Exhibit No.:	
Issue:	*Cost of Capital*
Witness:	*ROBERTA A. McKIDDY*
Sponsoring Party:	*MoPSC Staff*
Type of Exhibit:	*Direct Testimony*
Case No.:	*ER-2001-299*
Date Testimony Prepared:	*April 3, 2001*

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

DIRECT TESTIMONY

OF

ROBERTA A. McKIDDY

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2001-299

Jefferson City, Missouri
April 2001

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

A. My testimony is presented to provide a recommendation to the Commission as to a fair and reasonable rate of return for the Missouri jurisdictional electric utility rate base for The Empire District Electric Company (Empire).

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

A. Yes. I am sponsoring a study entitled "An Analysis of the Cost of Capital for The Empire District Electric Company, Case No. ER-2001-299" consisting of 29 schedules which are attached to this direct testimony (see Schedule 1).

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

A. My analysis leads me to conclude that the current cost of capital for Empire is in the range of 8.19 to 8.59 percent.

Economic and Legal Rationale for Regulation

Q. Why are the prices charged to customers by utilities such as Empire 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 duplicate electric 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 companies such as Empire provide electric services essentially under a monopoly franchise. Therefore, it is clear that Empire 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 discuss the legal basis for 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 Case (1877),
2. Bluefield Water Works and Improvement Company Case (1923),
3. Natural Gas Pipeline Company of America Case (1942), and
4. Hope Natural Gas Company Case (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.

DIRECT TESTIMONY

OF

ROBERTA A. MCKIDDY

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2001-299

Q. Please state your name.

A. My name is Roberta A. McKiddy.

Q. Please state your business address.

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

Q. What is your present occupation?

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

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

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

Q. What is your educational background?

A. In July 1997 I earned a Bachelor of Science degree in Business Administration with an emphasis in Finance from Columbia College. In June 2000, I completed my Masters of Business Administration degree with William Woods University in Jefferson City.

In Federal Power Commission et al. v. Natural Gas Pipeline Company of America, 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 extends the Hope case decision beyond balancing the interests of the investors and the consumers. The Supreme Court of Pennsylvania stated that:

> We do not believe, however, . . . that the end result of a rate-making body's adjudication *must* be the setting of rates at a level that will, in any given case, guarantee the continued financial integrity of the utility concerned . . . . In cases where the balancing of consumer interests against the interests of investors causes rates

> to be set at a "just and reasonable" level which is insufficient to ensure the continued financial integrity of the utility, it may simply be said that the utility has encountered one of the risks that imperil any business enterprise, namely the risk of financial failure. Pennsylvania Electric Company, 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 wrongful management which results 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, in a case of extremely poor management, I do not believe it would always be appropriate for a regulatory agency to provide sufficient funds to continue operations no matter what the costs are to the ratepayers.

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

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

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

Historical Economic Conditions

Q. Please discuss the relevant historical economic conditions in which The Empire District Electric has operated.

A. One of the most commonly accepted indicators of economic conditions is the discount rate set by the Federal Reserve Board (Federal Reserve). The Federal Reserve tries to achieve its monetary policy objectives by controlling the discount rate (the 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, newly elected 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 3.5 percent. The Federal Reserve took three additional restrictive monetary actions with the last occurring on February 1, 1995. These actions raised the discount rate to 5.25 percent, and in turn, banks raised the prime interest rate to 9.00 percent.

The Federal Reserve 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 over the last five years 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 3.3 percent for the period ending December 31, 2000 (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 gradually dropped to its current level of 4.2 percent for the period ending February 28, 2001 (see Schedule 7).

The combination of low inflation and low unemployment has led to a prosperous economy, as evidenced by the real gross domestic product of the United States. Over the time period of 1993 through the present, real GDP has increased every quarter. The stock market, as measured by the Dow Jones Composite Index, has increased by 81.23 percent between August 1, 1996 and February 22, 2001, while the Dow Jones Industrial Index has increased by 88.16 percent over that same time frame. The stock market has increased 18.36 percent as measured by The Value Line Geometric Averages Composite Index from August 1, 1996 through February 22, 2001. It should be noted that the Value Line Composite Index is an equally weighted geometric average of 1594 companies as compared to the Dow Jones Composite Index, which is a price-weighted arithmetic average of 65 companies.

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, 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 increases have been contained in the energy sector, economists worried about a spillover effect that could send overall inflation higher, thus setting off alarms to the Federal Reserve.

Despite the economy's downshift, there is as yet no sign that the labor markets are loosening up in a way that will take upward pressure off labor costs. In October 2000, the jobless rate held at 3.9 percent. A further sign of tight labor markets is the speedup in hourly earnings of production workers. For the total labor market, both sides of the equation appear to be at work, but a shrinking labor pool seems to be the chief reason for the recent slowdown in job growth for managerial and professional workers.

A key factor complicating the outlook for inflation and Fed policy for 2001 is productivity. While the structural trend in productivity growth has clearly shifted up, the cyclical slowdown is sure to continue in 2001 since, in the short run, productivity growth tends to follow the pace of the economy. This year is shaping up to be a period of both slower growth and rising core inflation. Tight labor markets will have the potential to lift inflation pressures, while at the same time softer output gains mean short-term productivity growth is likely to slow considerably.

After raising the federal funds rate six times in 1999 and 2000 to hold down inflation in a rapidly growing economy, Fed policy-makers began expressing concern about a slowdown in December 2000. On January 3, 2001, the Federal Open Market Committee decided to lower 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, and high energy prices sapping household and business purchasing power. On January 31, 2001, the Fed 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 Fed has taken its most aggressive action to boost the economy since December 1991. The Fed justified its actions by citing eroding consumer and business confidence and rising energy costs.

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 1985 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. Mergent's "Public Utility Bond Yields" are also graphically compared to both Standard & Poor's "Utilities Stock Yields" and Standard & Poor's "Industrials Stock Yields" (see Schedule 6).

Economic Projections

Q. What are the inflationary expectations for the remainder of 2001 and beyond?

A. The latest inflation rate, as measured by the *Consumer Price Index-All Urban Consumers* (CPI), was 3.4 percent for the 12-months ended December 31, 2000. *The Value Line Investment Survey: Selection & Opinion*, March 2, 2001, predicts inflation to be 2.6 percent for 2001, 2.5 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 5.8 percent in 2000 and are expected to be 4.8 percent in 2001, 5.1 in 2002 and 5.2 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 from 5.5 percent in 2001 to 5.8 percent in 2002 and 6.0 percent in 2003.

The current rates for the period ending February 28, 2001 are 4.88 percent for 3-month T-Bills and 5.45 percent for 30-year T-Bonds, as noted on the Federal Reserve website.

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 increased by 5.0 percent in 2000, and expects real GDP to increase by 1.9 percent in 2001, 3.4 percent in 2002 and by 3.5 percent in 2003. The Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2002-2011*, stated that real GDP is expected to increase by 2.4 percent in 2001 and expects real GDP to increase by 3.4 percent in 2002 and 3.3 percent in 2003 (see Schedule 7).

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 2.5 to 2.8 percent, increase in real GDP in the range of 1.9 to

3.5 percent and long-term interest rates are expected to range from 5.5 to 6.0 percent. *The Value Line Investment Survey: Selection & Opinion*, March 2, 2001, states that:

> **A lot has happened in the three months since we last published the "Quarterly Economic Review."** For starters, the most controversial election since the 1876 Hayes-Tilden contest finally has been installed. Second, the Federal Reserve Board has shifted from a monetary ease, with the nation's central bank having voted to reduce interest rates twice, for a total of one full percentage point, since the start of this year. Third, the U.S. economy, which appeared to be slowing just modestly three months ago, is now decelerating much more quickly, with the risk of a recession currently greater than at any time since the early 1990s, in our opinion. Finally, the stock market, which went into a sudden tailspin while the recent election drama was being played out, then rallied in January on optimism about further interest rate cuts, has faltered anew, as optimism on rates now has been more than offset by pessimism about corporate profits in a weakening economy.
>
> At the same time, several basic themes have remained in place. For example, oil prices have stayed in a fairly tight range in the past three months, after having surges for much of last year; inflation has largely remained under control, although January's larger-than-expected rise in both the Producer and the Consumer Price Indexes raises concerns for the first time in months; productivity (or worker efficiency) has remained high; the global situation has continued to be relatively calm with a large part of the developed world experiencing weaker growth in line with the United States; and there has been a further absence of the kinds of exogenous shocks that could bring about upheavals, not only in the world's financial markets, but with regard to the military balance overseas as well.
>
> Overall, our sense is that the U.S. economy is not in a recession as the first quarter draws to a close. Indeed, the underpinnings in the consumer and industrial sectors now look to be sufficiently sound for a recovery to take hold after midyear, following a first half in which GDP growth may be negligible at best.
>
> Our cautious optimism that we will suffer, at worst, a brief and relatively mild recession, reflects not only the expectation that the Fed will continue to lower interest rates, but also the realization that still-high real estate prices, large imbedded gains in the stock market (much of which remain even after the market's recent string of reversals), and low unemployment will give consumers

> the wherewithal to spend the sums needed to prevent an extended recession from evolving.

S&P states the following in the February 7, 2001, issue of *The Outlook*:

> We expect the Fed to lower rates a good deal further, and an accommodative Fed is generally a major market plus. S&P economist David Wyss believes that, with the help of an additional half- to full-percentage point cut in the fed funds rate, the economy will skirt a recession. While looking for little GDP growth in the first half and worried that corporate profits may come in below current expectations, Wyss points out that the market tends to anticipate improvement in the economy by an average of four to six months. He feels, therefore, that the present is a good time to be accumulating stocks.

S&P also states in the February 14, 2001 issue of *The Outlook*:

> Bad weather was more of a factor than thought in the dramatic economic slowdown in December, with January looking less dire. Some now assume the Fed will not have to ease as much as earlier expected. Doubts in this regard will persist at least until the release of February data.
>
> S&P economist David Wyss is still looking for GDP growth of less than 1% in the first quarter, followed by a fairly strong recovery. As heavy lay-offs came so quickly, he feels a V-shaped cycle is likely. With inflation not a problem, Wyss believes the fed funds target will be lowered from the current 5 ½% to 5% in March and to a low of 4 ¾% or 4 ½% soon after.

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

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

stock crashes of 1907 and 1891 also followed episodes when the yield on bonds came within one percent of the dividend yield on stocks.

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

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

Business Operations of The Empire District Electric Company

Q. Please describe Empire's business operations.

A. In The Empire District Electric Company's 1999 Stockholders' Annual Report, Empire states:

The Empire District Electric Company (the "Company"), a Kansas corporation organized in 1909, is an operating public utility engaged in the generation, purchase, transmission, distribution and sale of electricity in parts of Missouri, Kansas, Oklahoma and Arkansas. The Company also provides water service to three towns in Missouri. In 1999, 99.5% of the Company's gross operating revenues were provided from the sale of electricity and 0.5% from the sale of water.

The territory served by the Company's electric operations embraces an area of about 10,000 square miles with a population of over 330,000. The service territory is located principally in Southwestern Missouri and also includes smaller areas in Southeastern Kansas, Northeastern Oklahoma and Northwestern Arkansas. The principal activities of these areas are industry, agriculture and tourism. Of the Company's total 1999 retail electric revenues, approximately 88% came from

Missouri customers, 6% from Kansas customers, 3% from Oklahoma customers and 3% from Arkansas customers.

The Company supplies electric service at retail to 121 incorporated communities and to various unincorporated areas and at wholesale to four municipally-owned distribution systems and two rural electric cooperatives. The largest urban area served by the Company is the city of Joplin, Missouri, and its immediate vicinity, with a population of approximately 135,000. The Company operates under franchises having original terms of twenty years or longer in virtually all of the incorporated communities. Approximately 24% of the Company's electric operating revenues in 1999 were derived from incorporated communities with franchises having at least ten years remaining and approximately 36% were derived from incorporated communities in which the Company's franchises have remaining terms of ten years or less. Although the Company's franchises contain no renewal provisions, in recent years the Company has obtained renewals of all of its expiring electric franchises prior to the expiration dates.

The Company's electric operating revenues in 1999 were derived as follows: residential 41%, commercial 31%, industrial 17%, wholesale 7% and other 4%. The Company's largest single on-system wholesale customer is the city of Monett, Missouri, which in 1999 accounted for approximately 3% of electric revenues. No single retail customer accounted for more than 1% of electric revenues in 1999.

Empire's total operating revenues were $260,003,458 for the 12 months ended December 31, 2000 with approximately 87.8 percent ($228,351,278) coming from its Missouri jurisdictional electric operations, 5.9 percent ($15,353,934) from its Kansas jurisdictional electric operations, 3.1 percent ($7,968,587) from its Oklahoma jurisdictional electric operations, 2.8 percent ($7,263,532) from its Arkansas jurisdictional electric operations and 0.4 percent ($1,037,657) from its water operations. These revenues resulted in an overall net income applicable to common stock of $23,617,154. These figures were taken from Empire's response to Staff Data Information Request Nos. 3801 and 3809 for the period ending December 31, 2000.

Q. Please describe the credit ratings of Empire.

A. Currently, Standard & Poor's Corporation rates the senior secured debt of Empire as "A-", its preferred stock as "BBB", its commercial paper as "A-2" and categorizes Empire's business position as being "average". Also, Mergent Bond Record rates Empire's first mortgage bonds as "A2". All of these ratings are considered to be of "investment grade." It should be noted in the financial community that Standard & Poor's Corporation's "A-" credit rating is comparable to Mergent Bond Record's "A3" credit rating.

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

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

> **OUTLOOK: NEGATIVE** The negative outlook reflects the financial stress placed on Empire during its relatively large construction program, which is now largely completed. Adding to the negative stance on the ratings is the uncertainty regarding the prospect of adequate rate relief to pay for the generating capacity additions. If regulators approve substantial rate increases, ratings stability could be achieved.

Q. Please provide some historical financial information for Empire.

A. Schedules 8 and 9 present historical capital structures and selected financial ratios from 1995 to 1999 for Empire. Empire's common equity ratio has remained rather steady from 1995 through 1996 ranging from 45.90 percent to 45.77 percent; then in 1997 the common equity ratio increased to 48.86 percent, but has since dropped to 40.37 percent as of year-end 1999. Empire's lower common equity ratio in 1995 and 1996 is related to their increased use of debt to finance their construction program.

Empire's dividend payout ratio has continued to be high with it topping out at 108.90 percent in 1995. It dropped to 83.70 percent in 1998, but jumped back up to 107.30 percent in 1999.

Empire's return on year-end common equity (ROE) increased from 9.00 percent in 1995 to 11.28% percent in 1998, with a significant decline in 1999 to 8.31 percent. The 8.31 percent decline is directly related to the effects of merger costs. Earnings per share were $1.13 with merger cost write-offs while EPS without merger costs were $1.46 per share [Source: The Empire District Electric Company's 1999 Annual Shareholder Report]. Empire's 1999 ROE of 8.31 percent was below the average earned by other electric utilities of 12.30 percent for the year ending December 31, 1999 according to The Value Line Investment Survey: Ratings & Reports, January 5, 2001. Value Line also estimates that Empire's return on equity will be 11.0 percent for 2000 and 13.0 percent for the time period 2003-2005.

Empire's market-to-book ratio increased from 1.41 times for year-end 1995 to 1.85 times for year-end 1998, but then decreased to 1.68 times for year-end 1999.

In my opinion, the deterioration of Empire's financial statistics in 1999 reflect the impact of the company's construction program, which is very near completion, as well as the adverse effects of the now terminated merger transaction with UtiliCorp United, Inc. It is believed that Empire's financials will improve going forward.

Determination of the Cost of Capital

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

A. The total dollars of capital for the utility company are determined for a specific point in time. This total dollar amount is proportioned into each specific capital component. A weighted cost for each capital component is determined by multiplying each capital component ratio by the appropriate embedded cost or the estimated cost of common

equity component. The individual weighted costs are summed to arrive at a total weighted cost of capital. This total weighted cost of capital is synonymous with the fair rate of return for the utility company.

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

A. From a financial viewpoint, a company employs different forms of capital to support or fund the assets of the company. These funds are invested proportionately to support each dollar of the company's assets. 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 have you employed in developing a weighted cost of capital for Empire?

A. I have employed a capital structure as of December 31, 2000 for Empire. Schedule 10 presents Empire's capital structure and associated capital ratios. The resulting capital structure consists of 39.80 percent common stock equity and 60.20 percent long-term debt and 0.00 percent short-term debt.

As of December 31, 2000 Empire had $69,500,000 of short-term debt outstanding. However, for purposes of this analysis, the amount of short-term debt was set at 0.00 percent, because it is assumed these funds are used to fund Construction Work In Progress (CWIP), which had a greater book value of $95,040,880 at December 31, 2000.

Q. What was the embedded cost of long-term debt for Empire at December 31, 2000?

A. I determined the embedded cost of long-term debt at December 31, 2000, for Empire to be 7.98 percent (see Schedule 11).

Cost of Equity

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

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

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 under-valued nor over-valued. It can also be stated that stock prices continually fluctuate to reflect the required and expected return for the investor.

The continuous growth form of the DCF model was used in estimating the cost of equity for Empire. 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 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:

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

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

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

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. Even though the entire list of above assumptions is rarely met, the DCF model is a reasonable working model describing an actual investor's expectations and resulting behaviors.

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

A. Yes. In order to arrive at a company-specific DCF result, the company must have common stock that is market-traded and must pay dividends. Empire's stock is publicly traded on the New York Stock Exchange under the ticker symbol of "EDE" and Empire has paid cash dividends each year since 1944.

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

A. I reviewed Empire's actual dividends per share (DPS), earnings per share (EPS) and book values per share (BVPS) as well as projected growth rates for Empire. Schedule 12 lists annual compound growth rates and trend line growth rates calculated for DPS, EPS and BVPS for the periods of 1990 through 2000 and 1995 through 2000. Schedule 13 presents the five- and ten-year historical EPS, DPS and BVPS growth rates as well as the projected growth rates for Empire. The projected growth rates were obtained

from two outside sources. Standard & Poor's Corporation's Earnings Guide, February 2001, projects a five-year EPS growth rate of 2.00 percent for Empire. The Value Line Investment Survey: Ratings and Reports, January 5, 2001, projects the compound annual rate of growth for EPS during the next three to five years will be 6.00 percent for Empire. The average of the two outside sources produces a projected growth rate of 4.00 percent. Combining the historical EPS, DPS and BVPS growth rates with the projected growth rates produces a reasonable growth rate range of 3.00 to 4.00 percent (see Schedule 13). This range of growth (g) is the range that I used in the DCF model to calculate a cost of common equity for Empire. It should be noted that I/B/E/S Inc.'s Institutional Brokers Estimate System, January 17, 2001 and Zack's Earnings Estimates, February 21, 2001 did not project a five-year growth forecast for Empire.

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

A. The expected yield term (D_1/P_0) of the DCF model is calculated by dividing the amount of common dividends per share expected to be paid over the next twelve months (D_1) by the current market price per share of the firm's common stock (P_0). Even though the model requires the use of a current spot market price, I have chosen to use a monthly high/low average market price of Empire's common stock for the period of October 1, 2000, through March 4, 2001. 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. It is also an attempt to normalize the effect of the terminated merger between Empire and UtiliCorp United, Inc. (UCU).

Schedule 14 presents the monthly high/low average stock market prices from October 1, 2000 through March 4, 2001 for Empire. Empire's common stock price has ranged from a low of $19.800 per share to a high of $30.750 per share for the above mentioned time period. This has produced a range for the monthly average high/low market price of $20.110 to $29.000 per share and reflects the most recent market conditions for the price term (P_0) in the DCF model.

The Value Line Investment Survey: Ratings & Reports, January 5, 2001, states that Empire's common dividend declared per share will be $1.28 for 2000. Therefore, I have chosen to use the value of $1.28 for the amount of common dividends per share (D_1) expected-to-be paid by Empire for the period ending December 31, 2000.

Combining the expected dividend of $1.28 per share and a market price range of $20.110 to $29.000 per share produces an approximate expected dividend yield of 5.50 percent. This is the dividend yield I used as the yield portion (D_1/P_0) in the DCF model.

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

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

Yield (D_1/P_0)	+	Growth Rate (g)	=	Cost of Equity (k)
5.50%	+	3.00%	=	8.50%
5.50%	+	4.00%	=	9.50%

This range of return on common equity of 8.50 to 9.50 percent is the company specific cost of equity range for Empire (see Schedule 15).

Reasonableness of DCF Returns for Empire

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

A. I performed a risk premium cost of equity analysis for Empire. The risk premium concept implies that the required return on equity is found by adding an explicit premium for risk to a current interest rate. Schedule 16 shows the average risk premium above the yield of "30-year U.S. Treasury Bonds" for Empire's expected return on common equity. This analysis shows, on average, Empire's expected return on equity, as reported by The Value Line Investment Survey: Ratings & Reports, is 430 basis points higher than the average yield on "30-year U.S. Treasury Bonds" for the period of January 1991 to December 2000 (see Schedule 16).

The Federal Reserve web site reports the average yield for "30-year U.S. Treasury Bonds for December 2000 was 5.49 percent. Adding 430 basis points to this "30-year U.S. Treasury Bond" yield produces an estimated cost of equity of 9.79 percent (see Schedule 17). This supports the high end of my cost of equity range derived using the DCF model.

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

A. Yes. I performed a CAPM cost of equity analysis for Empire. 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, which 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 yield on 30-Year U.S. Treasury Bonds. The appropriate rate was determined to be the high/low range of 5.49 to 5.83 percent for the 6-month period ending January 31, 2001 as published on the Federal Reserve web site, 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. For purposes of this analysis, the appropriate beta was determined to be 0.50 as published in The Value Line Investment Survey: Ratings & Reports, January 5, 2001.

The final term of the CAPM is the market risk premium ($R_m - R_f$). The market risk premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. For purposes of this analysis, the

appropriate market risk premium was determined to be 7.80 percent as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2000 Yearbook for the period 1926-1999.

Schedule 18 presents the CAPM analysis with regard to Empire. The CAPM analysis produces an estimated cost of equity range of 9.39 to 9.73 percent for Empire (see Schedule 18). Again, this supports the high end of my cost of equity range derived using the DCF model.

Q. Based on your analysis of the DCF, risk premium and CAPM cost of equity results, what is your return on common equity estimate for Empire?

A. Based on my DCF, risk premium and CAPM analyses, I believe a return on common equity range of 8.50 to 9.50 is appropriate for Empire.

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

A. Yes. A pro forma pre-tax interest coverage calculation was completed for Empire (see Schedule 19). It reveals that the cost of equity range of 8.50 to 9.50 percent would yield a pre-tax interest coverage ratio in the range of 2.14 to 2.28 times (see Schedule 19). Although this interest coverage range is not in line with Standard & Poor's "A" "Average" business position electric utilities benchmark range of 2.95 times to 4.13 times, it does support the "negative" outlook placed on Empire by Standard and Poor's effective January 11, 2001 and quoted earlier in this testimony.

It may be helpful to explain further by defining how Standard and Poor's (S&P) assesses a credit rating Outlook. A Standard & Poor's Rating Outlook assesses the potential direction of a long-term credit rating over the intermediate to longer term. In determining a

rating Outlook, S&P considers any changes in the economic and/or fundamental business conditions. A rating is not necessarily a precursor of a rating change or future CreditWatch action. CreditWatch highlights the potential direction of a short- or long-term rating. It focuses on identifiable events and short-term trends that cause the rating to be placed under special surveillance by Standard & Poor's analytical staff. These may include mergers, recapitalizations, voter referendums, regulatory action, or anticipated operating developments. Ratings appear on CreditWatch when such an event or a deviation from an expected trend occurs and additional information is necessary to evaluate the current rating. The "positive" designation indicates that a rating may be raised; "negative" indicates a rating may be lowered; and "developing" indicates that a rating may be raised, lowered or affirmed. It may also be helpful to define the true role of a credit rating as defined by S&P:

> A Standard & Poor's issue credit rating is a current opinion of the creditworthiness of an obligor with respect to a specific financial obligation, a specific class of financial obligations or a specific financial program (including ratings on medium-term note programs and commercial paper programs.) It takes into consideration the creditworthiness of guarantors, insurers, or other forms of credit enhancement on the obligation and takes into account the currency in which the obligation is denominated.
>
> The credit rating is not a recommendation to purchase, sell or hold a particular security. The rating performs the isolated function of credit risk evaluation, which is only one element of the investment decision-making process. A rating cannot constitute a recommendation inasmuch as it does not take into consideration other factors, such as market price and risk preference of the investor.
>
> Ratings do not create a fiduciary relationship between S&P and users of the ratings since there is no legal basis for the existence of such a relationship.
>
> It is commonplace for companies to structure financing transactions to reflect S&P's credit criteria so they qualify for higher ratings...Many companies go one step further and

> incorporate specific rating objectives as corporate goals...S&P does not encourage companies to manage themselves with an eye toward a specific rating. The more appropriate approach is to operate for the good of the business as management sees it, and to let the rating follow.

Q. Specifically, what factors does S&P consider when performing a corporate credit analysis?

A. According to the Corporate Ratings Criteria 2000 published by Standard & Poor's, S&P considers a number of factors when assigning a corporate credit rating. Such factors include the following:

Business Risk

Industry Characteristics
Competitive Position (e.g., Marketing, Technology, Efficiency, Regulation)
Management

Financial Risk

Financial Characteristics
Financial Policy
Profitability
Capital Structure
Cash Flow Protection
Financial Flexibility

S&P goes on to explain how this corporate rating criterion is employed. S&P states:

> Standard and Poor's uses a format that divides the analytical task into several categories, providing a framework that ensures all salient issues are considered. For corporates, the first several categories are oriented to fundamental business analysis; the remainder relate to financial analysis. As further analytical discipline, each is scored in the course of the ratings process, and there are also scores for the overall business risk profile and the overall financial risk profile.
>
> There are no formulae for combining scores to arrive at a rating conclusion. Bear in mind that ratings represent an art as much as a science. A rating is, in the end, an opinion. Indeed, it is critical to understand that the rating process is not limited to the examination of various financial measures. Proper assessment of debt

> protection levels requires a broader framework, involving a thorough review of business fundamentals, including judgments about the company's competitive position and evaluation of management and its strategies. Clearly, such judgments are highly subjective; indeed, subjectivity is at the heart of every rating.

At times, a rating decision may be influenced strongly by financial measures. At other times, business risk factors may dominate. If a firm is strong in one respect and weak in another, the rating will balance the different factors. Viewed differently, the degree of a firm's business risk sets the expectations for the financial risk it can afford at any rating level. The analysis of industry characteristics and how a firm is positioned to succeed in that environment establish the financial benchmarks used in the quantitative part of the analysis.

The low end of the recommended return on equity range allows enough earnings power for Empire to meet its Net Earnings Requirement of two times the amount of the annual interest requirements pursuant to provisions of its Supplemental Indenture (Source: Company Response to Staff Data Request No. 3806). Thus, the pro forma pre-tax interest coverage test shows that there will be enough earnings potential for Empire to meet its capital costs based upon the above referenced return on equity range for Empire.

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

A. Yes. I have selected a group of electric utility companies to analyze for determining the reasonableness of the company specific DCF results for Empire. Schedule 20 presents a list of forty-eight publicly traded electric utility companies monitored by Value Line. This list was reviewed for the following criteria:

1. Carries a Senior Secured Debt Rating for all Utility Operations of between "A+" and "BBB" from Standard & Poor's Corporation: This criterion eliminated no companies;

2. No Nuclear Operations: This criterion eliminated twenty-eight companies;

3. Electric Revenues to Total Revenues greater than 70 percent: This criterion eliminated eight additional companies;

4. Total Capital less than $6 Billion: This criterion eliminated no additional company;

5. Positive Dividends Per Share Annual Compound Growth Rate for the period of 1990 through 2000: This criterion eliminated three additional companies; and

6. No Missouri Operations: This criterion eliminated Ameren Corporation.

On average, this final group of nine publicly traded electric utility companies (comparable electric utility companies) is comparable to Empire because of similar business operations and credit ratings. The nine comparable electric utility companies are listed on Schedule 21.

Q. Please explain how you approached the determination of the cost of equity for the comparable electric utility companies.

A. I have calculated a DCF cost of equity for each of the nine comparable electric utility companies. The first step was to calculate a growth rate. Basically, I used the same approach of obtaining a growth rate estimate for the nine electric utility companies as I used in calculating a growth rate for Empire, except that I utilized the average of the historical EPS, DPS and BVPS growth rates as well as projected growth rates (see Schedules 22 and 23). The electric utility companies' average historical growth rates ranged from -0.02 to 6.01 percent with an overall average of 2.66 percent for the group. The projected growth rates ranged from 2.83 to 11.50 percent with an average of 6.52 percent. Taking into account the projected and historical growth rates, a proposed range of growth of 5.00 to 6.50 percent was used in the DCF calculation for the comparable companies (see Schedule 23). The proposed growth rate range for Empire falls significantly below the proposed range of growth for the comparable companies.

The next step was to calculate an expected dividend yield for each of the nine electric utility companies. Schedule 24 presents the average high/low stock price for the period of November 2000 through February 2001 for each electric utility company. Column 3 of Schedule 25 shows that the projected dividend yields ranged from 2.96 to 7.25 percent for the nine electric utility companies with the average at 5.12 percent. A proposed dividend yield 5.15 percent was used in the DCF calculation for the comparable companies. The proposed dividend yield of 5.50 percent for Empire falls just above the proposed dividend yield for the comparable electric utility companies.

The estimated growth rates and projected dividend yields were then added together to reach an estimated DCF cost of equity for each of the nine electric utility companies (see Column 5 of Schedule 25). These estimates produced a DCF cost of equity ranging from 10.19 to 12.54 percent for the comparable electric utility companies with an average of 11.64 percent. However, adding the proposed range of growth from Schedule 23 to the proposed dividend yield from Schedule 25, you arrive at an estimated range for cost of equity for the nine comparable electric utility companies of 10.15 to 11.65 percent (see Schedule 25). The significant difference in estimated range for cost of equity between Empire and the comparable electric utility companies can be accounted for by the difference in estimated growth rates as identified earlier in this testimony.

Q. Did you do any other analysis in determining the cost of common equity for the comparable electric utility companies?

A. Yes. I performed a CAPM cost of equity analysis for the comparable electric utility companies. The betas for the comparable electric utility companies averaged 0.54, which is above Empire's beta of 0.50. The CAPM analysis implies that the required return

on equity for the comparable electric utility companies falls within the range of 9.69 to 10.03 percent (see Schedule 26). The results from the CAPM analysis show the effect of the higher betas for the comparable electric utility companies than Empire. I believe this supports the high end of my estimated cost of common equity for Empire derived from using the DCF model.

Q. What additional analysis was performed to determine the reasonableness of your DCF model derived returns for the comparable electric utility companies?

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

Q. Please describe the analysis completed on the reported returns on equity and market-to-book values for the nine comparable electric utility companies.

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

Schedule 27 reports market-to-book values for Empire and the nine comparable electric utility companies, along with projected returns on common equity for 2001. The comparable companies had projected returns on common equity ranging from 11.50 to 26.00 percent and my recommended return on common equity for Empire in the case is 8.50 to 9.50 percent. The nine comparable companies had market-to-book ratios ranging from 2.20 times to 4.10 times, where Empire's market-to-book ratio at July 2000 was 1.9 times.

Q. Do you have any other evidence as to the reasonableness of your recommended cost of equity figure for the electric utility industry?

A. Yes. The Value Line Investment Survey: Ratings & Reports, January 5, 2001, predicts the electric utility industry will earn 13.0 percent on common equity for 2000 and 13.0 percent for 2001 through 2003. In my opinion, the market views Empire as less risky than the industry due to its competitive rate structure and its strong service area.

Rate of Return for Empire

Q. Please explain how the returns developed for each capital component are used in the ratemaking approach you have adopted to be applied to Empire's Missouri electric utility operations.

A. The cost of service ratemaking method was adopted in this case. This approach develops the public utility's revenue requirement. The cost of service (revenue requirement) is based on the following components: prudent operation costs, rate base and a return allowed on the rate base (see Schedule 28).

It is my responsibility to calculate and recommend a rate of return that should be authorized on the Missouri jurisdictional electric utility rate base for Empire. Under the cost of service ratemaking approach, a weighted cost of capital in the range of 8.19 to 8.59

percent was developed for Empire's Missouri electric utility operations (see Schedule 29). This rate was calculated by applying an embedded cost of long-term debt of 7.98 percent and a return on common equity range of 8.50 to 9.50 percent to a capital structure consisting of 0.00 percent short-term debt, 60.20 percent long-term debt and 39.80 percent common equity. Therefore, I am recommending that The Empire District Electric Company's Missouri electric utility operations be allowed to earn a return on its original cost rate base in the range of 8.19 to 8.59 percent.

Through my analysis, I believe that I have developed a fair and reasonable return and when applied to The Empire District Electric Company's Missouri jurisdictional electric utility rate base will allow Empire 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. Empire has requested a true-up audit in its direct case because it has a significant amount of new plant currently expected to come on-line June 1, 2001. Therefore, I am recommending a true-up audit be performed for the purpose of updating the capital structure and associated embedded costs through June 30, 2001. This would be in conjunction to those items recommended for true-up by Staff witness Phillip K. Williams of the Accounting Department in his direct testimony.

Q. Does this conclude your prepared direct testimony?

A. Yes, it does.

AN ANALYSIS OF THE COST OF CAPITAL

FOR

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2001-299

BY

ROBERTA A. MCKIDDY

UTILITY SERVICES DIVISION

MISSOURI PUBLIC SERVICE COMMISSION

April 2001

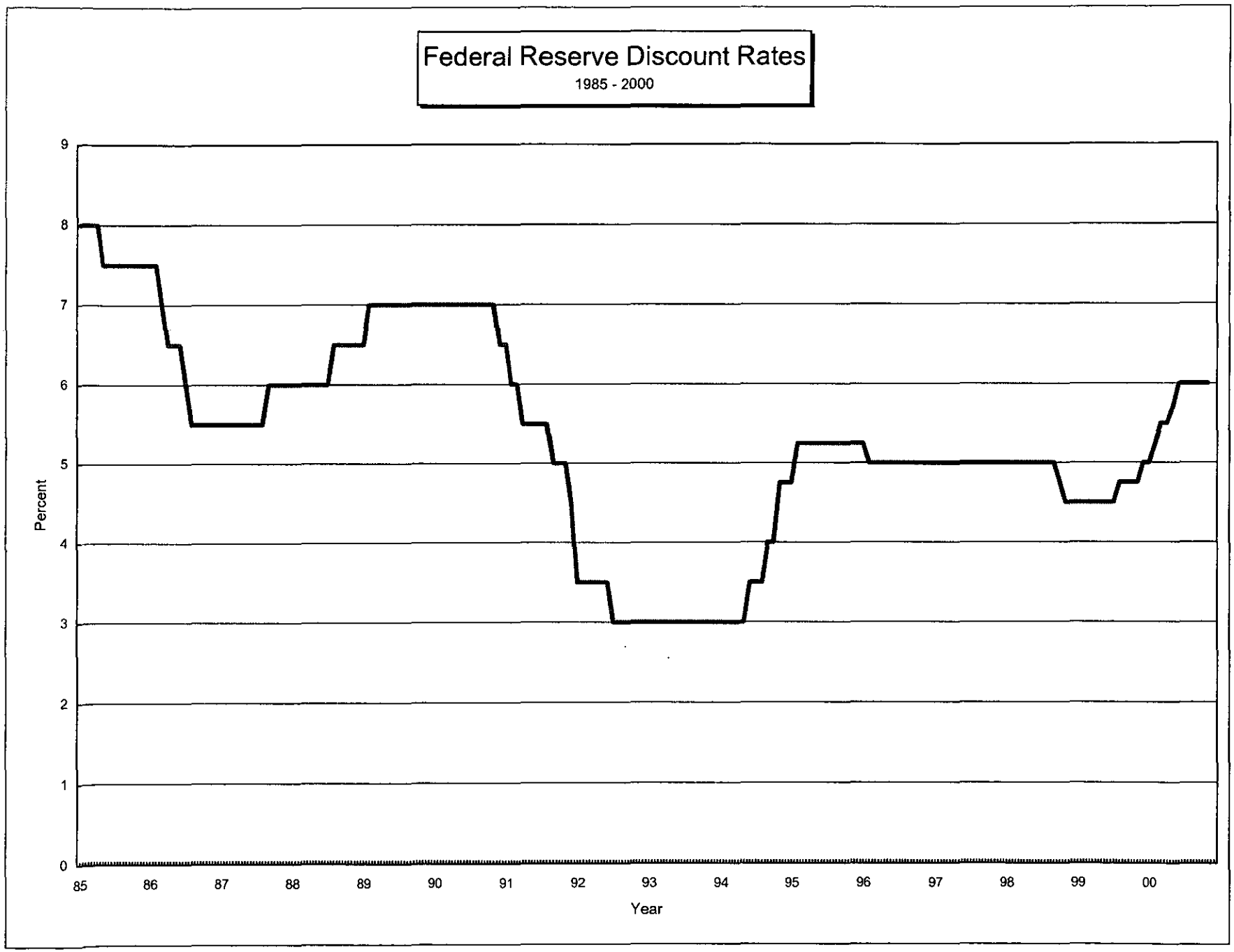
List of Schedules

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-2001-299

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%

Sources: Federal Reserve Bulletin & The Wall Street Journal.


Federal Reserve Discount Rates
1985 - 2000
Percent
0
1
2
3
4
5
6
7
8
9
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
00
Year

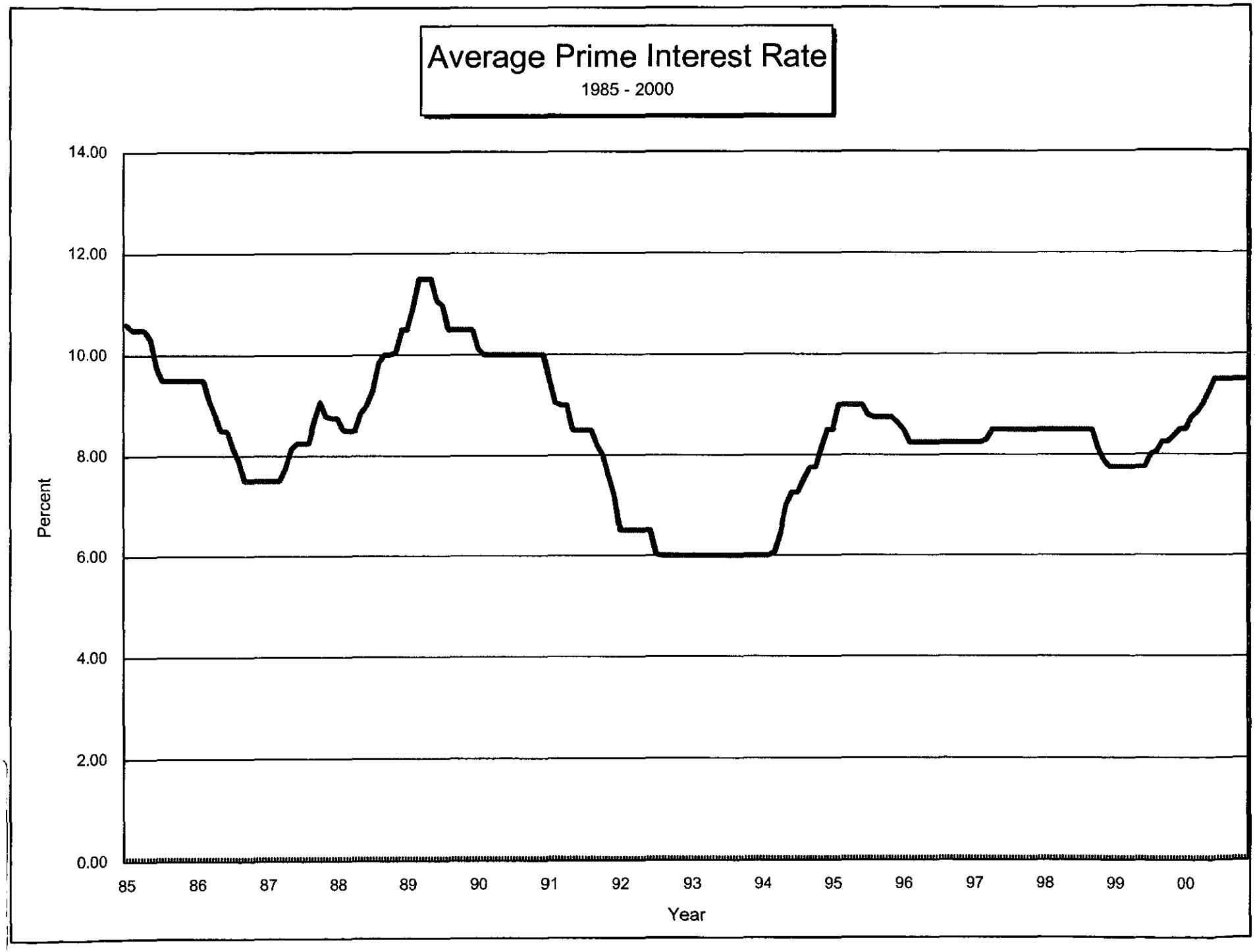
Schedule 2-2

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-2001-299

Average Prime Interest Rates

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1985	10.61	Jan 1989	10.50	Jan 1993	6.00	Jan 1997	8.26
Feb	10.50	Feb	10.93	Feb	6.00	Feb	8.25
Mar	10.50	Mar	11.50	Mar	6.00	Mar	8.30
Apr	10.50	Apr	11.50	Apr	6.00	Apr	8.50
May	10.31	May	11.50	May	6.00	May	8.50
Jun	9.78	Jun	11.07	Jun	6.00	Jun	8.50
Jul	9.50	Jul	10.98	Jul	6.00	Jul	8.50
Aug	9.50	Aug	10.50	Aug	6.00	Aug	8.50
Sep	9.50	Sep	10.50	Sep	6.00	Sep	8.50
Oct	9.50	Oct	10.50	Oct	6.00	Oct	8.50
Nov	9.50	Nov	10.50	Nov	6.00	Nov	8.50
Dec	9.50	Dec	10.50	Dec	6.00	Dec	8.50
Jan 1986	9.50	Jan 1990	10.11	Jan 1994	6.00	Jan 1998	8.50
Feb	9.50	Feb	10.00	Feb	6.00	Feb	8.50
Mar	9.10	Mar	10.00	Mar	6.06	Mar	8.50
Apr	8.83	Apr	10.00	Apr	6.45	Apr	8.50
May	8.50	May	10.00	May	6.99	May	8.50
Jun	8.50	Jun	10.00	Jun	7.25	Jun	8.50
Jul	8.16	Jul	10.00	Jul	7.25	Jul	8.50
Aug	7.90	Aug	10.00	Aug	7.51	Aug	8.50
Sep	7.50	Sep	10.00	Sep	7.75	Sep	8.49
Oct	7.50	Oct	10.00	Oct	7.75	Oct	8.12
Nov	7.50	Nov	10.00	Nov	8.15	Nov	7.89
Dec	7.50	Dec	10.00	Dec	8.50	Dec	7.75
Jan 1987	7.50	Jan 1991	9.52	Jan 1995	8.50	Jan 1999	7.75
Feb	7.50	Feb	9.05	Feb	9.00	Feb	7.75
Mar	7.50	Mar	9.00	Mar	9.00	Mar	7.75
Apr	7.75	Apr	9.00	Apr	9.00	Apr	7.75
May	8.14	May	8.50	May	9.00	May	7.75
Jun	8.25	Jun	8.50	Jun	9.00	Jun	7.75
Jul	8.25	Jul	8.50	Jul	8.80	Jul	8.00
Aug	8.25	Aug	8.50	Aug	8.75	Aug	8.06
Sep	8.70	Sep	8.20	Sep	8.75	Sep	8.25
Oct	9.07	Oct	8.00	Oct	8.75	Oct	8.25
Nov	8.78	Nov	7.58	Nov	8.75	Nov	8.37
Dec	8.75	Dec	7.21	Dec	8.65	Dec	8.50
Jan 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

Sources: Federal Reserve Bulletin & The Wall Street Journal.



The Empire District Electric Company
CASE NO. ER-2001-299

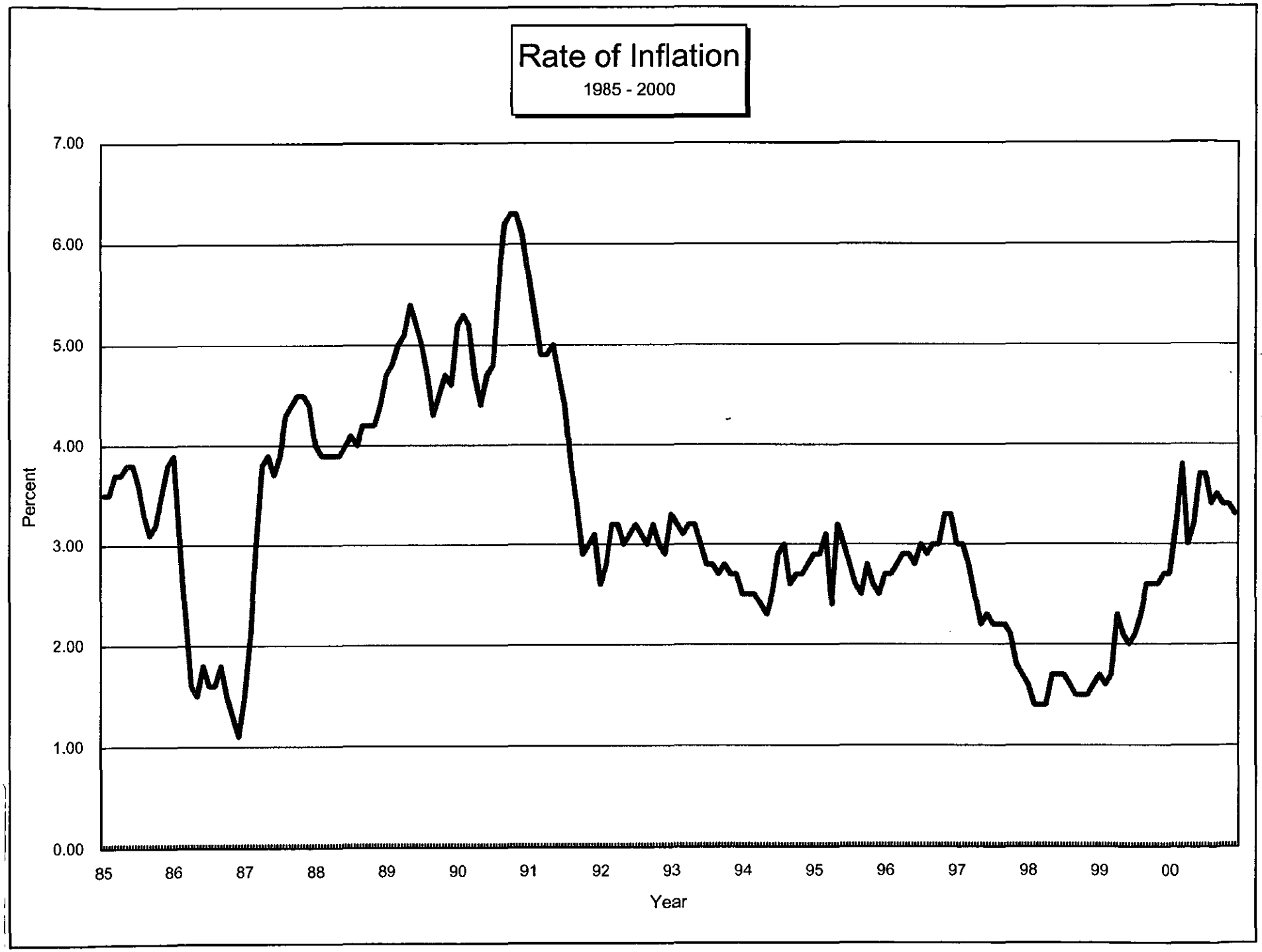
Schedule 3-2

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-2001-299

Rate of Inflation

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

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.


Rate of Inflation
1985 - 2000
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Percent
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
00
Year

THE EMPIRE DISTRICT ELECTRIC COMPANY
ER-2001-299

Average Yields on Mergent's Public Utility Bonds

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1985	12.88	Jan 1989	10.02	Jan 1993	8.23	Jan 1997	7.79
Feb	13.00	Feb	10.02	Feb	8.00	Feb	7.68
Mar	13.66	Mar	10.16	Mar	7.85	Mar	7.92
Apr	13.42	Apr	10.14	Apr	7.76	Apr	8.08
May	12.89	May	9.92	May	7.78	May	7.94
Jun	11.91	Jun	9.49	Jun	7.68	Jun	7.77
Jul	11.88	Jul	9.34	Jul	7.53	Jul	7.52
Aug	11.93	Aug	9.37	Aug	7.21	Aug	7.57
Sep	11.95	Sep	9.43	Sep	7.01	Sep	7.50
Oct	11.84	Oct	9.37	Oct	6.99	Oct	7.37
Nov	11.33	Nov	9.33	Nov	7.30	Nov	7.24
Dec	10.82	Dec	9.31	Dec	7.33	Dec	7.16
Jan 1986	10.66	Jan 1990	9.44	Jan 1994	7.31	Jan 1998	7.03
Feb	10.16	Feb	9.66	Feb	7.44	Feb	7.09
Mar	9.33	Mar	9.75	Mar	7.83	Mar	7.13
Apr	9.02	Apr	9.87	Apr	8.20	Apr	7.12
May	9.52	May	9.89	May	8.32	May	7.11
Jun	9.51	Jun	9.69	Jun	8.31	Jun	6.99
Jul	9.19	Jul	9.66	Jul	8.47	Jul	6.99
Aug	9.15	Aug	9.84	Aug	8.41	Aug	6.96
Sep	9.42	Sep	10.01	Sep	8.65	Sep	6.88
Oct	9.39	Oct	9.94	Oct	8.88	Oct	6.88
Nov	9.15	Nov	9.76	Nov	9.00	Nov	6.96
Dec	8.96	Dec	9.57	Dec	8.79	Dec	6.84
Jan 1987	8.77	Jan 1991	9.56	Jan 1995	8.77	Jan 1999	6.87
Feb	8.81	Feb	9.31	Feb	8.56	Feb	7.00
Mar	8.75	Mar	9.39	Mar	8.41	Mar	7.18
Apr	9.30	Apr	9.30	Apr	8.30	Apr	7.16
May	9.82	May	9.29	May	7.93	May	7.42
Jun	9.87	Jun	9.44	Jun	7.62	Jun	7.70
Jul	10.01	Jul	9.40	Jul	7.73	Jul	7.66
Aug	10.33	Aug	9.16	Aug	7.86	Aug	7.86
Sep	11.00	Sep	9.03	Sep	7.62	Sep	7.87
Oct	11.32	Oct	8.99	Oct	7.46	Oct	8.02
Nov	10.82	Nov	8.93	Nov	7.40	Nov	7.86
Dec	10.99	Dec	8.76	Dec	7.21	Dec	8.04
Jan 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	8.56
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	8.06
Sep	10.56	Sep	8.32	Sep	8.01	Sep	8.15
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

Source: Mergent Bond Record.

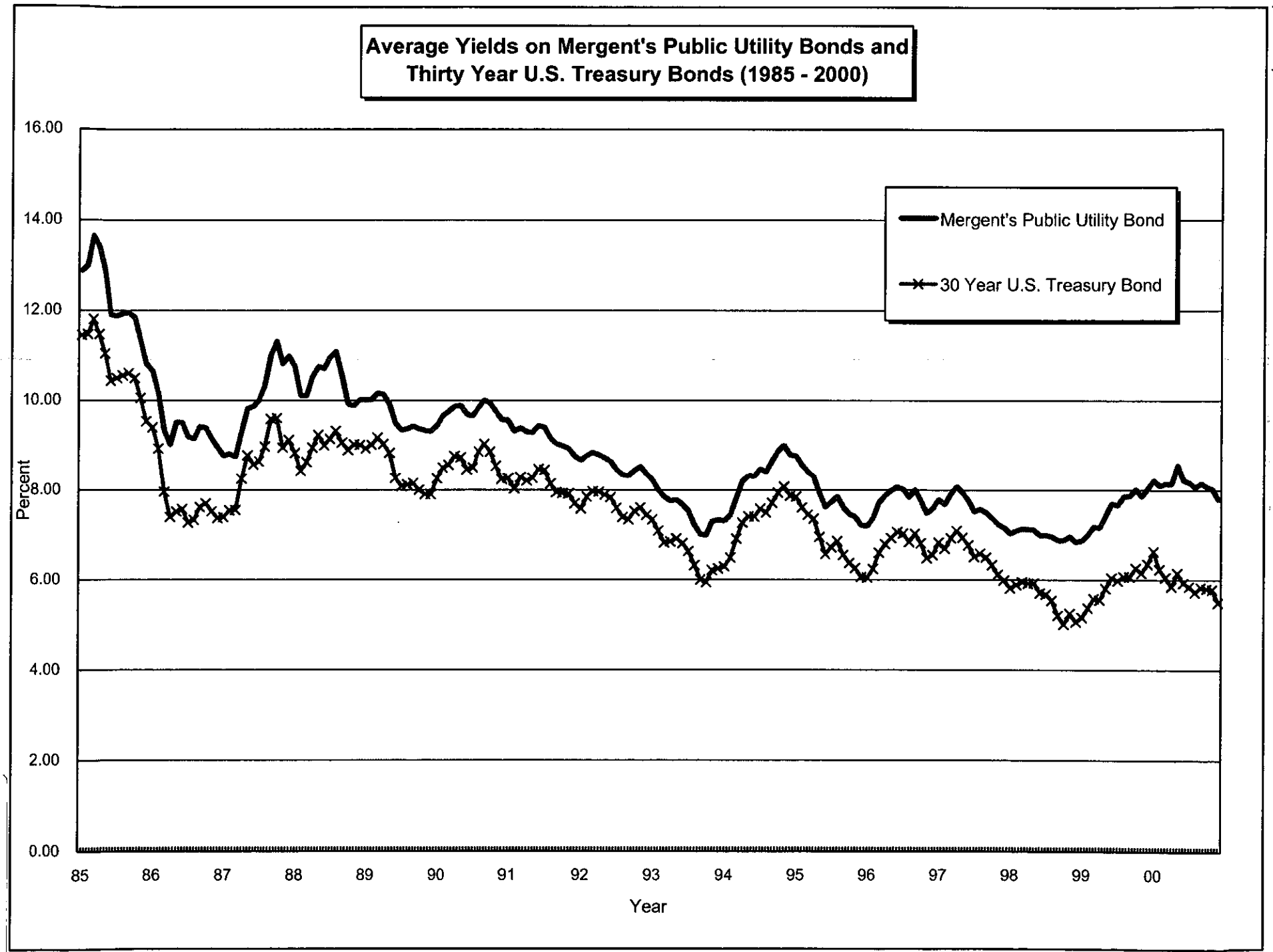
Schedule 5-1

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-2001-299

Average Yields on Thirty Year U.S. Treasury Bonds

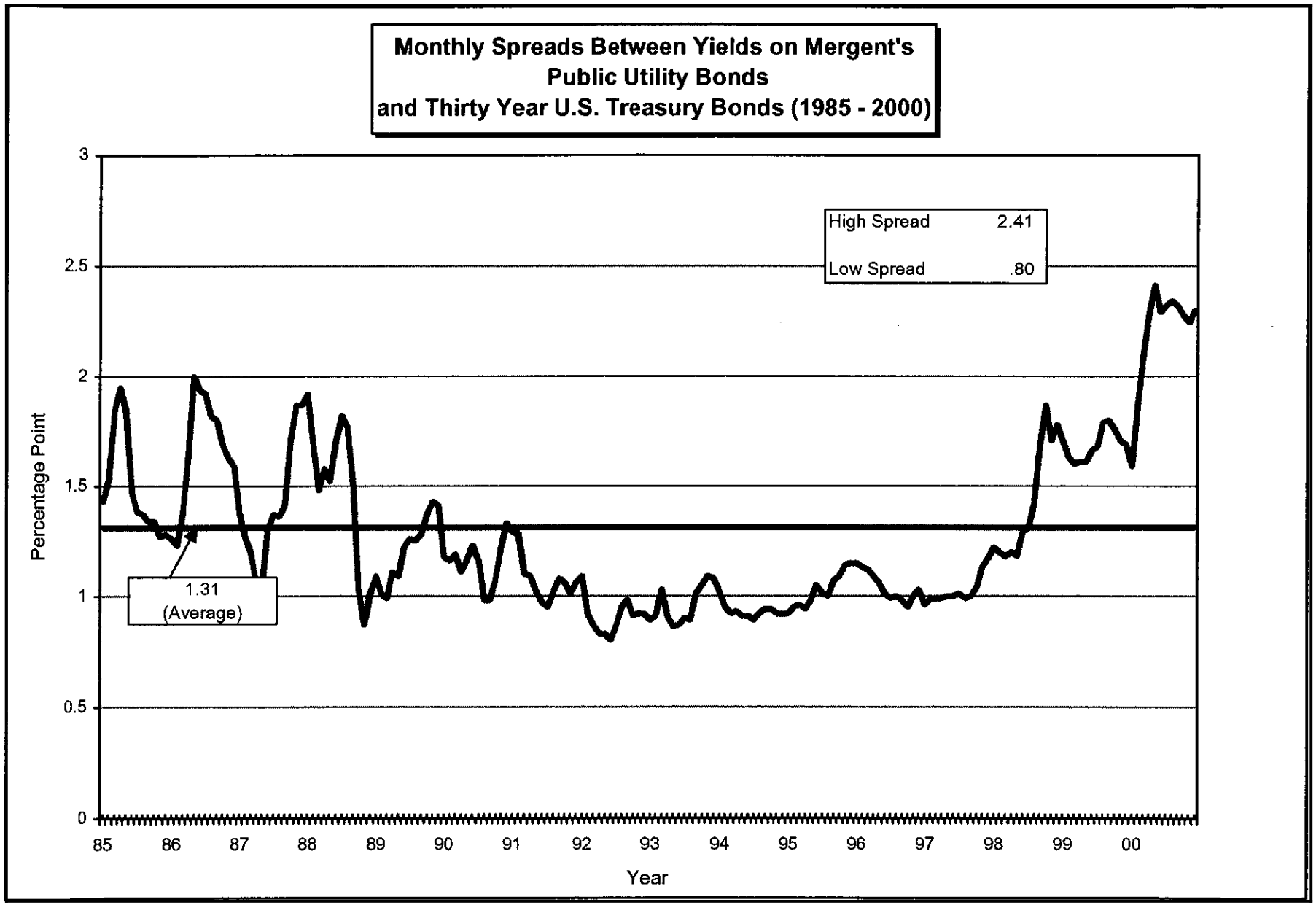
Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1985	11.45	Jan 1989	8.93	Jan 1993	7.34	Jan 1997	6.83
Feb	11.47	Feb	9.01	Feb	7.09	Feb	6.69
Mar	11.81	Mar	9.17	Mar	6.82	Mar	6.93
Apr	11.47	Apr	9.03	Apr	6.85	Apr	7.09
May	11.05	May	8.83	May	6.92	May	6.94
Jun	10.44	Jun	8.27	Jun	6.81	Jun	6.77
Jul	10.50	Jul	8.08	Jul	6.63	Jul	6.51
Aug	10.56	Aug	8.12	Aug	6.32	Aug	6.58
Sep	10.61	Sep	8.15	Sep	6.00	Sep	6.50
Oct	10.50	Oct	8.00	Oct	5.94	Oct	6.33
Nov	10.06	Nov	7.90	Nov	6.21	Nov	6.11
Dec	9.54	Dec	7.90	Dec	6.25	Dec	5.99
Jan 1986	9.40	Jan 1990	8.26	Jan 1994	6.29	Jan 1998	5.81
Feb	8.93	Feb	8.50	Feb	6.49	Feb	5.89
Mar	7.96	Mar	8.56	Mar	6.91	Mar	5.95
Apr	7.39	Apr	8.76	Apr	7.27	Apr	5.92
May	7.52	May	8.73	May	7.41	May	5.93
Jun	7.57	Jun	8.46	Jun	7.40	Jun	5.70
Jul	7.27	Jul	8.50	Jul	7.58	Jul	5.68
Aug	7.33	Aug	8.86	Aug	7.49	Aug	5.54
Sep	7.62	Sep	9.03	Sep	7.71	Sep	5.20
Oct	7.70	Oct	8.86	Oct	7.94	Oct	5.01
Nov	7.52	Nov	8.54	Nov	8.08	Nov	5.25
Dec	7.37	Dec	8.24	Dec	7.87	Dec	5.06
Jan 1987	7.39	Jan 1991	8.27	Jan 1995	7.85	Jan 1999	5.16
Feb	7.54	Feb	8.03	Feb	7.61	Feb	5.37
Mar	7.55	Mar	8.29	Mar	7.45	Mar	5.58
Apr	8.25	Apr	8.21	Apr	7.36	Apr	5.55
May	8.78	May	8.27	May	6.95	May	5.81
Jun	8.57	Jun	8.47	Jun	6.57	Jun	6.04
Jul	8.64	Jul	8.45	Jul	6.72	Jul	5.98
Aug	8.97	Aug	8.14	Aug	6.86	Aug	6.07
Sep	9.59	Sep	7.95	Sep	6.55	Sep	6.07
Oct	9.61	Oct	7.93	Oct	6.37	Oct	6.26
Nov	8.95	Nov	7.92	Nov	6.26	Nov	6.15
Dec	9.12	Dec	7.70	Dec	6.06	Dec	6.35
Jan 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

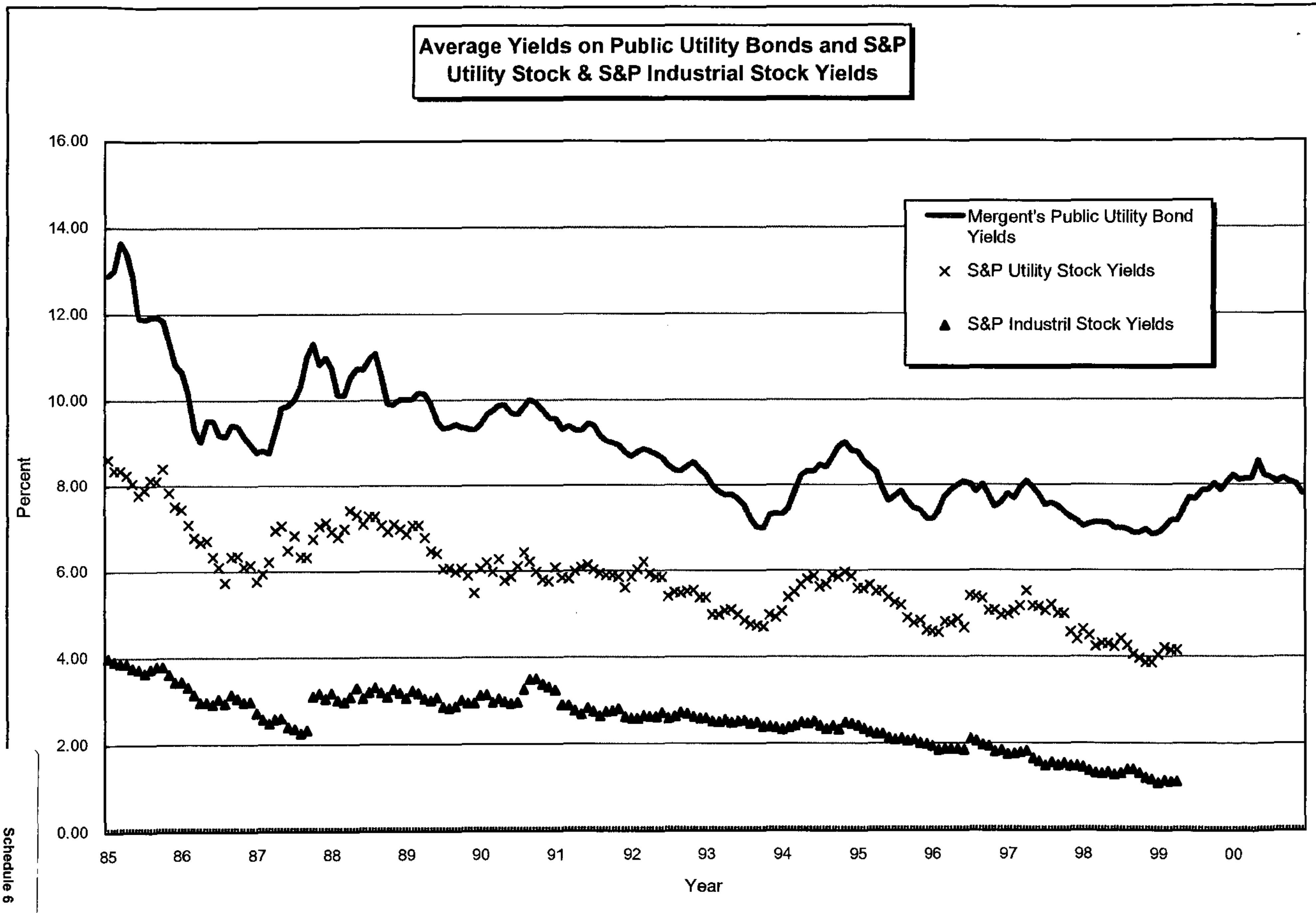
Source: Federal Reserve Bulletin and Federal Reserve Website: http://www.stls.frb.org/fred/data/irates/gs30



The Empire District Electric Company
CASE NO. ER-2001-299

Schedule 5-3


Monthly Spreads Between Yields on Mergent's
Public Utility Bonds
and Thirty Year U.S. Treasury Bonds (1985 - 2000)
High Spread 2.41
Low Spread .80
1.31
(Average)
Percentage Point
Year
3
2.5
2
1.5
1
0.5
0
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
00



The Empire District Electric Company
CASE NO. ER-2001-299

Schedule 6

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 (3/2/2001)	2.6%	2.5%	2.6%	1.9%	3.4%	3.5%	4.5%	4.4%	4.6%	4.8%	5.1%	5.2%	5.5%	5.8%	6.0%
The Budget and Economic Outlook FY2002-2011 (1/31/2001)	2.8%	2.8%	2.7%	2.4%	3.4%	3.3%	4.4%	4.5%	4.5%	4.8%	4.9%	5.0%	N.A.	N.A.	N.A.
Current rate	3.72%			5.00% *			4.20% **			4.88%			5.45%		

Notes: N.A. = Not Available.

* Reflects annual increase from 1999 to 2000.

** Rate reported by Bureau of Labor Statistics for the period ending February 2001.

Sources of Current Rates: The Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers, 12-Month Period Ending January 31, 2001.
Federal Reserve website, http://www.stls.frb.org/fred/data/rates.html, for the 12-month period ending February 2001.
U.S. Department of Commerce, Bureau of Economic Analysis for the 12-month ending December 31, 2000.

Other Sources: The Congressional Budget Office, The Budget and Economic Outlook: Fiscal Years 2002-2011, January 31, 2001 as published on http://www.cbo.gov/showdoc.cfm?index=2727&sequence=11 at March 14, 2001.

Schedule 7

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-2001-299

Historical Capital Structures for The Empire District Electric Company

Capital Components	1995	1996	1997	1998	1999
Common Equity	$193,137,359.0	$213,090,723.0	$219,033,790.0	$229,791,174.0	$234,188,018.0
Preferred Stock	32,901,800.0	32,901,800.0	32,901,800.0	32,634,263.0	0.0
Long-Term Debt	194,704,814.0	219,533,678.0	196,384,541.0	246,092,905.0	345,850,169.0
Short-Term Debt	0.0	0.0	0.0	0.0	0.0
Total	$420,743,973.0	$465,526,201.0	$448,320,131.0	$508,518,342.0	$580,038,187.0

Capital Structure	1995	1996	1997	1998	1999
Common Equity	45.90%	45.77%	48.86%	45.19%	40.37%
Preferred Stock	7.82%	7.07%	7.34%	6.42%	0.00%
Long-Term Debt	46.28%	47.16%	43.80%	48.39%	59.63%
Short-Term Debt	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

Schedule 8

Source: The Empire District Electric Company's Annual Reports for 1996, 1997, 1998, and 1999.

Selected Financial Ratios for The Empire District Electric Company

Financial Ratios	1995	1996	1997	1998	1999
Return on Year-End Common Equity	9.00%	9.21%	9.76%	11.28%	8.31%
Earnings Per Common Share	$1.28	$1.28	$1.28	$1.28	$1.28
Common Dividend Payout Ratio	108.90%	104.50%	99.40%	83.70%	107.30%
Year-End Market Price Per Common Share	$17.875	$18.750	$19.625	$24.750	$22.625
Year-End Book Value Per Common Share	$12.67	$12.93	$13.03	$13.40	$13.44
Year-End Market to Book Ratio	1.41 x	1.45 x	1.51 x	1.85 x	1.68 x
Pre-Tax Interest Coverage Ratio	2.90 x	3.11 x	3.01 x	3.32 x	2.70 x
First Mortgage Bonds (Standard & Poor's Corporation)		A-	A-	A-	A-

Notes:

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

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

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

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

Sources: The Empire District Electric Company's Annual Reports for 1996, 1997, 1998 and 1999.
Standard and Poor's Ratings Direct and Telescan Inc's Wall Street City as of March 4, 2001.

Schedule 9

Capital Structure as of December 31, 2000 for The Empire District Electric Company

Capital Component	Amount in Dollars	Percentage of Capital
Common Stock Equity	$220,578,999	39.80%
Preferred Stock	0	0.00%
Long-Term Debt	333,603,855	60.20%
Short-Term Debt	0	0.00%
Total Capitalization	**$554,182,854**	**100.00%**

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

Standard & Poor's Corporation's Utility Rating Service as of July 7, 2000	AA	A	BBB
Electric Utility Companies (Median)	41%	45%	50%

Note: See Schedule 11-1 for the amount of Long-Term Debt at December 31, 2000; Short-term debt, net of construction work in progress (CWIP), is negative and, therefore, is assumed to be zero ($69,500,000 Short-Term Debt less $95,040,880 Missouri Allocation of CWIP).

Source: The Empire District Electric Company's response to Staff's Data Information Request No. 3802.

Embedded Cost of Long-Term Debt as of December 31, 2000 for The Empire District Electric Company

Long-Term Debt	(1) Interest Rate	(2) Prinicipal Amount Outstanding (12/31/00)	(3) Annualized Cost to Company (1 * 2)
First Mortgage Bonds:			
9 3/4% Series, due 2020	9.750%	$2,250,000	$219,375
7 1/2% Series, due 2002	7.500%	37,500,000	2,812,500
6 1/2% Series, due 2010	6.500%	50,000,000	3,250,000
8 1/8% Series, due 2009	8.125%	20,000,000	1,625,000
7% Series, due 2023	7.000%	45,000,000	3,150,000
7 1/4% Series, due 2028	7.250%	13,330,000	966,425
5.3% Series, due 2013	5.300%	8,000,000	424,000
5.2% Series, due 2013	5.200%	5,200,000	270,400
7.6% Series, due 2005	7.600%	10,000,000	760,000
7.2% Series, due 2016	7.200%	25,000,000	1,800,000
7 3/4% Series, due 2019	7.750%	30,000,000	2,325,000
7.7% Series, due 2004	7.700%	100,000,000	7,700,000
Less: Unamortized Premium & Debt Discount		(636,234)	
Less: Unamortized Debt Issuance Expense		(3,769,627)	
Less: Unamortized Losses on Reacquired Debt		(8,270,284)	
Add: Annual Amortized Debt Discount Expense			0
Add: Annual Amortized Debt Issuance Expense			420,873
Add: Annual Amortized Losses on Reacquired Debt Expense			563,149
Total		$333,603,855	$26,286,721

Embedded Cost of Long-Term Debt = $26,286,721 / $333,603,855

= **7.88%**

Notes:

Sources: The Empire District Electric Company's response to Staff's Data Information Requests No. 3802.

Annual Amortized Debt Issuance Expense
as of December 31, 2000 for The Empire District Electric Company

Long-Term Debt	Maturity Date	(1) Number of Months to Maturity (12/31/00)	(2) Unamortized Losses on Reacquired Debt and Unamortized Debt Issuance Expense (12/31/00)	(3) Annualized Debt Issuance Expense (1) (12/31/00)
First Mortgage Bonds:				
9 3/4% Series, due 2020	(12/01/20)	242.5	$25,382	$1,256
7 1/2% Series, due 2002	(07/01/02)	18.2	73,571	48,420
6 1/2% Series, due 2010	(04/01/10)	112.6	427,429	45,552
8 1/8% Series, due 2009	(11/01/09)	107.6	146,538	16,348
7% Series, due 2023	(10/01/23)	277.0	476,859	20,661
7 1/4% Series, due 2028	(06/01/28)	333.8	616,502	22,163
5.3% Series, due 2013	(11/01/13)	156.3	310,368	23,834
5.2% Series, due 2013	(11/01/13)	156.3	242,745	18,641
7.6% Series, due 2005	(04/01/05)	51.7	88,714	20,578
7.2% Series, due 2016	(12/01/16)	193.8	377,899	23,399
7 3/4% Series, due 2019	(06/01/19)	224.2	357,500	19,135
7.7% Series, due 2004	(11/01/04)	46.7	626,120	160,887
Subtotal			**$3,769,627**	**420,873**
Losses on Reacquired Debt				
7 1/2% Series, due 2002	(07/01/02)	18.2	269,267	177,214
7% Series, due 2023	(10/01/23)	277.0	4,813,919	208,570
5.3% Series, due 2013	(11/01/13)	156.3	182,940	14,048
5.2% Series, due 2013	(11/01/13)	156.3	108,407	8,325
7 3/4% Series, due 2019	(06/01/19)	224.2	2,895,751	154,991
Subtotal			**8,270,284**	**563,149**
Total			**$12,039,911**	**$984,021**

Notes:

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

Source: The Empire District Electric Company's response to Staff's Data Information Request No. 3802

Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for The Empire District Electric Company

Year	Dividends Per Share	Earnings Per Share	Book Value Per Share
1990	$1.18	$1.28	$11.75
1991	$1.22	$1.43	$12.08
1992	$1.26	$1.26	$12.29
1993	$1.28	$1.16	$12.37
1994	$1.28	$1.32	$12.47
1995	$1.28	$1.18	$12.69
1996	$1.28	$1.23	$12.96
1997	$1.28	$1.29	$13.06
1998	$1.28	$1.53	$13.43
1999	$1.28	$1.46	$13.51
2000	$1.28	$1.50	$13.70

Annual Compound Growth Rates

	DPS	EPS	BVPS
1990 - 2000	0.82%	1.60%	1.55%
1995 - 2000	0.00%	4.92%	1.54%

Trend Line Growth Rates

	DPS	EPS	BVPS
1990 - 2000	0.59%	1.47%	1.49%
1995 - 2000	0.00%	5.53%	1.54%

	DPS	EPS	BVPS
Average of Historical Growth Rates:	0.35%	3.38%	1.53%

Source: Value Line Investment Survey.

Historical and Projected Growth Rates for The Empire District Electric Company

Historical Growth Rates

DPS Annual Compound & Trend Line Growth (1990 - 2000)	0.70%
BVPS Annual Compound & Trend Line Growth (1995 - 2000)	1.54%
BVPS Annual Compound & Trend Line Growth (1990 - 2000)	1.52%
EPS Annual Compound & Trend Line Growth (1995 - 2000)	5.22%
EPS Annual Compound & Trend Line Growth (1990 - 2000)	1.53%
Average of Historical Growth Rates	2.10%

Projected Growth Rates from Outside Sources

5 Year Growth Forecast (Mean) I/B/E/S Inc.'s Institutional Brokers Estimate System January 17, 2001	N.A. (1)
5-Year Projected EPS Growth Rate Zack's Earnings Estimates February 21, 2001	N.A. (1)
5-Year Projected EPS Growth Rate Standard & Poor's Corporation's Earnings Guide February 2001	2.00% (2)
5-year Projected EPS Growth Rate Value Line Investment Survey January 5, 2001	6.00%
Average of Projected Growth Rates	4.00%

Proposed Range of Growth for The Empire District Electric Company: 3.00% to 4.00%

Note:

DPS Annual Compound & Trend Line Growth (1995 - 2000) equal to zero and, therefore, not included in average.

(1) IBES and Zacks did not report a 5-year projected EPS growth rate for EDE on January 17, 2001 and February 21, 2001, respectively.

(2) Standard and Poor's ceased reporting a projected EPS growth rate for EDE May 2000.
Standard and Poor's resumed reporting a projected EPS growth rate for EDE February 2001.

Monthly High / Low Average Dividend Yields for The Empire District Electric Company

Month / Year	(1) High Stock Price	(2) Low Stock Price	(3) Average High / Low Price	(4) Expected Dividend (2000)	(5) Projected Dividend Yield
October 2000	27.687	26.000	$26.844	$1.28	4.77%
November 2000	30.750	27.250	$29.000	$1.28	4.41%
December 2000	29.437	22.875	$26.156	$1.28	4.89%
January 2001	26.562	19.312	$22.937	$1.28	5.58%
February 2001	21.180	19.800	$20.490	$1.28	6.25%
March 4, 2001	20.390	19.830	$20.110	$1.28	6.36%
Average					**5.38%**

Proposed Range of Dividend Yield for The Empire District Electric Company: **5.50%**

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

Column 4 = Estimated Dividends Declared per share represents the average projected dividends for 2000/2001.

Column 5 = (Column 4 / Column 3).

Sources: Standard & Poor's Corporation's Security Owner's Stock Guide, and Telescan Inc.'s Wall Street City Database System.

Discounted Cash Flow (DCF) Costs of Common Equity Estimates for The Empire District Electric Company

EDE's Cost of Common Equity	=	Dividend Yield	+	Expected Growth
8.50%	=	**5.50%**	+	**3.00%**
9.50%	=	**5.50%**	+	**4.00%**

Discounted Cash Flow (DCF) Model Derivation

Present Price = Expected Dividends Discounted by k + Present Price (1 + g) Discounted by k

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

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

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

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

Thus:

Cost of Common Equity = Dividend Yield + Expected Growth

Notes: See Schedule 14 for calculation of proposed range of dividend yield for The Empire District Electric Company.

See Schedule 13 for calculation of proposed range of growth for The Empire District Electric Company.

Average Risk Premium above the Yields of 30-Year U.S. Treasury Bonds for The Empire District Electric Company's Expected Returns on Common Equity

Mo/Year	EDE's Expected ROE	30-Year U.S. Treasury Bond Yields	EDE'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	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	12.00%	7.93%	4.07%
Nov	12.00%	7.92%	4.08%
Dec	12.00%	7.70%	4.30%
Jan 1992	12.00%	7.58%	4.42%
Feb	12.00%	7.85%	4.15%
Mar	12.00%	7.97%	4.03%
Apr	12.00%	7.96%	4.04%
May	12.00%	7.89%	4.11%
Jun	12.00%	7.84%	4.16%
Jul	11.50%	7.60%	3.90%
Aug	11.50%	7.39%	4.11%
Sep	11.50%	7.34%	4.16%
Oct	11.00%	7.53%	3.47%
Nov	11.00%	7.61%	3.39%
Dec	11.00%	7.44%	3.56%
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	11.00%	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	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	9.50%	7.58%	1.92%
Aug	9.50%	7.49%	2.01%
Sep	9.50%	7.71%	1.79%
Oct	10.00%	7.94%	2.06%
Nov	10.00%	8.08%	1.92%
Dec	10.00%	7.87%	2.13%
Jan 1995	10.50%	7.85%	2.65%
Feb	10.50%	7.61%	2.89%
Mar	10.50%	7.45%	3.05%
Apr	10.50%	7.36%	3.14%
May	10.50%	6.95%	3.55%
Jun	10.50%	6.57%	3.93%
Jul	10.50%	6.72%	3.78%
Aug	10.50%	6.86%	3.64%
Sep	10.50%	6.55%	3.95%
Oct	10.50%	6.37%	4.13%
Nov	10.50%	6.26%	4.24%
Dec	10.50%	6.06%	4.44%

Mo/Year	EDE's Expected ROE	30-Year U.S. Treasury Bond Yields	EDE's Risk Premium
Jan 1996	10.50%	6.05%	4.45%
Feb	10.50%	6.24%	4.26%
Mar	10.50%	6.60%	3.90%
Apr	10.50%	6.79%	3.71%
May	10.50%	6.93%	3.57%
Jun	10.50%	7.06%	3.44%
Jul	10.50%	7.03%	3.47%
Aug	10.50%	6.84%	3.66%
Sep	10.50%	7.03%	3.47%
Oct	9.00%	6.81%	2.19%
Nov	9.00%	6.48%	2.52%
Dec	10.50%	6.55%	3.95%
Jan 1997	10.50%	6.83%	3.67%
Feb	10.50%	6.69%	3.81%
Mar	10.50%	6.93%	3.57%
Apr	10.50%	7.09%	3.41%
May	10.50%	6.94%	3.56%
Jun	10.50%	6.77%	3.73%
Jul	10.50%	6.51%	3.99%
Aug	10.50%	6.58%	3.92%
Sep	10.50%	6.50%	4.00%
Oct	10.50%	6.33%	4.17%
Nov	10.50%	6.11%	4.39%
Dec	10.50%	5.99%	4.51%
Jan 1998	11.50%	5.81%	5.69%
Feb	11.50%	5.89%	5.61%
Mar	11.50%	5.95%	5.55%
Apr	12.00%	5.92%	6.08%
May	12.00%	5.93%	6.07%
Jun	12.00%	5.70%	6.30%
Jul	11.50%	5.68%	5.82%
Aug	11.50%	5.54%	5.96%
Sep	11.50%	5.20%	6.30%
Oct	10.50%	5.01%	5.49%
Nov	10.50%	5.25%	5.25%
Dec	10.50%	5.06%	5.44%
Jan 1999	12.50%	5.16%	7.34%
Feb	12.50%	5.37%	7.13%
Mar	12.50%	5.58%	6.92%
Apr	12.50%	5.55%	6.95%
May	12.50%	5.81%	6.69%
Jun	12.50%	6.04%	6.46%
Jul	11.50%	5.98%	5.52%
Aug	11.50%	6.07%	5.43%
Sep	11.50%	6.07%	5.43%
Oct	11.50%	6.26%	5.24%
Nov	11.50%	6.15%	5.35%
Dec	11.50%	6.35%	5.15%
Jan 2000	11.00%	6.63%	4.37%
Feb	11.00%	6.23%	4.77%
Mar	11.00%	6.05%	4.95%
Apr	12.00%	5.85%	6.15%
May	12.00%	6.15%	5.85%
Jun	12.00%	5.93%	6.07%
Jul	11.00%	5.85%	5.15%
Aug	11.00%	5.72%	5.28%
Sep	11.00%	5.83%	5.17%
Oct	11.00%	5.80%	5.20%
Nov	11.00%	5.78%	5.22%
Dec	11.00%	5.49%	5.51%

Summary Information	**(1991 - 2000)**
Average Risk Premium: (Jan 1991 - Dec 2000)	**4.30%**
High Risk Premium: (January 1999)	**7.34%**
Low Risk Premium: (September 1994)	**1.79%**

Sources: The Value Line Investment Survey: Ratings & Reports and Mergent Bond Record.

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

Risk Premium Costs of Equity Estimates
for The Empire District Electric Company

EDE's Cost of Common Equity	=	30-Year U.S. Treasury Bond Yield (12/31/00)	+	Equity Risk Premium (1/91 - 12/00)
9.79%	=	5.49%	+	4.30%

Risk Premium Approach

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

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

where:

The Current Cost of Debt is represented by the yield on the 30-Year U.S. Treasury Bond. The appropriate rate was determined by using the yield on 30-Year U.S. Treasury Bonds at December 31, 2000 as stated on the Federal Reserve web site, http://www.stls.frb.org/fred/data/irates/gs30.

The Equity Risk Premium represents the difference between EDE's expected return on common equity (ROE) as projected in the Value Line Investment Survey and the 30-Year U.S. Treasury Bond Yield as stated on the Federal Reserve web site, http://www.stls.frb.org/fred/data/irates/gs30. The appropriate Equity Risk Premium was determined to be the average risk premium for the period January 1991 through December 2000. See Schedule 16 for the calculation of the Equity Risk Premium of 4.30%.

Capital Asset Pricing Model (CAPM) Costs of Equity Estimates
The Empire District Electric Company

EDE's Cost of Common Equity	=	Risk Free Rate (10/31/00 - 1/31/01)	+		EDE's Beta	*	Market Risk Premium (1926 - 1999)	
9.39%	=	5.49%	+	(	0.50	*	7.80%	)
9.73%	=	5.83%	+	(	0.50	*	7.80%	)

Capital Asset Pricing Model

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

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

where:

The Risk Free Rate reflects the level of return which can be achieved without accepting any risk. The Risk Free Rate is represented by the yield on 30-Year U.S. Treasury Bonds. The approriate rate was determined to be the high / low range of 5.49% to 5.83% for the six-month period ending January 31, 2001 as published on the Federal Reserve web site, http://www.stls.frb.org/fred/data/irates/gs30.

The Beta represents the relative movement and relative risk between a particular stock and the market. The approriate Beta for EDE was determined to be 0.50 as published in The Value Line Investment Survey: Ratings & Reports, January 5, 2001.

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

Pro Forma Pre-Tax Interest Coverage Ratios for The Empire District Electric Company

	8.50%	9.00%	9.50%
1. Common Equity (Schedule 10)	$220,578,999	$220,578,999	$220,578,999
2. Earnings Allowed (ROE * [1])	$18,749,215	$19,852,110	$20,955,005
3. Preferred Dividends	$0	$0	$0
4. Net Income Available ([2] + [3])	$18,749,215	$19,852,110	$20,955,005
5. Tax Multiplier (1 / { 1 - Tax Rate })	1.6231	1.6231	1.6231
6. Pre-Tax Earnings ([4] * [5])	$30,431,420	$32,221,504	$34,011,587
7. Annual Interest Costs (Schedule 11-1)	$26,286,721	$26,286,721	$26,286,721
8. Avail. for Coverage ([6] + [7])	$56,718,142	$58,508,225	$60,298,309
9. **Pro Forma Pre-Tax Interest Coverage** ([8] / [7])	**2.16 x**	**2.23 x**	**2.29 x**

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

Standard & Poor's Corporation's Utility Rating Service 7/7/00 Electric Utilities	Lower Quartile A	Median A	Upper Quartile A
	2.95x	3.65x	4.13x

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. E9-2001-299

Criteria for Selecting Comparable Electric Utility Companies

Electric Utility Company	(1) (y/n) Stock Publicly Traded & Information Printed In Value Line	(2) S&P Utility Credit Rating "A+ - BBB"	(3) (y/n) No Nuclear Operations	(4) Electric Revenues To Total Revenues > 70%	(5) Total Capital < $6 Billion	(6) Positive DPS Annual Compound Growth Rate (1990-2000)	(7) (y/n) No Missouri Operations	(8) **Electric Utility Company** Met All Criteria
Allegheny Energy	y	A+	y	n				
ALLETE	y	BBB+	y	n				
Alliant Energy	y	A+	n					
American Electric Power	y	A-	n					
Ameren Corp.	y	A+	n				n	
Avista Corp.	y	BBB+	y	y	y	n		
Black Hills Corporation	y	A	y	y	y	y	y	y
Cinergy Corporation	y	BBB+	y	y	y	y	y	y
Cleco Corporation	y	BBB+	y	y	y	y	y	y
Conectiv	y	BBB+	n					
Consolidated Edison	y	A+	n					
Constellation Energy	y	A	n					
Dominion Resources	y	BBB+	n					
DPL, Inc.	y	BBB+	y	y	y	y	y	y
DQE, Inc.	y	BBB+	y	y	y	y	y	y
DTE Energy	y	BBB	n					
Duke Energy	y	A+	n					
Edison International	y	A	n					
Energy East Corp.	y	A-	n					
Exelon Corp.	y	A-	n					
GPU, Inc.	y	A	n					
Hawaiian Electric	y	BBB+	y	y	y	y	y	y
IDACORP Inc.	y	A+	n					
IPALCO Enterprises	y	A+	y	y	y	n		
Kansas City Power & Light	y	A-	n					
Madison Gas & Electric	y	AA	y	n				
MDU Resources	y	A	y	n				
Montana Power	y	BBB+	y	n				
Niagara Mohawk	y	BBB	n					
NorthWestern Corp.	y	A+	y	n				
NSTAR	y	A-	y	y	y	y	y	y
OGE Energy	y	A+	y	n				
Potomac Electric Power	y	A	y	y	y	y	y	y
PPL Corp.	y	BBB+	n					
Progress Energy	y	BBB+	n					
Public Service Enterprises	y	BBB	n					
Puget Sound Inc.	y	BBB+	y	y	y	y	y	y

Schedule 20-1

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. E9-2001-299

Electric Utility Company	(1) (y/n) Stock Publicly Traded & Information Printed In Value Line	(2) S&P Utility Credit Rating "A+ - BBB"	(3) (y/n) No Nuclear Operations	(4) Electric Revenues To Total Revenues > 70%	(5) Total Capital < $6 Billion	(6) Positive DPS Annual Compound Growth Rate (1990-2000)	(7) (y/n) No Missouri Operations	(8) **Electric Utility Company** Met All Criteria
Reliant Energy	y	BBB+	n					
RGS Energy Group	y	A-	n					
SCANA Corp.	y	A	n					
Sempra Energy	y	A	n					
Sierra Pacific Resources	y	BBB+	y	y	y	n		
Southern Co.	y	A	n					
TXU Corp.	y	BBB+	n					
UtiliCorp United	y	BBB	n					
Vectren Corp.	y	A	y	n				
Wisconsin Energy	y	A+	n					
Xcel Energy Inc.	y	A-	n					

Sources: Columns 1, 3, 4, 5 and 6 = The Value Line Investment Survey: Ratings and Reports, December 8, 2000, January 5, 2001 and February 16, 2001.

Columns 2 = Standard & Poor's Corporation's Global Utilities Ratings: Financial Statistics, S&P Ratings Direct on-line service dated July 7, 2000 and and Standard & Poor's Ratings Direct as of March 1, 2001.

Nine Comparable Electric Utility Companies

Number	Ticker Symbol	Company Name
1	BKH	Black Hills Corporation
2	CIN	Cinergy Corporation
3	CNL	Cleco Corporation
4	DPL	DPL Inc.
5	DQE	DQE, Inc.
6	HE	Hawaiian Electric
7	NST	NSTAR
8	POM	Potomac Electric Power
9	PSD	Puget Sound Inc.

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

	Dividends Per Share		Earnings Per Share		Book Value Per Share	
Company Name	1990	2000	1990	2000	1990	2000
Black Hills Corporation	$0.73	$1.08	$1.12	$2.37	$6.60	$12.10 *
Cinergy Corporation	$1.60	$1.80	$2.75	$2.55 *	$17.91	$17.45 *
Cleco Corporation	$1.27	$1.69	$1.85	$2.80 *	$14.33	$20.10 *
DPL Inc.	$0.69	$0.94	$0.99	$1.50 *	$6.88	$10.45 *
DQE, Inc.	$0.92	$1.62 *	$1.49	$2.35 *	$13.38	$15.45 *
Hawaiian Electric	$2.17	$2.48	$2.02	$2.52	$23.29	$25.30 *
NSTAR	$1.54	$2.02 *	$1.60	$3.15 *	$17.22	$26.30 *
Potomac Electric Power	$1.52	$1.66 *	$1.62	$1.55 *	$14.39	$15.25 *
Puget Sound Inc.	$1.76	$1.84	$2.16	$2.05 *	$16.52	$16.55 *

Annual Compound Growth Rates

Company Name	DPS 1990-2000	EPS 1990-2000	BVPS 1990-2000	Average of 10 Year Annual Compound Growth Rates
Black Hills Corporation	3.99%	7.78%	6.25%	6.01%
Cinergy Corporation	1.18%	-0.75%	-0.26%	0.06%
Cleco Corporation	2.90%	4.23%	3.44%	3.52%
DPL Inc.	3.14%	4.24%	4.27%	3.88%
DQE, Inc.	5.82%	4.66%	1.45%	3.98%
Hawaiian Electric	1.34%	2.24%	0.83%	1.47%
NSTAR	2.75%	7.01%	4.33%	4.69%
Potomac Electric Power	0.88%	-0.44%	0.58%	0.34%
Puget Sound Inc.	0.45%	-0.52%	0.02%	-0.02%
Average	**2.50%**	**3.16%**	**2.32%**	**2.66%**
Standard Deviation	1.63%	3.04%	2.17%	2.11%

Source: The Value Line Investment Survey: Ratings & Reports, December 8, 2000, January 5, 2001 and February 16, 2001.

* These are projected amounts.

Schedule 22

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-2001-299

Historical and Projected Growth Rates for the Nine Comparable Electric Utility Companies

Company Name	(1) Average 10 Year Annual Compound	(2) Projected 5 Year Growth IBES (Mean)	(3) Projected 5 Year EPS Growth (S&P)	(4) Projected 3-5 Year EPS Growth Value Line	(5) Projected 5 Year Growth Zacks (Mean)	(6) Average Projected Growth	(7) Average of Historical & Projected Growth
Black Hills Corporation	6.01%	N.A.	N.A.	9.50%	N.A.	9.50%	7.75%
Cinergy Corporation	0.06%	4.64%	5.00%	5.50%	5.50%	5.16%	2.61%
Cleco Corporation	3.52%	9.00%	9.00%	7.50%	10.00%	8.88%	6.20%
DPL Inc.	3.88%	8.06%	8.00%	11.50%	10.06%	9.41%	6.64%
DQE, Inc.	3.98%	6.75%	7.00%	6.50%	6.53%	6.70%	5.34%
Hawaiian Electric	1.47%	2.83%	3.00%	3.50%	3.28%	3.15%	2.31%
NSTAR	4.69%	5.34%	7.00%	7.50%	6.54%	6.60%	5.64%
Potomac Electric Power	0.34%	4.79%	5.00%	3.50%	4.06%	4.34%	2.34%
Puget Sound Inc.	-0.02%	4.50%	5.00%	5.00%	5.33%	4.96%	2.47%
Average	**2.66%**	**5.10%**	**5.44%**	**6.67%**	**5.70%**	**6.52%**	**4.59%**

Proposed Range of Growth **5.00% - 6.50%**

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

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

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

Column 2 = I/B/E/S Inc.'s Institutional Brokers Estimate System, January 18, 2001.

Column 3 = Standard & Poor's Corporation's Earnings Guide, February 2001.

Column 4 = Value Line's Investment Survey, December 8, 2000, January 5, 2001 and February 16, 2001.

Column 5 = Zacks Investment Research, Inc.'s Earnings Estimates, March 2, 2001.

Schedule 23

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-2001-299

Average High / Low Stock Price for November 2000 through February 2001 for the Nine Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	November 2000		December 2000		January 2001		February 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	(Nov 2000 - Feb 2001)
Black Hills Corporation	$35.062	$28.750	$46.062	$33.937	$44.312	$31.000	$39.890	$38.000	$37.127
Cinergy Corporation	$32.500	$29.687	$35.250	$31.187	$35.125	$28.812	$33.100	$29.900	$31.945
Cleco Corporation	$47.500	$44.562	$56.500	$46.812	$54.500	$42.437	$47.340	$44.190	$47.980
DPL Inc.	$30.875	$27.812	$33.812	$29.625	$33.312	$26.375	$31.030	$27.300	$30.018
DQE, Inc.	$36.750	$32.500	$34.937	$30.750	$33.000	$29.125	$33.700	$30.900	$32.708
Hawaiian Electric	$34.500	$32.625	$37.937	$33.625	$37.437	$33.562	$37.750	$34.500	$35.242
NSTAR	$40.000	$38.125	$43.187	$37.500	$42.687	$33.937	$41.170	$37.020	$39.203
Potomac Electric Power	$23.312	$21.500	$24.900	$22.500	$24.900	$20.580	$24.900	$20.200	$22.849
Puget Sound Inc.	$26.687	$23.812	$28.000	$25.875	$27.750	$23.562	$24.970	$22.500	$25.395

Notes:

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

Sources: Telescan Inc.'s Wall Street City, March 2, 2001.

Schedule 24

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

Company Name	(1) Expected Annual Dividend (2001)	(2) Average High/Low Stock Price	(3) Projected Dividend Yield	(4) Average Projected Growth Rate	(5) Estimated Cost of Common Equity
Black Hills Corporation	$1.100	$37.127	2.96%	9.50%	12.46%
Cinergy Corporation	$1.820	$31.945	5.70%	5.16%	10.86%
Cleco Corporation	$1.710	$47.980	3.56%	8.88%	12.44%
DPL Inc.	$0.940	$30.018	3.13%	9.41%	12.54%
DQE, Inc.	$1.660	$32.708	5.08%	6.70%	11.77%
Hawaiian Electric	$2.480	$35.242	7.04%	3.15%	10.19%
NSTAR	$2.050	$39.203	5.23%	6.60%	11.82%
Potomac Electric Power	$1.410	$22.849	6.17%	4.34%	10.51%
Puget Sound Inc.	$1.840	$25.395	7.25%	4.96%	12.20%
Average			**5.12%**	**6.52%**	**11.64%**

Proposed Dividend Yield	**5.15%**
Proposed Range of Growth	**5.00 - 6.50%**
Estimated Cost of Equity	**10.15 - 11.65%**

Notes: Column 1 = Estimated Dividends Declared per share represents the average projected dividends for 2000 and 2001.

Column 3 = (Column 1 / Column 2).

Column 5 = (Column 3 + Column 4).

Sources: Column 1 = The Value Line Investment Survey: Ratings & Reports, December 8, 2000, January 5, 2001 and February 16, 2001.

Column 2 = Schedule 24.

Column 4 = Schedule 23.

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-2001-299

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

Company Name	(1) Risk Free Rate (Low)	(2) Risk Free Rate (High)	(3) Company's Value Line Beta	(4) Market Risk Premium	(5) CAPM Cost of Common Equity (Low)	(6) CAPM Cost of Common Equity (High)
Black Hills Corporation	5.49%	5.83%	0.50	7.80%	9.39%	9.73%
Cinergy Corporation	5.49%	5.83%	0.60	7.80%	10.17%	10.51%
Cleco Corporation	5.49%	5.83%	0.55	7.80%	9.78%	10.12%
DPL Inc.	5.49%	5.83%	0.60	7.80%	10.17%	10.51%
DQE, Inc.	5.49%	5.83%	0.50	7.80%	9.39%	9.73%
Hawaiian Electric	5.49%	5.83%	0.50	7.80%	9.39%	9.73%
NSTAR	5.49%	5.83%	0.55	7.80%	9.78%	10.12%
Potomac Electric Power	5.49%	5.83%	0.50	7.80%	9.39%	9.73%
Puget Sound Inc.	5.49%	5.83%	0.55	7.80%	9.78%	10.12%
Average			**0.54**		**9.69%**	**10.03%**

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

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

Sources: Column 1 = The Risk Free Rate reflects the level of return which can be achieved without accepting any risk. The Risk Free Rate is represented by the yield on 30-Year U.S. Treasury Bonds. The approriate low rate was determined to be the low end of the range (5.49%) for the six-month period ending January 31, 2001 as published on the Federal Reserve web site, http://www.stls.frb.org/fred/data/irates/gs30.

Column 2 = The approriate high Risk Free Rate was determined to be the high end of the range (5.83%) for the six-month period ending January 31, 2001 as published on the Federal Reserve web site, http://www.stls.frb.org/fred/data/irates/gs30.

Column 3 = The Beta represents the relative movement and relative risk between a particular stock and the market. The approriate Betas were taken from The Value Line Investment Survey, December 8, 2000, January 5, 2001 and February 16, 2001.

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 approriate Market Risk Premium was determined to be 7.80% as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2000 Yearbook.

Schedule 26

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-2001-299

Selected Financial Ratios for the Nine Comparable Electric Utility Companies

Company Name	Date of Information	Common Equity to Total Capital Ratio	Pre-Tax Interest Coverage Ratio	Market-to-Book Value	2001 Projected Return on Common Equity	
Black Hills Corporation	7/7/00	45.50%	4.10 x	3.19 x	17.00%	
Cinergy Corporation	7/7/00	42.00%	2.80 x	2.01 x	15.00%	
Cleco Corporation	7/7/00	40.40%	3.30 x	2.87 x	14.50%	
DPL Inc.	7/7/00	46.70%	4.10 x	3.25 x	26.00%	*
DQE, Inc.	7/7/00	33.00%	3.00 x	2.27 x	18.00%	*
Hawaiian Electric	7/7/00	47.60%	3.10 x	1.46 x	12.50%	
NSTAR	7/7/00	47.20%	2.20 x	1.48 x	12.50%	*
Potomac Electric Power	7/7/00	35.60%	2.50 x	1.51 x	11.50%	
Puget Sound Inc.	7/7/00	34.10%	2.50 x	1.42 x	12.50%	
Average		**41.34%**	**3.07 x**	**2.16 x**	**15.50%**	
The Empire District Electric Company	(7/7/00)	**40.40%**	**2.40 x**	**1.90 x**	**12.00%**	

Note: Date of information indicates the reporting date of the equity and pre-tax ratios as found in Standard and Poor's Summary Financial Ratios for Electric Utilities.
Market-to-book and 2001 Projected Return on Common Equity is based on information found in The Value Line Investment Survey: Ratings and Reports, December 8, 2000, January 5, 2001 and February 16, 2001.

* It should be noted that both DPL, Inc. and DQE, Inc. operate in states that have passed deregulation legislation. In addition, NSTAR operates in in a state that has passed deregulation legislation and its utility subsidiaries are not subject to a return-on-equity cap.

Sources: The Value Line Investment Survey: Ratings and Reports, December 8, 2000, January 5, 2001 and February 16, 2001.

Schedule 27

Public Utility Revenue Requirement

or

Cost of Service

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

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

or

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

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

R 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 December 31, 2000 for The Empire District Electric Company

Capital Component	Percentage of Capital	Embedded Cost	Weighted Cost of Capital Using Common Equity Return of: 8.50%	9.00%	9.50%
Common Stock Equity	39.80%	-----	3.38%	3.58%	3.78%
Preferred Stock	0.00%	-----	0.00%	0.00%	0.00%
Long-Term Debt	60.20%	7.88%	4.74%	4.74%	4.74%
Short-Term Debt	0.00%	-----	0.00%	0.00%	0.00%
Total	**100.00%**		**8.13%**	**8.33%**	**8.52%**

Notes:

See Schedule 10 for the Capital Structure Ratios.

See Schedule 11-1 for the Embedded Cost of Long-Term Debt.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of The Empire District Electric Company's Tariff Sheets Designed To Implement a General Rate Increase for Retail Electric Service Provided to Customers in the Missouri Service Area of the Company	)))))	Case No. ER-2001-299

AFFIDAVIT OF ROBERTA A. McKIDDY

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Roberta A. McKiddy, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Direct Testimony in question and answer form, consisting of 35 pages and 29 schedules to be presented in the above case; that the answers in the foregoing Direct Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of her knowledge and belief.

Roberta A. McKiddy

Roberta A. McKiddy

Subscribed and sworn to before me this 29th day of March 2001.

Rosemarie Riedl

ROSEMARIE RIEDL
NOTARY PUBLIC STATE OF MISSOURI
COLE COUNTY
MY COMMISSION EXPIRES JUNE 1, 2001