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Issues: Rate of Return
Witness: Roberta A. McKiddy
Sponsoring Party: MoPSC Staff
Type of Exhibit: Direct Testimony
Case No.: GR-2000-512

MISSOURI PUBLIC SERVICE COMMISSION

SERVICES DIVISION

DIRECT TESTIMONY

OF

ROBERTA A. MCKIDDY

CASE NO. GR-2000-512

Jefferson City, Missouri
August 2000

Exhibit No. 15
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****Denotes Proprietary Information****

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DIRECT TESTIMONY

OF

ROBERTA A. MCKIDDY

UNION ELECTRIC

d/b/a AmerenUE

CASE NO. GR-2000-512

Q. Please state your name.

A. My name is Roberta A. McKiddy.

Q. Please state your business address.

A. My business address is P.O. Box 360, Jefferson City, Missouri, 65102.

Q. What is your present occupation?

A. I am employed as a Financial Analyst for the Missouri Public Service Commission (Commission). I accepted this position in May 1998. It should be noted that prior to my appointment to the Financial Analysis Department, I served in an administrative support position with the Utility Services Division, Accounting Department.

Q. Were you employed before you joined the Commission's staff (Staff)?

A. Yes, I was employed by the State Emergency Management Agency for the state of Missouri. I also have previous experience in the areas of accounting, insurance, real estate lending and consumer protection.

Q. What is your educational background?

A. In July 1997 I earned a Bachelor of Science degree in Business Administration with an emphasis in Finance from Columbia College. In June 2000, I

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completed my Masters of Business Administration degree with William Woods University in Jefferson City.

Q. What is the purpose of your testimony in this case?

A. My testimony is presented to provide a recommendation to the Commission as to a fair and reasonable rate of return for Union Electric Company's (Union Electric) rate base.

Q. Have you prepared any schedules to your analysis of the cost of capital for Union Electric?

A. Yes. I am sponsoring a study entitled "An Analysis of the Cost of Capital for Union Electric d/b/a AmerenUE (AmerenUE), Case No. GR-2000-512" consisting of 31 schedules which are attached to this direct testimony (see Schedule 1).

Q. What do you conclude is the cost of capital for AmerenUE?

A. My analysis leads me to conclude that the cost of capital for AmerenUE is in the range of 8.70 to 8.99 percent.

Q. What range are you proposing for the cost of common equity (ROE) for AmerenUE?

A. I estimate AmerenUE's return on common equity to be in the range of 10.00 percent to 10.50 percent with a midpoint of 10.25 percent.

Economic and Legal Rationale for Regulation

Q. Why are the prices charged to customers by utilities such as AmerenUE regulated?

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A. A primary purpose of price regulation is to restrain the exercise of monopoly power. Monopoly power represents the ability to charge excessive or unduly discriminatory prices. Monopoly power may arise from the presence of economies of scale and/or from the granting of a monopoly franchise.

For services that operate efficiently and have the ability to achieve economies of scale, a monopoly is the most efficient form of market organization. Utility companies can supply service at lower costs if the duplication of facilities by competitors is avoided. This allows the use of larger and more efficient equipment and results in lower per unit costs. For instance, it may cost more to have two or more competing companies maintaining duplicate natural gas distribution systems and providing competing residential services to one household. This situation could result in price wars and lead to unsatisfactory and perhaps irregular service. For these reasons, exclusive rights may be granted to a single utility to provide service to a given territory. This also creates a more stable environment for operating the utility company. Utility regulation acts as a substitute for the economic control of market competition and allows the consumer to receive adequate utility service at a reasonable price.

Natural gas distribution utility companies such as AmerenUE provide natural gas distribution services essentially under a monopoly franchise. Therefore, it is clear that AmerenUE has monopoly power.

Another purpose of price regulation is to provide the utility company with an opportunity to earn a fair return on its capital, particularly on investments made as a result of a monopoly franchise.

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Q. Please describe your understanding of the legal basis you must use when determining a fair and reasonable return for a public utility.

A. Several landmark decisions by the U.S. Supreme Court provide the legal framework for regulation and for what constitutes a fair and reasonable rate of return for a public utility. Listed below are some of the cases:

1. Munn v. People of Illinois (1877),
2. Bluefield Water Works and Improvement Company (1923),
3. Natural Gas Pipeline Company of America (1942), and
4. Hope Natural Gas Company (1944).

In the case of *Munn v. People of Illinois*, 94 U.S. 113 (1877), the Court found that:

> . . . when private property is "affected with a public interest, it ceases to be *juris privati* only" . . . . Property does become clothed with a public interest when used in a manner to make it of public consequence, and affect the community at large. When, therefore, one devotes his property to a use in which the public has an interest, he, in effect, grants to the public an interest in that use, and must submit to be controlled by the public for the common good, to the extent of the interest he has thus created. Id at 126.

The *Munn* decision is important because it states the conceptual basis for regulation of both utility and non-utility industries.

In the case of *Bluefield Water Works and Improvement Company v. Public Service Commission of the State of West Virginia*, 262 U.S. 679 (1923), the Supreme Court ruled that a fair return would be:

1. A return "generally being made at the same time" in that "general part of the country";

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2. A return achieved by other companies with "corresponding risks and uncertainties";

3. A return "sufficient to assure confidence in the financial soundness of the utility"; and

4. A fair return can change with economic conditions and capital markets.

The Court specifically stated:

> A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally. Id at 692-3.

In *Federal Power Commission et al. v. Natural Gas Pipeline Company of America et al.*, 315 U.S. 575 (1942), the Court decided that:

> The Constitution does not bind rate-making bodies to the service of any single formula or combination of formulas . . . . If the Commission's order, as applied to the facts before it and viewed in its entirety, produces no arbitrary result, our inquiry is at an end. Id at 586.

The U.S. Supreme Court also discussed the reasonableness of a return for a utility in the case of *Federal Power Commission et al. v. Hope Natural Gas Company*, 320 U.S. 591 (1944). The Court stated that:

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> The rate-making process . . ., i.e., the fixing of "just and reasonable" rates, involves a balancing of the investor and the consumer interests. Thus we stated . . . that "regulation does not insure that the business shall produce net revenues" . . . it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock . . . . By that standard the return to the equity owner should be commensurate with 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. Id at 603.

Hope restates the concept of comparable returns to include those achieved by any other enterprises that have "corresponding risks." The Supreme Court also noted in this case that regulation does not guarantee profits to a utility company.

A more recent case heard by the Supreme Court of Pennsylvania extends the *Hope* decision beyond balancing the interests of the investors and the consumers. The Supreme Court of Pennsylvania stated that:

> We do not believe, however, . . . that the end result of a rate-making body's adjudication *must* be the setting of rates at a level that will, in any given case, guarantee the continued financial integrity of the utility concerned . . . . In cases where the balancing of consumer interests against the interests of investors causes rates to be set at a "just and reasonable" level which is insufficient to ensure the continued financial integrity of the utility, it may simply be said that the utility has encountered one of the risks that imperil any business enterprise, namely the risk of financial failure. *Pennsylvania Electric Company, et al. v. Pennsylvania Public Utility Commission*, 502 A.2d 130, 133-34 (1985), cert. denied, 476 U.S. 1137 (1986).

Pennsylvania is included in my testimony to illustrate a point that is simply this: captive ratepayers of public utilities should not be forced to bear the brunt of poor or inept management that results in unnecessarily higher costs. It should be noted that I do not believe that utility companies should be casually subjected to risk of

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financial failure in a rate case proceeding. However, in a case of extremely poor management, I do not believe it would always be appropriate for a regulatory agency to provide sufficient funds to continue operations no matter what the costs are to the ratepayers.

Through these and other court decisions, it has generally been recognized that public utilities can operate more efficiently when they operate as monopolies. It has also been recognized that regulation is required to offset the lack of competition and maintain prices at a reasonable level. It is the regulatory agency's duty to determine a fair rate of return and the appropriate revenue requirement for the utility, while maintaining reasonable prices for the public consumer.

The courts today still believe that a fair return on common equity should be similar to the return for a business with similar risks, but not as high as a highly profitable or speculative venture requires. The authorized return should provide a fair and reasonable return to the investors of the company, while ensuring that excessive earnings do not result from the utility's monopolistic powers. However, this fair and reasonable rate does not necessarily guarantee revenues or the continued financial integrity of the utility.

It should be noted that the courts have determined that a reasonable return may vary over time as economic and business conditions change. Therefore, the past, present and projected economic and business conditions must be analyzed in order to calculate a fair and reasonable rate of return.

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Historical Economic Conditions

Q. Please discuss the relevant historical economic conditions in which AmerenUE has operated.

A. One of the most commonly accepted indicators of economic conditions is the Discount Rate set by the Federal Reserve Board (Federal Reserve). The Federal Reserve tries to achieve its monetary policy objectives by controlling the Discount Rate (the discount rate is the rate at which member banks borrow directly from the Federal Reserve) and the Fed Funds Rate (the federal funds rate is the interest rate that banks charge each other for overnight lending). At the end of 1982, the U.S. economy was in the early stages of recovery from the longest post-World War II recession. This economic expansion began when the Federal Reserve reduced the Discount Rate seven times in the second half of 1982 in an attempt to stimulate the economy (see Schedule 2). This also led to a reduction in the Prime Interest Rate (the rate charged by banks on short-term loans to borrowers with high credit ratings) from 16.50 percent in June 1982, to 11.50 percent in December 1982. The economic expansion continued for approximately eight years until July of 1990, when the economy entered into a recession.

In December of 1990, the Federal Reserve responded to the slumping economy by lowering the Discount Rate to 6.50 percent. Over the next year and a half the Federal Reserve lowered the Discount Rate another six times to a low of 3.00 percent, which had the result of lowering the Prime Interest Rate to 6.00 percent. (See Schedule 3)

In 1993, newly elected President Clinton implemented a plan to raise additional revenues, by increasing certain corporate and personal income tax rates, but

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perhaps the most important factor for the U.S. economy in 1993 was the passage of the North American Free Trade Agreement (NAFTA). NAFTA created a free trade zone consisting of the United States, Canada and Mexico. The rate of economic growth for the fourth quarter of 1993, was one which the Federal Reserve believed could not be sustained without experiencing higher inflation. In the first quarter of 1994, the Federal Reserve took steps to try and restrict the economy by increasing interest rates. As a result, on March 24, 1994, the Prime Interest Rate increased to 6.25 percent. On April 18, 1994, the Federal Reserve announced its intention to raise its targeted interest rates which resulted in the Prime Interest Rate being increased to 6.75 percent. The Federal Reserve took action on May 17, 1994, by raising the Discount Rate to 3.5 percent. The Federal Reserve took three additional restrictive monetary actions, with the last occurring on February 1, 1995. These actions raised the Discount Rate to 5.25 percent and in turn banks raised the Prime Interest Rate to 9.00 percent.

The Federal Reserve hen reversed its policy in late 1995, by lowering its target for the Fed Funds Rate 0.25 percentage points on two different occasions. This had the effect of lowering the Prime Interest Rate to 8.50 percent. On November 17, 1998, the Federal Reserve lowered the Discount Rate to a rate of 4.50 percent.

The actions of the Federal Reserve over the last five years have been primarily focused at keeping the level of inflation under control, and they have been successful. The inflation rate as measured by the Consumer Price Index (CPI) was at 3.30 percent in January of 1993, and exceeded 3.30 percent only once since that time at March 31, 1999 (see Schedule 4-1). The increase in CPI stood at 3.0 percent for the

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period ending April 30, 2000. What is significant about the low inflation rate is that while inflation has been at historically low levels, the unemployment rate has also dropped to historically low levels. In January of 1993 the unemployment rate stood at 7.3 percent and gradually dropped to its current level of 4.2 percent for the period ending April 30, 2000 (see Schedule 7).

The combination of low inflation and low unemployment has led to a prosperous economy as evidenced by the real Gross Domestic Product (GDP) of the United States. Over the time period of 1994 through present, real GDP has increased every quarter. Another indicator of the strength of the economy is the run up of the stock market. The stock market, as measured by the Dow Jones Composite Index, has increased by 104.74 percent between December 30, 1993 and February 24, 2000, while the Dow Jones Industrial Index has increased by 167.29 percent over that same time frame. The stock market has increased 34.78 percent as measured by The Value Line Geometric Averages Composite Index from December 30, 1993 through February 24, 2000. It should be noted that the Value Line Composite Index is an equally weighted geometric average of 1628 companies as compared to the Dow Jones Composite Index that is a price weighted arithmetic average of 65 companies.

Current economic topics seem to revolve around the speculation about the Federal Reserve's next move on interest rates. On March 31, 2000, the Federal Reserve raised the federal funds rate from 5.75 percent to 6.00 percent. This is the fifth time that the Federal Reserve has raised the federal funds rate since mid-1999. The Federal Reserve also increased the discount rate on direct loans to banks from 5.25 percent to 5.50 percent. The main reason for these increases has been the Federal Reserve's desire

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to slow economic growth to a more manageable pace while keeping inflation under control. The table below provides a brief history of the federal funds rate and discount rate since June 1999:

Date	Federal Funds Rate	Discount Rate
6/30/99	5.00%	4.50%
8/24/99	5.25%	4.75%
11/16/99	5.50%	5.00%
2/2/00	5.75%	5.25%
3/21/00	6.00%	5.50%

The Federal Reserve's attempts to slow the economy have been limited thus far as well as been limited in deterring consumer spending, which accounts for two-thirds of all economic activity. The areas in which the economy has slowed is in the privately owned housing starts, industrial production and manufacturing output. Privately owned housing starts in June were at a seasonally adjusted rate 3 percent below the revised May rate. Industrial production rose 0.2 percent in June, after gains of 0.5 percent in May and 0.8 percent in April. Manufacturing output rose 0.3 percent in June, after having advanced an average of 0.6 percent per month since the end of last year.

Another key interest rate that has been impacted by the increases in the federal funds rate and discount rate is the prime interest rate. The prime interest rate is a key benchmark for real estate lending, home equity loans and credit card balances, as well as short-term loans for small businesses.

As of March 2000, the economy has been growing at a record breaking pace for the past 108 months. The economy grew at a rate of 6.9 percent for the final three months of 1999 and many economists believe growth in the current quarter will be

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around 5 percent. However, the Federal Reserve would like to keep growth around the 3.5 mark, so this could imply further adjustments to both the short-term interest rates and the discount rate. On March 21, 2000, the 30-year Treasury bond yielded 5.96 percent. This is the lowest yield recorded in the last six months.

These economic changes have resulted in cost of capital changes for utilities and are closely reflected in the yields on public utility bonds and yields of Thirty-Year U.S. Treasury Bonds (see Schedule 5-1 and 5-2). Schedule 5-3 shows how closely the Moody's "Public Utility Bond Yields" have followed the yields of Thirty-Year U.S. Treasury Bonds during the period from 1984 to the present. The average spread for this time period between these two composite indices has been 127 basis points, with the spread ranging from a low of 80 basis points and a high of 229 basis points (see Schedule 5-4). These spread parameters can be utilized with numerous published forecasts of Thirty Year U.S. Treasury Bond yields to estimate future long-term debt costs for utility companies. Moody's "Public Utility Bond Yields" are also graphically compared to both Standard & Poor's "Utilities Stock Yields" and Standard & Poor's "Industrials Stock Yields" (see Schedule 6).

Economic Projections

Q. What are the inflationary expectations for the remainder of 2000 and beyond?

A. The latest inflation rate, as measured by the *Consumer Price Index-All Urban Consumers* (CPI), was 3.1 percent for the 12 months ended May 31, 2000. *The Value Line Investment Survey: Selection & Opinion*, March 3, 2000, predicts inflation to

be 2.5 percent for 2000, 2.3 percent for 2001 and 2.5 percent for 2002. One of the major fears of the Federal Reserve is that the United States will experience a severe labor shortage that will eventually drive up wages and cause an inflationary spiral.

Q. What are interest rate forecasts for 2000, 2001 and 2002?

A. Short-term interest rates, those measured by Three-Month U.S. Treasury Bills, were approximately 5.70 percent in 2000 and are expected to be 5.40 percent in 2001, and 5.30 percent in 2002 according to Value Line's predictions. Value Line expects long-term interest rates, those measured by the Thirty-Year U.S. Treasury Bond, to average 6.20 percent in 2000, 5.80 percent in 2001 and 5.8 percent in 2002. The current rates for the period ending May 31, 2000 are 5.99 percent for 3-month T-Bills and 6.15 percent for 30-year T-Bonds, as noted on the Federal Reserve website.

Q. What are the growth expectations for real GDP in the future?

A. GDP is a benchmark utilized by the Commerce Department to measure economic growth within the United States' borders. The actual GDP adjusted for inflation measures real GDP. During 1999, real GDP increased by 2.3 percent in the fourth quarter and 1.7 percent in the third quarter. Value Line stated that real GDP growth increased by 4.1 percent in 1999, and expects real GDP to increase by 3.6 percent in 2000, 3.0 percent in 2001, and by 3.1 percent in 2002. The Budget and Economic Outlook, Fiscal Years 2001-2010 published by the Congressional Budget Office in January 2000 stated that real GDP is expected to increase by 3.3 percent in 2000, 3.1 percent in 2001 and 2.8 percent in 2002. (See Schedule 7)

Q. Please summarize the expectations of the economic conditions for the next few years.

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A. Considering the previously mentioned sources, inflation is expected to be in the range of 2.3 to 3.1 percent, increase in real GDP in the range of 2.8 to 3.6 percent and long-term interest rates are expected to range from 5.8 to 6.2 percent. *The Value Line Investment Survey: Selection & Opinion*, April 14, 2000, states that:

> **The long-awaited deceleration in growth is still in the future, in our opinion.** For example, the economy, buoyed by strong consumer demand, probably grew by 4%-5% in the first quarter. What's more, recent figures showing a continued high level of housing demand, further strength in manufacturing, and the creation of 416,000 new jobs in the latest month suggest that GDP growth in the current quarter could top 3.5%, a somewhat stronger rate of expansion than we had forecast earlier. In fact, although we still believe that the economy will slow modestly over the course of the year, the timetable for this moderation continues to get pushed back. [emphasis added]

S&P states the following in the June 14, 2000, issue of *The Outlook*:

> S&P chief economist David Wyss believes that a very soft landing will be seen, with the annual rate of GDP growth easing from the first quarter's 5.1% to 4.5% in the current quarter and 3% or so in each of the next three quarters. Wyss feels that high consumer confidence, based in part on the expectation that the stock market crunch will be temporary, suggests that any cutback in spending will be limited. With the economy staying relatively vigorous, corporate profits should hold up well, but the inflation threat won't be completely removed...Wyss forecasts that the CPI core rate will level off to around 2.6%-2.7%.

S&P also stated in the June 21, 2000 issue of *The Outlook*:

> A major plus is that the long-sought downshifting of the economy is now under way. Worries about too much of a slowdown are bound to crop up during the transition, but we're not looking for a recession until 2002 at the earliest. If anything goes wrong, in our view, it will be that the landing proves too soft and the inflation threat doesn't get stamped out.
>
> Treasury bond yields may increase a bit, especially if tax-cut talk prompts concern about budget surpluses starting to come up short. But we think that any negative effect on stocks will be counteracted by improvement in corporate profits.

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In addition, S&P stated in the June 28, 2000 issue of *The Outlook*:

> Signs of a cooling economy, though encouraging, may be due in part to the unusually large tax refunds that spurred consumer spending earlier this year at the expense of recent months.

S&P stated in the July 5, 2000 issue of *The Outlook*:

> Investors breathed a sigh of relief last week when the Federal Reserve Board decided to leave interest rates unchanged. It was a short sigh, as attention quickly turned to worries about second-quarter earnings and the possibility of a Fed rate increase in August.
>
> The economy slowed in the second quarter, but whether that is the effect of the Fed's series of tightenings, or simply due to unusual circumstances, it is still too early to say.

William Dudley, chief economist at investment bank Goldman Sachs "expects the Fed to push the funds rate up by a half a point this year and another point next year." If the Federal Reserve does increase the federal funds rate as projected, this will be the highest the rate has been since January 1991. Beyond June 2000, analysts believe the Federal Reserve will take a "wait and see attitude" to determine how the economy reacts during the summer and fall presidential campaign.

Dr. Jeremy J. Siegel, Professor of Finance - the Wharton School of the University of Pennsylvania, gives the following example of another time when the economy entered "uncharted waters" in his book *Stocks for the Long Run*:

> In the summer of 1958, an event of great significance took place for those who followed long-standing indicators of stock market value. For the first time in history, the interest rate on long-term government bonds exceeded the dividend yield on common stocks.
>
> *Business Week* noted this event in an August 1958 article entitled "An Evil Omen Returns," warning investors that when yields on stocks approached those on bonds, a major market decline was in the offing. The stock market crash of 1929 occurred in a year when stock dividend yields fell to the level of bond yields. The stock crashes of 1907 and 1891 also

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followed episodes when the yield on bonds came within one percent of the dividend yield on stocks.

Prior to 1958, the dividend yield on stocks had always been higher than long-term interest rates, and most analysts thought that this was the way it was supposed to be. Stocks were riskier than bonds and therefore should command a higher yield in the market. Under this reasoning, whenever stock prices went too high and brought dividend yields down to that of bonds, it was time to sell.

But things did not work that way in 1958. Stocks returned over 30 percent in the 12 months after dividend yields fell below bond yields, and continued to soar into the early 1960s. There were good economic reasons why this famous benchmark fell by the wayside. Inflation increased the yield on bonds to compensate lenders for rising prices, while investors regarded stocks as the best investment to protect against the eroding value of money. As early as September 1958, *Business Week* noted that "the relationship between stock and bond yields was clearly posting a warning signal, but investors still believe inflation is inevitable and stocks are the only hedge against it."

Yet many on Wall Street were still puzzled by the "great yield reversal."

Nicholas Molodovsky, Vice President of White, Weld & Co. and editor of the *Financial Analysts Journal*, observed:

> Some financial analysts called 'the reversal of bond and stock yields' a financial revolution brought about by many complex causes. Others, on the contrary, made no attempt to explain the unexplainable. They showed readiness to accept it as a manifestation of providence in the financial universe.
>
> Imagine the value-oriented investor who pulled all his money out of the stock market in August of 1958 and put it into bonds, vowing never to buy stocks again unless dividend yields rose above those on high-quality bonds. Such an investor would still be waiting to get back into stocks. After 1958, stock dividend yields never again exceeded those of bonds. Yet, from August 1958 onward, overall stock returns overwhelmed the returns on fixed-income securities for any holding period.
>
> Benchmarks for valuation are valid only as long as the economic institutions of the economy do not change. The chronic postwar inflation, resulting from a switch to a paper money standard, changed forever the way investors judged the yields on stocks and bonds.

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Business Operations of Ameren

Q. Please describe Union Electric's business operations.

A. After their merger, Union Electric (UE) and Central Illinois Power Supply (CIPS) became subsidiaries of St. Louis, MO-based Ameren, a registered public utility holding company created on December 31, 1997. UE remains headquartered in St. Louis and CIPS in Springfield, IL. Ameren's unregulated operations are organized under subsidiaries CIPSCO Investment Company, Ameren Services Company, AmerenEnergy Company and Ameren Development Company. In addition, Ameren plans to create a new unregulated generating subsidiary in 2000. The subsidiary's assets would include CIPS's Illinois generating units and a block of new combustion turbines together representing nearly 5,000 MW of capacity to be installed by year-end 2003.

UE, incorporated in Missouri in 1922, supplies electric service in Missouri and Illinois. UE accounts for 72 percent of Ameren's revenues, 74 percent of operating income, and 78 percent of total assets. UE mainly engages in selling electricity (96 percent of UE's operating revenues) in Missouri and in a small area of Illinois. The Missouri service territory covers 24,500 square miles, including the metropolitan St. Louis area, and has an estimated customer base of 2.6 million. Retail natural gas (4 percent of operating revenues) is distributed in 90 Missouri communities and in Alton, Illinois and its surrounding area. Gateway Fuel Corporation, a special-purpose corporation owned by Ameren, uses a $120 million commercial paper program to acquire nuclear fuel, which it leases to UE. [Source: S&P's Global Utilities Rating Service, Utility Credit Report, February 2000.]

Q. Please describe the credit ratings of AmerenUE.

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A. Currently, Standard & Poor's Corporation rates the senior secured debt of AmerenUE as "AA-," its commercial paper as "A-1+" and categorizes AmerenUE's business position as being "strong." Also, Moody's Investors Service rates AmerenUE's first mortgage bonds as "Aa3." All of these ratings are considered to be of "investment grade" ("investment grade" is defined as a "BBB" rating or higher). It should be noted that in the financial community Standard & Poor's Corporation's "AA-" credit rating is comparable to Moody's Investment Service's "Aa3" credit rating. The Corporate Credit Rating issued by Standard & Poor's reflects a negative outlook for AmerenUE due to Ameren's plan to aggressively grow its unregulated generation business.

Q. Please provide Standard & Poor's Corporation's most recent outlook concerning the credit rating assigned to AmerenUE.

A. Standard & Poor's Corporation's *Utilities Ratings Service*, February 2000, provides a summary explaining the outlook. Specifically the report states:

> Ratings reflect UE's affiliation with CIPS, a strong business profile, robust financial measures, and further potential merger benefits and cost savings.
>
> These attributes are offset partially by heavy asset concentration, represented by the 100%-owned Callaway nuclear station and Ameren's plan to transfer its Illinois fossil assets to a new unregulated generating subsidiary in mid-2000.
>
> The risk associated with this strategy will be tempered to some extent by a power supply agreement through 2004 between the unregulated generating company and an unregulated marketing affiliate for all generation.
>
> Nevertheless, stronger earnings and cash flow will be needed to compensate for a riskier consolidated business profile.
> Although management is focusing on accelerating merger savings, benefits are somewhat back-end loaded, with nearly 60% of the total amount expected in the second five-year period.

Q. Please provide some historical financial information for AmerenUE.

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A. Schedules 8 and 9 present historical capital structures and selected financial ratios from 1995 to 1999 for AmerenUE. AmerenUE's common equity ratio has ranged from a high of 57.82 percent to a low of 53.85 percent over the time period of 1995 through 1999. *The Value Line Investment Survey: Ratings & Reports* dated March 24, 2000, reported that the average common equity ratio (figured excluding short-term debt) for the natural gas distribution industry for 1999 was 48.50 percent. According to Standard & Poor's *Utilities Rating Service: Utility Credit Report* dated February 2000, "UE's common equity layer has continued to strengthen and now stands at a robust 56%."

AmerenUE's reported return on year-end common equity (ROE) has fluctuated during this time period ranging from a low of 12.38 percent in 1996 to a high of 13.99 percent in 1999. (See Schedule 9) AmerenUE's 1999 ROE of 13.99 percent was above the average earned by other natural gas distribution utilities of 8.50 percent according to *The Value Line Investment Survey: Ratings & Reports*, March 24, 2000. *The Value Line Investment Survey: Ratings & Reports,* April 7, 2000 estimates that Ameren's return on equity for 1999 will be 12.50 percent. In addition, Edward Jones's *Natural Gas Industry Summary: Monthly Financial & Common Stock Information*, June 30, 2000, reports the average return on equity for its composite list of 22 natural gas distribution companies was 9.8 percent for the latest 12-month period available. AmerenUE's market-to-book ratio has varied from a low of 1.46 times in 1999 to a high of 1.97 in year 1997. (See Schedule 9)

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Determination of the Cost of Capital

Q. Please describe the cost of capital approach for determining a utility company's cost of capital.

A. The total dollars of capital for a utility company are determined for a specific point in time. This total dollar amount is proportioned into each specific capital component. A weighted cost for each capital component is determined by multiplying each capital component ratio by the appropriate embedded cost or the estimated cost of common equity. The individual weighted costs are summed to arrive at a total weighted cost of capital. This total weighted cost of capital is synonymous with the fair rate of return for the utility company.

Q. Why is a total weighted cost of capital synonymous with a fair rate of return?

A. From a financial viewpoint, a company employs different forms of capital to support or fund the assets of the company. Each different form of capital has a cost and these costs are weighted proportionately to fund each dollar invested in the assets.

Assuming that the various forms of capital are within a reasonable balance and are costed correctly, the resulting total weighted cost of capital, when applied to rate base, will provide the funds necessary to service the various forms of capital. Thus, the total weighted cost of capital corresponds to a fair rate of return for the utility company.

Capital Structure and Embedded Costs

Q. Can an investor directly invest in AmerenUE's natural gas division?

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A. No. An investor can only directly invest in AmerenUE's natural gas operations through a direct investment in Ameren, AmerenUE's parent company. As a result, potential investors can only look at the earnings potential of the entire consolidated corporate entity of Ameren when evaluating decisions such as whether or not to invest in AmerenUE's common stock. Ultimately, that investor is purchasing the earnings power of the entire consolidated corporation, consisting of its operating divisions and its subsidiaries. Therefore, in order to analyze AmerenUE's divisional cost of capital, an investor must derive AmerenUE's divisional cost of capital from Ameren's overall cost of capital.

Q. What capital structure have you employed in developing a weighted cost of capital for AmerenUE?

A. I have employed a capital structure as of April 30, 2000, which is the end of the update period for AmerenUE. Schedule 10 presents AmerenUE's capital structure and associated capital ratios. The resulting capital structure consists of 57.21 percent common stock equity, 3.78 percent preferred stock, 39.01 percent long-term debt.

The amount of long-term debt outstanding on April 30, 2000, includes current maturities due within one year and was reduced by **_____** (see Schedule 11-1) for the net balance associated with the unamortized premium or discount expense and debt issuance expense (including losses on reacquired debt).

As of April 30, 2000, AmerenUE had **_____** of short-term debt outstanding. However, for purposes of this analysis, the amount of short-term debt deemed appropriate was zero. It is Staff's opinion that only the short-term debt that exceeds the amount of construction work in progress (CWIP) should be included in the

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capital structure. An assumption is made that CWIP, which is not yet included in rate base, is financed with short-term debt. In this case, AmerenUE's CWIP at April 30, 2000, exceeded the amount of short-term debt, therefore, no short-term debt is being included in the capital structure.

Q. What was the embedded cost of long-term debt for AmerenUE on April 30, 2000?

A. I determined the embedded cost of long-term debt on April 30, 2000, for AmerenUE to be 7.07 percent (see Schedule 11-1).

Q. What was the embedded cost of preferred stock for AmerenUE on April 30, 2000?

A. I determined the embedded cost of preferred stock on April 30, 2000, for AmerenUE to be 5.72 percent (see Schedule 12).

Cost of Equity

Q. How do you propose to analyze those factors by which the cost of equity for AmerenUE may be determined?

A. I have selected the discounted cash flow model (DCF) model as the primary tool to determine the cost of equity for AmerenUE.

The DCF Model

Q. Please describe the DCF model.

A. The DCF model is a market-oriented approach for deriving the cost of equity. The return on equity calculated from the DCF model is inherently capable of

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attracting capital. This results from the theory that security prices adjust continually over time, so that an equilibrium price exists, and the stock is neither under-valued nor over-valued. It can also be stated that stock prices continually fluctuate to reflect the required and expected return for the investor.

The continuous growth form of the DCF model was used in estimating the cost of equity for AmerenUE. This model relies upon the fact that a company's common stock price is dependent on the expected cash dividends and on cash flows received through capital gains or losses that result from stock price changes. The rate that discounts the sum of the future expected cash flows to the current market price of the common stock is the calculated cost of equity. This can be expressed algebraically as:

$$\text{Present Price} = \underset{\text{Discounted by k}}{\underline{\text{Expected Dividends}}} + \underset{\text{Discounted by k}}{\underline{\text{Expected Price in 1 year}}} \quad (1)$$

Since the expected price of a stock in one year is equal to the present price multiplied by one plus the growth rate, equation (1) can be restated as:

$$\text{Present Price} = \frac{\text{Expected Dividends}}{(1+k)} + \frac{\text{Present Price } (1+g)}{(1+k)} \quad (2)$$

where g equals the growth rate, and k equals the cost of equity. Letting the present price equal P_0 and expected dividends equal D_1, the equation appears as:

$$P_0 = \frac{D_1}{(1+k)} + \frac{P_0(1+g)}{(1+k)} \quad (3)$$

The cost of equity equation may also be algebraically represented as:

$$k = \frac{D_1}{P_0} + g \quad (4)$$

Thus, the cost of common stock equity, k, is equal to the expected dividend yield (D_1/P_0) plus the expected growth in dividends (g) continuously summed

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into the future. The growth in dividends and implied growth in earnings will be reflected in the current price. Therefore, this model also recognizes the potential of capital gains or losses associated with owning a share of common stock.

The DCF method is a continuous stock valuation model. The DCF theory is based on the following assumptions:

1. Market equilibrium,
2. Perpetual life of the company,
3. Constant payout ratio,
4. Payout of less than 100% earnings,
5. Constant price/earnings ratio,
6. Constant growth in cash dividends,
7. Stability in interest rates over time,
8. Stability in required rates of return over time; and
9. Stability in earned returns over time.

Flowing from these, it is further assumed that an investor's growth horizon is unlimited and that earnings, book values and market prices grow hand-in-hand. Even though the entire list of above assumptions is rarely met, the DCF model is a reasonable working model describing an actual investor's expectations and resulting behaviors.

Q. Can you directly analyze the cost of equity for AmerenUE?

A. No. In order to arrive at a company-specific DCF result, the company must have common stock that is market-traded and must pay dividends. AmerenUE's stock is not publicly traded. However, Ameren Corporation, AmerenUE's parent

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company, is publicly traded on the New York Stock Exchange under the ticker symbol of "AEE."

Q. Please explain how you determined a value range for the growth term of the DCF formula for Ameren.

A. I reviewed Ameren's actual dividends per share (DPS), earnings per share (EPS) and book values per share (BVPS) as well as projected growth rates for Ameren. Schedule 13 lists annual compound growth rates and trend line growth rates calculated for DPS, EPS and BVPS for the periods of 1989 through 1999 and 1994 through 1999. Schedule 14 presents the historical DPS, EPS and BVPS growth rates and projected growth rates for Ameren. The projected growth rates were obtained from three outside sources. I/B/E/S Inc.'s *Institutional Brokers Estimate System*, May 18, 2000, projects a five-year growth forecast of 2.89 percent for Ameren. Standard & Poor's Corporation's *Earnings Guide*, June 2000, projects a five-year EPS growth rate of 3.00 percent for Ameren. Zacks Investment Research, Inc.'s *Earnings Estimates,* June 22, 2000, projects the compound annual rate of growth for EPS during the next three to five years will be 3.33 percent for Ameren. The average of the three outside sources produces a projected growth rate of 3.07 percent. Combining the average of the historical DPS, EPS and BVPS of 1.30 percent with the projected growth rates produces a reasonable growth rate range of 2.00 to 2.50 percent. This range of growth (g) is the range that I used in the DCF model to calculate a cost of common equity for Ameren. (See Schedule 16)

Q. Please explain how you determined the yield term of he DCF formula for Ameren.

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A. The expected yield term (D_1/P_0) of the DCF model is calculated by dividing the amount of common dividends per share expected to be paid over the next 12 months (D_1) by the current market price per share of the firm's common stock (P_0). Even though the model requires the use of a current or spot market price, I have chosen to use a monthly high / low average market price of Ameren's common stock for the period of January 1, 2000, through April 1, 2000. This averaging technique is an attempt to minimize the effects on the dividend yield, which can occur due to daily volatility in the stock market.

Schedule 15 presents the monthly high / low average stock market prices from January 1, 2000, through April 1, 2000, for Ameren. Ameren's common stock price has ranged from a low of $27.562 per share to a high of $38.000 per share for the above-mentioned time period. This has produced a range for the monthly average high/low market price of $29.375 to $34.313 per share and reflects the most recent market conditions for the price term (P_0) in the DCF model.

The Value Line Investment Survey: Ratings & Reports, April 7, 2000, is estimating that Ameren's common dividend declared per share will be $2.54 for 1999 and 2.54 for 2000. Therefore, I have chosen to use the value of $2.54 for the amount of common dividends per share (D_1) expected to be paid by Ameren over the period ending April 30, 2000.

Combining the expected dividend of $2.54 per share and an average market price range of $29.375 to $34.313 per share produces an expected dividend yield range of 7.40 to 8.65 percent with an average of 7.99 percent. I have chosen to round this to the nearest quarter of a percent, 8.00 percent for purposes of this analysis.

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Q. Please summarize the results of your expected dividend yield and growth rate analysis for the DCF return on equity for Ameren.

A. The summarized DCF cost of equity estimate for Ameren is presented as follows:

Yield (D_1/P_0)	+	Growth Rate (g)	=	Cost of Equity(k)
8.00%	+	2.00%	=	10.00%
8.00%	+	2.50%	=	10.50%

This range of return on common equity of 10.00 to 10.50 percent, with a mid-range of 10.25 percent, is the company-specific cost of equity range for Ameren. (See Schedule 16)

Reasonableness of DCF Returns for AmerenUE

Q. What analysis was performed to determine the reasonableness of your DCF model derived return on common equity for Ameren?

A. I performed a risk premium cost of equity analysis for Ameren. The risk premium concept implies that the required return on equity is found by adding an explicit premium for risk to a current interest rate. Schedule 17 shows the average risk premium above the yield of "Aa" rated Moody's Public Utility Bonds for Ameren's expected return on common equity. This analysis shows, on average, Ameren's expected return on equity as reported by *The Value Line Investment Survey: Ratings & Reports* is 483 basis points higher than the average yield on "Aa" rated Moody's Public Utility Bonds for the period of January 1989 to present (see Schedule 17).

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Moody's *Bond Record*, May 2000, reports the average yield for "Aa" rated utility bonds for April 2000 was 8.00 percent. Adding 483 basis points to this "Aa" yield produces an estimated cost of equity of 12.83 percent. (See Schedule 18)

Q. Did you perform the Capital Asset Pricing Model (CAPM) to check the reasonableness of your DCF model derived return on common equity for Ameren?

A. Yes. I performed a CAPM cost of equity analysis for Ameren. The CAPM describes the relationship between a security's investment risk and its market rate of return. This relationship identifies the rate of return that investors expect a security to earn so that its market return is comparable with the market returns earned by other securities that have similar risk. The general form of the CAPM is as follows:

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

where:

k = the expected return on equity for a specific security,

R_f = the risk free rate,

β = beta; and

$R_m - R_f$ = the market risk premium.

The first term of the CAPM is the risk free rate (R_f). The risk free rate reflects the level of return which can be achieved without accepting any risk. In reality, there is no such riskless asset, but it is generally represented by U.S. Treasury securities, because of the government's unlimited ability to tax and create money. For purposes of this analysis, the risk free rate was represented by the yield on 30-Year U.S. Treasury Bonds. The appropriate rate was determined to be the high / low range of 5.85 to 6.63

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percent for the six-month period ending April 30, 2000, as published on the Federal Reserve website, http://www.stls.frb.org/fred/data/irates/gs30.

The second term of the CAPM is beta (β). Beta is an indicator of a security's investment risk. It represents the relative movement and relative risk between a particular security and the market as a whole (where beta for the market equals 1.00). Securities with betas greater than 1.00 exhibit greater volatility than do securities with betas less than 1.00. This causes a higher beta security to be riskier and therefore requires a higher return in order to attract investor capital away from a lower beta security. For purposes of this analysis, the appropriate beta was determined to be 0.50 as published in *The Value Line Investment Survey: Ratings & Reports*, April 7, 2000.

The final term of the CAPM is the market risk premium ($R_m - R_f$). The market risk premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk-free investment. For purposes of this analysis, the appropriate market risk premium was determined to be 7.80 percent as calculated in Ibbotson Associates, Inc.'s *Stocks, Bonds, Bills, and Inflation: 2000 Yearbook*.

Schedule 19 presents the CAPM analysis with regard to Ameren. The CAPM analysis produces an estimated cost of equity range of 9.75 to 10.53 percent for Ameren.

Q. Did you perform an analysis on AmerenUE's resulting pre-tax interest coverage ratios?

A. Yes. A pro forma pre-tax interest coverage calculation was completed for AmerenUE (see Schedule 28). It reveals that the return on equity range of 10.00 to 10.50

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percent would yield a pre-tax interest coverage ratio in the range of 4.49 to 4.66 times. This interest coverage range is in line with Standard & Poor's Financial range for an "AA" rated gas distribution company, which is 3.99 to 4.68 times.

Q. Did you perform any cost of equity analysis on other utility companies?

A. Yes. I have selected a group of comparable natural gas distribution companies to analyze for determining the reasonableness of the company-specific DCF results for Ameren. Schedule 20 presents a list of 24 market-traded natural gas distribution companies monitored by Edward Jones. This list was reviewed for the following criteria:

1. Information printed in Value Line: This criterion eliminated six companies;

2. Pretax interest coverage greater than 2.75 times: This criterion eliminated six additional companies;

3. Long-term debt to total capital less than 53 percent: This criterion eliminated three additional companies;

4. Distribution revenue to total revenues greater than 90 percent: This criterion eliminated no additional companies;

5. Positive Dividends Per Share Annual Compound Growth Rate for the period of 1989 through 1999: This criterion eliminated one additional company; and

6. No Missouri Operations: This criterion eliminated Laclede Gas Company.

On average, this final group of seven publicly traded natural gas distribution companies (comparable natural gas distribution companies) is comparable to Ameren because of similar business operations and financial conditions. The seven comparable gas utility companies are listed on Schedule 21.

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Q. Please explain how you approached the determination of the cost of equity for the comparable natural gas distribution companies.

A. I have calculated a DCF cost of equity for each of the seven comparable natural gas distribution companies. The first step was to calculate a growth rate. Basically, I used the same approach of obtaining a growth rate estimate for the seven comparable natural gas distribution companies as I used in calculating a growth rate for Ameren, except that I utilized the average of the positive historical DPS, EPS and BVPS growth rates as well as projected growth rates (see Schedules 22 and 23). The comparable natural gas distribution companies' average historical growth rates ranged from 1.17 to 5.34 percent with an overall average of 2.50 percent for the group (Column 1 of Schedule 23). The projected growth rates ranged from 3.70 to 9.50 percent with an average of 5.66 percent (Schedule 23). Taking into account the projected and historical growth rates, a proposed range of growth of 4.08 to 5.66 (Column 6 and 7 of Schedule 23) percent was used in the DCF calculation for the comparable companies. The growth rate range of 2.00 to 2.50 percent as calculated for Ameren (see Schedule 14) falls below the proposed range of growth for the seven comparable natural gas distribution companies.

The next step was to calculate an expected dividend yield for each of the seven comparable natural gas distribution companies. Schedule 24 presents the average high / low stock price for the period of January 1, 2000, through April 1, 2000, for each gas utility company. Column 3 of Schedule 25 shows that the projected dividend yields ranged from 4.35 to 6.61 percent for the seven comparable natural gas distribution companies with the average at 5.69 percent. Ameren's proposed dividend yield of 8.00

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percent (see Schedule 15) falls above the average for the seven comparable natural gas distribution companies.

The projected growth rates and projected dividend yields were then added together to reach an estimated DCF cost of equity for each of the seven comparable natural gas distribution companies (see Column 5 of Schedule 25). These estimates produced a DCF cost of equity ranging from 10.40 to 12.36 percent for the comparable natural gas distribution companies with an average of 11.35 percent (see Column 6 of Schedule 25).

Q. What analysis was performed to determine the reasonableness of your DCF model derived return on common equity for the comparable company group?

A. I performed a CAPM cost of equity analysis for the comparable company group. The betas for the seven comparable natural gas distribution companies averaged 0.61, well above Ameren's beta of 0.50. This suggests that Ameren is relatively less risky as measured by beta and relative to the market than the comparable companies on average and therefore suggests a slightly lower required return. The CAPM analysis implies that, on average, the required return on equity for the seven comparable natural gas distribution companies falls within the range of 10.64 to 11.42 percent (see Schedule 26). This provides support to my DCF cost of equity analysis for the comparable company group and the proposed required return on common equity range of 10.00 to 10.50 percent for AmerenUE.

Q. What additional analysis was performed to determine the reasonableness of your DCF model derived returns for the seven comparable natural gas distribution companies?

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A. An analysis was performed on the reported returns on equity. These figures were compared to the market-to-book ratios to provide some insight into the DCF cost of equity results.

Q. Please describe the analysis completed on the reported returns on equity and market-to-book values for the seven comparable natural gas distribution companies.

A. The market-to-book ratio is an important valuation ratio. It indicates the value that the financial markets attach to the management and organization of the company. It also measures, from an investor's viewpoint, the potential earning power of a company. A well-run company with strong management and an organization that functions efficiently should have a market value at least equal to the book value of its physical assets. Market-to-book ratios having values greater than 1.0 times are one indication that investors are satisfied with the potential returns and that the investors believe the company's expected earnings will be more than its cost of capital. It is difficult to predict future values for market-to-book ratios because they are affected by the overall market conditions and factors that determine stock prices.

Schedule 27 shows market-to-book values for AmerenUE and the seven comparable natural gas distribution companies, along with the latest projected returns on year-end common equity for 2000. Of the seven comparable natural gas distribution companies reported earnings on year-end common equity, two fall at the low end of the recommended range of 10.00 to 10.50 percent, while five others fall 100–450 basis points above the proposed range. Market-to-book ratios for these six companies ranged from 1.16 times to 2.51 times. It should be noted that AmerenUE's latest projected 1999

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return on year-end common equity is 13.99 percent and maintained a market-to-book ratio of 1.46 times (see Schedule 9).

Rate of Return for AmerenUE

Q. Please explain how the returns developed for each capital component are used in the ratemaking approach you have adopted to be applied to AmerenUE's natural gas distribution operations.

A. The cost of service ratemaking method was adopted in this case. This approach develops the public utility's revenue requirement. The cost of service (revenue requirement) is based on the following components: revenues, prudent operation costs, rate base and a return allowed on the rate base (see Schedule 29).

It is my responsibility to calculate and recommend a rate of return that should be authorized on the rate base of AmerenUE. Under the cost of service ratemaking approach, a weighted cost of capital in the range of 8.70 to 8.99 percent was developed for AmerenUE's natural gas distribution operations (see Schedule 30). This rate was calculated by applying an embedded cost of long-term debt of 7.07 percent, an embedded cost of preferred stock of 5.72 percent and a return on common equity range of 10.00 to 10.50 percent to a capital structure consisting of 39.01 percent long-term debt, 3.78 percent preferred stock and 57.21 percent common equity. Therefore, as I suggested earlier, I am recommending that AmerenUE's natural gas distribution operations be allowed to earn a return on its original cost rate base in the range of 8.70 to 8.99 percent.

Through this analysis, I believe I have developed a fair and reasonable rate of return. My rate of return is based on a return on common equity range of 10.00 to

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10.50 percent. My return range is based on the current and projected economic conditions. This range is sufficient to assure confidence in the financial soundness of the utility and will be adequate, under efficient and economical management, to maintain and support its financial standing, as well as allow AmerenUE the opportunity to earn the revenue requirement developed in this rate case.

Q. Does this conclude your prepared direct testimony?

A. Yes, it does.

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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	)	Case No. GR-2000-512
For Gas Service Provided To Customers	)	
In The Company's Missouri Service Area	)	

AFFIDAVIT OF ROBERTA A. MCKIDDY

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Roberta A. McKiddy, of lawful age, on his oath states: that she has participated in the preparation of the foregoing written testimony in question and answer form, consisting of 35 pages of testimony to be presented in the above case, that the answers in the attached written testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true to the best of her knowledge and belief.

Roberta A. McKiddy

Subscribed and sworn to before me this 7th day of August, 2000.

Notary Public

My commission expires_____

SHARON S WILES
NOTARY PUBLIC STATE OF MISSOURI
COLE COUNTY
MY COMMISSION EXP. AUG. 23,2002

AN ANALYSIS OF THE COST OF CAPITAL

FOR

UNION ELECTRIC COMPANY
dba AmerenUE

CASE NO. GR-2000-512

BY

ROBERTA A. MCKIDDY

UTILITY SERVICES DIVISION

MISSOURI PUBLIC SERVICE COMMISSION

August 2000

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UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

List of Schedules

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

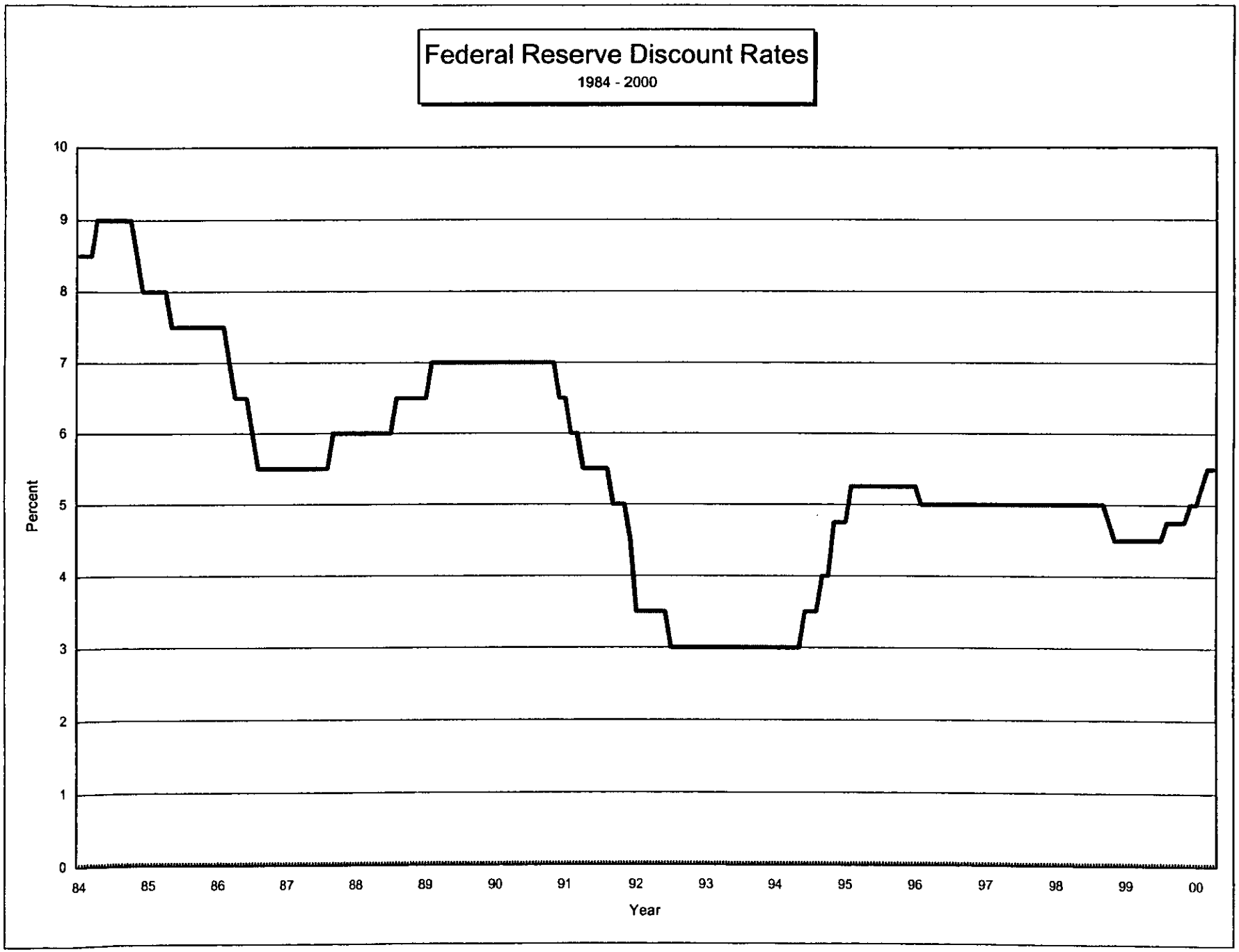
List of Schedules (continued)

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Federal Reserve Discount Rate Changes

Date	Discount Rate
01/01/83	8.50%
12/31	8.50%
04/09/84	9.00%
11/21	8.50%
12/24	8.00%
05/20/85	7.50%
03/07/86	7.00%
04/21	6.50%
07/11	6.00%
08/21	5.50%
09/04/87	6.00%
08/09/88	6.50%
02/24/89	7.00%
12/19/90	6.50%
02/01/91	6.00%
04/30	5.50%
09/13	5.00%
11/06	4.50%
12/20	3.50%
07/02/92	3.00%
01/01/93	3.00%
12/31	3.00%
05/17/94	3.50%
08/16	4.00%
11/15	4.75%
02/01/95	5.25%
01/31/96	5.00%
12/12/97	5.00%
01/09/98	5.00%
03/06/98	5.00%
10/15/98	4.75%
11/17/98	4.50%
06/30/99	4.50%
08/24/99	4.75%
11/16/99	5.00%
02/02/00	5.25%
03/21/00	5.50%
05/05/00	5.50%

Sources: Federal Reserve Bulletin & The Wall Street Journal.



UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

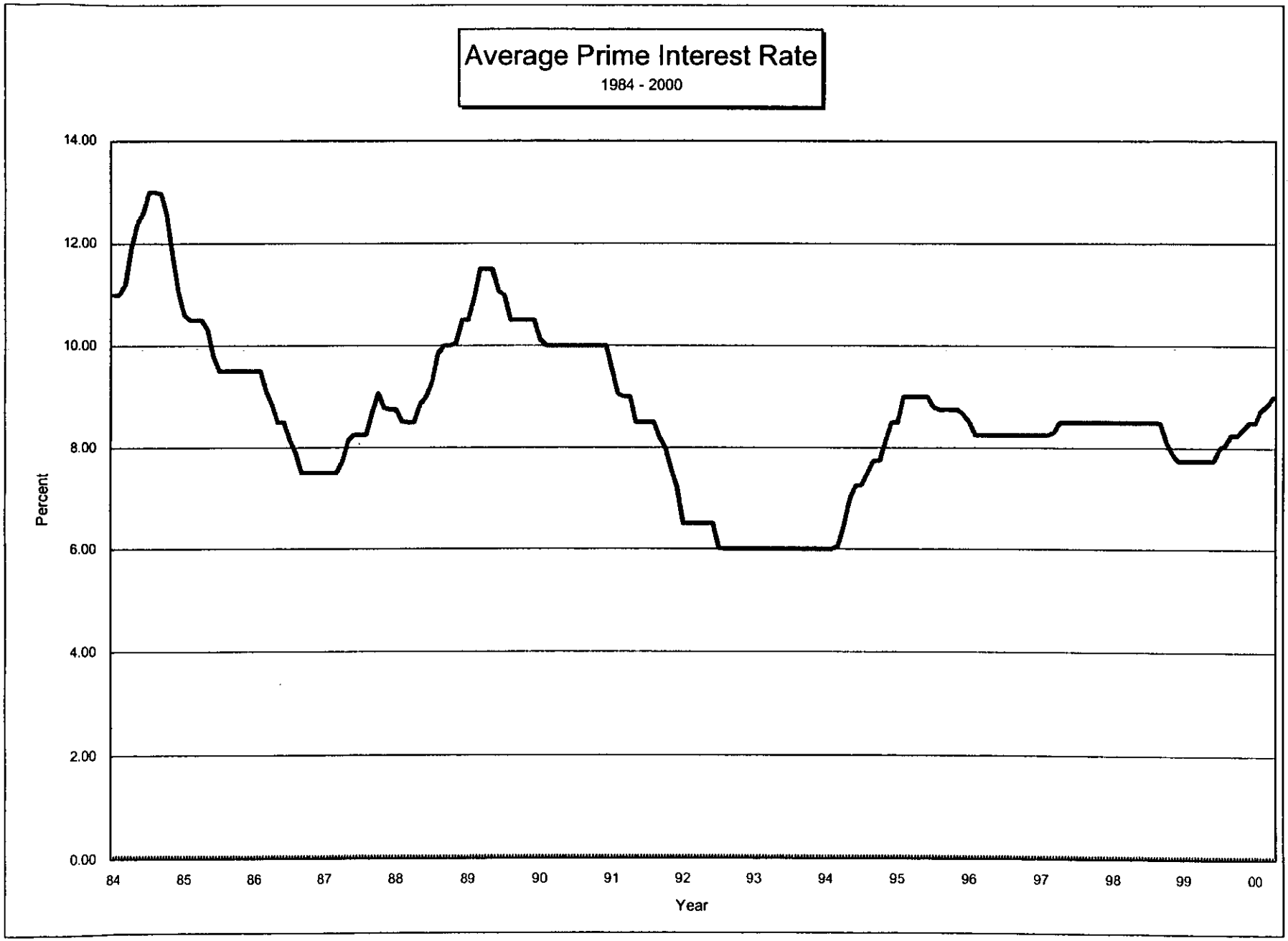
Schedule 2-2

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Average Prime Interest Rates

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1984	11.00	Jan 1988	8.75	Jan 1992	6.50	Jan 1996	8.50
Feb	11.00	Feb	8.51	Feb	6.50	Feb	8.25
Mar	11.21	Mar	8.50	Mar	6.50	Mar	8.25
Apr	11.93	Apr	8.50	Apr	6.50	Apr	8.25
May	12.39	May	8.84	May	6.50	May	8.25
Jun	12.60	Jun	9.00	Jun	6.50	Jun	8.25
Jul	13.00	Jul	9.29	Jul	6.02	Jul	8.25
Aug	13.00	Aug	9.84	Aug	6.00	Aug	8.25
Sep	12.97	Sep	10.00	Sep	6.00	Sep	8.25
Oct	12.58	Oct	10.00	Oct	6.00	Oct	8.25
Nov	11.77	Nov	10.05	Nov	6.00	Nov	8.25
Dec	11.06	Dec	10.50	Dec	6.00	Dec	8.25
Jan 1985	10.61	Jan 1989	10.50	Jan 1993	6.00	Jan 1997	8.26
Feb	10.50	Feb	10.93	Feb	6.00	Feb	8.25
Mar	10.50	Mar	11.50	Mar	6.00	Mar	8.30
Apr	10.50	Apr	11.50	Apr	6.00	Apr	8.50
May	10.31	May	11.50	May	6.00	May	8.50
Jun	9.78	Jun	11.07	Jun	6.00	Jun	8.50
Jul	9.50	Jul	10.98	Jul	6.00	Jul	8.50
Aug	9.50	Aug	10.50	Aug	6.00	Aug	8.50
Sep	9.50	Sep	10.50	Sep	6.00	Sep	8.50
Oct	9.50	Oct	10.50	Oct	6.00	Oct	8.50
Nov	9.50	Nov	10.50	Nov	6.00	Nov	8.50
Dec	9.50	Dec	10.50	Dec	6.00	Dec	8.50
Jan 1986	9.50	Jan 1990	10.11	Jan 1994	6.00	Jan 1998	8.50
Feb	9.50	Feb	10.00	Feb	6.00	Feb	8.50
Mar	9.10	Mar	10.00	Mar	6.06	Mar	8.50
Apr	8.83	Apr	10.00	Apr	6.45	Apr	8.50
May	8.50	May	10.00	May	6.99	May	8.50
Jun	8.50	Jun	10.00	Jun	7.25	Jun	8.50
Jul	8.16	Jul	10.00	Jul	7.25	Jul	8.50
Aug	7.90	Aug	10.00	Aug	7.51	Aug	8.50
Sep	7.50	Sep	10.00	Sep	7.75	Sep	8.49
Oct	7.50	Oct	10.00	Oct	7.75	Oct	8.12
Nov	7.50	Nov	10.00	Nov	8.15	Nov	7.89
Dec	7.50	Dec	10.00	Dec	8.50	Dec	7.75
Jan 1987	7.50	Jan 1991	9.52	Jan 1995	8.50	Jan 1999	7.75
Feb	7.50	Feb	9.05	Feb	9.00	Feb	7.75
Mar	7.50	Mar	9.00	Mar	9.00	Mar	7.75
Apr	7.75	Apr	9.00	Apr	9.00	Apr	7.75
May	8.14	May	8.50	May	9.00	May	7.75
Jun	8.25	Jun	8.50	Jun	9.00	Jun	7.75
Jul	8.25	Jul	8.50	Jul	8.80	Jul	8.00
Aug	8.25	Aug	8.50	Aug	8.75	Aug	8.06
Sep	8.70	Sep	8.20	Sep	8.75	Sep	8.25
Oct	9.07	Oct	8.00	Oct	8.75	Oct	8.25
Nov	8.78	Nov	7.58	Nov	8.75	Nov	8.37
Dec	8.75	Dec	7.21	Dec	8.65	Dec	8.50
						Jan 2000	8.50
						Feb	8.73
						Mar	8.83
						Apr	9.00

Sources: Federal Reserve Bulletin & The Wall Street Journal.



UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

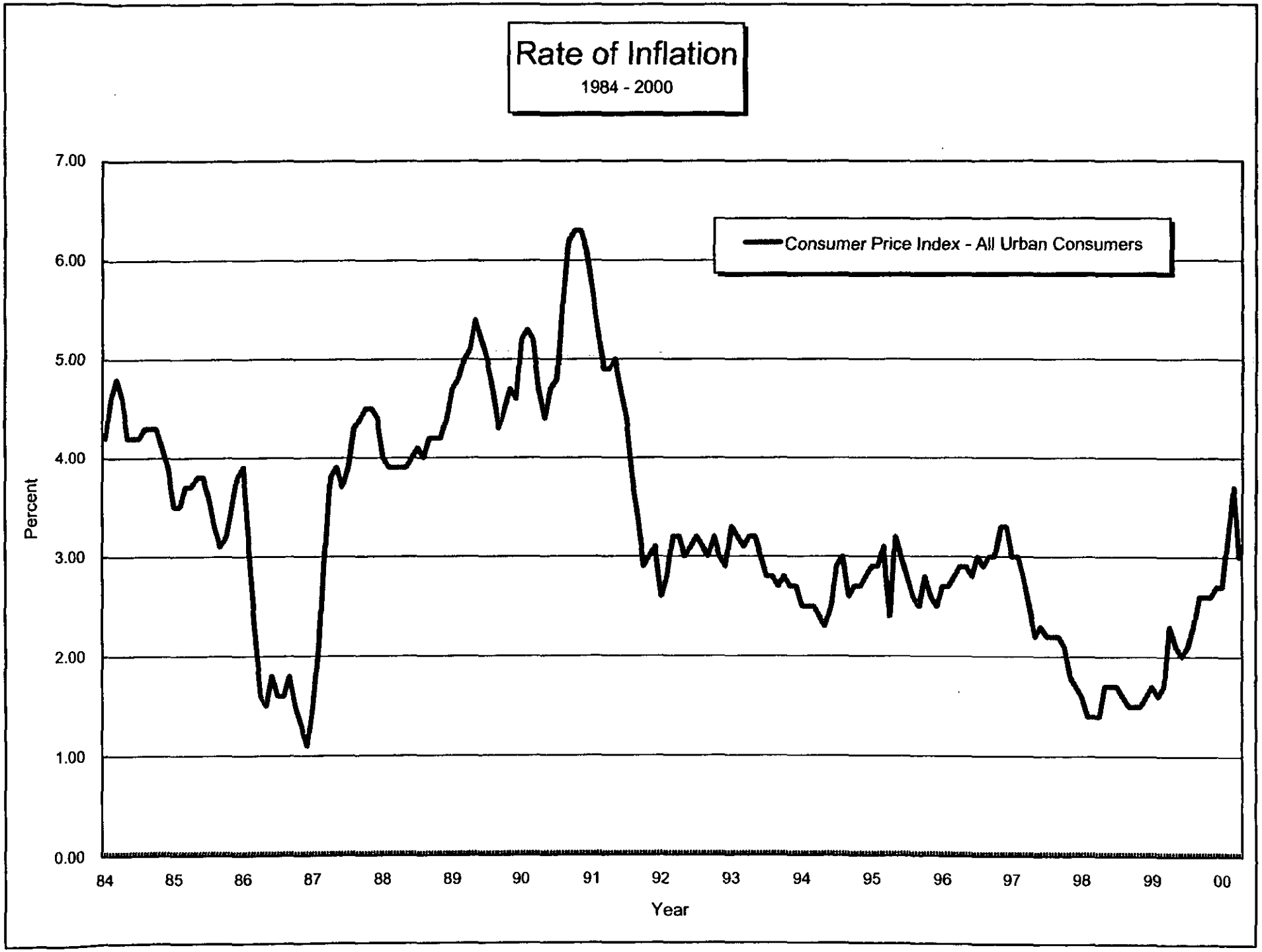
Schedule 3-2

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Rate of Inflation

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1984	4.20	Jan 1988	4.00	Jan 1992	2.60	Jan 1996	2.70
Feb	4.60	Feb	3.90	Feb	2.80	Feb	2.70
Mar	4.80	Mar	3.90	Mar	3.20	Mar	2.80
Apr	4.60	Apr	3.90	Apr	3.20	Apr	2.90
May	4.20	May	3.90	May	3.00	May	2.90
Jun	4.20	Jun	4.00	Jun	3.10	Jun	2.80
Jul	4.20	Jul	4.10	Jul	3.20	Jul	3.00
Aug	4.30	Aug	4.00	Aug	3.10	Aug	2.90
Sep	4.30	Sep	4.20	Sep	3.00	Sep	3.00
Oct	4.30	Oct	4.20	Oct	3.20	Oct	3.00
Nov	4.10	Nov	4.20	Nov	3.00	Nov	3.30
Dec	3.90	Dec	4.40	Dec	2.90	Dec	3.30
Jan 1985	3.50	Jan 1989	4.70	Jan 1993	3.30	Jan 1997	3.00
Feb	3.50	Feb	4.80	Feb	3.20	Feb	3.00
Mar	3.70	Mar	5.00	Mar	3.10	Mar	2.80
Apr	3.70	Apr	5.10	Apr	3.20	Apr	2.50
May	3.80	May	5.40	May	3.20	May	2.20
Jun	3.80	Jun	5.20	Jun	3.00	Jun	2.30
Jul	3.60	Jul	5.00	Jul	2.80	Jul	2.20
Aug	3.30	Aug	4.70	Aug	2.80	Aug	2.20
Sep	3.10	Sep	4.30	Sep	2.70	Sep	2.20
Oct	3.20	Oct	4.50	Oct	2.80	Oct	2.10
Nov	3.50	Nov	4.70	Nov	2.70	Nov	1.80
Dec	3.80	Dec	4.60	Dec	2.70	Dec	1.70
Jan 1986	3.90	Jan 1990	5.20	Jan 1994	2.50	Jan 1998	1.60
Feb	3.10	Feb	5.30	Feb	2.50	Feb	1.40
Mar	2.30	Mar	5.20	Mar	2.50	Mar	1.40
Apr	1.60	Apr	4.70	Apr	2.40	Apr	1.40
May	1.50	May	4.40	May	2.30	May	1.70
Jun	1.80	Jun	4.70	Jun	2.50	Jun	1.70
Jul	1.60	Jul	4.80	Jul	2.90	Jul	1.70
Aug	1.60	Aug	5.60	Aug	3.00	Aug	1.60
Sep	1.80	Sep	6.20	Sep	2.60	Sep	1.50
Oct	1.50	Oct	6.30	Oct	2.70	Oct	1.50
Nov	1.30	Nov	6.30	Nov	2.70	Nov	1.50
Dec	1.10	Dec	6.10	Dec	2.80	Dec	1.60
Jan 1987	1.50	Jan 1991	5.70	Jan 1995	2.90	Jan 1999	1.70
Feb	2.10	Feb	5.30	Feb	2.90	Feb	1.60
Mar	3.00	Mar	4.90	Mar	3.10	Mar	1.70
Apr	3.80	Apr	4.90	Apr	2.40	Apr	2.30
May	3.90	May	5.00	May	3.20	May	2.10
Jun	3.70	Jun	4.70	Jun	3.00	Jun	2.00
Jul	3.90	Jul	4.40	Jul	2.80	Jul	2.10
Aug	4.30	Aug	3.80	Aug	2.60	Aug	2.30
Sep	4.40	Sep	3.40	Sep	2.50	Sep	2.60
Oct	4.50	Oct	2.90	Oct	2.80	Oct	2.60
Nov	4.50	Nov	3.00	Nov	2.60	Nov	2.60
Dec	4.40	Dec	3.10	Dec	2.50	Dec	2.70
						Jan 2000	2.70
						Feb	3.20
						Mar	3.70
						Apr	3.00

Source: U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers, Change for 12-Month Period, Bureau of Labor Statistics Website and Wall Street Journal.



UNION ELECTRIC COMPANY
dba AmerenUE
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Schedule 4-2

UNION ELECTRIC COMPANY
dba AmerenUE
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Average Yields on Moody's Public Utility Bonds

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1984	13.40	Jan 1988	10.75	Jan 1992	8.67	Jan 1996	7.20
Feb	13.50	Feb	10.11	Feb	8.77	Feb	7.37
Mar	14.03	Mar	10.11	Mar	8.84	Mar	7.72
Apr	14.30	Apr	10.53	Apr	8.79	Apr	7.88
May	14.95	May	10.75	May	8.72	May	7.99
Jun	15.16	Jun	10.71	Jun	8.64	Jun	8.07
Jul	14.92	Jul	10.96	Jul	8.46	Jul	8.02
Aug	14.29	Aug	11.09	Aug	8.34	Aug	7.84
Sep	14.04	Sep	10.56	Sep	8.32	Sep	8.01
Oct	13.68	Oct	9.92	Oct	8.44	Oct	7.76
Nov	13.15	Nov	9.89	Nov	8.53	Nov	7.48
Dec	12.96	Dec	10.02	Dec	8.36	Dec	7.58
Jan 1985	12.88	Jan 1989	10.02	Jan 1993	8.23	Jan 1997	7.79
Feb	13.00	Feb	10.02	Feb	8.00	Feb	7.68
Mar	13.66	Mar	10.16	Mar	7.85	Mar	7.92
Apr	13.42	Apr	10.14	Apr	7.76	Apr	8.08
May	12.89	May	9.92	May	7.78	May	7.94
Jun	11.91	Jun	9.49	Jun	7.68	Jun	7.77
Jul	11.88	Jul	9.34	Jul	7.53	Jul	7.52
Aug	11.93	Aug	9.37	Aug	7.21	Aug	7.57
Sep	11.95	Sep	9.43	Sep	7.01	Sep	7.50
Oct	11.84	Oct	9.37	Oct	6.99	Oct	7.37
Nov	11.33	Nov	9.33	Nov	7.30	Nov	7.24
Dec	10.82	Dec	9.31	Dec	7.33	Dec	7.16
Jan 1986	10.66	Jan 1990	9.44	Jan 1994	7.31	Jan 1998	7.03
Feb	10.16	Feb	9.66	Feb	7.44	Feb	7.09
Mar	9.33	Mar	9.75	Mar	7.83	Mar	7.13
Apr	9.02	Apr	9.87	Apr	8.20	Apr	7.12
May	9.52	May	9.89	May	8.32	May	7.11
Jun	9.51	Jun	9.69	Jun	8.31	Jun	6.99
Jul	9.19	Jul	9.66	Jul	8.47	Jul	6.99
Aug	9.15	Aug	9.84	Aug	8.41	Aug	6.96
Sep	9.42	Sep	10.01	Sep	8.65	Sep	6.88
Oct	9.39	Oct	9.94	Oct	8.88	Oct	6.88
Nov	9.15	Nov	9.76	Nov	9.00	Nov	6.96
Dec	8.96	Dec	9.57	Dec	8.79	Dec	6.84
Jan 1987	8.77	Jan 1991	9.56	Jan 1995	8.77	Jan 1999	6.87
Feb	8.81	Feb	9.31	Feb	8.56	Feb	7.00
Mar	8.75	Mar	9.39	Mar	8.41	Mar	7.18
Apr	9.30	Apr	9.30	Apr	8.30	Apr	7.16
May	9.82	May	9.29	May	7.93	May	7.42
Jun	9.87	Jun	9.44	Jun	7.62	Jun	7.70
Jul	10.01	Jul	9.40	Jul	7.73	Jul	7.66
Aug	10.33	Aug	9.16	Aug	7.86	Aug	7.86
Sep	11.00	Sep	9.03	Sep	7.62	Sep	7.87
Oct	11.32	Oct	8.99	Oct	7.46	Oct	8.02
Nov	10.82	Nov	8.93	Nov	7.40	Nov	7.86
Dec	10.99	Dec	8.76	Dec	7.21	Dec	8.04
						Jan 2000	8.22
						Feb	8.10
						Mar	8.14
						Apr	8.14

Source: Moody's Bond Record.

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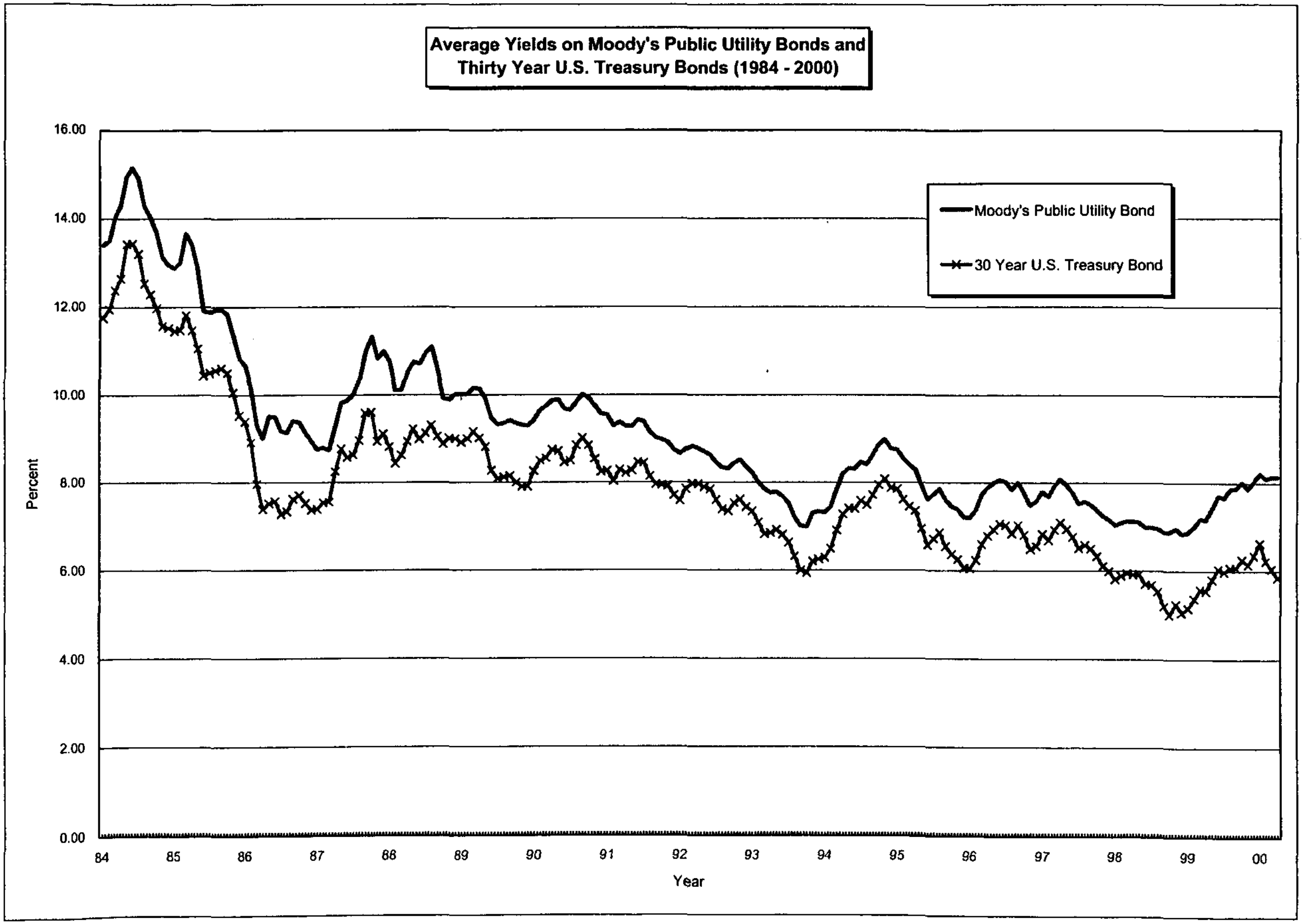
Average Yields on Thirty Year U.S. Treasury Bonds

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1984	11.75	Jan 1988	8.83	Jan 1992	7.58	Jan 1996	6.05
Feb	11.95	Feb	8.43	Feb	7.85	Feb	6.24
Mar	12.38	Mar	8.63	Mar	7.97	Mar	6.60
Apr	12.65	Apr	8.95	Apr	7.96	Apr	6.79
May	13.43	May	9.23	May	7.89	May	6.93
Jun	13.44	Jun	9.00	Jun	7.84	Jun	7.06
Jul	13.21	Jul	9.14	Jul	7.60	Jul	7.03
Aug	12.54	Aug	9.32	Aug	7.39	Aug	6.84
Sep	12.29	Sep	9.06	Sep	7.34	Sep	7.03
Oct	11.98	Oct	8.89	Oct	7.53	Oct	6.81
Nov	11.56	Nov	9.02	Nov	7.61	Nov	6.48
Dec	11.52	Dec	9.01	Dec	7.44	Dec	6.55
Jan 1985	11.45	Jan 1989	8.93	Jan 1993	7.34	Jan 1997	6.83
Feb	11.47	Feb	9.01	Feb	7.09	Feb	6.69
Mar	11.81	Mar	9.17	Mar	6.82	Mar	6.93
Apr	11.47	Apr	9.03	Apr	6.85	Apr	7.09
May	11.05	May	8.83	May	6.92	May	6.94
Jun	10.44	Jun	8.27	Jun	6.81	Jun	6.77
Jul	10.50	Jul	8.08	Jul	6.63	Jul	6.51
Aug	10.56	Aug	8.12	Aug	6.32	Aug	6.58
Sep	10.61	Sep	8.15	Sep	6.00	Sep	6.50
Oct	10.50	Oct	8.00	Oct	5.94	Oct	6.33
Nov	10.06	Nov	7.90	Nov	6.21	Nov	6.11
Dec	9.54	Dec	7.90	Dec	6.25	Dec	5.99
Jan 1986	9.40	Jan 1990	8.26	Jan 1994	6.29	Jan 1998	5.81
Feb	8.93	Feb	8.50	Feb	6.49	Feb	5.89
Mar	7.96	Mar	8.56	Mar	6.91	Mar	5.95
Apr	7.39	Apr	8.76	Apr	7.27	Apr	5.92
May	7.52	May	8.73	May	7.41	May	5.93
Jun	7.57	Jun	8.46	Jun	7.40	Jun	5.70
Jul	7.27	Jul	8.50	Jul	7.58	Jul	5.68
Aug	7.33	Aug	8.86	Aug	7.49	Aug	5.54
Sep	7.62	Sep	9.03	Sep	7.71	Sep	5.20
Oct	7.70	Oct	8.86	Oct	7.94	Oct	5.01
Nov	7.52	Nov	8.54	Nov	8.08	Nov	5.25
Dec	7.37	Dec	8.24	Dec	7.87	Dec	5.06
Jan 1987	7.39	Jan 1991	8.27	Jan 1995	7.85	Jan 1999	5.16
Feb	7.54	Feb	8.03	Feb	7.61	Feb	5.37
Mar	7.55	Mar	8.29	Mar	7.45	Mar	5.58
Apr	8.25	Apr	8.21	Apr	7.36	Apr	5.55
May	8.78	May	8.27	May	6.95	May	5.81
Jun	8.57	Jun	8.47	Jun	6.57	Jun	6.04
Jul	8.64	Jul	8.45	Jul	6.72	Jul	5.98
Aug	8.97	Aug	8.14	Aug	6.86	Aug	6.07
Sep	9.59	Sep	7.95	Sep	6.55	Sep	6.07
Oct	9.61	Oct	7.93	Oct	6.37	Oct	6.26
Nov	8.95	Nov	7.92	Nov	6.26	Nov	6.15
Dec	9.12	Dec	7.70	Dec	6.06	Dec	6.35
						Jan 2000	6.63
						Feb	6.23
						Mar	6.05
						Apr	5.85

Source: Federal Reserve Bulletin and Federal Reserve Website: http://www.stls.frb.org/fred/data/irates/gs30



UNION ELECTRIC COMPANY
dba AmerenUE
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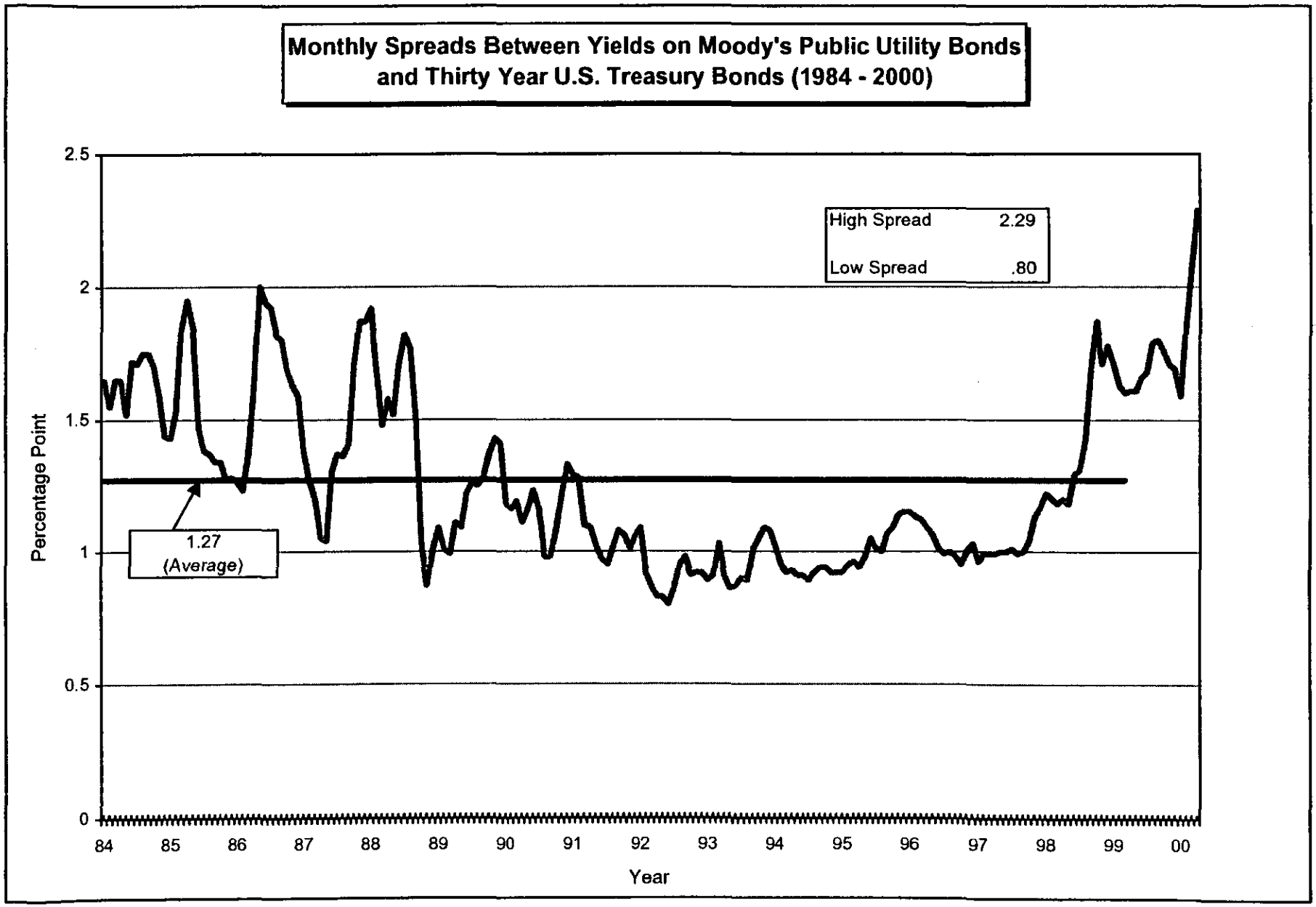
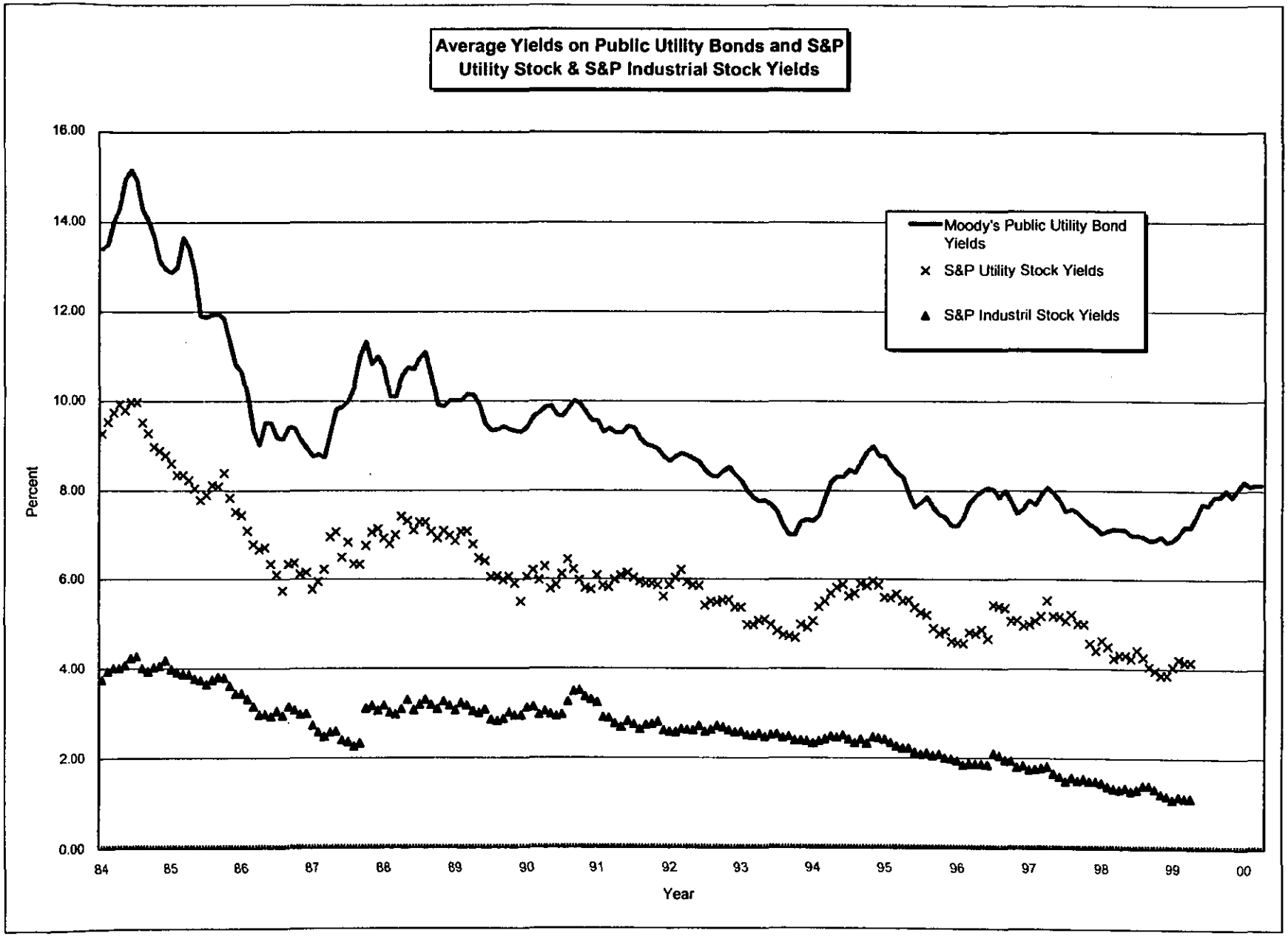
Schedule 5-3



UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Schedule 5-4



UNION ELECTRIC COMPANY
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Schedule 6

UNION ELECTRIC COMPANY
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Economic Estimates and Projections, 2000-2001

	Inflation Rate			Real GDP			Unemployment			3-Mo. T-Bill Rate			30-Yr. T-Bond Rate		
Source	2000	2001	2002	2000	2001	2002	2000	2001	2002	2000	2001	2002	2000	2001	2002
The Budget & Economic Outlook: FY2001-2002 (January 2000)	2.50%	2.40%	2.50%	3.30%	3.10%	2.80%	4.10%	4.20%	4.40%	5.40%	5.60%	5.30%	N.A.	N.A.	N.A.
Value Line's "Investment Survey" (3/3/00)	2.50%	2.30%	2.50%	3.60%	3.00%	3.10%	4.10%	4.20%	4.30%	5.70%	5.40%	5.30%	6.20%	5.80%	5.80%
Current rate	3.1%			5.40%			4.20%			5.99%			6.15%		

Notes: N.A. = Not Available.

Current GDP is an annualized rate for 1st quarter 2000.

Sources of Current Rates: The Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers, 12-Month Period Ending May 31, 2000.
Federal Reserve website, http://www.stls.frb.org/fred/data/irates.html, for the 12-Month Period Ending April 30, 2000.
U.S. Department of Commerce, Bureau of Economic Analysis
Telescan, Wall Street City.

Other Sources: The Congressional Budget Office, The Budget and Economic Outlook: Fiscal Years 2001-2010, January 2000
http://www.cbo.gov.showdoc.cfm?index=1820&sequence=3

Schedule 7

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Historical Consolidated Capital Structures for Union Electric Company

(Thousands of Dollars)

Capital Components	1995	1996	1997	1998	1999
Common Equity	$2,319,200.0	$2,354,801.0	$2,387,500.0	$2,424,125.0	$2,433,682.0
Preferred Stock	219,100.0	219,100.0	221,200.0	155,197.0	155,197.0
Long-Term Debt	1,473,000.0	1,798,671.0	1,780,500.0	1,674,311.0	1,882,601.0
Short-Term Debt	0.0	0.0	0.0	0.0	0.0
Total	$4,011,300.0	$4,372,572.0	$4,389,200.0	$4,253,633.0	$4,471,480.0

Capital Structure	1995	1996	1997	1998	1999
Common Equity	57.82%	53.85%	54.39%	56.99%	54.43%
Preferred Stock	5.46%	5.01%	5.04%	3.65%	3.47%
Long-Term Debt	36.72%	41.14%	40.57%	39.36%	42.10%
Short-Term Debt	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

Schedule 8

Note: The amount of Long-Term Debt includes Current Maturities.
Short-term Debt has not been noted on this schedule since CWIP usually exceeds outstanding short-term debt balances.

Source: Standard & Poor's Utility Rating Service, February 2000 and Union Electric Company's Shareholder Annual Reports

Union Electric Company
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Selected Financial Ratios for Union Electric Company (Consolidated Basis)

Financial Ratios	1995	1996	1997	1998	1999
Return on Year-End Common Equity	13.10%	12.38%	13.98%	12.84%	13.99%
Earnings Per Common Share	$2.95	$2.86	$2.44	$2.82	$2.81
Common Dividend Payout Ratio	83.30%	87.80%	88.58%	83.40%	96.55%
Year-End Market Price Per Common Share	$41.750	$38.500	$43.250	$42.687	$32.812
Year-End Book Value Per Common Share	$22.71	$23.06	$22.00	$22.27	$22.52
Year-End Market to Book Ratio	1.84 x	1.67 x	1.97 x	1.92 x	1.46 x
Pre-Tax Interest Coverage Ratio	4.65 x	4.55 x	4.73 x	5.13 x	5.83 x
Senior Unsecured Debt Rating (Standard & Poor's Corporation)	A+	A+			

Notes:

Return on Year-End Common Equity = Net Income Available for Common Stock / Year-End Common Shareholders' Equity.

Common Dividend Payout Ratio = Common Dividends Paid / Net Income Available for Common Stock.

Year-End Market to Book Ratio = Year-End Market Price Per Common Share / Year-End Book Value Per Common Share.

Pre-Tax Interest Coverage Ratio = Net Income + Income Taxes + Total Interest Expense / Total Interest Expense.

Sources: Union Electric Company's Shareholder Annual Reports, Standard & Poor's Corporation's Utility Rating Service, February 2000.

Schedule 9

SCHEDULE 10

IS DEEMED

PROPRIETARY

IN ITS

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SCHEDULE 11-1

IS DEEMED

PROPRIETARY

IN ITS

ENTIRETY

SCHEDULE 11-2

IS DEEMED

PROPRIETARY

IN ITS

ENTIRETY

SCHEDULE 12

IS DEEMED

PROPRIETARY

IN ITS

ENTIRETY

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for Ameren Corporation

Year	Dividends Per Share	Earnings Per Share	Book Value Per Share
1989	$2.02	$2.91	$19.14
1990	$2.10	$2.74	$19.79
1991	$2.18	$3.01	$20.62
1992	$2.26	$2.65	$21.19
1993	$2.34	$2.77	$21.60
1994	$2.40	$3.01	$22.22
1995	$2.46	$2.95	$22.71
1996	$2.51	$2.86	$23.06
1997	$2.54	$2.44	$22.00
1998	$2.54	$2.82	$22.27
1999	$2.54	$2.81	$22.55

Annual Compound Growth Rates

	DPS	EPS	BVPS
1989 - 1999	2.32%	-0.35%	1.65%
1994 - 1999	1.14%	-1.37%	0.30%

Trend Line Growth Rates

	DPS	EPS	BVPS
1989 - 1999	2.41%	-5.69%	1.56%
1994 - 1999	1.12%	-3.03%	-0.09%

	DPS	EPS	BVPS
Average of Historical Growth Rates:	1.75%	-2.61%	0.85%

Source: Value Line Investment Survey, April 7, 2000.

UNION ELECTRIC COMPANY
dba AmerenUE
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Historical and Projected Growth Rates for Ameren Corporation

Historical Growth Rates	
DPS Annual Compound & Trend Line Growth (1994 - 1999)	2.37%
DPS Annual Compound & Trend Line Growth (1989 - 1999)	1.13%
BVPS Annual Compound & Trend Line Growth (1994 - 1999)	1.61%
BVPS Annual Compound & Trend Line Growth (1989 - 1999)	0.10%
Average of Historical Growth Rates	1.30%
Projected Growth Rates from Outside Sources	
5 Year Growth Forecast (Mean) I/B/E/S Inc.'s Institutional Brokers Estimate System May 18, 2000	2.89%
5-Year Projected EPS Growth Rate Standard & Poor's Corporation's Earnings Guide June 2000	3.00%
5-Year Projected EPS Growth Rate Zack's Earnings Estimates June 22, 2000	3.33%
Average of Projected Growth Rates	3.07%
Proposed Range of Growth for Union Electric Company:	**2.00% - 2.50%**

Note: Average Historical Growth Rate does not include negative averages for EPS.
See Schedule 13 for Historical Growth Rate information.

Source: Telescan Inc., http://www.wallstreetcity.com; Zacks, http://www.zacks.com

UNION ELECTRIC COMPANY
dba AmerenUE
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Monthly High / Low Average Dividend Yields for Ameren Corporation

Month / Year	(1) High Stock Price	(2) Low Stock Price	(3) Average High / Low Price	(4) Expected Dividend (Avg. 1999-2000)	(5) Projected Dividend Yield
January 2000	34.250	31.562	$32.906	$2.54	7.72%
February 2000	33.437	28.500	$30.969	$2.54	8.20%
March 2000	31.187	27.562	$29.375	$2.54	8.65%
April 2000	38.000	30.625	$34.313	$2.54	7.40%
Average					**7.99%**

Proposed Dividend Yield for Ameren Corporation: **8.00%**

Notes: Column 3 = [(Column 1 + Column 2) / 2].

Column 4 = Estimated Dividends Declared per share represents the average projected dividends for 1999 and 2000.
Column 5 = (Column 4 / Column 3).

Sources: Telescan Inc., http://www.wallstreetcity.com and
Value Line Investment Survey, April 7, 2000

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Discounted Cash Flow (DCF) Costs of Common Equity Estimates for Ameren Corporation

UE's Cost of Common Equity	=	Dividend Yield	+	Expected Growth
10.00%	=	8.00%	+	2.00%
10.50%	=	8.00%	+	2.50%

Discounted Cash Flow (DCF) Model Derivation

$$\text{Present Price} = \underset{\text{Discounted by k}}{\text{Expected Dividends}} + \underset{\text{Discounted by k}}{\text{Present Price (1 + g)}}$$

where: g = estimated growth rate and k = cost of common equity.

Letting: P0 = present price and D1 = expected dividends, then

$$P0 = \frac{D1}{(1+k)} + \frac{P0\,(1+g)}{(1+k)} \quad \text{or}$$

$$k = \frac{D1}{P0} + g$$

Thus:

Cost of Common Equity = Dividend Yield + Expected Growth

Notes: See Schedule 15 for calculation of proposed range of dividend yield for Ameren Corporation.

See Schedule 14 for calculation of proposed range of growth for Ameren Corporation.

UNION ELECTRIC COMPANY
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CASE NO. GR-2000-512

Average Risk Premium above the Yields of "Aa" Rated Moody's Utility Bonds
Ameren Corporation's Expected Return on Common Equity

Mo/Year	AEE's Expected ROE	"Aa" Rated Bonds Yields	AEE's Risk Premium
Jan 1989	14.00%	9.89%	4.11%
Feb	14.00%	9.93%	4.07%
Mar	14.00%	10.05%	3.95%
Apr	13.50%	10.02%	3.48%
May	13.50%	9.79%	3.71%
Jun	13.50%	9.37%	4.13%
Jul	13.50%	9.23%	4.27%
Aug	13.50%	9.27%	4.23%
Sep	13.50%	9.35%	4.15%
Oct	13.00%	9.28%	3.72%
Nov	13.00%	9.25%	3.75%
Dec	13.00%	9.26%	3.74%
Jan 1990	13.50%	9.39%	4.11%
Feb	13.50%	9.57%	3.93%
Mar	13.50%	9.60%	3.90%
Apr	13.50%	9.81%	3.69%
May	13.50%	9.83%	3.67%
Jun	13.50%	9.60%	3.90%
Jul	13.50%	9.61%	3.89%
Aug	13.50%	9.78%	3.72%
Sep	13.50%	9.87%	3.63%
Oct	13.50%	9.77%	3.73%
Nov	13.50%	9.59%	3.91%
Dec	13.50%	9.42%	4.08%
Jan 1991	13.50%	9.39%	4.11%
Feb	13.50%	9.16%	4.34%
Mar	13.50%	9.23%	4.27%
Apr	13.00%	9.14%	3.86%
May	13.00%	9.16%	3.84%
Jun	13.00%	9.28%	3.72%
Jul	14.00%	9.26%	4.74%
Aug	14.00%	9.06%	4.94%
Sep	14.00%	8.95%	5.05%
Oct	14.50%	8.92%	5.58%
Nov	14.50%	8.87%	5.63%
Dec	14.50%	8.71%	5.79%
Jan 1992	13.50%	8.63%	4.87%
Feb	13.50%	8.76%	4.74%
Mar	13.50%	8.82%	4.68%
Apr	13.00%	8.76%	4.24%
May	13.00%	8.69%	4.31%
Jun	13.00%	8.63%	4.37%
Jul	13.00%	8.45%	4.55%
Aug	13.00%	8.30%	4.70%
Sep	13.00%	8.28%	4.72%
Oct	12.50%	8.42%	4.08%
Nov	12.50%	8.51%	3.99%
Dec	12.50%	8.32%	4.18%
Jan 1993	13.00%	8.14%	4.86%
Feb	13.00%	7.92%	5.08%
Mar	13.00%	7.76%	5.24%
Apr	12.50%	7.64%	4.86%
May	12.50%	7.64%	4.86%
Jun	12.50%	7.54%	4.96%
Jul	12.50%	7.38%	5.12%
Aug	12.50%	7.07%	5.43%
Sep	12.50%	6.89%	5.61%
Oct	13.50%	6.89%	6.61%
Nov	13.50%	7.17%	6.33%
Dec	13.50%	7.18%	6.32%
Jan 1994	13.50%	7.18%	6.32%
Feb	13.50%	7.34%	6.16%
Mar	13.50%	7.74%	5.76%
Apr	13.50%	8.12%	5.38%
May	13.50%	8.24%	5.26%
Jun	13.50%	8.21%	5.29%
Jul	13.00%	8.38%	4.62%
Aug	13.00%	8.32%	4.68%
Sep	13.00%	8.56%	4.44%
Oct	13.50%	8.78%	4.72%
Nov	13.50%	8.90%	4.60%
Dec	13.50%	8.69%	4.81%

Mo/Year	AEE's Expected ROE	"Aa" Rated Bonds Yields	AEE's Risk Premium
Jan 1995	12.50%	8.66%	3.84%
Feb	12.50%	8.45%	4.05%
Mar	12.50%	8.29%	4.21%
Apr	12.50%	8.17%	4.33%
May	12.50%	7.80%	4.70%
Jun	12.50%	7.49%	5.01%
Jul	12.00%	7.60%	4.40%
Aug	12.00%	7.71%	4.29%
Sep	12.00%	7.48%	4.52%
Oct	12.00%	7.30%	4.70%
Nov	12.00%	7.22%	4.78%
Dec	12.00%	7.03%	4.97%
Jan 1996	11.50%	7.02%	4.48%
Feb	11.50%	7.20%	4.30%
Mar	11.50%	7.55%	3.95%
Apr	13.00%	7.70%	5.30%
May	13.00%	7.79%	5.21%
Jun	13.00%	7.87%	5.13%
Jul	13.00%	7.83%	5.17%
Aug	13.00%	7.66%	5.34%
Sep	13.00%	7.84%	5.16%
Oct	13.00%	7.60%	5.40%
Nov	13.00%	7.32%	5.68%
Dec	13.00%	7.44%	5.56%
Jan 1997	13.00%	7.68%	5.32%
Feb	13.00%	7.60%	5.40%
Mar	13.00%	7.84%	5.16%
Apr	12.50%	8.00%	4.50%
May	12.50%	7.85%	4.65%
Jun	12.50%	7.68%	4.82%
Jul	13.00%	7.43%	5.57%
Aug	13.00%	7.46%	5.54%
Sep	13.00%	7.43%	5.57%
Oct	13.00%	7.28%	5.72%
Nov	13.00%	7.15%	5.85%
Dec	13.00%	7.07%	5.93%
Jan 1998	12.50%	6.94%	5.56%
Feb	12.50%	6.99%	5.51%
Mar	12.50%	7.04%	5.46%
Apr	12.00%	7.02%	4.98%
May	12.00%	7.02%	4.98%
Jun	12.00%	6.91%	5.09%
Jul	11.50%	6.91%	4.59%
Aug	11.50%	6.87%	4.63%
Sep	11.50%	6.78%	4.72%
Oct	12.00%	6.79%	5.21%
Nov	12.00%	6.89%	5.11%
Dec	12.00%	6.78%	5.22%
Jan 1999	13.00%	6.82%	6.18%
Feb	13.00%	6.94%	6.06%
Mar	13.00%	7.11%	5.89%
Apr	13.00%	7.11%	5.89%
May	13.00%	7.38%	5.62%
Jun	13.00%	7.67%	5.33%
Jul	13.00%	7.62%	5.38%
Aug	13.00%	7.82%	5.18%
Sep	13.00%	7.82%	5.18%
Oct	13.00%	7.96%	5.04%
Nov	13.00%	7.82%	5.18%
Dec	13.00%	8.00%	5.00%
Jan 2000	13.50%	8.17%	5.33%
Feb	13.50%	7.99%	5.51%
Mar	13.50%	7.99%	5.51%
Apr	13.50%	8.00%	5.50%

Sources: The Value Line Investment Survey: Ratings & Reports and Moody's Bond Record

Note: Yields on 30-Year U.S. Treasury Bonds are an actively traded issues adjusted to constant maturities.

Summary Information	(Jan 1989 - April 2000)
Average Risk Premium (Jan 1989 - Apr 2000)	4.83%
High Risk Premium (October 1993)	6.61%
Low Risk Premium (April 1989)	3.48%

Schedule 17

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Risk Premium Costs of Equity Estimates
for Ameren Corporation

AEE's Cost of Common Equity		"Aa" Rated 30 Year Utility Bond Yields (April 2000)		Equity Risk Premium (1/89 - 4/00)
12.83%	=	8.00%	+	4.83%

Risk Premium Approach

The risk premium approach is based upon the proposition that common stocks are more risky than debt and, as a result, investors require a higher expected return on stocks than bonds. In this approach, the cost of common equity is computed by the following formula:

Common Equity		**Current Cost of Debt**		**Equity Risk Premium**
	=		+	

where:

The Current Cost of Debt is represented by the yield of "Aa" rated 30-Year Public Utility Bonds, AEE's. The appropriate rate was determined by using the average yield on "Aa" rated Public Utility Bonds from Moody's Bond Record, May 2000.

The Equity Risk Premium represents the difference between AAE's expected return on common equity (ROE) as projected in the Value Line Invetment Survey and the average yield on "Aa" rated Moody's Public Utility Bonds. The appropriate Equity Risk Premium was determined to be the average risk premium for the period Jan 1989 through April 2000. See Schedule 17 for the calculation of the Equity Risk Premium of 4.83%.

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Capital Asset Pricing Model (CAPM) Costs of Equity Estimates
Ameren Corporation

AEE's Cost of Common Equity	=	Risk Free Rate (11/99 - 4/00)			+	AEE's Beta	*	Market Risk Premium (1926 - 1999)	
9.75%	=	5.85%	+	(		0.5	*	7.80%	)
10.53%	=	6.63%	+	(		0.5	*	7.80%	)

Capital Asset Pricing Model

The capital asset pricing model (CAPM) describes the relationship between a security's investment risk and its market rate of return. This relationship identifies the rate of return which investors expect a security to earn so that its market return is comparable with the market returns earned by other securities that have similar risk. The general form of the CAPM is as follows:

Cost of Common Equity = Risk Free Rate + [Beta * Market Risk Premium]

where:

The Risk Free Rate reflects the level of return which can be achieved without accepting any risk. The Risk Free Rate is represented by the yield on 30-Year U.S. Treasury Bonds. The appropriate rate was determined to be the high / low range of 5.85% to 6.63% for the six-month period ending April 30, 2000 as published on the Federal Reserve website, http://wwstls.frb.org/fred/data/irates/gs30.

The Beta represents the relative movement and relative risk between a particular stock and the market. The appropriate Beta for AEE was determined to be 0.50 as published in The Value Line Investment Survey: Ratings & Reports, April 7, 2000.

The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium was determined to be 7.80% as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2000 Yearbook for the period 1926 - 1999.

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Criteria for Selecting Natural Gas Distribution Companies

Natural Gas Distribution Company	(1) Publicly Traded	(2) Information Printed in Value Line	(3) Pre-Tax Interest Coverage > 2.75 x	(4) Long-Term Debt to Total Capital < 53%	(5) Distribution Revenues to Total Revenues > 90%	(6) Positive DPS Annual Compound Growth Rate (1989 - 1999)	(7) No Missouri Operations	(8) **Natural Gas Distribution Company** Met All Criteria
ACL Resources, Inc.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Atmos Energy Corporation	Yes	Yes	No					
Berkshire Gas Company	Yes	No						
Cascade Natural Gas Corporation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Corning Natural Gas Corporation	Yes	No						
CTG Resources, Inc. (Conn. Natural Gas)	Yes	Yes	Yes	No				
Delta Natural Gas Company, Inc.	Yes	No						
Energy West Inc.	Yes	No						
EnergyNorth, Inc.	Yes	Yes	No					
EnergySouth, Inc.	Yes	Yes	Yes	No				
Fall River Gas Company	Yes	No						
Indiana Energy, Inc.	Yes	No						
Laclede Gas Company	Yes	Yes	Yes	Yes	Yes	Yes	No	
New Jersey Resources Corporation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Northwest Natural Gas Company	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
NUI Corporation	Yes	Yes	Yes	No				
Peoples Energy Corporation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Piedmont Natural Gas Company, Inc.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Providence Energy Corporation	Yes	Yes	No					
RGC Resources, Inc.	Yes	Yes	Yes	Yes	Yes	No		
South Jersey Industries, Inc.	Yes	Yes	No					
Southern Union Company	Yes	Yes	No					
Washington Gas Light Company	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Yankee Energy System, Inc.	Yes	Yes	No					

Sources: Columns 1, 3 & 5 = Edward Jones & Co.'s Natural Gas Industry Summary: Monthly Financial & Common Stock Information, March 31, 2000.

Columns 2, 4 & 6 = The Value Line Investment Survey: Ratings & Reports, March 24, 2000 (including the Expanded Edition).

Schedule 20

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Seven Natural Gas Distribution Companies

Number	Ticker Symbol	Company Name
1	ATG	AGL Resources, Inc.
2	CGC	Cascade Natural Gas
3	NJR	New Jersey Resources Corporation
4	NWNG	Northwest Natural Gas Company
5	PGL	Peoples Energy Corporation
6	PNY	Piedmont Natural Gas Company, Inc.
7	WGL	Washington Gas Light Company

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Seven Natural Gas Distribution Companies

	Dividends Per Share		Earnings Per Share		Book Value Per Share	
Company Name	1989	1999	1989	1999	1989	1999
AGL Resources, Inc.	$0.94	$1.08	$0.95	$0.91	$8.83	$11.59
Cascade Natural Gas	$0.85	$0.96	$1.29	$1.24	$7.96	$10.36
New Jersey Resources Corporation	$1.36	$1.68	$1.45	$2.49	$13.64	$17.03
Northwest Natural Gas Company	$1.07	$1.23	$1.58	$1.70	$12.04	$17.35
Peoples Energy Corporation	$1.58	$1.95	$2.39	$2.39	$16.20	$21.66
Piedmont Natural Gas Company, Inc.	$0.79	$1.36	$1.21	$1.86	$8.73	$15.71
Washington Gas Light Company	$0.97	$1.22	$1.22	$1.47	$9.86	$14.72

Annual Compound Growth Rates

Company Name	DPS 1989 - 1999	EPS 1989 - 1999	BVPS 1989 - 1999	Average of 10 Year Annual Compound Growth Rates
AGL Resources, Inc.	1.40%	-0.43%	2.76%	1.24%
Cascade Natural Gas	1.22%	-0.39%	2.67%	1.17%
New Jersey Resources Corporation	2.14%	5.56%	2.24%	3.31%
Northwest Natural Gas Company	1.40%	0.73%	3.72%	1.95%
Peoples Energy Corporation	2.13%	0.00%	2.95%	1.69%
Piedmont Natural Gas Company, Inc.	5.58%	4.39%	6.05%	5.34%
Washington Gas Light Company	2.32%	1.88%	4.09%	2.76%
Average	**2.31%**	**1.68%**	**3.50%**	**2.50%**
Standard Deviation	1.39%	2.23%	1.20%	1.37%

Source: The Value Line Investment Survey: Ratings & Reports, March 24, 2000.

Schedule 22

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Historical and Projected Growth Rates for the Seven Natural Gas Distribution Companies

Company Name	(1) Average 10 Year Annual Compound	(2) Projected 5 Year Growth IBES (Mean)	(3) Projected 5 Year EPS Growth (S&P)	(4) Projected 3-5 Year EPS Growth Value Line	(5) Projected 5 Year Growth Zacks (Mean)	(6) Average Projected Growth	(7) Average of Historical & Projected Growth
AGL Resources, Inc.	1.24%	5.36%	5.00%	5.00%	5.73%	5.27%	3.26%
Cascade Natural Gas	1.17%	4.27%	4.00%	9.50%	5.00%	5.69%	3.43%
New Jersey Resources Corporation	3.31%	6.38%	6.00%	8.00%	6.50%	6.72%	5.02%
Northwest Natural Gas Company	1.95%	3.70%	4.00%	5.50%	4.22%	4.36%	3.15%
Peoples Energy Corporation	1.69%	5.19%	5.00%	8.00%	4.79%	5.75%	3.72%
Piedmont Natural Gas Company, Inc.	5.34%	5.67%	6.00%	7.00%	6.50%	6.29%	5.82%
Washington Gas Light Company	2.76%	4.57%	5.00%	7.50%	5.06%	5.53%	4.15%
Average	**2.50%**	**5.02%**	**5.00%**	**7.21%**	**5.40%**	**5.66%**	**4.08%**

Notes: Column 6 = [(Column 2 + Column 3 + Column 4 + Column 5) / 4].

Column 7 = [(Column 1 + Column 6) / 2].

Sources: Column 1 = Average of 10 Year Annual Compound Growth Rates from Schedule 22.

Column 2 = I/B/E/S Inc.'s Institutional Brokers Estimate System, May 18, 2000.

Column 3 = Standard & Poor's Corporation's Earnings Guide, June 2000.

Column 4 = Value Line Investment Survey, Ratings & Reports, March 24, 2000.

Column 5 = Zacks Investment Research, Inc.'s Earnings Estimates, http://www.zacks.com, July 20, 2000.

Schedule 23

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Average High / Low Stock Price for January 2000 through April 2000 for the Seven Natural Gas Distribution Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	January 2000		February 2000		March 2000		April 2000		Average High/Low Stock Price
Company Name	High Stock Price	Low Stock Price	High Stock Price	Low Stock Price	High Stock Price	Low Stock Price	High Stock Price	Low Stock Price	(Jan 2000-April 2000)
AGL Resources, Inc.	$18.000	$16.000	$17.437	$16.000	$18.375	$16.750	$18.312	$16.875	$17.219
Cascade Natural Gas	16.437	14.187	15.500	13.375	16.125	13.500	16.375	14.937	15.055
New Jersey Resources Corporation	39.750	36.500	39.312	36.187	42.875	36.500	42.750	38.500	39.047
Northwest Natural Gas Company	22.250	19.187	22.500	18.500	19.875	17.750	22.000	18.875	20.117
Peoples Energy Corporation	33.687	30.375	32.875	27.437	29.500	26.187	32.187	26.625	29.859
Piedmont Natural Gas Company, Inc.	30.687	28.250	29.687	23.687	26.750	24.000	28.250	25.187	27.062
Washington Gas Light Company	27.562	24.500	26.000	21.750	27.625	23.000	26.937	24.875	25.281

Notes:

Column 9 = [(Column 1 + Column 2 + Column 3 + Column 4 + Column 5 + Column 6 + Column 7 + Column 8) / 8].

Sources: Telescan Inc., http://www.wallstreetcity.com

Schedule 24

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

DCF Estimated Costs of Common Equity for the Seven Natural Gas Distribution Companies

Company Name	(1) Expected Annual Dividend (Avg 1999-2000)	(2) Average High/Low Stock Price	(3) Projected Dividend Yield	(4) Average Projected Growth Rate	(5) Estimated Cost of Common Equity
AGL Resources, Inc.	$1.080	$17.219	6.27%	5.27%	11.54%
Cascade Natural Gas	$0.960	$15.055	6.38%	5.69%	12.07%
New Jersey Resources Corporation	$1.700	$39.047	4.35%	6.72%	11.07%
Northwest Natural Gas Company	$1.235	$20.117	6.14%	4.36%	10.49%
Peoples Energy Corporation	$1.975	$29.859	6.61%	5.75%	12.36%
Piedmont Natural Gas Company, Inc.	$1.410	$27.062	5.21%	6.29%	11.50%
Washington Gas Light Company	$1.230	$25.281	4.87%	5.53%	10.40%
Average			**5.69%**	**5.66%**	**11.35%**

Notes: Column 1 = Estimated Dividends Declared per share represents the average projected dividends for 1999 and 2000.

Column 3 = (Column 1 / Column 2).

Column 5 = (Column 3 + Column 4).

Sources: Column 1 = The Value Line Investment Survey: Ratings & Reports, March 24, 2000.

Column 2 = Schedule 24.

Column 4 = Schedule 23.

Schedule 25

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Capital Asset Pricing Model (CAPM) Costs of Common Equity Estimates for the Seven Natural Gas Distribution Companies

Company Name	(1) Risk Free Rate (Low)	(2) Risk Free Rate (High)	(3) Company's Value Line Beta	(4) Market Risk Premium	(5) CAPM Cost of Common Equity (Low)	(6) CAPM Cost of Common Equity (High)
AGL Resources, Inc.	5.85%	6.63%	0.65	7.80%	10.92%	11.70%
Cascade Natural Gas	5.85%	6.63%	0.55	7.80%	10.14%	10.92%
New Jersey Resources Corporation	5.85%	6.63%	0.55	7.80%	10.14%	10.92%
Northwest Natural Gas Company	5.85%	6.63%	0.60	7.80%	10.53%	11.31%
Peoples Energy Corporation	5.85%	6.63%	0.75	7.80%	11.70%	12.48%
Piedmont Natural Gas Company, Inc.	5.85%	6.63%	0.60	7.80%	10.53%	11.31%
Washington Gas Light Company	5.85%	6.63%	0.60	7.80%	10.53%	11.31%
Average			**0.61**		**10.64%**	**11.42%**

Notes: Column 5 = [Column 1 + (Column 3 * Column 4)].

Column 6 = [Column 2 + (Column 3 * Column 4)].

Sources: Column 1 = The Risk Free Rate reflects the level of return which can be achieved without accepting any risk. The Risk Free Rate is represented by the yield on 30-Year U.S. Treasury Bonds. The appropriate low rate was determined to be the low end of the range (5.85%) for the six-month period ending April 30, 2000 as published on the Federal Reserve website, http://www.stls.frb.org/fred/data/irates/gs30.

Column 2 = The appropriate high Risk Free Rate was determined to be the high end of the range (6.63%) for the six-month period ending April 30, 2000 as published on the Federal Reserve website, http://www.stls.frb.org/fred/data/irates/gs30.

Column 3 = The Beta represents the relative movement and relative risk between a particular stock and the market. The appropriate Betas were taken from The Value Line Investment Survey, Ratings and Reports, March 24, 2000.

Column 4 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium was determined to be 7.80% as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2000 Yearbook for the period 1926 - 1999.

Schedule 26

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Selected Financial Ratios for the Seven Natural Gas Distribution Companies

Company Name	Date of Information	Common Equity to Total Capital Ratio	Pre-Tax Interest Coverage Ratio	Market-to-Book Value	2000 Projected Return on Common Equity
AGL Resources, Inc.	(09/30/99)	49.00%	3.14 x	1.58 x	10.00%
Cascade Natural Gas	(09/30/99)	47.00%	3.11 x	1.56 x	12.50%
New Jersey Resources Corporation	(09/30/99)	51.00%	4.60 x	2.51 x	15.00%
Northwest Natural Gas Company	(09/30/99)	49.00%	2.82 x	1.16 x	10.00%
Peoples Energy Corporation	(09/30/99)	60.00%	4.68 x	1.27 x	11.50%
Piedmont Natural Gas Company, Inc.	(10/31/99)	54.00%	3.79 x	1.66 x	12.50%
Washington Gas Light Company	(09/30/99)	56.00%	3.98 x	1.85 x	12.00%
Average		**52.29%**	**3.73 x**	**1.66 x**	**11.93%**
Union Electric Company	(12/31/99)	**54.43%**	**5.83 x**	**1.46 x**	**13.99%**

Note: Date of information indicates the reporting date of the equity and pre-tax ratios.
See Schedules 8 and 9 for Union Electric Company's year-end information.

Sources: Edward Jones & Co.'s Natural Gas Industry Summary: Monthly Financial & Common Stock Information, March 31, 2000 and Value Line Investment Survey, Ratings and Reports, March 24, 2000.

Schedule 27

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Pro Forma Pre-Tax Interest Coverage Ratios for Union Electric Company

	10.00%	10.25%	10.50%
1. Common Equity (see Schedule 10)	$2,334,418,000	$2,334,418,000	$2,334,418,000
2. Earnings Allowed (ROE * [1])	$233,441,800	$239,277,845	$245,113,890
3. Preferred Dividends (see Schedule 12)	$8,817,140	$8,817,140	$8,817,140
4. Net Income Available ([2] + [3])	$242,258,940	$248,094,985	$253,931,030
5. Tax Multiplier (1 / { 1 - Tax Rate })	1.6231	1.6231	1.6231
6. Pre-Tax Earnings ([4] * [5])	$393,204,923	$402,677,274	$412,149,624
7. Annual Interest Costs (see Schedule 11-1)	$112,572,826	$112,572,826	$112,572,826
8. Avail. for Coverage ([6] + [7])	$505,777,749	$515,250,100	$524,722,450
9. **Pro Forma Pre-Tax Interest Coverage** ([8] / [7])	**4.49 x**	**4.58 x**	**4.66**

Gas Utility Financial Ratio Benchmarks - Pretax Interest Coverage (x)

Standard & Poor's Corporation's Utility Rating Service 9/30/99	**"AA"** Lower Quartile	**"AA"** Median	**"AA"** Upper Quartile
	3.99x	4.49x	4.68x

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Public Utility Revenue Requirement

or

Cost of Service

The formula for the revenue requirement of a public utility may be stated as follows :

Equation 1 : **Revenue Requirement = Cost of Service**

or

Equation 2 : **R R = O + (V - D) R**

The symbols in the second equation are represented by the following factors :

R = Revenue Requirement

= Prudent Operating Costs, including Depreciation and Taxes

= Gross Valuation of the Property Serving the Public

= Accumulated Depreciation

(V - D = Rate Base (Net Valuation)

(V - D) = Return Amount ($$) or Earnings Allowed on Rate Base

= i L + d P + k E or Overall Rate of Return (%)

= Embedded Cost of Debt

= Proportion of Debt in the Capital Structure

= Embedded Cost of Preferred Stock

= Proportion of Preferred Stock in the Capital Structure

= Required Return on Common Equity (ROE)

= Proportion of Common Equity in the Capital Structure

UNION ELECTRIC COMPANY
dba AmerenUE
CASE NO. GR-2000-512

Weighted Cost of Capital as of April 30, 2000 for Union Electric Company (Consolidated Basis)

Capital Component	Percentage of Capital	Embedded Cost	Weighted Cost of Capital Using Common Equity Return of: 10.00%	10.25%	10.50%
Common Stock Equity	57.21%	—	5.72%	5.86%	6.01%
Preferred Stock	3.78%	5.72%	0.22%	0.22%	0.22%
Long-Term Debt	39.01%	7.07%	2.76%	2.76%	2.76%
Short-Term Debt	0.00%	0.00%	0.00%	0.00%	0.00%
Total	**100.00%**		**8.70%**	**8.84%**	**8.99%**