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Witness: David Murray
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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

DIRECT TESTIMONY

OF

DAVID MURRAY

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Missouri Public
Service Commission

UTILICORP UNITED INC.
d/b/a MISSOURI PUBLIC SERVICE

CASE NO. ER-2001-672

Jefferson City, Missouri
December 2001

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Q. Please state your name.

A. My name is David Murray.

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 June 2000.

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

A. Yes, I was employed by the Missouri Department of Insurance in a regulatory position.

Q. What is your educational background?

A. In May 1995, I earned a Bachelor of Science degree in Business Administration with an emphasis in Finance and Banking, and Real Estate from the University of Missouri-Columbia.

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

A. My testimony is presented to recommend to the Commission a fair and reasonable rate of return for UtiliCorp United, Inc.'s (UtiliCorp) Missouri Public Service Division's rate base.

Q. Have you prepared any schedules to your analysis of the cost of capital for Missouri Public Service?

A. Yes. I am sponsoring a study entitled "An Analysis of the Cost of Capital for Missouri Public Service, a division of UtiliCorp United, Inc., Case No. ER-2001-672" consisting of 24 schedules which are attached to this direct testimony (see Schedule 1).

Q. What do you conclude is the cost of capital for Missouri Public Service?

A. The cost of capital for Missouri Public Service (MPS) is in the range of 8.49 to 8.98 percent.

Economic and Legal Rationale for Regulation

Q. Why are the prices charged to customers by utilities such as Missouri Public Service regulated?

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 electric utility 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.

Electric utility providers such as MPS provide electric utility services essentially under a monopoly franchise. Therefore, it is clear that MPS 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.

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 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";

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

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

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:

> 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.

The Hope case 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 discusses the Hope case decision as it relates to 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).

The Pennsylvania Electric Company case is included in my testimony to illustrate a point which is simply this: captive ratepayers of public utilities should not be forced to bear the brunt of management decisions which result in unnecessarily higher costs. It should be noted that I do not believe that utility companies should be casually subjected to risk of financial failure in a rate case proceeding. However, I do not believe it would always be appropriate for a regulatory agency to provide sufficient funds for management 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.

<u>Historical Economic Conditions</u>

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

A. One of the most commonly accepted indicators of economic conditions is the discount rate set by the Federal Reserve Board (the Federal Reserve). The Federal Reserve tries to achieve its monetary policy objectives by controlling the discount rate (the interest rate charged by the Federal Reserve for loans of reserves to depository institutions) and the Fed Funds Rate (the overnight lending rate between banks). At the end of 1982, the U.S. economy was in the early stages of an economic expansion, following 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. This reduction in the discount rate 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 1990, when the economy entered into a recession.

In December 1990, the Federal Reserve responded to the slumping economy by lowering the discount rate to 6.50 percent (see Schedule 2). 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 effect of lowering the prime interest rate to 6.00 percent (see Schedule 3).

In 1993, President Clinton implemented a plan to raise additional revenues by increasing certain corporate and personal income tax rates, but 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 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 to 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 3.50 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 then 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 January 31, 1996, the Federal Reserve lowered the discount rate to a rate of 5 percent.

The actions of the Federal Reserve from 1996 through 2000 have been primarily focused on keeping the level of inflation under control, and they have been successful. The inflation rate, as measured by the *Consumer Price Index - All Urban Consumers* (CPI), was at a high of 3.70 percent in March 2000. The increase in CPI stood at 2.70 percent for the period ending August 31, 2001 (see Schedule 4-1). 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 1993, the unemployment rate stood at 7.3 percent and dropped to a recent low of 3.9 percent during October and November 2000. The unemployment rate has recently crept up to 4.9 percent (see Schedule 6).

The combination of low inflation and low unemployment had led to a prosperous economy, until recently, as evidenced by the real gross domestic product of the United States. Over the period of 1993 through the present, real GDP has increased every quarter, although more recently at a much slower level as shown in the quarter ending June 30, 2001. The stock market, as measured by the Dow Jones Composite Index, has increased by 71.89 percent between August 1, 1996 and August 23, 2001, while the Dow Jones Industrial Index has increased by 82.83 percent over that same time frame. The stock market has increased 10.62 percent as measured by The Value Line Geometric Averages Composite Index from August 1, 1996 through August 23, 2001. It should be noted that the Value Line Composite Index is an equally weighted geometric average of 1661 companies as compared to the Dow Jones Composite Index, which is a price-weighted arithmetic average of 65 companies. Although the stock market has increased significantly since August 1, 1996, it should be noted that the stock market suffered set backs last year when looking at calendar year returns for the major indexes.

In both August and September 2000, energy movements dominated the CPI. After falling by 2.9 percent in August, energy prices shot up 3.8 percent in September, the biggest advance since a 5.6 percent surge in June 2000. The big rise in energy prices, which consumers felt in sharply rising gasoline prices and home heating oil costs, prompted President Clinton to order a release of oil from the government's Strategic Petroleum Reserve. While steep price increases have been contained in the energy sector, economists worried about a spillover effect that could send overall inflation higher, thus setting off alarms at the Federal Reserve.

After raising the federal funds rate six times in 1999 and 2000 to hold down inflation in a rapidly growing economy, Federal Reserve policy-makers began expressing concern about a slowdown in December 2000. On January 3, 2001, the Federal Open Market Committee lowered the federal funds rate by 50 basis points to 6 percent. In a related action, the Board of Governors approved a decrease in the discount rate to 5.75 percent. These actions were taken in light of further weakening of sales and production, and in the context of lower consumer confidence, tight conditions in some segments of financial markets, slowing of real GDP and high energy prices sapping household and business purchasing power. On January 31, 2001, the Federal Reserve again lowered the federal funds rate by 50 basis points to 5.5 percent in an attempt to provide lower rates for many business and consumer loans. At the same time, the discount rate was also lowered by 50 basis points to 5 percent (see Schedule 2-1). In cutting its benchmark rate by a full point in the first month of 2001, the Federal Reserve has taken its most aggressive action to boost the economy since December 1991. The Federal Reserve justified its actions by citing eroding consumer and business confidence and rising energy costs.

Between January 31, 2001, and September 16, 2001, the Fed lowered the federal funds rate five more times for a total of 250 basis points. The last reduction came on September 16, 2001 when the Fed lowered the federal funds rate to 3.00 percent in reaction to the September 11, 2001 terrorist attacks on the World Trade Center and the Pentagon. The Fed cut rates before the week the market reopened following the attacks to address investor uncertainty.

On October 2, 2001, the Fed lowered the federal funds rate yet one more time to 2.50 percent, the lowest rate in approximately 40 years. This rate is currently under the rate of inflation, which indicates that short-term borrowing is actually free because if you have to pay the funds back at 2.50 percent and the rate of inflation is 2.70 percent, then the government receives an amount that is actually worth less than it was when it was loaned out. The Fed specifically stated, "The terrorist attacks have significantly heightened uncertainty in an economy that was already weak. Business and household spending as a consequence are being further damped." But the Fed concluded, "long-term prospects for economic growth remain favorable once the unusual forces restraining demand abate." [Source: MSNBC, http://www.msnbc.com/news]. The Fed also lowered the discount rate, by 50 basis points to 2 percent. Bank of America, one of the nation's largest commercial banks, followed the Fed by cutting the prime rate, charged for short-term borrowing to top business customers, as well by 50 basis points to 5.50 percent.

In light of the above interest rate activity, it is important to reflect on the results of the major indexes in the past year. Based on opening and closing quotes from *Wall Street City* from October 17, 2000 through October 16, 2001, the Dow Jones Industrial Average suffered a 7.00 percent decline, the S&P 500 suffered an 18.24 percent decline and the NASDAQ suffered a 46.42 percent decline. Therefore, although, as mentioned earlier, the stock market has faired well since 1996, it has suffered some set backs when compared to more recent levels.

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 Mergent's "Public Utility Bond Yields" have followed the yields of Thirty-Year U.S. Treasury Bonds during the period from 1986 to the present. The average spread for this time period between these two composite indices has been 131 basis points, with the spread ranging from a low of 80 basis points to a high of 241 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.

<u>Economic Projections</u>

Q. What are the inflationary expectations for the remainder of 2001 through 2003?

A. The latest inflation rate, as measured by the *Consumer Price Index-All Urban Consumers* (CPI), was 2.7 percent for the 12-months ended August 31, 2001. *The Value Line Investment Survey: Selection & Opinion*, August 31, 2001, predicts inflation to be 2.7 percent for 2001, 2.4 percent for 2002 and 2.6 percent for 2003.

Q. What are interest rate forecasts for 2001, 2002 and 2003?

A. Short-term interest rates, those measured by Three-Month U.S. Treasury Bills, were approximately 6.0 percent in 2000 and are expected to be 3.9 percent in 2001, 3.6 percent in 2002 and 4.0 percent in 2003 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 5.5 percent in 2001, 5.7 percent in 2002 and 5.8 percent in 2003.

The current rates for the period ending September 30, 2001 are 2.64 percent for 3-month T-Bills and 5.48 percent for 30-year T-Bonds, as noted on the Federal Reserve website, http://www.stls.frb.org/fred/data/rates.html.

Q. What are the growth expectations for real Gross Domestic Product (GDP) in the future?

A. GDP is a benchmark utilized by the Commerce Department to measure economic growth within the United States' borders. Real GDP is measured by the actual Gross Domestic Product; adjusted for inflation. Value Line stated that real GDP growth is expected to increase by 1.5 percent in 2001, 2.6 percent in 2002 and by 3.3 percent in 2003. The Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2001-2011*, stated that real GDP is expected to increase by 1.7 percent in 2001, 2.6 percent in 2002 and 3.3 percent in 2003 (see Schedule 6).

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

A. In summary, when combining the previously mentioned sources, inflation is expected to be in the range of 2.4 to 3.2 percent, increase in real GDP in the range of 1.5 to 3.3 percent and long-term interest rates are expected to range from 5.5 to 5.8 percent. *The Value Line Investment Survey: Selection & Opinion*, August 31, 2001, states that:

> **Three months ago, in our last "Quarterly Economic Review," we expressed the view that the U.S. economy was essentially marking time. We also observed that this directionless overall pattern and accompanying uncertain business outlook was not all that dissimilar to what we had seen three months earlier.** In fact, all told, it has now been more than a year since the U.S. economy has shown any significant growth. Still, outside of the industrial sector, which has been in a decline since mid-2000, the economy has managed to so far avoid a recession, albeit just narrowly. Part of the credit for keeping a recession at bay to this point must go to rising real estate values, with increasing home prices sustaining a positive wealth effect in this country. (emphasis added.)
>
> Meanwhile, early in the year, we had forecast that the economy—which has shown negligible growth of 0.7% to 1.9% over the past four quarters—would begin strengthening again by the third quarter. More recently, we had come to believe that this likely revival in business activity would not get under way until somewhat later in the current half. Now, it looks as though even that timetable is a little optimistic. Indeed, we now think it will be early 2002 before the economy is again growing at a 3%, or greater, rate, on a quarterly basis.

S&P's Chief Economist, David Wyss, states the following in the September 26, 2001 issue of *The Outlook*:

> The world has changed. It had appeared that the economy was hitting bottom—as close to recession as possible—prior to the terrorist attacks. The data now suggest that the ice was even thinner than we thought, given the sharp drop in consumer sentiment and the 0.8% decline in industrial production. Inflation

> remains exceedingly calm, with the core producer price index (excluding food and energy) down another 0.1%, but the real economy is in trouble.
>
> The events of September 11 clearly pushed us over the recession line. Economic activity was nearly halted in the week following the attacks, enough to turn the third quarter from the slight positive we had expected into a negative. The costs of transition to a new cold-war economy will be substantial. The federal surplus should be considered a thing of the past. Industries most affected by the crisis may see waves of bankruptcies.
>
> ...Business confidence may be more critical than household confidence. The near-recession has been caused entirely by an inventory correction and a drop in capital spending. The current crisis will exacerbate that problem. One positive factor is that orders and inventories have already dropped. This may spread the shock out somewhat, making the recession longer but less severe.
>
> ...Seasonal factors and military and recovery spending could make the fourth quarter positive, but if so, the first quarter of 2002 would probably slip into negative territory. It is possible we would not have two consecutive quarters of negative growth, but that is not the definition for the National Bureau of Economic Research. The depth, duration and dispersion of the downturn seems likely to make it an official recession.
>
> With the recent cut in interest rates by one-half percentage point, the Fed has now reduced the federal funds rate by 3.5 percentage points since the beginning of the year. We expect rates to be cut by another one-half percentage point by November.
>
> Trying to put numbers on the economy is very uncertain right now. We believe the recession will be mild, and over by early 2002, which would make it an average recession in length (10 months in the nine previous post-war recessions). The longest downturns have lasted 16 months (1974-1975 and 1981-1982).

<u>Business Operations of UtiliCorp</u>

Q. Please describe UtiliCorp's business operations.

A. UtiliCorp's Form 10K Securities and Exchange Commission (SEC) filing provides a good description of UtiliCorp's business operations:

> UtiliCorp United Inc. (the company, which may be referred to as we, us, or our) is a multinational energy solutions provider headquartered in Kansas City, Missouri. We began as Missouri Public Service in 1917 and reincorporated in Delaware as UtiliCorp United Inc. in 1985. Our objective is to be a leading multinational energy solutions provider. In pursuing this objective, we strive to be a premier manager of energy assets and a leading energy merchant and services provider in the markets which we compete...Our businesses are organized into three groups consisting of Networks, Energy Merchant and Services:
>
> **Network**—includes our domestic and international regulated electric and gas operations. In the United States, we provide gas and/or electricity to approximately 1.3 million customers in seven Midwestern states. Internationally, we own interests in electric, gas and broadband networks in Australia and New Zealand which serve approximately 2.2 million customers, and provide electric distribution services to approximately 500,000 customers in Canada.
>
> **Energy Merchant**—includes our wholly owned subsidiary, Aquila, Inc. (formerly known as Aquila Energy Corporation), which markets and trades wholesale natural gas, electricity and other commodities, and deals in a wide range of energy-related financial and risk management products and services in North America and Western Europe. Aquila owns, operates and contractually controls electric power generation assets, natural gas gathering, transportation, processing and storage assets, and a coal blending, storage and handling facility.
>
> **Services**—includes our 36% interest in Quanta Services, Inc., a publicly traded company (NYSE:PWR) that provides specialized contracting services to utilities, telecommunications and cable television companies, and governmental agencies and our domestic broadband communications business.

UtiliCorp currently operates two electric utility divisions within the state of Missouri, the St. Joseph Light & Power division and the MPS division. Both of these divisions are considered a part of UtiliCorp's Network operations. According to Standard & Poor's Global Utility Rating Service, January 2000, UtiliCorp's "annual electric sales and customer growth have averaged about 2 percent and are expected to continue at that growth rate for the foreseeable future. Sales growth will be supported by expected modest increases in the customer base."

UtiliCorp's total operating revenues were $28,974,915,000 for the 12 months ended December 31, 2000. These total operating revenues resulted in an overall net income of $206,757,000. These revenues and net incomes were generated from a total property, plant and equipment of $3,646,853,000 at December 31, 2000. These figures were taken from MPS's response to Data Request No. 3801.

Q. Please describe the credit ratings of UtiliCorp.

A. Currently, Standard & Poor's Corporation rates the senior unsecured debt of UtiliCorp as "BBB." This rating is considered to be of "investment grade."

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

A. Standard & Poor's Corporation's Ratings Direct, January 2001, provides a summary explaining the outlook. Specifically the report states:

> **OUTLOOK: STABLE**
> **RATIONALE**
> The ratings for UtiliCorp United Inc. reflect its average business position and gradually improving financial profile. The regulated utility operations are supported by sales and earnings stability derived from international geographic and economic diversity. UtiliCorp owns portions of and operates electric and gas utilities in the U.S., Canada, Australia, and New Zealand.
>
> The credit profile of the company's unregulated operations (energy marketing and trading, gas gathering and transportation, and independent power generation) is weaker than the utility's core utility business, but UtiliCorp has announced that it plans a public offering of a 19.9% ownership stake in its wholly owned energy merchant subsidiary, Aquila Energy. UtiliCorp intends to eventually spin off the rest of Aquila to its shareholders sometime in 2001.

> The Aquila transactions are expected to have a neutral impact on the company's credit quality. The operations of UtiliCorp after the spin-off of Aquila is completed would be dominated by a collection of relatively low-risk, regulated utility assets. The anticipated strategic direction of UtiliCorp management will be to maintain the company's business profile in the low end of the risk spectrum. However, the improvement in the company's business risk profile would likely be offset by an increase in its financial risk such that the net effect will be no change in the overall creditworthiness of UtiliCorp.
>
> To the extent that the plans for Aquila are not accomplished as currently envisioned by the company, Standard & Poor's would expect UtiliCorp to adjust the level of financial risk to remain consistent with its business risk so that its creditworthiness is held constant.

Q. Please provide some historical financial information for UtiliCorp.

A. Schedules 7 and 8 present historical capital structures and selected financial ratios from 1996 to 2000 for UtiliCorp. UtiliCorp and its subsidiaries' consolidated common equity ratio has ranged from a high of 42.46 percent to a low of 34.91 percent from 1996 through 2000. As of June 30, 2001, the capital structure used for purposes of calculating the rate of return to be applied to MPS's rate base, has a common equity ratio of 48.51 percent (Schedule 9), which is higher than the historical equity ratios of the past five years. This higher common equity ratio is the result of a combination of factors. First of all, on March 9, 2001, UtiliCorp had a common equity offering of $332,810,000. Essentially, the outstanding balance on debt has remained constant, only increasing from $2,302,307,000 to $2,397,871,325. Although there were quite a few debt redemptions during the first half of 2001, most of which relate to the partial spin off of Aquila, there were also quite a few new issuances in the Canada operations that offset these redemptions in debt. Also, UtiliCorp retired the Cumulative Monthly Income Preferred Securities, Series A (MIPS) preferred stock issuance. A comparison of the effects of the lesser amount of preferred stock, the near constant level of long-term debt, the elimination of short-term debt because the Construction Work in Progress (CWIP) balance exceeds the short-term debt balance with the increase in equity by approximately $787,124,000, shows a dramatic effect on the equity ratio of UtiliCorp since December 31, 2000.

UtiliCorp's consolidated return on year-end common equity (ROE) has been fairly steady from 1996 to 2000 ranging from a high of 13.46 percent in 2000 to a low of 10.27 percent in 1997. UtiliCorp's 2000 ROE of 13.46 percent is approximately the same as the average for the comparable companies' 13.53 percent return on equity. It is important to note that UtiliCorp's ROE includes all operations such as the unregulated operations of Aquila. UtiliCorp credits these operations for much of the increased earnings as of recently. For instance, Aquila had a 140 percent increase in earnings before interest and taxes (EBIT) in 2000 when compared to results in 1999. EBIT has actually decreased for UtiliCorp's network operations, which included MPS. In 1999 the EBIT for the network operations was $195.1 million. This decreased to $180.5 million in 2000, which equates to a 7.5 percent decline in EBIT. UtiliCorp attributes this reduction in EBIT to the offset of strong off-system sales by "the effect of the Kansas rate reduction, higher costs of natural gas used in generation, increased purchased power costs and depreciation from continued investment in infrastructure." UtiliCorp's overall increase in EBIT compared to 1999 was 30 percent. UtiliCorp's market-to-book ratio has varied in the past five years from a high of 1.79 times in 1997 to a low of 1.19 in 1999.

Determination of the Cost of Capital

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

A. The total dollars of capital for the utility company are determined as of a specific point in time. This total dollar amount is then apportioned into each specific capital component, i.e. common equity, long-term debt, preferred stock and short-term debt. A weighted cost for each capital component is determined by multiplying each capital component ratio by the appropriate embedded cost or by the estimated cost of common equity component. The individual weighted costs are summed to arrive at a total weighted cost of capital. This total weighted average cost of capital (WACC) is synonymous with the fair rate of return for the utility company.

Q. Why is a total WACC 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. What capital structure did you use for MPS?

A. The capital structure I have used for this case is UtiliCorp's on a consolidated basis as of June 30, 2001. Schedule 9 presents UtiliCorp's capital structure and associated capital ratios. The resulting capital structure consists of 48.51 percent common stock equity, 6.52 percent preferred stock and 44.97 percent long-term debt.

The amount of long-term debt outstanding on June 30, 2001 includes current maturities due within one year and was reduced by $10,413,703 (see Schedule 10-1) for the net balance associated with the unamortized debt issuance expense and discounts and $18,261,311 for unamortized losses on reacquired debt.

The amount of preferred stock outstanding on June 30, 2001, includes current maturities due within one year and was reduced by $2,217,372 (see Schedule 11-1) for the net balance associated with the unamortized issuance expense.

Q. Why didn't you use MPS's capital structure?

A. MPS is a division of UtiliCorp. Because the debt and equity are generated from the parent company, UtiliCorp, MPS relies on UtiliCorp to finance its investment in MPS assets. Because MPS does not issue its own debt or equity, the actual capital structure for UtiliCorp was used for MPS.

In addition, UtiliCorp's consolidated capital structure is not extraordinary for a typical electric utility. According to Schedule 21, UtiliCorp's year-end common equity to total capital ratio at the end of 2000 was 35 percent, which is within the lower end of the range for the comparable companies. Although UtiliCorp's common equity to total capital ratio as of June 30, 2001 now stands at 48.51 percent, it is only slightly higher than the high end of the common equity range for the comparable companies.

Q. What issues should be of concern when using an allocated capital structure, such as the one UtiliCorp's management has set for MPS, when determining the rates to be set for a utility?

A. In order to determine an overall cost of capital for MPS, the traditional WACC calculation usually requires four components: the embedded cost of long-term debt, embedded cost of preferred stock, the embedded cost of short-term debt and the cost of equity. When calculating an embedded cost of debt for a division of a company that does not issue its own debt, it is necessary to determine the embedded costs of the debt issuances from the consolidated company. These embedded costs are a function of the bond rating (BBB for UtiliCorp) of the parent company. The bond rating of UtiliCorp is a function of its capital structure, as it is of many other things. If one were to use an embedded cost of debt that is a function of the parent company's capital structure, and apply it to a capital structure that is different than that in which the bond rating is partially based on, then the embedded cost of debt may be too high or too low based on the allocated capital structure.

In essence, when using an allocated capital structure with the embedded cost of debt of the parent company, there is a mismatching of costs. When using actual capital structure, this problem is alleviated because the embedded cost of debt is a function of the credit rating, which is a function of the contributing capital structure.

Q. How do you ensure that the cost of equity is a function of the credit rating and contributing capital structure?

A. If you use a comparable group of companies that have the same bond rating as the subject company, MPS, then the cost of equity will contemplate this credit rating. However, if you use a comparable group of companies, which I did in this case, that has an average bond rating that is different from the subject company, then you could make an adjustment to the calculated cost of equity by determining the spread between the average bond rate of the comparables and the subject company. This would make the cost of equity for the subject company a function of its credit rating. The specifics of this procedure are explained later in my testimony.

Q. What was the embedded cost of long-term debt for UtiliCorp on June 30, 2001?

A. I determined the embedded cost of long-term debt on June 30, 2001, for UtiliCorp to be 7.35 percent (see Schedule 10-1).

Q. What was the embedded cost of preferred stock for UtiliCorp on June 30, 2001?

A. I determined the embedded cost of preferred stock on June 30, 2001, for UtiliCorp to be 9.29 percent (see Schedule 11-1). It should be noted that the preferred stock UtiliCorp has issued is a hybrid between debt and equity. It has the tax deductibility of interest like debt and the option of deferring the dividends like equity. Consequently, the interest payments do not need to be factored up for taxes, and the Staff recommends that all the benefits of this tax deductibility go to the ratepayer.

Q. Why wasn't short-term debt included in the consolidated capital structure of UtiliCorp at June 30, 2001?

A. As of June 30, 2001, the short-term debt balance was $151,445,000 and the CWIP balance was $162,551,000. Anytime the CWIP balance exceeds the short-term debt balance, short-term debt is not included in the capital structure. The philosophy behind this is that because CWIP will eventually be funded by long-term debt, that at least this amount of short-term debt should not be considered in the cost of capital because it is not meant to be a permanent funding source.

Cost of Equity

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

A. In order to calculate the cost of equity for MPS, I performed a comparable company analysis of seven companies. I have selected the discounted cash flow (DCF) model as the primary tool to determine the cost of equity for MPS, but I also used the risk premium model and the Capital Asset Pricing Model to check the reasonableness of the DCF results.

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 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 undervalued nor overvalued. 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 this analysis. This model relies upon the fact that a company's common stock price is dependent upon the expected cash dividends and upon cash flows received through capital gains or losses that result from stock price changes. The interest rate which 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:

$$\text{Present Price} = \frac{\text{Expected Dividends}}{\text{Discounted by k}} + \frac{\text{Expected Price in 1 year}}{\text{Discounted by k}} \qquad (1)$$

where k equals the cost of equity. 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:

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

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:

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

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

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

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 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 discounted cash flow 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. Although the entire list of the 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 MPS?

A. No. In order to directly determine the cost of equity for MPS, it would have to be a stand-alone company that is publicly traded and pay a cash dividend. The only way that an investor can invest in the operations of MPS is by investing in the consolidated corporation of UtiliCorp. When an investor purchases a share of UtiliCorp, he is purchasing an interest in the earnings of the entire company, which includes the unregulated, high-growth, riskier operations such as wholesale generation and energy marketing and trading.

Q. Please explain how you approached the determination of the cost of equity for MPS.

A. I decided to do an analysis of the cost of equity for a comparable group of electric utility companies.

Q. Why didn't you use UtiliCorp's cost of equity as a proxy for the cost of equity for MPS?

A. As explained above, UtiliCorp has many high-growth, unregulated, riskier operations that may make the overall cost of equity for UtiliCorp higher than it would be for an electric utility company that is not heavily involved in riskier operations, such as energy marketing and trading. The objective of this analysis is to approximate the cost of equity for MPS, which is a regulated utility. Therefore, it is appropriate to estimate MPS's cost of equity based on publicly traded companies that have operations that closely resemble the operations of MPS. However, for informational purposes, I have decided to include the DCF calculations for UtiliCorp on my schedules.

Q. How did you determine which companies you would include to represent the comparable electric utility companies?

A. Schedule 12 presents a list of market-traded electric utility companies monitored by Value Line, which also monitors UtiliCorp. The list was narrowed down initially by determining if the company had a positive total return for the past 10 years. The remainder of the criteria that I used to select the comparable companies is as follows:

1. Stock publicly traded: This criterion did not eliminate any companies;
2. Information printed in Value Line: This criterion eliminated three companies;
3. Ten years of data available: This criterion eliminated two additional companies.
4. Greater than 70 percent of revenues received from electric utility operations: This criterion eliminated thirty-three companies;

5. Total capitalization less than $5 billion: This criterion eliminated nine additional companies.
6. No nuclear operations: This criterion eliminated six additional companies.
7. No Missouri operations: This criterion eliminated one additional company.

After examining the Value Line information of this final group of nine publicly traded electric utility companies, I decided to eliminate two more of the companies because Value Line did not provide projections of needed financial information for them. This final group of seven publicly traded electric utility companies serve as a proxy group to determine the cost of equity for Missouri Public Service. The comparables are listed on Schedule 13.

Q. Please explain how you approached the determination of the cost of equity for the comparables.

A. I have calculated a DCF cost of equity for each of the comparables. The first step was to calculate a growth rate. I reviewed the actual dividends per share (DPS), earnings per share (EPS), and book values per share (BVPS) as well as projected growth rates for the comparables. Schedule 14-1 lists the annual compound growth rates for DPS, EPS, and BVPS for the periods 1990 through 2000. Schedule 14-2 lists the annual compound growth rates for DPS, EPS, and BVPS for the periods of 1995-2000. Schedule 14-3 presents the averages of the growth rates determined in Schedules 14-1 and 14-2. Schedule 15 presents the average historical growth rates and the projected growth rates for the comparables. The projected growth rates were obtained from four outside sources; I/B/E/S Inc.'s Institutional Brokers Estimate System, Standard & Poor's Corporation's Earnings Guide, Zack's website http://www.zacks.com and The Value Line Investment Survey: Ratings and Reports. The four projected growth rates were averaged to develop an average projected growth rate of 6.25 percent, which was averaged with the historical growth rates to produce an average historical and projected growth rate of 3.98 percent. All the growth rates were then analyzed to arrive at a growth rate range for the comparables of 3.50 percent to 4.50 percent. I chose this range based on the average of the historical and projected growth rates (column 7 of Schedule 15).

The next step was to calculate an expected yield for each of the comparables. The yield term of the DCF model is calculated by dividing the amount of common dividends per share expected to be paid over the next twelve months by the market price per share of the firm's stock. Although the model requires a spot price, I have chosen to use a monthly average market price for each of the comparables. 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 16 presents the average high / low stock price for the period of May 1, 2001 through August 31, 2001 for each comparable. Column 1 of Schedule 17 indicates the expected dividend for each comparable over the next 12 months as projected by The Value Line Investment Survey: Ratings & Reports, July 6, August 17 and September 7, 2001. Column 3 of Schedule 17 shows the projected dividend yield for each of the comparables. The dividend yield for each comparable was averaged to calculate the projected dividend yield for the comparables of 5.73 percent.

As illustrated in column 5 of Schedule 17, the average cost of equity based on the projected dividend yield added to the average of historical and projected growth is 9.72 percent. However, an adjustment of 20 basis points was made in order to take into consideration the fact that UtiliCorp is a BBB rated company and the comparable group is rated A- on average. Therefore, a risk premium adjustment needed to be made in order to reflect the riskier position of UtiliCorp. In order to do this, I calculated the average spread of the bond rates for BBB rated and A rated public utilities for the past six years, as published in the Mergent Bond Record, September 2001. This calculation showed a spread of 30 basis points between A rated bonds and BBB rated bonds for the past six years. I then divided this 30 basis point spread by three because there are three notches in between an A rated bond and BBB rated bond (A, A-, BBB+ and BBB). Although there are four bond ratings between an A rated bond and a BBB rated bond, there are only three notches counted because a bond steps up three times from BBB to achieve an A rating and vice versa, a bond steps down three times from an A rating to achieve a BBB rating. Therefore, because there are two notches between an A- rated bond and a BBB rated bond, I made a 20 basis point adjustment to my cost of equity range, which is now 9.43 to 10.43 percent.

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 risk premium and capital asset pricing model (CAPM) cost of equity analysis for the comparables.

Q. Please describe the capital asset pricing model.

A. The 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:

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

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 that can be achieved without accepting any risk. In reality, there is no such risk-free asset, but it is generally represented by U.S. Treasury securities. For purposes of this analysis, the risk-free rate was represented by the average yield on the 30-Year U.S. Treasury Bond of 5.48 percent for the month of September 2001 as quoted on the St. Louis 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 less desirable and therefore requires a higher return in order to attract investor capital away from a lower beta security. Schedule 18 contains the appropriate betas for the comparables.

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, I looked at two time periods for risk premium estimates. The first risk premium used was based on the long-term period of 1926 to 1999, which was 7.80 percent. The second risk premium used was based on the short-term, recent period of 1990 to 1999, which was determined to be 9.41 percent. These risk premiums were taken from Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2000 Yearbook.

Schedule 18 presents the CAPM analysis with regard to the comparables. The CAPM analysis produces an estimated cost of common equity of 9.49 percent for the comparables when using the long-term risk premium period. Using the short-term risk premium period, produces an estimated cost of common equity of 10.32 percent. Although both CAPM results fall within the range of my DCF analysis, the CAPM has not historically been relied upon by the Financial Analysis Department in determining the cost of equity for a utility company. It is strictly used as a test of reasonableness to provide some comfort with the results of the DCF, and in this case the CAPM supports the DCF results.

Q. Please describe the risk premium model.

A. 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. Schedules 19-1 through 19-7 show the average risk premium above the yield on the Thirty-Year U.S. Treasury Bond for each of the comparables' actual returns on common equity. Although the expected returns on equity are usually used by the Financial Analysis Department for the risk premium analysis, this information was not available for the time period of the analysis so I relied on actual returns on common equity. The use of actual returns on equity to perform the risk premium analysis is a commonly accepted practice when estimating the cost of common equity. This analysis shows, on average, that the actual returns on equity as reported by The Value Line Investment Survey: Ratings & Reports ranges from 373 basis points to 772 basis points higher than the average yields on the Thirty-Year U.S. Treasury Bonds for the period of January 1991 through December 2000 (see Schedule 20). The risk premium is then added to the current yield on the Thirty-Year U.S. Treasury Bond. Column 3 of Schedule 20 shows that the risk premium cost of equity estimate for each of the comparables ranged from 9.21 percent to 13.20 percent, with an average of 10.43 percent.

Q. Please summarize your cost of equity analysis to this point.

A. I have performed a DCF, CAPM and risk premium cost of equity analysis on a group of seven comparable companies. The results are summarized below.

	DCF	**CAPM**	**Risk Premium**
Comparable Companies	9.43% - 10.43%	9.49%; 10.32%	10.43%

Q. Based on the analysis you performed, what is your recommended return on common equity in this proceeding?

A. I am recommending a return on common equity in the range of 9.43 percent to 10.43 percent based on the results of the DCF analysis.

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

A. Yes. A pro forma pre-tax interest coverage calculation was completed for UtiliCorp (see Schedule 22). It reveals that the return on equity range of 9.43 percent to 10.43 percent would yield a pre-tax interest coverage ratio in the range of 3.30 times to 3.53 times. The low end of these interest coverage ratios is higher than the Standard & Poor's upper quartile pretax interest coverage ratio of 3.15 times for BBB rated electric utility companies. Although not exact by any means, these pro forma pre-tax interest coverage ratios actually show more pretax interest coverage than the 3.20 times that UtiliCorp had at the end of calendar year 2000.

Rate of Return for Missouri Public Service

Q. Please explain how the returns developed for each capital component are used in the rate making approach you have adopted for MPS.

A. The cost of service rate making 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: operating costs, rate base and a return allowed on the rate base (see Schedule 23).

It is my responsibility to calculate and recommend a rate of return that should be authorized on the MPS jurisdictional rate base of UtiliCorp. Under the cost of service rate making approach, a weighted cost of capital in the range of 8.49 to 8.98 percent was developed for UtiliCorp's MPS electric utility operations (see Schedule 24). This rate was calculated by applying an embedded cost of long-term debt of 7.35 percent, an embedded cost of preferred stock of 9.29 percent and a cost of common equity range of 9.43 percent to 10.43 percent to a capital structure consisting of 44.97 percent long-term debt, 6.52 percent preferred stock and 48.51 percent common equity. Therefore, from a financial risk / return prospective, as I suggested earlier, I am recommending that UtiliCorp's MPS electric utility operations be allowed to earn a return on its original cost rate base in the range of 8.49 to 8.98 percent.

Through my analysis, I believe that I have developed a fair and reasonable return and, when applied to UtiliCorp's MPS jurisdictional rate base, will allow UtiliCorp the opportunity to earn the revenue requirement developed in this rate case.

True-up Audit

Q. Is the Staff proposing a true-up audit in this case?

A. Yes. I am recommending a true-up audit be performed for the purpose of updating the capital structure and associated embedded costs through January 31, 2002.

Q. Does this conclude your prepared direct testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of the Tariff	)	
Filing of Missouri Public Service (MPS)	)	
A Division of UtiliCorp United Inc., to	)	Case No. ER-2001-672
Implement a General Rate Increase for Retail	)	
Electric Service Provided to Customers in the	)	
Missouri Service Area of MPS	)	

AFFIDAVIT OF DAVID MURRAY

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

David Murray, being of lawful age, on his oath states: that he has participated in the preparation of the foregoing Direct Testimony in question and answer form, consisting of 35 pages to be presented in the above case; that the answers in the foregoing Direct Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

David Murray

Subscribed and sworn to before me this 4th day of December 2001.

D SUZIE MANKIN
NOTARY PUBLIC STATE OF MISSOURI
COLE COUNTY
MY COMMISSION EXP. JUNE 21,2004

AN ANALYSIS OF THE COST OF CAPITAL

FOR

MISSOURI PUBLIC SERVICE A DIVISION
OF UTILICORP UNITED INC.

CASE NO. ER-2001-672

SCHEDULES

BY

DAVID MURRAY

UTILITY SERVICES DIVISION

MISSOURI PUBLIC SERVICE COMMISSION

DECEMBER 2001

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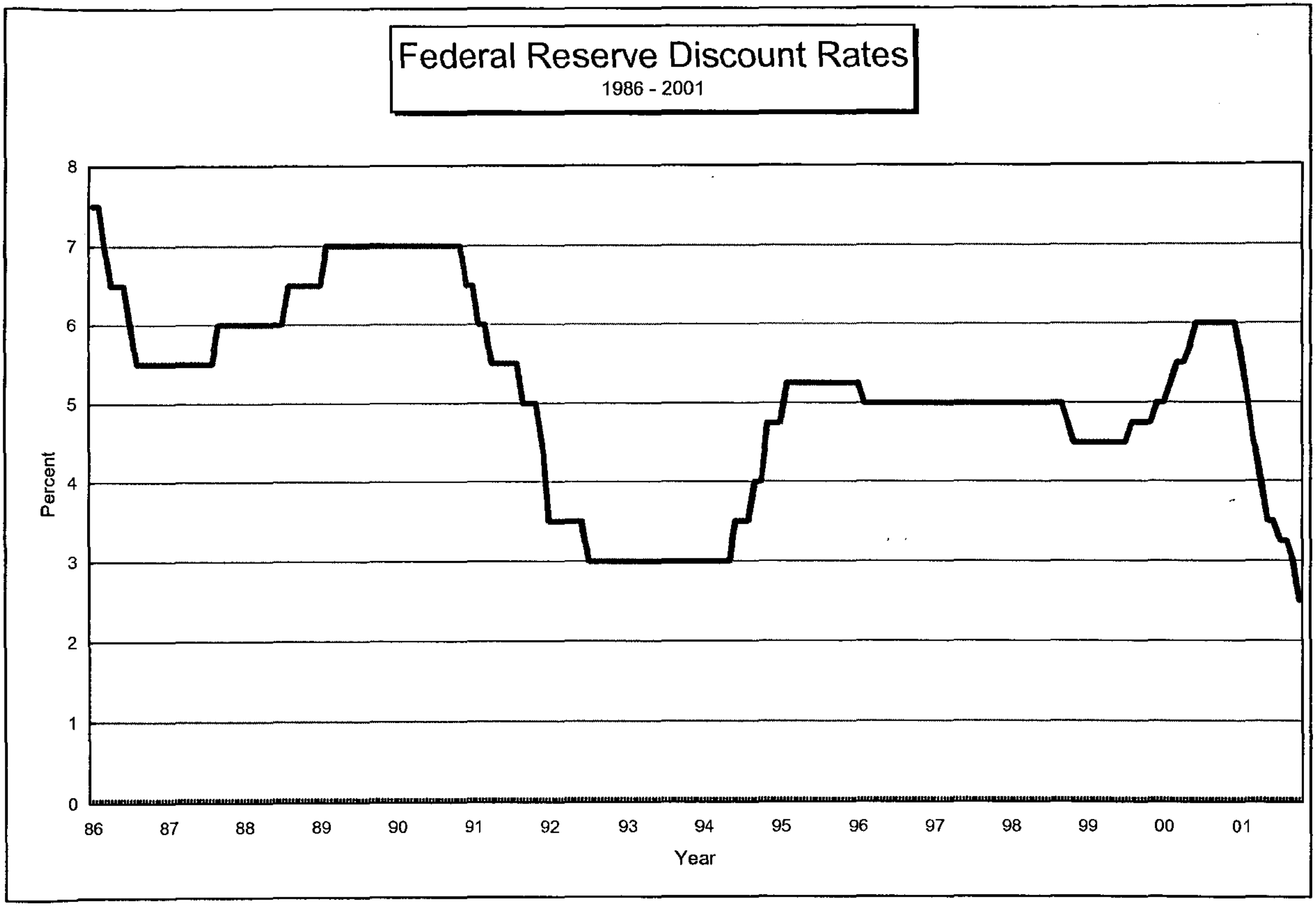
MISSOURI PUBLIC SERVICE
CASE NO. ER-2001-672

Federal Reserve Discount Rate Changes

Date	Discount Rate
05/20/85	7.50%
03/07/86	7.00%
04/21/86	6.50%
07/11/86	6.00%
08/21/86	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%
04/30/91	5.50%
09/13/91	5.00%
11/06/91	4.50%
12/20/91	3.50%
07/02/92	3.00%
01/01/93	3.00%
12/31/93	3.00%
05/17/94	3.50%
08/16/94	4.00%
11/15/94	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%
05/16/00	5.50%
05/19/00	6.00%
01/03/01	5.75%
01/04/01	5.50%
01/05/01	5.50%
01/31/01	5.00%
02/01/01	5.00%
03/20/01	4.50%
03/21/01	4.50%
04/18/01	4.00%
04/20/01	4.00%
05/15/01	3.50%
06/27/01	3.25%
08/21/01	3.00%
09/16/01	2.50%

Sources: Federal Reserve Bulletin & The Wall Street Journal.

MISSOURI PUBLIC SERVICE
CASE NO. ER-2001-672



Schedule 2-2

MISSOURI PUBLIC SERVICE
CASE NO. ER-2001-672

Average Prime Interest Rates

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
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 1988	8.75	Jan 1992	6.50	Jan 1996	8.50	Jan 2000	8.50
Feb	8.51	Feb	6.50	Feb	8.25	Feb	8.73
Mar	8.50	Mar	6.50	Mar	8.25	Mar	8.83
Apr	8.50	Apr	6.50	Apr	8.25	Apr	9.00
May	8.84	May	6.50	May	8.25	May	9.24
Jun	9.00	Jun	6.50	Jun	8.25	Jun	9.50
Jul	9.29	Jul	6.02	Jul	8.25	Jul	9.50
Aug	9.84	Aug	6.00	Aug	8.25	Aug	9.50
Sep	10.00	Sep	6.00	Sep	8.25	Sep	9.50
Oct	10.00	Oct	6.00	Oct	8.25	Oct	9.50
Nov	10.05	Nov	6.00	Nov	8.25	Nov	9.50
Dec	10.50	Dec	6.00	Dec	8.25	Dec	9.50
Jan 1989	10.50	Jan 1993	6.00	Jan 1997	8.26	Jan 2001	9.05
Feb	10.93	Feb	6.00	Feb	8.25	Feb	8.50
Mar	11.50	Mar	6.00	Mar	8.30	Mar	8.32
Apr	11.50	Apr	6.00	Apr	8.50	Apr	7.80
May	11.50	May	6.00	May	8.50	May	7.24
Jun	11.07	Jun	6.00	Jun	8.50	Jun	6.98
Jul	10.98	Jul	6.00	Jul	8.50	Jul	6.75
Aug	10.50	Aug	6.00	Aug	8.50		
Sep	10.50	Sep	6.00	Sep	8.50		
Oct	10.50	Oct	6.00	Oct	8.50		
Nov	10.50	Nov	6.00	Nov	8.50		
Dec	10.50	Dec	6.00	Dec	8.50		

Sources: Federal Reserve Bulletin & The Wall Street Journal.

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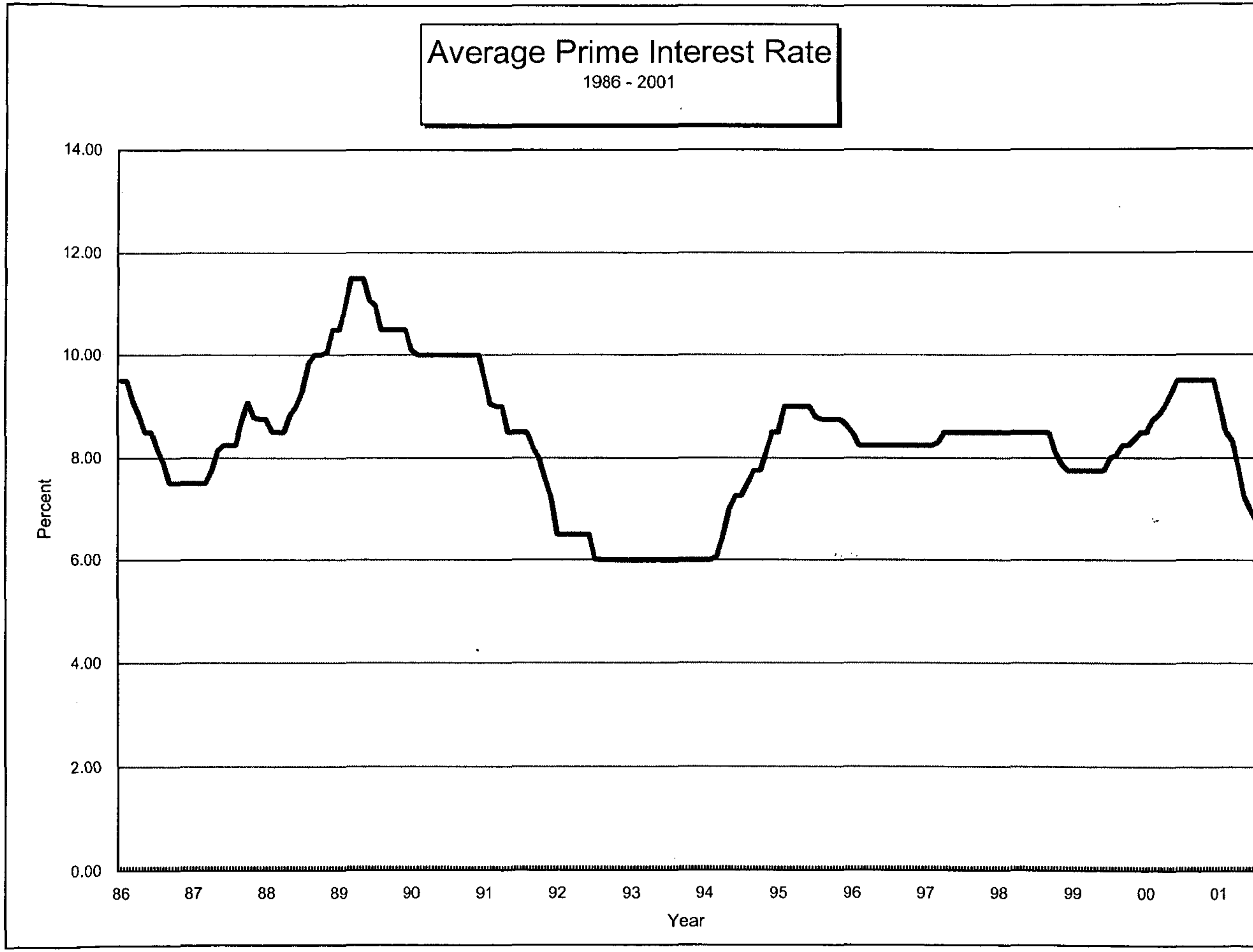

Schedule 3-2

Rate of Inflation

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
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 1988	4.00	Jan 1992	2.60	Jan 1996	2.70	Jan 2000	2.70
Feb	3.90	Feb	2.80	Feb	2.70	Feb	3.20
Mar	3.90	Mar	3.20	Mar	2.80	Mar	3.70
Apr	3.90	Apr	3.20	Apr	2.90	Apr	3.00
May	3.90	May	3.00	May	2.90	May	3.20
Jun	4.00	Jun	3.10	Jun	2.80	Jun	3.70
Jul	4.10	Jul	3.20	Jul	3.00	Jul	3.70
Aug	4.00	Aug	3.10	Aug	2.90	Aug	3.40
Sep	4.20	Sep	3.00	Sep	3.00	Sep	3.50
Oct	4.20	Oct	3.20	Oct	3.00	Oct	3.40
Nov	4.20	Nov	3.00	Nov	3.30	Nov	3.40
Dec	4.40	Dec	2.90	Dec	3.30	Dec	3.40
Jan 1989	4.70	Jan 1993	3.30	Jan 1997	3.00	Jan 2001	3.70
Feb	4.80	Feb	3.20	Feb	3.00	Feb	3.50
Mar	5.00	Mar	3.10	Mar	2.80	Mar	2.90
Apr	5.10	Apr	3.20	Apr	2.50	Apr	3.30
May	5.40	May	3.20	May	2.20	May	3.60
Jun	5.20	Jun	3.00	Jun	2.30	Jun	3.20
Jul	5.00	Jul	2.80	Jul	2.20	Jul	2.70
Aug	4.70	Aug	2.80	Aug	2.20	Aug	2.70
Sep	4.30	Sep	2.70	Sep	2.20		
Oct	4.50	Oct	2.80	Oct	2.10		
Nov	4.70	Nov	2.70	Nov	1.80		
Dec	4.60	Dec	2.70	Dec	1.70		

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.

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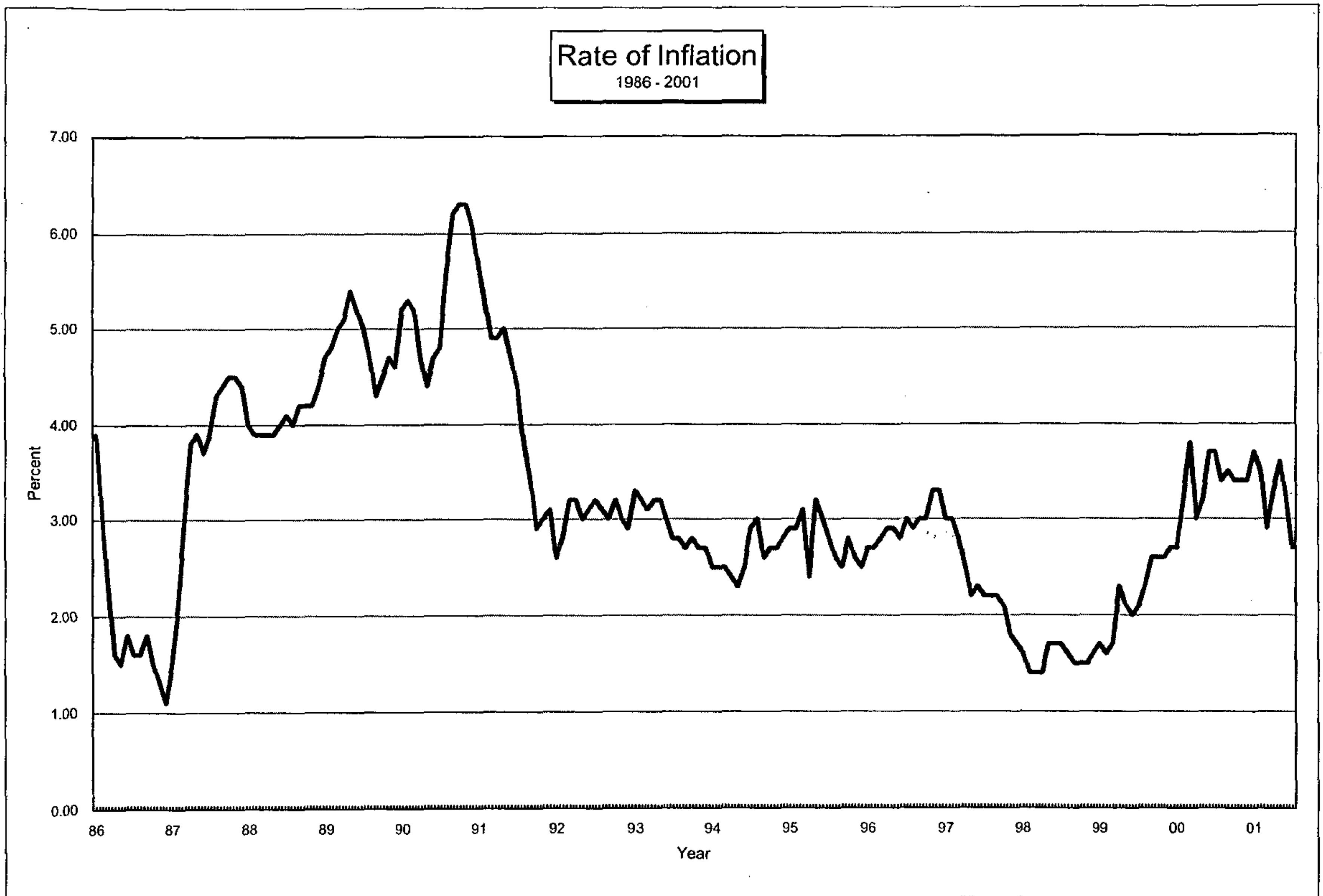


Schedule 4-2

MISSOURI PUBLIC SERVICE
CASE NO. ER-2001-672

Average Yields on Mergent's Public Utility Bonds

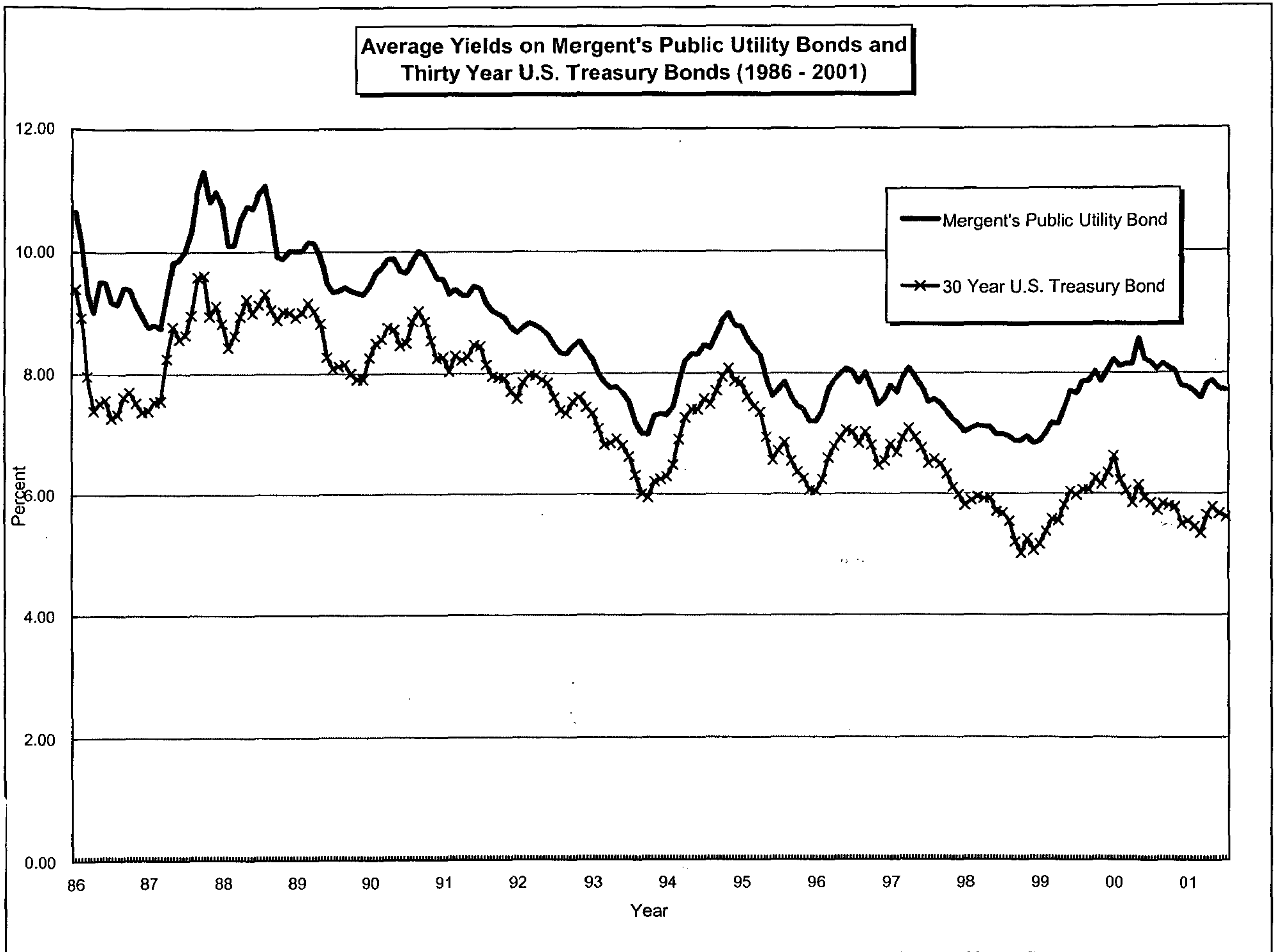
Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1986	10.66	Jan 1990	9.44	Jan 1994	7.31	Jan 1998	7.03
Feb	10.16	Feb	9.66	Feb	7.44	Feb	7.09
Mar	9.33	Mar	9.75	Mar	7.83	Mar	7.13
Apr	9.02	Apr	9.87	Apr	8.20	Apr	7.12
May	9.52	May	9.89	May	8.32	May	7.11
Jun	9.51	Jun	9.69	Jun	8.31	Jun	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 1988	10.75	Jan 1992	8.67	Jan 1996	7.20	Jan 2000	8.22
Feb	10.11	Feb	8.77	Feb	7.37	Feb	8.10
Mar	10.11	Mar	8.84	Mar	7.72	Mar	8.14
Apr	10.53	Apr	8.79	Apr	7.88	Apr	8.14
May	10.75	May	8.72	May	7.99	May	8.55
Jun	10.71	Jun	8.64	Jun	8.07	Jun	8.22
Jul	10.96	Jul	8.46	Jul	8.02	Jul	8.17
Aug	11.09	Aug	8.34	Aug	7.84	Aug	8.05
Sep	10.56	Sep	8.32	Sep	8.01	Sep	8.16
Oct	9.92	Oct	8.44	Oct	7.76	Oct	8.08
Nov	9.89	Nov	8.53	Nov	7.48	Nov	8.03
Dec	10.02	Dec	8.36	Dec	7.58	Dec	7.79
Jan 1989	10.02	Jan 1993	8.23	Jan 1997	7.79	Jan 2001	7.76
Feb	10.02	Feb	8.00	Feb	7.68	Feb	7.69
Mar	10.16	Mar	7.85	Mar	7.92	Mar	7.59
Apr	10.14	Apr	7.76	Apr	8.08	Apr	7.81
May	9.92	May	7.78	May	7.94	May	7.88
Jun	9.49	Jun	7.68	Jun	7.77	Jun	7.75
Jul	9.34	Jul	7.53	Jul	7.52	Jul	7.71
Aug	9.37	Aug	7.21	Aug	7.57		
Sep	9.43	Sep	7.01	Sep	7.50		
Oct	9.37	Oct	6.99	Oct	7.37		
Nov	9.33	Nov	7.30	Nov	7.24		
Dec	9.31	Dec	7.33	Dec	7.16		

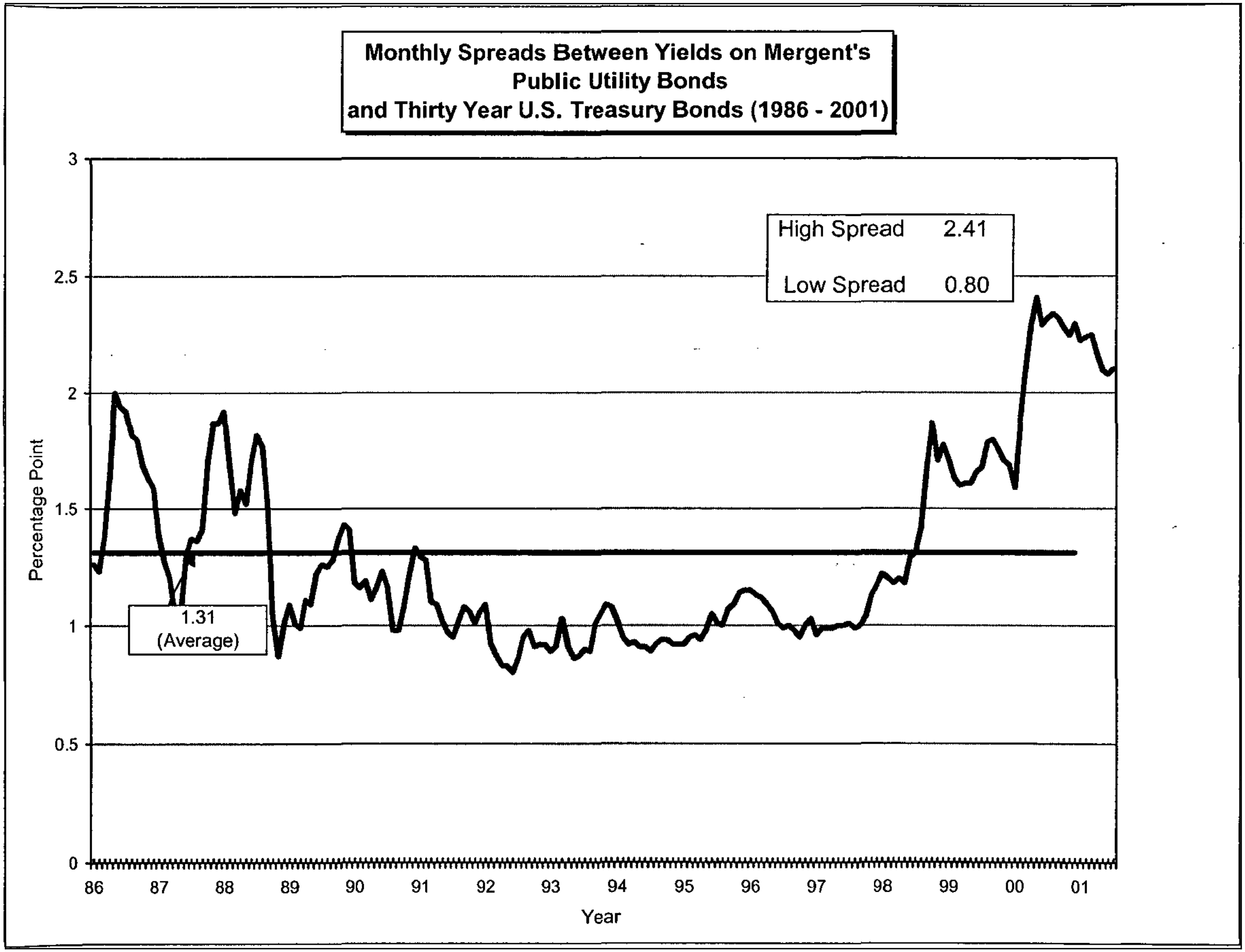
Source: Mergent Bond Record

Average Yields on Thirty Year U.S. Treasury Bonds

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%
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 1988	8.83	Jan 1992	7.58	Jan 1996	6.05	Jan 2000	6.63
Feb	8.43	Feb	7.85	Feb	6.24	Feb	6.23
Mar	8.63	Mar	7.97	Mar	6.60	Mar	6.05
Apr	8.95	Apr	7.96	Apr	6.79	Apr	5.85
May	9.23	May	7.89	May	6.93	May	6.15
Jun	9.00	Jun	7.84	Jun	7.06	Jun	5.93
Jul	9.14	Jul	7.60	Jul	7.03	Jul	5.85
Aug	9.32	Aug	7.39	Aug	6.84	Aug	5.72
Sep	9.06	Sep	7.34	Sep	7.03	Sep	5.83
Oct	8.89	Oct	7.53	Oct	6.81	Oct	5.80
Nov	9.02	Nov	7.61	Nov	6.48	Nov	5.78
Dec	9.01	Dec	7.44	Dec	6.55	Dec	5.49
Jan 1989	8.93	Jan 1993	7.34	Jan 1997	6.83	Jan 2001	5.54
Feb	9.01	Feb	7.09	Feb	6.69	Feb	5.45
Mar	9.17	Mar	6.82	Mar	6.93	Mar	5.34
Apr	9.03	Apr	6.85	Apr	7.09	Apr	5.65
May	8.83	May	6.92	May	6.94	May	5.78
Jun	8.27	Jun	6.81	Jun	6.77	Jun	5.67
Jul	8.08	Jul	6.63	Jul	6.51	Jul	5.61
Aug	8.12	Aug	6.32	Aug	6.58	Aug	5.48
Sep	8.15	Sep	6.00	Sep	6.50	Sep	5.48
Oct	8.00	Oct	5.94	Oct	6.33		
Nov	7.90	Nov	6.21	Nov	6.11		
Dec	7.90	Dec	6.25	Dec	5.99		

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


Average Yields on Mergent's Public Utility Bonds and Thirty Year U.S. Treasury Bonds (1986 - 2001)
Mergent's Public Utility Bond
30 Year U.S. Treasury Bond
12.00
10.00
8.00
6.00
4.00
2.00
0.00
Percent
86
87
88
89
90
91
92
93
94
95
96
97
98
99
00
01
Year


Monthly Spreads Between Yields on Mergent's Public Utility Bonds and Thirty Year U.S. Treasury Bonds (1986 - 2001)
High Spread 2.41
Low Spread 0.80
1.31
(Average)
Percentage Point
3
2.5
2
1.5
1
0.5
0
86
87
88
89
90
91
92
93
94
95
96
97
98
99
00
01
Year

MISSOURI PUBLIC SERVICE
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Economic Estimates and Projections, 2001 - 2003

	Inflation Rate			Real GDP			Unemployment			3-Mo. T-Bill Rate			30-Yr. T-Bond Rate		
Source	2001	2002	2003	2001	2002	2003	2001	2002	2003	2001	2002	2003	2001	2002	2003
Value Line Investment Survey (08/31/01)	2.70%	2.40%	2.60%	1.50%	2.60%	3.30%	4.60%	5.20%	5.00%	3.90%	3.60%	4.00%	5.50%	5.70%	5.80%
The Budget and Economic Outlook FY2001-2011 (08/31/01 & 01/31/01)*	3.20%	2.60%	2.70%	1.70%	2.60%	3.30%	4.60%	5.20%	4.50%	3.90%	3.80%	5.00%	N.A.	N.A.	N.A.
Current rate	2.70%			0.30% **			4.90% ***			2.64%			5.48%		

Notes: N.A. = Not Available.
*Projections for 2001 and 2002 reflect updated projections as of August 2001. Projections for 2003 are as of January 2001.
**Second quarter of 2001
***Rate reported by Bureau of Labor Statisitics for the period ending July 2001

Sources of Current Rates:
The Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers, 12-Month Period Ending August 31, 2001
Federal Reserve website, http://www.stls.frb.org/fred/data/irates.html, September 2001
U.S. Department of Commerce, Bureau of Economic Analysis, for the 3-month period ending June 30, 2001.
The Bureau of Labor Statistics, Economy at a Glance - Unemployment Rate, August 2001

Other Sources:
The Congressional Budget Office, The Budget and Economic Outlook: Fiscal Years 2001-2011, January 2001, and August 2001
http://www.cbo.gov/showdoc.cfm?index=2727&sequence=11

Historical Capital Structures for Utilicorp United, Inc.
Consolidated Basis
(Dollars in Millions)

Capital Components	1996	1997	1998	1999	2000
Common Equity	$1,158	$1,164	$1,446	$1,525	$1,800
Preferred Stock	$125	$100	$100	$350	$450
Long-Term Debt *	$1,496	$1,508	$1,625	$2,245	$2,398
Short-Term Debt	$252	$114	$236	$249	$501
Total	$3,031	$2,886	$3,407	$4,369	$5,148

Capital Structure	1996	1997	1998	1999	2000
Common Equity	38.20%	40.32%	42.46%	34.91%	34.96%
Preferred Stock	4.12%	3.47%	2.94%	8.01%	8.74%
Long-Term Debt *	49.36%	52.27%	47.69%	51.38%	46.57%
Short-Term Debt	8.31%	3.94%	6.92%	5.70%	9.73%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

Notes: *The amount of Long-Term Debt includes Current Maturities.

Source: Utilicorp United, Inc.'s Stockholders December 31 Annual Reports

Schedule 7

Selected Financial Ratios for Utililcorp United, Inc.
Consolidated Basis

Financial Ratios	1996	1997	1998	1999	2000
Return on Average Common Equity	10.31%	10.27%	11.43%	10.80%	13.46%
Earnings Per Common Share	$1.46	$1.51	$1.63	$1.75	$2.21
Cash Dividends Per Common Share	$1.17	$1.17	$1.20	$1.20	$1.20
Common Dividend Payout Ratio	80.14%	77.48%	73.62%	68.57%	54.30%
Year-End Market Price Per Common Share	$18.00	$25.87	$24.46	$19.44	$31.00
Year-End Book Value Per Common Share	$14.50	$14.43	$15.83	$16.34	$17.94
Year-End Market to Book Ratio	1.24 x	1.79 x	1.55 x	1.19 x	1.73 X
Senior Debt Rating	BBB	BBB	BBB	BBB	BBB

Notes: Return on Average Common Equity = Net Income Applicable to Common Stock / Average Common Stockholders' Equity.

Common Dividend Payout Ratio = Cash Dividends Per Common Share / Earnings Per Common Share.

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

Year-End Market Price Per Common Share has been adjusted for stock splits and stock dividends.

Sources: Utilicorp United, Inc.'s Stockholders Annual Reports

Capital Structure as of June 30, 2001
for Utilicorp United, Inc.

Capital Component	Amount in Dollars		Percentage of Capital
Common Stock Equity	$2,586,702,000		48.51%
Preferred Stock	347,782,628	*	6.52%
Long-Term Debt	2,397,871,325	**	44.97%
Short-Term Debt	0	***	0.00%
Total Capitalization	**$5,332,355,953**		**100.00%**

Electric Financial Ratio Benchmarks
Total Debt / Total Capital - Including Preferred Stock

Standard & Poor's Corporation's Utility Rating Service,	Lower Quartile **BBB**	Median **BBB**	Upper Quartile **BBB**
Financial Statistics as of July 7, 2000 (median)	54%	60%	64%

Note: * Preferred stock was reduced by $2,217,372 for net balance of unamortized issuance expense.
** See Schedule 10-1 for the amount of Long-Term Debt at June 30, 2001.
*** Short-term debt balance equals 0 as of June 30, 2001 because Construction Work in Progress (CWIP) has a higher balance than short-term debt.

Source: Missouri Public Service's response to Staff's Data Request No. 3801 and 3802.

Embedded Cost of Long-Term Debt as of June 30, 2001
for Utilicorp United, Inc.

Long-Term Debt	(1) Interest Rate	(2) Prinicipal Amount Outstanding (06/30/01)	(3) Annualized Cost to Company (1 * 2)
AQ SW SR Notes due September 15, 2002	8.290%	$25,000,000	$2,072,500
PNG Office Building (Fountain, CO) due December 1, 2003	11.500%	854,541	98,272
SJLP FMB due February 1, 2021	9.440%	22,500,000	2,124,000
MGU 2008 Series FMB due August 10, 2008	10.200%	8,000,000	816,000
Senior Notes due February 1, 2011	7.950%	250,000,000	19,875,000
Senior Notes Floating Rate due May 15, 2002	6.264%	230,000,000	14,407,200
Senior Notes due November 15, 2009	7.625%	200,000,000	15,250,000
Senior Notes due July 15, 2004	7.000%	250,000,000	17,500,000
Senior Notes due December 1, 2005	9.030%	20,232,000	1,826,950
Senior Notes due November 15, 2021	8.270%	80,850,000	6,686,295
Senior Notes due October 1, 2004	6.875%	150,000,000	10,312,500
Senior Notes due October 15, 2006	6.700%	100,000,000	6,700,000
Wamego Ser. 1996 due March 1, 2026	4.300%	7,300,000	313,900
Sanwa Bus CC due December 9, 2009	6.990%	5,870,787	410,368
SJLP Unsecured Pollution Control Bonds due February 1, 2013	5.850%	5,600,000	327,600
SJLP Unsecured MTN due March 15, 2005	8.360%	20,000,000	1,672,000
SJLP Unsecured MTN due December 1, 2023	7.170%	7,000,000	501,900
SJLP Unsecured MTN due November 30, 2023	7.330%	3,000,000	219,900
SJLP Unsecured MTN due November 29, 2013	7.160%	9,000,000	644,400
SJLP Unsecured MTN due November 29, 2013	7.130%	1,000,000	71,300
State Envi. 1993 due May 1, 2028	4.400%	5,000,000	220,000
Senior Notes due March 1, 2023	8.000%	51,500,000	4,120,000
Senior Notes due January 15, 2007	8.200%	36,905,000	3,026,210
Senior Notes due November 15, 2021	9.000%	5,000,000	450,000
Debentures due July 1, 2011	6.625%	3,771,000	249,829
Telebill Note due August 31, 2004	9.000%	100,000	9,000
ExOp Notes	9.350%	314,279	29,385
UAPL Floating Rate MTN's due April 27, 2004	5.622%	18,884,800	1,061,703
UAPL Fixed Rate MTN's due April 27, 2004	6.200%	14,291,200	886,054
IGH Bank Facility due March 30, 2003	5.812%	17,506,720	1,017,491
UAPL Floating Rate Notes due January 30, 2006	6.710%	38,280,000	2,568,588
UAF Floating Rate Notes due December 31, 2003	6.349%	25,009,600	1,587,860
UAPL Senior Notes due October 15, 2002	5.770%	20,416,000	1,178,003
UAPL Senior Notes due September 29, 2002	7.250%	56,144,000	4,070,440
UAPL Bank Facility (Tranche B) due March 30, 2002	6.025%	33,176,000	1,998,854
UFC Bank Facility due June 30, 2002	6.440%	50,800,000	3,271,520
UFC Bank Facility due June 29, 2002	6.670%	101,437,440	6,765,877
WKP Series E due December 1, 2009	11.000%	6,436,950	708,065
WKP Series F due October 16, 2012	9.650%	9,903,000	955,640
WKP Series G due August 28, 2023	8.800%	16,505,000	1,452,440
WKP Series H due February 1, 2016	8.770%	16,505,000	1,447,489
WKP Series I due December 1, 2021	7.810%	16,505,000	1,289,041
UCFC Bank Facility due May 29, 2004	6.520%		0
UCFC 7.75% Senior Notes due June 15, 2011	7.750%	200,000,000	15,500,000
UNCA Bank Facility due February 28, 2002	5.030%	87,938,640	4,423,314
UNCL Bank Facility due May 31, 2003	5.850%	174,953,000	10,234,751
Rural Electricification Association due December 31, 2001	7.500%	5,997,917	449,844
Rural Electricification Association due December 31, 2002	7.500%	6,915,595	518,670
Rural Electricification Association due December 31, 2003	7.500%	4,581,788	343,634
Walden Mortgage Loan due August 31, 2013	9.440%	5,561,082	524,966
Less: Unamortized Debt Issuance Expense		(10,413,703)	
Less: Unamortized Losses on Reacquired Debt		(18,261,311)	
Add: Annual Amortized Debt Issuance Expense			1,806,359
Add: Annual Amortized Losses on Reacquired Debt			2,253,048
Total		$2,397,871,325	$176,248,157

Embedded Cost of Long-Term Debt = $176,248,157 / $2,397,871,325

= 7.35%

Notes:

See Schedule 10-2 for the amounts of the Unamortized Debt Issuance Expense and the Annual Amortized Debt Issuance Expense.

Sources: Missouri Public Service's response to Staff's Data Information Requests Nos. 3802 and 3804.

Annual Amortization of Net Premium or Discount Expense and Debt Issuance Expense as of June 30, 2001 for Utilicorp United, Inc.

Long-Term Debt	Maturity Date	(1) Number of Months to Maturity (06/30/01)	(2) Unamortized Net Premium or Discount Expense and Debt Issuance Expense (06/30/01)	(3) Annual Amortization of Net Premium or Discount Expense and Debt Issuance Expense
AQ SW SR Notes due September 15, 2002	(09/15/02)	14.7	$28,905	$23,543
PNG Office Building (Fountain, CO) due December 1, 2003	(12/01/03)	29.5	0	0
SJLP FMB due February 1, 2021	(02/01/21)	238.5	74,362	3,741
MGU 2008 Series FMB due August 10, 2008	(08/10/08)	86.6	76,859	10,650
Senior Notes due February 1, 2011	(02/01/11)	116.8	1,531,599	157,401
Senior Notes Floating Rate due May 15, 2002	(05/15/02)	10.6	462,711	522,182
Senior Notes due November 15, 2009	(11/15/09)	102.0	2,855,218	335,908
Senior Notes due July 15, 2004	(07/15/04)	37.0	904,779	293,178
Senior Notes due December 1, 2005	(12/01/05)	53.8	339,776	75,740
Senior Notes due November 15, 2021	(11/15/21)	248.1	1,974,388	95,496
Senior Notes due October 1, 2004	(10/01/04)	39.6	581,353	176,019
Senior Notes due October 15, 2006	(10/15/06)	64.4	34,354	6,398
Wamego Ser. 1996 due March 1, 2026	(03/01/26)	300.3	329,286	13,157
Sanwa Bus CC due December 9, 2009	(12/09/09)	102.8	0	0
SJLP Unsecured Pollution Control Bonds due February 1, 2013	(02/01/13)	141.1	98,615	8,385
SJLP Unsecured MTN due March 15, 2005	(03/15/05)	45.1	48,154	12,803
SJLP Unsecured MTN due December 1, 2023	(12/01/23)	273.0	57,775	2,540
SJLP Unsecured MTN due November 30, 2023	(11/30/23)	272.9	24,736	1,088
SJLP Unsecured MTN due November 29, 2013	(11/29/13)	151.2	60,806	4,827
SJLP Unsecured MTN due November 29, 2013	(11/29/13)	151.2	6,756	536
State Envi. 1993 due May 1, 2028	(05/01/28)	326.7	68,943	2,532
Senior Notes due March 1, 2023	(03/01/23)	263.8	580,912	26,425
Senior Notes due January 15, 2007	(01/15/07)	67.5	128,540	22,852
Senior Notes due November 15, 2021	(11/15/21)	248.1	66,114	3,198
Debentures due July 1, 2011	(07/01/11)	121.8	78,762	7,762
Telebill Note due August 31, 2004	(08/31/04)	38.6		
ExOp Notes				
UAPL Floating Rate MTN's due April 27, 2004	(04/27/04)	34.4		
UAPL Fixed Rate MTN's due April 27, 2004	(04/27/04)	34.4		
IGH Bank Facility due March 30, 2003	(03/30/03)	21.3		
UAPL Floating Rate Notes due January 30, 2006	(01/30/06)	55.8		
UAF Floating Rate Notes due December 31, 2003	(12/31/03)	30.5		
UAPL Senior Notes due October 15, 2002	(10/15/02)	15.7		
UAPL Senior Notes due September 29, 2002	(09/29/02)	15.2		
UAPL Bank Facility (Tranche B) due March 30, 2002	(03/30/02)	9.1		
UFC Bank Facility due June 30, 2002	(06/30/02)	12.2		
UFC Bank Facility due June 29, 2002	(06/29/02)	12.1		
WKP Series E due December 1, 2009	(12/01/09)	102.5		
WKP Series F due October 16, 2012	(10/16/12)	137.5		
WKP Series G due August 28, 2023	(08/28/23)	269.8		
WKP Series H due February 1, 2016	(02/01/16)	177.6		
WKP Series I due December 1, 2021	(12/01/21)	248.6		
UCFC Bank Facility due May 29, 2004	(05/29/04)	35.5		
UCFC 7.75% Senior Notes due June 15, 2011	(06/15/11)	121.2		
UNCA Bank Facility due February 28, 2002	(02/28/02)	8.1		
UNCL Bank Facility due May 31, 2003	(05/31/03)	23.3		
Rural Electricification Association due December 31, 2001	(12/31/01)	6.1		
Rural Electricification Association due December 31, 2002	(12/31/02)	18.3		
Rural Electricification Association due December 31, 2003	(12/31/03)	30.5		
Walden Mortgage Loan due August 31, 2013	(08/31/13)	148.2		
Total			$10,413,703	$1,806,359

Notes:

(1) Column 3 = [(Column 2 / Column 1) * 12].

Source: Missouri Public Service's response to Staff's Data Request No. 3802

Embedded Cost of Preferred Stock as of June 30, 2001 for Utilicorp United, Inc.

Preferred Stock	(1) Dividend Rate	(2) Prinicipal Amount Outstanding 6/30/2001	(3) Annualized Cost to Company (1 * 2)
Redeemable Preferred Stock:			
9.75% PEPS Units	9.750%	$250,000,000	$24,375,000
6.676% Trust Preferred Securities	6.676%	$100,000,000	$6,676,000
Less: Net Unamortized Issuance Expense		($2,217,372)	
Add: Annual Amortization of Issuance Expense			1,275,044
		$347,782,628	$32,326,044

Embedded Cost of Preferred Stock = $\frac{\$32,326,044}{\$347,782,628}$

= **9.29%**

Notes:
(1) The amount of Preferred Stock includes the amount redeemable within one year.

Source: Missouri Public Service's response to Staff's Data Request 3802.

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Annual Amortization of Net Premium or Discount Expense and Preferred Stock Issuance Expense as of June 30, 2001 for Utilicorp United, Inc.

Preferred Stock	Maturity Date	(1) Number of Months to Maturity (06/30/01)	(2) Unamortized Net Premium or Discount Expense and Debt Issuance Expense (06/30/01)	(3) Annual Amortization of Net Premium or Discount Expense and Debt Issuance Expense
UtiliCorp Capital Trust I 9.75% PEPS Units	(11/16/04)	41.2	$950,496	$277,068
UtiliCorp Captial Trust II 6.676% Trust Preferred Securities	(09/30/02)	15.2	1,266,876	997,977
Total			**$2,217,372**	**$1,275,044**

Notes:

(1) Column 3 = [(Column 2 / Column 1) * 12].

Source: Missouri Public Service's response to Staff's Data Request No. 3502

Criteria for Selecting Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Electric Utility Companies	Stock Publicly Traded	Information Printed in Value Line	10-Years of Data Available	> 70 % of Revenues from Electric	Total Capitalization < 5 Billion	No Nuclear Operations	No Missouri Operations	**Comparable Company Met All Criteria**
Allegheny Energy	Yes	Yes	Yes	No				
ALLETE	Yes	Yes	Yes	No				
Aliant Energy	Yes	Yes	Yes	No				
Amer. Elec. Power	Yes	Yes	Yes	Yes	No			
Ameren Corp.	Yes	Yes	Yes	Yes	No			
Arch Coal Inc.	Yes	No						
Avista Corp.	Yes	Yes	Yes	No				
Bangor Hydro Elec.	Yes	Yes	Yes	No				
Black Hills	Yes	Yes	Yes	No				
Cen. Vermont Pub. Serv.	Yes	Yes	Yes	Yes	Yes	No		
CH Energy Group	Yes	Yes	Yes	No				
Cinergy Corp.	Yes	Yes	Yes	No				
Cleco Corp.	Yes	Yes	Yes	No				
CMS Energy Corp.	Yes	Yes	Yes	No				
Conectiv	Yes	Yes	Yes	No				
Consol. Edison	Yes	Yes	Yes	Yes	No			
DPL Inc.	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
DQE	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
DTE Energy	Yes	Yes	Yes	No				
Duke Energy	Yes	Yes	Yes	No				
Empire Dist. Electric	Yes	Yes	Yes	Yes	Yes	Yes	No	
Energy East Corp.	Yes	Yes	Yes	No				
Entergy Corp.	Yes	Yes	Yes	Yes	No			
Exelon Corp.	Yes	Yes	Yes	Yes	No			
FirstEnergy Corp.	Yes	Yes	Yes	Yes	No			
Florida Public Utilties	Yes	Yes	Yes	No				
Fortis Inc.	Yes	No						
FPL Group	Yes	Yes	Yes	Yes	No			
GPU, Inc.	Yes	Yes	Yes	Yes	No			
Green Mountain Power	Yes	Yes	Yes	Yes	Yes	No		
Hawaiian Electric	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
IDACORP, Inc.	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Kansas City Power & Lt.	Yes	Yes	Yes	Yes	Yes	No		
Madison Gas & Elec.	Yes	Yes	Yes	No				
Maine Public Service	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
MDU Resources	Yes	Yes	Yes	No				
Montana Power	Yes	Yes	Yes	No				
Niagara Mohawk	Yes	Yes	No					
NiSource Inc.	Yes	Yes	Yes	No				
Northeast Utilities	Yes	Yes	Yes	Yes	Yes	No		
NorthWestern Corp.	Yes	Yes	Yes	No				
NSTAR	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
OGE Energy	Yes	Yes	Yes	No				
Otter Tail Corp.	Yes	Yes	Yes	No				
Pinnacle West Capital	Yes	Yes	Yes	Yes	Yes	No		
Potomac Elec. Power	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
PPL Corp.	Yes	Yes	Yes	No				
Public Serv. (N. Mex.)	Yes	Yes	No					
Public Serv. Enterprise	Yes	Yes	Yes	No				
Puget Energy Inc.	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Reliant Energy	Yes	Yes	Yes	No				
RGS Energy Group	Yes	Yes	Yes	No				
SCANA Corp.	Yes	Yes	Yes	No				
Southern Co.	Yes	Yes	Yes	No				
TECO Energy	Yes	Yes	Yes	No				
TXU Corp.	Yes	Yes	Yes	No				
UIL Holdings	Yes	Yes	Yes	Yes	Yes	No		
UniCorp Inc.	Yes	No						
UNITIL Corp.	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Western Resources	Yes	Yes	Yes	Yes	No			
Wisconsin Energy	Yes	Yes	Yes	No				
WPS Resources	Yes	Yes	Yes	No				
Xcel Energy Inc.	Yes	Yes	Yes	No				

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Comparable Electric Utility Companies
For Missouri Public Service

Number	Ticker Symbol	Company Name
1	DPL	DPL, Inc.
2	DQE	DQE, Inc.
3	HE	Hawaiian Electric Industries, Inc. (Hawaiian Electric)
4	IDA	IDACORP, Inc. (IDACORP)
5	NST	NSTAR
6	POM	Potomac Elec. Pwr.
7	PSD	Puget Energy, Inc.

Note: Removed UNITIL Corp. and Maine Public Service because of lack of projected information in Value Line.

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Ten-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for Comparable Electric Utility Companies

	Dividends Per Share		Earnings Per Share		Book Value Per Share	
Company Name	1990	2000	1990	2000	1990	2000
DPL, Inc.	$0.69	$0.94	$0.99	$1.49	$6.88	$6.80
DQE, Inc.	$0.92	$1.62	$1.49	$1.31	$13.38	$14.02
Hawaiian Electric	$2.17	$2.48	$2.02	$2.54	$23.29	$25.43
IDACORP	$1.86	$1.86	$1.91	$3.50	$17.40	$21.82
NSTAR	$1.54	$2.02	$1.60	$3.19	$17.22	$25.31
Potomac Electric Power	$1.52	$1.66	$1.62	$1.58	$14.39	$16.82
Puget Energy, Inc.	$1.76	$1.84	$2.16	$2.16	$16.52	$16.61
Utilicorp United, Inc.	$0.97	$1.20	$1.35	$2.21	$11.66	$17.94

Annual Compound Growth Rates

	DPS	EPS	BVPS	
Company Name	1990 - 2000	1990 - 2000	1990 - 2000	Average
DPL, Inc.	3.14%	4.17%	-0.12%	2.40%
DQE, Inc.	5.82%	-1.28%	0.47%	1.67%
Hawaiian Electric	1.34%	2.32%	0.88%	1.51%
IDACORP	0.00%	6.24%	2.29%	2.84%
NSTAR	2.75%	7.14%	3.93%	4.61%
Potomac Electric Power	0.88%	-0.25%	1.57%	0.74%
Puget Energy, Inc.	0.45%	0.00%	0.05%	0.17%
Average	**2.06%**	**2.62%**	**1.30%**	
Standard Deviation	1.87%	3.08%	1.33%	
UtiliCorp United, Inc.	2.15%	5.05%	4.40%	3.87%

Source: The Value Line Investment Survey: Ratings & Reports, June 8, July 6, August 17 and September 7, 2001.

Five-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Comparable Electric Utility Companies

	Dividends Per Share		Earnings Per Share		Book Value Per Share	
Company Name	1995	2000	1995	2000	1995	2000
DPL, Inc.	$0.83	$0.94	$1.09	$1.49	$7.28	$6.80
DQE, Inc.	$1.22	$1.62	$2.20	$1.31	$17.13	$14.02
Hawaiian Electric	$2.37	$2.48	$2.66	$2.54	$24.51	$25.43
IDACORP	$1.86	$1.86	$2.10	$3.50	$18.15	$21.82
NSTAR	$1.84	$2.02	$2.08	$3.19	$20.61	$25.31
Potomac Electric Power	$1.66	$1.66	$1.69	$1.58	$15.79	$16.82
Puget Energy, Inc.	$1.84	$1.84	$1.89	$2.16	$18.48	$16.61
UtiliCorp United, Inc.	$1.15	$1.20	$1.25	$2.21	$13.72	$17.94

Annual Compound Growth Rates

	DPS	EPS	BVPS	
Company Name	1995 - 2000	1995 - 2000	1995 - 2000	Average
DPL, Inc.	2.52%	6.45%	-1.35%	2.54%
DQE, Inc.	5.84%	-9.85%	-3.93%	-2.65%
Hawaiian Electric	0.91%	-0.92%	0.74%	0.24%
IDACORP	0.00%	10.76%	3.75%	4.84%
NSTAR	1.88%	8.93%	4.19%	5.00%
Potomac Electric Power	0.00%	-1.34%	1.27%	-0.02%
Puget Energy, Inc.	0.00%	2.71%	-2.11%	0.20%
Average	**1.59%**	**2.39%**	**0.37%**	
Standard Deviation	1.96%	6.59%	2.79%	
UtiliCorp United, Inc.	0.85%	12.07%	5.51%	6.15%

Source: The Value Line Investment Survey: Ratings & Reports, June 8, July 6, August 17 and September 7, 2001.

Average of Ten and Five-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Comparable Electric Utility Companies

Company Name	10-Year Average DPS, EPS & BVPS	5-Year Average DPS, EPS & BVPS	Average of 5-Year & 10-Year Averages
DPL, Inc.	2.40%	2.54%	2.47%
DQE, Inc.	1.67%	-2.65%	-0.49%
Hawaiian Electric	1.51%	0.24%	0.88%
IDACORP	2.84%	4.84%	3.84%
NSTAR	4.61%	5.00%	4.80%
Potomac Electric Power	0.74%	-0.02%	0.36%
Puget Energy, Inc.	0.17%	0.20%	0.18%
Average	**1.99%**	**1.45%**	**1.72%**
UtiliCorp United, Inc.	3.87%	6.15%	5.01%

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Historical and Projected Growth Rates
for the Comparable Electric Utility Companies

Company Name	(1) Historical Growth Rate (DPS, EPS and BVPS)	(2) Projected 5 Year Growth IBES (Median)	(3) Projected 5 Year Growth Zacks (Mean)	(4) Projected 5-Year EPS Growth S&P	(5) Projected 3-5 Year EPS Growth Value Line	(6) Average Projected Growth	(7) Average of Historical & Projected Growth
DPL, Inc.	2.47%	10.00%	10.33%	10.00%	11.00%	10.33%	6.40%
DQE, Inc.	-0.49%	6.00%	3.33%	6.00%	5.50%	5.21%	2.36%
Hawaiian Electric	0.88%	2.00%	4.67%	3.00%	5.00%	3.67%	2.27%
IDACORP	3.84%	8.00%	10.00%	8.00%	2.50%	7.13%	5.48%
NSTAR	4.80%	7.00%	6.40%	7.00%	6.50%	6.73%	5.76%
Potomac Electric Power	0.36%	5.50%	4.39%	5.00%	7.00%	5.47%	2.91%
Puget Energy, Inc.	0.18%	5.50%	5.33%	6.00%	4.00%	5.21%	2.70%
	1.72%	**6.29%**	**6.35%**	**6.43%**	**5.93%**	**6.25%**	**3.98%**

Proposed Range of Growth:

3.50%-4.50%

Company Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)
UtiliCorp United, Inc.	5.01%	11.00%	11.78%	11.00%	15.00%	12.20%	8.60%

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 and 5-Year Annual Compound Growth Rates from Schedule 14-3.

Column 2 = I/B/E/S Inc.'s Institutional Brokers Estimate System, August 16, 2001.

Column 3 = Zacks, http://www.zacks.com, September 25, 2001.

Column 4 = Standard & Poor's Earnings Guide, September 2001.

Column 5 = The Value Line Investment Survey: Ratings and Reports, June 8, July 6, August 17 and September 7, 2001.

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Average High / Low Stock Price for May 2001 through August 2001
for the Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	-- May 2001 --		-- June 2001 --		-- July 2001 --		-- August 2001 --		**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	**(5/01 - 8/01)**
DPL, Inc.	30.980	28.300	29.650	26.870	29.150	22.850	26.220	24.100	**27.265**
DQE, Inc.	23.990	20.500	23.900	22.360	22.680	19.280	22.690	20.000	**21.925**
Hawaiian Electric	37.750	35.880	38.400	36.750	39.250	36.120	41.250	38.750	**38.019**
IDACORP	40.400	38.180	39.000	34.880	37.810	33.550	39.720	36.530	**37.509**
NSTAR	42.450	39.730	43.850	40.610	43.990	40.820	44.910	42.100	**42.308**
Potomac Electric Power	22.740	21.230	21.990	20.080	21.900	20.610	22.750	21.400	**21.588**
Puget Energy, Inc.	24.470	22.900	26.240	23.550	26.950	23.010	24.940	23.550	**24.451**
UtiliCorp United, Inc.	37.850	34.360	36.070	29.350	33.000	27.790	32.740	30.250	**32.676**

Notes:

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

Sources: S & P Stock Guides: September 2001, August 2001, July 2001 and June 2001.

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DCF Estimated Costs of Common Equity for the Comparable Electric Utility Companies

Company Name	(1) Expected Annual Dividend	(2) Average High/Low Stock Price	(3) Projected Dividend Yield	(4) Average of Historical & Projected Growth	(5) Estimated Cost of Common Equity
DPL, Inc.	$0.94	$27.265	3.45%	6.40%	9.85%
DQE, Inc.	$1.68	$21.925	7.66%	2.36%	10.02%
Hawaiian Electric	$2.48	$38.019	6.52%	2.27%	8.80%
IDACORP	$1.86	$37.509	4.96%	5.48%	10.44%
NSTAR	$2.11	$42.308	4.99%	5.76%	10.75%
Potomac Electric Power	$1.09	$21.588	5.03%	2.91%	7.94%
Puget Energy, Inc.	$1.84	$24.451	7.53%	2.70%	10.22%
Average			5.73%	3.98%	9.72%
UtiliCorp United, Inc.	$1.20	$32.676	3.67%	8.60%	12.27%

Proposed Dividend Yield:	**5.73%**
Proposed Range of Growth:	**3.5% - 4.5%**
Estimated Cost of Common Equity:	**9.23% - 10.23%**
Adjustment for Average Bond Rating of A-	**0.20%**
Adjusted Cost of Common Equity	**9.43% - 10.43%**

Notes: Column 1 = Estimated Dividends Declared per share represents the average projected dividends for 2001 and 2002.

Column 3 = (Column 1 / Column 2).

Column 5 = (Column 3 + Column 4).

Sources: Column 1 = The Value Line Investment Survey: Ratings & Reports, July 6, August 17 and September 7, 2001.

Column 2 = Schedule 16.

Column 4 = Schedule 15.

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Capital Asset Pricing Model (CAPM) Costs of Common Equity Estimates for the Comparable Electric Utility Companies

Company Name	(1) Risk Free Rate	(2) Company's Value Line Beta	(3) Market Risk Premium (1926-1999)	(4) Market Risk Premium (1990-1999)	(5) CAPM Cost of Common Equity (1926-1999)	(6) CAPM Cost of Common Equity (1990-1999)
DPL, Inc.	5.48%	0.60	7.80%	9.41%	10.16%	11.13%
DQE, Inc.	5.48%	0.45	7.80%	9.41%	8.99%	9.71%
Hawaiian Electric	5.48%	0.50	7.80%	9.41%	9.38%	10.19%
IDACORP	5.48%	0.50	7.80%	9.41%	9.38%	10.19%
NSTAR	5.48%	0.50	7.80%	9.41%	9.38%	10.19%
Potomac Electric Power	5.48%	0.50	7.80%	9.41%	9.38%	10.19%
Puget Energy, Inc.	5.48%	0.55	7.80%	9.41%	9.77%	10.66%
Average		**0.51**			**9.49%**	**10.32%**

Sources:

Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for September 2001 which was obtained from the St. Louis Federal Reserve Website: http://www.stls.frb.org/fred/data/irates/gs30.

Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole as reported by the Value Line Investment Survey: Ratings & Reports, July 6, August 17, and September 7, 2001.

Column 3 = 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 for the period 1926 - 1999 was determined to be 7.80% as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2000 Yearbook.

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 for the period 1990 - 1999 was determined to be 9.41% as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2000 Yearbook.

Column 5 = (Column 1 + (Column 2 * Column 3)).

Column 6 = (Column 1 + (Column 2 * Column 4)).

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Average Risk Premium above the Yields of 30-Year U.S. Treasury Bonds
for DPL, Inc.'s Actual Returns on Common Equity

Mo/Year	DPL's Actual ROE	30-Year U.S. Treasury Bond Yields	DPL's Risk Premium
Jan 1991	11.10%	8.27%	2.83%
Feb	11.10%	8.03%	3.07%
Mar	11.10%	8.29%	2.81%
Apr	11.10%	8.21%	2.89%
May	11.10%	8.27%	2.83%
Jun	11.10%	8.47%	2.63%
Jul	11.10%	8.45%	2.65%
Aug	11.10%	8.14%	2.96%
Sep	11.10%	7.95%	3.15%
Oct	11.10%	7.93%	3.17%
Nov	11.10%	7.92%	3.18%
Dec	11.10%	7.70%	3.40%
Jan 1992	13.90%	7.58%	6.32%
Feb	13.90%	7.85%	6.05%
Mar	13.90%	7.97%	5.93%
Apr	13.90%	7.96%	5.94%
May	13.90%	7.89%	6.01%
Jun	13.90%	7.84%	6.06%
Jul	13.90%	7.60%	6.30%
Aug	13.90%	7.39%	6.51%
Sep	13.90%	7.34%	6.56%
Oct	13.90%	7.53%	6.37%
Nov	13.90%	7.61%	6.29%
Dec	13.90%	7.44%	6.46%
Jan 1993	13.50%	7.34%	6.16%
Feb	13.50%	7.09%	6.41%
Mar	13.50%	6.82%	6.68%
Apr	13.50%	6.85%	6.65%
May	13.50%	6.92%	6.58%
Jun	13.50%	6.81%	6.69%
Jul	13.50%	6.63%	6.87%
Aug	13.50%	6.32%	7.18%
Sep	13.50%	6.00%	7.50%
Oct	13.50%	5.94%	7.56%
Nov	13.50%	6.21%	7.29%
Dec	13.50%	6.25%	7.25%
Jan 1994	13.70%	6.29%	7.41%
Feb	13.70%	6.49%	7.21%
Mar	13.70%	6.91%	6.79%
Apr	13.70%	7.27%	6.43%
May	13.70%	7.41%	6.29%
Jun	13.70%	7.40%	6.30%
Jul	13.70%	7.58%	6.12%
Aug	13.70%	7.49%	6.21%
Sep	13.70%	7.71%	5.99%
Oct	13.70%	7.94%	5.76%
Nov	13.70%	8.08%	5.62%
Dec	13.70%	7.87%	5.83%
Jan 1995	14.10%	7.85%	6.25%
Feb	14.10%	7.61%	6.49%
Mar	14.10%	7.45%	6.65%
Apr	14.10%	7.36%	6.74%
May	14.10%	6.95%	7.15%
Jun	14.10%	6.57%	7.53%
Jul	14.10%	6.72%	7.38%
Aug	14.10%	6.86%	7.24%
Sep	14.10%	6.55%	7.55%
Oct	14.10%	6.37%	7.73%
Nov	14.10%	6.26%	7.84%
Dec	14.10%	6.06%	8.04%

Mo/Year	DPL's Actual ROE	30-Year U.S. Treasury Bond Yields	DPL's Risk Premium
Jan 1996	14.30%	6.05%	8.25%
Feb	14.30%	6.24%	8.06%
Mar	14.30%	6.60%	7.70%
Apr	14.30%	6.79%	7.51%
May	14.30%	6.93%	7.37%
Jun	14.30%	7.06%	7.24%
Jul	14.30%	7.03%	7.27%
Aug	14.30%	6.84%	7.46%
Sep	14.30%	7.03%	7.27%
Oct	14.30%	6.81%	7.49%
Nov	14.30%	6.48%	7.82%
Dec	14.30%	6.55%	7.75%
Jan 1997	14.00%	6.83%	7.17%
Feb	14.00%	6.69%	7.31%
Mar	14.00%	6.93%	7.07%
Apr	14.00%	7.09%	6.91%
May	14.00%	6.94%	7.06%
Jun	14.00%	6.77%	7.23%
Jul	14.00%	6.51%	7.49%
Aug	14.00%	6.58%	7.42%
Sep	14.00%	6.50%	7.50%
Oct	14.00%	6.33%	7.67%
Nov	14.00%	6.11%	7.89%
Dec	14.00%	5.99%	8.01%
Jan 1998	13.60%	5.81%	7.79%
Feb	13.60%	5.89%	7.71%
Mar	13.60%	5.95%	7.65%
Apr	13.60%	5.92%	7.68%
May	13.60%	5.93%	7.67%
Jun	13.60%	5.70%	7.90%
Jul	13.60%	5.68%	7.92%
Aug	13.60%	5.54%	8.06%
Sep	13.60%	5.20%	8.40%
Oct	13.60%	5.01%	8.59%
Nov	13.60%	5.25%	8.35%
Dec	13.60%	5.06%	8.54%
Jan 1999	14.00%	5.16%	8.84%
Feb	14.00%	5.37%	8.63%
Mar	14.00%	5.58%	8.42%
Apr	14.00%	5.55%	8.45%
May	14.00%	5.81%	8.19%
Jun	14.00%	6.04%	7.96%
Jul	14.00%	5.98%	8.02%
Aug	14.00%	6.07%	7.93%
Sep	14.00%	6.07%	7.93%
Oct	14.00%	6.26%	7.74%
Nov	14.00%	6.15%	7.85%
Dec	14.00%	6.35%	7.65%
Jan 2000	22.30%	6.63%	15.67%
Feb	22.30%	6.23%	16.07%
Mar	22.30%	6.05%	16.25%
Apr	22.30%	5.85%	16.45%
May	22.30%	6.15%	16.15%
Jun	22.30%	5.93%	16.37%
Jul	22.30%	5.85%	16.45%
Aug	22.30%	5.72%	16.58%
Sep	22.30%	5.83%	16.47%
Oct	22.30%	5.80%	16.50%
Nov	22.30%	5.78%	16.52%
Dec	22.30%	5.49%	16.81%

Summary Information	**(1991 - 2000)**
Average Risk Premium: (Jan 1991 - Dec 2000)	**7.72%**
High Risk Premium: (December 2000)	**16.81%**
Low Risk Premium: (June 1991)	**2.63%**

Sources: The Value Line Investment Survey: Ratings & Reports.
St. Louis Federal Reserve Website: http://www.stls.frb.org/fred/data/rates/gs30

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Average Risk Premium above the Yields of 30-Year U.S. Treasury Bonds
for DQE, Inc.'s Actual Returns on Common Equity

Mo/Year	DQE's Actual ROE	30-Year U.S. Treasury Bond Yields	DQE's Risk Premium
Jan 1991	12.00%	8.27%	3.73%
Feb	12.00%	8.03%	3.97%
Mar	12.00%	8.29%	3.71%
Apr	12.00%	8.21%	3.79%
May	12.00%	8.27%	3.73%
Jun	12.00%	8.47%	3.53%
Jul	12.00%	8.45%	3.55%
Aug	12.00%	8.14%	3.86%
Sep	12.00%	7.95%	4.05%
Oct	12.00%	7.93%	4.07%
Nov	12.00%	7.92%	4.08%
Dec	12.00%	7.70%	4.30%
Jan 1992	12.10%	7.58%	4.52%
Feb	12.10%	7.85%	4.25%
Mar	12.10%	7.97%	4.13%
Apr	12.10%	7.96%	4.14%
May	12.10%	7.89%	4.21%
Jun	12.10%	7.84%	4.26%
Jul	12.10%	7.60%	4.50%
Aug	12.10%	7.39%	4.71%
Sep	12.10%	7.34%	4.76%
Oct	12.10%	7.53%	4.57%
Nov	12.10%	7.61%	4.49%
Dec	12.10%	7.44%	4.66%
Jan 1993	11.00%	7.34%	3.66%
Feb	11.00%	7.09%	3.91%
Mar	11.00%	6.82%	4.18%
Apr	11.00%	6.85%	4.15%
May	11.00%	6.92%	4.08%
Jun	11.00%	6.81%	4.19%
Jul	11.00%	6.63%	4.37%
Aug	11.00%	6.32%	4.68%
Sep	11.00%	6.00%	5.00%
Oct	11.00%	5.94%	5.06%
Nov	11.00%	6.21%	4.79%
Dec	11.00%	6.25%	4.75%
Jan 1994	12.30%	6.29%	6.01%
Feb	12.30%	6.49%	5.81%
Mar	12.30%	6.91%	5.39%
Apr	12.30%	7.27%	5.03%
May	12.30%	7.41%	4.89%
Jun	12.30%	7.40%	4.90%
Jul	12.30%	7.58%	4.72%
Aug	12.30%	7.49%	4.81%
Sep	12.30%	7.71%	4.59%
Oct	12.30%	7.94%	4.36%
Nov	12.30%	8.08%	4.22%
Dec	12.30%	7.87%	4.43%
Jan 1995	12.80%	7.85%	4.95%
Feb	12.80%	7.61%	5.19%
Mar	12.80%	7.45%	5.35%
Apr	12.80%	7.36%	5.44%
May	12.80%	6.95%	5.85%
Jun	12.80%	6.57%	6.23%
Jul	12.80%	6.72%	6.08%
Aug	12.80%	6.86%	5.94%
Sep	12.80%	6.55%	6.25%
Oct	12.80%	6.37%	6.43%
Nov	12.80%	6.26%	6.54%
Dec	12.80%	6.06%	6.74%

Mo/Year	DQE's Actual ROE	30-Year U.S. Treasury Bond Yields	DQE's Risk Premium
Jan 1996	12.00%	6.05%	5.95%
Feb	12.00%	6.24%	5.76%
Mar	12.00%	6.60%	5.40%
Apr	12.00%	6.79%	5.21%
May	12.00%	6.93%	5.07%
Jun	12.00%	7.06%	4.94%
Jul	12.00%	7.03%	4.97%
Aug	12.00%	6.84%	5.16%
Sep	12.00%	7.03%	4.97%
Oct	12.00%	6.81%	5.19%
Nov	12.00%	6.48%	5.52%
Dec	12.00%	6.55%	5.45%
Jan 1997	11.60%	6.83%	4.77%
Feb	11.60%	6.69%	4.91%
Mar	11.60%	6.93%	4.67%
Apr	11.60%	7.09%	4.51%
May	11.60%	6.94%	4.66%
Jun	11.60%	6.77%	4.83%
Jul	11.60%	6.51%	5.09%
Aug	11.60%	6.58%	5.02%
Sep	11.60%	6.50%	5.10%
Oct	11.60%	6.33%	5.27%
Nov	11.60%	6.11%	5.49%
Dec	11.60%	5.99%	5.61%
Jan 1998	12.10%	5.81%	6.29%
Feb	12.10%	5.89%	6.21%
Mar	12.10%	5.95%	6.15%
Apr	12.10%	5.92%	6.18%
May	12.10%	5.93%	6.17%
Jun	12.10%	5.70%	6.40%
Jul	12.10%	5.68%	6.42%
Aug	12.10%	5.54%	6.56%
Sep	12.10%	5.20%	6.90%
Oct	12.10%	5.01%	7.09%
Nov	12.10%	5.25%	6.85%
Dec	12.10%	5.06%	7.04%
Jan 1999	14.80%	5.16%	9.64%
Feb	14.80%	5.37%	9.43%
Mar	14.80%	5.58%	9.22%
Apr	14.80%	5.55%	9.25%
May	14.80%	5.81%	8.99%
Jun	14.80%	6.04%	8.76%
Jul	14.80%	5.98%	8.82%
Aug	14.80%	6.07%	8.73%
Sep	14.80%	6.07%	8.73%
Oct	14.80%	6.26%	8.54%
Nov	14.80%	6.15%	8.65%
Dec	14.80%	6.35%	8.45%
Jan 2000	10.50%	6.63%	3.87%
Feb	10.50%	6.23%	4.27%
Mar	10.50%	6.05%	4.45%
Apr	10.50%	5.85%	4.65%
May	10.50%	6.15%	4.35%
Jun	10.50%	5.93%	4.57%
Jul	10.50%	5.85%	4.65%
Aug	10.50%	5.72%	4.78%
Sep	10.50%	5.83%	4.67%
Oct	10.50%	5.80%	4.70%
Nov	10.50%	5.78%	4.72%
Dec	10.50%	5.49%	5.01%

Summary Information	(1991 - 2000)
Average Risk Premium: (Jan 1991 - Dec 2000)	**5.39%**
High Risk Premium: (January 1999)	**9.64%**
Low Risk Premium: (June 1991)	**3.53%**

Sources: The Value Line Investment Survey: Ratings & Reports.
St. Louis Federal Reserve Website: http://www.stls.frb.org/fred/data/irates/gs30

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Average Risk Premium above the Yields of 30-Year U.S. Treasury Bonds for Hawaiian Electric Industries, Inc.'s Actual Returns on Common Equity

Mo/Year	HE's Actual ROE	30-Year U.S. Treasury Bond Yields	HE's Risk Premium
Jan 1991	9.40%	8.27%	1.13%
Feb	9.40%	8.03%	1.37%
Mar	9.40%	8.29%	1.11%
Apr	9.40%	8.21%	1.19%
May	9.40%	8.27%	1.13%
Jun	9.40%	8.47%	0.93%
Jul	9.40%	8.45%	0.95%
Aug	9.40%	8.14%	1.26%
Sep	9.40%	7.95%	1.45%
Oct	9.40%	7.93%	1.47%
Nov	9.40%	7.92%	1.48%
Dec	9.40%	7.70%	1.70%
Jan 1992	11.30%	7.58%	3.72%
Feb	11.30%	7.85%	3.45%
Mar	11.30%	7.97%	3.33%
Apr	11.30%	7.96%	3.34%
May	11.30%	7.89%	3.41%
Jun	11.30%	7.84%	3.46%
Jul	11.30%	7.60%	3.70%
Aug	11.30%	7.39%	3.91%
Sep	11.30%	7.34%	3.96%
Oct	11.30%	7.53%	3.77%
Nov	11.30%	7.61%	3.69%
Dec	11.30%	7.44%	3.86%
Jan 1993	9.60%	7.34%	2.26%
Feb	9.60%	7.09%	2.51%
Mar	9.60%	6.82%	2.78%
Apr	9.60%	6.85%	2.75%
May	9.60%	6.92%	2.68%
Jun	9.60%	6.81%	2.79%
Jul	9.60%	6.63%	2.97%
Aug	9.60%	6.32%	3.28%
Sep	9.60%	6.00%	3.60%
Oct	9.60%	5.94%	3.66%
Nov	9.60%	6.21%	3.39%
Dec	9.60%	6.25%	3.35%
Jan 1994	10.70%	6.29%	4.41%
Feb	10.70%	6.49%	4.21%
Mar	10.70%	6.91%	3.79%
Apr	10.70%	7.27%	3.43%
May	10.70%	7.41%	3.29%
Jun	10.70%	7.40%	3.30%
Jul	10.70%	7.58%	3.12%
Aug	10.70%	7.49%	3.21%
Sep	10.70%	7.71%	2.99%
Oct	10.70%	7.94%	2.76%
Nov	10.70%	8.08%	2.62%
Dec	10.70%	7.87%	2.83%
Jan 1995	10.60%	7.85%	2.75%
Feb	10.60%	7.61%	2.99%
Mar	10.60%	7.45%	3.15%
Apr	10.60%	7.36%	3.24%
May	10.60%	6.95%	3.65%
Jun	10.60%	6.57%	4.03%
Jul	10.60%	6.72%	3.88%
Aug	10.60%	6.86%	3.74%
Sep	10.60%	6.55%	4.05%
Oct	10.60%	6.37%	4.23%
Nov	10.60%	6.26%	4.34%
Dec	10.60%	6.06%	4.54%

Mo/Year	HE's Actual ROE	30-Year U.S. Treasury Bond Yields	HE's Risk Premium
Jan 1996	10.20%	6.05%	4.15%
Feb	10.20%	6.24%	3.96%
Mar	10.20%	6.60%	3.60%
Apr	10.20%	6.79%	3.41%
May	10.20%	6.93%	3.27%
Jun	10.20%	7.06%	3.14%
Jul	10.20%	7.03%	3.17%
Aug	10.20%	6.84%	3.36%
Sep	10.20%	7.03%	3.17%
Oct	10.20%	6.81%	3.39%
Nov	10.20%	6.48%	3.72%
Dec	10.20%	6.55%	3.65%
Jan 1997	10.60%	6.83%	3.77%
Feb	10.60%	6.69%	3.91%
Mar	10.60%	6.93%	3.67%
Apr	10.60%	7.09%	3.51%
May	10.60%	6.94%	3.66%
Jun	10.60%	6.77%	3.83%
Jul	10.60%	6.51%	4.09%
Aug	10.60%	6.58%	4.02%
Sep	10.60%	6.50%	4.10%
Oct	10.60%	6.33%	4.27%
Nov	10.60%	6.11%	4.49%
Dec	10.60%	5.99%	4.61%
Jan 1998	11.40%	5.81%	5.59%
Feb	11.40%	5.89%	5.51%
Mar	11.40%	5.95%	5.45%
Apr	11.40%	5.92%	5.48%
May	11.40%	5.93%	5.47%
Jun	11.40%	5.70%	5.70%
Jul	11.40%	5.68%	5.72%
Aug	11.40%	5.54%	5.86%
Sep	11.40%	5.20%	6.20%
Oct	11.40%	5.01%	6.39%
Nov	11.40%	5.25%	6.15%
Dec	11.40%	5.06%	6.34%
Jan 1999	11.00%	5.16%	5.84%
Feb	11.00%	5.37%	5.63%
Mar	11.00%	5.58%	5.42%
Apr	11.00%	5.55%	5.45%
May	11.00%	5.81%	5.19%
Jun	11.00%	6.04%	4.96%
Jul	11.00%	5.98%	5.02%
Aug	11.00%	6.07%	4.93%
Sep	11.00%	6.07%	4.93%
Oct	11.00%	6.26%	4.74%
Nov	11.00%	6.15%	4.85%
Dec	11.00%	6.35%	4.65%
Jan 2000	9.80%	6.63%	3.17%
Feb	9.80%	6.23%	3.57%
Mar	9.80%	6.05%	3.75%
Apr	9.80%	5.85%	3.95%
May	9.80%	6.15%	3.65%
Jun	9.80%	5.93%	3.87%
Jul	9.80%	5.85%	3.95%
Aug	9.80%	5.72%	4.08%
Sep	9.80%	5.83%	3.97%
Oct	9.80%	5.80%	4.00%
Nov	9.80%	5.78%	4.02%
Dec	9.80%	5.49%	4.31%

Summary Information	(1991 - 2000)
Average Risk Premium: (Jan 1991 - Dec 2000)	3.73%
High Risk Premium: (October 1998)	6.39%
Low Risk Premium: (June 1991)	0.93%

Sources: The Value Line Investment Survey: Ratings & Reports.
St. Louis Federal Reserve Website: http://www.stls.frb.org/fred/data/irates/gs30

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Average Risk Premium above the Yields of 30-Year U.S. Treasury Bonds for IDACORP's Actual Returns on Common Equity

Mo/Year	IDACORP's Actual ROE	30-Year U.S. Treasury Bond Yields	IDACORP's Risk Premium
Jan 1991	9.20%	8.27%	0.93%
Feb	9.20%	8.03%	1.17%
Mar	9.20%	8.29%	0.91%
Apr	9.20%	8.21%	0.99%
May	9.20%	8.27%	0.93%
Jun	9.20%	8.47%	0.73%
Jul	9.20%	8.45%	0.75%
Aug	9.20%	8.14%	1.06%
Sep	9.20%	7.95%	1.25%
Oct	9.20%	7.93%	1.27%
Nov	9.20%	7.92%	1.28%
Dec	9.20%	7.70%	1.50%
Jan 1992	8.70%	7.58%	1.12%
Feb	8.70%	7.85%	0.85%
Mar	8.70%	7.97%	0.73%
Apr	8.70%	7.96%	0.74%
May	8.70%	7.89%	0.81%
Jun	8.70%	7.84%	0.86%
Jul	8.70%	7.60%	1.10%
Aug	8.70%	7.39%	1.31%
Sep	8.70%	7.34%	1.36%
Oct	8.70%	7.53%	1.17%
Nov	8.70%	7.61%	1.09%
Dec	8.70%	7.44%	1.26%
Jan 1993	10.90%	7.34%	3.56%
Feb	10.90%	7.09%	3.81%
Mar	10.90%	6.82%	4.08%
Apr	10.90%	6.85%	4.05%
May	10.90%	6.92%	3.98%
Jun	10.90%	6.81%	4.09%
Jul	10.90%	6.63%	4.27%
Aug	10.90%	6.32%	4.58%
Sep	10.90%	6.00%	4.90%
Oct	10.90%	5.94%	4.96%
Nov	10.90%	6.21%	4.69%
Dec	10.90%	6.25%	4.65%
Jan 1994	10.00%	6.29%	3.71%
Feb	10.00%	6.49%	3.51%
Mar	10.00%	6.91%	3.09%
Apr	10.00%	7.27%	2.73%
May	10.00%	7.41%	2.59%
Jun	10.00%	7.40%	2.60%
Jul	10.00%	7.58%	2.42%
Aug	10.00%	7.49%	2.51%
Sep	10.00%	7.71%	2.29%
Oct	10.00%	7.94%	2.06%
Nov	10.00%	8.08%	1.92%
Dec	10.00%	7.87%	2.13%
Jan 1995	11.60%	7.85%	3.75%
Feb	11.60%	7.61%	3.99%
Mar	11.60%	7.45%	4.15%
Apr	11.60%	7.36%	4.24%
May	11.60%	6.95%	4.65%
Jun	11.60%	6.57%	5.03%
Jul	11.60%	6.72%	4.88%
Aug	11.60%	6.86%	4.74%
Sep	11.60%	6.55%	5.05%
Oct	11.60%	6.37%	5.23%
Nov	11.60%	6.26%	5.34%
Dec	11.60%	6.06%	5.54%

Mo/Year	IDACORP's Actual ROE	30-Year U.S. Treasury Bond Yields	IDACORP'S Risk Premium
Jan 1996	11.90%	6.05%	5.85%
Feb	11.90%	6.24%	5.66%
Mar	11.90%	6.60%	5.30%
Apr	11.90%	6.79%	5.11%
May	11.90%	6.93%	4.97%
Jun	11.90%	7.06%	4.84%
Jul	11.90%	7.03%	4.87%
Aug	11.90%	6.84%	5.06%
Sep	11.90%	7.03%	4.87%
Oct	11.90%	6.81%	5.09%
Nov	11.90%	6.48%	5.42%
Dec	11.90%	6.55%	5.35%
Jan 1997	12.20%	6.83%	5.37%
Feb	12.20%	6.69%	5.51%
Mar	12.20%	6.93%	5.27%
Apr	12.20%	7.09%	5.11%
May	12.20%	6.94%	5.26%
Jun	12.20%	6.77%	5.43%
Jul	12.20%	6.51%	5.69%
Aug	12.20%	6.58%	5.62%
Sep	12.20%	6.50%	5.70%
Oct	12.20%	6.33%	5.87%
Nov	12.20%	6.11%	6.09%
Dec	12.20%	5.99%	6.21%
Jan 1998	12.20%	5.81%	6.39%
Feb	12.20%	5.89%	6.31%
Mar	12.20%	5.95%	6.25%
Apr	12.20%	5.92%	6.28%
May	12.20%	5.93%	6.27%
Jun	12.20%	5.70%	6.50%
Jul	12.20%	5.68%	6.52%
Aug	12.20%	5.54%	6.66%
Sep	12.20%	5.20%	7.00%
Oct	12.20%	5.01%	7.19%
Nov	12.20%	5.25%	6.95%
Dec	12.20%	5.06%	7.14%
Jan 1999	12.10%	5.16%	6.94%
Feb	12.10%	5.37%	6.73%
Mar	12.10%	5.58%	6.52%
Apr	12.10%	5.55%	6.55%
May	12.10%	5.81%	6.29%
Jun	12.10%	6.04%	6.06%
Jul	12.10%	5.98%	6.12%
Aug	12.10%	6.07%	6.03%
Sep	12.10%	6.07%	6.03%
Oct	12.10%	6.26%	5.84%
Nov	12.10%	6.15%	5.95%
Dec	12.10%	6.35%	5.75%
Jan 2000	16.00%	6.63%	9.37%
Feb	16.00%	6.23%	9.77%
Mar	16.00%	6.05%	9.95%
Apr	16.00%	5.85%	10.15%
May	16.00%	6.15%	9.85%
Jun	16.00%	5.93%	10.07%
Jul	16.00%	5.85%	10.15%
Aug	16.00%	5.72%	10.28%
Sep	16.00%	5.83%	10.17%
Oct	16.00%	5.80%	10.20%
Nov	16.00%	5.78%	10.22%
Dec	16.00%	5.49%	10.51%

Summary Information	(1991 - 2000)
Average Risk Premium: (Jan 1991 - Dec 2000)	**4.75%**
High Risk Premium: (December 2000)	**10.51%**
Low Risk Premium: (June 1991)	**0.73%**

Sources: The Value Line Investment Survey: Ratings & Reports.
St. Louis Federal Reserve Website: http://www.stls.frb.org/fred/data/irates/gs30

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Average Risk Premium above the Yields of 30-Year U.S. Treasury Bonds for NSTAR's Actual Returns on Common Equity

Mo/Year	NSTAR's Actual ROE	30-Year U.S. Treasury Bond Yields	NSTAR's Risk Premium
Jan 1991	10.20%	8.27%	1.93%
Feb	10.20%	8.03%	2.17%
Mar	10.20%	8.29%	1.91%
Apr	10.20%	8.21%	1.99%
May	10.20%	8.27%	1.93%
Jun	10.20%	8.47%	1.73%
Jul	10.20%	8.45%	1.75%
Aug	10.20%	8.14%	2.06%
Sep	10.20%	7.95%	2.25%
Oct	10.20%	7.93%	2.27%
Nov	10.20%	7.92%	2.28%
Dec	10.20%	7.70%	2.50%
Jan 1992	10.80%	7.58%	3.22%
Feb	10.80%	7.85%	2.95%
Mar	10.80%	7.97%	2.83%
Apr	10.80%	7.96%	2.84%
May	10.80%	7.89%	2.91%
Jun	10.80%	7.84%	2.96%
Jul	10.80%	7.60%	3.20%
Aug	10.80%	7.39%	3.41%
Sep	10.80%	7.34%	3.46%
Oct	10.80%	7.53%	3.27%
Nov	10.80%	7.61%	3.19%
Dec	10.80%	7.44%	3.36%
Jan 1993	11.70%	7.34%	4.36%
Feb	11.70%	7.09%	4.61%
Mar	11.70%	6.82%	4.88%
Apr	11.70%	6.85%	4.85%
May	11.70%	6.92%	4.78%
Jun	11.70%	6.81%	4.89%
Jul	11.70%	6.63%	5.07%
Aug	11.70%	6.32%	5.38%
Sep	11.70%	6.00%	5.70%
Oct	11.70%	5.94%	5.76%
Nov	11.70%	6.21%	5.49%
Dec	11.70%	6.25%	5.45%
Jan 1994	11.90%	6.29%	5.61%
Feb	11.90%	6.49%	5.41%
Mar	11.90%	6.91%	4.99%
Apr	11.90%	7.27%	4.63%
May	11.90%	7.41%	4.49%
Jun	11.90%	7.40%	4.50%
Jul	11.90%	7.58%	4.32%
Aug	11.90%	7.49%	4.41%
Sep	11.90%	7.71%	4.19%
Oct	11.90%	7.94%	3.96%
Nov	11.90%	8.08%	3.82%
Dec	11.90%	7.87%	4.03%
Jan 1995	9.80%	7.85%	1.95%
Feb	9.80%	7.61%	2.19%
Mar	9.80%	7.45%	2.35%
Apr	9.80%	7.36%	2.44%
May	9.80%	6.95%	2.85%
Jun	9.80%	6.57%	3.23%
Jul	9.80%	6.72%	3.08%
Aug	9.80%	6.86%	2.94%
Sep	9.80%	6.55%	3.25%
Oct	9.80%	6.37%	3.43%
Nov	9.80%	6.26%	3.54%
Dec	9.80%	6.06%	3.74%

Mo/Year	NSTAR's Actual ROE	30-Year U.S. Treasury Bond Yields	NSTAR's Risk Premium
Jan 1996	12.30%	6.05%	6.25%
Feb	12.30%	6.24%	6.06%
Mar	12.30%	6.60%	5.70%
Apr	12.30%	6.79%	5.51%
May	12.30%	6.93%	5.37%
Jun	12.30%	7.06%	5.24%
Jul	12.30%	7.03%	5.27%
Aug	12.30%	6.84%	5.46%
Sep	12.30%	7.03%	5.27%
Oct	12.30%	6.81%	5.49%
Nov	12.30%	6.48%	5.82%
Dec	12.30%	6.55%	5.75%
Jan 1997	12.30%	6.83%	5.47%
Feb	12.30%	6.69%	5.61%
Mar	12.30%	6.93%	5.37%
Apr	12.30%	7.09%	5.21%
May	12.30%	6.94%	5.36%
Jun	12.30%	6.77%	5.53%
Jul	12.30%	6.51%	5.79%
Aug	12.30%	6.58%	5.72%
Sep	12.30%	6.50%	5.80%
Oct	12.30%	6.33%	5.97%
Nov	12.30%	6.11%	6.19%
Dec	12.30%	5.99%	6.31%
Jan 1998	12.60%	5.81%	6.79%
Feb	12.60%	5.89%	6.71%
Mar	12.60%	5.95%	6.65%
Apr	12.60%	5.92%	6.68%
May	12.60%	5.93%	6.67%
Jun	12.60%	5.70%	6.90%
Jul	12.60%	5.68%	6.92%
Aug	12.60%	5.54%	7.06%
Sep	12.60%	5.20%	7.40%
Oct	12.60%	5.01%	7.59%
Nov	12.60%	5.25%	7.35%
Dec	12.60%	5.06%	7.54%
Jan 1999	9.10%	5.16%	3.94%
Feb	9.10%	5.37%	3.73%
Mar	9.10%	5.58%	3.52%
Apr	9.10%	5.55%	3.55%
May	9.10%	5.81%	3.29%
Jun	9.10%	6.04%	3.06%
Jul	9.10%	5.98%	3.12%
Aug	9.10%	6.07%	3.03%
Sep	9.10%	6.07%	3.03%
Oct	9.10%	6.26%	2.84%
Nov	9.10%	6.15%	2.95%
Dec	9.10%	6.35%	2.75%
Jan 2000	13.00%	6.63%	6.37%
Feb	13.00%	6.23%	6.77%
Mar	13.00%	6.05%	6.95%
Apr	13.00%	5.85%	7.15%
May	13.00%	6.15%	6.85%
Jun	13.00%	5.93%	7.07%
Jul	13.00%	5.85%	7.15%
Aug	13.00%	5.72%	7.28%
Sep	13.00%	5.83%	7.17%
Oct	13.00%	5.80%	7.20%
Nov	13.00%	5.78%	7.22%
Dec	13.00%	5.49%	7.51%

Summary Information	(1991 - 2000)
Average Risk Premium: (Jan 1991 - Dec 2000)	4.64%
High Risk Premium: (October 1998)	7.59%
Low Risk Premium: (June 1991)	1.73%

Sources: The Value Line Investment Survey: Ratings & Reports.
St. Louis Federal Reserve Website: http://www.stls.frb.org/fred/data/irates/gs30

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Average Risk Premium above the Yields of 30-Year U.S. Treasury Bonds for Potomac Electric Power's Actual Returns on Common Equity

Mo/Year	Potomac's Actual ROE	30-Year U.S. Treasury Bond Yields	Potomac's Risk Premium
Jan 1991	11.50%	8.27%	3.23%
Feb	11.50%	8.03%	3.47%
Mar	11.50%	8.29%	3.21%
Apr	11.50%	8.21%	3.29%
May	11.50%	8.27%	3.23%
Jun	11.50%	8.47%	3.03%
Jul	11.50%	8.45%	3.05%
Aug	11.50%	8.14%	3.36%
Sep	11.50%	7.95%	3.55%
Oct	11.50%	7.93%	3.57%
Nov	11.50%	7.92%	3.58%
Dec	11.50%	7.70%	3.80%
Jan 1992	10.20%	7.58%	2.62%
Feb	10.20%	7.85%	2.35%
Mar	10.20%	7.97%	2.23%
Apr	10.20%	7.96%	2.24%
May	10.20%	7.89%	2.31%
Jun	10.20%	7.84%	2.36%
Jul	10.20%	7.60%	2.60%
Aug	10.20%	7.39%	2.81%
Sep	10.20%	7.34%	2.86%
Oct	10.20%	7.53%	2.67%
Nov	10.20%	7.61%	2.59%
Dec	10.20%	7.44%	2.76%
Jan 1993	11.50%	7.34%	4.16%
Feb	11.50%	7.09%	4.41%
Mar	11.50%	6.82%	4.68%
Apr	11.50%	6.85%	4.65%
May	11.50%	6.92%	4.58%
Jun	11.50%	6.81%	4.69%
Jul	11.50%	6.63%	4.87%
Aug	11.50%	6.32%	5.18%
Sep	11.50%	6.00%	5.50%
Oct	11.50%	5.94%	5.56%
Nov	11.50%	6.21%	5.29%
Dec	11.50%	6.25%	5.25%
Jan 1994	10.80%	6.29%	4.51%
Feb	10.80%	6.49%	4.31%
Mar	10.80%	6.91%	3.89%
Apr	10.80%	7.27%	3.53%
May	10.80%	7.41%	3.39%
Jun	10.80%	7.40%	3.40%
Jul	10.80%	7.58%	3.22%
Aug	10.80%	7.49%	3.31%
Sep	10.80%	7.71%	3.09%
Oct	10.80%	7.94%	2.86%
Nov	10.80%	8.08%	2.72%
Dec	10.80%	7.87%	2.93%
Jan 1995	10.70%	7.85%	2.85%
Feb	10.70%	7.61%	3.09%
Mar	10.70%	7.45%	3.25%
Apr	10.70%	7.36%	3.34%
May	10.70%	6.95%	3.75%
Jun	10.70%	6.57%	4.13%
Jul	10.70%	6.72%	3.98%
Aug	10.70%	6.86%	3.84%
Sep	10.70%	6.55%	4.15%
Oct	10.70%	6.37%	4.33%
Nov	10.70%	6.26%	4.44%
Dec	10.70%	6.06%	4.64%

Mo/Year	Potomac's Actual ROE	30-Year U.S. Treasury Bond Yields	Potomac's Risk Premium
Jan 1996	11.70%	6.05%	5.65%
Feb	11.70%	6.24%	5.46%
Mar	11.70%	6.60%	5.10%
Apr	11.70%	6.79%	4.91%
May	11.70%	6.93%	4.77%
Jun	11.70%	7.06%	4.64%
Jul	11.70%	7.03%	4.67%
Aug	11.70%	6.84%	4.86%
Sep	11.70%	7.03%	4.67%
Oct	11.70%	6.81%	4.89%
Nov	11.70%	6.48%	5.22%
Dec	11.70%	6.55%	5.15%
Jan 1997	10.60%	6.83%	3.77%
Feb	10.60%	6.69%	3.91%
Mar	10.60%	6.93%	3.67%
Apr	10.60%	7.09%	3.51%
May	10.60%	6.94%	3.66%
Jun	10.60%	6.77%	3.83%
Jul	10.60%	6.51%	4.09%
Aug	10.60%	6.58%	4.02%
Sep	10.60%	6.50%	4.10%
Oct	10.60%	6.33%	4.27%
Nov	10.60%	6.11%	4.49%
Dec	10.60%	5.99%	4.61%
Jan 1998	11.40%	5.81%	5.59%
Feb	11.40%	5.89%	5.51%
Mar	11.40%	5.95%	5.45%
Apr	11.40%	5.92%	5.48%
May	11.40%	5.93%	5.47%
Jun	11.40%	5.70%	5.70%
Jul	11.40%	5.68%	5.72%
Aug	11.40%	5.54%	5.86%
Sep	11.40%	5.20%	6.20%
Oct	11.40%	5.01%	6.39%
Nov	11.40%	5.25%	6.15%
Dec	11.40%	5.06%	6.34%
Jan 1999	11.80%	5.16%	6.64%
Feb	11.80%	5.37%	6.43%
Mar	11.80%	5.58%	6.22%
Apr	11.80%	5.55%	6.25%
May	11.80%	5.81%	5.99%
Jun	11.80%	6.04%	5.76%
Jul	11.80%	5.98%	5.82%
Aug	11.80%	6.07%	5.73%
Sep	11.80%	6.07%	5.73%
Oct	11.80%	6.26%	5.54%
Nov	11.80%	6.15%	5.65%
Dec	11.80%	6.35%	5.45%
Jan 2000	10.10%	6.63%	3.47%
Feb	10.10%	6.23%	3.87%
Mar	10.10%	6.05%	4.05%
Apr	10.10%	5.85%	4.25%
May	10.10%	6.15%	3.95%
Jun	10.10%	5.93%	4.17%
Jul	10.10%	5.85%	4.25%
Aug	10.10%	5.72%	4.38%
Sep	10.10%	5.83%	4.27%
Oct	10.10%	5.80%	4.30%
Nov	10.10%	5.78%	4.32%
Dec	10.10%	5.49%	4.61%

Summary Information	(1991 - 2000)
Average Risk Premium: (Jan 1991 - Dec 2000)	**4.30%**
High Risk Premium: (January 1999)	**6.64%**
Low Risk Premium: (March 1992)	**2.23%**

Sources: The Value Line Investment Survey: Ratings & Reports.
St. Louis Federal Reserve Website: http://www.stls.frb.org/fred/data/rates/gs30

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Average Risk Premium above the Yields of 30-Year U.S. Treasury Bonds for Puget Energy Inc.'s Actual Returns on Common Equity

Mo/Year	Puget's Actual ROE	30-Year U.S. Treasury Bond Yields	Puget's Risk Premium
Jan 1991	13.00%	8.27%	4.73%
Feb	13.00%	8.03%	4.97%
Mar	13.00%	8.29%	4.71%
Apr	13.00%	8.21%	4.79%
May	13.00%	8.27%	4.73%
Jun	13.00%	8.47%	4.53%
Jul	13.00%	8.45%	4.55%
Aug	13.00%	8.14%	4.86%
Sep	13.00%	7.95%	5.05%
Oct	13.00%	7.93%	5.07%
Nov	13.00%	7.92%	5.08%
Dec	13.00%	7.70%	5.30%
Jan 1992	11.70%	7.58%	4.12%
Feb	11.70%	7.85%	3.85%
Mar	11.70%	7.97%	3.73%
Apr	11.70%	7.96%	3.74%
May	11.70%	7.89%	3.81%
Jun	11.70%	7.84%	3.86%
Jul	11.70%	7.60%	4.10%
Aug	11.70%	7.39%	4.31%
Sep	11.70%	7.34%	4.36%
Oct	11.70%	7.53%	4.17%
Nov	11.70%	7.61%	4.09%
Dec	11.70%	7.44%	4.26%
Jan 1993	10.30%	7.34%	2.96%
Feb	10.30%	7.09%	3.21%
Mar	10.30%	6.82%	3.48%
Apr	10.30%	6.85%	3.45%
May	10.30%	6.92%	3.38%
Jun	10.30%	6.81%	3.49%
Jul	10.30%	6.63%	3.67%
Aug	10.30%	6.32%	3.98%
Sep	10.30%	6.00%	4.30%
Oct	10.30%	5.94%	4.36%
Nov	10.30%	6.21%	4.09%
Dec	10.30%	6.25%	4.05%
Jan 1994	8.90%	6.29%	2.61%
Feb	8.90%	6.49%	2.41%
Mar	8.90%	6.91%	1.99%
Apr	8.90%	7.27%	1.63%
May	8.90%	7.41%	1.49%
Jun	8.90%	7.40%	1.50%
Jul	8.90%	7.58%	1.32%
Aug	8.90%	7.49%	1.41%
Sep	8.90%	7.71%	1.19%
Oct	8.90%	7.94%	0.96%
Nov	8.90%	8.08%	0.82%
Dec	8.90%	7.87%	1.03%
Jan 1995	10.20%	7.85%	2.35%
Feb	10.20%	7.61%	2.59%
Mar	10.20%	7.45%	2.75%
Apr	10.20%	7.36%	2.84%
May	10.20%	6.95%	3.25%
Jun	10.20%	6.57%	3.63%
Jul	10.20%	6.72%	3.48%
Aug	10.20%	6.86%	3.34%
Sep	10.20%	6.55%	3.65%
Oct	10.20%	6.37%	3.83%
Nov	10.20%	6.26%	3.94%
Dec	10.20%	6.06%	4.14%

Mo/Year	Puget's Actual ROE	30-Year U.S. Treasury Bond Yields	Puget's Risk Premium
Jan 1996	10.20%	6.05%	4.15%
Feb	10.20%	6.24%	3.96%
Mar	10.20%	6.60%	3.60%
Apr	10.20%	6.79%	3.41%
May	10.20%	6.93%	3.27%
Jun	10.20%	7.06%	3.14%
Jul	10.20%	7.03%	3.17%
Aug	10.20%	6.84%	3.36%
Sep	10.20%	7.03%	3.17%
Oct	10.20%	6.81%	3.39%
Nov	10.20%	6.48%	3.72%
Dec	10.20%	6.55%	3.65%
Jan 1997	7.90%	6.83%	1.07%
Feb	7.90%	6.69%	1.21%
Mar	7.90%	6.93%	0.97%
Apr	7.90%	7.09%	0.81%
May	7.90%	6.94%	0.96%
Jun	7.90%	6.77%	1.13%
Jul	7.90%	6.51%	1.39%
Aug	7.90%	6.58%	1.32%
Sep	7.90%	6.50%	1.40%
Oct	7.90%	6.33%	1.57%
Nov	7.90%	6.11%	1.79%
Dec	7.90%	5.99%	1.91%
Jan 1998	11.60%	5.81%	5.79%
Feb	11.60%	5.89%	5.71%
Mar	11.60%	5.95%	5.65%
Apr	11.60%	5.92%	5.68%
May	11.60%	5.93%	5.67%
Jun	11.60%	5.70%	5.90%
Jul	11.60%	5.68%	5.92%
Aug	11.60%	5.54%	6.06%
Sep	11.60%	5.20%	6.40%
Oct	11.60%	5.01%	6.59%
Nov	11.60%	5.25%	6.35%
Dec	11.60%	5.06%	6.54%
Jan 1999	11.80%	5.16%	6.64%
Feb	11.80%	5.37%	6.43%
Mar	11.80%	5.58%	6.22%
Apr	11.80%	5.55%	6.25%
May	11.80%	5.81%	5.99%
Jun	11.80%	6.04%	5.76%
Jul	11.80%	5.98%	5.82%
Aug	11.80%	6.07%	5.73%
Sep	11.80%	6.07%	5.73%
Oct	11.80%	6.26%	5.54%
Nov	11.80%	6.15%	5.65%
Dec	11.80%	6.35%	5.45%
Jan 2000	13.00%	6.63%	6.37%
Feb	13.00%	6.23%	6.77%
Mar	13.00%	6.05%	6.95%
Apr	13.00%	5.85%	7.15%
May	13.00%	6.15%	6.85%
Jun	13.00%	5.93%	7.07%
Jul	13.00%	5.85%	7.15%
Aug	13.00%	5.72%	7.28%
Sep	13.00%	5.83%	7.17%
Oct	13.00%	5.80%	7.20%
Nov	13.00%	5.78%	7.22%
Dec	13.00%	5.49%	7.51%

Summary Information	(1991 - 2000)
Average Risk Premium: (Jan 1991 - Dec 2000)	**4.13%**
High Risk Premium: (December 2000)	**7.51%**
Low Risk Premium: (April 1997)	**0.81%**

Sources: The Value Line Investment Survey: Ratings & Reports.
St. Louis Federal Reserve Website: http://www.stls.frb.org/fred/data/irates/gs30

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Risk Premium Cost of Equity Estimates for the Comparable Electric Utility Companies

Company Name	(1) Appropriate Yield	(2) Equity Premium	(3) Cost of Common Equity
DPL, Inc.	5.48%	7.72%	13.20%
DQE, Inc.	5.48%	5.39%	10.87%
Hawaiian Electric	5.48%	3.73%	9.21%
IDACORP	5.48%	4.75%	10.23%
NSTAR	5.48%	4.64%	10.12%
Potomac Electric Power	5.48%	4.30%	9.78%
Puget Energy, Inc.	5.48%	4.13%	9.61%
Average			10.43%

NOTES:

Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for September 2001 which was obtained from the St. Louis Federal Reserve Website: http://www.stls.frb.org/fred/data/irates/gs30.

Column 2 = The equity premium represents the average positive difference between the Company's actual return on common equity as reported in The Value Line Investment Survey: Ratings & Report and the yield on 30-year U.S. Treasury Bonds January 1991 through December 2000.
See Schedules 19-1 through 19-7.

Column 3 = Column 1 + Column 2.

Selected Financial Ratios for the Comparable Electric Utility Companies

Company Name	(1) Year 2000 Common Equity to Total Capital Ratio	(2) Year 2000 Preferred Stock Ratio	(3) Year 2000 Long-Term Debt Ratio	(4) Pre-Tax Interest Coverage Ratio	(5) Market-to-Book Value (as of 12/31/00)	(6) 2001 Projected Return on Common Equity	(7) Bond Rating
DPL, Inc.	27.70%	0.70%	71.60%	1.70 x	3.85 x	26.50%	BBB+
DQE, Inc.	33.00%	10.20%	56.80%	1.90 x	1.90 x	8.50%	BBB+
Hawaiian Electric	39.90%	1.70%	58.40%	2.60 x	1.34 x	12.00%	BBB+
IDACORP	45.90%	5.80%	48.30%	4.40 x	1.63 x	13.00%	AA-
NSTAR	39.40%	1.20%	59.40%	3.00 x	1.56 x	14.50%	A-
Potomac Electric Power	47.30%	5.50%	47.20%	3.90 x	1.40 x	11.00%	A
Puget Energy, Inc.	37.40%	3.10%	59.50%	3.20 x	1.32 x	12.00%	A-
Average	38.66%	4.03%	57.31%	2.96 x	1.86 x	13.93%	A-
Utilicorp United, Inc.	**35.00%**	**8.70%**	**46.60%**	**3.20 x**	**1.81 x**	**3.00%**	BBB

Sources: The Value Line Investment Survey: Ratings and Reports, July 6, August 17 and September 7, 2001 for columns (1), (2), (3), (4) and (6).
C.A. Turner Utility Reports, April 2001 for columns (5) and (7)

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Pro Forma Pre-Tax Interest Coverage Ratios for UtiliCorp United, Inc.

	9.43%	9.93%	10.43%
1. Common Equity (Schedule 10)	$2,586,702,000	$2,586,702,000	$2,586,702,000
2. Earnings Allowed (ROE * [1])	$243,925,999	$256,859,509	$269,793,019
3. Tax Multiplier (1 / { 1 - Tax Rate })	1.6231	1.6231	1.6231
4. Pre-Tax Earnings ([2] * [3])	$395,916,288	$416,908,668	$437,901,048
5. Preferred Dividends	$31,051,000	$31,051,000	$31,051,000
6. Annual Interest Costs (Schedule 10-1)*	$185,679,386	$185,679,386	$185,679,386
7. Avail. for Coverage ([4] + [5] + [6])	$612,646,674	$633,639,054	$654,631,434
8. Pro Forma Pre-Tax Interest Coverage ([7] / [6])	**3.30 x**	**3.41 x**	**3.53 x**

Electric Utility Financial Medians - Pretax Interest Coverage (x)

	Lower Quartile	Median	Upper Quartile
Standard & Poor's Corporation's Utility Rating Service as of July 7, 2000	**BBB**	**BBB**	**BBB**
	1.97	**2.53**	**3.15**

Note: * Long-term debt interest expense plus short-term debt interest expense from MPS's response to DR 3803.

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 : $RR = O + (V - D)R$

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

R R	=	Revenue Requirement
O	=	Prudent Operating Costs, including Depreciation and Taxes
V	=	Gross Valuation of the Property Serving the Public
D	=	Accumulated Depreciation
(V - D)	=	Rate Base (Net Valuation)
(V - D) R	=	Return Amount ($$) or Earnings Allowed on Rate Base
R	=	i L + d P + k E or Overall Rate of Return (%)
i	=	Embedded Cost of Debt
L	=	Proportion of Debt in the Capital Structure
d	=	Embedded Cost of Preferred Stock
P	=	Proportion of Preferred Stock in the Capital Structure
k	=	Required Return on Common Equity (ROE)
E	=	Proportion of Common Equity in the Capital Structure

Weighted Cost of Capital as of June 30, 2001 for Missouri Public Service

Capital Component	Percentage of Capital	Embedded Cost	Weighted Cost of Capital Using Common Equity Return of: 9.43%	9.93%	10.43%
Common Stock Equity	48.51%	-----	4.57%	4.82%	5.06%
Preferred Stock	6.52%	9.29%	0.61%	0.61%	0.61%
Long-Term Debt	44.97%	7.35%	3.31%	3.31%	3.31%
Short-Term Debt	0.00%	0.00%	0.00%	0.00%	0.00%
	100.00%		**8.49%**	**8.74%**	**8.98%**

Notes:

See Schedule 9 for the Capital Structure Ratios.

See Schedule 10-1 for the Embedded Cost of Long-Term Debt.

See Schedule 11-1 for the Embedded Cost of Preferred Stock.