Exhibit No:_____
Issue: Cost of Capital
Witness: Donald A. Murry
Type of Exhibit: Direct Testimony
Sponsoring Party: Empire District
Case No.: ER-2002-424
Date Testimony Prepared: 2/20/02

THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY

OF

DONALD A. MURRY, Ph.D.

FEBRUARY 2002

C. H. GUERNSEY & COMPANY
ENGINEERS - ARCHITECTS – CONSULTANTS
OKLAHOMA CITY, OKLAHOMA

THE EMPIRE DISTRICT ELECTRIC COMPANY

BEFORE THE MISSOURI PURLIC SERVICE COMMISSION

CASE NO. _____

Direct Testimony

Of

Donald A. Murry, Ph.D.

Q. Please state your name and business address.

A. My name is Donald A. Murry. My address is 5555 North Grand Blvd., Oklahoma City, Oklahoma 73112.

Q. By whom are you employed and in what position?

A. I am a Vice President and economist with C. H. Guernsey & Company in Oklahoma City. I am also a Professor Emeritus of Economics on the faculty of the University of Oklahoma.

Q. What is your educational background?

A. I have a B. S. in Business Administration, and an M.A. and a Ph.D. in Economics from the University of Missouri - Columbia.

Q. Please describe your professional background.

A. From 1964 to 1974, I was an Assistant and Associate Professor and Director of Research on the faculty of the University of Missouri - St. Louis. For the period 1974-98, I was a Professor of Economics at the University of Oklahoma and since 1998 I have been Professor Emeritus at the University of Oklahoma. Until 1978, I

also served as Director of the Center for Economic and Management Research. In each of these positions, I directed and performed academic and applied research projects related to energy and regulatory policy. During this time, I also served on several state and national committees associated with energy policy and regulatory matters and published and presented a number of papers in the field of regulatory economics in the energy industries.

Q. Please describe your regulatory experience.

A. Since 1964, I have consulted for a number of private and public utilities, state and federal agencies, and other industrial clients regarding energy and regulatory matters in the United States, Canada and other countries. In 1971-72, I served as Chief of the Economic Studies Division, Office of Economics of the Federal Power Commission. From 1978 to early 1981, I was Vice President and Corporate Economist for Stone & Webster Management Consultants, Inc. I am now a Vice President with C. H. Guernsey & Company. In all of these positions I have directed and performed a wide variety of applied research projects and conducted other projects related to regulatory matters. Recently, I have assisted both private and public companies and government officials in areas related to the regulatory, financial and competitive issues associated with the restructuring of the utility industry in the United States and other countries.

Q. Have you previously testified before or been an expert witness in proceedings before regulatory bodies?

A. Yes, I have appeared before the U.S. District Court-Western District of Louisiana,

U.S. District Court-Western District of Oklahoma, District Court-Fourth Judicial District of Texas, U.S. Senate Select Committee on Small Business, Federal Power Commission, Federal Energy Regulatory Commission, Interstate Commerce Commission, Alabama Public Service Colorado Public Utilities Commission, Florida Public Service Commission, Georgia Public Service Commission, Illinois Commerce Commission, Iowa Commerce Commission, Kansas Corporation Commission, Kentucky Public Service Commission, Louisiana Public Service Commission, Maryland Public Service Commission, Missouri Public Service Commission, New Mexico Public Service Commission, New York Public Service Commission, Power Authority of the State of New York, Nevada Public Service Commission, North Carolina Utilities Commission, Oklahoma Corporation Commission, South Carolina Public Service Commission, Tennessee Public Service Commission, Texas Public Utilities Commission, the Railroad Commission of Texas, the State Corporation Commission of Virginia and the Public Service Commission of Wyoming.

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

A. I have been retained by The Empire District Electric Company, also referred to as "Empire" or the "Company," to analyze the current cost of capital and to recommend a rate of return that is appropriate for the Company in this proceeding.

Q. How did you proceed in developing your analysis and recommendation?

A. To put my analysis in context, I reviewed the current economic environment. Because of the importance of the level of interest rates to the cost of capital of a utility, I reviewed the current level of interest rates. I studied rates in the context

of their affect upon the cost of capital of utilities in general and the Company in particular. I also reviewed characteristics of the Company, especially regarding measures that can help identify its financial and business risk. For example, I examined the Company's financial circumstances including the currently changing capital structure and compared the company's financial statistics to those of comparable companies. With this information as the background, I identified the Company's permanent common stock equity and long-term debt components of its capital structure. Finally, I estimated the costs of the various components of capital.

Q. Are you sponsoring any schedules with your testimony?

A. Yes. I am sponsoring Schedule DAM-1 through Schedule DAM-24.

Q. Were these schedules prepared by you or under your direct supervision?

A. Yes.

Q. In preparing your cost of capital testimony in this proceeding, did the nature of utility regulation affect your testimony in any way?

A. Yes.

Q. How does utility regulation affect your cost of capital testimony?

A. Historically, the presumed presence of market power in a franchised utility market is a principal economic rationale for utility regulation. I used this as a guide for my approach to measuring the cost of capital of the Company. This is analytically appropriate because of the potential for economies of scale to be associated with providing utility service at the retail level. In general, analysts have said that the

purpose of regulation is to provide a surrogate for the lack of competitive pressures in retail electric utility service.

The presence of a single firm providing key utility services in some markets is still the basis for regulation. Duplication of production and distribution facilities by more than one firm may be economically inefficient. Therefore, market pressure cannot achieve the same pricing and service results as in competitive markets.

Q. As you have characterized the rationale for regulation, what is the principal objective in setting the allowed return in a regulatory proceeding?

A. Consistent with regulatory precedent, setting an allowed return that is sufficient, but not larger than necessary to allow a utility to recover the costs of providing service is the principal objective. One also could say that setting a "fair" rate of return on invested capital is the principal objective. Since the rate of return must be sufficient to attract and maintain capital, setting the allowed return can be a critical step in the regulatory process.

Q. What do you mean by a fair rate of return?

A. In this context I am using the term fair rate of return to refer to a return that meets the standards set by the United States Supreme Court decision in the *Bluefield Water Works and Improvement Company vs. Public Service Commission, 262 U.S. 679 (1923) ("Bluefield")* case, as further modified in the *Federal Power Commission vs. Hope Natural Gas Company, 320 U.S. 591 (1944) ("Hope")*. In

these decisions the rate of return is a fair return if it provides earnings to investors similar to returns on alternative investments in companies of equivalent risk.

Q. How do you interpret these legal decisions in an economic or market context?

A. Based upon these decisions, a fair rate of return will provide the opportunity for a utility to earn a return equal to that of comparable investments of corresponding risk and uncertainty. In this way, the return will be sufficient to enable the company to operate successfully, maintain its financial integrity, attract capital, and compensate its investors for the risks assumed.

Q. What do you think is the appropriate capital structure for Empire in this proceeding?

A. I have presented the capital structure that is appropriate for Empire in this proceeding as Schedule DAM-1. This is the Company's proforma capital structure as of September 30, 2001. Empire's long-term debt totals $296,901,361 or 45.20 percent of the Company's total capital. The long-term debt is adjusted for the retirement of $37.5 million of long-term debt scheduled for July 2002. Empire has Trust Preferred Securities totaling $48,151,458 or 7.33 percent of the total capital. The Company's common stock equity is $311,839,122 or 47.47 percent of total capital. This proforma capital structure has been adjusted for the $40 million in common stock issued in December 2001 and $50 million to be issued in July 2002 for, among other things, the purposes of retiring long-term debt.

Q. Why is this the appropriate capital structure for Empire in this proceeding?

A. This is a capital structure that represents the target and future capital structure that Empire has recently been adjusting toward.

Q. Why is a capital structure that Empire has recently moved toward relevant for this proceeding?

A. It is the capital structure that will be in place during the time the rates in this proceeding are in effect. It is also consistent with the historical capital structure of Empire. In this regard, it is especially important that Empire had moved away from this historical capital structure only because of two transitory events. These events moved Empire away from the historical capital structure, and produced a temporary capital structure that is not realistically representative of Empire and not relevant for this proceeding.

Q. What were these events that you say created a temporary capital structure for Empire that is not relevant for this proceeding?

A. First, Empire issued debt, including a $100 million issue in1999, to provide financing during the construction of a generation plant. The construction period produced only a temporary capital structure of a higher debt ratio and lower common equity ratio than had been Empire's capital structure historically. It was also a lower common equity ratio than the ratios of comparable companies. Second, following quickly upon issuing this debt that resulted in a low common equity ratio, Empire reached the merger agreement with Utilicorp United Inc. that prevented it from issuing common stock. This effectively locked in the low common equity ratio for a short period of time.

Q. How did this merger agreement prevent Empire from issuing additional common stock?

A. During the period 1999-2000 when this merger proposal was in place, the merger agreement prevented Empire from issuing more common stock and required it to redeem outstanding preferred stock. Consequently, Empire's common equity component of its capital structure fell to levels that were much lower than in previous years.

Q. After the termination of the merger, has Empire moved once again toward historical common stock equity levels?

A. Yes. For example, as stated above, Empire issued $40 million of common stock in December 2001 and has stated its intention to issue common stock to redeem outstanding long-term debt. For the purposes of setting rates for a future period of time, the recommended capital structure is the one appropriate for this proceeding.

Q. You stated previously that you estimated the cost of long-term debt. What did you determine to be the embedded cost of long-term debt for Empire?

A. The embedded cost of long-term debt is 7.91 percent. The calculation of this cost of long-term debt for Empire is shown in Schedule DAM-2.

Q. What is the cost of the trust-preferred securities?

A. The cost of the trust-preferred securities that is appropriate for calculating the capital cost of Empire in this proceeding is 8.96 percent. This cost is shown in Schedule DAM-3.

Q. You also stated previously that you calculated the cost of common stock equity for Empire. How did you do this?

A. I estimated the cost of common equity of Empire using alternative methodologies, and then I compared the results of these methods.

Q. In estimating the Company's cost of common stock equity, what methods did you use?

A. I used two common methods in my analysis for estimating the cost of common stock. I used the Discounted Cash Flow ("DCF") analysis as one method. The DCF, of course, is probably the most common method used by analysts to estimate the cost of common equity of a utility. I compared my DCF results for Empire with the DCF results for a group of publicly traded electric utilities using a similar methodology. As a second method, I used a Capital Asset Pricing Model ("CAPM") method to analyze the cost of common stock equity of Empire. In this CAPM analysis, I also compared the results for Empire to the results for this comparable group of companies.

Q. In addition to these calculations did you do anything else in your analysis?

A. Yes. I put these calculations in the perspective of current market conditions. Of course, just mechanically applying the DCF method and the CAPM is sterile analysis. An analyst must put the results of these calculations in the perspectives of current market conditions, the nature of the DCF and CAPM theories themselves, the financial well being of the company, which is very critical in the case of Empire, and other critical factors.

Q. What kinds of factors did you consider important in this evaluation of your DCF and CAPM results?

A. In general, I reviewed financial measures that would be indicative of the relative risk level of Empire. This included a review of the financial, regulatory and business risks of Empire. Interpreting the results of all of these measures requires some understanding of current market conditions and the standards for a financially healthy utility. The overall level of interest rates, for example, will directly affect the cost of capital of Empire, because investors will compare the potential earnings from an investment in the utility to the return earned from a debt investment. The standards for financial well-being are necessary to determine the return that is sufficient to maintain a financially viable utility.

Q. You said that you evaluated the relative financial well being, or strength of Empire. What was the purpose of this review?

A. I reviewed key financial statistics that would be available to knowledgeable investors. In all of these analyses, of course, I was investigating the relative financial, business and regulatory risks to investors in Empire's common stock.

Q. You said that you compared the results of your DCF and CAPM analyses to similar analyses for a group of comparable companies. How did you select the companies that you used as comparable to Empire?

A. I selected the comparable companies from the group of electric utility companies reported by *Value Line*. I used criteria similar to Empire to select this group. First, I selected publicly traded companies that were comparable to Empire in size of

total capitalization, and eliminated those with *Value Line*-reported market capitalization greater than $1.4 billion. Second, I chose electric companies that currently pay dividends and have not cut them since 1995. Third, I excluded companies that plan to retain their nuclear generating assets. Fourth, I selected companies that had common stock equity ratios of at least 35 percent. Finally, I avoided including any company currently involved in a merger, because a merger will influence the value of the company's common stock and mask the investors' perceptions of the value of the company operating as a regulated utility.

Q. What were the results of your selection process?

A. Following this elimination process, I selected a group of eight electric companies that are comparable to Empire. This group of companies includes the following: Black Hills Corporation, Central Vermont Public Service, CH Energy Group, CLECO Corporation, Hawaiian Electric, IDACorp, Otter Tail Corporation and UIL Holdings.

Q. You stated that you evaluated the financial risk of Empire. What did you do to analyze the financial risk?

A. The primary indicator of the financial risk of common stock is the proportion of outstanding debt. Consequently, I first reviewed the common stock equity ratios of Empire and the comparable companies.

Q. What did this comparison show?

A. As Schedule DAM-4 shows, the common equity ratio of Empire used in this case is similar to, but slightly less than the average 2001 common stock equity ratios of the eight comparable companies.

Q. You said that you reviewed the business risk of Empire. What did you do to analyze Empire's business risk?

A. As I stated previously, I used market-based cost of capital methods. I also compared Empire's recent financial performance statistics to those of the comparable companies.

Q. Have you reviewed the recent earnings of Empire?

A. Yes, I reviewed *Value Line*'s estimates of Empire's recent and expected earnings on common stock equity. *Value Line* estimated a very sharp decline in earnings for Empire, from $1.37 per share in the year 2000 to $0.80 estimated for 2001. This decline in earnings per share would have been a significant decline in earnings from the previous year of 42 percent, but the actual decline in Empire's earnings in 2001 was even greater.

Q. What were the actual 2001 common stock earnings of Empire?

A. The actual common stock earnings of Empire for 2001, which the Company announced while this testimony was in preparation, was just $0.59. This is over 25 percent less than *Value Line* had predicted.

Q. How does Empire's common stock earnings compare to the comparable small electric companies?

A. Empire's common stock earnings in 2001 are in very sharp contrast to the average increase in common stock earnings projected by *Value Line* for the companies comparable to Empire. By contrast, the expected year-to-year growth of these companies from 2000 to 2001 was a positive 8.8 percent. As noted previously, the actual 2001 earnings just reported by Empire, which was $0.59, was even lower than projected by *Value Line.* I illustrated this comparison of the 2001 *Value Line* estimated common stock returns of Empire and the comparable companies over the past five years in Schedule DAM-5.

Q. Did you compare the percentage of returns on common stock for this group of companies to the common stock equity of Empire?

A. Yes.

Q. What did you learn from that comparison?

A. Not only has the actual earnings of Empire declined in the past year in absolute dollars, but according to *Value Line* projections, Empire's earnings were expected to decline sharply in the percentage earned on common stock equity as well. Schedule DAM-6 illustrates this point clearly. *Value Line* expected Empire's earnings as a percent of return on common stock equity to be less than every one of the comparable companies. Of course, the actual percentage return on common stock of Empire was even lower because the just announced actual common stock earnings were even less than *Value Line's* estimate. The common stock earnings in 1999, according to *Value Line,* was 11.2 percent; in 2000 it was 10.0 percent, and in 2001 it was expected to be 4.5 percent. Not only is this lower than the

common stock returns of all the comparable companies, but it is an estimated return by *Value Line* that is even less than the cost of investment-grade utility debt and 30-year Treasury Bonds. By comparison, the comparable companies, which are all smaller electric companies, have an estimated average return on common stock, according to *Value Line,* of 12.8 percent. In fact, all but Central Vermont are expected by *Value Line* to earn much larger returns in 2001.

Q. Did you investigate any other financial information similar to the common stock earnings of Empire that helped you develop a view of the Company's financial situation?

A. Yes. I reviewed the dividend levels and the payout ratios of Empire and the comparable small electric companies.

Q. What did you determine by reviewing the dividend levels of Empire?

A. It is clear that in the period I reviewed, that is since 1997, Empire has not increased its dividend to its common stock holders. (This analytical time period understates Empire's dividend situation because Empire has not increased its dividend in nine years). I also learned that among these eight small electric companies, there were three others that had not increased their common stock dividends over the 1997-2001 periods, and two others had held their dividends constant for the past four years. For example, Central Vermont Public Service, IDACorp and UIL Holdings had flat dividends throughout this five-year period. CH Energy and Hawaiian Electric have had flat dividends for the past four years. I have illustrated this comparison in Schedule DAM-7.

Q. Do you have an opinion as to how important it is to investors that the Company has not increased its dividend over this period of time?

A. I think this is very important to investors. Obviously, whether a company pays dividends regularly and whether dividends grow reliably is important to investors. But income from dividends is more important for some investors than it is for others. Consequently, the dividend policy of a company will encourage or discourage some investors, and this, in turn, will change the types of investors that will hold the common stock of a particular company. For this reason, I think it is probably more important to determine the reasons the dividends do not change over time than just to observe whether they change. My comparison of the dividend payout ratios of Empire and the comparable companies demonstrated this distinction quite clearly. This comparison is illustrated in Schedule DAM-8.

Q. What did you learn by comparing the dividend payout ratios of Empire to those of the smaller electric companies?

A. The dividend payout ratios for these companies shows the difference between companies that are not increasing their dividends because they are retaining cash from earnings for some purpose and companies that are not increasing their dividends because their earnings have not increased sufficiently to support an increase in dividends.

Q. What did you deduce about the causes of these companies' flat dividends?

A. It is apparent that flat dividends are common among these eight companies. Some of these companies have had increased earnings but have not increased their

dividends. For example, CH Energy, IDACorp and UIL Holdings have seen their payout ratio decline because of earnings growth during this period of flat dividends. Empire and Central Vermont stand out because they have seen their payout ratios increase as earnings declined and dividends were held constant during this period. The other three companies, namely Black Hills, CLECO and Otter Tail, experienced the financially healthy situations of earnings sufficient to permit a growth in dividends and at the same time a decline in the payout ratios.

Q. How did Empire compare to these other companies in 2001?

A. Empire, which has experienced very high dividend payout ratios throughout this entire period, has the highest payout ratio. In fact, Empire's 2001 earnings were not sufficient to cover its flat dividends. Given the actual 2001 common stock earnings of Empire, the dividend payout ratio to common stock earnings is 216.9 percent. Central Vermont, with an estimated payout ratio of 98 percent in 2001, is the other company of this group with a high dividend payout ratio and earnings that only scarcely support the flat dividend payout. On the other hand, Black Hills, with an estimated payout ratio of 29 percent, IDACorp, with an estimated dividend payout of 59 percent, and Otter Tail, with an estimated dividend payout of 60 percent, have current payout ratios significantly lower than the average payout for the past five years. For whatever reasons, the boards of directors of these companies are retaining more cash from earnings at a higher rate than they have in recent years.

Q. How will investors view the differences in the dividend payout ratios of these common stocks, in your opinion?

A. Investors will view companies without sufficient common stock earnings to support either growth in dividends or growth in retained earnings as companies with high risk to common stock holders. Their earnings are, in short, insufficient to support normal growth.

Q. What is the significance of this pattern of earnings to Empire?

A. Empire has unable to increase its dividend since 1993. Since Empire's earnings have grown very little in recent years, and dividends have remained constant, the Company's dividend payout ratio has remained relatively high. Although many investors pay more attention to the earnings prospects from an investment, investors interested in growth would avoid investing in a company with such a high payout ratio and constant dividend levels.

Q. You indicated that you used the DCF technique to measure the cost of common stock equity. Can you explain the reason you used this method?

A. Yes. I used the DCF theory because it is a straight-forward, theoretically sound, market measure of the cost of capital. It recognizes investors' expectations, and it uses market price information and the company's dividend and earnings performance to determine the value that an investor places on anticipated returns. Since an investor expects a return on investment in the form of dividends and capital gains, he will expect a market price equal to the present value of that

stream of earnings. Using these market relationships, we can estimate the investor's opportunity cost of his investment funds.

Analytically, we can express the investor's required rate of return as K = D/P + g, when K = cost of common equity, D = dividend per share, P = price per share and g = rate of growth of dividends, or alternatively, common stock earnings. In this expression K is a capitalization rate required to convert the stream of future returns into a current value.

Q. What, in your opinion, are important advantages in using the DCF method in this analysis?

A. One benefit of the DCF method is that it is widely recognized and accepted by analysts. Of course, it is commonly used in utility cost of capital proceedings and I believe that it is sound theoretically. Analytically, it is relatively easy to calculate and to interpret the results of these calculations.

Q. What are the difficulties in using the DCF method in a proceeding such as this, if any?

A. There are important controversies that arise from choosing among techniques in applying the theory. Consequently, an analyst's judgment is very important. Although it is theoretically sound, its application is extremely important. In the case of Empire, a DCF analysis presents some special problems, given its earnings and dividend history, dividend projections, and price history.If the DCF method is used without professional understanding and judgment, the simple calculations will produce some grossly misleading results.

Q. What are some of these issues that are important in applying the DCF theory?

A. The future growth in dividends and earnings of a company that investors anticipate may be difficult to predict from the available financial data. Obviously, the method an analyst uses to measure anticipated earnings and dividends is important. Perhaps more important is the judgment of the analyst in interpreting these measurements.

Q. Could you explain more completely what you mean when you say the judgment of the analyst may be even more important than the methods that an analyst uses to measure anticipated earnings and dividends?

A. The DCF is an analytical tool that is expressed mathematically. The functional relationships of the variables are very clear. Measuring the variables in this expression is a critical step. The most difficult one of these is to estimate the expectations of future dividend and earnings growth of the company.

Since the prospective earnings are important to any investor evaluating the potential gains from an investment, they are important to the analysis. Therefore, the selection of relevant data, when one assesses the investor expectations of future earnings and dividends, is a critical step. Failure to do so logically and consistently can produce results that are illogical.

Q. In this proceeding, how did you deal with these difficulties in applying the DCF methodology?

A. Recognizing that the objective was to determine reasonable, logical expectations of investors regarding the future earnings and dividend growth, I studied several

related data elements in my DCF analysis. I compared them among themselves and with other data and the known circumstances of the Company. I evaluated the current market conditions, trends, financial statistics, risks to investors, and other relevant market and financial information to help me evaluate the results from my DCF analysis. In short, I investigated the available data for clear consistencies and inconsistencies with sound theory and known circumstances.

Q. Mechanically, how did you estimate investor expectations in performing your DCF analysis?

A. Since informed investors seek market information from many sources, they are likely to have both historical and predicted information available to them. For this reason, I reviewed the historical dividends and earnings as well as the forecasted dividends and earnings. I weighed these data in light of Empire's unique circumstances. That is, with Empire's flat dividends and inordinately low common stock earnings in recent years, the historical data will produce misleading measures of the cost of common equity required by investors to invest in the Company.

Q. Specifically, what data did you use to estimate the growth rates of earnings and dividends for Empire in this proceeding?

A. I studied growth in earnings per share, growth in dividends per share, and growth in book value per share for the most recent five and ten-year periods and for a near-term forecast.

Q. Why did you review these various forecasted and historical growth rates?

A. As I stated previously, investors develop their expectations of future earnings and dividends from a variety of sources. Some investors may use historical information to try to perceive future market trends. Investors also utilize the forecasts of reputable financial analysts. For this reason, I reviewed the forecasts of both *Value Line* and Standard and Poor's, which are readily available to the informed investor.

Q. What were the results of your review of historical and forecasted growth rates?

A. As I pointed out previously, and as I have illustrated in Schedule DAM-9, the dividend growth rates of Empire and the comparable group are very low. In fact, in addition to Empire, CH Energy Group, Hawaiian Electric, IDA Corp and UIL Holdings all had dividend growth of 1.5 percent or less over the past five years. Of course, current investors are interested in future growth. As illustrated, *Value Line* has forecast no future growth in dividends for each of these five companies, although the existing earnings forecast for these companies is positive.

Q. How do these flat historical and forecasts of flat dividends affect the DCF calculation?

A. The flat dividend histories and forecasts will cause the mechanical calculation of the DCF using these dividend growth rates to be inordinately low. However, investors base their investment decisions on expectations of future growth, and the value of historical growth rates is a predictor for the future. Of course, if investors expect no dividend growth this will discourage some investment. This is likely to be the case for investors relying on their investment for purposes other than the appreciation of stock value. However, investors who can defer the return

on their investment will purchase the security in anticipation of the effect of the earnings growth on the future price of the stock. To this group of investors, the earnings growth forecasts will be more important than dividends. The investors who are willing to assume the risk of waiting will purchase the common stock in anticipation of future capital gain.

Q. The relatively flat dividend histories and forecasts apparently apply to utilities that are also expecting increases in common stock earnings. Why do you believe this is the case generally?

A. Payout ratios in both the gas and the electric utility industries have declined in recent years during the movements toward deregulation and increased competition. This is, of course, a rational response by management and boards of directors to conserve cash through increased retained earnings during a period of such uncertainty.

Q. Does this alteration of the payout ratios have any implications for your analysis and your conclusions?

A. Yes. It diminishes the value of using a DCF analysis based on the dividend growth rate in determining the cost of common stock for ratemaking purposes.

Q. How should an analyst adjust his or her analysis because of the changes in the relative significance of dividends and earnings growth to various investors?

A. Since there is clear evidence that investors must look beyond these flat dividends to prospective future earnings, an analyst should do likewise. The analyst should pay particular attention to the earnings growth. This is an example of the

analytical circumstances where the judgment of the analyst is more important than the mechanical results of plugging numbers into a conceptual framework, or formula, of the DCF model. Simply put, the DCF analysis based on the earnings growth estimates becomes a more reliable measure of the cost of common stock equity.

Q. How did you determine common stock prices for your DCF analysis?

A. I used common stock prices for the year 2001 as reported by *Value Line*; I also used the current prices from a recent two-week period as reported in *Yahoo Finance*. In this way, I tried to identify the cost of capital over the period of this year's markets. I also identified the cost of capital using the current market values. For comparative purposes, I developed DCF analyses for both Empire and the comparable companies using these data.

Q. What were the results of your DCF analysis?

A. The mechanical calculation of the DCF cost of capital, using the flat dividends for Empire combined with the common stock prices for the entire year 2001, produces an extremely low estimate of the cost of common stock for Empire. The results of these calculations are too low to rely upon for setting a cost of common equity in this proceeding. The low dividend growth rates affect the DCF calculation of this group of companies and Empire. I have illustrated this impact in Schedule DAM-10. There is an additional problem in this calculation of Empire's cost of common equity.

Q. What is the additional problem you are referring to?

A. **The problem concerns the use of prices from early in year 2001 to measure the** cost of common stock of Empire using the DCF method, because these prices do not reflect investor expectations. These prices may be entirely inappropriate for this analysis and this proceeding.

Q. Why do you say that these prices may be entirely inappropriate for this analysis and this proceeding?

A. These prices are not representative of investors' expectations of the potential earnings from owning shares of common stock of Empire. At the end of the year 2000 Empire was involved in merger proceedings with Utilicorp, a larger company. The prospect of successfully completing the merger helped drive up the price of Empire's common stock during the fall and early winter months of the year 2000. Consequently, when Utilicorp announced at the beginning of January that the merger would not proceed, Empire's common stock dropped precipitously. On January 2, 2001, Empire's common stock ranged from $26.5625 to $25.625 per share and closed at $25.875. This price occurred only on the first trading day of the year, January 2. On January 3, after Utilicorp's announcement, Empire opened at $20.50 per share.

Q. Are you saying the high price of Empire's stock occurred only on one day, which happened to be the first trading day of the year?

A. Yes. That is exactly what I am saying.

Q. Did you analyze the prices for Empire throughout the remainder of the year 2001?

A. **Yes, I did. As Schedule DAM-11 shows, the price dropped sharply on the second trading day of 2001 and closed most days in the neighborhood of $20 per share throughout the remainder of the year.**

Q. Have you analyzed the closing price of Empire in the beginning of 2002?

A. Yes. The stock has remained in the same trading range just above $20 so far in the early trading in 2002.

Q. You obviously found some difficulties in using the DCF calculation in estimating the cost of common equity for Empire in the proceeding. If this is so, why did you make this calculation?

A. It is still an important analysis of the cost of capital. As in the use of any tool, one should use it wisely. For example, an analyst cannot take the results of a so-called DCF calculation and use those results in a rate proceeding without interpreting the results. That would be professionally imprudent.

Q. Given your observations, how did you use these DCF results?

A. I used them in several ways to help me interpret these and other results. For example, I compared the results of Empire's DCF with that of the comparable companies over a period of time. Since the dividend-growth-rate DCF calculation is inordinately low, when compared to the interest rate on corporate debt, this is not a reliable measure for any of these small electric companies' cost of common equity. This indicates that investors generally were looking to other measures, such as earnings per share growth during this time period.

Q. **What is significant about the flat dividend levels and the anomalously high price of common stock associated with the anticipated merger?**

A. Flat dividends, when earnings are expected to grow, misrepresent the true expectations of investors, and consequently, this results in artificially low cost of common stock estimates using the DCF method. Moreover, the merger-derived high price on the first trading day of the year 2001 results in an artificially low yield, and therefore, low DCF estimated cost of common stock. Consequently, the cost of common stock, measured by the DCF analysis using the prices for the entire year of 2001, which includes the first trading day, or the flat dividends of the small electric companies that ignores the higher growth rates of these companies, will understate the true cost of common stock for any company. The anomalous prices including the first trading day in 2001 combined with the flat dividend growth rate produces grossly understated cost of common stock. These are obvious examples of why an analyst must interpret these results and apply sound, professional judgment. Schedules DAM-12 using earnings per share growth, and DAM-13 using forecasted earnings estimates, show the range of DCF cost of common stock calculations based on the prices throughout the year 2001. The low calculations for Empire are obviously from the merger influence on the Company's common stock prices for the very first trading day of the year. Again, these results require interpretation and professional judgment.

Q. What did your DCF analysis using current market prices show?

A. The current market-price-calculated DCF using the dividend growth measure was again so low that it produced a cost of common stock estimate for Empire that is

not credible, with a range from 6.11 percent to 6.21 percent. This result is illustrated in Schedule DAM-14. Of course, as mentioned previously, this non-credible result occurs because of the mechanical calculation using the dividend growth rate when it does not truly represent the expectations and requirements of investors. Notably, this applies to the other small electric companies as well. This impact is apparent when one reviews the current-cost-of-capital DCF using combined historical and projected earnings per share growth rate (Schedule DAM-15) and a current-cost-of-capital DCF using only the projected earnings per share growth rates (Schedule DAM-16).

In the first case, the current dividend yields produce a cost of common stock estimate for Empire of 10.07 percent to 10.17 percent. Using the earnings projection by *Value Line* and Standard & Poor's produces a range in the DCF cost of common stock between 10.61 percent and 12.21 percent for Empire.

Q. Can you summarize the results of your DCF calculations?

A. Yes. In general, the dividend-growth-rate DCF produced results that were so low that they are not useful for ratemaking. The market-measured costs of common equity using the earnings growth are more reliable, nevertheless. Also, the planned-merger-influenced price for Empire made the DCF calculations of the cost of capital based on year 2000 prices unreliable. Consequently, I concentrated on the DCF calculations using more recent prices and the earnings per share growth, especially the earnings growth forecasts by Standard & Poor's and *Value Line*. I believe that both the historical and the projected earnings per share growth are reasonable expectations of investors; however, in the cases of both Empire

and the comparable companies, the projected earnings per share are clearly higher than the recent growth in earnings. I have prepared a summary of these results as Schedule DAM-17.

Q. You indicated that you developed an analysis based on the CAPM model. What is the CAPM model?

A. The Capital Asset Pricing Model, or CAPM model, is based on an investor's ability to diversify by combining risky securities into an investment portfolio. It measures the risk differential between a given security and the market as a whole. The diversification of investments reduces risk to the investor. However, some risk is non-diversifiable, e.g., the market risk, and investors remain exposed to that market risk. The theoretical CAPM model is expressed as:

$$K = R_F + \quad (R_M - R_F)$$

Where: K = the required return.

R_F = the risk-free rate.

R_M = the required overall market return; and

= beta, a measure of security risk relative to the overall market.

Note that the value of market risk is the differential between the market rate and the risk-free rate. Beta is the relative measure of the risk of a security and the market as a whole. By estimating the risk differential between an individual security and the market as a whole, one can measure the relative cost of that security compared to the market as a whole.

Q. How did you use the CAPM cost of capital result in your analysis?

A. The CAPM links the incremental cost of capital of an individual company with the risk differential between that company and the market as a whole. The CAPM, which is a risk premium method, provides a very useful comparison to the DCF measured cost of common stock because it uses the current debt costs as a basis, or benchmark if you will, for measuring the cost of common stock. That is, with the CAPM an analyst may be able to determine, in broad terms, the return requirements of investors. The CAPM also is not as vulnerable to current market fluctuations as the DCF method, and it generally provides a more stable estimate over time.

Q. What is the cost of common stock for Empire that you determined using the Capital Asset Pricing Model?

A. Since I used two different approaches to estimate a CAPM cost of capital, I developed two separate calculations based on slightly different interpretations of the theory. The results of these CAPM analyses are shown in Schedules DAM-18 and DAM-19, respectively. Note that the estimated costs of the common stock for Empire are 10.89 percent and 10.09 percent from these two methods.

Q. You indicated that you reviewed current market conditions and related financial information as a basis for evaluating the results of your analysis. What did you review concerning the market conditions?

A. I looked at financial information related to Empire and market conditions generally. For example, Schedule DAM-20 shows the market-price-earnings ratio

for Empire and the comparable companies in recent years. Note the high price-to-contemporaneous-earnings ratio for Empire. The 20.4, which was *Value Line's recent* estimate for the year 2001, is especially high relative to the other companies. Nevertheless, the price-earnings ratio predicted by *Value Line* in the future is very much in line with the ratios for the other companies.

Q. The price-earnings ratio for Empire is currently much higher than the comparable companies. Does *Value Line* forecast it to be similar to the comparable companies in future years?

A. This projected decline in the price-earnings ratio probably indicates that some investors are expecting future earnings growth for Empire, but it also indicates that *Value Line* anticipates that in the future investors will value Empire's common stock similarly to that of other small electric utilities.

Q. What other market information did you review?

A. I reviewed the implications of the Federal Reserve policy of steadily lowering the short-term interest rates over the past year.

Q. What did you determine?

A. Although the short-term rates have declined steadily over the past year as a result of the Federal Reserve's policy, the interest rates on long-term bonds have been relatively constant throughout the same period. I have illustrated this in Schedule DAM-21 where I compared the 90-Day Treasury bill rate to the 30-Year Treasury Bonds rate and the Aaa Moody's Corporate Bond rate.

Q. Why is this relationship important?

A. Since the purpose of this analysis is to determine the cost of the permanent capital of Empire, it is the long-term interest rate that will have the most influence on investors in the relevant securities, including the common stock of regulated electric utilities such as Empire. Consequently, it is significant that despite the many reductions in the short-term rate, the long-term rates have declined relatively little.

Q. Did you consider any other, related market information?

A. Yes. In the post-Enron-collapse period, the market and rating agencies are reconsidering the impact of corporate debt on a company's viability and the adequacy of coverage, and in this context I evaluated the effect of the level of corporate debt and bond ratings.

Q. Why are these matters important to Empire and these proceedings?

A. The level of Empire's bond rating will influence investor's willingness to retain present securities and their acceptance of new issues. The interest coverage of Empire's debt, of course, is determined by the common stock earnings and the capital structure.

Q. What did you learn about the rating of debt of Empire in this proceeding?

A. Moody's rating of Empire's debt is a good example of the agencies' view. In May 2001, after announcing the review for downgrade previously. Moody's downgraded Empire's Long-term Senior Secured debt to Baa1 with an "Outlook Negative." To protect Empire's ability to finance its on-going business with refinancings and new issues at moderate cost, it is important to protect this minimally adequate debt rating. Simply put, the rating agencies have left Empire with no margin for missteps.

Q. Were there other factors that influenced the interpretation of your DCF results?

A. Yes. One of these influencing factors was the nature of the DCF method itself.

Q. What do you mean by the nature of the DCF method itself?

A. The DCF method, because of its theoretical basis, estimates the marginal cost of common stock equity to the Company. In that way, it is an estimate of the minimal return necessary to attract marginal, or incremental, investment in the common stock equity. However, the method does not account for any other factors that may affect the ability of the company to earn that return. There is no cushion in this return to assure that the regulated company will earn its allowed return.

Q. In your experience, is it common for regulators and analysts to recognize this characteristic of the DCF method?

A. Yes, it is. Regulators and analysts often use adjustments to compensate for the marginal cost nature of the DCF adjustment. For example, some analysts specifically apply a flotation adjustment. I did not apply a specific flotation adjustment, but I recognized the significance of Empire's recent issuance of common stock and its need for additional issuance of common stock.

Q. Did you consider any other factors in your analysis in reaching your recommended return on common stock and the overall allowed return?

A. Yes, for comparative purposes, I reviewed the recent allowed returns by other regulatory commissions.

Q. **What did this review show?**

A. I reviewed 20 allowed returns over the past year for electric utilities reported in a recent *Public Utilities Fortnightly* article. The allowed returns ranged from 9.98 percent for Entergy Mississippi to 12.9 percent for Madison Gas & Electric. The average for these 20 allowed returns was 11.35 percent. Of course, these 20 decisions included a diverse group of companies. However, this group also included four of the smaller companies that I had selected as comparable companies for my analysis of Empire. The allowed returns in all of these cases are illustrated in Schedule DAM-22.

Q. What were the allowed returns for these four companies in your group of comparable companies?

A. These companies and their allowed returns were Hawaii Electric Light, 11.5 percent, CLECO, 12.25 percent, Otter Tail, 12.0 percent, and Central Vermont, 11.0 percent. The average allowed return for these small electric utilities was 11.6875 percent.

Q. When you stated previously that you evaluated the regulatory risk of Empire, were you referring to this comparative analysis of allowed returns?

A. Yes, I was primarily. Since Empire's recent financial history is markedly less healthy than all of the comparative companies, if the allowed returns do not reach the level of other electric utilities, investors will note this deficiency. Knowledgeable investors will incorporate this risk into their decisions and act accordingly.

Q. How did you reach your recommended return in this proceeding?

A. As I indicated previously, in developing a recommended return for Empire's common stock, I relied upon the results from the DCF analyses that used the more reliable prices and earnings per share growth rates. I used the CAPM analysis as a verification and check on my DCF analysis. Of course, I evaluated all of these results in the context of current market conditions, the financial characteristics of Empire, and the empirical and theoretical characteristics of the methodologies that I used.

Q. What is your recommendation for a rate of return on common stock in this proceeding?

A. Because of the inescapable current financial statistics of Empire, I believe a return that is similar to returns awarded in other jurisdictions for companies in obviously more healthy financial circumstances is a very modest recommendation. Based on the results of my analysis, the allowed returns in other jurisdictions, and the Company's current debt rating and obvious need to issue common stock, the Company's allowed return on common stock should be 12.0 percent.

Q. Did you estimate the Company's required return on total capital that is relevant to this proceeding?

A. I have illustrated the total cost of capital of 9.94 percent associated with my recommended return in Schedule DAM-23.

Q. Did you test the adequacy of your recommendation in any way?

A. Yes. I reviewed the after tax interest coverage ratios for Empire and the comparable companies to determine if my recommended return would result in a

sufficient interest coverage. I have shown the after tax interest coverage at my recommended return in Schedule DAM-24. The after-tax coverage of Empire at 2.78 is approximately equal to the 2.5 times minimal standard that I, and most analysts, prefer. In comparison to these other small electric utilities, this interest coverage, even after raising the returns based on my recommendation, still places Empire below the middle of the group. The average for these companies is 3.35. I believe that my recommended return is sufficient to maintain and attract capital, but, under the circumstances, it is a modest recommendation. Clearly there is little margin for further adverse impacts to Empire's operations at this coverage level.

Q. Does this conclude your direct testimony at this time?

A. Yes, it does.

The Empire District Electric Company

Summary of Schedules

Schedule DAM-1

The Empire District Electric Company

Capital Structure

Pro Forma as of September 30, 2001

	Amount Outstanding	Percent of Total
Long Term Debt	$296,901,361	45.20%
Trust Preferred Securities	$48,151,458	7.33%
Common Equity	$311,839,122	47.47%
Total	$656,891,941	100.00%

Source :
The Empire District Electric Company Workpapers

Schedule DAM-2

The Empire District Electric Company

Long Term Debt

Pro Forma as of September 30, 2001

Series	Principal Amount Outstanding	Annual Cost
Bonds and Unsecured Notes:		
5.2% Pollution Control Series, Due 2013	$5,200,000	$270,400
5.3% Pollution Control Series, Due 2013	$8,000,000	$424,000
7% Series, Due 2023	$45,000,000	$3,150,000
6.5% Series, Due 2010	$50,000,000	$3,250,000
7.25% Series, Due 2028	$13,179,000	$955,478
8.125% Series, Due 2009	$20,000,000	$1,625,000
7.6% Series, Due 2005	$10,000,000	$760,000
9.75% Series, Due 2020	$2,250,000	$219,375
7.75% Series, Due 2025	$30,000,000	$2,325,000
7.2% Series, Due 2016	$25,000,000	$1,800,000
Unsecured Debt 7.70% Series, Due 2005	$100,000,000	$7,700,000
Totals	$308,629,000	$22,479,253
Premium, Discount, and Expense		$1,019,313
Total Unamortized Expenses	($11,727,639)	
Net Proceeds to Company	$296,901,361	
Total Annual Cost		$23,498,566
Embedded Cost of Long Term Debt		7.91%

Source:
The Empire District Electric Company Workpapers

Schedule DAM-3

The Empire District Electric Company

Trust Preferred Securities

Pro Forma as of September 30, 2001

Item	Principal Amount Outstanding	Annual Cost
Preferred Securities	$50,000,000	$4,250,000
Premium, Discount, and Expense	($1,848,542)	$62,840
Net Proceeds to Company	$48,151,458	$4,312,840
Embedded Cost of Trust Preferred Securities		8.96%

Source:
The Empire District Electric Company Workpapers

The Empire District Electric Company

Comparable Companies

Comparison of Common Equity Ratios

Company	1997	1998	1999	2000	2001E	Five Year Average
The Empire District Electric Company	48.9%	45.2%	40.4%	42.4%	42.0%	43.8%
Black Hills Corporation	55.7%	56.1%	57.4%	47.2%	54.5%	54.2%
Central Vermont Public Service	57.7%	57.5%	48.5%	50.0%	49.0%	52.5%
CH Energy Group	53.3%	53.3%	55.3%	56.1%	64.0%	56.4%
CLECO Corporation	49.2%	51.9%	41.0%	39.7%	41.0%	44.6%
Hawaiian Electric Industries	44.0%	43.1%	41.4%	39.9%	41.0%	41.9%
IDACorp	46.8%	44.2%	44.8%	45.9%	45.0%	45.3%
Otter Tail Corporation	47.9%	50.6%	53.9%	53.5%	57.0%	52.6%
UIL Holdings	38.0%	37.7%	44.6%	47.8%	45.5%	42.7%
Comparable Companies' Averages	49.1%	49.3%	48.4%	47.5%	49.6%	48.8%

Source: Value Line Investment Survey

Schedule DAM -4

The Empire District Electric Company

Comparable Companies

Comparison of Earnings per Share

Company	1997	1998	1999	2000	2001E	Five Year Average	Forecast '04-'06
The Empire District Electric Company	$1.29	$1.53	$1.13	$1.35	$0.59	$1.18	$1.75
Black Hills Corporation	$1.49	$1.60	$1.70	$2.37	$3.90	$2.21	$3.50
Central Vermont Public Service	$1.32	$0.18	$1.28	$1.14	$0.90	$0.96	$2.20
CH Energy Group	$2.97	$2.90	$2.88	$3.05	$3.25	$3.01	$3.50
CLECO Corporation	$1.09	$1.12	$1.19	$1.46	$1.45	$1.26	$2.00
Hawaiian Electric Industries	$2.76	$2.96	$2.89	$2.54	$3.15	$2.86	$3.75
IDACorp	$2.32	$2.37	$2.43	$3.50	$3.25	$2.77	$3.20
Otter Tail Corporation	$1.29	$1.29	$1.45	$1.60	$1.65	$1.46	$2.00
UIL Holdings	$3.27	$3.00	$3.71	$4.26	$4.10	$3.67	$4.35
Comparable Companies' Averages	$2.06	$1.93	$2.19	$2.49	$2.71	$2.28	$3.06

Sources:
Empire District Earnings Report Press Release (January 31, 2002)
Value Line Investment Survey

Schedule DAM-5

The Empire District Electric Company

Comparable Companies

Comparison of Returns on Common Equity

Company	1997	1998	1999	2000	2001E
The Empire District Electric Company	9.8%	11.3%	8.8%	9.8%	4.5%
Black Hills Corporation	15.8%	16.7%	16.8%	19.0%	19.5%
Central Vermont Public Service	8.1%	1.1%	8.0%	6.9%	5.5%
CH Energy Group	10.9%	10.4%	10.0%	10.6%	10.5%
CLECO Corporation	12.9%	12.7%	12.9%	14.9%	14.0%
Hawaiian Electric Industries	10.6%	11.4%	11.0%	9.8%	11.5%
IDACorp	12.2%	12.2%	12.1%	16.0%	14.0%
Otter Tail Corporation	14.3%	13.5%	14.1%	14.8%	15.0%
UIL Holdings	10.4%	9.4%	11.4%	12.5%	12.0%
Comparable Companies' Averages	11.9%	10.9%	12.0%	13.1%	12.8%

Source: Value Line Investment Survey

Schedule DAM- 6

The Empire District Electric Company

Comparable Companies

Comparison of Dividends per Share

Company	1997	1998	1999	2000	2001E	Growth '96-'01
The Empire District Electric Company	1.28	1.28	1.28	1.28	1.28	0.00%
Black Hills Corporation	0.95	1.00	1.04	1.08	1.12	4.10%
Central Vermont Public Service	0.88	0.88	0.88	0.88	0.88	0.00%
CH Energy Group	2.14	2.16	2.16	2.16	2.16	0.15%
CLECO Corporation	0.79	0.81	0.83	0.85	0.87	2.44%
Hawaiian Electric Industries	2.44	2.48	2.48	2.48	2.48	0.27%
IDACorp	1.86	1.86	1.86	1.86	1.86	0.00%
Otter Tail Corporation	0.93	0.96	0.99	1.02	1.04	2.91%
UIL Holdings	2.88	2.88	2.88	2.88	2.88	0.00%
Comparable Companies' Averages	1.61	1.63	1.64	1.65	1.66	1.24%

Schedule DAM- 7

The Empire District Electric Company

Comparable Companies

Comparison of Dividend Payout Ratios

Company	1997	1998	1999	2000	2001E	Five Year Average	Forecast '04-'06
The Empire District Electric Company	99.0%	85.0%	107.0%	95.0%	216.9%	120.6%	75.0%
Black Hills Corporation	63.0%	63.0%	62.0%	45.0%	29.0%	52.4%	37.0%
Central Vermont Public Service	74.0%	488.9%	72.0%	80.0%	98.0%	162.6%	52.0%
CH Energy Group	73.0%	76.0%	77.0%	73.0%	69.0%	73.6%	64.0%
CLECO Corporation	71.0%	71.0%	69.0%	57.0%	63.0%	66.2%	52.0%
Hawaiian Electric Industries	76.0%	87.0%	88.0%	84.0%	80.0%	83.0%	70.0%
IDACorp	82.0%	80.0%	78.0%	55.0%	59.0%	70.8%	60.0%
Otter Tail Corporation	75.0%	77.0%	70.0%	65.0%	60.0%	69.4%	55.0%
UIL Holdings	89.0%	96.0%	78.0%	68.0%	69.0%	80.0%	65.0%
Comparable Companies' Averages	75.4%	129.9%	74.3%	65.9%	65.9%	82.2%	56.9%

Source: Value Line Investment Survey

Schedule DAM- 8

The Empire District Electric Company

Comparable Electric Companies

Growth Rate Summary

	Value Line 1996 TO 2005 Estimate			Value Line Five Year Historical			Projections Value Line		S & P
	EPS	DPS	Book Value	EPS	DPS	Book Value	EPS	DPS	EPS
Empire District Electric	4.0%	0.0%	1.9%	2.0%	0.0%	1.5%	4.5%	0.0%	6.0%
Black Hills Corporation	11.1%	3.7%	13.1%	11.0%	3.5%	5.5%	11.0%	3.5%	15.0%
Central Vermont Public Service	5.2%	2.8%	2.4%	-10.0%	-6.0%	1.5%	17.0%	3.5%	N/A
CH Energy Group	2.1%	0.2%	2.8%	1.5%	1.0%	2.5%	3.0%	0.0%	N/A
CLECO Corporation	7.0%	2.5%	6.2%	5.5%	2.5%	4.5%	8.0%	2.5%	10.0%
Hawaiian Electric	3.8%	0.4%	2.0%	2.0%	1.5%	1.5%	5.0%	0.0%	4.0%
IDACorp	4.2%	0.0%	4.8%	7.0%	0.0%	2.5%	2.5%	0.0%	8.0%
Otter Tail Corporation	5.5%	2.4%	6.6%	4.5%	3.0%	5.0%	5.5%	2.0%	6.0%
UIL Holdings	2.9%	0.1%	2.8%	2.0%	1.0%	1.5%	3.0%	0.0%	3.0%
Comparable Companies' Averages	5.22%	1.52%	5.08%	2.94%	0.81%	3.06%	6.88%	1.44%	7.67%

Sources:
Value Line Investment Survey
Standard & Poor's Earnings Guide

Schedule DAM-9

The Empire District Electric Company

Comparable Electric Companies

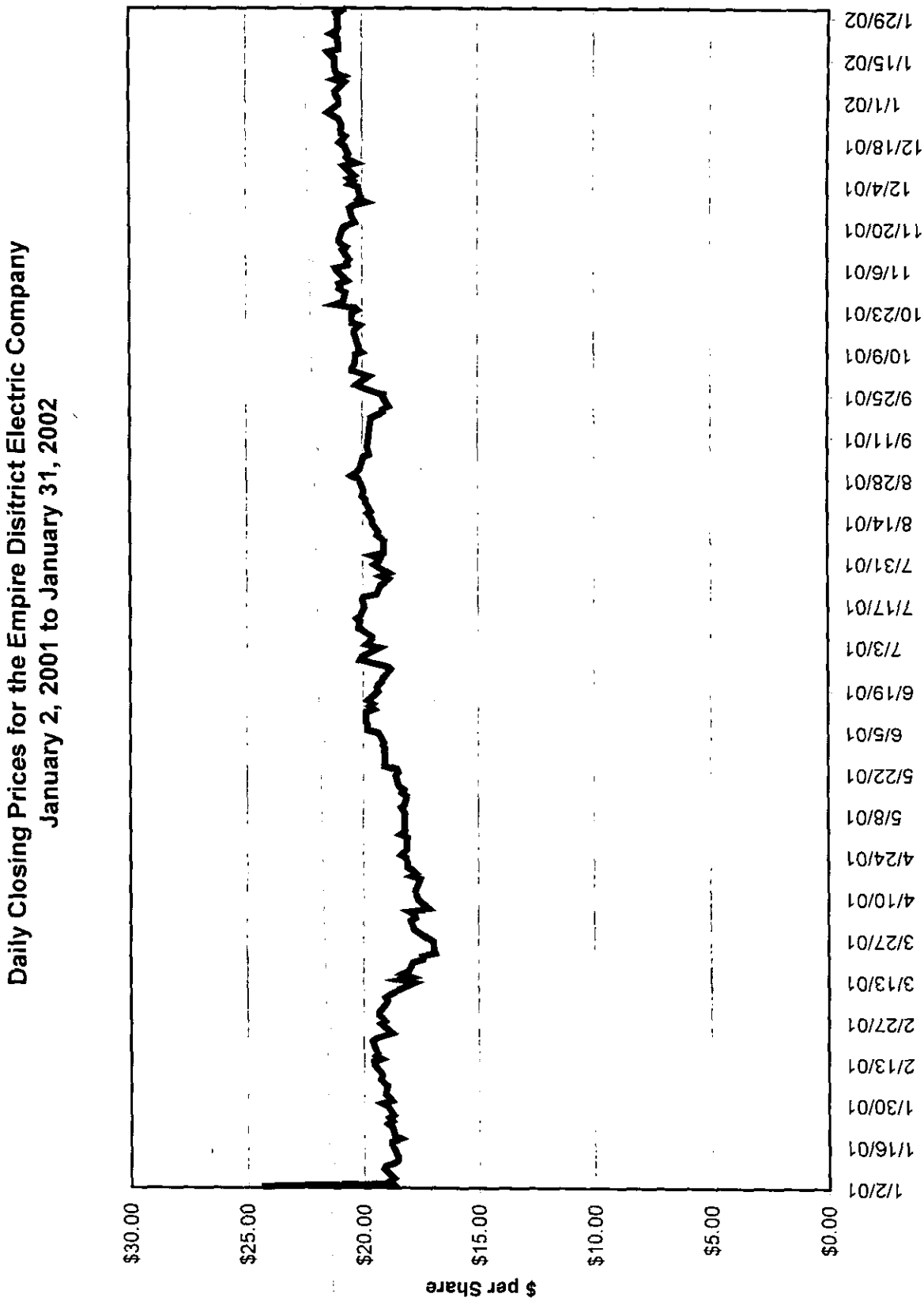
2001 Cost of Capital

	Share Prices		2001	2001 Yields		1995-97	2004-06E	Growth	Cost of Capital	
	Low	High	Dividend	Low	High	Dividend	Dividend	Rate	Low	High
Empire District Electric	17.50	26.60	1.28	4.81%	7.31%	1.28	1.28	0.00%	4.81%	7.31%
Black Hills Corporation	26.00	58.50	1.12	1.91%	4.31%	0.92	1.28	3.74%	5.65%	8.05%
Central Vermont Public Service	11.60	19.60	0.88	4.49%	7.59%	0.84	1.08	2.83%	7.32%	10.42%
CH Energy Group	38.30	45.90	2.16	4.71%	5.64%	2.12	2.16	0.21%	4.91%	5.85%
CLECO Corporation	19.30	27.30	0.87	3.19%	4.51%	0.77	0.96	2.48%	5.67%	6.99%
Hawaiian Electric	33.60	41.30	2.48	6.00%	7.38%	2.41	2.50	0.42%	6.43%	7.80%
IDACorp	33.60	49.40	1.86	3.77%	5.54%	1.86	1.86	0.00%	3.77%	5.54%
Otter Tail Corporation	23.00	31.00	1.04	3.35%	4.52%	0.90	1.12	2.42%	5.77%	6.94%
UIL Holdings	43.80	51.90	2.88	5.55%	6.58%	2.86	2.88	0.08%	5.63%	6.65%
Comparable Companies' Averages	28.65	40.61	1.66	4.12%	5.76%	1.59	1.73	1.52%	5.64%	7.28%

Source : Value Line Investment Survey

Schedule DAM- 10

Schedule DAM- 11



The Empire District Electric Company

Comparable Electric Companies

2001 Cost of Capital

	Share Prices		2001	2001 Yields		1995-97	2004-06E	Growth	Cost of Capital	
	Low	High	Dividend	Low	High	EPS	EPS	Rate	Low	High
Empire District Electric	17.50	26.60	1.28	4.81%	7.31%	1.23	1.75	3.96%	8.78%	11.28%
Black Hills Corporation	26.00	58.50	1.12	1.91%	4.31%	1.36	3.50	11.07%	12.99%	15.38%
Central Vermont Public Service	11.60	19.60	0.88	4.49%	7.59%	1.40	2.20	5.15%	9.64%	12.74%
CH Energy Group	38.30	45.90	2.16	4.71%	5.64%	2.90	3.50	2.11%	6.82%	7.75%
CLECO Corporation	19.30	27.30	0.87	3.19%	4.51%	1.08	2.00	7.05%	10.24%	11.56%
Hawaiian Electric	33.60	41.30	2.48	6.00%	7.38%	2.67	3.75	3.83%	9.84%	11.21%
IDACorp	33.60	49.40	1.86	3.77%	5.54%	2.21	3.20	4.20%	7.96%	9.73%
Otter Tail Corporation	23.00	31.00	1.04	3.35%	4.52%	1.24	2.00	5.46%	8.81%	9.98%
UIL Holdings	43.80	51.90	2.88	5.55%	6.58%	3.36	4.35	2.92%	8.47%	9.50%
Comparable Companies' Averages	28.65	40.61	1.66	4.12%	5.76%	2.03	3.06	5.22%	9.35%	10.98%

Source : Value Line Investment Survey

Schedule DAM-12

The Empire District Electric Company

Comparable Electric Companies

2001 Cost of Capital

	Share Prices		2001	2001 Yields		EPS Estimates		Cost of Capital	
	Low	High	Dividend	Low	High	Value Line	S&P	Low	High
Empire District Electric	17.50	26.60	1.28	4.81%	7.31%	4.50%	6.00%	9.31%	13.31%
Black Hills Corporation	26.00	58.50	1.12	1.91%	4.31%	11.00%	15.00%	12.91%	19.31%
Central Vermont Public Service	11.60	19.60	0.88	4.49%	7.59%	17.00%	N/A	21.49%	24.59%
CH Energy Group	38.30	45.90	2.16	4.71%	5.64%	3.00%	N/A	7.71%	8.64%
CLECO Corporation	19.30	27.30	0.87	3.19%	4.51%	8.00%	10.00%	11.19%	14.51%
Hawaiian Electric	33.60	41.30	2.48	6.00%	7.38%	5.00%	4.00%	10.00%	12.38%
IDACorp	33.60	49.40	1.86	3.77%	5.54%	2.50%	8.00%	6.27%	13.54%
Otter Tail Corporation	23.00	31.00	1.04	3.35%	4.52%	5.50%	6.00%	8.85%	10.52%
UIL Holdings	43.80	51.90	2.88	5.55%	6.58%	3.00%	3.00%	8.55%	9.58%
Comparable Companies' Averages	28.65	40.61	1.66	4.12%	5.76%	6.88%	7.67%	10.87%	14.13%

Sources:
Value Line Investment Survey
Standard & Poor's Earnings Guide

Schedule DAM-13

The Empire District Electric Company

Comparable Electric Companies

Current Cost of Capital

	Share Prices Low	Share Prices High	Current Dividend	Current Yields Low	Current Yields High	1995-97 Dividend	2004-06E Dividend	Growth Rate	Cost of Capital Low	Cost of Capital High
Empire District Electric	20.62	20.97	1.28	6.11%	6.21%	1.28	1.28	0.00%	6.11%	6.21%
Black Hills Corporation	28.77	29.37	1.12	3.81%	3.89%	0.92	1.28	3.74%	7.55%	7.63%
Central Vermont Public Service	16.67	17.07	0.88	5.15%	5.28%	0.84	1.08	2.83%	7.99%	8.11%
CH Energy Group	45.32	46.13	2.16	4.68%	4.77%	2.12	2.16	0.21%	4.89%	4.97%
CLECO Corporation	20.68	21.16	0.87	4.11%	4.21%	0.77	0.96	2.48%	6.59%	6.69%
Hawaiian Electric	40.96	41.61	2.48	5.96%	6.06%	2.41	2.50	0.42%	6.38%	6.48%
IDACorp	37.92	38.53	1.86	4.83%	4.91%	1.86	1.86	0.00%	4.83%	4.91%
Otter Tail Corporation	27.75	28.92	1.04	3.60%	3.75%	0.90	1.12	2.42%	6.01%	6.17%
UIL Holdings	52.52	53.12	2.88	5.42%	5.48%	2.86	2.88	0.08%	5.50%	5.56%
Comparable Companies' Averages	33.82	34.49	1.66	4.70%	4.79%	1.59	1.73	1.52%	6.22%	6.31%

Sources:
Value Line Investment Survey
Yahoo! FINANCE

Schedule DAM- 14

The Empire District Electric Company

Comparable Electric Companies

Current Cost of Capital

	Share Prices		Current	Current Yields		1995-97	2004-06E	Growth	Cost of Capital	
	Low	High	Dividend	Low	High	EPS	EPS	Rate	Low	High
Empire District Electric	20.62	20.97	1.28	6.11%	6.21%	1.23	1.75	3.96%	10.07%	10.17%
Black Hills Corporation	28.77	29.37	1.12	3.81%	3.89%	1.36	3.50	11.07%	14.89%	14.97%
Central Vermont Public Service	16.67	17.07	0.88	5.15%	5.28%	1.40	2.20	5.15%	10.30%	10.43%
CH Energy Group	45.32	46.13	2.16	4.68%	4.77%	2.90	3.50	2.11%	6.79%	6.88%
CLECO Corporation	20.68	21.16	0.87	4.11%	4.21%	1.08	2.00	7.05%	11.16%	11.26%
Hawaiian Electric	40.96	41.61	2.48	5.96%	6.06%	2.67	3.75	3.83%	9.79%	9.89%
IDACorp	37.92	38.53	1.86	4.83%	4.91%	2.21	3.20	4.20%	9.03%	9.10%
Otter Tail Corporation	27.75	28.92	1.04	3.60%	3.75%	1.24	2.00	5.46%	9.05%	9.20%
UIL Holdings	52.52	53.12	2.88	5.42%	5.48%	3.36	4.35	2.92%	8.34%	8.41%
Comparable Companies' Averages	33.82	34.49	1.66	4.70%	4.79%	2.03	3.06	5.22%	9.92%	10.02%

Sources:
Value Line Investment Survey
Yahoo! FINANCE

Schedule DAM- 15

The Empire District Electric Company

Comparable Electric Companies

Current Cost of Capital

	Share Prices		Current	Current Yields		EPS Estimates		Cost of Capital	
	Low	High	Dividend	Low	High	Value Line	S&P	Low	High
Empire District Electric	20.62	20.97	1.28	6.11%	6.21%	4.50%	6.00%	10.61%	12.21%
Black Hills Corporation	28.77	29.37	1.12	3.81%	3.89%	11.00%	15.00%	14.81%	18.89%
Central Vermont Public Service	16.67	17.07	0.88	5.15%	5.28%	17.00%	N/A	22.15%	22.28%
CH Energy Group	45.32	46.13	2.16	4.68%	4.77%	3.00%	N/A	7.68%	7.77%
CLECO Corporation	20.68	21.16	0.87	4.11%	4.21%	8.00%	10.00%	12.11%	14.21%
Hawaiian Electric	40.96	41.61	2.48	5.96%	6.06%	5.00%	4.00%	9.96%	11.06%
IDACorp	37.92	38.53	1.86	4.83%	4.91%	2.50%	8.00%	7.33%	12.91%
Otter Tail Corporation	27.75	28.92	1.04	3.60%	3.75%	5.50%	6.00%	9.10%	9.75%
UIL Holdings	52.52	53.12	2.88	5.42%	5.48%	3.00%	3.00%	8.42%	8.48%
Comparable Companies' Averages	33.82	34.49	1.66	4.70%	4.79%	6.88%	7.67%	11.45%	13.17%

Sources:
Value Line Investment Survey
Standard & Poor's Earnings Guide
Yahoo! FINANCE

Schedule DAM- 16

Schedule DAM- 17

The Empire District Electric Company

Comparable Electric Companies

Summary of Discounted Cash Flow Analysis

	DCF Range	
	Low	High
DCF Using Earnings and Current Share Prices		
Empire District Electric	10.07%	10.17%
Comparable Companies' Averages	9.92%	10.02%
DCF Using Projected Growth Rates and Current Share Prices		
Empire District Electric	10.61%	12.21%
Comparable Companies' Averages	11.45%	13.17%

Sources: Schedules DAM-15 and DAM-16

The Empire District Electric Company

Comparable Electric Distribution Companies

Cost of Equity : Historical Capital Asset Pricing Model

	Market Total Returns	Long-Term Corporate Bonds Return	Risk Premium	Beta	Adjusted Risk Premium	Aaa Corporate Bonds Return	Cost of Equity
Empire District Electric	15.15%	6.00%	9.15%	0.45	4.12%	6.77%	10.89%
Black Hills Corporation	15.15%	6.00%	9.15%	0.55	5.03%	6.77%	11.80%
Central Vermont Public Service	15.15%	6.00%	9.15%	0.50	4.58%	6.77%	11.35%
CH Energy Group	15.15%	6.00%	9.15%	0.60	5.49%	6.77%	12.26%
CLECO Corporation	15.15%	6.00%	9.15%	0.60	5.49%	6.77%	12.26%
Hawaiian Electric	15.15%	6.00%	9.15%	0.50	4.58%	6.77%	11.35%
IDACorp	15.15%	6.00%	9.15%	0.50	4.58%	6.77%	11.35%
Otter Tail Corporation	15.15%	6.00%	9.15%	0.60	5.49%	6.77%	12.26%
UIL Holdings	15.15%	6.00%	9.15%	0.50	4.58%	6.77%	11.35%
Comparable Companies' Averages	15.15%	6.00%	9.15%	0.54	4.98%	6.77%	11.75%

Sources :
Value Line Investment Survey
Ibbotson Associates 2001 SBBI Yearbook
Federal Reserve Statistical Release

Schedule DAM- 18

The Empire District Electric Company

Comparable Electric Distribution Companies

Cost of Equity : Size Adjusted Capital Asset Pricing Model

	Risk Free Return	Beta	Equity Risk Premium	Adjusted Equity Risk Premium	Size Premium	Cost of Equity
Empire District Electric	5.48%	0.45	7.80%	3.51%	1.10%	10.09%
Black Hills Corporation	5.48%	0.55	7.80%	4.29%	1.10%	10.87%
Central Vermont Public Service	5.48%	0.50	7.80%	3.90%	1.10%	10.48%
CH Energy Group	5.48%	0.60	7.80%	4.68%	1.10%	11.26%
CLECO Corporation	5.48%	0.60	7.80%	4.68%	0.60%	10.76%
Hawaiian Electric	5.48%	0.50	7.80%	3.90%	0.60%	9.98%
IDACorp	5.48%	0.50	7.80%	3.90%	0.60%	9.98%
Otter Tail Corporation	5.48%	0.60	7.80%	4.68%	1.10%	11.26%
UIL Holdings	5.48%	0.50	7.80%	3.90%	1.10%	10.48%
Comparable Companies' Averages	5.48%	0.54	7.80%	4.18%	0.89%	10.54%

Sources :
Value Line Investment Survey
Ibbotson Associates 2001 SBBI Yearbook
Federal Reserve Statistical Release

Schedule DAM- 19

The Empire District Electric Company

Comparable Companies

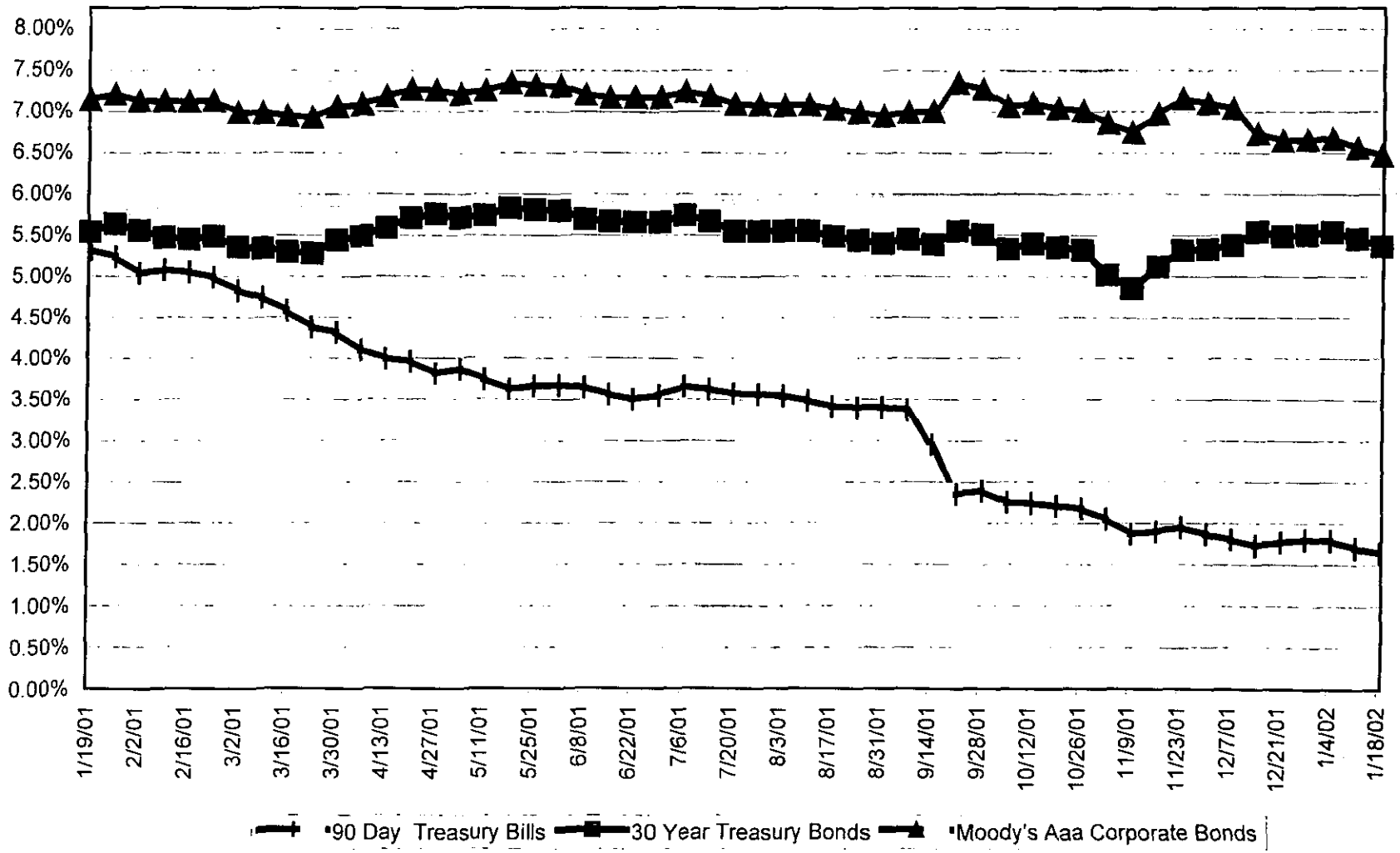
Comparison of Average Annual P/E Ratio

Company	1997	1998	1999	2000	Recent 2001	Five Year Average	Forecast '04-'06
The Empire District Electric Company	13.9	14.0	21.7	17.7	20.4	17.5	12.0
Black Hills Corporation	13.0	14.9	13.6	10.9	9.2	12.3	15.0
Central Vermont Public Service	9.3	71.7	9.5	9.7	10.9	22.2	9.5
CH Energy Group	11.5	14.6	13.5	11.4	11.7	12.5	13.5
CLECO Corporation	12.5	14.4	13.4	13.2	13.6	13.4	14.0
Hawaiian Electric Industries	13.2	13.4	12.1	12.9	12.5	12.8	10.0
IDACorp	13.6	14.4	12.7	10.9	11.9	12.7	14.5
Otter Tail Corporation	12.8	14.4	13.9	13.5	17.6	14.4	14.0
UIL Holdings	10.1	16.3	12.6	10.8	12.0	12.4	13.5
Comparable Companies' Averages	12.0	21.8	12.7	11.7	12.4	14.1	13.0

Source: Value Line Investment Survey

Schedule DAM-20

Comparison of Bond Yields



Schedule DAM- 21

The Empire District Electric Company

Electric Return On Equity Judgements

Reported by Public Utilities Fortnightly

Company Name	State	Type of Service	Rate of Return on Equity	Case, Docket, or Decision No.	Order Date
Avista	WA	Electric	11.16%	UF-991606 204 PUR4th 1	9/29/00
Central Vermont Public Service	VT	Electric	11.00%	6460 211 PUR4th 53	6/26/01
CLECO Corporation	LA	Electric	12.25%	U-21496D	8/8/01
Entergy Gulf States	TX	Electric	11.25%	22356	5/25/01
Entergy Mississippi	MS	Electric	9.98%	93-UA-301	4/27/01
Green Mountain Power	VT	Electric	11.25%	6107	1/23/01
Hawaii Electric Light	HI	Electric	11.50%	99-0207 Decision 18365 207 PURth 117	2/8/01
Madison Gas & Electric	WI	Electric	12.90%	3270-UR-110	12/22/00
Montana Power	MT	Electric	10.75%	D.2000.8.113 209 PUR4th 434	5/9/01
Northern States Power dba Xcel Energy	ND	Electric	12.00%	PU-400-00-195	12/29/00
Northwestern Wisconsin Electric	WI	Electric	12.75%	4280-ER-103	6/29/01
Otter Tail Power	ND	Electric	12.00%	PU-401-00-36 206 PUR4th 452	12/29/00
PacifiCorp	OR	Electric	11.13%	UE 111 Order No. 00-580	10/1/00
PacifiCorp	OR	Electric	10.75%	UE 116 Order No. 01-787	9/7/01
Portland General Electric	OR	Electric	10.50%	UE 115 Order No. 01-777	8/31/01
Sierra Pacific Power	CA	Electric	10.80%	D.00-12-062 206 PUR4th 248	12/21/00
UtiliCorp	KS	Electric	10.91%	01-WPEE-473-RTS	9/15/01
Western Resources dba Kansas Gas & Electric	KS	Electric	11.02%	01-WSRE-436-RTS	9/5/01
Western Resources dba KPL	KS	Electric	11.02%	01-WSRE-436-RTS	9/5/01
Wisconsin Public Service	WI	Electric	12.10%	6690-UR-112 206 PUR4th 1	12/22/01
Average Return On Equity (ROE)			11.35%		

Source: Cross, Phillip S., "Return on Equity: How Regulators Doled Out the Dollars," Public Utilities Fortnightly, Decmber 2001, pp. 28-33.

Schedule DAM- 22

Schedule DAM-23

The Empire District Electric Company

Proposed Cost of Capital

Pro Forma as of September 30, 2001

	Percent of Total	Embedded Costs	Weighted Cost of Capital
Long Term Debt	45.20%	7.91%	3.58%
Trust Preferred Securities	7.33%	8.96%	0.66%
Common Equity	47.47%	12.00%	5.70%
Total Capital	100.00%		9.94%

Source :
The Empire District Electric Company Workpapers

Schedule DAM-24

The Empire Distirct Electric Company

Comparable Electric Companies

Comparison of After-Tax Times Long Term Interest Earned Ratios

Empire District Electric	@12% ROE	2.78
Black Hills Corporation		3.89
Central Vermont Public Service		1.88
CH Energy Group		6.13
CLECO Corporation		2.36
Hawaiian Electric Industries		2.27
IDACorp		3.17
Otter Tail Corporation		4.68
UIL Holdings		2.45
Comparable Companies' Average		3.35

Source : Value Line Investment Survey

AFFIDAVIT

STATE OF OKLAHOMA)
) ss
COUNTY OF OKLAHOMA)

On the 20th day of February, 2002, before me appeared Donald A. Murry, to me personally known, who, being by me first duly sworn, states that he is the Vice President and Senior Economist for C. H. Guernsey & Company and acknowledges that the foregoing prepared testimony and the statements therein are true and correct to the best of his information, knowledge and belief.

Donald A. Murry

Subscribed and sworn to before me this 20th day of February, 2002

Pat Burnett, Notary Public

My commission expires: October 5, 2002