object of the analysis is expanded to the entire market for equities. Generally, CAPM analysts use one of two procedures. Either they perform simplistic DCFs for a wide variety of stocks, in which case why not use the same DCF for the stock under study? Or they use the historical return to market equities, which assumes, totally unrealistically, that the investors in the equity markets during the period under study actually realized the return that they were expecting. This approach tells us nothing about future expectations from the market.

Q. HAVE YOU DEVELOPED A CAPM APPLICATION?

A. Yes. In Schedule CWK-7 of my exhibit, I have applied the CAPM approach using generally accepted inputs. To identify the overall market return, I have applied a DCF approach using *Value Line's* forecasts of the median dividend yield for the coming year and the potential for appreciation for 1700 stocks. The dividend yield is 1.7 percent, and *Value Line* estimates that the potential for market appreciation is 40 percent in the coming 3 to 5 years. Using the mid-point of 4 years, this forecast translates into a growth

factor of 8.8 percent per year. The sum of the dividend yield of 1.7 percent and a growth rate of 8.8 percent produces an overall market return of 10.48 percent.

Although I do not necessarily agree that the 30-year Treasury bond yield is the appropriate risk-free rate for purposes of the CAPM, I have accepted it in line 5. The yield on these bonds for the week ending of December 1, 2006 was 4.58 percent. Based on these inputs, I arrive at an overall market risk premium of 5.9 percent.

As demonstrated in Schedule CWK-6, there is a wide variety of beta measures among the companies in the comparison group and between my two sources, *Value Line* and Thomson Financial. To minimize the effect of these variations, I have used the average of the two sources to arrive at a beta of .75 for the electric comparison group. When applied to the total market risk premium of 5.9 percent, the risk premium for the electric companies is 4.45 percent. When added to the risk-free rate of 4.58 percent, the indicated return to equity is 9.03 percent.

Q. WHAT VALUE DO YOU PLACE ON THESE RESULTS?

A. As I have noted, the principal difficulty with the CAPM calculation is the judgment it requires in the selection of critical inputs. The results that I have shown in Schedule 7 can be changed dramatically by the use of slightly different inputs for the overall market return, the beta factor and the risk-free return. This observation is borne out by a comparison of my CAPM results with those of AmerenUE's rate-of-return witnesses.

Additionally, there is the more fundamental conceptual issue relating to the assumption implicit in the CAPM that the beta factor is the sufficient to describe not only the relative but the absolute degree of risk associated with each company's stock. That assumption is flatly contradicted by *Value Line.* In addition to the beta for each company, *Value Line* produces a "Safety Rank." The Safety Rank is computed by averaging two other *Value*

Line indices – the Price Stability Index and the Financial Strength Rating. Safety Ranks range from 1 (highest) to 5 (lowest).

The final column of Schedule CWK-6 shows the Safety Rank for each of the comparison group company. At the bottom of the schedule I present the average for the group. The electric group's average Safety Rank is 2.08. In my accompanying testimony in the gas rate case, I calculate a gas group Safety Rank of 2.07, slightly below the electric. But when I compare the betas of the two groups, I find that the gas group's beta is much higher than the electric group, .87 versus .75 (see Schedule CWK-6 attached to my gas case testimony). This relationship is inconsistent with the results of the Safety Rank comparison.

For the foregoing reasons, I am inclined to agree with the Interstate Commerce Commission which found that the CAPM is "conceptually and technically flawed."[10] The best that can be said of the CAPM is that it suggests that the DCF results are, if anything, generous to the electric utilities.

STATE COMMISSION EQUITY RETURN AWARDS

Q. DO YOU HAVE ANY OTHER TESTS OF EQUITY RETURN?

A. Yes. Another test of equity return is the record of equity return awards given to electric utilities by state utility commissions. The Edison Electric Institute tracks the equity return awards granted by state commissions each quarter. Schedule CWK-8 is a chart that shows the averages of these awards each quarter since the first quarter of 1990. The chart demonstrates a clear downward trend: above 12 percent in 1990 and 1992, in the 11 percent range but trending downward from 1993 through the first quarter of 2004, and below 11 percent in 2004, 2005 and the first two quarters of 2006. The most recent

[10] *Ex Parte No. 436*, 367 I.C.C. at 670

observation is for the third quarter of 2006. In that quarter six commissions granted equity return awards to electric utilities averaging 9.98 percent.

Q. WHAT VALUE DO YOU PLACE ON THESE INDICATIONS?

A It is overly simplistic to compare rate of return awards among utilities and commissions. Many rate case decisions contain conditions and *caveats* that make the awards more or less generous than the simple percentage values would suggest.

I am also concerned with the issue of circularity. To base any return allowance on the decisions of other commissions makes the regulatory process self-generating. The finding of an equity return justifies the finding another equity return. If this process is continued, then the equity returns could soon lose contact with any objective and independent data.

For these reasons, I value the information contained in Schedule CWK-8 only as a demonstration of two facts: first, that rate-of-return awards have been trending downward for the last 16 years, and particularly in the last four years, and second, that a rate-of-return award below 10 percent would not be inconsistent with recent equity return allowances by other state commissions.

EQUITY RETURN CONCLUSION

Q. WHAT IS YOUR CONCLUSION AS TO THE RETURN TO EQUITY CAPITAL FOR THE ELECTRIC COMPARISON GROUP?

A. I have discussed the relative value of the DCF results, the CAPM and the EEI record of commission awards. The only results that I find to be reliable indicators of the absolute level of required equity return are those derived from the DCF methodology. As between

the two formulations of that methodology, I find the FERC 2-step approach conceptually most appropriate. The classic formulation, however, enjoys the widest level of acceptance, so I think it inappropriate to de-weight its result. For this reason, I recommend an average of the classic and 2-step DCF results. The classic result is 9.9 percent, the 2-step result is 9.4 percent. The average is 9.65 percent.

Q. IS THERE ANY REASON TO SET DIFFERENT RETURN FOR AMERENUE'S ELECTRIC SERVICE RELATIVE TO THE COMPARISON GROUP?

A. No. To justify a different return to AmerenUE, it would be necessary to find that investment risk associated with AmerenUE's equity differs from that of the comparison groups. I see no basis for such a finding. It is true that AmerenUE has a slightly less risky capital structure than the electric comparison group companies. On the other hand, one could argue that the absence of a fuel adjustment clause increases AmerenUE's electric business risk relative to the comparison companies, almost all of which have such clauses. The problem with this argument is that the Missouri legislature as recently authorized fuel adjustment clauses for Missouri utilities, so that this distinction will probably disappear in the near future.

According to the investment analyst reports I have read, the greatest risk currently confronting Ameren is the possibility that the State of Illinois may extend the current electric rate freeze applicable to the three Ameren companies there. This threat, however, is discrete to Illinois and does not affect the risk of Ameren's Missouri operations.

For the foregoing reasons, I do not believe there is any justification for increasing or decreasing the equity return to AmerenUE relative to the comparison groups.

Q. WHAT RATE OF RETURN TO EQUITY DO YOU RECOMMEND FOR AMERENUE'S ELECTRIC OPERATIONS?

A. I recommend a return to equity of **9.65 percent** for AmerenUE's electric utility operations.

RETURN TO TOTAL CAPITAL

Q. WHAT AFTER-TAX RETURN TO OVERALL CAPITAL DO YOU RECOMMEND FOR AMERENUE'S ELECTRIC RATE BASE?

A. As shown on Schedule CWK-1 of my exhibit, the application of an electric service equity return of 9.65 percent into my recommended capital structure yields after-tax return to AmerenUE's electric rate base of **7.55 percent.**

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes. It does.

AmerenUE
Cost of Capital - Electric Operations

Capital Structure June 30, 2006:

	A	B	C	D	E		F	G
		AmerenUE		Parent	Composite		Electric	
		Amount Outstanding ($MM)	Percent of Total	Stand-alone Cap. Structure	Capital Structure		Cost Rate	Weighted Return
1	Long-term Debt	$ 2,552	45.0%	5.2%	47.3%		5.473%	2.59%
3	Short-term Debt	$ 45	0.8%	0.5%	0.8%		5.360%	0.04%
4	Preferred Stock	$ 115	2.0%		2.0%		5.189%	0.10%
4	Common Equity	$ 2,964	52.2%	94.3%	49.8%		9.65%	4.81%
5	Total	$ 5,675	100.0%	100.0%	100.0%			**7.55%**

Sources:

Capital Structure, Ameren UE: Nickloy Schedule LRN-G5-1
Capital Structure, Ameren Corp.: Response to d.r. Bible 001
Debt Cost: Nickloy Schedule LRN-G5-1
Equity Cost: Testimony

Major Utility Companies
2005 Revenues by Source

			2005 Revenues ($millions)				2005 Revenues Percent				
			Regulated		Non-	Total	Regulated		Non-	Total	
			Electric	Gas	Regulated		Electric	Gas	Regulated		Classification
1	Ameren Corp	AEE	$ 5,431.0	$ 1,345.0	$ 4.0	$ 6,780.0	80.1%	19.8%	0.1%	100.0%	Electric
2	AGL Resources	ATG		2,662.0	56	2,718.0	0.0%	97.9%	2.1%	100.0%	Gas
3	Aliant Energy	LNT	2,320.6	685.1	188.0	3,193.7	72.7%	21.5%	5.9%	100.0%	Electric
4	American Electric Power	AEP	11,193.0	463.0	455.0	12,111.0	92.4%	3.8%	3.8%	100.0%	Electric
5	Atmos Energy	ATO		566.8	167.5	734.3	0.0%	77.2%	22.8%	100.0%	Gas
6	Cascade Natural Gas	CGC		326.5		326.5	0.0%	100.0%	0.0%	100.0%	Gas
7	Consolidated Edison	ED	7,588.0	1,858.0	2,244.0	11,690.0	64.9%	15.9%	19.2%	100.0%	Electric
8	Constellation Energy	CEG	2,036.5	961.7	14,133.8	17,132.0	11.9%	5.6%	82.5%	100.0%	Unregulated
9	Dominion Resources	D	5,543.0	1,763.0	10,768.0	18,074.0	30.7%	9.8%	59.6%	100.0%	Unregulated
10	DTE Energy	DTE	4,462.0	2,138.0	1,356.0	7,956.0	56.1%	26.9%	17.0%	100.0%	Electric
11	Edison International	EIX	9,500.0		2,352.0	11,852.0	80.2%	0.0%	19.8%	100.0%	Electric
12	Empire District Electric	EDE	360.4		26.5	386.9	93.2%	0.0%	6.8%	100.0%	Electric
13	Energy East Corp.	EAS	2,969.6	1,783.6	545.4	5,298.6	56.0%	33.7%	10.3%	100.0%	Electric
14	Entergy Corp	ETR	8,446.8	77.7	1,581.8	10,106.3	83.6%	0.8%	15.7%	100.0%	Electric
15	FirstEnergy Corp	FE	4,915.0		838.0	5,753.0	85.4%	0.0%	14.6%	100.0%	Electric
16	FPL Group	FPL	9,528.0		2,318.0	11,846.0	80.4%	0.0%	19.6%	100.0%	Electric
17	Great Plains Energy	GXP	1,130.8		1,474.1	2,604.9	43.4%	0.0%	56.6%	100.0%	Unregulated
18	Hawaiian Electric	HE	1,806.4		409.2	2,215.6	81.5%	0.0%	18.5%	100.0%	Electric
19	IDACORP Inc.	IDA	837.7		21.8	859.5	97.5%	0.0%	2.5%	100.0%	Electric
20	Laclede Group	LG		978.2	618.8	1597.0	0.0%	61.3%	38.7%	100.0%	Gas
21	MDU Resources	MDU	181.2	772.1	2,502.1	3,455.4	5.2%	22.3%	72.4%	100.0%	Unregulated
22	Nicor, Inc.	GAS		2,909.6	448.2	3,357.8	0.0%	86.7%	13.3%	100.0%	Gas
23	NiSource Inc.	NI	1,248.6	5,600.4	1,050.1	7,899.1	15.8%	70.9%	13.3%	100.0%	Gas
24	Northeast Utilities	NU	4,836.5	670.8	1,890.1	7,397.4	65.4%	9.1%	25.6%	100.0%	Electric
25	Northwest Natural Gas	NWN		315.2	9.7	325.0	0.0%	97.0%	3.0%	100.0%	Gas
26	NSTAR	NST	2,543.5	571.2	128.4	3,243.1	78.4%	17.6%	4.0%	100.0%	Electric
27	OGE Energy	OGE	1,720.7	4,227.5		5,948.2	28.9%	71.1%	0.0%	100.0%	Gas Pipeline
28	Otter Tail Corp.	OTTR	313.0		733.4	1,046.4	29.9%	0.0%	70.1%	100.0%	Unregulated
29	People's Energy Corp.	PGL		1,678.0	921.6	2,599.6	0.0%	64.5%	35.5%	100.0%	Gas
30	PEPCO Holdings	POM	4,702.9		3,362.5	8,065.4	58.3%	0.0%	41.7%	100.0%	Unregulated
31	Piedmont Natural Gas	PNY		1,761.1		1,761.1	0.0%	100.0%	0.0%	100.0%	Gas
32	Pinnacle West Capital	PNW	2,237.1		750.9	2,988.0	74.9%	0.0%	25.1%	100.0%	Electric
33	PHM Resources	PNM	1,564.1	510.8	1.9	2,076.8	75.3%	24.6%	0.1%	100.0%	Electric
34	PPL Corp.	PPL	4,329.0		1,890.0	6,219.0	69.6%	0.0%	30.4%	100.0%	Electric
35	Progress Energy	PGN	7,710.0		235.0	7,945.0	97.0%	0.0%	3.0%	100.0%	Electric
36	Puget Energy Inc.	PSD	1,612.9	952.5	7.8	2,573.2	62.7%	37.0%	0.3%	100.0%	Electric
37	SCANA Corp.	SCG	1,908.3	1,826.6	1,609.4	5,344.3	35.7%	34.2%	30.1%	100.0%	Electric, Gas
38	Sempra Energy	SRE	1,658.0	5,071.0	4,366.0	11,095.0	14.9%	45.7%	39.4%	100.0%	Gas
39	Southern Co.	SO	4,461.8		186.0	4,647.8	96.0%	0.0%	4.0%	100.0%	Electric
40	South Jersey Industries	SJI		576.4	344.6	921.0	0.0%	62.6%	37.4%	100.0%	Gas
41	Southwest Gas Corp.	SWX		1,401.3	313.0	1,714.3	0.0%	81.7%	18.3%	100.0%	Gas
42	TXU Corp	TXU	10,437.0		354.0	10,791.0	96.7%	0.0%	3.3%	100.0%	too leveraged
43	Vectren Corp	AVU	421.4	1,359.7	246.9	2,028.0	20.8%	67.0%	12.2%	100.0%	Gas
44	WGL Holdings	WGL		1,379.4	806.9	2,186.3	0.0%	63.1%	36.9%	100.0%	Gas
45	Wisconsin Energy	WEC	3,793.0		40.0	3,833.0	99.0%	0.0%	1.0%	100.0%	Electric
46	Xcel Energy Inc.	XEL	7,246.6	2,307.4	74.5	9,628.5	75.3%	24.0%	0.8%	100.0%	Electric

Source: Companies' SEC Forms 10K, 2005

Case No. ER-2007-0002
Exhibit of Charles W. King
Schedule CWK-3

Electric Utility Comparison Group
Capital Structures, December 31, 2005
(Dollars in Millions)

			LT Debt	ST Debt	Prf Stock	Common Equity	Total	Equity % of Capital: Total	Equity % of Capital: Permanent (excl ST)
1	Ameren Corp (6/30/06)	AEE	$ 2,551.9	$ 45.1	$ 114.5	$ 2,964.0	$ 5,675.5	52.2%	52.6%
2	Aliant Energy	LNT	2,066.5	302.1	243.8	2,440.5	5,052.9	48.3%	51.4%
3	American Electric Power	AEP	12,226.0	10.0	61.0	9,088.0	21,385.0	42.5%	42.5%
4	Consolidated Edison	ED	7,420.0	755.0	213.0	7,310.0	15,698.0	46.6%	48.9%
5	DTE Energy	DTE	8,169.0	691.0		5,769.0	14,629.0	39.4%	41.4%
6	Edison International	EIX	9,578.0		719.0	6,615.0	16,912.0	39.1%	39.1%
7	Empire District Electric	EDE	410.1	32.9		384.0	827.0	46.4%	48.4%
8	Energy East Corp.	EAS	3,993.6	121.3	24.6	2,872.7	7,012.2	41.0%	41.7%
9	Entergy Corp	ETR	8,928.0	40.0		7,742.7	16,710.7	46.3%	46.4%
10	FPL Group	FPL	8,039.0	1,159.0		8,499.0	10,817.0	78.6%	88.0%
11	FirstEnergy Corp	FE	10,198.0	731.0	184.0	9,188.0	20,301.0	45.3%	46.9%
12	Hawaiian Electric	HE	1,143.0	141.8		1,216.6	2,501.4	48.6%	51.6%
13	IDACORP Inc.	IDA	1,039.9	60.1		1,025.3	2,125.3	48.2%	49.6%
14	Northeast Utilities	NU	3,050.0	32.0	116.2	2,429.3	5,627.5	43.2%	43.4%
15	NSTAR	NST	1,642.9	417.5	43.0	1,535.0	3,638.4	42.2%	47.7%
16	Pinnacle West Capital	PNW	2,993.5	15.7		3,425.0	6,434.2	53.2%	53.4%
17	PNM Resources	PNM	1,746.4	332.2		1,286.5	3,365.1	38.2%	42.4%
18	PPL Corp.	PPL	7,081.0	214.0	107.0	4,418.0	11,820.0	37.4%	38.1%
19	Progress Energy	PGN	10,959.0	175.0	136.0	8,038.0	19,308.0	41.6%	42.0%
20	Puget Energy Inc.	PSD	2,264.0	41.0	1.9	2,027.0	4,333.9	46.8%	47.2%
21	SCANA Corp.	SCG	3,136.0	427.0	8.0	2,677.0	6,248.0	42.8%	46.0%
22	Southern Co.	SO	11,859.0	1,258.0	596.0	10,689.0	24,402.0	43.8%	46.2%
23	Wisconsin Energy	WEC	3,527.0	456.3	30.4	2,680.1	6,693.8	40.0%	43.0%
24	Xcel Energy Inc.	XEL	6,733.3	746.1	105.0	5,395.3	12,979.7	41.6%	44.1%
24	Average							45.3%	47.4%

Electric Utility Comparison Group
"Classic" Discounted Cash Flow Analysis

			A	B	C		D	E	F	G
			2007 Dividend	90 Day Price	Dividend Yield		Earnings Growth Forecast			DCF Indication
			Value Line	Yahoo Finance	A/B		Value Line	I/B/E/S	Average	C+F
	Company Name	Ticker								
1	Ameren Corp	AEE	$ 2.54	$ 53.48	4.7%		1.5%	5.6%	3.6%	8.3%
2	Aliant Energy	LNT	1.25	37.83	3.3%		4.5%	5.0%	4.8%	8.1%
3	American Electric Power	AEP	1.60	39.61	4.0%		5.0%	4.0%	4.5%	8.5%
4	Consolidated Edison	ED	2.32	47.22	4.9%		2.0%	3.0%	2.5%	7.4%
5	DTE Energy	DTE	2.06	44.22	4.7%		3.0%	4.5%	3.8%	8.4%
6	Edison International	EIX	1.18	43.81	2.7%		8.0%	6.5%	7.3%	9.9%
7	Empire District Electric	EDE	1.28	23.29	5.5%		9.5%	6.0%	7.8%	13.2%
8	Energy East Corp.	EAS	1.21	24.17	5.0%		4.0%	4.3%	4.2%	9.2%
9	Entergy Corp	ETR	2.16	84.12	2.6%		5.0%	8.3%	6.6%	9.2%
10	FirstEnergy Corp	FE	1.94	58.04	3.3%		12.5%	6.8%	9.6%	13.0%
11	FPL Group	FPL	1.58	48.75	3.2%		8.5%	7.8%	8.2%	11.4%
12	Hawaiian Electric	HE	1.24	27.25	4.6%		3.0%	3.4%	3.2%	7.7%
13	IDACORP Inc.	IDA	1.20	38.96	3.1%		7.5%	4.7%	6.1%	9.2%
14	Northeast Utilities	NU	0.78	25.01	3.1%		8.5%	11.4%	10.0%	13.1%
15	NSTAR	NST	1.33	34.30	3.9%		7.5%	6.3%	6.9%	10.8%
16	Pinnacle West Capital	PNW	2.13	46.97	4.5%		7.0%	5.0%	6.0%	10.5%
17	PNM Resources	PNM	0.92	28.91	3.2%		6.0%	15.4%	10.7%	13.9%
18	PPL Corp.	PPL	1.20	34.02	3.5%		11.0%	10.7%	10.8%	14.4%
19	Progress Energy	PGN	2.46	45.68	5.4%		-1.5%	3.7%	1.1%	6.5%
20	Puget Energy Inc.	PSD	1.00	23.59	4.2%		5.0%	4.8%	4.9%	9.2%
21	SCANA Corp.	SCG	1.72	40.84	4.2%		3.5%	4.4%	4.0%	8.2%
22	Southern Co.	SO	1.60	35.43	4.5%		3.5%	5.0%	4.3%	8.8%
23	Wisconsin Energy	WEC	0.96	44.97	2.1%		6.5%	7.8%	7.2%	9.3%
24	Xcel Energy Inc.	XEL	0.93	21.57	4.3%		6.0%	6.0%	6.0%	10.3%
24	Average				3.9%				6.0%	**9.9%**

Case No. ER-2007-0002
Exhibit of Charles W. King
Schedule CWK-5

Electric Utility Comparison Group
FERC 2-Step DCF Formulation

		Source	Rate	Weighting	Composite
	Earnings Growth:				
1	Short-Term	CWK-4, Col F	6.0%	0.6667	4.0%
2	Long-term	CBO	4.5%	0.3333	1.5%
3	Total	1C + 2C			5.5%
4	Dividend Yield	CWK-4, Col C			3.9%
5	DCF Return	3C + 4C			**9.4%**

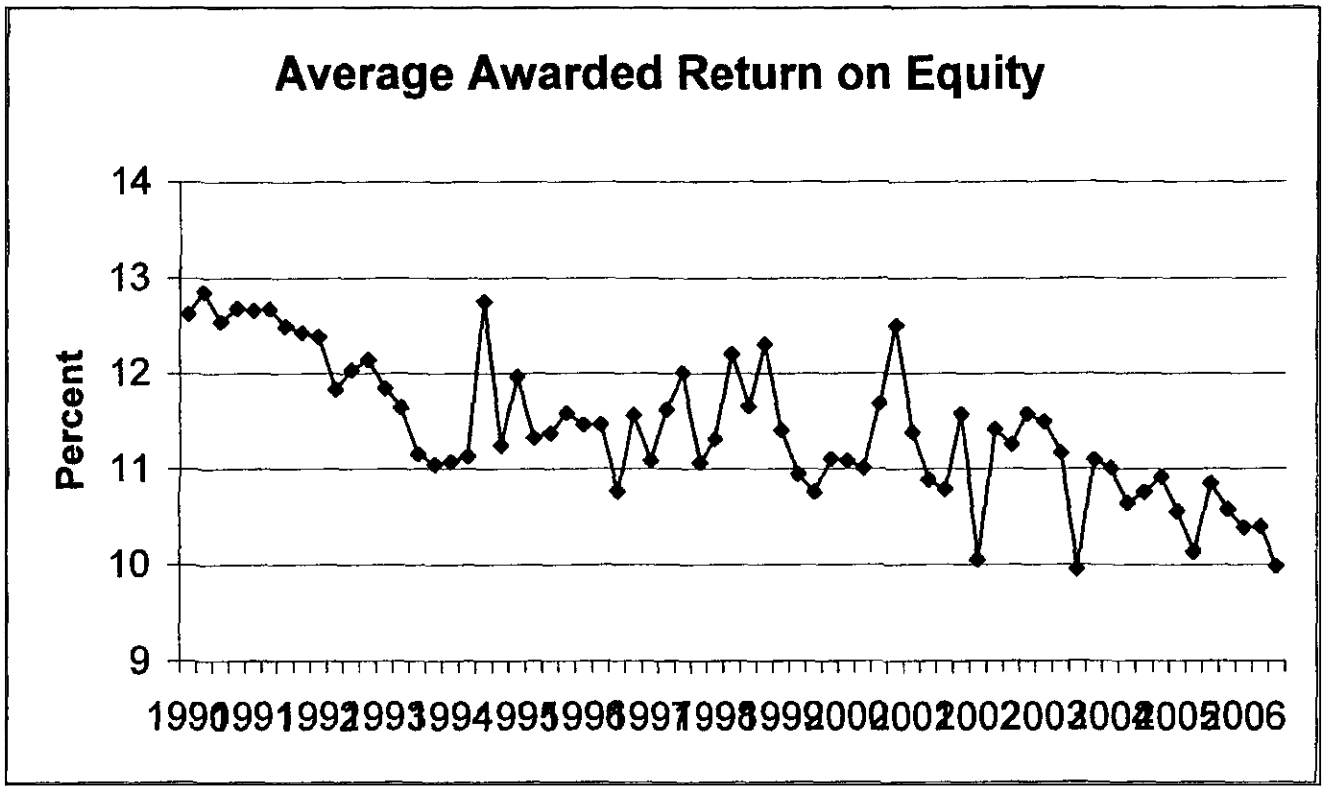
Electric Utility Comparison Group
Selected Utility Beta and Safety Values, June 2006

			beta				Value Line
	Company Name	Ticker	Thomson	Value Line	Average		Safety
1	Ameren Corp	AEE	0.51	0.75	0.63		1
2	Aliant Energy	LNT	0.62	0.90	0.76		3
3	American Electric Power	AEP	0.71	1.25	0.98		3
4	Consolidated Edison	ED	0.47	0.75	0.61		1
5	DTE Energy	DTE	0.60	0.75	0.68		3
6	Edison International	EIX	0.64	1.15	0.90		3
7	Empire District Electric	EDE	0.75	0.80	0.78		3
8	Energy East Corp.	EAS	0.77	0.90	0.84		2
9	Entergy Corp	ETR	0.65	0.85	0.75		2
10	FirstEnergy Corp	FE	0.54	0.80	0.67		2
11	FPL Group	FPL	0.49	0.85	0.67		1
12	Hawaiian Electric	HE	0.74	0.70	0.72		2
13	IDACORP Inc.	IDA	0.81	1.00	0.91		3
14	Northeast Utilities	NU	0.64	0.90	0.77		3
15	NSTAR	NST	0.66	0.80	0.73		1
16	Pinnacle West Capital	PNW	0.63	1.00	0.81		1
17	PNM Resources	PNM	0.77	1.00	0.89		2
18	PPL Corp.	PPL	0.66	0.95	0.80		2
19	Progress Energy	PGN	0.66	0.90	0.78		2
20	Puget Energy Inc.	PSD	0.53	0.80	0.66		3
21	SCANA Corp.	SCG	0.69	0.85	0.77		2
22	Southern Co.	SO	0.42	0.70	0.56		1
23	Wisconsin Energy	WEC	0.70	0.80	0.75		2
24	Xcel Energy Inc.	XEL	0.53	0.90	0.72		2
25	Average				**0.75**		**2.08**

Electric Utility Comparison Group
Capital Asset Pricing Model

		A	B
Market Return - DCF			
1	Median Dividend Yield, Next 12 Months	Value Line	1.70%
2	Appreciation Potential 3-5 years, 1700 Stocks	Value Line	40%
3	Annual Appreciation Potential	$(1+Ln\ 2)^{.25}$	8.8%
4	Total Market Return	Ln 1 + Ln 3	10.48%
Risk-Free Rate			
5	30-year US Treasury Bond Yield, Dec. 1, 2006	federalreserve.gov	4.58%
Current Market Risk Premium			
6	Market Return less Treasury Bond Yield	Ln 4-Ln 5	5.90%
7	Average beta, Comparison Company Groups	Schedule CWK-6	0.75
8	Risk Premium for Comparison Company Groups	Ln 6 * Ln 7	4.45%
9	CAPM Rate of Return	Ln 5 + Ln 8	9.03%

Case Nos. ER-2007-0002
Exhibit of Charles W. King
Schedule CWK-8



Source: Edison Electric Institute, Washington, D.C.; "Rate Case Summary" in Third Quarter 2006 Financial Update.

Charles W. King

Attachment A

Experience

Snavely King Majoros O'Connor & Lee, Inc. Washington, DC

President (1989 to Present)
Vice President (1970 - 1989)

Mr. King, a founder of the firm and acknowledged authority on regulatory economics, brings over thirty years of experience in economic consulting to his direction of the firm's work in transportation, utility and telecommunications economics.

Mr. King has appeared as an expert witness on over 300 separate occasions before more than thirty state and nine U.S. and Canadian federal regulatory agencies, presenting testimony on rate base calculations, rate of return, rate design, costing methodology, depreciation market forecasting, and ratemaking principles. Mr. King has also testified before House and Senate Committees on energy and telecommunications legislation pending before the U.S. Congress.

In telecommunications, Mr. King has testified before the Federal Communications Commission on a number of policy issues, service authorization, competitive impacts, video dialtone, and prescription of interstate depreciation rates. Before state regulatory bodies, he has presented testimony in proceedings on intrastate rates, costs earnings and depreciation.

Mr. King has testified in electric, gas and water utility cases on virtually every aspect of regulation, including cost of capital, revenue requirements, depreciation, cost allocation and rate design. Mr. King is one of the nation's leading authorities on utility depreciation practices, having testified on this subject in several dozen cases before state regulatory bodies.

In addition to his appearances as a witness in judicial and administrative proceedings, Mr. King has negotiated settlements among private parties and between private parties and regulatory offices. Mr. King also has directed depreciation studies, investment cost benefit analyses, demand forecasts, cost allocation studies and antitrust damage calculations. Mr. King directed analyses of the prices of services under Federal Government's FTS2000 long distance system.

In Canada, Mr. King designed and directed an extended inquiry into the principles and procedures for regulating the telecommunication carriers subject to the jurisdiction of the Canadian Transport Commission. He also was the principal investigator in the Canadian Transport Commission's comprehensive review of rail costing procedures.

EBS Management Consultants, Inc., Washington, DC

Director, Economic Development Department (1968-1970)

Mr. King organized and directed a five-person staff of economists performing research, evaluation, and planning relating to economic development of depressed areas and communities within the U.S. Most of this work was on behalf of federal, state, and municipal agencies responsible for community or regional economic development.

Principal Consultant (1966-1968)

Mr. King conducted research on a broad range of economic topics, including transportation, regional economic development, communications, and physical distribution.

W.B. Saunders & Company, Inc., Washington, DC

Staff Economist (1962-1966)

For this economic consulting firm, which later merged with EBS Management Consultants, Inc., Mr. King engaged in numerous research efforts relating primarily to economic development and transportation.

U.S. Bureau of the Budget, Office of Statistical Standards

Analytical Statistician (1961-1962)

Mr. King was responsible for the review of all federal statistical and data-gathering programs relating to transportation.

Education

Washington & Lee University, B.A. in Economics

The George Washington University, M.A. in Government Economic Policy

CHARLES W. KING
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Washington, D.C. 20005
(202) 371-1111

Appearances before State Regulatory Agencies

State	Electric, Gas, Water Utility Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
AK	Exxon USA	P-89-1,2	Trans Alaska Pipeline System	October 18, 1990
AZ	Arizona Corporation Commission	U-1345-I	Arizona Public Service Co.	December 16, 1980
	Arizona Retailers Association	U-1345-II	Arizona Public Service Co.	January 15, 1981
CA	California Retailers Association	57666	Pacific Gas & Electric Co.	March 6, 1978
	California Retailers Association	57602	Southern California Edison	April 25, 1978
	California Retailers Association	59351	Pacific Gas & Electric Co.	June 12, 1981
	California Retailers & California Manufacturers	59351	Southern California Edison	May 20, 1982
	California Retailers Association	61138	Southern California Edison	May 28, 1982
CO	U. S. Department of Defense	I&S 1100	Colorado Springs (Elec)	June 14, 1977
	J.C. Penney Company	5693	All Electric Utilities	March 8, 1978
	U.S. Department of Defense	I&S 1339	Colorado Springs DPU (Gas)	October 18, 1979
	U. S. Department of Defense	I&S 1540	Colorado Springs DPU (Gas)	February 9, 1982
	U.S. Department of Defense	C. Council	Colorado Springs DPU (Gas)	September 30, 1984
	U.S. Department of Defense	C. Council	Colorado Springs DPU (Elec)	June 6, 1985
	U.S. Department of Defense	C. Council	Colorado Springs DPU (Elec)	May 19, 1986
	U.S. Department of Defense	C. Council	Colorado Springs DPU (Elec)	June 30, 1987
CT	Retailers Merchants Association	72-0204	Various Electric Utilities	July 22, 1976
	Division of Consumer Counsel	76-0604,5	CL&P and HELCO	November 10, 1977
	Public Utilities Control Auto	78-0303	Bridgeport Hydraulic Co.	(none)
	Division of Consumer Counsel	80-0403,4	CL&P and HELCO	August 11, 1980
	Division of Consumer Counsel	81-0413	United Illuminating Company	July 20, 1981
	Division of Consumer Counsel	81-0602,4	CL&P and HELCO	October 5, 1981
	Division of Consumer Counsel	82-0701	CL&P	September 28, 1982
	Coalition of Hotels, Alloys & Retailers	85-10-22	CL&P	(none)
	Coalition of Hotels, Alloys & Retailers	87-07-01	CL&P	April 25, 1988

State	Electric, Gas, Water Utility Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
DC	D.C. People's Counsel	685	Potomac Electric Power Company	March 6, 1978
	D.C. People's Counsel	715	Potomac Electric Power Company	(none)
	D.C. People's Counsel	725	Potomac Electric Power Company	April 4, 1980
	D.C. People's Counsel	737	Potomac Electric Power Company	January 1, 1981
	Washington Metro Area Transit Authority	748	Potomac Electric Power Company	June 26, 1981
	Washington Metro Area Transit Authority	758	Potomac Electric Power Company	December 15, 1981
	D.C. People's Counsel	785	Potomac Electric Power Company	September 21, 1982
	Washington Metro Area Transit Authority	759	Potomac Electric Power Company	March 29, 1984
	D.C. People's Counsel	685 Remand	Potomac Electric Power Company	June 10, 1985
	D.C. People's Counsel	905	Potomac Electric Power Company	August 20, 1991
	D.C. People's Counsel	912	Potomac Electric Power Company	May 7, 1992
	D.C. People's Counsel	834, III	Potomac Electric Power Company	May 22, 1992
	D.C. People's Counsel	917	Potomac Electric Power Company	September 24, 1992
	D.C. People's Counsel	922	Washington Gas Light Company	June 15, 1993
	D.C. People's Counsel	929	Potomac Electric Power Company	December 16, 1993
	D.C. People's Counsel	934	Washington Gas Light Company	Filed April 22, 1994
	D.C. People's Counsel	939	Potomac Electric Power Company	March 16, 1995
	D.C. People's Counsel	917	Potomac Electric Power Company	April 16, 1995
	D.C. People's Counsel	951	Potomac Electric Power Company	February 20, 1997
	D.C. People's Counsel	945	Potomac Electric Power Company	September 29, 1999
	D.C. People's Counsel	847	Washington Gas Light Company	June 27, 2001
	D.C. People's Counsel	989	Washington Gas Light Company	May 22, 2002
	D.C. People's Counsel	1016	Washington Gas Light Company	September 23, 2003
DE	Delaware PSC Staff	94-164	Artesian Water Company	Filed March 10, 1995
	Delaware PSC Staff	94-149	Wilmington Suburban Water Company	March 10, 1995
	Delaware PSC Staff	04-152	Tidewater Utilities Company	Filed July 26, 2004
FL	Florida Retail Federation	790593-EU	All Electric Utilities	March 5, 1981
	Florida Retail Federation	810002-EU	Florida Power and Light Company	July 23, 1981
	Florida Retail Federation	820097-EU	Florida Power and Light Company	September 22, 1982
	Florida Retail Federation	820097-EU	Florida Power and Light Company	April 11, 1983
	Florida Retail Federation	830012-EU	Tampa Electric Company	August 19, 1983
	Florida Retail Federation	830465-EI	Florida Power and Light Company	April 19, 1984
	Florida Retail Federation	830465-EI	Tampa Electric Company	(none)

CHARLES W. KING
Appearances before State Regulatory Agencies

State	Electric, Gas, Water Utility Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
GA	Georgia Retail Federation	3270-U	Georgia Power Company	September 3, 1981
	Georgia Public Service Commission	4007-U	Georgia Power Company	August 21, 1991
	Georgia Public Service Commission	4384-U	All Electric Utilities	August 1, 1993
	Georgia Public Service Commission	4755-U	Georgia Power Company	January 25, 1994
	Georgia Public Service Commission	4697-U	All Utilities	May 10, 1994
	Georgia Public Service Commission	9355-U	Georgia Power Company	November 4, 1998
	Georgia Public Service Commission	14000-U	Georgia Power Company	October 23, 2001
	Georgia Public Service Commission	14618-U	Savannah Electric & Power Company	March 27, 2002
	Georgia Public Service Commission	14311-U	Atlanta Gas Light Company	April 8, 2002
	Georgia Public Service Commission	17066-U	Georgia Power Company	July 31, 2003
	Georgia Public Service Commission	18300-U	Georgia Power Company	October 26, 2004
	Georgia Public Service Commission	18638-U	Atlanta Gas Light Company	March 14, 2005
	Georgia Public Service Commission	19758-U	Savannah Electric & Power Company	March 29, 2005
	Georgia Public Service Commission	20298-U	Atmos Energy Corp.	October 11, 2005
HI	Public Utilities Department	2793	All Electric Utilities	February 14, 1978
	Hawaii Consumer Advocate	4536	Hawaiian Electric Company	February 1, 1983
IL	Illinois Retail Merchants Association ("IRMA"/ Chicago Bldg. Mgrs. Association ("CBMA")	76-0698	Commonwealth Edison	June 22, 1977
	IRMA/CBMA	76-0568	All Electric Utilities	(none)
	IRMA/CBMA	80-0546	Commonwealth Edison	March 5, 1981
	IRMA/CBMA	82-0026	Commonwealth Edison	July 22, 1982
	IRMA/CBMA	83-0537	Commonwealth Edison	March 19, 1984
	IRMA/CBMA	87-0427	Commonwealth Edison	March/April 22, 1988
	IRMA/CBMA	90-0169	Commonwealth Edison	October 29, 1990
	City of O'Fallon, IL	02-0690	Illinois-American Water Company	Filed Feb.5, Apr.11,2003
IN	Indiana Retail Council	35780-S2	N. Ind. Public Service co.	June 1, 1980
	Indiana Retail Council	35780-S1	Public Service of Indiana	October 15, 1980
	Indiana Retail Council	36318	Public Service of Indiana	May 4, 1982
KS	J.C. Penney Company	115,379-U	All Kansas Utilities	January 22, 1981
KY	Seven Kentucky Retailers	7310	Louisville Gas & Electric Co.	April 25, 1979
	Attorney General of Kentucky	2002-145	Columbia Gas of Kentucky	Filed August 8, 2002
	Attorney General of Kentucky	2003-252	Union Heat Light & Power Co.	September 30, 2003
	Attorney General of Kentucky	2004-67	Delta Gas Company	August 18, 2004

State	Electric, Gas, Water Utility Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
MA	Coalition of Municipalities	20279	Western Massachusetts Electric	March 19, 1980
	Coalition of Municipalities	557/558	Western Massachusetts Electric	May 14, 1981
	Coalition of Municipalities	957	Western Massachusetts Electric	March 9, 1982
	Coalition of Municipalities	1300	Western Massachusetts Electric	January 1, 1983
	Coalition of Municipalities	85-270	Western Massachusetts Electric	March 26, 1986
MD	Maryland People's Counsel	6977	Washington Gas & Light Company	September 17, 1976
	Maryland People's Counsel	6814	Potomac Electric Power Company	
	Maryland People's Counsel	6807	All Electric Utilities	September 1, 1977
	Maryland People's Counsel	6882	Baltimore Gas & Electric Company	(none)
	Maryland People's Counsel	6985	Baltimore Gas & Electric Company	September 28, 1976
	Maryland People's Counsel	7070	Baltimore Gas & Electric Company	December 20, 1976
	Maryland People's Counsel	7149	Potomac Electric Power Company	April 18, 1978
	Maryland People's Counsel	7163	All Electric Utilities	January 17, 1979
	Maryland People's Counsel	7236	Delmarva Power & Light Company	October 23, 1978
	Retail Merchants of Baltimore	7397	Baltimore Gas & Electric Company	June 20, 1980
	Maryland People's Counsel	7427	Delmarva Power & Light Company	September 8, 1980
	Maryland People's Counsel	7574	Baltimore Gas & Electric Company	December 2, 1981
	Maryland People's Counsel	7597	Potomac Electric Power Company	February 18, 1982
	Organization of Consumer Justice	7604	Potomac Electric Power Company	April 20, 1982
	Maryland People's Counsel	7588	Baltimore Gas & Electric Company	October 19, 1982
	Maryland People's Counsel	7663	Potomac Electric Power Company	November 22, 1982
	Retail Merchants of Baltimore	7685	Baltimore Gas & Electric Company	April 12, 1983
	Genstar Stone Products, et al.	7878	Potomac Electric Power Company	December 9, 1985
	Industrial Intervenors	7878	Potomac Electric Power Company	June 28/July 1986
	Maryland People's Counsel	7983	Baltimore Gas & Electric Company	March 4, 1987
	Giant Foods, Inc.	8855	Baltimore Gas & Electric Company	January 8, 2003
	Maryland People's Counsel	9036	Baltimore Gas & Electric Company	September 29, 2005
MI	General Services Administration	U-10102	Detroit Edison Company	March 22, 1993
	Michigan Attorney General	U-11722	Detroit Edison Company	November 6, 1998
	Michigan Attorney General	U-11772	Consumers Energy/Detroit Edison	November 16, 1998
	Michigan Attorney General	U-11495	Detroit Edison Company	December 8, 1999
	Michigan Attorney General	U-11956	Consumer Energy/Detroit Edison	December 15, 1999
	Michigan Attorney General	U-12505	Consumers Energy Company	September 7, 2000
	Michigan Attorney General	U-12478	Detroit Edison Company	October 5, 2000
	Michigan Attorney General	U-12639	Consumers Energy/Detroit Edison	July 18, 2001
	Michigan Attorney General	U-13000	Consumers Energy Company	January 29,2002
	Michigan Attorney General	U-13380	Consumers Energy Company	September 9, 2002
	Michigan Attorney General	U-13715	Consumers Energy Company	April 24, 2003
	Michigan Attorney General	U-13808	Detroit Edison Company	Dec 12, 2003; Jan 30, Mar 5, 04

State	Electric, Gas, Water Utility Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
MI (Cont'd)	Michigan Attorney General	U-12999	Consumers Energy Company	March 10, 2004
	Michigan Attorney General	U-13898,9	Michigan Consolidated Gas Co.	August 23, 2004
	Michigan Attorney General	U-14201	Detroit Edison Company	Filed December 5, 2004'
	Michigan Attorney General	U-14274	Consumers Energy Company	Filed February 15, 2005
	Michigan Attorney General	U-14148	Consumers Energy Company	Filed March 2, 25, 2005
	Michigan Attorney General	U-14399	Detroit Edison Company	July 29, 2005
	Michigan Attorney General	U-14428	Detroit Edison Company	September 7, 2005
	Michigan Attorney General	U-14292	All Michigan Utilities	September 27, 2005
	Michigan Attorney General	U-13808-R	Detroit Edison Company	November 7, 2005
	Michigan Attorney General	U-14547	Consumers Energy Company	Nov.7, 2005; Mar. 22, 2006
	Michigan Attorney General	U-14701	Consumers Energy Company	March 21, 2006
	Michigan Attorney General	U-14526	Consumers Energy Company	April 11.2006
	Michigan Attorney General	U-14561	All Gas Distribution Utilities	June 1, 2006
MN	Minnesota Retail Federation	EOO2/6R-77-611	Northern States Power	1979
MO	Missouri Retailers Association	EO-78-161	Kansas City Power & Light Company	February 19, 1981
	Missouri Public Counsel	ER-2006-0315	Empire District Electric Company	September 14, 2006
NC	North Carolina Merchants Association	E-100	All Electric Utilities	December 18, 1975
ND	North Dakota Public Service Commission	PU-400-00-521	Xcel Energy, Inc.	April 20, 2001
	North Dakota Public Service Commission	PU-399-01-186	Montana-Dakota Utilities (Electric)	February 25, 2002
	North Dakota Public Service Commission	PU-399-02-183	Montana-Dakota Utilities (Gas)	October 7, 2002
	North Dakota Public Service Commission	PU-399-02-183	Montana-Dakota Utilities (Gas Depr.)	Filed April 7, 2003
	North Dakota Public Service Commission	PU-399-03-296	Montana-Dakota Utilities (Electric)	Filed October 15, 2003
	North Dakota Public Service Commission	PU-04-97	Montana-Dakota Utilities (Gas)	Filed July 6, 2004
NH	Business & Industry Association of N.H.	79-187-II	Public Service of N.H.	February 6, 1981
	Business & Industry Association of N.H.	80-260	Public Service of N.H.	February 5, 1981
	Business & Industry Association of N.H.	82-333	Public Service of N.H.	November 2, 1983
NJ	N.J. Retail Merchants Association	803-151	All New Jersey Utilities	March 31, 1981
	Department of Public Advocate	815-459	N.J. Natural Gas Company	(none)
	Resorts International Hotel, Inc.	8011-827	Atlantic City Sewerage Co.	(none)
	Dept. of Public Advocate	822-116	Atlantic City Electric Co.	August 11, 1982
	Dept. of Public Advocate	355-87	Elizabethtown Gas	June 9, 1987
	Dover Township Fire Chiefs	88-080967	Tom's River Water Company	February 22, 1989

CHARLES W. KING
Appearances before State Regulatory Agencies

State	Electric, Gas, Water Utility Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
NY	N.Y. Council of Retail Merchants	26806	All Electric Utilities	February 3, 1976
	Metropolitan N.Y. Retail Council	27029	Consolidated Edison Company	(none)
	Metropolitan N.Y. Retail Council	27136	Long Island Lighting Company	July 1, 1977
	N.Y. Metro. Transit Authority	27353	Consolidated Edison Company	September 5, 1980
OH	Ohio Council of Retail Association	88-170-EL	Cleveland Elec. Illuminating	(none)
	Ohio Council of Retail Association	83-1529-EL	Cincinnati Gas & Electric	February 15, 1992
PA	Pennsylvania Retail Association	76-PRMD-7	All Electric Utilities	September 7, 1977
	Southeastern Pa. Transp. Authority	R-811626	Philadelphia Electric Company	December 11, 1981
	Eastern Penn Energy Users Group	R-822169	Penn. Power & Light Company	March/April 1983
	Eastern Penn Energy Association	R-842651	Penn. Power & Light Company	December 3, 1984
	Penn Business Utility User Group	R-850152	Philadelphia Electric Company	February 19, 1986
	Pennsylvania Office of Consumer Advocate	R-00016339	Pennsylvania-American Water Co.	September 19, 2001
TX	Houston Retailers Association	5779	Houston Lighting Company	October 19, 1984
	Houston Retailers Association	6765	Houston Lighting Company	September 25, 1986
	Cities for Fair Utility Rates	8425/8431	Houston Lighting Company	April 25, 1989
UT	Div. Of Public Utilities Dept of Commerce	98-2035-33	Pacific Corp	Filed August 16, Sept 22, 1999
	Div. Of Public Utilities Dept of Commerce	05-057-T01	Questar Gas Company	May 17, 2006
VA	Consumer Congress of Virginia	19426	Virginia Electric Power Company	July 1, 1975
	Consumer Congress of Virginia	19960	Virginia Electric Power Company	September 19, 1978
	Va. Business Committee on Energy	PUE 7900012	Virginia Electric Power Company	February 25, 1981
	Virginia Pipe Trades Council	PUE 8900051	Old Dominion Electric Corp. &	October 31, 1989
WI	Wisconsin Merchants Federation	6630-ER-2	Wisconsin Electric Power Company	May 15, 1978

CHARLES W. KING
Appearances before State Regulatory Agencies

State	Telecommunications Cases			
	Client	Case		Date of Cross-Examination
		Case Number	Utility	
AL	U.S. Department of Defense	24472	All Telephone Companies	June 14, 1995
AK	GCI Communications, Inc. GCI Communications, Inc.	U-97-82,U-97-143 U-05-46	Alaska Communications Systems Matanuska Telephone Association	Filed Feb 25, April 5, 2004 October 28, 2005
AZ	Arizona Burglar & Fire Alarm Association Federal Executive Agencies U.S. Department of Defense	9981-E- 1051-80-64 E-1051-88-146 T-01051B-99-0105	Mountain State Telephone Mountain State Telephone US WEST Communications	(none) (none) Filed July 26, Sept 8, 2000
CA	Western Burglar & Fire Alarm Association Western Burglar & Fire Alarm Association Western Burglar & Fire Alarm Association Western Burglar & Fire Alarm Association Western Burglar & Fire Alarm Association Western Burglar & Fire Alarm Association Western Burglar & Fire Alarm Association Western Burglar & Fire Alarm Association California Cellular Resellers Federal Executive Agencies California Cellular Resellers Cellular Services, Inc. Federal Executive Agencies	59849 5984cont. A83-01-22 A83-02-02 A82-11-07 A85-01-034 A87-01-02 A88-07-17019 A.88-11-1040 1.87-11-033 1.88-11-040 1.88-11-040 A92-05-004	Pacific Telephone & Telegraph Pacific Telephone & Telegraph Pacific Telephone & Telegraph General Telephone of California Pacific Telephone & Telegraph Pacific Telephone & Telegraph General Telephone of California Pac. Bell Tel. & GTE of CA. All Cellular Carriers All Telephone Companies All Cellular Carriers All Cellular Carriers Pacific Telephone & Telegraph	March 25, 1981 June 23, 1982 June 29, 1983 January 17, 1984 Jan. 18, Oct. 31, Nov 28, 1984 June 4, 1985, October 2, 1986 October 22, 1987 January 23, 1989 August 11, 1989 March 6-7, 1991 August 19, 1991 October 3, 1991 June 9, 1993
CO	U.S. Department of Defense U.S. Department of Defense U.S. Department of Defense U.S. Department of Defense Colorado Municipal League U.S. Department of Defense U.S. Department of Defense U.S. Department of Defense U.S. Department of Defense U.S. Department of Defense U.S. Department of Defense AT&T	I&S 717 I&S 1700 Appl. I&S 1766 Appl 36883 I&S 891-O82T 905-544T 90A-665T 92M-039T 92S-229T 90A-665T 96S-331T	Mountain Bell Telephone Company Mountain Bell Telephone Company Mountain Bell Telephone Company Mountain Bell Telephone Company Mountain Bell Telephone Company U.S. West Communications U.S. West Communications U.S. West Communications U.S. West Communications U.S. West Communications U.S. West Communications U.S. West Communications	1972 (none) September 18, 1986 November 28, 1988 December 13, 1988 February 21, 1990 July 17, 1991 October 23, 1991 February 24-24, 1992 July 30-31, 1992 November 6, 1996 April 17, 1997

State	Telecommunications Cases			
	Client	Case		Date of Cross-Examination
		Case Number	Utility	
CT	Connecticut Consumer Counsel	770526	Southern New England Telephone Co.	November 10, 1977
	CT Cellular Resellers Assn.	89-12-05	Southern New England Telephone Co.	(none)
	CT Cellular Resellers Coalition	94-03-27	Springwich Cellular/Bell Atlantic	May 16, June, 1994
	AT&T	AT&T/SNET Arbitration	Southern New England Telephone Co.	Filed October 28, 1996
	Connecticut Consumer Counsel	96-04-07	Southern New England Telephone Co.	February 10,1998
	Connecticut Consumer Counsel	00-07-17	Southern New England Telephone Co.	December 5, 2000
DC	D.C. People's Counsel	729	Chesapeake & Potomac Tel. Co.	May 13, 1980
	D.C. People's Counsel	798	Chesapeake & Potomac Tel. Co.	July 18, 1983
	General Services Administration	827	Chesapeake & Potomac Tel. Co.	May 7, 1985
	General Services Administration	854	Chesapeake & Potomac Tel. Co.	April 16, 1987
	General Services Administration	850	Chesapeake & Potomac Tel. Co.	October 7, 1991
	General Services Administration	926	Chesapeake & Potomac Tel. Co.	October 7, 1993
DE	Public Service Commission	Depr.Repre	Diamond State Telephone Co.	April 1, 1985
	Federal Executive Agencies	86-20	Diamond State Telephone Co.	July 31, 1987
	Public Service Commission	Depr.Repre	Diamond State Telephone Co.	March 8, 1988
FL	GTE Sprint Communications Company	720536-TP	All Telephone Companies	September 12, 1983
	Office of Public Counsel	Depr.Repre	Southern Bell	July 30, 1986
	Federal Executive Agencies	880069-TL	Southern Bell	July 21, 1988
	Federal Executive Agencies	880069-TL	Southern Bell	November 30, 1990
	Federal Executive Agencies	880069-TL	Southern Bell	February 11, 1992
GA	Georgia Attorney General	3893-U	Southern Bell Telephone Co.	January 8, 1990
	Federal Executive Agencies	3905-U	Southern Bell Telephone Co.	June 12, 1990
	Federal Executive Agencies	3987-U	Southern Bell Telephone Co.	February 13, 1992
	Georgia Public Service Commission	4018-U	Southern Bell Telephone Co.	Jan 14, Feb 10, 1993
HI	Hawaii Public Utility Commission	1871	Hawaiian Telephone Company	July 8, 1971
	Four Hawaii Counties	4588	Hawaiian Telephone Company	December 15, 1983
	Department of Defense	7579	Hawaiian Telephone Company	April 26, 1994
	Department of Defense	94-0093	Oceanic Communications	March 13, 1995
	Department of Defense	7702	All Communications Carriers	June 2, 1995
	Department of Defense	94-0298	GTE Hawaiian Telephone Company	May 7, 1996
	Department of Defense	7720	Verizon-Hawaii	November 15, 2000

CHARLES W. KING
Appearances before State Regulatory Agencies

State	Telecommunications Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
ID	U.S. Department of Energy U.S. Department of Energy	U-1000-63 U-1000-70	Mountain Bell Telephone Co. Mountain Bell Telephone Co.	May 16, 1983 March 6, 1984
IL	Illinois Alarm Companies Attorney General of Illinois GTE Sprint Communications Co. Federal Executive Agencies	79-0143 81-0478 83-0142 89-0033	Illinois Bell Telephone Illinois Bell Telephone All Telephone Companies Illinois Bell Telephone	September 26, 1979 December 28, 1981 August 4, 1983 June 12, 1989
KS	State Corporation Commission Federal Executive Agencies Federal Executive Agencies	Depr. Repr. 166,856-U 190, 492	Southwestern Bell Southwestern Bell All Telephone Companies	May 12-14, 1986 November 7, 1989 November 4, 1994
KY	Kentucky Cable Telecommunications Assn. Kentucky Cable Telecommunications Assn.	2000-414 2000-39	Blue Grass Energy Cooperative Cumberland Valley Electric, Inc.	January 11, 2001 January 11, 2001
MD	Maryland People's Counsel Maryland People's Counsel Maryland People's Counsel Maryland People's Counsel Federal Executive Agencies Federal Executive Agencies Federal Executive Agencies	6813 6881 7025 7467 7851 8106 8274	C&P Telephone Company C&P Telephone Company C&P Telephone Company C&P Telephone Company C&P Telephone Company C&P Telephone Company C&P Telephone Company	1975 December 17, 1975 March 15, 1975 October 20, 1981 March 20, 1985 May 9, 1988 August 2, 1990
MI	Michigan Attorney General Michigan Attorney General	U-8911 U-9553	Michigan Bell Telephone Co. AT&T Communications/MCI	November 7, 1988 December 4, 1990
MN	GTE Sprint Communications Co. U.S. Department of Defense	83-102-HC 87-021-BC	All Telephone Companies Northwest Bell Telephone Co.	August 5, 1983 (none)

State	Telecommunications Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
MO	GTE Sprint Communications Co. Federal Executive Agencies Federal Executive Agencies	TR83-253 TC-89-14 TO-89-56	Southwestern Bell Tel. Co. Southwestern Bell Tel. Co. Southwestern Bell Tel. Co.	September 5, 1983 (none) November 7, 1990
MS	Federal Executive Agencies	U-5453	South Central Bell Tel. Co.	May 15, 1990
NJ	Department of Public Advocate Department of Public Advocate Department of Public Advocate Department of Public Advocate Department of Public Advocate Department of Public Advocate	Depr.Repr. 815-458 Depr.Repr. Depr.Repr. T092030358 TMO05080739	N.J. Bell Telephone Company N.J. Bell Telephone Company N.J. Bell Telephone Company N.J. Bell Telephone Company N.J. Bell Telephone Company United Telephone Co. of New Jersey	Mar-79 October 15, 1981 March 1, 1982 February 1, 1985 September 30, 1992 January 5,2006
NM	New Mexico Corporation Commission New Mexico Corporation Commission	1032 86-151-TC	Mountain Bell Telephone Co. General Telephone of Southwest	November 14, 1983 February 5, 1987
NV	Prime Cable of Las Vegas Prime Cable of Las Vegas	95-8034/8035 96-9035	Central Telephone - NV Sprint/Centel, Nevada Bell	Filed November 22, 1995 June 2, 1997
NY	Holmes Protection, Inc. Holmes Protection, Inc. 5 Alarm Companies GTE Sprint Communications Co.	27350 27469 27710 28425	New York Telephone Company New York Telephone Company New York Telephone Company All Telephone Companies	October 17, 1978 May 17, 1979 July 24, 1980 July 8, 1983
PA	City of Philadelphia	R-832316	Pennsylvania Bell Telephone	September 20, 1983
SC	Office of Consumer Advocate Office of Consumer Advocate Office of Consumer Advocate Office of Consumer Advocate Office of Consumer Advocate	Depr.Repr. 86-511-C 86-541-C Depr.Repr. 89-180-C	Southern Bell Southern Bell General Telephone of South Southern Bell ALLTEL of South Carolina	July 1, 1986 December 11, 1986 April 8, 1987 July 10, 1989 September 26, 1989

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Appearances before State Regulatory Agencies

State	Telecommunications Cases			Date of Cross-Examination
	Client	Case		
		Case Number	Utility	
TX	U.S. Department of Defense	8585/8218	Southwestern Bell Telephone Co.	(none)
VA	U.S. Dept. Of Defense, GSA, et Federal Executive Agencies	19696 PUC 890014	C&P Telephone Company All Telephone Companies	October 6, 1976 February 13, 1989
VI	V.I. Department of Commerce V.I. Public Service Commission	205 341	Virgin Islands Telephone Co. Virgin Islands Telephone Co.	April 29, 1980 March 20, 1991
WA	U.S. Department of Defense U.S. Department of Defense U.S. Department of Defense U.S. Department of Defense WA Attorney General/TRACER U.S. Department of Defense U.S. Department of Defense WA Attorney General/TRACER WA Attorney General/TRACER U.S. Department of Defense WA Attorney General/WeBTEC/AARP WA Attorney General WA Attorney General	U-72-39 U-87-796-T U-88-20524 U-89-2698-F UT-940641 UT-941464 UT-951425 UT-961632 UT-021120 UT-040788 UT-040520 UT-050814	Pacific Northwest Bell Pacific Northwest Bell Pacific Northwest Bell US West Communications US West Communications US West Communications US West Communications US West Communications GTE Northwest, Inc Qwest Communications Verizon Northwest, Inc. Verizon Northwest, Inc. Verizon - MCI Merger	1973 December 20, 1983 November 8, 1988 November 28, 1989 Filed October 14, 1994 June 22, 1995 January 22, 1996 Filed June 23, 1997 July 29, 1997 May 22, 2003 August 12, 2004 February 2, 2005 November 2, 2005
WI	GTE Sprint Wisconsin Consumers Utility Board Wisconsin Consumers Utility Board	6720-TR-38 2055-TR-102 5846-TR-102	All Telephone Companies CenturyTel of Central Wisconsin Telephone USA, LCC	October 20, 1983 June 26, 2002 June 26, 2002

Client	Docket	Subject	Date of Cross-Examination
Federal Communications Commission			
Department of Defense	16020	Consat Rate of Return	1973
Airline Parties	16258	Bell System Rates	July 22, 1968
Airline Parties	18128	TELPAK	3/22, 10/15 1971, Feb. 22, 1972
National Data Corporation	19989	WATS	(none)
Press Wire Services	19919	Private Line Rates	(none)
Aeronautical Radio	20814	Private Line Rates	October 5, 1978
Department of Defense	20690	1.544 Mbps Service	January 30, 1979
State of Hawaii	21263	Interstate Separation	February 7, 1979
International Record Carriers	CC78-97	Telex/TWX Rates	March 6, 1980
ITT World Communications	CC84-633	Rate of Return	(none)
Aeronautical Radio	CC78-72	Access Line Charges	(none)
MCI	CC84-800	Rate of Return	(none)
Ind. Data Com. Mfg. Assn.	CC85-26	AT&T Accounting Plan	(none)
Tymnet, Inc.	ENF84-22	Packet Switching Costs	(none)
Adelphia Jones Intercable, et. al.	Bell Atlantic	Video Dialtone	Filed 7/29/94
Adelphia Jones Intercable, et. al.	Bell Atlantic	Video Dialtone	Filed 8/23/94
Adelphia Jones Intercable, et. al.	Bell Atlantic	Video Dialtone	Filed 2/21/95
Nuclear Regulatory Commission			
Fauquier League for Environment Protection	50-328 50-329	Va. Electric Power Co.	1976
Postal Rate Commission			
Association of Third Class Mail Users	R71-1	Rates	1970
Dow Jones & Company	R72-1	Rates	1972
Dow Jones & Company	R74-1	Rates	September 13, 1974
Dow Jones & Company	MC76-2	Rate Structure	January 6, 1979
Dow Jones & Company	MC79-3	Rate Structure	September 12, 1979
Dow Jones & Company	R80-1	Rates	November 25, 1980
Warshawsky & Company	C82-1	Rate Structure	(none)
Dow Jones & Company	R84-1	Postal Costs	June 14, 1984
Dow Jones & Company	R87-1	Rate Structure Costs	November 2, 1987
Dow Jones & Company	R90-1	Rate Structure Costs	Sept 12, Oct 10, 1990
Dow Jones & Company	MC91-1	Pre-barcoding Discounts	November 19, 1991
Dow Jones & Company	MC91-3	Palletization Discounts	March 2, 1992

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Appearances before Federal Regulatory Agencies

Client	Docket	Subject	Date of Cross-Examination
U.S. Congress			
National Retail Merchants Association	House/Senate Hearings	Electric Rate Reform Legislation	1976, 1977 & 1979
National Wireless Resellers Association	House Commerce Committee	Interconnection & Resale of Wireless Services	October 12, 1995
Federal Maritime Commission			
State of Hawaii	71-18	Ocean Shipping Rates	October-71
Foss Alaska Line	79-54	Barge Rate Increase	July 1979
Palmetto Shipping and Stevadoring	85-20	Vessel Charge Liability	October 27, 1986
Interstate Commerce Commission			
Western Coal Traffic League	Ex Parte 349	R.R. Rate Increase	May-76
Western Coal Traffic League	Ex Parte 357	R.R. Rate Increase	Oct-76
Western Coal Traffic League	Ex Parte 375 (Sub1)	R.R. Rate Increase	June 1, 1980
Arkansas Power & Light Co.	37276	Cost of Capital	(none)
Central Illinois Light Co.	37450	Cost of Capital	March 10, 1981
Western Coal Traffic League	Ex Parte 347	Costing Methods	(none)
Civil Aeronautics Board			
Thomas Cook, Inc.	36595	Air Fare Deregulation	(none)
Copyright Royalty Tribunal			
Public Broadcasting Service	88-2-86CD	Television Valuation	(none)
Federal Energy Regulatory Commission			
Exxon USA	OR89-2-000	Pipeline Quality Bank	October 18, 1990
Canadian Transport Commission			
Rail Costing Inquiry, 1967-1969 Telecommunications Costing Inquiry, 1972-1975			
Surface Transportation Board			
Williams Energy Services, Inc	Ex Parte 582, Sub 1	Rail Merger Guidelines	April 5, 2001