Exhibit No.	
Issue:	Rate of Return
Witness:	David P. Broadwater
Type of Exhibit:	Direct Testimony
Sponsoring Party:	MO PSC Staff
Case No.:	Case No. ER-97-81

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-97-81

DIRECT TESTIMONY

OF

DAVID P. BROADWATER

Jefferson City, Missouri

February 1997

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OF

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THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-97-81

Q. Please state your name.

A. My name is David P. Broadwater.

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. I accepted this position in March 1995. From December 1993 to February 1995, I was employed as a Management Services Specialist with the Missouri Public Service Commission (Commission). It should be noted that part of my training while a member of the Management Services Department included serving in the Financial Analysis Department.

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

A. Yes, I was employed by Cullum & Brown Inc. from July 1991 through November 1993, in a sales and sales support capacity.

Q. What is your educational background?

A. In 1991, I earned a Bachelor of Science degree in Business Finance from Northwest Missouri State University. In 1995, I earned a Master of Business Administration degree with an emphasis in Finance from the University of Missouri at Kansas City.

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

A. My testimony is presented to provide a recommendation to the Commission as to a fair and reasonable rate of return for 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-97-81" consisting of 30 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 9.19 to 9.54 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.

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 recent historical economic conditions in which Empire 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 policies by controlling the discount rate - the interest rate charged by the Federal Reserve for loans of reserves to depository institutions. At the end of 1982, the U.S. economy was in the early stages of recovery from the longest post-World War II recession. This economic expansion began when the Federal Reserve reduced the discount rate seven times in the second half of 1982 in an attempt to stimulate the economy. Within a five month period, the discount rate was cut from 12.0 to 8.5 percent (see Schedule 2). This also led to a reduction in the prime interest rate (the rate

charged by banks on short-term loans to borrowers with high credit ratings) from 16.50 percent in June 1982, to 11.50 percent in December 1982 (see Schedule 3). The recovery continued and the economy was stimulated even more when the Federal Reserve cut the discount rate four more times in 1986. At year-end 1986, the discount rate was 5.5 percent and the prime interest rate was 7.50 percent.

As the second quarter of 1987 came around, the expansion began to slow. Fears of increasing inflation (see Schedule 4), the falling dollar, and high Federal deficits led to increased interest rates for the second and third quarters of 1987. These fears also led to the stock market crash of October 1987 in which the Standard & Poor's 500 Composite Stock Price Index declined approximately 20 percent. After the crash, the prime interest rate was lowered to 8.50 percent, but additional fears of inflation led to the increase in the prime interest rate to 11.50 percent during the first quarter of 1989. Then, the prime interest rate began to drop again. However, on February 24, 1989, the Federal Reserve increased the discount rate to 7.0 percent. This was only the third increase in the discount rate since May 1984. This increase resulted from a need to hedge the economy against the fears of increasing inflation.

The economic expansion ceased after approximately eight years when the economy entered into a recession in July 1990. In August 1990, the Iraqi invasion of Kuwait produced higher crude oil prices and spurred inflation fears again. The pressures

of war in the Persian Gulf, the Savings and Loan bailouts and unfavorable business trends led to a slow-down in economic growth.

In February 1991, the economic uncertainties centered around the length of the Persian Gulf War and the length and severity of the economic recession. By March 1991, the issue of the Persian Gulf War was resolved with a quick victory by U.S. and coalition troops. As a result, the market shifted its focus to the unresolved economic issues in the United States.

On April 30, 1991, the Federal Reserve responded to the slumping economy by lowering the discount rate to 5.5 percent. During the second quarter of 1991 the recession ended. However, the leading economic indicators at that time did not give an indication of a strong economic recovery. As a result, the discount rate was cut four more times with the discount rate being reduced to 3.0 percent on July 2, 1992 which represents the lowest level in approximately thirty years. These monetary credit-loosening steps resulted in the prime rate being reduced to 6.00 percent. Economic concerns throughout the remainder of 1992 focused on the domestic economy and the presidential election in which incumbent Republican President George Bush was soundly defeated by Bill Clinton, the Democratic governor of Arkansas.

In 1993, as part of the Clinton Administration's plan to raise additional revenues, certain corporate and personal income tax rates were raised. Corporate downsizing resulted in large layoffs to white-collar and other skilled occupations in which

employment has traditionally been considered as secure. Perhaps the most important factor for the U.S. economy in 1993 was the passage of the North American Free Trade Agreement (NAFTA) which creates a free trade zone consisting of the United States, Canada and Mexico. The rate of economic growth for the fourth quarter was one which the Federal Reserve believed could not be sustained without experiencing higher inflation. In the first quarter of 1994, the Federal Reserve took steps to try and restrict the economy by increasing interest rates. As a result, on March 24, 1994, the prime interest rate as reported by The Wall Street Journal 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. Three additional restrictive monetary actions were taken by the Federal Reserve, 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 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 its current rate of 5.00 percent, which had the effect of lowering the Prime Interest Rate to its current rate of 8.25 percent.

Current economic topics seem to revolve around President Clinton's plans for his second term, the value of the dollar, the political stability or instability of key global markets and if the stock market can sustain the current bull market. Economists, businesses and investors appear to be cautious despite the projections for continued economic growth and minimal levels of inflation in the near-term.

Economic changes and capital cost changes for utilities are closely reflected in the yields on public utility bonds and yields of Thirty Year U.S. Treasury Bonds (see Schedule 5-1 and 5-2). Schedule 5-3 shows how closely the Moody's "Public Utility Bond Yields" have followed the yields of Thirty Year U.S. Treasury Bonds during the period of 1981 to the present. The average spread for this time period between these two composite indices has been 144 basis points, with the spread ranging from a low of 80 basis points and a high of 304 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 forecast future estimates of long-term debt costs for utility companies. Moody's "Public Utility Bond Yields" are also graphically compared to both Standard & Poor's "Utilities Stock Yields" and Standard & Poor's "Industrials Stock Yields" (see Schedule 6).

Q. Have the utility and industrial stocks recovered from the stock market crash of October 19, 1987?

A. According to The Value Line Investment Survey: Selection and Opinion, utility stocks have fully recovered from the stock market crash on October 19, 1987, and have added 46.3 percent to Value Line's "Geometric Average Index for Utilities" over the period from September 1987 through January 16, 1996. Industrial stocks however, only fully recovered June 6, 1995. This is based on the Value Line's geometric averages for both industrials and utilities. The utility index dropped 11.7 percent for the fourth quarter of 1987, while the industrial index dropped 28.8 percent during the fourth quarter of 1987. In addition, during the stock market correction on October 13, 1989, the percentage drop for the utility index was not as sharp as the percentage drop for the industrial index. This suggests that the utility stocks were a better investment, when compared to industrial stocks, following the stock market crash and correction. However, since the respective highs of each index, the utility index dropped 22.3 percent for the period of September 13, 1993 through November 22, 1994, while the industrial index has only dropped 12.9 percent for the period of March 18, 1994 through December 9, 1994. Both indices have advanced since the 1994 end-of-year lows. As a result of the current rally, industrials have finally recovered from the stock market crash of 1987 and have increased in overall value 24.7 percent as of January 16, 1997. The utilities have increased as well by adding 46.3 percent in overall value since the stock market crash of 1987 but have not yet equaled the high they reached in September of 1993. As a result, when compared to industrial stocks, it suggests that utility stocks are more stable, more

defensive in nature and are better investments during slumping economic times but are less stable during times of increasing interest rates.

Economic Projections

Q. What are the inflationary expectations for the remainder of 1997 and beyond?

A. The latest inflation rate, as measured by the 12-month change in the Consumer Price Index-All Urban Consumers (CPI), was 3.3 percent for December 1996. Standard & Poor's Corporation's The Outlook, June 19, 1996, predicts inflation to be 3.0 percent for the second quarter of 1997. The Value Line Investment Survey: Selection & Opinion, November 29, 1996, predicts inflation to be 2.8 percent for 1997, 3.0 percent for 1998 and 3.2 percent for 1999 (see Schedule 7). Salomon Brothers Inc's Comments On Credit, November 29, 1996, predicts the CPI will increase by 3.0 percent through 1997 and 2.9 percent through the first half of 1998.

Q. What are interest rate forecasts for 1997, 1998 and 1999?

A. Short-term interest rates, those measured by Three-Month U.S. Treasury Bills, are expected to be approximately 5.0 percent in 1997, 5.2 percent in 1998 and 5.3 percent in 1999 according to Value Line's predictions. Standard & Poor's foresees short-term interest rates to be 5.8 percent for the first half of 1997. Standard & Poor's believes that long-term interest rates, those measured by Thirty Year U.S. Treasury Bonds, will be 7.6 percent for the first half of 1997, while Value Line expects interest rates to

decrease slightly to 6.4 percent in 1997 and increasing slightly to 6.8 percent through 1998, and then increasing again to 6.9 percent in 1999. The current rates are 5.17 percent for 3-month T-Bills and 6.83 percent for 30-year T-Bonds, as noted from Salomon Brothers Inc's Bond Market Roundup, January 17, 1997.

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. During the third quarter of 1996 real GDP increased by 2.1 percent (see Schedule 7). Salomon Brothers Inc. predicts that real GDP is likely to increase by 2.6 percent through 1997 and 2.1 percent in 1998. Standard & Poor's believes that this economic indicator will be at 1.3 percent for the first half of 1997, while Value Line expects the real GDP growth to increase by 2.0 percent in 1997, 2.3 percent in 1998 and increase by 2.6 percent in 1999.

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 2.8 to 3.3 percent, real GDP in the range of 1.3 to 2.6 percent and long-term interest rates are expected to range from 6.4 to 7.6 percent. The Value Line Investment Survey: Selection & Opinion, January 17, 1997, states that

"[e]conomic growth issues are still front and center for the financial markets, however. Recently, the business expansion has shown signs of strengthening anew, with data on industrial and construction activity and especially on employment growth pointing to GDP gains of possibly more than 2%. . . " In addition, Standard & Poor's Corporation's The Outlook, January 22, 1997, states "[i]n classic bull market fashion, the positives are being emphasized, the negatives downplayed. Recent reports suggesting some speed-up of economic growth are increasing investor expectations of corporate profits."

Business Operations of The Empire District Electric Company

Q. Please describe Empire's business operations.

A. In The Empire District Electric Company's 1995 Stockholders' Annual Report, Empire states:

> The Empire District Electric Company's provides electrical service to approximately 136,500 customers located throughout a 10,000 square-mile service area that spans Missouri, Oklahoma, Kansas and Arkansas. The Company has been listed on the New York Stock Exchange since 1946 and has continuously paid dividends since 1944. Empire also provides water service to three incorporated Missouri communities.
>
> Of the Company's total electric operating revenue during 1995, approximately 42% were from residential customers, 39% from commercial, 17% from industrial and 4% from wholesales on-system customers. The remainder of such revenues was derived from miscellaneous sources. . . .

The Company's residential, commercial and industrial revenues all increased by a greater percentage than the increase in Kwh sales would indicate due mainly to the effect of electric rate increases. In addition, a restructuring of the Company's rates in connection with the 1994 Missouri electric rate case resulted in a greater overall rate increase for the Company's residential customers than for its commercial and industrial customers, and in the shifting of revenue from winter billing periods to summer billing periods.

Kwh sales to, and related revenues from, the Company's residential customers were up during 1994, due primarily to an increase in the average number of customers served. The level of customer growth more than offset the effect of mild summer weather experienced during 1994. Commercial and industrial Kwh sales and revenues for that year were positively impacted by continuing increases in business activity throughout the Company's service territory, particularly in the Branson, Missouri area. Revenues from on-system wholesale Kwh sales were up slightly during 1994 due primarily to the operation of the FERC fuel adjustment clause.

Several factors exist which may enhance the Company's ability to compete as deregulation occurs. The Company is able to generate and purchase power relatively cheaply; during 1995, the Company's retail rates were approximately 26% less than the electric industry average. In addition, only 4% of the Company's electric operating revenues are derived from sales to on-system wholesale customers, the type of customer from which FERC is already requiring wheeling. At the same time, the Company could face increased competitive pressure as a result of its reliance on relatively large amounts of purchased power and its extensive interconnections with neighboring utilities.

In response to the changing competitive environment that it now faces, the Company in 1995 initiated and completed the CPP [Competitive Positioning Process], to maximize efficiency and effectiveness in providing service. As part of the CPP, the Company has redesigned its organizational structure. Further, the Company has reduced planned construction expenditures and entered into an agreement with Western Resources for purchased power to reduce the uncertainty of owning new plants. In addition, the retirement program which was accepted by 49 of

52 eligible employees and resulted in a pre-tax charge of approximately $4.6 million.

Empire's total operating revenues were $203,170,772 for the 12 months ended September 30, 1996, with approximately 82.6 percent ($167,971,434) coming from its Missouri jurisdictional electric operations, 6.0 percent ($12,169,917) from its Kansas jurisdictional electric operations, 4.7 percent ($9,555,719) from its federal jurisdictional electric operations, 3.3 percent ($6,615,783) from its Oklahoma jurisdictional electric operations, 2.9 percent ($5,820,783) from its Arkansas jurisdictional electric operations and 0.5 percent ($1,037,657) from its water operations. These revenues resulted in an overall net income applicable to common stock of $18,167,423. These figures were taken from Empire's response to Staff Data Information Request 3809 and Empire's 10Q, dated September 30, 1996.

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 "high average". Also, Moody's Investors Service 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 Moody's Investment Service's "A3" credit rating.

Q. Did Standard & Poor's Corporation recently revise its credit rating approach toward investor-owned electric utilities?

A. Yes. Standard & Poor's Corporation's CreditWeek, November 22, 1993, states:

> In late October, S&P announced it was tightening its financial ratio guidelines for U.S. investor-owned electric utilities after reviewing the industry's fundamentals and concluding that business risk is increasing as a result of several factors. S&P's concerns stem from:
>
> - Intensifying competitive pressures,
> - Sluggish demand expectations,
> - Slow earnings growth prospects,
> - High common dividend payouts,
> - Environmental cost pressures, and
> - Nuclear operating cost and decommissioning challenges.
>
> In general, S&P believes that electricity prices will be under pressure as a result of excess generating capacity, lower barriers to entering the electric generating business, and marginal costs that are below embedded costs . . . .
>
> S&P believes that over the coming years more retail customers will want and demand lower prices. Initial concerns focus on the largest industrial loads, but other customer classes will be increasingly vulnerable over time . . . .
>
> It should not be surprising that credit ratings will be under pressure as business risk rises . . . . Consequently, unless S&P is convinced that a utility can strengthen its business position, improve its financial profile, or achieve some combination of the two, the potential for a lower rating exists.
>
> S&P is tightening its financial benchmarks for electric utilities in keeping with the industry's changing risk profile. In addition, S&P has begun to publish risk-adjusted financial benchmarks . . . .

> S&P categorizes each utility's business position as "above-average," "average," or "below-average" . . . . The concept is that a utility with an above-average or stronger business position could have weaker financial protection for the same rating. Conversely, a utility with a below-average or weak business position would require a stronger financial profile. To determine a utility's business position, S&P reviews all of the qualitative business or operating risk factors typical for an electric utility. The major areas are:
>
> - Markets and service-area economy;
> - Competitive position;
> - Fuel and power supply;
> - Operations, with particular emphasis on nuclear;
> - Regulation; and
> - Management.
>
> When considering a utility's operations, S&P pays particular attention to nuclear operations, where the risks have continued to escalate over the past several years . . . . Thus, S&P tends to view utilities with nuclear asset concentration more conservatively than in the past.
>
> With regard to regulation, the key focus is whether regulation will be a help or a hindrance as utilities are exposed to greater competition. Regulators can do much with regard to allocating costs to more captive customers, allowing pricing flexibility, and sometimes just stepping out of the way to allow utilities to compete.

In the July 1995, issue of Standard & Poor's Corporation's CreditWeek, Standard & Poor's reaffirmed their financial ratio benchmarks set in November 1993, and further defined the business position classification by stating that:

> A critical step in the assignment of bond ratings for investor-owned electric utilities is the determination of business position, a measure of qualitative credit fundamentals. Utility business positions are listed in seven categories ranging from "above average" to "below average." Both the business position and financial ratio benchmarks incorporate the

comprehensive comparison of business risk and financial performance involved in the credit analysis process.

Standard & Poor's updated their main areas of focus in the determination of business position as being:

- Market and service area economy,
- Competitive position,
- Fuel and power supply,
- Operations,
- Asset concentration,
- Regulation, and
- Management.

The seven categories of business position used by Standard & Poor's are:

- above-average,
- somewhat above-average,
- high average,
- average,
- low average,
- somewhat below-average, and
- below-average.

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, May, 1996, provides a summary explaining the outlook. Specifically the report states:

> **OUTLOOK: STABLE** Ratings stability is envisioned for EDE. Overall financial improvement will be driven by moderating construction expenditures in 1997, rate relief, tight cost controls, and healthy sales growth. The firm's solid service area, competitive cost structure, and an absence of nuclear challenges will limit downside rating pressure. Yet, significant reliance on one generating facility, rate needs, strict Missouri

ratemaking principles, and increasing purchased power commitments in 2001 will restrain upside ratings potential.

Q. Please provide some historical financial information for Empire.

A. Schedules 8 and 9 present historical capital structures and selected financial ratios from 1991 to 1995 for Empire. Empire's common equity ratio has remained rather steady from 1991 though 1993 ranging from 47.15 percent to 50.08 percent; then in 1994 the common equity ratio dropped to 42.62 percent, but has since increase to 44.43 percent as of year-end 1995, which is in line with Empire's current credit rating. Empire's lower common equity ratio in 1994 and 1995 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 110.34 percent in 1993. It dropped to 96.97 percent in 1994 but jumped back up to 108.47 percent in 1995.

Empire's return on year-end common equity (ROE) has steadily decreased from 11.68 percent in 1991 to 9.00 percent in 1995, with a slight rebound to 10.43 percent in 1994. Empire's 1995 ROE of 9.00 percent was below the average earned by other electric utilities of 11.70 percent according to The Value Line Investment Survey: Ratings & Reports, January 10, 1997. Value Line also estimates that Empire's return on equity will be 11.5 percent for 1997 and 12.0 percent for the time period 1999 through 2001.

Empire's market-to-book ratio decreased from 1.98 times for year-end 1991 to 1.29 times for year-end 1994, but then increased to 1.48 times for 1995.

In my opinion, the deterioration of Empire's financial statistics in 1994 and 1995 are reflective of an electric utility undertaking a construction program; in the case of Empire, it is to meet the increasing demands of the growth in its service territory, but Empire's financials should improve going forward due to a slowing in its construction needs and increased rates reflecting the new construction.

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, 1996 for Empire. Schedule 10 presents Empire's capital structure and associated capital ratios. The resulting capital structure consists of 47.29 percent common stock equity, 7.06 percent preferred stock, 45.65 percent long-term debt and 0.00 percent short-term debt.

The amount of preferred stock outstanding at December 31,1996, was reduced by $1,072,152 for the net balance associated with the unamortized premium and issuance expense. The amount of long-term debt outstanding at December 31, 1996, includes current maturities due within one year and was reduced by $14,250,996 for the net balance associated with the unamortized premium or discount expense and debt issuance expense (including losses on reacquired debt).

As of December 31, 1996, Empire had $7,500,000 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 that these funds are used to fund Construction Work In Progress (CWIP), which had a greater book value of $36,586,233 at December 31, 1996.

Q. What was the embedded cost of long-term debt for Empire at December 31, 1996?

A. I determined the embedded cost of long-term debt at December 31, 1996, for Empire to be 8.06 percent (see Schedule 11).

Q. What was the embedded cost of preferred stock for Empire at December 31, 1996?

A. I determined the embedded cost of preferred stock at December 31, 1996, for Empire to be 7.59 percent (see Schedule 12).

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:

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

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

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

Thus, the cost of common stock equity, k, is equal to the expected dividend yield (D_1/P_0) plus the expected growth in dividends (g) continuously summed 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 13 lists annual compound growth rates and trend line growth rates calculated for DPS, EPS and BVPS for the periods of 1986 through 1996 and 1991 through 1996. The EPS growth rates were negative for the period ending 1996 and therefore historical

EPS growth rates were not utilized in my growth estimates. Schedule 14 presents the five and ten year historical DPS and BVPS growth rates as well as the projected growth rates for Empire. The projected growth rates were obtained from three outside sources. I/B/E/S Inc.'s Institutional Brokers Estimate System, January 16, 1997, projects a five-year growth forecast of 2.00 percent for Empire. Standard & Poor's Corporation's Earnings Guide, January 1997, projects a five-year EPS growth rate of 2.00 percent for Empire. Value Line's Value Screen II, January 1997, projects the compound annual rate of growth for EPS during the next three to five years will be 3.50 percent for Empire. The average of the three outside sources produces a projected growth rate of 2.50 percent. Combining the historical DPS and BVPS gorwth rates with the projected growth rates produces a reasonable growth rate range of 2.50 to 3.50 percent. This range of growth (g) is the range that I used in the DCF model to calculate a cost of common equity for 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, 1996, through January 31, 1997. This averaging technique is an attempt to minimize the effects on the dividend yield which can occur due to daily volatility in the stock market.

Schedule 15 presents the monthly high / low average stock market prices from October 1, 1996, through January 31, 1997, for Empire. Empire's common stock price has ranged from a low of $17.875 per share to a high of $19.500 per share for the above mentioned time period. This has produced a range for the monthly average high / low market price of $18.313 to $19.063 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 10, 1997, is estimating that Empire's common dividend declared per share will be $1.28 for 1997. 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 over the period ending December 31, 1997.

Combining the expected dividend of $1.28 per share and a market price range of $18.313 to $19.063 per share produces an approximate expected dividend yield range of 6.75 to 7.00 percent. This is the range that 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)
6.75%	+	2.50%	=	9.25%
7.00%	+	3.50%	=	10.50%

This range of return on common equity of 9.25 to 10.50 percent is the company specific cost of equity range for Empire.

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 "A" rated Moody's Public Utility 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 286 basis points higher than the average yield on "A" rated Moody's Public Utility Bonds for the period of January 1985 to present (see Schedule 16).

Moody's Bond Record, December 1996, reports the average yield for "A" rated utility bonds for November 1996 was 7.49 percent. Adding 286 basis points to this "A" yield produces an estimated cost of equity of 10.35 percent. In addition, Salomon Brothers Inc's Bond Market Roundup, January 17, 1997, reports the yield for "New Issue 30 Year 'A' Rated Utility Bonds" to be 7.86 percent. Adding 289 basis points to this yield produces an estimated cost of equity of 10.72 percent.

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 riskless 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 6.36 to 7.15 percent for the six-month period ending January 16, 1997, as published in Salomon Brothers Inc's Bond Market Roundup: Abstract.

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 0.60 as published in The Value Line Investment Survey: Ratings & Reports, January 10, 1997.

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 7.00 percent as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 1996 Yearbook.

Schedule 17 presents the CAPM analysis with regard to Empire. The CAPM analysis produces an estimated cost of equity range of 10.56 to 11.35 percent for Empire.

It should be noted that recent debate has somewhat diminished the reliability of CAPM as an cost of equity evaluation tool. As a result, I do not believe that CAPM analysis should be given equal weight to DCF cost of equity analysis and should only be used as a check of DCF analysis.

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

A. The DCF is typically the main tool I used in determining the cost of equity range. However a return on equity range of 9.25 to 10.50 percent may be too low based on my experience. I believe that the DCF model results are low because of the high current stock prices based on the overall market levels. Standard & Poor's Corporation's The Outlook dated May 8,1996, stated that "Dividend yields are in record low territory, reflecting the combination of high stock prices and stingy corporate dividend policies." Consequently, I looked to the risk premium approach to verify the DCF range. The risk premium range of 10.35 to 10.75 percent, reinforced my beliefs that the DCF range of 9.25 to 10.50 percent may be somewhat too low. I then looked to the CAPM range of 10.56 to 11.35 percent, and decided upon a required return on equity range of 10.50 to 11.25 percent based on the high end of the DCF range (10.50 percent) to the risk premium range (10.35 to 10.72 percent), and the CAPM range (10.56 to 11.35 percent)

to justify that range. I then looked at the pro-forma pre-tax interest coverage ratios and a comparable company analysis to justify my range.

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 18). It reveals that the return on equity range of 10.50 to 11.25 percent would yield a pre-tax interest coverage ratio in the range of 3.56 to 3.73 times. This interest coverage range is in line with Standard & Poor's "A" "High Average" business position electric utilities benchmark of 3.25 times and falls slightly below Standard & Poor's "AA" "High Average" business position electric utilities benchmark of 3.80 times. It should also be noted that the long-term debt component of 45.65 percent falls slightly below Standard & Poor's "AA" benchmark of 42 percent for a "High Average" business (see Schedule 10).

Additionally, the low end of the 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. 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 19 presents a list of ninety-two market-traded electric utility companies monitored by Value Line of which Empire is one. 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 thirty-one companies;

2. No Nuclear Operations: This criterion eliminated thirty-nine additional companies;

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

4. Total Capital less than $6 Billion: This criterion eliminated one additional company;

5. Positive Dividends Per Share Annual Compound Growth Rate for the period of 1985 through 1995: This criterion eliminated two additional companies; and

6. No Missouri Operations: This criterion eliminated St. Joseph Light & Power Company and Empire.

I then eliminated Interstate Power Company, Potomac Electric Power Company and Puget Sound Power & Light Company due to the company's pending mergers. On average, this final group of seven publicly traded electric utility companies (comparable electric utility companies) is comparable to Empire because of similar business operations

and credit ratings. The seven comparable electric utility companies are listed on Schedule 20.

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 seven 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 seven electric utility companies as I used in calculating a growth rate for Empire, except that I utilized the average of the historical DPS and BVPS growth rates as well as projected growth rates (see Schedules 21 and 22). The electric utility companies' average historical growth rates ranged from 0.70 to 6.92 percent with an overall average of 3.06 percent for the group. The projected growth rates ranged from 2.00 to 6.50 percent with an average of 3.70 percent. Taking into account the projected and historical growth rates, a proposed range of growth of 3.25 to 3.75 percent was used in the DCF calculation for the comparable companies. The growth rate range of 2.50 to 3.50 percent as calculated for Empire falls at the low end of the range of the individual growth estimates for the seven electric utility companies.

The next step was to calculate an expected dividend yield for each of the seven electric utility companies. Schedule 23 presents the average high / low stock price for the period of October 1, 1996 through January 31, 1997 for each electric utility company.

Column 3 of Schedule 24 shows that the projected dividend yields ranged from 5.42 to 7.79 percent for the seven electric utility companies with the average at 6.17 percent. A proposed dividend yield range of 5.75 to 6.50 percent was used in the DCF calculation for the comparable companies. The proposed dividend yield range of 6.75 to 7.00 percent for Empire fall just above the range 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 seven electric utility companies (see Column 5 of Schedule 24). These estimates produced a DCF cost of equity ranging from 8.11 to 11.52 percent for the comparable electric utility companies with an average of 9.56 percent. This provides support to the low end of my estimated required return on equity for Empire of 10.50 percent.

Q. Did you do any other analysis in determining the cost of common equity for the comparable company group?

A. Yes. I performed a risk premium and CAPM cost of equity analysis for the companies in the comparable company group with the exception of Black Hills Corporation. A risk premium analysis was not done for Black Hills Corporation because the data was not available to perform a meaningful analysis. The risk premium analysis done for the comparable companies is the same as done for Empire, but it should be noted that when monthly risk premiums are average if a risk premium is less than zero it is assumed to be zero. The risk premium analysis for the remaining companies shows that

the comparable company's expected return on equity as reported by The Value Line Investment Survey: Ratings & Reports ranges from 233 to 496 basis points higher than the appropriate yielding Moody's Public Utility Bond (see Schedule 25). Adding the equity premium to the current yield on "A" or "BBB" New Issue 30 Year Utility Bonds produces an estimated cost of equity ranging from 10.39 to 12.82 percent, with an average of 11.17 percent. This provides support to my estimated required return on common equity for Empire (see Schedule 26).

A CAPM cost of equity analysis was also preformed. The betas for the comparable company group averaged 0.73, which is above Empire's beta of 0.60. The CAPM analysis implies that the required return on equity for the comparable company group falls within the range of 10.91 to 13.10 percent (see Schedule 27). The results from the CAPM analysis show the effect of the higher betas for the comparable company group than Empire. This would indicate that the comparable company group is more risky than Empire and would require a higher ROE than Empire, but as was noted earlier, recent debate has somewhat diminished the reliability of CAPM as a cost of equity tool. Given that note I believe that this provides support to the high end of my estimated required return on common equity for Empire.

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 seven 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 28 reports market-to-book values for Empire and the seven electric utility companies, along with returns on year-end common equity for 1995. The comparable companies had year-end returns on common equity ranging from 9.20 to 14.00 percent and my recommended return on common equity for Empire in the case is 10.50 to 11.25 percent. The seven comparable companies had market to book ratios

ranging from 1.37 times to 1.96 times, this suggests that, all things remaining the same, a return on equity of at least 10.50 percent for Empire should still produce a market-to-book value of over 1.0 times, which indicates favorable valuation from the market.

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 10, 1997, predicts the electric utility industry will earn 11.8 percent on common equity for 1997 and 11.8 percent for 1999 through 2001. 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 29).

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 9.19 to 9.54 percent was developed for Empire's Missouri electric utility operations (see Schedule 30). This rate was calculated by applying an embedded cost of long-term debt of 8.06 percent, an embedded cost of preferred stock of 7.59 percent and a return on common equity range of 10.50 to 11.25 percent to a capital structure consisting of 0.00 percent short-term debt, 45.65 percent long-term debt, 7.06 percent preferred stock and 47.29 percent common equity. Therefore, as I suggested earlier, 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 9.19 to 9.54 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 due to come on-line. Therefore, I am recommending a

true-up audit be performed for the purpose of updating the capital structure and associated embedded costs through March 31, 1997. This would be in conjunction to those items recommended for true-up by Staff witness David G. Winter of the Accounting Department in his direct testimony.

Q. Does this conclude your prepared direct testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the matter of The Empire District Electric Company of Joplin, Missouri, for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Missouri service area. of the company	))))	Case No. ER-97-81

AFFIDAVIT OF DAVID P. BROADWATER

STATE OF MISSOURI	)	
	)	ss
COUNTY OF COLE	)	

David P. Broadwater, of lawful age, on his oath states: that he has participated in the preparation of the foregoing written direct testimony in question and answer form, consisting of fourty-two pages and thirty schedules to be presented in the above case; that the answers in the foregoing written direct testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

David P. Broadwater

Subscribed and sworn to before me this 13st day of Februray, 1997.

Roberta A. McKiddy

Notary Public

My Commission expires _____.

ROBERTA A. McKIDDY
Notary Public, State of Missouri
County of Cole
My Commission Expires 09/11/99

AN ANALYSIS OF THE COST OF CAPITAL

FOR

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-97-81

BY

DAVID P. BROADWATER

UTILITY SERVICES DIVISION

MISSOURI PUBLIC SERVICE COMMISSION

FEBRUARY 1997

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

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THE EMPIRE DISTRICT ELECTRIC COMPANY
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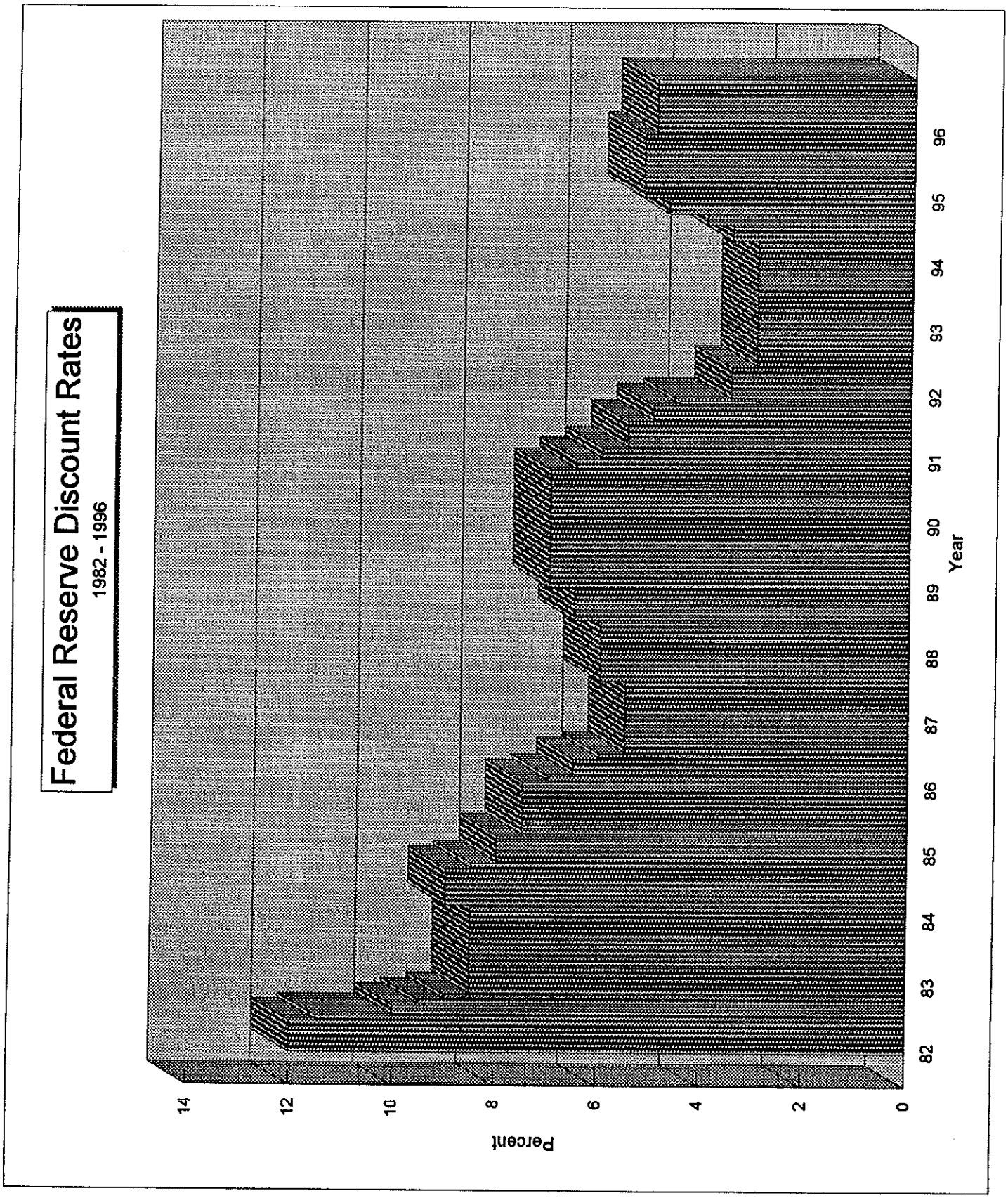
THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Federal Reserve Discount Rate Changes

Date	Discount Rate
01/01/82	12.00%
07/20	11.50%
08/02	11.00%
08/16	10.50%
08/27	10.00%
10/12	9.50%
11/22	9.00%
12/15	8.50%
01/01/83	8.50%
12/31	8.50%
04/09/84	9.00%
11/21	8.50%
12/24	8.00%
05/20/85	7.50%
03/07/86	7.00%
04/21	6.50%
07/11	6.00%
08/21	5.50%
09/04/87	6.00%
08/09/88	6.50%
02/24/89	7.00%
12/19/90	6.50%
02/01/91	6.00%
04/30	5.50%
09/13	5.00%
11/06	4.50%
12/20	3.50%
07/02/92	3.00%
01/01/93	3.00%
12/31	3.00%
05/17/94	3.50%
08/16	4.00%
11/15	4.75%
02/01/95	5.25%
01/31/96	5.00%

Sources: Federal Reserve Bulletin & The Wall Street Journal.


Federal Reserve Discount Rates
1982 - 1996
Percent
14
12
10
8
6
4
2
0
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
Year

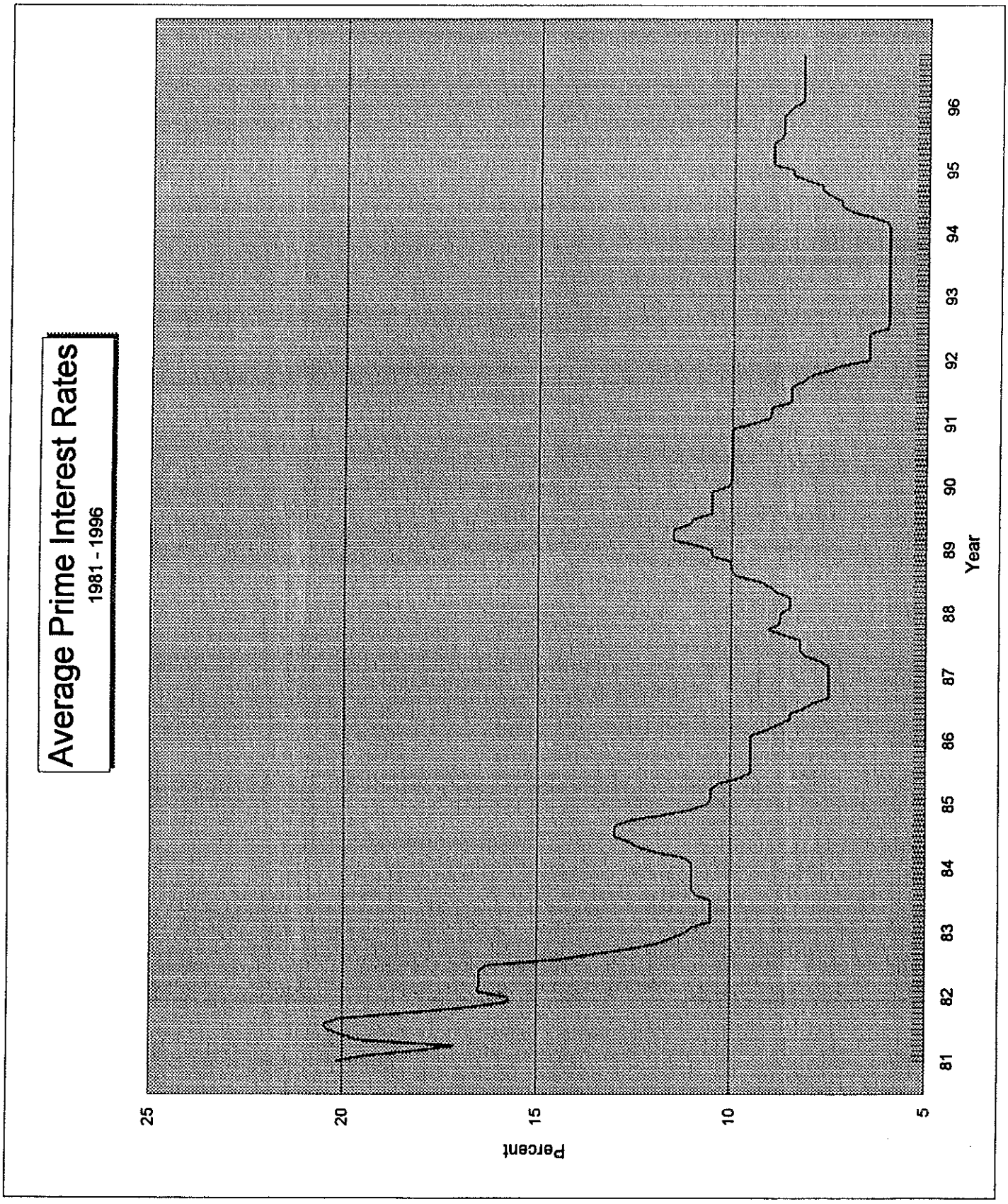
THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Average Prime Interest Rates

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1981	20.16	Jan 1985	10.61	Jan 1989	10.50	Jan 1993	6.00
Feb	19.43	Feb	10.50	Feb	10.93	Feb	6.00
Mar	18.05	Mar	10.50	Mar	11.50	Mar	6.00
Apr	17.15	Apr	10.50	Apr	11.50	Apr	6.00
May	19.61	May	10.31	May	11.50	May	6.00
Jun	20.03	Jun	9.78	Jun	11.07	Jun	6.00
Jul	20.39	Jul	9.50	Jul	10.98	Jul	6.00
Aug	20.50	Aug	9.50	Aug	10.50	Aug	6.00
Sep	20.08	Sep	9.50	Sep	10.50	Sep	6.00
Oct	18.45	Oct	9.50	Oct	10.50	Oct	6.00
Nov	16.84	Nov	9.50	Nov	10.50	Nov	6.00
Dec	15.75	Dec	9.50	Dec	10.50	Dec	6.00
Jan 1982	15.75	Jan 1988	9.50	Jan 1990	10.11	Jan 1994	6.00
Feb	16.56	Feb	9.50	Feb	10.00	Feb	6.00
Mar	16.50	Mar	9.10	Mar	10.00	Mar	6.06
Apr	16.50	Apr	8.83	Apr	10.00	Apr	6.45
May	16.50	May	8.50	May	10.00	May	6.99
Jun	16.50	Jun	8.50	Jun	10.00	Jun	7.25
Jul	16.26	Jul	8.18	Jul	10.00	Jul	7.25
Aug	14.39	Aug	7.90	Aug	10.00	Aug	7.51
Sep	13.50	Sep	7.50	Sep	10.00	Sep	7.75
Oct	12.52	Oct	7.50	Oct	10.00	Oct	7.75
Nov	11.85	Nov	7.50	Nov	10.00	Nov	8.15
Dec	11.50	Dec	7.50	Dec	10.00	Dec	8.50
Jan 1983	11.16	Jan 1987	7.50	Jan 1991	9.52	Jan 1995	8.50
Feb	10.98	Feb	7.50	Feb	9.05	Feb	9.00
Mar	10.50	Mar	7.50	Mar	9.00	Mar	9.00
Apr	10.50	Apr	7.75	Apr	9.00	Apr	9.00
May	10.50	May	8.14	May	8.50	May	9.00
Jun	10.50	Jun	8.25	Jun	8.50	Jun	9.00
Jul	10.50	Jul	8.25	Jul	8.50	Jul	8.80
Aug	10.89	Aug	8.25	Aug	8.50	Aug	8.75
Sep	11.00	Sep	8.70	Sep	8.20	Sep	8.75
Oct	11.00	Oct	9.07	Oct	8.00	Oct	8.75
Nov	11.00	Nov	8.78	Nov	7.58	Nov	8.75
Dec	11.00	Dec	8.75	Dec	7.21	Dec	8.65
Jan 1984	11.00	Jan 1988	8.75	Jan 1992	6.50	Jan 1996	8.50
Feb	11.00	Feb	8.51	Feb	6.50	Feb	8.25
Mar	11.21	Mar	8.50	Mar	6.50	Mar	8.25
Apr	11.93	Apr	8.50	Apr	6.50	Apr	8.25
May	12.39	May	8.84	May	6.50	May	8.25
Jun	12.60	Jun	9.00	Jun	6.50	Jun	8.25
Jul	13.00	Jul	9.29	Jul	6.02	Jul	8.25
Aug	13.00	Aug	9.84	Aug	6.00	Aug	8.25
Sep	12.97	Sep	10.00	Sep	6.00	Sep	8.25
Oct	12.58	Oct	10.00	Oct	6.00	Oct	8.25
Nov	11.77	Nov	10.05	Nov	6.00	Nov	8.25
Dec	11.06	Dec	10.50	Dec	6.00	Dec	8.25

Sources: Federal Reserve Bulletin & The Wall Street Journal.

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81



THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Rate of Inflation

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1981	11.60	Jan 1985	3.50	Jan 1989	4.70	Jan 1993	3.30
Feb	11.40	Feb	3.50	Feb	4.80	Feb	3.20
Mar	10.50	Mar	3.70	Mar	5.00	Mar	3.10
Apr	10.00	Apr	3.70	Apr	5.10	Apr	3.20
May	9.80	May	3.80	May	5.40	May	3.20
Jun	9.60	Jun	3.80	Jun	5.20	Jun	3.00
Jul	10.80	Jul	3.60	Jul	5.00	Jul	2.80
Aug	10.80	Aug	3.30	Aug	4.70	Aug	2.80
Sep	11.00	Sep	3.10	Sep	4.30	Sep	2.70
Oct	10.10	Oct	3.20	Oct	4.50	Oct	2.80
Nov	9.60	Nov	3.50	Nov	4.70	Nov	2.70
Dec	8.90	Dec	3.80	Dec	4.60	Dec	2.70
Jan 1982	8.40	Jan 1986	3.90	Jan 1990	5.20	Jan 1994	2.50
Feb	7.60	Feb	3.10	Feb	5.30	Feb	2.50
Mar	6.80	Mar	2.30	Mar	5.20	Mar	2.50
Apr	6.50	Apr	1.60	Apr	4.70	Apr	2.40
May	6.70	May	1.50	May	4.40	May	2.30
Jun	7.10	Jun	1.80	Jun	4.70	Jun	2.50
Jul	6.40	Jul	1.60	Jul	4.80	Jul	2.90
Aug	5.90	Aug	1.60	Aug	5.60	Aug	3.00
Sep	5.00	Sep	1.80	Sep	6.20	Sep	2.60
Oct	5.10	Oct	1.50	Oct	6.30	Oct	2.70
Nov	4.60	Nov	1.30	Nov	6.30	Nov	2.70
Dec	3.80	Dec	1.10	Dec	6.10	Dec	2.80
Jan 1983	3.70	Jan 1987	1.50	Jan 1991	5.70	Jan 1995	2.90
Feb	3.50	Feb	2.10	Feb	5.30	Feb	2.90
Mar	3.60	Mar	3.00	Mar	4.90	Mar	3.10
Apr	3.90	Apr	3.80	Apr	4.90	Apr	2.40
May	3.50	May	3.90	May	5.00	May	3.20
Jun	2.60	Jun	3.70	Jun	4.70	Jun	3.00
Jul	2.50	Jul	3.90	Jul	4.40	Jul	2.80
Aug	2.60	Aug	4.30	Aug	3.80	Aug	2.60
Sep	2.90	Sep	4.40	Sep	3.40	Sep	2.50
Oct	2.90	Oct	4.50	Oct	2.90	Oct	2.80
Nov	3.30	Nov	4.50	Nov	3.00	Nov	2.60
Dec	3.80	Dec	4.40	Dec	3.10	Dec	2.50
Jan 1984	4.20	Jan 1988	4.00	Jan 1992	2.60	Jan 1996	2.70
Feb	4.60	Feb	3.90	Feb	2.80	Feb	2.70
Mar	4.80	Mar	3.90	Mar	3.20	Mar	2.80
Apr	4.60	Apr	3.90	Apr	3.20	Apr	2.90
May	4.20	May	3.90	May	3.00	May	2.90
Jun	4.20	Jun	4.00	Jun	3.10	Jun	2.80
Jul	4.20	Jul	4.10	Jul	3.20	Jul	3.00
Aug	4.30	Aug	4.00	Aug	3.10	Aug	2.90
Sep	4.30	Sep	4.20	Sep	3.00	Sep	3.00
Oct	4.30	Oct	4.20	Oct	3.20	Oct	3.00
Nov	4.10	Nov	4.20	Nov	3.00	Nov	3.30
Dec	3.90	Dec	4.40	Dec	2.90	Dec	3.30

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

THE EMPIRE DISTRICT ELECTRIC COMPANY
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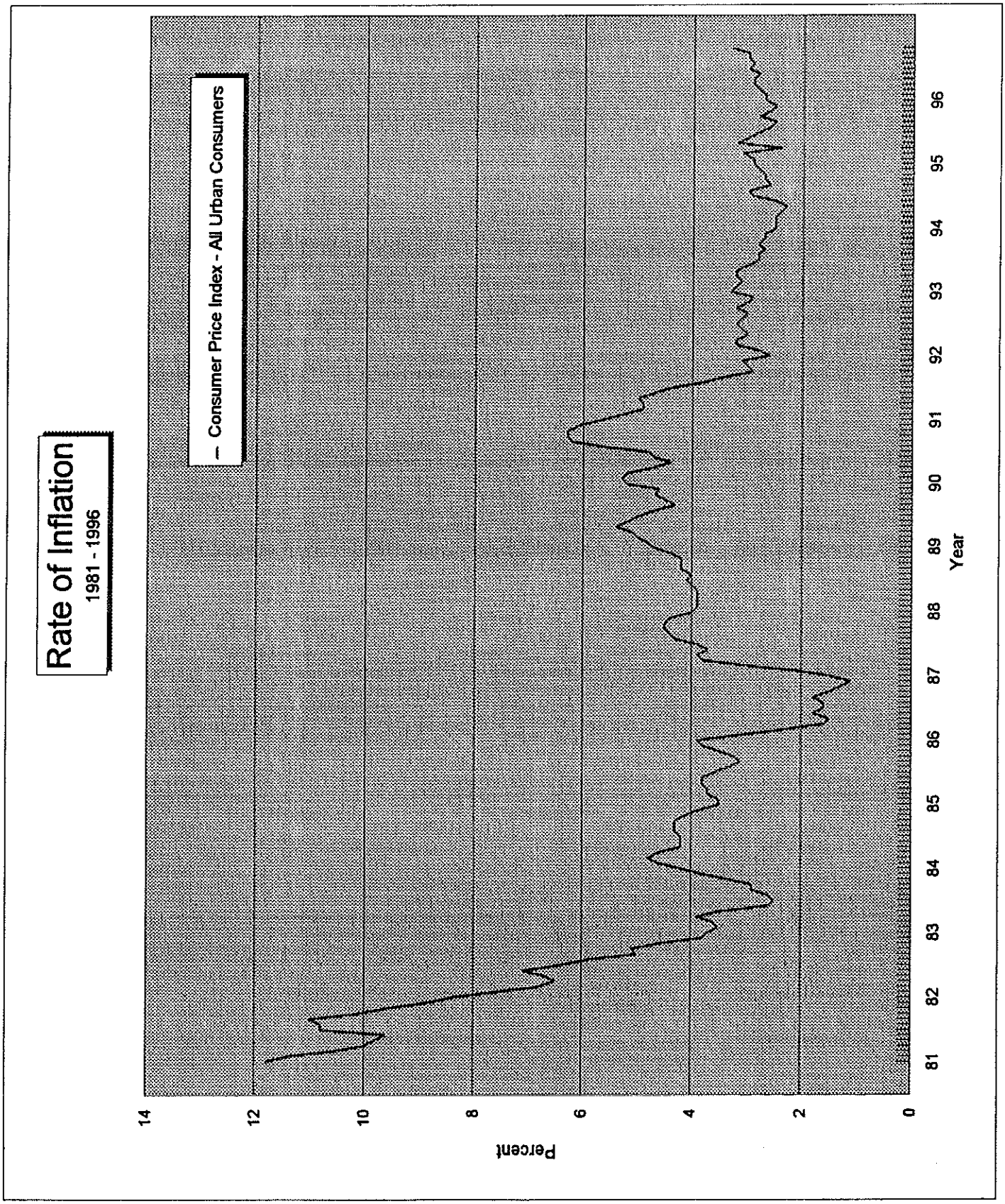


THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Average Yields on Moody's Public Utility Bonds

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1981	14.22	Jan 1985	12.88	Jan 1989	10.02	Jan 1993	8.23
Feb	14.84	Feb	13.00	Feb	10.02	Feb	8.00
Mar	14.86	Mar	13.66	Mar	10.16	Mar	7.85
Apr	15.32	Apr	13.42	Apr	10.14	Apr	7.76
May	15.84	May	12.89	May	9.92	May	7.78
Jun	15.27	Jun	11.91	Jun	9.49	Jun	7.68
Jul	15.87	Jul	11.88	Jul	9.34	Jul	7.53
Aug	16.33	Aug	11.93	Aug	9.37	Aug	7.21
Sep	16.89	Sep	11.95	Sep	9.43	Sep	7.01
Oct	16.76	Oct	11.84	Oct	9.37	Oct	6.99
Nov	15.50	Nov	11.33	Nov	9.33	Nov	7.30
Dec	15.77	Dec	10.82	Dec	9.31	Dec	7.33
Jan 1982	16.73	Jan 1986	10.66	Jan 1990	9.44	Jan 1994	7.31
Feb	16.72	Feb	10.16	Feb	9.68	Feb	7.44
Mar	16.07	Mar	9.33	Mar	9.75	Mar	7.83
Apr	15.82	Apr	9.02	Apr	9.87	Apr	8.20
May	15.60	May	9.52	May	9.89	May	8.32
Jun	16.18	Jun	9.51	Jun	9.69	Jun	8.31
Jul	16.04	Jul	9.19	Jul	9.66	Jul	8.47
Aug	15.22	Aug	9.15	Aug	9.84	Aug	8.41
Sep	14.58	Sep	9.42	Sep	10.01	Sep	8.65
Oct	13.88	Oct	9.39	Oct	9.94	Oct	8.88
Nov	13.58	Nov	9.15	Nov	9.76	Nov	9.00
Dec	13.55	Dec	8.96	Dec	9.57	Dec	8.79
Jan 1983	13.48	Jan 1987	8.77	Jan 1991	9.58	Jan 1995	8.77
Feb	13.60	Feb	8.81	Feb	9.31	Feb	8.56
Mar	13.28	Mar	8.75	Mar	9.39	Mar	8.41
Apr	13.03	Apr	9.30	Apr	9.30	Apr	8.30
May	13.00	May	9.82	May	9.29	May	7.93
Jun	13.17	Jun	9.87	Jun	9.44	Jun	7.62
Jul	13.28	Jul	10.01	Jul	9.40	Jul	7.73
Aug	13.50	Aug	10.33	Aug	9.16	Aug	7.86
Sep	13.35	Sep	11.00	Sep	9.03	Sep	7.62
Oct	13.19	Oct	11.32	Oct	8.99	Oct	7.46
Nov	13.33	Nov	10.82	Nov	8.93	Nov	7.40
Dec	13.48	Dec	10.99	Dec	8.76	Dec	7.21
Jan 1984	13.40	Jan 1988	10.75	Jan 1992	8.67	Jan 1996	7.20
Feb	13.50	Feb	10.11	Feb	8.77	Feb	7.37
Mar	14.03	Mar	10.11	Mar	8.84	Mar	7.72
Apr	14.30	Apr	10.53	Apr	8.79	Apr	7.88
May	14.95	May	10.75	May	8.72	May	7.99
Jun	15.16	Jun	10.71	Jun	8.64	Jun	8.07
Jul	14.92	Jul	10.96	Jul	8.48	Jul	8.02
Aug	14.29	Aug	11.09	Aug	8.34	Aug	7.84
Sep	14.04	Sep	10.56	Sep	8.32	Sep	8.01
Oct	13.68	Oct	9.92	Oct	8.44	Oct	7.76
Nov	13.15	Nov	9.89	Nov	8.53	Nov	7.48
Dec	12.96	Dec	10.02	Dec	8.38		

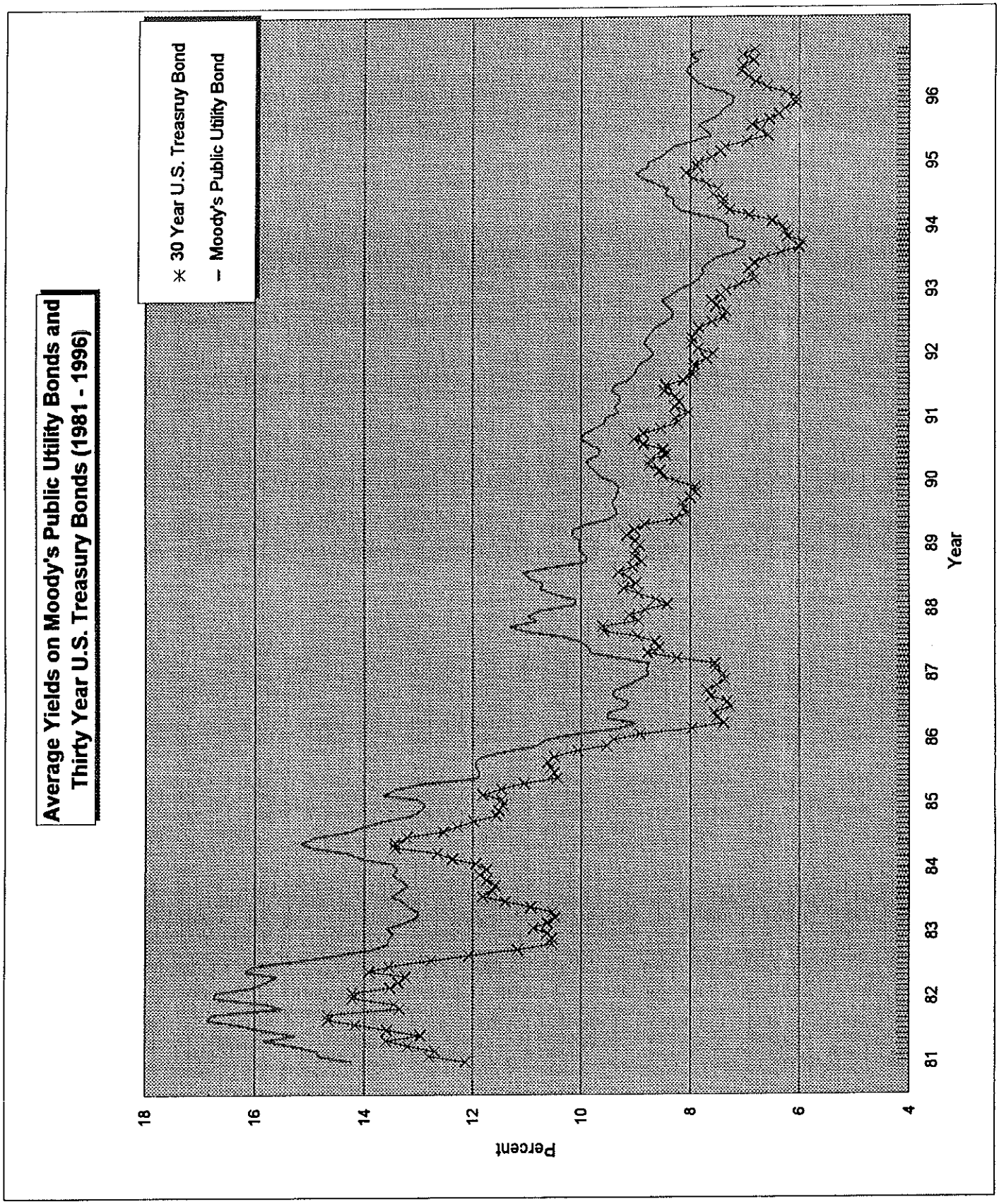
Source: Moody's Bond Record.

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

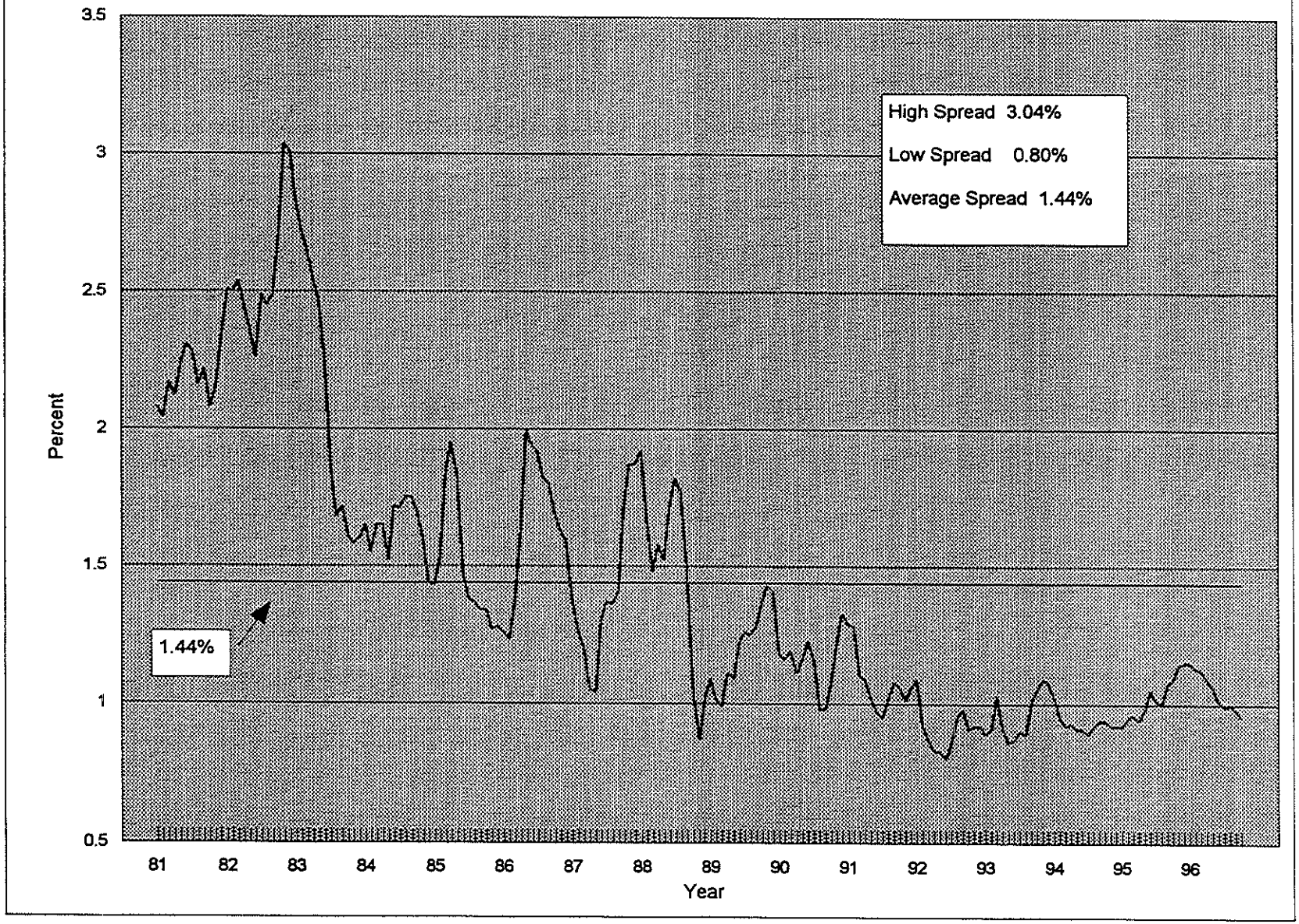
Average Yields on Thirty Year U.S. Treasury Bonds

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1981	12.14	Jan 1985	11.45	Jan 1989	8.93	Jan 1993	7.34
Feb	12.80	Feb	11.47	Feb	9.01	Feb	7.09
Mar	12.69	Mar	11.81	Mar	9.17	Mar	6.82
Apr	13.20	Apr	11.47	Apr	9.03	Apr	6.85
May	13.60	May	11.05	May	8.83	May	6.92
Jun	12.96	Jun	10.44	Jun	8.27	Jun	6.81
Jul	13.59	Jul	10.50	Jul	8.08	Jul	6.63
Aug	14.17	Aug	10.56	Aug	8.12	Aug	6.32
Sep	14.67	Sep	10.61	Sep	8.15	Sep	6.00
Oct	14.68	Oct	10.50	Oct	8.00	Oct	5.94
Nov	13.35	Nov	10.06	Nov	7.90	Nov	6.21
Dec	13.45	Dec	9.54	Dec	7.90	Dec	6.25
Jan 1982	14.22	Jan 1986	9.40	Jan 1990	8.26	Jan 1994	6.29
Feb	14.22	Feb	8.93	Feb	8.50	Feb	6.49
Mar	13.53	Mar	7.96	Mar	8.56	Mar	6.91
Apr	13.37	Apr	7.39	Apr	8.76	Apr	7.27
May	13.24	May	7.52	May	8.73	May	7.41
Jun	13.92	Jun	7.57	Jun	8.46	Jun	7.40
Jul	13.55	Jul	7.27	Jul	8.50	Jul	7.58
Aug	12.77	Aug	7.33	Aug	8.86	Aug	7.49
Sep	12.07	Sep	7.62	Sep	9.03	Sep	7.71
Oct	11.17	Oct	7.70	Oct	8.86	Oct	7.94
Nov	10.54	Nov	7.52	Nov	8.54	Nov	8.08
Dec	10.54	Dec	7.37	Dec	8.24	Dec	7.87
Jan 1983	10.63	Jan 1987	7.39	Jan 1991	8.27	Jan 1995	7.85
Feb	10.88	Feb	7.54	Feb	8.03	Feb	7.61
Mar	10.63	Mar	7.55	Mar	8.29	Mar	7.45
Apr	10.48	Apr	8.25	Apr	8.21	Apr	7.36
May	10.53	May	8.78	May	8.27	May	6.95
Jun	10.93	Jun	8.57	Jun	8.47	Jun	6.57
Jul	11.40	Jul	8.64	Jul	8.45	Jul	6.72
Aug	11.82	Aug	8.97	Aug	8.14	Aug	6.86
Sep	11.63	Sep	9.59	Sep	7.95	Sep	6.55
Oct	11.58	Oct	9.61	Oct	7.93	Oct	6.37
Nov	11.75	Nov	8.95	Nov	7.92	Nov	6.28
Dec	11.88	Dec	9.12	Dec	7.70	Dec	6.06
Jan 1984	11.75	Jan 1988	8.83	Jan 1992	7.58	Jan 1996	6.05
Feb	11.95	Feb	8.43	Feb	7.85	Feb	6.24
Mar	12.38	Mar	8.63	Mar	7.97	Mar	6.60
Apr	12.65	Apr	8.95	Apr	7.96	Apr	6.79
May	13.43	May	9.23	May	7.89	May	6.93
Jun	13.44	Jun	9.00	Jun	7.84	Jun	7.06
Jul	13.21	Jul	9.14	Jul	7.60	Jul	7.03
Aug	12.54	Aug	9.32	Aug	7.39	Aug	6.84
Sep	12.29	Sep	9.06	Sep	7.34	Sep	7.03
Oct	11.98	Oct	8.89	Oct	7.53	Oct	6.81
Nov	11.56	Nov	9.02	Nov	7.61		
Dec	11.52	Dec	9.01	Dec	7.44		

Source: Federal Reserve Bulletin.

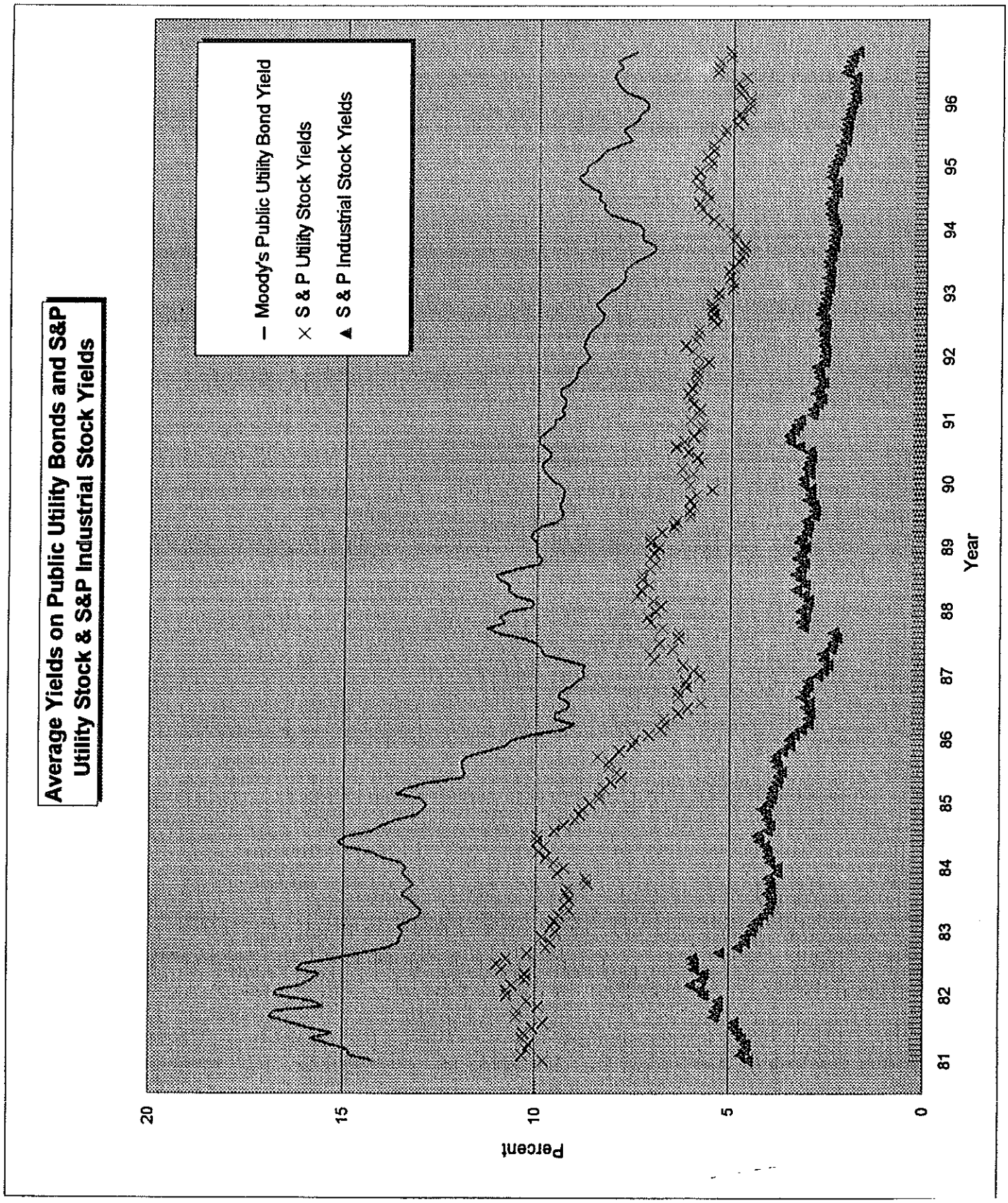

Average Yields on Moody's Public Utility Bonds and Thirty Year U.S. Treasury Bonds (1981 - 1996)
30 Year U.S. Treasruy Bond
Moody's Public Utility Bond
Percent
18
16
14
12
10
8
6
4
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
Year

Monthly Spreads Between Yields on Moody's Public Utility Bonds and Thirty Year U.S. Treasury Bonds (1981 - 1996)



Schedule 5-4

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81



Schedule 6

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Economic Estimates and Projections, 1997 - 1999

	Inflation Rate			Real GDP			Unemployment			3-Mo. T-Bill Rate			30-Yr. T-Bond Rate		
Source	1997	1998	1999	1997	1998	1999	1997	1998	1999	1997	1998	1999	1997	1998	1999
Standard & Poor's Corp. "The Outlook" (6/19/96) ****	3.0%	N.A.	N.A.	1.3%	N.A.	N.A.	5.2%	N.A.	N.A.	5.8%	N.A.	N.A.	7.6%	N.A.	N.A.
Value Line's "Investment Survey" (11/29/96)	2.8%	3.0%	3.2%	2.0%	2.3%	2.6%	5.3%	5.5%	5.6%	5.0%	5.2%	5.3%	6.4%	6.8%	6.9%
Salomon Brothers Inc "Comments on Credit" (11/29/96)	3.0%	2.9%	N.A.	2.6%	2.1%	N.A.	5.4%	5.2%	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Current rate	3.3%			2.1%			5.3%			5.17%			6.83%		

Notes: N.A. = Not Available.

**** 1997 projections represents estimates through the 2nd quarter.

Schedule 7

Sources of Current Rates: Consumer Price Index - All Urban Consumers, 12-Month Period Ending December 31, 1996.
The Wall Street Journal, December 23, 1996.
The Wall Street Journal, January 13, 1997.
Salomon Brothers Inc's Bond Market Roundup, January 17, 1997.
Salomon Brothers Inc's Bond Market Roundup, January 17, 1997.

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Historical Capital Structures for The Empire District Electric Company

(Thousands of Dollars)

Capital Components	1991	1992	1993	1994	1995
Common Equity	$156,909.8	$163,293.0	$167,860.9	$173,780.3	$193,137.4
Preferred Stock	$8,101.8	$7,901.8	$7,901.8	$32,901.8	$32,901.8
Long-Term Debt	$142,314.4	$143,718.8	$165,227.0	$185,097.0	$194,704.8
Short-Term Debt	$6,000.0	$15,000.0	$15,000.0	$16,000.0	$14,000.0
Total	$313,326.0	$329,913.5	$355,989.8	$407,779.1	$434,744.0

Capital Structure	1991	1992	1993	1993	1995
Common Equity	50.08%	49.50%	47.15%	42.62%	44.43%
Preferred Stock	2.59%	2.40%	2.22%	8.07%	7.57%
Long-Term Debt	45.42%	43.56%	46.41%	45.39%	44.79%
Short-Term Debt	1.91%	4.55%	4.21%	3.92%	3.22%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

Schedule 8

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

Source: The Empire District Electric Company's Stockholders Annual Reports.

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Selected Financial Ratios for The Empire District Electric Company

Financial Ratios	1991	1992	1993	1994	1995
Return on Year-End Common Equity	11.68%	10.11%	9.26%	10.43%	9.00%
Earnings Per Common Share	$1.43	$1.26	$1.16	$1.32	$1.18
Cash Dividends Per Common Share	$1.22	$1.26	$1.28	$1.28	$1.28
Common Dividend Payout Ratio	85.31%	100.00%	110.34%	96.97%	108.47%
Year-End Market Price Per Common Share	$23.875	$21.250	$20.750	$16.000	$18.750
Year-End Book Value Per Common Share	$12.06	$12.26	$12.33	$12.42	$12.67
Year-End Market to Book Ratio	1.98 x	1.73 x	1.68	1.29	1.48 x
Senior Debt Rating	A+	A+	A	A-	A-

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

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

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

All per share amounts reflect a two-for-one stock split effective January 29, 1992.

Sources: The Empire District Electric Company's Stockholders Annual Reports, Standard & Poor's Corporation's Security Owner's Stock Guide and Standard & Poor's Corporation's Utilities Rating Service - Financial Statistics for the 12 months ended June 30, 1996.

Schedule 9

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Capital Structure as of December 31, 1996 for The Empire District Electric Company

Capital Component	Amount in Dollars	Percentage of Capital
Common Stock Equity	$213,090,724	47.29%
Preferred Stock	$31,829,648	7.06%
Long-Term Debt	$205,724,004	45.65%
Short-Term Debt	$0	0.00%
Total Capitalization	$450,644,376	100.00%

Electric Utility Financial Ratio Benchmarks

Total Debt / Total Capital - Including Preferred Stock

Standard & Poor's Corporation's Utilities Rating Service - Financial Statistics for the 12 months ended June 30, 1996 (High Average Business Position)	AA	A
	44%	49%

Notes: See Schedule 12 for the amount of Preferred Stock outstanding at December 31, 1996.

See Schedule 11-1 for the amount of Long-Term Debt outstanding at December 31, 1996.

For purposes of this analysis, the amount of Short-Term Debt outstanding at December 31, 1996, was set at zero. This results from the fact that the amount of Consturction Work In Progress ($36,586,233) is greater than the actual amount of Short-Term Debt outstanding ($7,500,000).

Source: The Empire District Electric Company's response to Staff's Data Information Request No. 3801.

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Embedded Cost of Long-Term Debt as of December 31, 1996 for The Empire District Electric Company

Long-Term Debt	(1) Interest Rate	(2) Prinicipal Amount Outstanding (12/31/96)	(3) Annualized Cost to Company (1 * 2)
First Mortgage Bonds:			
5.70% Series due May 1, 1998	5.700%	$23,000,000	$1,311,000
7-1/2% Series due July 1, 2002	7.500%	$37,500,000	$2,812,500
7-3/4% Series due June 1, 2025	7.750%	$30,000,000	$2,325,000
9-3/4% Series due December 1, 2020	9.750%	$2,250,000	$219,375
7% Series due October 1, 2023	7.000%	$45,000,000	$3,150,000
7-1/4% Series due June 1, 2028	7.250%	$13,995,000	$1,014,638
8-1/8% Series due June 1, 2009	8.125%	$20,000,000	$1,625,000
7.60% Series due April 1, 2005	7.600%	$10,000,000	$760,000
7.20% Series due December 1, 2016	7.200%	$25,000,000	$1,800,000
Pollution Control First Mortgage Bonds:			
5.3% Series due November 1, 2013	5.300%	$8,000,000	$424,000
5.2% Series due November 1, 2013	5.200%	$5,200,000	$270,400
Notes Payable:			
State Line Project due December 31, 1997	5.000%	$30,000	$1,500
Less: Unamortized Net Premium or Discount Expense and Debt Issuance Expense		($14,250,996)	
Add: Annual Amortization of Net Premium or Discount Expense and Debt Issuance Expense			$873,614
Total		$205,724,004	$16,587,027

Embedded Cost of Long-Term Debt = $\frac{\$16,587,027}{\$205,724,004}$

= **8.06%**

Notes: Principal Amount Outstanding as of December 31, 1996 includes Current Maturities.

See Schedule 11-2 for the amount of the Annual Amortization of Net Premium or Discount Expense and Debt Issuance Expense.

Source: The Empire District Electric Company's response to Staff's Data Information Request No. 3802 & 3809.

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Annual Amortization of Net Premium or Discount Expense and Debt Issuance Expense as of December 31, 1996 for The Empire District Electric Company

Long-Term Debt	Maturity Date	(1) Number of Months to Maturity (12/31/96)	(2) Unamortized Net Premium or Discount Expense and Debt Issuance Expense (12/31/96)	(3) Annual Amortization of Net Premium or Discount Expense and Debt Issuance Expense
First Mortgage Bonds:				
5.70% Series due May 1, 1998	5/1/98	16	$159,008	$119,256
7-1/2% Series due July 1, 2002	7/1/02	68	$1,257,072	$228,559
7-3/4% Series due June 1, 2025	6/1/25	341	$3,621,370	$127,438
9-3/4% Series due December 1, 2020	12/1/20	287	$39,440	$1,649
7% Series due October 1, 2023	10/1/23	321	$6,412,420	$239,717
7-1/4% Series due June 1, 2028	6/1/28	377	$706,447	$22,486
8-1/8% Series due November 1, 2009	11/1/09	154	$321,640	$25,063
7.60% Series due April 1, 2005	4/1/05	99	$172,210	$20,874
7.20% Series due December 1, 2016	12/1/16	239	$454,832	$22,837
Pollution Control First Mortgage Bonds:				
5.3% Series due November 1, 2013	11/1/13	202	$646,442	$38,402
5.2% Series due November 1, 2013	11/1/13	202	$460,115	$27,334
Notes Payable:				
State Line Project due December 31, 1997	12/31/97	12	$0	$0
Total			$14,250,996	$873,614

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

Debt Issuance Expense includes losses on reacquired debt

Source: The Empire District Electric Company's response to Staff's Data Information Request No. 3804.

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Embedded Cost of Preferred Stock as of December 31, 1996 for The Empire District Electric Company

Preferred Stock	(1) Dividend Rate	(2) Prinicipal Amount Outstanding (12/31/96)	(3) Annualized Cost to Company (1 * 2)
Not Subject to Mandatory Redemption: Stated Value of $10 Per Share			
5% Cummulative Series	5.000%	$3,901,800	$195,090
4-3/4% Cummulative Series	4.750%	$4,000,000	$190,000
8-1/8% Cummulative Series	8.125%	$25,000,000	$2,031,250
Less: Net Unamortized Premium and Issuance Expense		($1,072,152)	
Total		**$31,829,648**	**$2,416,340**

Embedded Cost of Preferred Stock = $\frac{\$2,416,340}{\$31,829,648}$

= **7.59%**

Note: The amount of Preferred Stock includes the amount redeemable within one year.

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

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

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
1986	$0.96	$1.43	$9.67
1987	$1.02	$1.48	$10.22
1988	$1.08	$1.53	$10.75
1989	$1.13	$1.47	$11.17
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	$12.93

Annual Compound Growth Rates

	DPS	EPS	BVPS
1986 - 1996	**2.92%**	**-1.50%**	**2.95%**
1991 - 1996	**0.96%**	**-2.97%**	**1.37%**

Trend Line Growth Rates

	DPS	EPS	BVPS
1986 - 1996	**2.95%**	**-2.33%**	**2.76%**
1991 - 1996	**0.82%**	**-2.32%**	**1.28%**

	DPS	EPS	BVPS
Average of Historical Growth Rates:	**1.91%**	**-2.28%**	**2.09%**
Standard Deviation:	**1.02%**	**0.52%**	**0.77%**

Source: The Value Line Investment Survey: Ratings & Reports, January 10, 1997 and Information supplied by The Empire District Electric Company.

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Historical and Projected Growth Rates for The Empire District Electric Company

Historical Growth Rates	
Average DPS Annual Compound & Trend Line Growth (1986 - 1996)	2.92%
Average DPS Annual Compound & Trend Line Growth (1991 - 1996)	0.89%
Average BVPS Annual Compound & Trend Line Growth (1986 - 1996)	2.87%
Average BVPS Annual Compound & Trend Line Growth (1991 - 1996)	1.33%
Average of Historical Growth Rates	**2.00%**

Projected Growth Rates from Outside Sources	
5 Year Growth Forecast (Mean) I/B/E/S Inc.'s Institutional Brokers Estimate System January 16, 1997	2.00%
5-Year Projected EPS Growth Rate Standard & Poor's Corporation's Earnings Guide January 1997	2.00%
Projected EPS Growth Rate (3 to 5 Years) Value Line's Value Screen II January 1997	3.50%
Average of Projected Growth Rates	**2.50%**

Proposed Range of Growth for The Empire District Electric Company **2.50% to 3.50%**

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

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 (12/97)	(5) Projected Dividend Yield
October 1996	$19.000	$18.125	$18.563	$1.28	6.90%
November 1996	$19.500	$18.625	$19.063	$1.28	6.71%
December 1996	$19.000	$18.375	$18.688	$1.28	6.85%
January 1997	$18.750	$17.875	$18.313	$1.28	6.99%
Average					**6.86%**

Proposed Range of Dividend Yield: **6.75% - 7.00%**

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

Column 4 = Estimated Dividends Declared per share represents the projected dividend for 1997.

Column 5 = (Column 4 / Column 3).

Sources: Standard & Poor's Corporation's Security Owner's Stock Guide, Telescan's Wall Street City and The Value Line Investment Survey: Ratings & Reports, January 10, 1997.

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Average Risk Premium Above the Yields of "A" Rated Moody's Public Utility Bonds for The Empire District Electric Company's Expected Returns on Common Equity

Mo/Year	EDE's Expected ROE	"A" Rated Bonds Yields	EDE's Risk Premium
Jan 1985	14.00%	12.99%	1.01%
Feb	14.00%	13.08%	0.92%
Mar	14.00%	13.87%	0.13%
Apr	14.00%	13.61%	0.39%
May	14.00%	13.12%	0.88%
Jun	14.00%	12.13%	1.87%
Jul	13.50%	12.07%	1.43%
Aug	13.50%	12.13%	1.37%
Sep	13.50%	12.13%	1.37%
Oct	14.50%	12.01%	2.49%
Nov	14.50%	11.49%	3.01%
Dec	14.50%	10.97%	3.53%
Jan 1986	14.00%	10.79%	3.21%
Feb	14.00%	10.26%	3.74%
Mar	14.00%	9.48%	4.52%
Apr	14.00%	9.14%	4.86%
May	14.00%	9.59%	4.41%
Jun	14.00%	9.62%	4.38%
Jul	14.50%	9.37%	5.13%
Aug	14.50%	9.29%	5.21%
Sep	14.50%	9.52%	4.98%
Oct	14.50%	9.52%	4.98%
Nov	14.50%	9.28%	5.22%
Dec	14.50%	9.12%	5.38%
Jan 1987	13.50%	8.95%	4.55%
Feb	13.50%	9.00%	4.50%
Mar	13.50%	8.93%	4.57%
Apr	13.50%	9.38%	4.12%
May	13.50%	9.91%	3.59%
Jun	13.50%	10.02%	3.48%
Jul	13.50%	10.15%	3.35%
Aug	13.50%	10.45%	3.05%
Sep	13.50%	11.22%	2.28%
Oct	14.50%	11.34%	3.16%
Nov	14.50%	10.82%	3.68%
Dec	14.50%	10.98%	3.52%
Jan 1988	13.50%	10.76%	2.74%
Feb	13.50%	10.10%	3.40%
Mar	13.50%	10.09%	3.41%
Apr	14.50%	10.54%	3.96%
May	14.50%	10.81%	3.69%
Jun	14.50%	10.79%	3.71%
Jul	14.00%	11.04%	2.96%
Aug	14.00%	11.17%	2.83%
Sep	14.00%	10.61%	3.39%
Oct	14.50%	10.01%	4.49%
Nov	14.50%	9.90%	4.60%
Dec	14.50%	10.06%	4.44%
Jan 1989	14.00%	10.08%	3.92%
Feb	14.00%	10.07%	3.93%
Mar	14.00%	10.23%	3.77%
Apr	13.00%	10.18%	2.82%
May	13.00%	9.99%	3.01%
Jun	13.00%	9.64%	3.36%
Jul	13.00%	9.50%	3.50%
Aug	13.00%	9.52%	3.48%
Sep	13.00%	9.58%	3.42%
Oct	12.50%	9.54%	2.96%
Nov	12.50%	9.51%	2.99%
Dec	12.50%	9.44%	3.06%
Jan 1990	12.50%	9.56%	2.94%
Feb	12.50%	9.76%	2.74%
Mar	12.50%	9.85%	2.65%
Apr	12.00%	9.92%	2.08%
May	12.00%	10.00%	2.00%
Jun	12.00%	9.80%	2.20%
Jul	11.50%	9.75%	1.75%
Aug	11.50%	9.92%	1.58%
Sep	11.50%	10.12%	1.38%
Oct	11.00%	10.05%	0.95%
Nov	11.00%	9.90%	1.10%
Dec	11.00%	9.73%	1.27%

Mo/Year	EDE's Expected ROE	"A" Rated Bonds Yields	EDE's Risk Premium
Jan 1991	12.00%	9.71%	2.29%
Feb	12.00%	9.47%	2.53%
Mar	12.00%	9.55%	2.45%
Apr	11.50%	9.46%	2.04%
May	11.50%	9.44%	2.06%
Jun	11.50%	9.59%	1.91%
Jul	11.50%	9.55%	1.95%
Aug	11.50%	9.29%	2.21%
Sep	11.50%	9.16%	2.34%
Oct	12.00%	9.12%	2.88%
Nov	12.00%	9.05%	2.95%
Dec	12.00%	8.88%	3.12%
Jan 1992	12.00%	8.84%	3.16%
Feb	12.00%	8.93%	3.07%
Mar	12.00%	8.97%	3.03%
Apr	12.00%	8.93%	3.07%
May	12.00%	8.87%	3.13%
Jun	12.00%	8.78%	3.22%
Jul	11.50%	8.57%	2.93%
Aug	11.50%	8.44%	3.06%
Sep	11.50%	8.40%	3.10%
Oct	11.00%	8.54%	2.46%
Nov	11.00%	8.63%	2.37%
Dec	11.00%	8.43%	2.57%
Jan 1993	11.50%	8.27%	3.23%
Feb	11.50%	8.04%	3.46%
Mar	11.50%	7.90%	3.60%
Apr	11.50%	7.81%	3.69%
May	11.50%	7.86%	3.64%
Jun	11.00%	7.75%	3.25%
Jul	11.00%	7.54%	3.46%
Aug	11.00%	7.25%	3.75%
Sep	11.00%	7.04%	3.96%
Oct	11.00%	7.03%	3.97%
Nov	11.00%	7.30%	3.70%
Dec	11.00%	7.34%	3.66%
Jan 1994	10.00%	7.33%	2.67%
Feb	10.00%	7.42%	2.58%
Mar	10.00%	7.85%	2.15%
Apr	10.00%	8.22%	1.78%
May	10.00%	8.33%	1.67%
Jun	10.00%	8.31%	1.69%
Jul	9.50%	8.47%	1.03%
Aug	9.50%	8.41%	1.09%
Sep	9.50%	8.64%	0.86%
Oct	10.00%	8.86%	1.14%
Nov	10.00%	8.98%	1.02%
Dec	10.00%	8.76%	1.24%
Jan 1995	10.50%	8.73%	1.77%
Feb	10.50%	8.52%	1.98%
Mar	10.50%	8.37%	2.13%
Apr	10.50%	8.27%	2.23%
May	10.50%	7.91%	2.59%
Jun	10.50%	7.60%	2.90%
Jul	10.50%	7.70%	2.80%
Aug	10.50%	7.83%	2.67%
Sep	10.50%	7.62%	2.88%
Oct	10.50%	7.46%	3.04%
Nov	10.50%	7.43%	3.07%
Dec	10.50%	7.23%	3.27%
Jan 1996	10.50%	7.22%	3.28%
Feb	10.50%	7.37%	3.13%
Mar	10.50%	7.73%	2.77%
Apr	10.50%	7.89%	2.61%
May	10.50%	7.98%	2.52%
Jun	10.50%	8.06%	2.44%
Jul	10.50%	8.02%	2.48%
Aug	10.50%	7.84%	2.66%
Sep	10.50%	8.01%	2.49%
Oct	9.00%	7.77%	1.23%
Nov	9.00%	7.49%	1.51%

Summary Information **(1985 - 1996)**

Average Risk Premium: **2.86%**
(Jan 1985 - Nov 1996)

High Risk Premium: **5.38%**
(December 1986)

Low Risk Premium: **0.13%**
(March 1985)

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

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

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

EDE's Cost of Common Equity	=	Risk Free Rate	+	EDE's Beta	*	Market Risk Premium (1926 - 1995)
10.56%	=	6.36%	+	(0.60	*	7.00%)
11.35%	=	7.15%	+	(0.60	*	7.00%)

Capital Asset Pricing Model

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

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

where:

The Risk Free Rate reflects the level of return which can be achieved without accepting any risk. The Risk Free Rate is represented by the yield on 30-Year U.S. Treasury Bonds. The appropriate rate was determined to be the high / low range of 7.15% to 6.36% for the six-month period ending January 17, 1997 as published in Salomon Brothers Inc's Bond Market Roundup: Abstract.

The Beta represents the relative movement and relative risk between a particular stock and the market. The appropriate Beta for The Empire District Electric Company was determined to be 0.60 as published in The Value Line Investment Survey: Ratings & Reports, January 10, 1997.

The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium was determined to be 7.00% as calculated in Ibbotson Associates, Inc's Stocks, Bonds, Bills, and Inflation: 1996 Yearbook.

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

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

		10.50%	10.88%	11.25%
1.	Common Equity (Schedule 10)	$213,090,724	$213,090,724	$213,090,724
2.	Earnings Allowed (ROE * [1])	$22,374,526	$23,184,271	$23,972,706
3.	Preferred Dividends (Schedule 12)	$2,416,340	$2,416,340	$2,416,340
4.	Net Income Available ([2] + [3])	$24,790,866	$25,600,611	$26,389,046
5.	Tax Multiplier (1 / { 1 - Tax Rate })	1.6231	1.6231	1.6231
6.	Pre-Tax Earnings ([4] * [5])	$40,238,380	$41,552,688	$42,832,408
7.	Annual Interest Costs (Schedule 11-1)	$15,713,413	$15,713,413	$15,713,413
8.	Avail. for Coverage ([6] + [7])	$55,951,793	$57,266,101	$58,545,821
9.	**Pro Forma Pre-Tax Interest Coverage** ([8] / [7])	**3.56 x**	**3.64 x**	**3.73 x**

Utility Financial Ratio Benchmarks - Pretax Interest Coverage (x)

Standard & Poor's Corporation's Utilities Rating Service - Financial Statistics for the 12 months ended June 30, 1996 (High Avgage Business Position)	AA	A	BBB
	3.80x	3.25x	2.25x

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Criteria for Selecting Comparable Electric Utility Companies

Value Line's Electric Utility Companies	(1) Stock Publicly Traded & Information Printed In Value Line	(2) S & P Utility Credit Rating "A+ - BBB"	(3) No Nuclear Operations	(4) Electric Revenues to Total Revenues > 70%	(5) Total Capital < $8 Billion	(6) Positive DPS Annual Compound Growth Rate (1985 - 1995)	(7) No Missouri Operations	(8) Comparable Company Met All Criteria
Allegheny Power System, Inc.	Yes	A+	Yes	Yes	Yes	Yes	Yes	Yes
American Electric Power Company, Inc.	Yes	BBB+	No					
Atlantic Energy, Inc.	Yes	A-	No					
Baltimore Gas and Electric Company	Yes	A+	No					
Black Hills Corporation	Yes	A	Yes	Yes	Yes	Yes	Yes	Yes
Boston Edison Company	Yes	BBB	No					
Carolina Power & Light Company	Yes	A	No					
Centerior Energy Corporation	Yes							
Central Hudson Gas & Electric Corporation	Yes	A-	No					
Central Louisiana Electric Company, Inc.	Yes	A	Yes	Yes	Yes	Yes	Yes	Yes
Central Maine Power Company	Yes							
Central Vermont Public Service Corporation	Yes	BBB	No					
Central & South West Corporation	Yes							
CILCORP Inc.	Yes							
Citizens Corporation	Yes	A-	Yes	Yes	Yes	Yes	Yes	Yes
CIPSCO, Inc.	Yes							
CMS Energy Corporation	Yes							
Commonwealth Energy System	Yes	BBB	No					
Consolidated Edison Company of New York, Inc.	Yes	A+	No					
Delmarva Power & Light Company	Yes	A	No					
Dominion Resources, Inc.	Yes	A	No					
DPL Inc.	Yes							
DQE	Yes	BBB+	No					
DTE Energy Company	Yes	BBB+	No					
Duke Power Company	Yes							
Eastern Utilities Associates	Yes	BBB	No					
Edison International	Yes	A+	No					
Empire District Electric Company (The)	Yes	A-	Yes	Yes	Yes	Yes	No	
Enova Corporation	Yes	A+	No					
Entergy Corporation	Yes	BBB	No					
Florida Progress Corporation	Yes							
FPL Group, Inc.	Yes							
GPU, Inc.	Yes	BBB+	No					
Green Mountain Power Corporation	Yes	BBB+	No					
Hawaiian Electric Industries, Inc.	Yes	BBB+	Yes	Yes	Yes	Yes	Yes	Yes
Houston Industries Inc.	Yes	BBB+	No					
Idaho Power Company	Yes	A+	Yes	Yes	Yes	Yes	Yes	Yes
IES Industries	Yes	A	No					
Illinova Corporation	Yes	BBB	No					
Interstate Power Company	Yes	A-	Yes	Yes	Yes	Yes	Yes	Yes
IPALCO Enterprises, Inc.	Yes							
Kansas City Power & Light Company	Yes	A	No					
KU Energy Corporation	Yes							
LG&E Energy Corporation	Yes							
Long Island Lighting Company	Yes							
MDU Resources Group, Inc.	Yes	A	Yes	No				
MidAmerican Energy Holdings Company	Yes	A+	No					
Minnesota Power & Light Company	Yes	BBB+	No					
Montana Power Company (The)	Yes	BBB+	Yes	No				
Nevada Power Company	Yes	BBB	Yes	Yes	Yes	Yes	Yes	Yes
New England Electric System	Yes	A+	No					

Schedule 19-1

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Criteria for Selecting Comparable Electric Utility Companies

Value Line's Electric Utility Companies	(1) Stock Publicly Traded & Information Printed in Value Line	(2) S & P Utility Credit Rating "A+ - BBB"	(3) No Nuclear Operations	(4) Electric Revenues to Total Revenues > 70%	(5) Total Capital < $6 Billion	(6) Positive DPS Annual Compound Growth Rate (1985 - 1995)	(7) No Missouri Operations	(8) Comparable Company Met All Criteria
New York State Electric & Gas Corporation	Yes	BBB+	No					
Niagara Mohawk Power Corporation	Yes							
NIPSCO Industries, Inc.	Yes	A	Yes	No				
Northeast Utilities	Yes							
Northern States Power Company	Yes							
Northwestern Public Service Company	Yes	A	Yes	No				
OGE Energy Corporation	Yes							
Ohio Edison Company	Yes							
Orange & Rockland Utilities, Inc.	Yes	A-	Yes	No				
Otter Tail Power Company	Yes							
Pacific Gas & Electric Company	Yes	A	No					
PacifiCorp	Yes	A	Yes	Yes	No			
PECO Energy Company	Yes	BBB+	No					
Pinnacle West Capital Corporation	Yes	BBB	No					
Portland General Corporation	Yes	A	Yes	Yes	Yes	No		
Potomac Electric Power Company	Yes	A	Yes	Yes	Yes	Yes	Yes	Yes
PP&L Resources, Inc.	Yes	A-	No					
Public Service Company of Colorado	Yes	A-	Yes	No				
Public Service Company of New Mexico	Yes							
Public Service Enterprise Group, Inc.	Yes	A-	No					
Puget Sound Power & Light Company	Yes	A-	Yes	Yes	Yes	Yes	Yes	Yes
Rochester Gas & Electric Corporation	Yes	BBB+	No					
SCANA Corporation	Yes	A	No					
Sierra Pacific Resources	Yes	A-	Yes	Yes	Yes	No		
SIGCORP, Inc.	Yes							
Southern Company	Yes	A+	No					
Southwestern Public Service Company	Yes							
St. Joseph Light & Power Company	Yes	A-	Yes	Yes	Yes	Yes	No	
TECO Energy Inc.	Yes							
Texas Utilities Company	Yes	BBB+	No					
TNP Enterprises Inc.	Yes							
Tucson Electric Power Company	Yes							
Unicom Corporation	Yes	BBB	No					
Union Electric Company	Yes							
United Illuminating Company	Yes							
UtiliCorp United Inc.	Yes	BBB	Yes	No				
Washington Water Power Company (The)	Yes	A	No					
Western Resources, Inc.	Yes	A-	No					
Wisconsin Energy Corporation	Yes							
WPL Holdings, Inc.	Yes							
WPS Resources	Yes							

Sources: Columns 1, 3, 4, 5 & 6 = The Value Line Investment Survey: Ratings & Reports, December 13, 1996 and January 10, 1997, and November 22, 1996.

Columns 2 = Standard & Poor's Corporation's Utilities Rating Service Financial Statistics for the 12 months ended June 30, 1996.

Schedule 19-2

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Seven Comparable Electric Utility Companies for The Empire District Electric Company

Number	Ticker Symbol	Company Name
1	AYP	Alleghany Power System, Inc.
2	BKH	Black Hills Corporation
3	CNL	Central Louisiana Electric Company, Inc.
4	CIN	CINergy Corporation
5	HE	Hawaiian Electric Industries, Inc.
6	IDA	Idaho Power Company
7	NVP	Nevada Power Company

Note: Interstate Power Company, Potomac Electric Power Company and Puget Sound Power & Light Company were not included in the comparable company group due to their pending mergers.

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

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

	Dividends Per Share		Earnings Per Share		Book Value Per Share	
Company Name	1985	1995	1985	1995	1985	1995
Alleghany Power System, Inc.	$1.35	$1.65	$1.80	$2.04	$12.87	$17.65
Black Hills Corporation	$0.64	$1.34	$1.28	$1.78	$6.95	$12.64
Central Louisiana Electric Company, Inc.	$1.03	$1.49	$1.83	$2.08	$11.25	$15.81
CINergy Corporation	$1.44	$1.72	$2.20	$2.22	$12.54	$16.17
Hawaiian Electric Industries, Inc.	$1.66	$2.37	$2.40	$2.66	$17.84	$24.51
Idaho Power Company	$1.70	$1.86	$2.16	$2.10	$17.29	$18.15
Nevada Power Company	$1.40	$1.60	$1.62	$1.53	$12.53	$16.25

Annual Compound Growth Rates

	DPS	EPS	BVPS
Company Name	1985-1995	1985-1995	1985-1995
Alleghany Power System, Inc.	2.03%	1.26%	3.21%
Black Hills Corporation	7.67%	3.35%	6.16%
Central Louisiana Electric Company, Inc.	3.76%	1.29%	3.46%
CINergy Corporation	1.79%	0.09%	2.57%
Hawaiian Electric Industries, Inc.	3.62%	1.03%	3.23%
Idaho Power Company	0.90%	-0.28%	0.49%
Nevada Power Company	1.34%	-0.57%	2.63%
Average	**3.02%**	**0.88%**	**3.11%**
Standard Deviation	2.15%	1.23%	1.55%

Source: The Value Line Investment Survey: Ratings & Reports, December 13, 1996, January 10,1997 and November 22, 1996.

Schedule 21

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

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

Company Name	(1) 10 Year Annual Compound (DPS & BVPS)	(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) Average Projected Growth	(6) Average Historical & Projected Growth
Alleghany Power System, Inc.	2.62%	3.68%	3.00%	3.50%	3.39%	3.01%
Black Hills Corporation	6.92%	4.33%	5.00%	6.50%	5.28%	6.10%
Central Louisiana Electric Company, Inc.	3.61%	2.82%	2.00%	2.50%	2.44%	3.03%
CINergy Corporation	2.18%	4.67%	5.00%	4.00%	4.56%	3.37%
Hawaiian Electric Industries, Inc.	3.43%	3.58%	3.00%	3.50%	3.36%	3.40%
Idaho Power Company	0.70%	3.03%	3.00%	4.50%	3.51%	2.11%
Nevada Power Company	1.99%	2.69%	3.00%	4.50%	3.40%	2.69%
Average	**3.06%**	**3.54%**	**3.43%**	**4.14%**	**3.70%**	**3.38%**

Proposed Range of Growth **3.25% - 3.75%**

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

Column 6 = [(Column 1 + Column 5) / 2].

Sources: Column 1 = Average of DPS and BVPS Annual Compound Growth Rates from Schedule 21.

Column 2 = I/B/E/S Inc.'s Institutional Brokers Estimate System, January 16, 1997.

Column 3 = Standard & Poor's Corporation's Earnings Guide, January 1997.

Column 4 = Value Line's Value Screen II, January 1997.

Schedule 22

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Average High / Low Stock Price for October 1, 1996 through January 31, 1997 for the Seven Comparable Electric Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	October 1996		November 1996		December 1996		January 1997		Average High/Low Stock Price (10/96 - 1/97
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	
Allegheny Power System, Inc.	$30.375	$28.875	$31.125	$19.625	$30.625	$29.625	$31.750	$29.750	$28.969
Black Hills Corporation	$25.875	$23.750	$26.000	$24.375	$28.750	$25.750	$28.375	$26.875	$26.219
Central Louisiana Electric Company, Inc.	$27.125	$26.125	$29.250	$26.750	$28.625	$26.500	$28.000	$26.875	$27.406
CINergy Corporation	$33.250	$30.875	$34.250	$32.875	$34.000	$31.625	$35.750	$32.625	$33.156
Hawaiian Electric Industries, Inc.	$35.625	$33.875	$37.125	$35.375	$36.875	$35.125	$36.375	$35.375	$35.719
Idaho Power Company	$32.000	$30.250	$32.000	$30.875	$31.125	$29.875	$31.875	$30.000	$31.000
Nevada Power Company	$20.875	$20.000	$21.000	$20.250	$20.750	$20.250	$21.000	$20.125	$20.531

Schedule 23

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

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

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

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

Company Name	(1) Expected Dividend (12/97)	(2) Average High/Low Stock Price (10/96 - 1/97)	(3) Projected Dividend Yield	(4) Average Historical & Projected Growth Rate	(5) Estimated Cost of Common Equity
Alleghany Power System, Inc.	$1.710	$28.969	5.90%	3.01%	8.91%
Black Hills Corporation	$1.420	$26.219	5.42%	6.10%	11.52%
Central Louisiana Electric Company, Inc.	$1.570	$27.406	5.73%	3.03%	8.76%
CINergy Corporation	$1.820	$33.156	5.49%	3.37%	8.86%
Hawaiian Electric Industries, Inc.	$2.450	$35.719	6.86%	3.40%	10.26%
Idaho Power Company	$1.860	$31.000	6.00%	2.11%	8.11%
Nevada Power Company	$1.600	$20.531	7.79%	2.69%	10.48%
Average			**6.17%**	**3.38%**	**9.56%**

Proposed Divident Yield Range	**5.75% - 6.50%**
Proposed Range of Growth	**3.25% - 3.75%**
Estimated Cost of Common Equity	**9.00% - 10.25%**

Notes: Column 1 = Estimated Dividends Declared per share represents the average of projected dividends for 1997.

Column 3 = (Column 1 / Column 2).

Column 5 = (Column 3 + Column 4).

Sources: Column 1 = The Value Line Investment Survey: Ratings & Reports, December 13, 1996, and January 10, 1997, and November 22, 1996.

Column 2 = Schedule 23.

Column 4 = Schedule 22.

Schedule 24

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Average Risk Premium Above the Yields of "A" Rated Moody's Public Utility Bonds for Allegheny Power System's Expected Returns on Common Equity

Mo/Year	AYP's Expected ROE	"A" Rated Bonds Yields	AYP's Risk Premium
Jan 1985	14.50%	12.99%	1.51%
Feb	14.50%	13.08%	1.42%
Mar	14.50%	13.87%	0.63%
Apr	14.50%	13.61%	0.89%
May	14.50%	13.12%	1.38%
Jun	14.50%	12.13%	2.37%
Jul	14.50%	12.07%	2.43%
Aug	14.50%	12.13%	2.37%
Sep	14.50%	12.13%	2.37%
Oct	14.50%	12.01%	2.49%
Nov	14.50%	11.49%	3.01%
Dec	14.50%	10.97%	3.53%
Jan 1986	14.50%	10.79%	3.71%
Feb	14.50%	10.26%	4.24%
Mar	14.50%	9.48%	5.02%
Apr	14.50%	9.14%	5.36%
May	14.50%	9.59%	4.91%
Jun	14.50%	9.62%	4.88%
Jul	14.50%	9.37%	5.13%
Aug	14.50%	9.29%	5.21%
Sep	14.50%	9.52%	4.98%
Oct	14.50%	9.52%	4.98%
Nov	14.50%	9.28%	5.22%
Dec	14.50%	9.12%	5.38%
Jan 1987	14.50%	8.95%	5.55%
Feb	14.50%	9.00%	5.50%
Mar	14.50%	8.93%	5.57%
Apr	14.50%	9.38%	5.12%
May	14.50%	9.91%	4.59%
Jun	14.50%	10.02%	4.48%
Jul	14.50%	10.15%	4.35%
Aug	14.50%	10.45%	4.05%
Sep	14.50%	11.22%	3.28%
Oct	14.50%	11.34%	3.16%
Nov	14.50%	10.82%	3.68%
Dec	14.50%	10.98%	3.52%
Jan 1988	14.50%	10.76%	3.74%
Feb	14.50%	10.10%	4.40%
Mar	12.50%	10.09%	2.41%
Apr	12.50%	10.54%	1.96%
May	12.50%	10.81%	1.69%
Jun	12.50%	10.79%	1.71%
Jul	12.50%	11.04%	1.46%
Aug	12.50%	11.17%	1.33%
Sep	12.50%	10.61%	1.89%
Oct	12.50%	10.01%	2.49%
Nov	12.50%	9.90%	2.60%
Dec	12.50%	10.06%	2.44%
Jan 1989	12.50%	10.08%	2.42%
Feb	12.50%	10.07%	2.43%
Mar	12.50%	10.23%	2.27%
Apr	12.50%	10.18%	2.32%
May	12.50%	9.99%	2.51%
Jun	12.50%	9.64%	2.86%
Jul	12.50%	9.50%	3.00%
Aug	12.50%	9.52%	2.98%
Sep	12.50%	9.58%	2.92%
Oct	12.50%	9.54%	2.96%
Nov	12.50%	9.51%	2.99%
Dec	12.50%	9.44%	3.06%
Jan 1990	12.50%	9.56%	2.94%
Feb	12.50%	9.76%	2.74%
Mar	12.00%	9.85%	2.15%
Apr	12.00%	9.92%	2.08%
May	12.00%	10.00%	2.00%
Jun	12.00%	9.80%	2.20%
Jul	12.00%	9.75%	2.25%
Aug	12.00%	9.92%	2.08%
Sep	12.00%	10.12%	1.88%
Oct	12.00%	10.05%	1.95%
Nov	12.00%	9.90%	2.10%
Dec	12.00%	9.73%	2.27%

Mo/Year	AYP's Expected ROE	"A" Rated Bonds Yields	AYP's Risk Premium
Jan 1991	12.00%	9.71%	2.29%
Feb	12.00%	9.47%	2.53%
Mar	12.50%	9.55%	2.95%
Apr	12.50%	9.46%	3.04%
May	12.50%	9.44%	3.06%
Jun	12.50%	9.59%	2.91%
Jul	12.50%	9.55%	2.95%
Aug	12.50%	9.29%	3.21%
Sep	12.50%	9.16%	3.34%
Oct	12.50%	9.12%	3.38%
Nov	12.50%	9.05%	3.45%
Dec	12.50%	8.88%	3.62%
Jan 1992	12.50%	8.84%	3.66%
Feb	12.50%	8.93%	3.57%
Mar	11.00%	8.97%	2.03%
Apr	11.00%	8.93%	2.07%
May	11.00%	8.87%	2.13%
Jun	11.00%	8.78%	2.22%
Jul	11.00%	8.57%	2.43%
Aug	11.00%	8.44%	2.56%
Sep	11.00%	8.40%	2.60%
Oct	11.00%	8.54%	2.46%
Nov	11.00%	8.63%	2.37%
Dec	11.00%	8.43%	2.57%
Jan 1993	11.00%	8.27%	2.73%
Feb	11.00%	8.04%	2.96%
Mar	11.00%	7.90%	3.10%
Apr	11.00%	7.81%	3.19%
May	11.00%	7.86%	3.14%
Jun	11.00%	7.75%	3.25%
Jul	11.00%	7.54%	3.46%
Aug	11.00%	7.25%	3.75%
Sep	11.00%	7.04%	3.96%
Oct	11.00%	7.03%	3.97%
Nov	11.00%	7.30%	3.70%
Dec	11.00%	7.34%	3.66%
Jan 1994	11.00%	7.33%	3.67%
Feb	11.00%	7.42%	3.58%
Mar	11.50%	7.85%	3.65%
Apr	11.50%	8.22%	3.28%
May	11.50%	8.33%	3.17%
Jun	11.50%	8.31%	3.19%
Jul	11.50%	8.47%	3.03%
Aug	11.50%	8.41%	3.09%
Sep	11.50%	8.64%	2.86%
Oct	11.50%	8.86%	2.64%
Nov	11.50%	8.98%	2.52%
Dec	11.50%	8.76%	2.74%
Jan 1995	11.50%	8.73%	2.77%
Feb	11.50%	8.52%	2.98%
Mar	11.50%	8.37%	3.13%
Apr	11.50%	8.27%	3.23%
May	11.50%	7.91%	3.59%
Jun	11.50%	7.60%	3.90%
Jul	11.50%	7.70%	3.80%
Aug	11.50%	7.83%	3.67%
Sep	11.50%	7.62%	3.88%
Oct	11.50%	7.46%	4.04%
Nov	11.50%	7.43%	4.07%
Dec	11.50%	7.23%	4.27%
Jan 1996	11.50%	7.22%	4.28%
Feb	11.50%	7.37%	4.13%
Mar	11.50%	7.73%	3.77%
Apr	11.50%	7.89%	3.61%
May	11.50%	7.98%	3.52%
Jun	11.50%	8.06%	3.44%
Jul	11.50%	8.02%	3.48%
Aug	11.50%	7.84%	3.66%
Sep	11.50%	8.01%	3.49%
Oct	11.50%	7.77%	3.73%
Nov	11.50%	7.49%	4.01%

Summary Information **(1985 - 1996)**

Average Risk Premium: **3.17%**
(Jan 1985 - Nov 1996)

High Risk Premium: **5.57%**
(March 1987)

Low Risk Premium: **0.63%**
(March 1985)

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

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Average Risk Premium Above the Yields of "A" Rated Moody's Public Utility Bonds for Central Louisana Electric Company, Inc.'s Expected Returns on Common Equity

Mo/Year	CLECO's Expected ROE	"A" Rated Bonds Yields	CLECO's Risk Premium
Jan 1985	15.00%	12.99%	2.01%
Feb	15.00%	13.08%	1.92%
Mar	15.00%	13.87%	1.13%
Apr	15.00%	13.61%	1.39%
May	15.00%	13.12%	1.88%
Jun	15.00%	12.13%	2.87%
Jul	15.00%	12.07%	2.93%
Aug	15.00%	12.13%	2.87%
Sep	15.00%	12.13%	2.87%
Oct	15.00%	12.01%	2.99%
Nov	15.00%	11.49%	3.51%
Dec	15.00%	10.97%	4.03%
Jan 1986	15.50%	10.79%	4.71%
Feb	15.50%	10.26%	5.24%
Mar	15.50%	9.48%	6.02%
Apr	15.50%	9.14%	6.36%
May	15.50%	9.59%	5.91%
Jun	15.50%	9.62%	5.88%
Jul	15.50%	9.37%	6.13%
Aug	15.50%	9.29%	6.21%
Sep	15.50%	9.52%	5.98%
Oct	15.50%	9.52%	5.98%
Nov	15.50%	9.28%	6.22%
Dec	15.50%	9.12%	6.38%
Jan 1987	13.00%	8.95%	4.05%
Feb	13.00%	9.00%	4.00%
Mar	13.00%	8.93%	4.07%
Apr	13.00%	9.38%	3.62%
May	13.00%	9.91%	3.09%
Jun	13.00%	10.02%	2.98%
Jul	13.00%	10.15%	2.85%
Aug	13.00%	10.45%	2.55%
Sep	13.00%	11.22%	1.78%
Oct	13.00%	11.34%	1.66%
Nov	13.00%	10.82%	2.18%
Dec	13.00%	10.98%	2.02%
Jan 1988	13.50%	10.76%	2.74%
Feb	13.50%	10.10%	3.40%
Mar	13.50%	10.09%	3.41%
Apr	13.50%	10.54%	2.96%
May	13.50%	10.81%	2.69%
Jun	13.50%	10.79%	2.71%
Jul	13.50%	11.04%	2.46%
Aug	13.50%	11.17%	2.33%
Sep	13.50%	10.61%	2.89%
Oct	13.50%	10.01%	3.49%
Nov	13.50%	9.90%	3.60%
Dec	13.50%	10.06%	3.44%
Jan 1989	13.00%	10.08%	2.92%
Feb	13.00%	10.07%	2.93%
Mar	13.00%	10.23%	2.77%
Apr	13.00%	10.18%	2.82%
May	13.00%	9.99%	3.01%
Jun	13.00%	9.64%	3.36%
Jul	13.00%	9.50%	3.50%
Aug	13.00%	9.52%	3.48%
Sep	13.00%	9.58%	3.42%
Oct	13.00%	9.54%	3.46%
Nov	13.00%	9.51%	3.49%
Dec	13.00%	9.44%	3.56%
Jan 1990	12.50%	9.56%	2.94%
Feb	12.50%	9.76%	2.74%
Mar	12.50%	9.85%	2.65%
Apr	12.50%	9.92%	2.58%
May	12.50%	10.00%	2.50%
Jun	12.50%	9.80%	2.70%
Jul	12.50%	9.75%	2.75%
Aug	12.50%	9.92%	2.58%
Sep	12.50%	10.12%	2.38%
Oct	12.50%	10.05%	2.45%
Nov	12.50%	9.90%	2.60%
Dec	12.50%	9.73%	2.77%

Mo/Year	CLECO's Expected ROE	"A" Rated Bonds Yields	CLECO's Risk Premium
Jan 1991	12.00%	9.71%	2.29%
Feb	12.00%	9.47%	2.53%
Mar	12.00%	9.55%	2.45%
Apr	12.00%	9.46%	2.54%
May	12.00%	9.44%	2.56%
Jun	12.00%	9.59%	2.41%
Jul	12.00%	9.55%	2.45%
Aug	12.00%	9.29%	2.71%
Sep	12.00%	9.16%	2.84%
Oct	12.00%	9.12%	2.88%
Nov	12.00%	9.05%	2.95%
Dec	12.00%	8.88%	3.12%
Jan 1992	13.00%	8.84%	4.16%
Feb	13.00%	8.93%	4.07%
Mar	13.00%	8.97%	4.03%
Apr	13.00%	8.93%	4.07%
May	13.00%	8.87%	4.13%
Jun	13.00%	8.78%	4.22%
Jul	13.00%	8.57%	4.43%
Aug	13.00%	8.44%	4.56%
Sep	13.00%	8.40%	4.60%
Oct	13.00%	8.54%	4.46%
Nov	13.00%	8.63%	4.37%
Dec	13.00%	8.43%	4.57%
Jan 1993	11.50%	8.27%	3.23%
Feb	11.50%	8.04%	3.46%
Mar	11.50%	7.90%	3.60%
Apr	11.50%	7.81%	3.69%
May	11.50%	7.86%	3.64%
Jun	11.50%	7.75%	3.75%
Jul	11.50%	7.54%	3.96%
Aug	11.50%	7.25%	4.25%
Sep	11.50%	7.04%	4.46%
Oct	11.50%	7.03%	4.47%
Nov	11.50%	7.30%	4.20%
Dec	11.50%	7.34%	4.16%
Jan 1994	12.00%	7.33%	4.67%
Feb	12.00%	7.42%	4.58%
Mar	12.00%	7.85%	4.15%
Apr	12.00%	8.22%	3.78%
May	12.00%	8.33%	3.67%
Jun	12.00%	8.31%	3.69%
Jul	12.00%	8.47%	3.53%
Aug	12.00%	8.41%	3.59%
Sep	12.00%	8.64%	3.36%
Oct	12.00%	8.86%	3.14%
Nov	12.00%	8.98%	3.02%
Dec	12.00%	8.76%	3.24%
Jan 1995	13.00%	8.73%	4.27%
Feb	13.00%	8.52%	4.48%
Mar	13.00%	8.37%	4.63%
Apr	13.00%	8.27%	4.73%
May	13.00%	7.91%	5.09%
Jun	13.00%	7.60%	5.40%
Jul	13.50%	7.70%	5.80%
Aug	13.50%	7.83%	5.67%
Sep	13.50%	7.62%	5.88%
Oct	13.50%	7.46%	6.04%
Nov	13.50%	7.43%	6.07%
Dec	13.50%	7.23%	6.27%
Jan 1996	13.00%	7.22%	5.78%
Feb	13.00%	7.37%	5.63%
Mar	13.00%	7.73%	5.27%
Apr	13.00%	7.89%	5.11%
May	13.00%	7.98%	5.02%
Jun	13.00%	8.06%	4.94%
Jul	13.50%	8.02%	5.48%
Aug	13.50%	7.84%	5.66%
Sep	13.50%	8.01%	5.49%
Oct	13.50%	7.77%	5.73%
Nov	13.50%	7.49%	6.01%

Summary Information (1985 - 1996)

Average Risk Premium: (Jan 1985 - Nov 1996)	**3.79%**
High Risk Premium: (December 1988)	**6.38%**
Low Risk Premium: (March 1985)	**1.13%**

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

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Average Risk Premium Above the Yields of "A" Rated Moody's Public Utility Bonds for CINergy Corporation's Expected Returns on Common Equity

Mo/Year	CINergy's Expected ROE	"A" Rated Bonds Yields	CINergy's Risk Premium
Jan 1985	12.50%	12.99%	-0.49%
Feb	12.50%	13.08%	-0.58%
Mar	12.50%	13.87%	-1.37%
Apr	12.50%	13.61%	-1.11%
May	12.50%	13.12%	-0.62%
Jun	12.50%	12.13%	0.37%
Jul	12.50%	12.07%	0.43%
Aug	12.50%	12.13%	0.37%
Sep	12.50%	12.13%	0.37%
Oct	12.50%	12.01%	0.49%
Nov	12.50%	11.49%	1.01%
Dec	12.50%	10.97%	1.53%
Jan 1986	15.00%	10.79%	4.21%
Feb	15.00%	10.26%	4.74%
Mar	15.00%	9.48%	5.52%
Apr	15.00%	9.14%	5.86%
May	15.00%	9.59%	5.41%
Jun	15.00%	9.62%	5.38%
Jul	15.00%	9.37%	5.63%
Aug	15.00%	9.29%	5.71%
Sep	15.00%	9.52%	5.48%
Oct	15.00%	9.52%	5.48%
Nov	15.00%	9.28%	5.72%
Dec	15.00%	9.12%	5.88%
Jan 1987	15.50%	8.95%	6.55%
Feb	15.50%	9.00%	6.50%
Mar	15.50%	8.93%	6.57%
Apr	15.50%	9.38%	6.12%
May	15.50%	9.91%	5.59%
Jun	15.50%	10.02%	5.48%
Jul	15.50%	10.15%	5.35%
Aug	15.50%	10.45%	5.05%
Sep	15.50%	11.22%	4.28%
Oct	15.50%	11.34%	4.16%
Nov	15.50%	10.82%	4.68%
Dec	15.50%	10.98%	4.52%
Jan 1988	17.00%	10.76%	6.24%
Feb	17.00%	10.10%	6.90%
Mar	17.00%	10.09%	6.91%
Apr	17.00%	10.54%	6.46%
May	17.00%	10.81%	6.19%
Jun	17.00%	10.79%	6.21%
Jul	17.00%	11.04%	5.96%
Aug	17.00%	11.17%	5.83%
Sep	17.00%	10.61%	6.39%
Oct	17.00%	10.01%	6.99%
Nov	17.00%	9.90%	7.10%
Dec	17.00%	10.06%	6.94%
Jan 1989	16.00%	10.08%	5.92%
Feb	16.00%	10.07%	5.93%
Mar	16.00%	10.23%	5.77%
Apr	16.00%	10.18%	5.82%
May	16.00%	9.99%	6.01%
Jun	16.00%	9.64%	6.36%
Jul	16.00%	9.50%	6.50%
Aug	16.00%	9.52%	6.48%
Sep	16.00%	9.58%	6.42%
Oct	16.00%	9.54%	6.46%
Nov	16.00%	9.51%	6.49%
Dec	16.00%	9.44%	6.56%
Jan 1990	14.50%	9.56%	4.94%
Feb	14.50%	9.76%	4.74%
Mar	14.50%	9.85%	4.65%
Apr	14.50%	9.92%	4.58%
May	14.50%	10.00%	4.50%
Jun	14.50%	9.80%	4.70%
Jul	14.50%	9.75%	4.75%
Aug	14.50%	9.92%	4.58%
Sep	14.50%	10.12%	4.38%
Oct	14.50%	10.05%	4.45%
Nov	14.50%	9.90%	4.60%
Dec	14.50%	9.73%	4.77%

Mo/Year	CINergy's Expected ROE	"A" Rated Bonds Yields	CINergy's Risk Premium
Jan 1991	14.50%	9.71%	4.79%
Feb	14.50%	9.47%	5.03%
Mar	14.50%	9.55%	4.95%
Apr	14.50%	9.46%	5.04%
May	14.50%	9.44%	5.06%
Jun	14.50%	9.59%	4.91%
Jul	14.50%	9.55%	4.95%
Aug	14.50%	9.29%	5.21%
Sep	14.50%	9.16%	5.34%
Oct	14.50%	9.12%	5.38%
Nov	14.50%	9.05%	5.45%
Dec	14.50%	8.88%	5.62%
Jan 1992	13.50%	8.84%	4.66%
Feb	13.50%	8.93%	4.57%
Mar	13.50%	8.97%	4.53%
Apr	13.50%	8.93%	4.57%
May	13.50%	8.87%	4.63%
Jun	13.50%	8.78%	4.72%
Jul	13.50%	8.57%	4.93%
Aug	13.50%	8.44%	5.06%
Sep	13.50%	8.40%	5.10%
Oct	13.50%	8.54%	4.96%
Nov	13.50%	8.63%	4.87%
Dec	13.50%	8.43%	5.07%
Jan 1993	11.00%	8.27%	2.73%
Feb	11.00%	8.04%	2.96%
Mar	11.00%	7.90%	3.10%
Apr	11.00%	7.81%	3.19%
May	11.00%	7.86%	3.14%
Jun	11.00%	7.75%	3.25%
Jul	11.00%	7.54%	3.46%
Aug	11.00%	7.25%	3.75%
Sep	11.00%	7.04%	3.96%
Oct	11.00%	7.03%	3.97%
Nov	11.00%	7.30%	3.70%
Dec	11.00%	7.34%	3.66%
Jan 1994	12.50%	7.33%	5.17%
Feb	12.50%	7.42%	5.08%
Mar	12.50%	7.85%	4.65%
Apr	12.50%	8.22%	4.28%
May	12.50%	8.33%	4.17%
Jun	12.50%	8.31%	4.19%
Jul	12.50%	8.47%	4.03%
Aug	12.50%	8.41%	4.09%
Sep	12.50%	8.64%	3.86%
Oct	12.50%	8.86%	3.64%
Nov	12.50%	8.98%	3.52%
Dec	12.50%	8.76%	3.74%
Jan 1995	14.00%	8.73%	5.27%
Feb	14.00%	8.52%	5.48%
Mar	14.00%	8.37%	5.63%
Apr	14.00%	8.27%	5.73%
May	14.00%	7.91%	6.09%
Jun	14.00%	7.60%	6.40%
Jul	13.00%	7.70%	5.30%
Aug	13.00%	7.83%	5.17%
Sep	13.00%	7.62%	5.38%
Oct	13.00%	7.46%	5.54%
Nov	13.00%	7.43%	5.57%
Dec	13.00%	7.23%	5.77%
Jan 1996	13.00%	7.22%	5.78%
Feb	13.00%	7.37%	5.63%
Mar	13.00%	7.73%	5.27%
Apr	13.50%	7.89%	5.61%
May	13.50%	7.98%	5.52%
Jun	13.50%	8.06%	5.44%
Jul	14.00%	8.02%	5.98%
Aug	14.00%	7.84%	6.16%
Sep	14.00%	8.01%	5.99%
Oct	14.00%	7.77%	6.23%
Nov	14.00%	7.49%	6.51%

Summary Information **(1985 - 1996)**

Average Positive Risk Premium: **4.96%**
(Jan 1985 - Nov 1996)

High Risk Premium: **7.10%**
(October 1988)

Low Risk Premium: **-1.37%**
(March 1985)

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

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Average Risk Premium Above the Yields of "Baa" Rated Moody's Public Utility Bonds for Hawaiian Electric Industries, Inc.'s Expected Returns on Common Equity

Mo/Year	Hawaii's Expected ROE	"Baa" Rated Bonds Yields	Hawaii's Risk Premium
Jan 1985	14.00%	13.36%	0.64%
Feb	14.00%	13.44%	0.56%
Mar	14.00%	14.19%	-0.19%
Apr	14.00%	14.11%	-0.11%
May	14.00%	13.62%	0.38%
Jun	14.00%	12.66%	1.34%
Jul	14.00%	12.70%	1.30%
Aug	14.00%	12.73%	1.27%
Sep	14.00%	12.72%	1.28%
Oct	14.00%	12.52%	1.48%
Nov	14.00%	12.04%	1.96%
Dec	14.00%	11.48%	2.52%
Jan 1986	14.00%	11.24%	2.76%
Feb	14.00%	10.74%	3.26%
Mar	13.50%	9.91%	3.59%
Apr	13.50%	9.63%	3.87%
May	13.50%	10.02%	3.48%
Jun	13.50%	10.03%	3.47%
Jul	13.50%	9.69%	3.81%
Aug	13.50%	9.70%	3.80%
Sep	13.50%	9.96%	3.64%
Oct	13.50%	9.95%	3.55%
Nov	13.50%	9.69%	3.81%
Dec	13.50%	9.49%	4.01%
Jan 1987	13.50%	9.27%	4.23%
Feb	13.50%	9.24%	4.26%
Mar	13.50%	9.19%	4.31%
Apr	13.50%	9.85%	3.65%
May	13.50%	10.40%	3.10%
Jun	13.50%	10.46%	3.04%
Jul	13.50%	10.62%	2.88%
Aug	13.50%	10.90%	2.60%
Sep	13.50%	11.58%	1.92%
Oct	13.50%	11.91%	1.59%
Nov	13.50%	11.40%	2.10%
Dec	13.50%	11.55%	1.95%
Jan 1988	13.50%	11.34%	2.16%
Feb	13.50%	10.65%	2.85%
Mar	14.00%	10.69%	3.31%
Apr	14.00%	11.23%	2.77%
May	14.00%	11.38%	2.62%
Jun	14.00%	11.27%	2.73%
Jul	14.00%	11.52%	2.48%
Aug	14.00%	11.69%	2.31%
Sep	14.00%	11.13%	2.87%
Oct	14.00%	10.31%	3.69%
Nov	14.00%	10.35%	3.65%
Dec	14.00%	10.44%	3.56%
Jan 1989	14.00%	10.38%	3.62%
Feb	14.00%	10.38%	3.62%
Mar	13.00%	10.50%	2.50%
Apr	13.00%	10.49%	2.51%
May	13.00%	10.29%	2.71%
Jun	13.00%	9.80%	3.20%
Jul	13.00%	9.64%	3.36%
Aug	13.00%	9.64%	3.36%
Sep	13.00%	9.70%	3.30%
Oct	13.00%	9.64%	3.36%
Nov	13.00%	9.64%	3.36%
Dec	13.00%	9.60%	3.40%
Jan 1990	13.00%	9.74%	3.26%
Feb	13.00%	9.96%	3.04%
Mar	12.50%	10.06%	2.44%
Apr	12.50%	10.13%	2.37%
May	12.50%	10.16%	2.34%
Jun	12.50%	9.96%	2.54%
Jul	12.50%	9.92%	2.58%
Aug	12.50%	10.12%	2.38%
Sep	12.50%	10.32%	2.18%
Oct	12.50%	10.28%	2.22%
Nov	12.50%	10.12%	2.38%
Dec	12.50%	9.96%	2.54%

Mo/Year	Hawaii's Expected ROE	"Baa" Rated Bonds Yields	Hawaii's Risk Premium
Jan 1991	12.50%	9.96%	2.54%
Feb	12.50%	9.68%	2.82%
Mar	12.00%	9.74%	2.26%
Apr	12.00%	9.64%	2.36%
May	12.00%	9.64%	2.36%
Jun	12.00%	9.79%	2.21%
Jul	12.00%	9.69%	2.31%
Aug	12.00%	9.47%	2.53%
Sep	12.00%	9.34%	2.66%
Oct	12.00%	9.32%	2.68%
Nov	12.00%	9.28%	2.72%
Dec	12.00%	9.07%	2.93%
Jan 1992	12.00%	8.98%	3.02%
Feb	10.50%	9.09%	1.41%
Mar	10.50%	9.16%	1.34%
Apr	10.50%	9.11%	1.39%
May	10.50%	9.01%	1.49%
Jun	10.50%	8.90%	1.60%
Jul	10.50%	8.69%	1.81%
Aug	10.50%	8.58%	1.92%
Sep	10.50%	8.54%	1.96%
Oct	10.50%	8.76%	1.74%
Nov	10.50%	8.86%	1.64%
Dec	10.50%	8.69%	1.81%
Jan 1993	10.50%	8.57%	1.93%
Feb	11.00%	8.31%	2.69%
Mar	11.00%	8.10%	2.90%
Apr	11.00%	8.11%	2.89%
May	10.00%	8.18%	1.82%
Jun	11.00%	8.05%	2.95%
Jul	11.00%	7.94%	3.06%
Aug	11.00%	7.59%	3.41%
Sep	11.00%	7.35%	3.65%
Oct	11.00%	7.27%	3.73%
Nov	11.00%	7.69%	3.31%
Dec	11.00%	7.73%	3.27%
Jan 1994	11.00%	7.66%	3.34%
Feb	10.00%	7.76%	2.24%
Mar	10.00%	8.11%	1.89%
Apr	10.00%	8.47%	1.53%
May	10.00%	8.61%	1.39%
Jun	10.00%	8.64%	1.36%
Jul	10.00%	8.80%	1.20%
Aug	10.00%	8.74%	1.26%
Sep	10.00%	8.98%	1.02%
Oct	10.00%	9.24%	0.76%
Nov	10.00%	9.35%	0.65%
Dec	10.00%	9.16%	0.84%
Jan 1995	10.00%	9.15%	0.85%
Feb	11.00%	8.93%	2.07%
Mar	11.00%	8.78%	2.22%
Apr	11.00%	8.67%	2.33%
May	11.00%	8.30%	2.70%
Jun	11.00%	8.01%	2.99%
Jul	11.00%	8.11%	2.89%
Aug	11.00%	8.24%	2.76%
Sep	11.00%	7.98%	3.02%
Oct	11.00%	7.82%	3.18%
Nov	11.00%	7.81%	3.19%
Dec	11.00%	7.63%	3.37%
Jan 1996	11.00%	7.64%	3.36%
Feb	13.00%	7.78%	5.22%
Mar	12.50%	8.15%	4.35%
Apr	12.50%	8.32%	4.18%
May	12.50%	8.45%	4.05%
Jun	12.50%	8.51%	3.99%
Jul	12.50%	8.44%	4.06%
Aug	12.50%	8.25%	4.25%
Sep	12.50%	8.41%	4.09%
Oct	12.50%	8.15%	4.35%
Nov	12.50%	7.87%	4.63%

Summary Information **(1985 - 1996)**

Average Positive Risk Premium: **2.68%**
(Jan 1985 - Nov 1996)

High Risk Premium: **5.22%**
(February 1996)

Low Risk Premium: **-0.19%**
(March 1985)

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

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Average Risk Premium Above the Yields of "A" Rated Moody's Public Utility Bonds for Idaho Power Company's Expected Returns on Common Equity

Mo/Year	Idaho's Expected ROE	"A" Rated Bonds Yields	Idaho's Risk Premium
Jan 1985	15.00%	12.99%	2.01%
Feb	15.00%	13.08%	1.92%
Mar	15.00%	13.87%	1.13%
Apr	15.00%	13.61%	1.39%
May	15.00%	13.12%	1.88%
Jun	15.00%	12.13%	2.87%
Jul	15.00%	12.07%	2.93%
Aug	15.00%	12.13%	2.87%
Sep	15.00%	12.13%	2.87%
Oct	15.00%	12.01%	2.99%
Nov	15.00%	11.49%	3.51%
Dec	15.00%	10.97%	4.03%
Jan 1986	15.00%	10.79%	4.21%
Feb	15.00%	10.26%	4.74%
Mar	13.50%	9.48%	4.02%
Apr	13.50%	9.14%	4.36%
May	13.50%	9.59%	3.91%
Jun	13.50%	9.62%	3.88%
Jul	13.50%	9.37%	4.13%
Aug	13.50%	9.29%	4.21%
Sep	13.50%	9.52%	3.98%
Oct	13.50%	9.52%	3.98%
Nov	13.50%	9.28%	4.22%
Dec	13.50%	9.12%	4.38%
Jan 1987	13.50%	8.95%	4.55%
Feb	13.50%	9.00%	4.50%
Mar	10.50%	8.93%	1.57%
Apr	10.50%	9.38%	1.12%
May	10.50%	9.91%	0.59%
Jun	10.50%	10.02%	0.48%
Jul	10.50%	10.15%	0.35%
Aug	10.50%	10.45%	0.05%
Sep	10.50%	11.22%	-0.72%
Oct	10.50%	11.34%	-0.84%
Nov	10.50%	10.82%	-0.32%
Dec	10.50%	10.98%	-0.48%
Jan 1988	10.50%	10.76%	-0.26%
Feb	10.50%	10.10%	0.40%
Mar	11.50%	10.09%	1.41%
Apr	11.50%	10.54%	0.96%
May	11.50%	10.81%	0.69%
Jun	11.50%	10.79%	0.71%
Jul	11.50%	11.04%	0.46%
Aug	11.50%	11.17%	0.33%
Sep	11.50%	10.61%	0.89%
Oct	11.50%	10.01%	1.49%
Nov	11.50%	9.90%	1.60%
Dec	11.50%	10.06%	1.44%
Jan 1989	11.50%	10.08%	1.42%
Feb	11.50%	10.07%	1.43%
Mar	11.00%	10.23%	0.77%
Apr	11.00%	10.18%	0.82%
May	11.00%	9.99%	1.01%
Jun	11.00%	9.64%	1.36%
Jul	11.00%	9.50%	1.50%
Aug	11.00%	9.52%	1.48%
Sep	11.00%	9.58%	1.42%
Oct	11.00%	9.54%	1.46%
Nov	11.00%	9.51%	1.49%
Dec	11.00%	9.44%	1.56%
Jan 1990	11.00%	9.56%	1.44%
Feb	11.00%	9.76%	1.24%
Mar	13.00%	9.85%	3.15%
Apr	13.00%	9.92%	3.08%
May	13.00%	10.00%	3.00%
Jun	13.00%	9.80%	3.20%
Jul	13.00%	9.75%	3.25%
Aug	13.00%	9.92%	3.08%
Sep	13.00%	10.12%	2.88%
Oct	13.00%	10.05%	2.95%
Nov	13.00%	9.90%	3.10%
Dec	13.00%	9.73%	3.27%

Mo/Year	Idaho's Expected ROE	"A" Rated Bonds Yields	Idaho's Risk Premium
Jan 1991	13.00%	9.71%	3.29%
Feb	13.00%	9.47%	3.53%
Mar	11.50%	9.55%	1.95%
Apr	11.50%	9.46%	2.04%
May	11.50%	9.44%	2.06%
Jun	11.50%	9.59%	1.91%
Jul	11.50%	9.55%	1.95%
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Oct	11.50%	9.12%	2.38%
Nov	11.50%	9.05%	2.45%
Dec	11.50%	8.88%	2.62%
Jan 1992	11.50%	8.84%	2.66%
Feb	10.50%	8.93%	1.57%
Mar	10.50%	8.97%	1.53%
Apr	10.50%	8.93%	1.57%
May	10.50%	8.87%	1.63%
Jun	10.50%	8.78%	1.72%
Jul	10.50%	8.57%	1.93%
Aug	10.50%	8.44%	2.06%
Sep	10.50%	8.40%	2.10%
Oct	10.50%	8.54%	1.96%
Nov	10.50%	8.63%	1.87%
Dec	10.50%	8.43%	2.07%
Jan 1993	10.50%	8.27%	2.23%
Feb	10.00%	8.04%	1.96%
Mar	10.00%	7.90%	2.10%
Apr	10.00%	7.81%	2.19%
May	10.00%	7.86%	2.14%
Jun	10.00%	7.75%	2.25%
Jul	10.00%	7.54%	2.46%
Aug	10.00%	7.25%	2.75%
Sep	10.00%	7.04%	2.96%
Oct	10.00%	7.03%	2.97%
Nov	10.00%	7.30%	2.70%
Dec	10.00%	7.34%	2.66%
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May	11.50%	8.33%	3.17%
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Sep	11.50%	8.64%	2.86%
Oct	11.50%	8.86%	2.64%
Nov	11.50%	8.98%	2.52%
Dec	11.50%	8.76%	2.74%
Jan 1995	11.50%	8.73%	2.77%
Feb	11.00%	8.52%	2.48%
Mar	11.00%	8.37%	2.63%
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May	11.00%	7.91%	3.09%
Jun	11.00%	7.60%	3.40%
Jul	11.00%	7.70%	3.30%
Aug	11.00%	7.83%	3.17%
Sep	11.00%	7.62%	3.38%
Oct	11.00%	7.46%	3.54%
Nov	11.00%	7.43%	3.57%
Dec	11.00%	7.23%	3.77%
Jan 1996	11.00%	7.22%	3.78%
Feb	11.50%	7.37%	4.13%
Mar	11.50%	7.73%	3.77%
Apr	11.50%	7.89%	3.61%
May	11.50%	7.98%	3.52%
Jun	11.50%	8.06%	3.44%
Jul	11.50%	8.02%	3.48%
Aug	11.50%	7.84%	3.66%
Sep	11.50%	8.01%	3.49%
Oct	11.50%	7.77%	3.73%
Nov	11.50%	7.49%	4.01%

Summary Information **(1985 - 1996)**

Average Positive Risk Premium: **2.63%**
(Jan 1985 - Nov 1996)

High Risk Premium: **4.74%**
(February 1986)

Low Risk Premium: **-0.84%**
(October 1987)

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

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Average Risk Premium Above the Yields of "Baa" Rated Moody's Public Utility Bonds for Nevada Power Company's Expected Returns on Common Equity

Mo/Year	Nevada's Expected ROE	"Baa" Rated Bonds Yields	Nevada's Risk Premium
Jan 1985	13.50%	13.36%	0.14%
Feb	13.50%	13.44%	0.06%
Mar	12.50%	14.19%	-1.69%
Apr	13.50%	14.11%	-0.61%
May	13.50%	13.62%	-0.12%
Jun	13.50%	12.66%	0.84%
Jul	13.50%	12.70%	0.80%
Aug	13.50%	12.73%	0.77%
Sep	13.50%	12.72%	0.78%
Oct	13.50%	12.52%	0.98%
Nov	13.50%	12.04%	1.46%
Dec	13.50%	11.48%	2.02%
Jan 1986	13.50%	11.24%	2.26%
Feb	13.50%	10.74%	2.76%
Mar	13.50%	9.91%	3.59%
Apr	13.50%	9.63%	3.87%
May	13.50%	10.02%	3.48%
Jun	13.50%	10.03%	3.47%
Jul	13.50%	9.69%	3.81%
Aug	13.50%	9.70%	3.80%
Sep	13.50%	9.96%	3.54%
Oct	13.50%	9.95%	3.55%
Nov	13.50%	9.69%	3.81%
Dec	13.50%	9.49%	4.01%
Jan 1987	13.50%	9.27%	4.23%
Feb	13.50%	9.24%	4.26%
Mar	12.50%	9.19%	3.31%
Apr	12.50%	9.85%	2.65%
May	15.50%	10.40%	5.10%
Jun	12.50%	10.46%	2.04%
Jul	12.50%	10.62%	1.88%
Aug	12.50%	10.90%	1.60%
Sep	12.50%	11.58%	0.92%
Oct	12.50%	11.91%	0.59%
Nov	12.50%	11.40%	1.10%
Dec	12.50%	11.55%	0.95%
Jan 1988	12.50%	11.34%	1.16%
Feb	12.50%	10.65%	1.85%
Mar	13.00%	10.69%	2.31%
Apr	13.00%	11.23%	1.77%
May	13.00%	11.38%	1.62%
Jun	13.00%	11.27%	1.73%
Jul	13.00%	11.52%	1.48%
Aug	13.00%	11.69%	1.31%
Sep	13.00%	11.13%	1.87%
Oct	13.00%	10.31%	2.69%
Nov	13.00%	10.35%	2.65%
Dec	13.00%	10.44%	2.56%
Jan 1989	13.00%	10.38%	2.62%
Feb	13.00%	10.38%	2.62%
Mar	14.00%	10.50%	3.50%
Apr	14.00%	10.49%	3.51%
May	14.00%	10.29%	3.71%
Jun	14.00%	9.80%	4.20%
Jul	14.00%	9.64%	4.36%
Aug	14.00%	9.64%	4.36%
Sep	14.00%	9.70%	4.30%
Oct	14.00%	9.64%	4.36%
Nov	14.00%	9.64%	4.36%
Dec	14.00%	9.60%	4.40%
Jan 1990	14.00%	9.74%	4.26%
Feb	14.00%	9.96%	4.04%
Mar	13.00%	10.06%	2.94%
Apr	13.00%	10.13%	2.87%
May	13.00%	10.16%	2.84%
Jun	13.00%	9.96%	3.04%
Jul	13.00%	9.92%	3.08%
Aug	13.00%	10.12%	2.88%
Sep	13.00%	10.32%	2.68%
Oct	13.00%	10.28%	2.72%
Nov	13.00%	10.12%	2.88%
Dec	13.00%	9.96%	3.04%

Mo/Year	Nevada's Expected ROE	"Baa" Rated Bonds Yields	Nevada's Risk Premium
Jan 1991	13.00%	9.96%	3.04%
Feb	13.00%	9.68%	3.32%
Mar	11.00%	9.74%	1.26%
Apr	11.00%	9.64%	1.36%
May	11.00%	9.64%	1.36%
Jun	11.00%	9.79%	1.21%
Jul	11.00%	9.69%	1.31%
Aug	11.00%	9.47%	1.53%
Sep	11.00%	9.34%	1.66%
Oct	11.00%	9.32%	1.68%
Nov	11.00%	9.28%	1.72%
Dec	11.00%	9.07%	1.93%
Jan 1992	11.00%	8.98%	2.02%
Feb	11.00%	9.09%	1.91%
Mar	8.50%	9.16%	-0.66%
Apr	8.50%	9.11%	-0.61%
May	8.50%	9.01%	-0.51%
Jun	8.50%	8.90%	-0.40%
Jul	8.50%	8.69%	-0.19%
Aug	8.50%	8.58%	-0.08%
Sep	8.50%	8.54%	-0.04%
Oct	8.50%	8.76%	-0.26%
Nov	8.50%	8.86%	-0.36%
Dec	8.50%	8.69%	-0.19%
Jan 1993	8.50%	8.57%	-0.07%
Feb	8.50%	8.31%	0.19%
Mar	10.00%	8.10%	1.90%
Apr	10.00%	8.11%	1.89%
May	10.00%	8.18%	1.82%
Jun	10.00%	8.05%	1.95%
Jul	10.00%	7.94%	2.06%
Aug	10.00%	7.59%	2.41%
Sep	10.00%	7.35%	2.65%
Oct	10.00%	7.27%	2.73%
Nov	10.00%	7.69%	2.31%
Dec	10.00%	7.73%	2.27%
Jan 1994	10.00%	7.66%	2.34%
Feb	10.00%	7.76%	2.24%
Mar	11.00%	8.11%	2.89%
Apr	11.00%	8.47%	2.53%
May	11.00%	8.61%	2.39%
Jun	11.00%	8.64%	2.36%
Jul	11.00%	8.80%	2.20%
Aug	11.00%	8.74%	2.26%
Sep	11.00%	8.98%	2.02%
Oct	11.00%	9.24%	1.76%
Nov	11.00%	9.35%	1.65%
Dec	11.00%	9.16%	1.84%
Jan 1995	11.00%	9.15%	1.85%
Feb	11.00%	8.93%	2.07%
Mar	10.50%	8.78%	1.72%
Apr	10.50%	8.67%	1.83%
May	10.50%	8.30%	2.20%
Jun	10.50%	8.01%	2.49%
Jul	10.50%	8.11%	2.39%
Aug	10.50%	9.64%	0.86%
Sep	10.50%	9.70%	0.80%
Oct	10.50%	9.64%	0.86%
Nov	10.50%	9.64%	0.86%
Dec	10.50%	9.60%	0.90%
Jan 1996	10.50%	9.74%	0.76%
Feb	10.50%	9.96%	0.54%
Mar	10.00%	10.06%	-0.06%
Apr	10.00%	10.13%	-0.13%
May	10.00%	10.16%	-0.16%
Jun	10.00%	9.96%	0.04%
Jul	10.00%	9.92%	0.08%
Aug	10.00%	10.12%	-0.12%
Sep	10.00%	10.32%	-0.32%
Oct	10.00%	10.28%	-0.28%
Nov	10.00%	10.12%	-0.12%

Summary Information **(1985 - 1996)**

Average Positive Risk Premium: **2.33%**
(Jan 1985 - Nov 1996)

High Risk Premium: **5.10%**
(May 1987)

Low Risk Premium: **-1.69%**
(March 1985)

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

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Risk Premium Costs of Equity Estimates for the Seven Comparable Electric Companies

Company Name	(1) Bond Rating	(2) Appropriate Yeild	(3) Equity Premium	(4) Cost of Common Equity
Alleghany Power System, Inc.	A+	7.86%	3.17%	11.03%
Black Hills Corporation	A	7.86%	NM	NM
Central Louisiana Electric Company, Inc.	A	7.86%	3.79%	11.65%
CINergy Corporation	A-	7.86%	4.96%	12.82%
Hawaiian Electric Industries, Inc.	BBB+	8.06%	2.68%	10.74%
Idaho Power Company	A+	7.86%	2.53%	10.39%
Nevada Power Company	BBB	8.06%	2.33%	10.39%
Average				**11.17%**

NOTES:

Column 1 = Standard & Poor's Corporation's Utilities Rating Service Financial Statistics for the 12 months ended June 30, 1996.

Column 2 = The appropriate yield is equal to the rate quoted in Salomon Brothers Inc.'s Bond Market Roundup: Abstract January 17, 1997, for newly issued thirty year Public Utility Bonds given the bond rating for the Company.

Column 3 = The equity premium represents the average difference between the Company's expected return on common equity as reported in The Value Line Investment Survey: Ratings & Reports and the average yield on equally rated Moody's Public Utility Bonds from January of 1985 through November 1996. See Schedule 25.

Column 4 = Column 2 + Column 3.

Black Hills Corporation has only recently been followed by The Value Line Investment Survey: Ratings & Reports. Therefore, it was not included in this study.

Schedule 26

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

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

Company Name	(1) Risk Free Rate (Low)	(2) Risk Free Rate (High)	(3) Company's Beta	(4) Market Risk Premium	(5) Cost of Common Equity (Low)	(6) Cost of Common Equity (High)
Alleghany Power System, Inc.	6.36%	7.15%	0.70	7.00%	11.26%	12.05%
Black Hills Corporation	6.36%	7.15%	0.75	7.00%	11.61%	12.40%
Central Louisiana Electric Company, Inc.	6.36%	7.15%	0.65	7.00%	10.91%	11.70%
CINergy Corporation	6.36%	7.15%	0.85	7.00%	12.31%	13.10%
Hawaiian Electric Industries, Inc.	6.36%	7.15%	0.70	7.00%	11.26%	12.05%
Idaho Power Company	6.36%	7.15%	0.70	7.00%	11.26%	12.05%
Nevada Power Company	6.36%	7.15%	0.75	7.00%	11.61%	12.40%
Average			**0.73**		**11.46%**	**12.25%**

NOTES:

Column 1 & 2 = The Risk Free Rate of Interest which is equal to the six month high and low of the 30 year U. S. Treasury Rate as quoted in Salomon Brothers Bond Market Roundup: Abstract, on January 17, 1997.

Column 3 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole as reported by The Value Line Investment Survey: Ratings & Reports, December 13, 1996, January 10, 1997, and November 22, 1996.

Column 4 = The Market Risk Premium is the amount over the Risk Free Rate that is demanded by investors for holding a portfolio of equal risk to the market and was reported by Ibbotson Associates, Inc. in Stocks, Bonds, Bills, and Inflation: 1996 Yearbook.

Column 5 = (Column 1 + (Column 3 * Column 4)).

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

Schedule 27

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Total Debt to Total Capital Ratios, Market-to-Book Values and Returns on Common Equity for the Eight Comparable Electric Utility Companies

Company Name	Total Debt to Total Capital Ratio (1995)	Market-to-Book Value (1995)	Return on Year-End Common Equity (1995)
Alleghany Power System, Inc.	49.70%	1.62 x	11.50%
Black Hills Corporation	48.07%	1.96 x	14.00%
Central Louisiana Electric Company, Inc.	49.50%	1.60 x	13.20%
CINergy Corporation	46.29%	1.89 x	13.60%
Hawaiian Electric Industries, Inc.	48.10%	1.58 x	10.60%
Idaho Power Company	47.10%	1.65 x	11.60%
Nevada Power Company	49.81%	1.37 x	9.20%
Average	**48.37%**	**1.67 x**	**11.96%**
The Empire District Electric Company (as of December 31, 1995)	**48.01%**	**1.48 x**	**9.00%**

Sources: The Value Line Investment Survey: Ratings & Reports, December 13, 1996, Januray 10, 1997, and November 22, 1996, and Companies' Stockholders Annual Reports.

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Public Utility Revenue Requirement

or

Cost of Service

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

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

or

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

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

RR	=	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	=	iL + dP + kE 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

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-97-81

Weighted Cost of Capital as of December 31, 1996 for The Empire District Electric Company

Capital Component	Percentage of Capital	Embedded Cost	Weighted Cost of Capital Using Common Equity Return of: 10.50%	10.88%	11.25%
Common Stock Equity	47.29%	—	4.97%	5.14%	5.32%
Preferred Stock	7.06%	7.59%	0.54%	0.54%	0.54%
Long-Term Debt	45.65%	8.06%	3.68%	3.68%	3.68%
Short-Term Debt	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%		**9.19%**	**9.36%**	**9.54%**

Notes: See Schedule 10 for the Capital Sturcture Ratios

See Schedule 12 for the Embedded Cost of Preferred Stock

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