Exhibit No:____________
Issue: Cost of Capital
Witness: Donald A. Murry
Type of Exhibit: Surrebuttal Testimony
Sponsoring Party: Empire District
Case No.: ER-2004-0570
Date Testimony Prepared: 11/04/04

THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

FILED[3]
DEC 2 8 2004
Missouri Public
Service Commission

SURREBUTTAL TESTIMONY
OF
DONALD A. MURRY, Ph.D.

NOVEMBER 2004

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

Exhibit No. 13
Case No(s). ER-2004-0570
Date 12-06-04 Rptr XF

Exhibit No:_____________
Issue: Cost of Capital
Witness: Donald A. Murry
Type of Exhibit: Surrebuttal Testimony
Sponsoring Party: Empire District
Case No.: ER-2004-0570
Date Testimony Prepared: 11/04/04

THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

SURREBUTTAL TESTIMONY
OF
DONALD A. MURRY, Ph.D.

NOVEMBER 2004

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

C. H. GUERNSEY & COMPANY

ENGINEERS - ARCHITECTS – CONSULTANTS

OKLAHOMA CITY, OKLAHOMA

BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2004-0570

Surrebuttal Testimony

Of

Donald A. Murry, Ph.D.

Q. WHAT IS YOUR NAME?

A. My name is Donald A. Murry.

Q. ARE YOU THE SAME DONALD A. MURRY WHO FILED DIRECT TESTIMONY AND REBUTTAL TESTIMONY PREVIOUSLY IN THIS PROCEEDING BEFORE THIS COMMISSION?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. I have prepared surrebuttal testimony in response to the rebuttal testimonies of Commission Staff ("Staff") witness Mr. David Murray and Office of Public Counsel ("Public Counsel") Witness Travis Allen in this case for Empire District Electric Company, also referred to as "Empire" and the "Company." I have also provided schedules that correct my Rebuttal Schedules DAM-4 and DAM-9 regarding Standard & Poor's financial metrics.

Q. PLEASE SUMMARIZE YOUR SURREBUTTAL TESTIMONY OF STAFF WITNESS MR. MURRAY.

A. My surrebuttal of Mr. Murray's rebuttal testimony addresses Mr. Murray's misunderstanding of the relationship between dividend policy, the cost of capital, and allowed returns--including his inappropriate recommendation regarding Empire's dividend policy--and his criticism of my application of the DCF and CAPM models. He also specifically compared my present testimony to testimony in a previous case.

Q. YOU STATED MR. MURRAY DOES NOT UNDERSTAND THE RELATIONSHIP BETWEEN DIVIDEND POLICY, THE COST OF CAPITAL, AND ALLOWED RETURNS. WHAT DO YOU MEAN?

A. Mr. Murray appears to be on a crusade to change utility industry dividend policy, or at least that of Empire, to suit his belief that lower dividends, and therefore lower payout ratios, will somehow lower a utility's cost of capital. His assertions regarding the relationship between dividend policies and the cost of capital are simply theoretically and factually wrong.

Q. PLEASE EXPLAIN.

A. On page 36, line 9 of his rebuttal testimony, Mr. Murray refers to "...the kind of problem that Empire is currently experiencing." Mr. Murray then cites the following passage, regarding dividend payout ratios, from *The Analysis and Use of Financial Statements:*

> Although this example may appear unrealistic, it is a reasonable description of the plight of public utility companies (gas, electric, water) in the United States. To attract investors, these firms historically paid out most of their earnings as dividends. To finance growth, they periodically sold additional common shares. As a result, EPS growth rates were low. These firms were trapped in a vicious cycle. If they reduced their dividend rates, their EPS growth rates would rise, and they might be considered growth companies rather than bond substitutes.
>
> In recent years, some utilities have reduced their dividends or restricted dividend growth to increase retained earnings available for new investment. Other utilities have long been successful in promoting themselves as growth companies by paying low dividends and/or stock dividends and retaining their earnings for growth.

This passage, however, simply states the normal condition of the utility industry and is neither an indictment of the industry nor Empire, and it does not link the dividend payout rates to the cost of capital.

Historically, utilities have had high payout ratios even though they are a capital-intensive industry. The first three words of the second sentence of the passage, "To attract investors...," explain utility industry dividend practice. The utility industry developed this capital formation niche over time, and it is simply a characteristic of the industry. It is interesting to note that the passage was written in 1998 when utilities generally were trying to recreate themselves as growth companies. Such thinking has changed and the current mantra in the industry is "back to basics."

Q. **WILL A DIVIDEND REDUCTION CHANGE THE COST OF CAPITAL AS A GENERAL PROPOSITION?**

A. Theoretically, according to the arguments set forth by Modigilani and Miller as cited in my rebuttal testimony (Murry Rebuttal, page 9, line 5), all things equal, a dividend reduction will not change the cost of capital absent a change in relevant risk. According to Modigliani and Miller, assuming efficient financial markets, the payout of dividends versus the retention of earnings has no effect on the investor's required return. This is known as the "Irrelevance of Dividends" position and is accepted in financial circles. Furthermore, in the past, many analysts argued the effects of taxes mitigated the arguments of Modigliani and Miller. However, recent changes in the tax law to equalize taxes on dividends and capital gains have probably marginalized such arguments. According to the Irrelevance of Dividends position, even with a dividend reduction, one would not expect rate of return allowed for ratemaking purposes to change.

Q. **SHOULD MR. MURRAY HAVE BEEN AWARE THAT REDUCING THE DIVIDEND ON EMPIRE'S COMMON STOCK WILL NOT LOWER THE COST OF CAPITAL?**

A. Mr. Murray could have been aware of the mathematical example included in his citation from *The Analysis and Use of Financial Statements* attached to his testimony (Murray Rebuttal, Schedule 7). In that example, both the high payout and low payout firms have the same net income. If one equates net income to the revenue requirement, it is shown that the change in the payout ratio does not result in a change in the revenue requirement. All other things being equal, a change in the dividend payout ratio does not lower the cost of capital as claimed by Mr. Murray (Murray Direct, page 22, lines 12-15).

Q. **ON PAGE 35 LINE 20 OF HIS REBUTTAL TESTIMONY, MR. MURRAY STATES,**

> **IF ANYTHING, EMPIRE'S RESISTANCE TO CUTTING ITS DIVIDEND IN ORDER TO ACHIEVE A HEALTHIER PAYOUT RATIO CAUSES IT TO HAVE TO ISSUE MORE COSTLY NEW COMMON EQUITY, IN ORDER TO RESTORE THE EROSION THAT IT CAUSED TO ITS COMMON EQUITY BALANCE BY HAVING NEGATIVE RETAINED EARNINGS....**

DO YOU AGREE WITH MR. MURRAY'S POSITION THAT EMPIRE'S DIVIDEND POLICY HAS CAUSED IT TO ISSUE MORE COSTLY COMMON EQUITY?

A. No. The dividends have been flat since 1993. The evidence is very clear. Empire's "erosion" in the "common equity balance" is the result of low common stock earnings, as I illustrated in my direct testimony, Schedule DAM-5.

Q. HOW WOULD YOU CHARACTERIZE EMPIRE'S DIVIDEND POLICY?

A. Empire hardly could have a more conservative dividend policy. In light of this lengthy history of flat dividends, it is an incredible assertion that the dividend policy of Empire is not in line with the industry average. Other comparable electric utilities have had flat dividends over the past five years, but this apparently has been in order to conserve more cash. In the case of Empire, however, the dividend payout ratio is very high relative to the industry average because the earnings per share have declined. Given this dividend history, the only rational conclusion one can draw from these data is that common stock earnings fall short of industry norms. This is in direct contradiction to Mr. Murray's conclusion that Empire's dividend is too high. When placing Empire on CreditWatch with negative implications, Standard and Poor's noted in its September 28, 2004, report that Empire "suffers from relatively low allowed ROE's, receives low depreciation allowances, and lacks a fuel-adjustment clause to help shield the company from its markedly increased natural gas dependence." Contrary to Mr. Murray's recommendation, the answer to Empire's dilemma is to increase earnings--not cut the dividend. This can be achieved through adequate rate relief and increasing the opportunity to achieve allowed earnings by addressing the regulatory practices addressed by Standard and Poor's. He also misrepresented market information that I supplied in my rebuttal testimony concerning the effects of a reduction in dividends.

Q. **HOW DID MR. MURRAY MISREPRESENT YOUR REBUTTAL TESTIMONY?**

A. On page 37, line 3 of his rebuttal testimony Mr. Murray States, "Dr. Murry studied five utilities that cut their dividends and indicates that these companies have experienced an increased cost of capital as a result."

Q. **HOW DO YOU RESPOND?**

A. I studied those five utilities solely to observe the change in their stock price after they cut their dividend not to evaluate their cost of capital. Mr. Murray further mistakenly computed the cost of Puget before and after a dividend cut, and concluded (See Murray Rebuttal, page 42, line 25), "...Puget's current cost of common equity, using the average projected growth rates from the same three sources, is 10.90 percent, almost 200 basis points less than it was at the end of 2001. He concluded that this calculation did "not confirm" the data I presented concerning stock prices and dividend cuts.

Q. **WHAT IS WRONG WITH MR. MURRAY'S POSITION?**

A. The most obvious question to ask about his calculation is simply how he identified the market effects of post-9/11 because this is the base period for his calculations. This point also reveals a more fundamental problem. Isolating cause and effect relationships is a difficult part of any analysis. First year economics students are cautioned not to fall victim to the *post hoc ergo proctor hoc*, or "after this, therefore, because of this" fallacy. Simply because one event precedes another is not necessarily proof that the first event is the cause of the second. There are innumerable factors that could have affected Puget's cost of equity between 2001 and today. Putting aside the soundness of Mr. Murray's cost of equity analysis, to contend that the impact associated with a dividend cut is not negative because the cost of equity is lower today than it was in 2001 is, at best, naïve.

Q. **YOU MENTIONED THAT MR. MURRAY CRITICIZED YOUR CAPM ANALYSIS IN**

HIS REBUTTAL TESTIMONY. WHAT WAS THE NATURE OF THIS CRITICISM?

A. On page 45, lines 16-20 of his rebuttal, Mr. Murray stated,

> The adjustment for size premium that Dr. Murry advocates is based on a study of all of the stocks in the New York Stock Exchange, The American Stock Exchange, and the NASDAQ [sic] National Market. The study did not apply specifically to regulated utilities. Annie Wong, Associate Professor at Western Connecticut State University, performed a study that refutes the need for an adjustment based upon the smaller size of public utilities.

Q. IS ANYTHING WRONG WITH MR. MURRAY'S POSTION CONCERNING THE SIZE ADJUSTMENT FOR THE CAPM ANALYSES?

A. Yes. I think that his position has two significant problems. First, the source that I used for my CAPM analysis is the same as the one that Mr. Murray used to calculate his CAPM, i.e., the Ibbotson Associates data set. Significantly, as I pointed out in my rebuttal testimony, Rebuttal Schedule DAM-5, page 3 of 3, this source calls for the application of a small firm adjustment to compensate for a statistical bias in the data. He has simply chosen to ignore the cautions of his data source. Second, Mr. Murray is asking the Commission to ignore reams of academic research in lieu of one minor publication. In fact, the source that Mr. Murray cites by Professor Wong, (See Murray Rebuttal, page 45, lines 19-25 and page 46, lines 1-4), merely failed to corroborate the number of other studies reporting the small firm bias in the CAPM for utility stocks. Professor Wong stated in the same location cited by Mr. Murray, "After controlling for equity values there is some weak evidence that firm size is a missing factor from the CAPM for the industrial but not for the utility stocks." Professor Wong's failure to find the evidence that the bias exits, when other researchers have done so convincingly, does not mean that the bias does not exist. The Commission need only look at the brief survey in my direct testimony to realize that the size-effect in the CAPM is real, and it affects all companies, including utilities.

Q. HAS ANYONE PERFORMED ANY STUDIES THAT SHOW THAT SMALL UTILITIES HAVE THIS SIZE BIAS ASSOCIATED WITH THEM?

A. Yes. Ibbotson Associates, which is the same source that Mr. Murray used in his analysis, conducted a test across industries to see if this size bias exists in a variety of industries. Ibbotson Associates found that the CAPM understated returns for small utilities by 312 basis points. I have attached the table showing these results as Surrebuttal Schedule DAM-1 showing the "Excess Return" for SIC Code Number 49 for utilities. Neither I nor Ibbotson Associates added that large an adjustment to the CAPM. However, this is clear evidence that the bias is real, and that one must account for it in assessing the cost of capital for a utility when using the CAPM method.

Q. YOU INDICATED THAT MR. MURRAY COMPARED YOUR PRESENT TESTIMONY TO TESTIMONY FOR EMPIRE IN A PREVIOUS RATE CASE?

A. Yes. On page 34, lines 18-20 of his rebuttal, Mr. Murray observed: "Dr. Murry, on the other hand, chose not to reflect this lower cost of common equity recommendation from the last case downward."

Q. IS HIS OBSERVATION ACCURATE?

A. Yes, because the same risk profile for Empire exists now as it did in the last rate case. In fact, with Empire on Standard & Poor's Credit Watch Negative list pending the outcome of this proceeding, one could say that Empire's risk profile has increased. Leaving Mr. Murray's bombast aside, a casual comparison of my DCF analysis in the last case to the current one reveals that not much has changed.

Q. HOW DO THE RESULTS OF YOUR COST OF CAPITAL ANALYSIS IN THE PRESENT CASE COMPARE TO THE LAST EMPIRE CASE?

A. The results are almost identical because the market circumstances are similar. For example, long-term interest rates, i.e. the AAA corporate and the 10-Year and 30-Year Treasury bond, are all approximately at the same levels now as they were at the time of the previous case. I compared my cost of capital analyses in Surrebuttal Schedule DAM-2 to show that little changed between Empire's last case, Case No. ER-2002-424, and the present case, Case No. ER-2004-0570. The

DCF analysis generally stayed the same with the longer 52 week DCF slightly increasing and the short two-week DCF slightly decreasing. The results of the CAPM analyses are far more telling. While the historical CAPM cost of capital essentially stayed the same, the sized-adjusted CAPM increased considerably by 100 basis points.

Q. MR. MURRAY TOOK ISSUE WITH YOUR EMPIRE STOCK PRICES. ON PAGE 28, LINES 21 AND 22 OF HIS REBUTTAL TESTIMONY HE SAID, "CLEARLY A STOCK PRICE NEAR THE $20 LEVEL IS MORE REFLECTIVE OF EMPIRE'S STOCK PRICE IN THE RECENT PAST." HOW DID DAVID MURRAY'S ASSESSMENT REFLECT YOUR DCF ANALYSES IN BOTH CASES?

A. Close inspection shows that Empire's stock price has declined from the previous case to the current one. On Surrebuttal Schedule DAM-2, I compared the 52 Week range and the two-week range of Empire's stock price in both rate proceedings. In the previous rate case, the range I used for Empire's stock price in my current analysis was $20.62 and $20.97 per share. Mr. Murray insisted that I use a price in the current range of $20 per share so I took the two weeks prior to his filing of direct testimony as an appropriate time period. The range Mr. Murray desires to use is about $20.55 to $20.63 per share. Essentially, it records no change in share prices in three years. The prices over a longer period are even more revealing. As the schedule shows, the range in 2001 was $17.50 to $26.60. The current range is a much lower $17.00 to $22.45. Clearly, the market appears to have assessed that Empire's common stock as more risky now than at the time of the previous case.

Q. WHAT IS YOUR RESPONSE TO MR. ALLEN'S REBUTTAL TESTIMONY?

A. Mr. Allen, at pages 42-43 of his rebuttal testimony, listed six "concerns" with my analysis. These are as follows:

> 1) Allowed equity returns in other jurisdictions are not appropriate benchmarks….2) Use of a 6.00% growth rate drastically overstates investor expectations. 3) Used stale stock price data in DCF analysis. 4) Performed in appropriate size adjustment in first CAPM analysis. 5) Incorrectly used an inflated market return in second CAPM analysis. 6) Inappropriately used two proxies for the risk-free rate in second CAPM analysis.

I have prepared responses and clarifications for each of Mr. Allen's "concerns."

Q. PLEASE EXPLAIN YOUR RESPONSE TO MR. ALLEN'S CONCERN ABOUT THE USE OF EQUITY RETURNS IN OTHER JURISDICTIONS AS A BENCHMARK IN A REGULATORY PROCEEDING.

A. Mr. Allen stated on pages 3-4 of his rebuttal testimony that the allowed returns in other jurisdictions may not equal the cost of capital of a utility such as Empire. He does not explain, however, why his recommended allowed return on common stock for Empire, a utility that has not successfully earned its allowed return and that has not increased its dividend for 11 years, is so much lower than the returns allowed in other jurisdictions. On the surface, his recommended allowed return is out of line with the allowed returns for utilities that appear to be lower risk and in a stronger financial position than Empire.

Q. HAS THE COMMISSION EVER CONSIDERED EQUITY RETURNS AWARDED IN ANY OTHER JURISDICTION IN ESTABLISHING A RETURN FOR A MISSOURI JURISDICTIONAL UTILITY?

A. Yes. In Case No. GR-2004-0209 involving Missouri Gas Energy the Commission considered the fact that, as reported by Regulatory Research Associates, the average allowed return in the gas utility industry for 2002 and 2003 was 11 percent and for the first quarter of 2004 it was 11.1 percent (See Report and Order issued September 21, 2004, page 18).

Q. BY WAY OF COMPARISON WHAT WAS THE AVERAGE ALLOWED RETURN ON EQUITY FOR THE ELECTRIC UTILITY INDUSTRY AS REPORTED BY REGULATORY RESEARCH ASSOCIATES FOR THE FIRST QUARTER OF 2004?

A. According to the Regulatory Research Associates, the average allowed return for electric utilities during the first quarter of 2004 was 11.0 percent.

Q. ONE OF MR. ALLEN'S CONCERNS IN HIS REBUTTAL TESTIMONY DEALS WITH A "6.00% GROWTH RATE" THAT DRASTICALLY OVERSTATES INVESTOR

EXPECTATIONS. IS HE CORRECT IN HIS CONCERN ABOUT THIS GROWTH RATE?

A. No. His concern and his explanation are both in error. First, on pages 6-7 of his rebuttal testimony he offers only a lame explanation that Empire's history of a high payout ratio will prevent this level of growth in earnings. What this means is that Empire's inability to earn its allowed return in the past will prevent it from this level of growth in the future. Of course, his logic is precisely backwards. The dividend level has been flat for 11 years. The lower earnings have caused the high dividend payout ratio. Furthermore, going forward into the future, the near-term growth in earnings is independent of the historical payout ratio. Second, Mr. Allen presents his opinion that six percent is an unreasonable growth rate in earnings. Of course, the opinion of investors is the one that counts, not Mr. Allen's. *Value Line* is a widely available service followed by many investors, and it undoubtedly influences investor opinions. This is the reason that I used these earnings per share growth estimates in my testimony. In any event, Mr. Allen appears to be confused. He seems to wish to substitute his personal opinion regarding Empire's growth rate for the opinion of the investors, which is what he should be trying to determine.

Q. **WHY DO YOU STATE THAT MR. ALLEN WAS TRYING TO SUBSTITUTE HIS OPINION FOR THE OPINION OF VALUE LINE INVESTOR'S SERVICE?**

A. He provided no analysis to support his rejection of *Value Line's* estimated growth rate. In fact, from the questions from the Public Council at my deposition in this case on November 10, 2004 and a subsequent Data Request No. 2159, I believe that Mr. Allen may not understand the significance of *Value Line* forecasts in a DCF analysis for ratemaking. I have included this data request and my response as Surrebuttal Schedule DAM-3, which illustrates that research shows "...Value Line forecasts have considerably more explanatory value in a DCF model."

Q. **DID YOU CHECK ANY OTHER ANALYSTS TO SEE WHAT THEIR EARNINGS FORECASTS WERE?**

A. Yes. I looked at Zacks and FirstCall/Thomson, two services I do not normally use in my discounted cash flow analysis. Zacks has forecasted earnings per share growth over the next five years of five percent for Empire and five percent for the electric utility industry. Likewise, FirstCall/Thomson, which Mr. Allen used in his direct testimony, has forecasted for the industry a 5.4 percent growth rate. These are in line with *Value Line*.

Q. WHAT IS YOUR RESPONSE TO MR. ALLEN'S CONCERN ABOUT "STALE STOCK PRICE DATA?"

A. Mr. Allen stated, page 12, lines 3-5 of his rebuttal testimony, "Witness Donald A. Murry filed his direct testimony on April 30, 2004, to say that data from January 2004 was representative of current investor expectations on April 30, 2004 is a stretch." Mr. Allen has a point.

Q. WHAT DO YOU MEAN?

A. Market prices for common stock fluctuate over time, which is why viewing the range of prices over a period of time is relevant to this proceeding. After all, rates from this proceeding may remain in effect for a period of time measured in years, and taking a sample of prices from an ephemeral market is not sound regulatory policy. The prices from the period that Mr. Allen questions present a good example. In Surrebuttal Schedule DAM-4, I have graphed the closing prices of Empire's stock since the beginning of 2004. As one can see from the graph, the average closing price for the time period that I used, January 26 through February 6, is $22.00 per share. Mr. Allen called this stale data and suggested that I use price data closer to the filing date of April 30, 2004. However, the average price for Empire's common stock for the two weeks ending April 30, 2004 was $21.47 per share. If I had the benefit of foresight to know what share prices would be when Mr. Allen filed his direct testimony, then I could have used an average closing price of $20.42 per share. As the graph shows, between February and June 2004, the stock of the Empire lost approximately fifteen percent of its market value.

Q. IF YOU HAD USED THE AVERAGE STOCK PRICE FOR EMPIRE AT THE TIME OF MR. ALLEN'S TESTIMONY IN YOUR DCF CALCULATIONS, HOW WOULD THAT HAVE AFFECTED YOUR ANALYSIS?

A. The fifteen percent lower market price would have increased the DCF results. The lower share price reflects a higher level of risk for Empire. Hence, over that period, the cost of capital increased. In all, the cost of common equity increased approximately 45 basis points from the time I filled my direct testimony and when Mr. Allen filed his direct testimony.

Q. ARE YOU RAISING YOUR RECOMMENDED ALLOWED RETURN IN THIS PROCEEDING BECAUSE OF MR. ALLEN'S ARGUMENT THAT YOU SHOULD UPDATE YOUR DCF ANALYSIS TO MORE CURRENT PRICES?

A. No, these market movements are not a basis for me to change my recommended allowed return. At the time that I prepared my testimony, I anticipated prospective market changes, and these changes are consistent with my recommendation that will enable these rates from this case to stay in effect for a period of time. I am recommending an allowed return that should be sufficient during further market gyrations. This fluctuating market price illustrates why Mr. Allen's concern is misguided for a regulatory proceeding.

Q. WHAT IS YOUR RESPONSE TO MR. ALLEN'S CONCERN ABOUT YOUR APPLYING A SIZE ADJUSTMENT IN YOUR CAPM ANALYSIS?

A. On page 13, lines 12-15 of his rebuttal testimony, Mr. Allen, in a sweeping manner, stated that, "...any risk associated with Empire's small size is already factored into its market derived stock price and is therefore already factored into its beta and CAPM return. Consequently, there is no need to make a size based risk adjustment." This statement is false and merely demonstrates that Mr. Allen continues to ignore the size bias in the data and the method he used in his CAPM calculations. I pointed this out on page 19, lines 16-19, of my rebuttal testimony.

Mr. Allen may wish that the small firm bias does not exist in his CAPM application, but wishing that a statistical bias does not exist, unfortunately, does not make it go away. The analytical findings regarding this bias are many and overwhelming. As I pointed out previously and in my Rebuttal Schedule DAM-5, page 3 of 3, a 1.70 percent upward adjustment for "Long-term Returns in Excess of CAPM" for a Low-Cap Company the size of Empire is appropriate. As I explained this schedule in my rebuttal testimony, it includes pages from an Ibbotson Associates publication, and this is the source of the data that both Mr. Allen and Mr. Murray used in their CAPM analyses. Consequently, Mr. Allen's position that size is incorporated in the beta is without either theoretical or empirical support and is nothing more than just an unsupported opinion.

Q. YOU STATED THAT MR. ALLEN ALSO EXPRESSED CONCERN THAT YOUR CAPM USED AN INFLATED MARKET RETURN. WHAT IS YOUR REPONSE TO THIS CONCERN?

A. Mr. Allen, at page 14, lines 2-7 of his rebuttal testimony, criticized me for averaging the arithmetic return of large and small company stocks from Ibbotson Associates as an estimate of a long term market return. Apparently, he does not believe that the *Value Line* beta applies to small stocks. However, his argument overlooks the more important point that small companies, such as Empire, are also in the equities markets, and his recommending that they be ignored is illogical. Given the history of the Public Counsel in these proceedings, I also find his position ironic.

Q. WHY DO YOU CALL MR. ALLEN'S POSITION REGARDING THE AVERAGING OF SMALL AND LARGE COMPANY COMMON STOCK RETURNS FROM IBBOTSON ASSOCIATES IRONIC?

A. I found Mr. Allen's concern ironic because my calculation was precisely the one that Mr. Mark Burdette, the OPC cost of capital witness, used in the last Empire rate case, (Case No. ER-2002-

424). In that case, Mr. Burdette, when describing the market return in his CAPM analysis, stated on page 18, lines 14-17 of his direct testimony:

> I used an estimate of overall return on the market (R_m) of 15.0%. This value is the average of the arithmetic means of the market returns of Large Company Stocks (12.7%) and Small Company Stocks (17.3%) for the years 1926-2001, as calculated and reported by Ibbotson & Associates."

Moreover, contrary to Mr. Allen's stated position on page 14, line 14-15 of his present testimony concerning *Value Line* betas, Mr. Burdette applied *Value Line* betas in his CAPM calculations for Empire, a small utility.

Q. COULD YOU TELL FROM MR. ALLEN'S TESTIMONY WHY THE PUBLIC COUNSEL COST OF CAPITAL WITNESSES MAY HAVE CHANGED CAPM METHODOLOGIES FROM ONE EMPIRE CASE TO THE NEXT?

A. No. I could not.

Q. YOU STATED THAT MR. ALLEN ALSO HAD SOME CONCERN ABOUT YOUR USING TWO PROXIES FOR RISK-FREE RATES. WHAT IS THE NATURE OF HIS CONCERN?

A. Mr. Allen incorrectly concluded that the corporate bond rates that I used in my CAPM analysis were "risk free rates." In one case, I used the historical corporate bond rate to calculate the historical risk premium for equity returns over corporate bonds. In the second instance, I used the current corporate bond rate to calculate the current cost of capital. This is an "apples-to-apples" relationship. His comment is simply irrelevant.

Q. WHAT CORRECTIONS HAVE YOU MADE TO YOUR REBUTTAL SCHEDULES?

A. On Surrebuttal Schedules DAM-5 and DAM-6 I have revised Rebuttal Schedules DAM-4 and DAM-9. These revisions correct calculation errors regarding the Funds From Operations ("FFO") Interest Coverage metric associated with Mr. Murray's and Mr. Allen's recommendations and correspond with my rebuttal testimony on page 6, lines 18-21 and page 17, line 9. The revisions show both Mr. Murray's and Mr. Allen's recommendations result in FFO interest coverage of 3.54 times. Such a result is in the lower portion of S&P's guideline of 3.0-4.2 times for a utility with Empire's business profile. Consequently, my recommendation is not affected given the totality of the analysis regarding the S&P metrics and guidelines.

Q. **DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

A. Yes.

The Empire District Electric Company

List of Surrebuttal Schedules

Surrebuttal Schedule DAM-1:	Table 7-14 from *Ibbotson Associates' 2004 SBBI Yearbook: Valuation Edition*
Surrebuttal Schedule DAM-2:	Comparison of Company Witness Donald A. Murry's Financial Analysis in Both of Empire's Rate Cases
Surrebuttal Schedule DAM-3:	Response to Office of the Public Counsel Data Request No. 2159
Surrebuttal Schedule DAM-4:	Chart of Daily Closing Prices for the Empire District Electric Company 2004
Surrebuttal Schedule DAM-5:	Revised Rebuttal Schedule DAM-4
Surrebuttal Schedule DAM-6:	Revised Rebuttal Schedule DAM-9

Surrebuttal
Schedule DAM - 1

Table 7-14 (continued)

Size Effect within Industries
Summary Statistics and Excess Returns

(Through Year-end 2003)

		Small Company Group			
SIC Code	Description	Geometric Mean	Arithmetic Mean	Standard Deviation	Excess Return
10	Metal Mining	8.06%	16.22%	46.62%	4.84%
13	Oil and Gas Extraction	11.35%	19.86%	47.73%	6.97%
15	Building Construction-General Contractors & Op. Builders	5.37%	15.17%	44.92%	-3.81%
16	Hvy. Construction Other than Bldg. Construction-Contractors	18.47%	23.76%	38.45%	13.67%
20	Food and Kindred Spirits	11.96%	15.54%	29.89%	2.72%
22	Textile Mill Products	9.48%	15.08%	34.67%	2.95%
23	Apparel & other Finished Products Made from Fabrics & Similar	5.35%	11.36%	38.68%	-1.52%
24	Lumber and Wood Products, Except Furniture	11.42%	21.97%	54.51%	9.59%
25	Furniture and Fixtures	8.04%	12.34%	30.22%	-0.70%
26	Paper & Allied Products	11.26%	17.40%	41.19%	3.53%
27	Printing, Publishing and Allied Products	16.34%	19.32%	25.42%	5.71%
28	Chemicals and Allied Products	13.70%	19.33%	40.10%	5.15%
29	Petroleum Refining & Related Industries	12.41%	16.83%	31.76%	3.56%
30	Rubber & Miscellaneous Plastics Products	12.75%	17.35%	33.46%	3.77%
31	Leather & Leather Products	11.26%	16.47%	34.85%	-0.30%
32	Stone, Clay, Glass & Concrete Products	9.62%	14.64%	33.81%	2.42%
33	Primary Metal Industries	12.03%	17.61%	38.56%	5.97%
34	Fabricated Metal Products, Except Machinery & Trans. Equip.	10.92%	16.48%	37.03%	4.94%
35	Industrial & Commercial Machinery & Computer Equipment	12.23%	17.62%	36.23%	3.59%
36	Electrical Equipment & Components, Except Computer	12.50%	20.69%	48.34%	6.78%
37	Transportation Equipment	12.27%	18.65%	38.67%	3.31%
38	Measuring, Analyzing & Controlling Instruments	13.29%	18.36%	35.38%	4.09%
39	Miscellaneous Manufacturing Industries	8.90%	13.63%	32.88%	-0.25%
40	Railroad Transportation	8.44%	14.80%	36.53%	2.77%
42	Motor Freight Transportation & Warehousing	6.74%	12.93%	39.68%	-0.28%
45	Transport by Air	9.21%	17.88%	48.92%	6.20%
48	Communications	18.34%	26.70%	46.32%	15.13%
49	Electric, Gas & Sanitary Services	10.13%	13.86%	30.11%	3.12%
50	Wholesale Trade-Durable Goods	10.61%	16.02%	37.02%	3.77%
51	Wholesale Trade-Nondurable Goods	9.23%	13.16%	29.67%	0.01%
53	General Merchandise Stores	9.05%	16.71%	43.70%	3.36%
54	Food Stores	8.96%	12.74%	29.33%	-1.19%
56	Apparel & Accessory Stores	11.52%	17.87%	39.60%	-0.35%
57	Home Furniture, Furnishings, and Equipment Stores	15.61%	26.77%	52.80%	1.80%
58	Eating and Drinking Places	0.56%	6.66%	37.54%	-8.58%
59	Miscellaneous Retail	12.59%	18.24%	36.91%	2.12%
60	Depository Institutions	15.62%	18.42%	25.70%	4.41%
61	Nondepository Credit Institutions	12.20%	16.44%	30.95%	0.45%
62	Security and Commod. Brokers, Dealers, Exchanges	15.08%	22.51%	43.31%	-2.61%
63	Insurance Carriers	13.25%	16.19%	24.49%	4.05%
64	Insurance Agents, Brokers, and Service	12.09%	20.01%	45.13%	3.59%
65	Real Estate	6.04%	11.12%	35.49%	-0.48%
67	Holding & Other Investment Offices	11.48%	15.93%	32.03%	2.75%
70	Hotels, Rooming Houses, Camps, & Other Lodging	5.29%	11.56%	37.84%	-3.36%
72	Personal Services	15.29%	19.00%	28.44%	5.16%
73	Business Services	14.11%	24.31%	61.30%	8.94%
78	Motion Pictures	6.07%	13.85%	45.54%	-2.96%
79	Amusement and Recreation Services	11.46%	15.98%	35.01%	-0.26%
80	Health Services	14.72%	21.40%	41.54%	2.94%

Source: Center for Research in Security Prices, University of Chicago.

The Empire District Electric Company

Comparison of Company Witness Donald A. Murry's

Financial Analysis in Both Rate Cases

	Case No. ER-2002-424		Case No. ER-2004-0570	
Cost of Capital Model	Low	High	Low	High
52 Week Trading Range of EDE's Stock Price	$17.50	$26.60	$17.00	$22.45
Current Trading Range of EDE's Stock Price	$20.62	$20.97	$20.55	$20.63
52 Week Discounted Cash Flow Analysis	9.31%	13.31%	7.70%	13.53%
Current Discounted Cash Flow Analysis	10.61%	12.21%	7.80%	11.88%
Historical Capital Asset Pricing Model		10.89%		10.97%
Size-Adjusted Capital Asset Pricing Model		10.09%		11.12%

Sources:
Direct Testimony of Donald A. Murry, Case No. ER-2002-424
Direct Testimony of Donald A. Murry, Case No. ER-2004-0570
Rebuttal Testimony of David Murray, Case No. ER-2004-0570, page 28, lines 21-22
YAHOO! Finance

Surrebuttal
Schedule DAM - 3

No. 2159

Empire District Electric Company
ER-2004-0570

Office of the Public Counsel Data Request

Requested From: Angela Cloven

Date Requested: 12 November 2004

Information Requested: During his deposition testimony on November 10, 2004, witness Donald Murry testified that there were empirical studies showing that Value Line growth forecasts were superior to all other growth forecasts. Please provide copies of these empirical studies.

Dr. Murry did not state in his deposition that "Value Line growth forecasts were superior to all other forecasts" as the information request would imply. At page 105, lines 8 through 10, Dr. Murry stated: "I told you that analysts growth rates were superior, and my recollection was that specifically the preferred was Value Line."

In his deposition, Dr. Murry had in mind such articles as the attached: "Long-term Earnings Forecasts in the Electric Utility Industry: Accuracy and Valuation Implications," by Robert E. Chatfield, Scott E. Hein, and R. Charles Moyer. They concluded the following in their analysis:

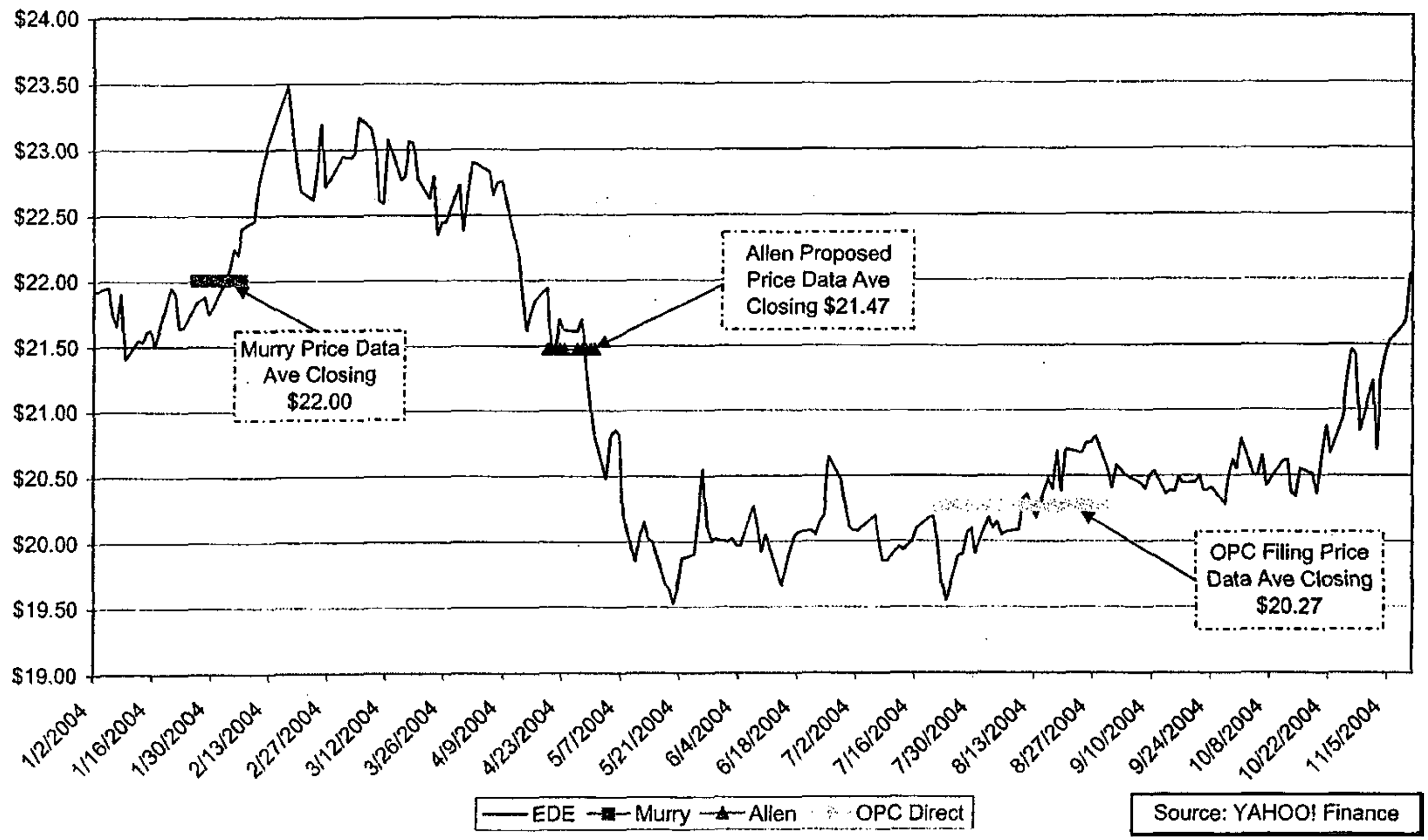
> "The valuation tests of the alternative forecasting techniques provided strong evidence that investors place the greatest weight on the forecasts provided by Value Line, rather than on the slightly more accurate implied growth rate forecasts. This result may be explained by the broad availability of Value Line forecasts, and the fact that many earlier research studies have found Value Line to be more accurate than alternative forecasting methods. Because the results of this earlier research, notably Brown and Rozeff [3], have been widely disseminated, it is possible that investor valuation decisions have been influenced accordingly. Of the analyst forecasts examined in this paper, Value Line forecasts have considerably higher explanatory power in the DCF model than do the forecasts provided by Salomon Brothers. These results suggest that investors and policymakers should rely upon analyst forecasts of earnings when looking for a proxy for the expected growth rate in the DCF model of valuation."

Requested By: Travis Allen Phone: 573/751-1305
Fax: 573/751-5562

The information provided to the Office of the Public Counsel in response to the above information request is accurate and complete, and contains no material misrepresentations or omissions based upon present facts known to the undersigned. The undersigned agrees to immediately inform the Office of the Public Counsel if any matters are discovered which would materially affect the accuracy or completeness of the information provided in response to this information request.

Date Received:____________ Signed By: [signature]
Title: Vice President

Daily Closing Prices for The Empire District Electric Company
2004



Surrebuttal
Schedule DAM - 4

The Empire District Electric Company

Commission Staff Witness David Murray

Calculation of Funds from Operations / Interest Coverage

Revised Rebuttal Schedule DAM-4

Line No.	Assumptions		Source
1	Funds From Operations	$58,186,852	Rebuttal Schedule DAM - 3
2	Interest Expense	$22,899,760	Staff Accounting Schedule 11 Line 15
3	Income Before Interest	$81,086,612	Line 1 + Line 2
4	Interest Expense	$22,899,760	Staff Accounting Schedule 11 Line 15
5	**FFO Interest Coverage**	3.54	

The Empire District Electric Company

Office of Public Counsel Witness Travis Allen

Calculation of Funds from Operations / Interest Coverage

Revised Rebuttal Schedule DAM-9

Line No.	Assumptions		Source
1	Long Term Debt Ratio	43.99%	Allen Schedule TA-1
2	Embedded Cost of Long Term Debt	7.23%	Allen Schedule TA-3
3	Trust Preferred Securities Ratio	6.52%	Allen Schedule TA-1
4	Embedded Cost of Trust Preferred Securities	8.83%	Allen Schedule TA-2
5	Weighted Cost of Interest Obligations	3.76%	(Line 1 * Line 2) +(Line 3 * Line 4)
6	Rate Base	$602,830,619	Schedule BAM RD DIR-2.1 Line 16
7	Funds from Operations	$57,547,304	Rebuttal Schedule DAM - 8
8	Interest Expense	$22,644,661	Rate Base * Weighted Cost of Interest Obligations
9	Income Before Interest	$80,191,965	Line 7 + Line 8
10	Interest Expense	$22,644,661	Rate Base * Weighted Cost of Interest Obligations
11	**FFO Interest Coverage**	3.54	

Surrebuttal
Schedule DAM-6

AFFIDAVIT

STATE OF OKLAHOMA)
) ss
COUNTY OF OKLAHOMA)

On the 23rd day of November, 2004, before me appeared Donald A. Murry, to me personally known, who, being by me first duly sworn, states that he is Vice President and economist with the C. H. Guernsey & Company and acknowledged that he has read the above and foregoing document and believes that the statements therein are true and correct to the best of his information, knowledge and belief.

Donald A. Murry

Donald A. Murry

Subscribed and sworn to before me this 23rd day of November, 2004

Carolyn S. Hanes

Notary Public

#01019787

My commission expires: 12-4-05

NOTARY SEAL PUBLIC
CAROLYN S. HANES
Oklahoma County
Notary Public in and for
State of Oklahoma
My commission expires Dec. 4, 2005.