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THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. ER-2001-299

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

MAY 2001

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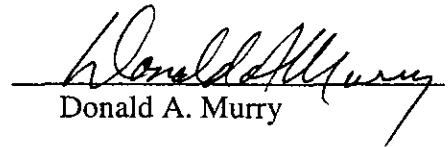
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COUNTY OF OKLAHOMA

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Before me, the undersigned Notary Public, personally appeared DONALD A. MURRY, who being duly sworn on oath deposes and says that the foregoing prepared testimony and statement of facts contained therein are true and correct to the best of his knowledge, information and belief.


Donald A. Murry

Subscribed and sworn to before me this 1st day of May, 2001.


Notary Public

My Commission Expires:

October 5, 2002

**REBUTTAL TESTIMONY
OF
DONALD A. MURRY, Ph.D.
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. ER-2001-299**

1 Q. PLEASE STATE YOUR NAME.

2 A. My name is Donald A. Murry.

3 Q. ARE YOU THE SAME DONALD A. MURRY WHO FILED DIRECT
4 TESTIMONY IN THIS PROCEEDING ON BEHALF OF THE EMPIRE
5 DISTRICT ELECTRIC COMPANY ("EMPIRE")?

6 A. Yes, I am.

7 Q. WHAT IS THE NATURE OF YOUR REBUTTAL TESTIMONY?

8 A. I am offering this testimony concerning cost of capital (return on common stock
9 equity and capital structure) to rebut the direct testimonies of Commission Staff
10 witness Roberta A. McKiddy and Office of Public Counsel ("OPC") witness Mark
11 Burdette. In each of their testimonies, there are conceptual difficulties and
12 mechanical errors. However, in some respects, I am more concerned about the
13 testimony of Ms. McKiddy regarding return on common stock equity because it is
14 inconsistent with the analytical precedence of regulation and economic principles.

15 Q. PLEASE EXPLAIN.

16 A. Ms. McKiddy has recommended a return on common stock equity that is
17 inconsistent with basic measures of financial integrity, and which her own testimony
18 contradicts. In fact, in reading her testimony, I have concluded that she must not

1 understand the risk of her recommendations and their potential impact upon
2 Empire's investors and ratepayers.

3 Q. WHY DO YOU SAY THAT MS. MCKIDDY HAS RECOMMENDED A
4 RETURN ON COMMON STOCK EQUITY THAT IS INCONSISTENT WITH
5 BASIC MEASURES OF FINANCIAL INTEGRITY?

6 A. Ms. McKiddy's testimony reports, but ignores, financial exigencies of Empire
7 resulting from construction financing and the impact of the failed merger with
8 UtiliCorp United, Inc. ("UtiliCorp") upon Empire's securities. Moreover, her
9 recommendation is not consistent with the basic accepted standards of financial
10 integrity. While she acknowledges the financial situation of Empire, key indicators
11 of Empire's financial health, and the recognized industry financial standards, she
12 ignores this evidence and recommends a return on common stock equity for Empire
13 that is not in touch with financial precedence or reality.

14 Q. WHEN YOU SAY THAT MS. MCKIDDY'S TESTIMONY REPORTS, BUT
15 IGNORES, THE FINANCIAL EXIGENCIES OF EMPIRE, TO WHAT
16 SPECIFICALLY ARE YOU REFERRING?

17 A. Ms. McKiddy obviously recognizes that Empire's recent construction program has
18 had an adverse financial impact on Empire. In her Direct Testimony, on lines 11-17
19 of page 17, she quotes Standard & Poor's "negative outlook" for Empire because of
20 the construction program. She also notes the importance of rate relief to Empire as
21 stated by Standard & Poor's. This same quotation states that the "...uncertainty of
22 adequate rate relief..." adds to the negative outlook. However, she completely fails
23 to address the implication of her return recommendation on Empire's financial

1 condition or explain why she does not accept Standard & Poor's conclusions.
2 Moreover, she has ignored the financial standards recognized by analysts as
3 measures of financial health. In fact, she acknowledges, on page 27, lines 19-20,
4 that the interest coverage ratio that she calculated "does support the 'negative'
5 outlook placed on Empire by Standard and Poor's...." Although she acknowledges
6 the financial circumstance of Empire, she seems to dismiss it with the simple
7 statement on page 30 lines 12-17 of her testimony, as follows:

8 The low end of the recommended return on equity range allows enough
9 earnings power for Empire to meet its Net Earnings Requirement of two
10 times the amount of the annual interest requirements *pursuant to provisions*
11 *of its Supplemental Indenture* (Source: Company Response to Staff Data
12 Request No. 3806). Thus, the pro forma pre-tax interest coverage test shows
13 that there will be enough earnings potential for Empire to meet its capital
14 costs based upon the above referenced return on equity range for Empire.
15 [Emphasis added].
16

17 Q. HOW DO YOU RESPOND TO THIS STATEMENT?
18

19 A. This is a remarkable and incredible statement. Ms. McKiddy states, without
20 analysis or basis, that meeting the bare indenture requirement is an adequate return.

21 Q. WHY IS HER STATEMENT INCREDIBLE?
22

22 A. Her statement and ultimate position is incredible because it ignores sound financial
23 standards and the regulatory principles in quotations from court decisions that she
24 offers as the basis for her testimony.

25 Q. WHAT FACTORS INDICATED THE FINANCIAL CONDITIONS OF EMPIRE
26 THAT MS. MCKIDDY FAILED TO RECOGNIZE?

27 A. She did not acknowledge Empire's inability to increase dividends, although she did
28 report the dividend levels in her testimony. Her Schedule 9 shows the constant
29 dividend level and the very high dividend payout ratios in the 1995-99 period. In

1 three of those years the payout ratio exceeded 100 percent. However, the most
2 obvious measure of the inadequacy and incredible nature of her recommended
3 return is her own measure of interest coverage in her Schedule 19.

4 Q. PLEASE EXPLAIN.

5 A. As this schedule shows, she has recommended a return which, even at the high end
6 of her range, falls far short of the lower quartile of the Before Tax Interest Coverage
7 for electric utilities maintaining an A rating. The high end of her range, by her own
8 estimation, will produce a coverage of 2.29 times when the lower quartile of A rated
9 bonds according to Standard & Poor's is 2.95 times.

10 Q. PLEASE DEFINE "BEFORE TAX INTEREST COVERAGE."

11 A. Before Tax Interest Coverage is the ratio of income to the level of interest before
12 both interest charges and income taxes are deducted from income. This ratio is a
13 measure of financial risk and credit-worthiness of a company's debt.

14 Q. HAVE YOU EVALUATED THE INTEREST COVERAGE LEVELS OF ANY
15 OTHER ELECTRIC UTILITIES?

16 A. Yes. I evaluated the Before Tax Interest Coverage of the nine comparable electric
17 companies that Ms. McKiddy used in her Direct Testimony and some other
18 companies.

19 Q. HOW DID YOU USE THE INTEREST COVERAGE OF MS. MCKIDDY'S
20 COMPARABLE COMPANIES?

21 A. I compared the Before Tax Interest Coverage of the nine utilities that Ms. McKiddy
22 considered comparable to Empire. As my Schedule DAM 20 shows, her
23 recommendation for Empire is not at all comparable to the interest coverage of the

1 companies that she selected as comparable in her analysis. The Before Tax Interest
2 Coverages of these nine companies average 3.63 times. Black Hills, the highest, has
3 a coverage of 5.10 times. All of these coverages are much higher than the 2.16 to
4 2.29 range of Before Tax Coverage that Ms. McKiddy's recommendation will
5 produce for Empire in this proceeding, as she has illustrated in her Schedule 19.
6 Empire is not and cannot be comparable to these companies with healthy coverage
7 ratios if the Commission should adopt the interest coverage produced by her
8 recommended return in this proceeding.

9 Q. IS THERE ANY EVIDENCE THAT THE INTEREST COVERAGE LEVEL OF
10 EMPIRE IS INADEQUATE?

11 A. Yes. Fitch Incorporated, a New York rating service, last week downgraded \$415
12 million of the Empire's debt. From the announcement it is apparent that one of the
13 major reasons, if not the major reason, for the downgrade is the credit worthiness of
14 Empire's debt and near-term financial prospects. In its announcement, Fitch
15 Incorporated said:

16 Due to high natural gas costs in 2000, increased interest expense relating to
17 the construction of the State Line facility, and the lack of new common
18 equity financing within the past two years EDE's credit fundamentals are
19 now more consistent with the 'BBB+' rating category. For year-end 2000,
20 EDE's pretax interest coverage was 2.3 times (x) and the ratio of EBITDA to
21 interest was 3.5x. The company's debt leverage, currently 59% of capital, is
22 in line with 'BBB+' medians.
23

24 Q. IN YOUR OPINION, WHAT IS THE MAJOR EFFECT OF A BOND RATING
25 DOWNGRADE FOR A UTILITY SUCH AS EMPIRE IN THIS INSTANCE?

1 A. A bond rating downgrade will inevitably lead to higher debt cost. This will impact
2 the common stock equity holders and ultimately the ratepayers as well, when these
3 higher debt costs are incorporated into rates.

4 Q. HAVE YOU REVIEWED THE INTEREST COVERAGE OF ANY OTHER
5 ELECTRIC UTILITIES AS YOU EVALUATED MS. MCKIDDY'S DIRECT
6 TESTIMONY IN THIS PROCEEDING?

7 A. Because of the notoriety of the bankruptcy of Pacific Gas & Electric ("PG&E") and
8 the near-bankruptcy of Southern California Edison, I reviewed the interest coverage
9 ratios of these two companies. They each have Before Tax Interest Coverages that
10 are similar to the coverage that Ms. McKiddy's recommendation would provide for
11 Empire in this proceeding. According to *Value Line*, PG&E's coverage is 2.0 times
12 and Southern California Edison's is 2.2 times.

13 Q. USING MS. MCKIDDY'S CAPITAL STRUCTURE AND DEBT COSTS, DO
14 YOU KNOW WHAT RETURN ON COMMON STOCK WOULD BE
15 NECESSARY TO MAINTAIN AN INTEREST COVERAGE AT THE LOWEST
16 QUARTILE LEVEL OF ELECTRIC UTILITIES?

17 A. As Schedule DAM 21 illustrates, if Ms. McKiddy had recommended a return
18 sufficient to place Empire at the level of the "lower quartile" of electric utilities, her
19 recommended return on common stock would have been 14.32 percent. This
20 calculation alone illustrates the unrealistic and incredible nature of her rate of return
21 recommendation for Empire in the case.

22 Q. HOW WOULD YOU CHARACTERIZE THE IMPORTANCE OF RETAINING
23 AN "A" BOND RATING?

1 A. It is extremely important. The cost of utility borrowing will normally increase as
2 rating agencies lower the bond rating of the involved company. The increased
3 borrowing costs adversely affect common stockholders and ratepayers alike.

4 Q. WHY DO YOU STATE THAT MS. MCKIDDY IGNORED REGULATORY
5 AND ECONOMIC PRINCIPLES?

6 A. In the recent history of regulation, there has been recognition by practitioners and
7 scholars that a market return is the return that investors could earn in other
8 investments of equivalent risk, and this is the return necessary to attract capital. Of
9 course, this is also a sound economic principle. On the other hand, an indenture
10 ratio, which is relied on by Ms. McKiddy, is a somewhat arbitrary criterion because
11 it is a condition in the agreement between the company and the bond investor. It is
12 independent of any market-measured returns of similar investments or valuation of a
13 company's common stock. I know of no regulatory scholar who has recommended
14 basing the rate of return recommendation in a regulatory proceeding on just meeting
15 the minimal requirements of the interest coverage of a bond indenture at the expense
16 of falling short of market-measured return requirements.

17 Q. WHAT ARE YOU SAYING WITH RESPECT TO THE USE OF THE
18 INDENTURE COVERAGE AS THE PRINCIPAL OR ONLY STANDARD FOR
19 RECOMMENDING A RETURN?

20 A. What I am saying is that this approach is fundamentally wrong.

21 Q. WHY?

22 A. A return based on the minimal indenture requirement ignores the reality of
23 investors' perceptions and their investment alternatives. This standard is

1 disconnected from the realities of the financial markets and is overly narrow for
2 ratemaking. Such a return provides no cushion for investors from unavoidable,
3 unpredictable events. For example, there is not even any cushion for economic
4 conditions that impact utility revenues. In fact, this standard violates the economic
5 principles upon which the decision of the United States Supreme Court in the Hope
6 Natural Gas case, on which economic principles of ratemaking for the past sixty
7 years have been based and which Ms. McKiddy cites as a basis for her testimony.

8 Q. HOW DOES MS. MCKIDDY'S TESTIMONY AND HER RECOMMENDATION
9 IN THIS CASE VIOLATE THE ECONOMIC PRINCIPLES OF THE HOPE
10 NATURAL GAS CASE?

11 A. The Hope Natural Gas case established the regulatory principle, as Ms. McKiddy
12 quotes on page 5 of her testimony, that "...return should be sufficient to assure
13 confidence in the financial integrity of the enterprise, so as to maintain its credit and
14 *to attract capital.*" [Emphasis added]. By ignoring the way in which potential
15 investors actually evaluate Empire's debt and equity securities, she violates this
16 basic principle. She also has dismissed an objective, independent financial service's
17 opinion, in this case Standard & Poor's, and scholarly research. Instead, she has
18 substituted her own opinion that a minimal indenture requirement is an adequate
19 measure of a utility's earnings for ratemaking purposes. As I have said, this
20 approach is fundamentally wrong. Ms. McKiddy apparently does not recognize
21 Empire's attendant risk in her recommendation and the impact upon the perception
22 of potential investors.

1 Q. IN YOUR OPINION, IS THE BOND INDENTURE RELEVANT
2 INFORMATION FOR SETTING THE ALLOWED RETURN ON COMMON
3 EQUITY IN RATEMAKING?

4 A. Yes, of course it is relevant. However, analysts should use it in the right context.
5 Meeting the bond indenture of the utility is the bare bones measure of a return's
6 adequacy. One could think of the bond indenture level as one of the last, if not the
7 very last, line of defense before a company faces insolvency. This is not an
8 acceptable criterion for ratemaking given the normal business risks faced by any
9 company, including regulated utilities. It is not a measure that determines if a
10 company can attract capital in the financial markets. This Commission should not
11 adopt a standard of simply keeping a utility barely above the line of insolvency.

12 Q. HAVE YOU WORKED FOR REGULATORY AGENCIES, TAUGHT COURSES
13 IN ECONOMICS OF REGULATION, TESTIFIED IN NUMEROUS
14 REGULATORY JURISDICTIONS AND WORKED AS A CONSULTANT FOR
15 UTILITY COMPANIES AND UTILITY CUSTOMERS?

16 A. Yes. I have done all of those things in my 35 years of working as an analyst in this
17 area.

18 Q. DURING THIS 35-YEAR PERIOD, IN YOUR WRITING, TESTIFYING AND
19 REVIEWING SCHOLARLY WORKS ON THE ECONOMICS OF
20 REGULATION, HAVE YOU KNOWN OF ANY OTHER ANALYST WHO
21 RECOMMENDED THAT JUST MEETING A UTILITY'S BOND INDENTURE
22 WAS A SUFFICIENT RETURN FOR A REGULATED UTILITY OF ANY
23 TYPE?

1 A. No, I believe that this is the first time.

2 Q. AGAIN, PLEASE DEFINE THE TERM "BEFORE TAX INTEREST
3 COVERAGE."

4 A. Before Tax Interest Coverage is the ratio of income to the level of interest before
5 both interest charges and income taxes are deducted from income. The resultant
6 ratio is a measure of financial risk, the lower the number the greater the risk.

7 Q. DO YOU KNOW OF ANY "A" RATED ELECTRIC UTILITIES WITH A
8 BEFORE-TAX INTEREST COVERAGE OF 2.16 TIMES THAT HAVE
9 MAINTAINED FINANCIAL GOOD HEALTH?

10 A. No. I do not recall any healthy electric or gas utility with a Before-Tax Interest
11 Coverage this low.

12 Q. HAVE YOU USED AN INTEREST TAX COVERAGE RATIO IN YOUR
13 WORK?

14 A. Yes, of course.

15 Q. WHAT HAS BEEN YOUR EXPERIENCE REGARDING INTEREST
16 COVERAGE TARGETS FOR REGULATED UTILITIES?

17 A. For comparison among companies, I have often observed and used a target after-tax
18 interest coverage ratio of 2.5 times for electric utilities. I have found this to be a
19 reasonable standard, with the exceptions that for favorable, limited periods, 2.0
20 times coverage may not adversely affect a companies bond rating and in some
21 market conditions 2.75 or better is appropriate.

22 Q. WHAT IS THE AFTER-TAX INTEREST COVERAGE RATING OF MS.
23 MCKIDDY'S RECOMMENDED RETURN?

1 A. Ms. McKiddy's recommendation would produce an After-Tax Interest Coverage of
2 only 1.76 times.

3 Q. WHY DO YOU SAY THAT APPARENTLY MS. MCKIDDY DOES NOT
4 RECOGNIZE THE RISK OF HER RECOMMENDATION AND THE IMPACT
5 UPON POTENTIAL INVESTORS AND RATEPAYERS?

6 A. On page 34, lines 7-12 of her Direct Testimony she has concluded, without any
7 analytical support, the following:

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

10 A. Yes. The Value Line Investment Survey: Ratings & Reports, January
11 5, 2001, predicts the electric utility industry will earn 13.0 percent on
12 common equity for 2000 and 13.0 percent for 2001 through 2003. *In*
13 *my opinion*, the market views Empire as less risky than the industry
14 due to its competitive rate structure and its strong service area.
15 [Emphasis added].
16

17 Ms. McKiddy's opinion concerning Empire's relative risk reveals that she has done
18 little or nothing to assess either the financial or the business risk of Empire. Simply
19 noting the returns predicted by *Value Line* discloses little about risk to either debt or
20 common equity investors. Surprisingly, former Commission Staff Witness David
21 Broadwater came to precisely the same conclusion in his 1997 testimony in
22 Empire's Case ER-97-81, in fact, using precisely the same language in his Direct
23 Testimony (page 41, lines 8 to 10) except for quoting different earnings predictions
24 from *Value Line*.

25 Q. WHY IS IT SURPRISING TO YOU THAT THEIR CONCLUSIONS WOULD BE
26 PRECISELY THE SAME?

1 A. It is surprising to me that the risk conclusions are the same and that they are based
2 on only electric utility earnings from *Value Line* when the circumstances have
3 changed significantly in four years.

4 Q. PLEASE EXPLAIN.

5 A. Since Mr. Broadwater testified in 1997, Empire has gone four additional years with
6 extremely high payout ratios and flat dividends. In addition, the prospective merger
7 with UtiliCorp was not consummated. *Value Line* has changed Empire's stock to an
8 "untimely" investment recommendation. In its April 6, 2001 edition, *Value Line*
9 stated that Empire's prospects for 2001 "were not bright." Standard & Poor's now
10 has a "negative" summary on Empire, while back in 1997 it was "stable."
11 Moreover, there is the added risk of differing fuel cost pass-through provisions of
12 Empire and other companies that she has compared to Empire. Electric utilities in
13 many jurisdictions have fuel cost pass-throughs. Empire does not. This is a clear
14 risk differential favoring these other companies. Ms. McKiddy did not appear to
15 consider any of those factors in reaching her conclusions regarding Empire's
16 relative risk.

17 Q. YOU MENTIONED THAT FUEL PRICE PASS-THROUGH PROVISIONS ARE
18 A RISK TO EMPIRE. WHAT DID YOU MEAN BY THAT STATEMENT?

19 A. Empire's inability to recover fuel costs in pass-throughs is an added, special risk of
20 Empire in this instance. This was one of the reasons noted by Fitch in announcing
21 the rating decrease for Empire's debt discussed previously. For example, Fitch
22 stated the following in its April 26 announcement:

1 The downgrade reflects the significant erosion of the company's credit
2 protection measures in the past two years and a regulatory environment in
3 Missouri that exposes EDE to margin erosion from increased fuel costs.
4

5 Q. WHAT WERE THE METHODOLOGICAL ERRORS THAT YOU WERE
6 REFERRING TO IN YOUR STATED CONCERNS ABOUT MS. MCKIDDY'S
7 TESTIMONY?

8 A. First, Ms. McKiddy's Discounted Cash Flow ("DCF") analysis contains numerous
9 empirical and analytical errors that compound the effects of her underestimate of the
10 cost of common equity ("ROE"). Second, her Capital Asset Pricing Model analysis
11 neglects empirical adjustments of estimates that understate the cost of equity for
12 small companies such as Empire. Ms. McKiddy simply fails to make empirical
13 adjustments recommended by the source she cites, *Ibbotson Associates 2000 SBB*
14 *Yearbook*. Third, her risk premium ("RP") analysis serves to underestimate the
15 ROE through a stochastic, or statistical, error that when corrected produces a
16 reasonable estimate. Fourth, the capital structure that Ms. McKiddy uses will
17 increase the risk profile of Empire, requiring an even higher ROE to meet basic
18 interest coverage considerations.

19 Q. WHAT ERRORS DID MS. MCKIDDY MAKE IN HER DCF ANALYSIS?

20 A. Ms. McKiddy makes errors that serve to produce downward biases in her DCF
21 calculation. They involve both components of the DCF; namely the growth rate and
22 the dividend yield.

23 Q. WHAT ERRORS DID MS. MCKIDDY MAKE IN REGARD TO THE CHOICE
24 OF GROWTH RATE IN HER DCF ANALYSIS?

1 A. First, she used ten-year-old data to calculate growth rates, especially dividend
2 growth rates. Second, Ms. McKiddy used Book Value growth rates. Third, she
3 incorrectly cited a projected earnings growth from Standard & Poor's.

4 Q. WHAT IS WRONG WITH USING TEN-YEAR HISTORICAL DATA WHEN
5 CALCULATING A DCF GROWTH RATE?

6 A. Data as old as ten years may not be relevant predictors of near-term investor
7 expectations. This seems to be the case in this instance. Given the significant
8 changes of Empire financially, it is simply common sense that Ms. McKiddy should
9 have ignored historical growth rates that are not representative of current and near-
10 term conditions.

11 Q. WHY SHOULD MS. MCKIDDY HAVE EXCLUDED TEN-YEAR HISTORICAL
12 DIVIDEND PER SHARE GROWTH ESTIMATES?

13 A. As mentioned previously, ten-year old data do not represent realistic expectations of
14 Empire's investors. They offer little predictive information and are of little value in
15 predicting future dividend increases. They serve only to force her historical growth
16 rates measurements downward, producing a low DCF estimate.

17 Q. WHAT IS WRONG WITH MS. MCKIDDY'S USE OF BOOK VALUE
18 GROWTH RATES IN HER ANALYSIS?

19 A. Although the book value growth rates may be relevant to investors, they are a more
20 roundabout measure of the return to investors. Investors, in making their buying
21 and selling decisions, are likely to focus on the more direct measures of growth in
22 value to investors, i.e., the earnings and dividend growth potential for common
23 stocks.

1 Q. YOU STATED THAT MS. MCKIDDY HAS INCORRECTLY CITED
2 STANDARD & POOR'S AS A SOURCE. WHAT MISTAKE HAS SHE MADE?

3 A. Ms. McKiddy has identified a 2.0 percent annual projected growth rate of earnings
4 per share ("EPS") in Schedule 13 of her Direct Testimony. The source she cites,
5 *Standard & Poor's Earnings Guide: February 2001*, does not report a growth rate.
6 Standard & Poor's does report a 2.0 percent EPS growth rate available in *Standard*
7 *& Poor's Stock Guide: February 2001*; however, this 2.0 percent is an historical
8 growth rate. If this is her source, she should not have included it in the calculation
9 of a DCF based on projected growth rates. I have included copies of the relevant
10 source documents as exhibits in Schedules DAM 22 and DAM 23, which should
11 clarify the confusion in these sources.

12 Q. IS THE USE OF AN HISTORICAL TWO PERCENT GROWTH RATE RATHER
13 THAN A FORECASTED GROWTH RATE IMPORTANT IN MS. MCKIDDY'S
14 ANALYSIS?

15 A. Apparently, it is. On page 31, lines 26-28, Ms. McKiddy stated: "The proposed
16 growth rate range for Empire falls significantly below the proposed range of growth
17 for the comparable companies." Upon investigation, however, it is clear that she is
18 referring to the four percent "Projected Growth Rates from Outside Sources" shown
19 in Schedule 13, where she cited a 2 percent projected growth rate in support of this
20 calculation.

21 Q. WHAT IS THE EFFECT ON MS. MCKIDDY'S DCF ANALYSIS WHEN ONE
22 CORRECTS FOR THESE EMPIRICAL DEFECTS IN HER ANALYSIS?

1 A. In Schedule DAM 24, I illustrate the corrections to Ms. McKiddy's DCF growth
2 rates presented in her Schedule 13. The result of these changes produces a proposed
3 range of growth of 5.23 percent to 6.00 percent. This range is a full 2 percent higher
4 than Ms. McKiddy's range.

5 Q. PREVIOUSLY, YOU STATED THAT MS. MCKIDDY ALSO MADE SOME
6 ERRORS IN REGARD TO THE DIVIDEND YIELD CALCULATION. WHAT
7 ARE THEY?

8 A. First, her share price data inaccurately assessed market valuation of Empire in the
9 near-term market. Second, she failed to accurately account for the effects of
10 Empire's aborted merger with UtiliCorp.

11 Q. HOW DOES MS. MCKIDDY'S SHARE PRICE DATA REFLECT THE
12 MARKET'S ASSESSMENT OF EMPIRE ON A GO-FORWARD BASIS?

13 A. Her data misrepresents the market assessment.

14 Q. PLEASE EXPLAIN.

15 A. Ms. McKiddy chose to include price data from October 2000 through March 4,
16 2001. This, of course, includes¹³ market price data prior to the cancellation of the
17 merger with UtiliCorp. The share price data prior to the merger termination cannot
18 represent the value of Empire's common stock in the present or in the near future.
19 Consequently, these data are inappropriate for use in estimating the cost of capital in
20 a ratemaking proceeding.

21 Q. WHY?

22 A. Because the use of share prices prior to the merger termination produce misleading
23 DCF results.

1 Q. PLEASE EXPLAIN.

2 A. Some investors purchased Empire's stock in anticipation of an arbitrage opportunity
3 wherein they could acquire Empire's stock at a discount relative to the UtiliCorp
4 stock offered under the merger terms. For example, where \$26 worth of Empire's
5 stock might purchase \$28 of UtiliCorp's stock. As a result, arbitrage will bid up the
6 price of Empire's common stock on the basis of the pending merger rather than on
7 the basis of its earnings. This valuation is inappropriate for ratemaking.

8 Q. HOW DID THE MARKET REFLECT THIS ASSESSMENT OF EMPIRE'S
9 COMMON STOCK PRIOR TO THE MERGER CANCELLATION?

10 A. In Schedule DAM 25 I have diagrammed the closing prices of Empire over the time
11 period Ms. McKiddy chose. Prior to the merger, Empire traded in the range of
12 \$22.875 to \$30.750 according to McKiddy's Schedule 14. After the termination of
13 the merger, Empire traded in the range of \$17.50 to \$20.18. UtiliCorp announced its
14 termination of the merger on January 2, 2001 after the markets closed. Empire had
15 closed at \$25.4711 per share that day. The next morning, January 3, 2001, the stock
16 opened at \$20.18 and fell precipitously from there. In short, Empire's common
17 stock lost 20 percent of its market value in a matter of minutes.

18 Q. WHAT SHOULD MS. MCKIDDY HAVE DONE TO CONTROL FOR THE
19 EFFECTS OF THE MERGER ON SHARE PRICES?

20 A. She should have omitted any price data prior to January 3, 2001 from her analysis
21 because it was not representative of a realistic valuation of Empire's common stock.

22 Q. ARE THERE OTHER TECHNICAL ERRORS THAT MS. MCKIDDY MADE
23 WHEN OBTAINING SHARE PRICE DATA FOR HER DCF ANALYSIS?

1 A. Yes. In addition to not adjusting for the effects of the merger termination, Ms.
2 McKiddy chose a single day stock quote to represent the entire month of March.
3 The date of March 4, 2001, which she stated in her testimony was the single day
4 selected, was a Sunday. Of course, the stock market is closed on Sunday.
5 Nevertheless, it appears, from the prices she quoted in her Schedule 14, the trading
6 date for which she selected data was March 2, 2001. Ironically, the price data from
7 that date are from the highest priced trading day of the month of March. I have
8 illustrated this in Schedule DAM 26.

9 Q. IS THERE ANYTHING WRONG WITH USING THE DATA FROM MARCH 2,
10 IF, IN FACT, THIS IS THE DATE FROM WHICH SHE SELECTED DATA?

11 A. Obviously, if this is the extreme-price day for the month, these data are not
12 representative of current valuations, will result in non-representative low dividend
13 yield calculations and will produce low DCF estimates of the cost of capital. They
14 are not representative of the current or near-term markets. They appear to serve
15 only to produce a low yield calculation.

16 Q. WHAT ARE THE EFFECTS OF CORRECTING FOR THESE TECHNICAL
17 ERRORS AND THE PRICE EFFECTS OF THE MERGER TERMINATION?

18 A. The corrections produce an accurate measure of expected dividend yields. I have
19 corrected Ms. McKiddy's Schedule 14 and reproduced it as Schedule DAM 27. As
20 one can see, Empire's dividend yield increases approximately 100 basis points to
21 6.20 percent.

22 Q. WHAT IS THE EFFECT OF YOUR GROWTH RATE AND DIVIDEND YIELD
23 CORRECTIONS ON MS. MCKIDDY'S DCF ESTIMATE?

1 A. I have illustrated those results in Schedule DAM 28, which is my recreation of Ms.
2 McKiddy's Schedule 15. Ms. McKiddy's DCF analysis now produces an ROE
3 estimate in the range of 11.42 percent to 12.20 percent.

4 Q. HOW DO THE RESULTS OF MS. MCKIDDY'S METHODOLOGY COMPARE
5 TO YOUR DCF ANALYSIS?

6 A. The 11.42 percent to 12.20 percent range is consistent with my DCF estimate of
7 Empire's cost of common equity.

8 Q. CAN YOU SUMMARIZE THE RESULTS OF YOUR REVIEW OF MS.
9 MCKIDDY'S DCF ANALYSIS?

10 A. It is apparent that when I corrected for her errors, her DCF methodology produced
11 results that are similar to the results that I found with my DCF analysis. Her errors
12 are not just procedural, they are also conceptual. These errors are especially
13 important because they show a misunderstanding of the theoretical underpinnings of
14 the Discounted Cash Flow methodology.

15 Q. WHY DO YOU SAY THAT THESE ERRORS SHOW "A
16 MISUNDERSTANDING OF THE THEORETICAL UNDERPINNINGS OF THE
17 DISCOUNTED CASH FLOW METHODOLOGY"?

18 A. The DCF method is based on the principle that investors will pay today for an
19 expected stream of future earnings, which they necessarily discount because the
20 returns are in the future and somewhat uncertain. Since the current market price is
21 known, if an analyst can determine the investor's expected returns then it follows
22 that the discount rate, or the "cost" of this earnings stream, can be calculated. It is a
23 fairly simple straightforward theory, but it requires careful application in practice.

1 This is because of the wide range in alternative prices and earnings, which are in the
2 form of dividends, dividend growth and capital gains. Use of outmoded growth and
3 price information that cannot realistically represent expectations of knowledgeable
4 investors considering Empire's common stock shows a fundamental misconception
5 of the purpose and application of the DCF methodology. Ms. McKiddy used
6 growth data that are 10 years old, and she used price data from a period when the
7 UtiliCorp-Empire merger was still active. These calculations are mechanically
8 similar to a DCF analysis, but it conceptually takes more to produce a DCF
9 estimated cost of capital. Mechanical calculations without the conceptual basis of
10 the DCF do not produce an estimate of today's cost of capital. The bottom line is
11 that I do not believe that one can fairly say that Ms. McKiddy has performed a DCF
12 analysis or has produced a DCF estimated cost of capital.

13 Q. YOU MENTIONED THAT THERE WERE ERRORS IN MS. MCKIDDY'S RISK
14 PREMIUM ANALYSIS. WHAT STATISTICAL ERRORS DID MS. MCKIDDY
15 MAKE WHEN SHE DEVELOPED HER RISK PREMIUM ("RP") ANALYSIS?

16 A. First, Ms. McKiddy based her Risk Premium analysis, as shown in Schedules 16
17 and 17 of her Direct Testimony, on circular logic. Her logic required her to first
18 assume one return on equity for Empire in order to recommend another return on
19 equity, which happened to be lower. Second, if she had performed a simple analysis
20 of variance on the risk premium that she estimated and the 30-year Treasury Bonds
21 in Schedule 16, she would have found an inverse relationship between the two.

22 Q. PLEASE EXPLAIN HOW MS. MCKIDDY USED CIRCULAR LOGIC TO
23 DEVELOP HER RP ESTIMATE?

1 A. If one examines her Schedule 16, it is obvious that she assumed an 11.0 percent
2 ROE for Empire. She used this to develop a global risk premium for Empire of 4.30
3 percent. However, the real value is close to 5.51 percent. When she added the risk
4 premium of 4.30 percent to her risk-free return of 5.49 percent on Schedule 17, it
5 produced an ROE estimate of 9.79 percent. This result is a full 1.21 percentage
6 points below the 11.0 percent ROE she used to estimate the risk premium.

7 Q. EARLIER YOU CRITICIZED MS. MCKIDDY FOR HER CHOICE OF A TEN-
8 YEAR DATA ANALYSIS. WHAT ANALYSIS COULD SHE HAVE MADE TO
9 PRODUCE A MORE REPRESENTATIVE RESULT?

10 A. She could have determined a more precise statistical relationship between the risk-
11 free rate and the return on equity numbers in the data she analyzed for more recent
12 years. For example, a simple regression of the two would have disclosed the
13 relationship between these rates somewhat more precisely. For example, a five-year
14 risk premium model using her data is as follows:

15
$$ROE = R_F + 0.158444 - 1.776944 \times R_F$$

16 The R^2 of this regression is 0.69. With the current risk-free rate (R_F) equal to 5.49
17 percent, then the five-year Risk Premium model would produce a return on equity
18 using her data of 11.56 percent.

19 In my opinion, this is clearly a more representative relationship between the
20 risk-free rate and the return on equity in Ms. McKiddy's Schedule 16.

21 Q. CAN YOU TELL WHY MS. MCKIDDY'S RISK PREMIUM RESULTS ARE SO
22 MUCH LOWER THAN THIS ANALYSIS?

23 A. The methodology that she used averages the data over a ten-year period.

1 Q. WHAT IS WRONG WITH USING A TEN-YEAR PERIOD FOR HER
2 ANALYSIS?

3 A. She has averaged the difference between the estimated returns on common stock
4 and the yield on 30-year U.S. Treasury Bonds for every month of January from
5 1991 through 2000. This average is 4.30 percent, which she reported in Schedule
6 16 and used in her calculation on Schedule 17. However, this average over a decade
7 does not represent current market conditions, even by her calculations. The same
8 calculations from her data for January 1999 and January 2000 are 6.59 percent and
9 5.31 percent respectively, which she reported in her schedule but did not use.
10 Consequently, it is apparent that her decade-long averaging has misrepresented
11 current market conditions.

12 Q. WHAT ERRORS DID MS. MCKIDDY MAKE IN HER CAPITAL ASSET
13 PRICING MODEL ("CAPM")?

14 A. Ms. McKiddy made two errors. First, she incorrectly cited the source of her market
15 risk premium. Second, she failed to make an empirical adjustment to account for the
16 market capitalization of Empire.

17 Q. HOW DOES MS. MCKIDDY MISQUOTE HER SOURCE?

18 A. On page 27, lines 1-3 of her Direct Testimony, Ms. McKiddy states:

19 "[the] appropriate market risk premium was determined to be 7.80 percent as
20 calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills and Inflation:
21 2000 Yearbook for the period 1926-1999."

22
23 Rather than the 7.80 percent market risk used by Ms. McKiddy, Ibbotson Associates
24 reported a market risk premium of 8.10 percent in its current yearbook, *Ibbotson*
25 *Associates SBI 2000 Yearbook*.

1 Q. WHAT EMPIRICAL ADJUSTMENT DOES MS. MCKIDDY FAIL TO MAKE IN
2 HER CAPM ANALYSIS?

3 A. Her CAPM analysis contains an empirical bias that understates the return on equity
4 of smaller companies like Empire. Ibbotson Associates recommends an 80 basis-
5 point addition when using their data to analyze companies of Empire's
6 capitalization. I have made this adjustment in my Schedule DAM 29. The
7 corrected CAPM range is from 10.34 percent to 10.68 percent.

8 Q. YOU STATED PREVIOUSLY THAT YOU ALSO HAVE BOTH
9 THEORETICAL AND EMPIRICAL CONCERNS ABOUT OPC WITNESS
10 MARK BURDETTE'S DIRECT TESTIMONY. WHAT ARE THEY?

11 A. First, Mr. Burdette erroneously calculated a growth rate for one of his comparable
12 companies, which caused his DCF to produce a low ROE estimate. Second, Mr.
13 Burdette committed the same type of errors as Ms. McKiddy when performing his
14 CAPM estimation.

15 Q. WHAT GROWTH RATE DID MR. BURDETTE MISCALCULATE?

16 A. On page 4 of Schedule MB-6, line 36, Mr. Burdette reported a growth rate of 3.75
17 percent for CLECO Corporation. From the schedule, it is clear that this value should
18 be the average of the *Value Line* earnings per share growth of 7.5 percent and *First*
19 *Call* earnings per share growth of 10.1 percent. Apparently, Mr. Burdette made a
20 mathematical error in averaging them. That value should be 8.80% for CLECO
21 Corporation. I have made this correction on Schedule DAM 30.

22 Q. WHAT IS THE RESULT OF THIS MISCALCULATION BY MR. BURDETTE?

1 A. The 8.80 percent growth rate should be the high estimate for CLECO Corporation
2 on page 1 of Schedule MB-6 where Mr. Burdette reported his growth rate range. My
3 Schedule DAM 31 shows the corrected Discounted Cash Flow Growth Summary.

4 Q. HOW DOES CORRECTING MR. BURDETTE'S CALCULATION ERROR
5 AFFECT THE RESULTS OF HIS DCF ESTIMATE?

6 A. Mr. Burdette's choices of dividend yields and stock prices are fundamentally sound.
7 The data in his Schedule MB-7 accurately reflect current market appraisal of Empire
8 and his comparable companies. I have recreated his DCF model from his Schedule
9 MB-8 in my Schedule DAM 32. The corrected DCF analysis produces an ROE
10 estimate for Empire of 6.56 percent to 11.33 percent and 5.72 percent to 14.34
11 percent for the comparable companies.

12 Q. YOU EXPRESSED SOME CONCERN ABOUT MR. BURDETTE'S CAPITAL
13 ASSET PRICING MODEL CALCULATIONS. WHAT IS THE REASON FOR
14 THOSE CONCERNS?

15 A. Mr. Burdette incorrectly cited *Ibbotson Associates 2000 SBBI Yearbook*, both
16 empirically and methodologically. He cited the market-risk premium of 7.8 percent,
17 when Ibbotson Associates reports it as 8.1 percent. In addition, Mr. Burdette failed
18 to make the recommended size premium adjustment. Further, he used a ten-year
19 U.S. Treasury Bond yield rather than a thirty-year bond yield of 5.27%. I illustrate
20 these corrections in Schedule DAM 33. If one compares this schedule to Schedule
21 MB-9 of Mr. Burdette's Direct Testimony, it is clear that he underestimated the cost
22 of common equity of Empire by 1.46 percent and of the comparable companies by
23 0.80 percent.

1 Q. DO YOU HAVE ANY CONCERNS ABOUT THE CAPITAL STRUCTURES
2 USED IN THIS PROCEEDING BY THE STAFF AND OPC?

3 A. Yes. Both Ms. McKiddy and Mr. Burdette based the capital structures they used in
4 their analyses on Empire's capital structure at December 31, 2000. This December
5 31, 2000 capital structure, however, is not representative of either Empire's
6 historical or future capital structures. Moreover, the planned UtiliCorp merger
7 inhibited common equity financing at the end of year 2000, and the reduction of
8 merger costs from equity reduces its level further. Consequently, both of their
9 analyses are non-representative and thus flawed.

10 Q. WHAT WOULD BE A MORE REPRESENTATIVE CAPITAL STRUCTURE
11 FOR RATEMAKING PURPOSES IN THIS CASE?

12 A. A longer-term view of the historical capital structure would be better than the
13 temporary capital structure at an unrepresentative time that both of these two
14 witnesses used in their respective analysis. A capital structure that is consistent with
15 Empire's financial history as well as the near-term financial future would be even
16 better. The analytical objective¹³ in selecting a capital structure for ratemaking is to
17 correctly weight the cost of the capital components and to capture the investors'
18 perceptions of financial risk as it is reflected by the capital structure. A non-
19 representative capital structure fails to do this.

20 Q. WHY IS THE FAILURE TO REFLECT THE CORRECT PERCEPTIONS OF
21 FINANCIAL RISK ASSOCIATED WITH THE CAPITAL STRUCTURE
22 IMPORTANT IN RATEMAKING?

1 A. Of course, the capital structure provides the weights for the capital components in
2 calculating the total cost of capital. Consequently, a non-representative capital
3 structure creates a mismatch between the weights and the measured cost of each
4 component in the capital structure. For example, *Value Line*, of April 6, 2001,
5 noted that Empire "...plans to issue additional common equity this spring to raise its
6 common equity ratio." This is tantamount to informing investors that they should
7 expect the financial risk of Empire to be lessened. The market price will move
8 downward accordingly, all things being equal. Since this is the expectation of
9 investors, it influences the current market prices and the market prices used by
10 analysts in their DCF calculations. For a forward-looking DCF to accurately
11 measure the cost of capital, an analyst must use market data consistent with
12 investors' perceptions of financial risk. Neither Ms. McKiddy nor Mr. Burdette did
13 this.

14 Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

15 A. Yes, it does.

15

THE EMPIRE DISTRICT ELECTRIC COMPANY
REBUTTAL TESTIMONY OF
DONALD A. MURRY

LIST OF SCHEDULES

Schedule DAM 20	Before-Tax Interest Coverage Ratios for Staff Witness McKiddy's Comparable Companies
Schedule DAM 21	Pro Forma Pre-Tax Interest Coverage Ratio
Schedule DAM 22	Standard & Poor's Stock Guide February 2001
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Schedule DAM 24	Historical and Projected Growth Rates
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Schedule DAM 26	High, Low Close Chart March 2001
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Schedule DAM 28	Discounted Cash Flow (DCF) Cost of Common Equity Estimates
Schedule DAM 29	Capital Asset Pricing Model (CAPM) Cost of Equity Estimates
Schedule DAM 30	Discounted Cash Flow Parameters – Cleco Corporation
Schedule DAM 31	Summary – Discounted Cash Flow Growth
Schedule DAM 32	DCF Cost of Common Equity Calculations
Schedule DAM 33	Capital Asset Pricing Model

Before-Tax Interest Coverage
Witness McKiddy's Comparable
Electric Utilities

	Interest Coverage
Black Hills Corporation	5.10
Cinergy Corporation	4.40
Cleco Corporation	4.00
DPL Inc.	3.50
DQE, Inc.	4.00
Hawaiian Electric	3.80
NSTAR	2.50
Potomac Electric Power	2.60
Puget Sound Inc.	2.80
Average	3.63
Staff Witness McKiddy's Recommended Coverage for The Empire District Electric Company	2.23

Sources:

Value Line Investment Survey

Staff Witness McKiddy's Schedule 27

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

1. Standard & Poor's Corporations's Utility Rating Service 7/7/00 Electric Utilities Benchmark Financial Ratio (Bottom Quartile)	2.95
2. Long-Term Debt Ratio of Total Capital	60.20%
3. Embedded Cost of Long-Term Debt	7.88%
4. Weighted Cost of Long-Term Debt	4.74%
5. Pro Forma Cost of Capital to Meet Standard & Poor's Financial Ratio Benchmarks	13.99%
6. Weighted Cost of Equity Before Taxes	9.25%
7. Tax Multiplier	1.6231
8. Weighted Cost of Equity After Taxes	5.70%
9. Common Equity Ratio of Total Capital	39.80%
10. Necessary Return on Equity to meet Standard & Poor's Financial Ratio Benchmark	14.32%

Sources: Staff Witness Roberta A. McKiddy's Schedules 10, 11-1, and 19

FEBRUARY 2001

STOCK GUIDE

[illegible]

EARNINGS GUIDE

FILE-END 43

Firm Name	Firm Address	Firm Phone	1980				1981				1982				1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	
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Street, Bellingham 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840,

Historical and Projected Growth Rates
for the Empire District Electric Company

Historical Growth Rates

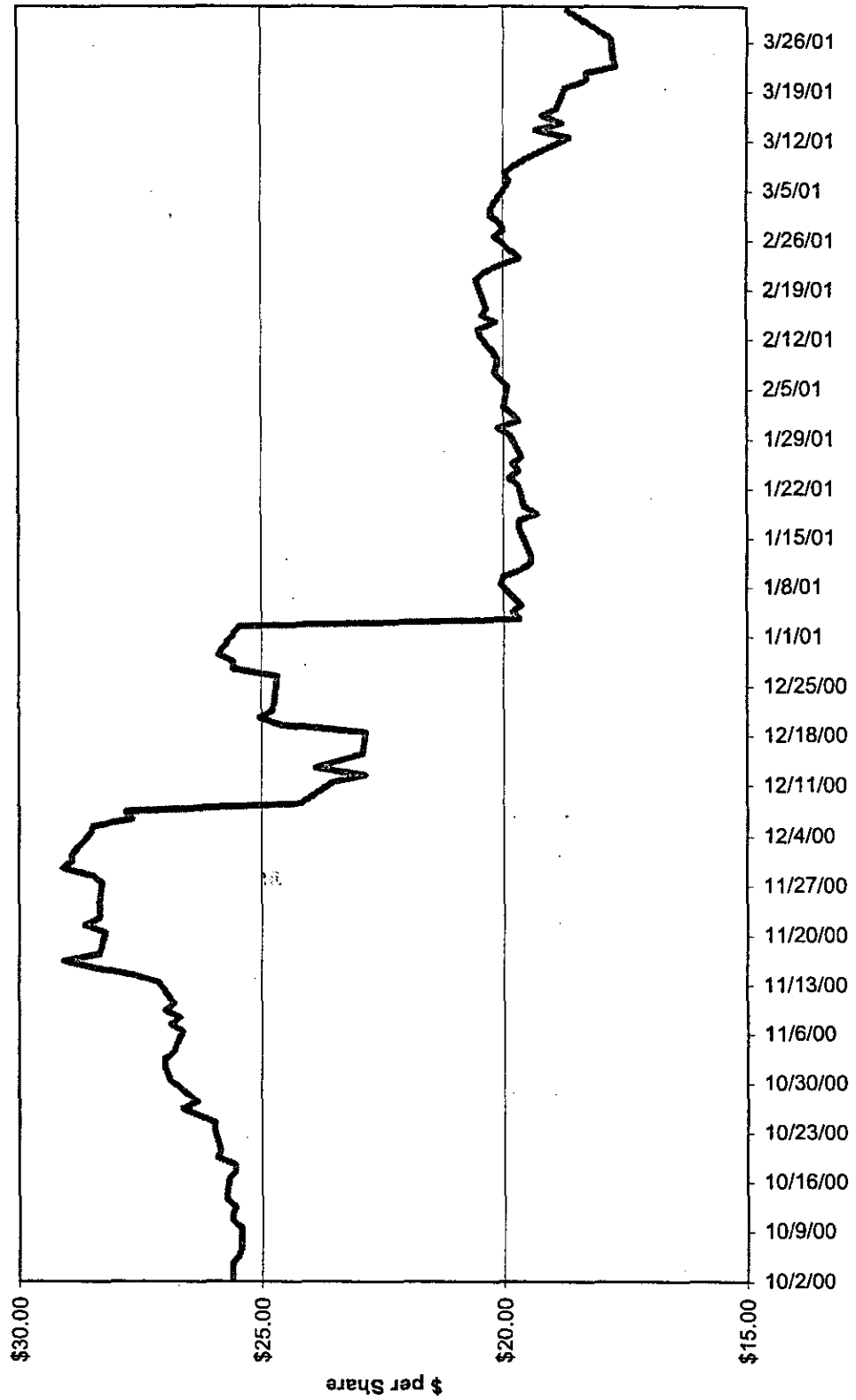
EPS Annual Compound Growth (1995-2000)	4.92%
EPS Trend Line Growth (1995-2000)	5.53%
Average of Historical Growth Rates	5.23%

Projected Growth Rates from Outside Sources

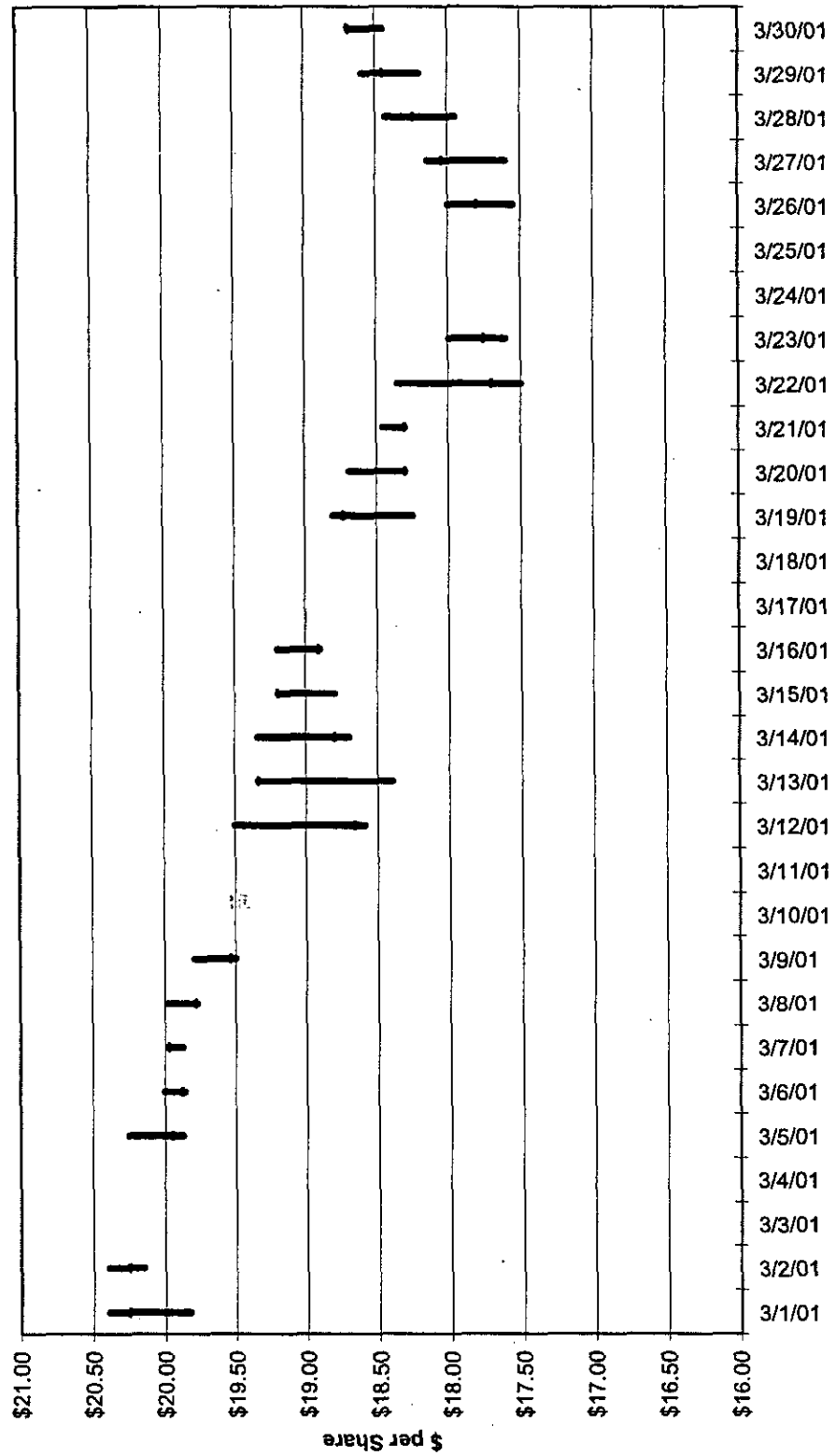
5 Year Growth Forecast (Mean) I/B/E/S Inc.'s Institutional Brokers Estimate System January 17, 2001	N.A. (1)
---	----------

5-Year Projected EPS Growth Rate S&P 500 Service Estimates	N.A. (1)
---	----------

Empire Daily Closing Price
October 2000 through March 2001



The Empire District Electric Company
High, Low Close Chart
March 2001



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

<u>Month / Year</u>	<u>High Stock Price</u>	<u>Low Stock Price</u>	<u>Average High/Low Price</u>	<u>Expected Dividend 2000</u>	<u>Projected Dividend Yield</u>
January 2001	26.562	19.312	22.937	1.280	5.58%
February 2001	21.180	19.750	20.465	1.280	6.25%
March 2001	20.390	17.500	18.945	1.280	6.76%
Average					<u>6.20%</u>

Sources:

Staff Witness Roberta A. McKiddy's Schedule 14
YAHOO! Finance Web Site

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

<u>EDE's Cost of Common Equity</u>	<u>=</u>	<u>Dividend Yield</u>	<u>+</u>	<u>Expected Growth</u>
11.42%	=	6.20%	+	5.23%
12.20%	=	6.20%	+	6.00%

Sources: Schedules DAM R-4 and DAM R-7

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

EDE's Cost of Common Equity	=	Risk Free Rate (10/31/00 - 1/31/01)	+	EDE's Beta	*	Market Risk Premium (1926-1999)	+	Firm Size Risk Premium (1926-1999)
10.34%	=	5.49%	+	0.50	*	8.10%	+	0.80%
10.68%	=	5.83%	+	0.50	*	8.10%	+	0.80%

Sources:

Direct Testimony of Staff Witness Roberta McKiddy, Schedule 18
Ibbotson Associates 2000 SBBI Yearbook Valuation Edition

Discounted Cash Flow Growth Parameters
Cleco Corporation

<u>Historic [sic] Growth</u>					<u>Retention Growth</u>		
<u>Compound Growth</u>					<u>Retention</u>	<u>Equity</u>	<u>Growth</u>
	<u>Historic [sic] Data</u>	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>	<u>Ratio (b)</u>	<u>Return (r)</u>	<u>(b*r)</u>
1	1994	1.92	1.45	15.12	0.245		
2	1995	2.08	1.49	15.82	0.284		
3	1996	2.23	1.53	16.60	0.314	13.40%	4.21%
4	1997	2.18	1.57	17.36	0.280	12.90%	3.61%
5	1998	2.24	1.61	18.13	0.281	12.70%	3.57%
6	1999	2.37	1.65	18.88	0.304	12.90%	3.92%
7	2000	2.80	1.69	20.10	0.396	14.50%	5.75%
8							
9		<u>Compound Growth Rates</u>				<u>Ave. Internal</u>	
10	'94-98	3.93%	2.65%	4.64%		<u>Growth (br):</u>	4.21%
11							
12	'95-99	3.32%	2.58%	4.52%		<u>ADD: External</u>	
13						<u>Growth (sv):</u>	0.03%
14	'96-00	5.86%	2.52%	4.90%			
15						<u>Historic [sic]</u>	
16	<u>Ave. Compound Gr.</u>	<u>4.37%</u>	<u>2.58%</u>	<u>4.69%</u>		<u>"br+sv" Gr.</u>	<u>4.25%</u>
17							
18	<u>Value Line</u>	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>			
19	<u>Historic [sic] Gr.</u>	<u>3.25%</u>	<u>3.00%</u>	<u>4.00%</u>			
20	(Avg of 5 and 10 yr. If both available)						
21							
22	Projected Growth						
23	<u>Retention Growth Calculation</u>						
24	<u>Value Line</u>	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>	<u>Retention</u>	<u>Equity</u>	<u>Growth</u>
25	2001 est'd	\$2.95	\$1.73	\$21.35	<u>Ratio (b)</u>	<u>Return (r)</u>	<u>(b*r)</u>
26							
27	2003-05 est'd	3.50	1.85	25.75	0.414	14.50%	6.00%
28					0.471	10.00%	4.71%
29	<u>Analyst's Estimates</u>					<u>Projected</u>	
30	<u>Value Line</u>	7.50%	2.50%	6.00%		<u>Growth (br):</u>	4.71%
31							
32	<u>First Call</u>	10.10%				<u>ADD: External</u>	
33	<u>Zack's</u>					<u>Growth (sv):</u>	0.00%
34							
35	<u>Average</u>					<u>Projected</u>	
36	<u>Proj'd Growth</u>	<u>8.80%</u>	<u>2.50%</u>	<u>6.00%</u>		<u>"br+sv" Gr.</u>	<u>4.71%</u>

Source: Public Counsel Witness Mark Burdette's Schedule MB-6, page 4 of 8.

Summary - Discounted Cash Flow Growth

Note: Negative Growth is not included in averages

Historic [sic] Growth

COMPANY	<u>br+sv</u>	Compound Growth			Value Line		
		<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>
Black Hills Corporation	7.88%	10.99%	3.77%	5.62%	6.00%	4.00%	5.00%
Cleco Corporation	4.25%	4.37%	2.58%	4.69%	3.25%	3.00%	4.00%
DPL, Inc.	1.15%	5.70%	3.19%	6.53%	4.00%	4.25%	4.25%
DQE, Inc.	0.94%	7.67%	0.00%	2.84%	6.50%	6.00%	4.50%
Hawaii [sic] Electric	1.67%	2.69%	1.14%	7.20%	2.50%	2.00%	2.25%
IDACORP	<u>3.45%</u>	<u>7.67%</u>	<u>0.00%</u>	<u>2.84%</u>	<u>4.75%</u>	<u>0.50%</u>	<u>1.75%</u>
Average	3.22%	6.51%	1.78%	4.95%	4.50%	3.29%	3.63%
Empire District Electric Company	2.25%	4.77%	0.00%	1.62%	1.00%	2.25%	2.00%

Projected Growth

COMPANY	<u>br+sv</u>	Value Line/First Call		
		<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>
Black Hills Corporation	10.33%	9.50%	3.50%	10.00%
Cleco Corporation	4.71%	8.80%	2.50%	6.00%
DPL, Inc.	16.39%	10.75%	1.00%	8.00%
DQE, Inc.	7.61%	6.25%	5.00%	2.00%
Hawaii [sic] Electric	3.50%	4.25%	0.00%	2.00%
IDACORP	<u>5.24%</u>	<u>6.75%</u>	<u>0.00%</u>	<u>5.50%</u>
Average	7.96%	7.72%	2.00%	5.58%
Empire District Electric Company	4.61%	3.15%	0.00%	2.50%

Ranges

COMPANY	<u>Overall</u>			<u>Hi/Low</u>	
	<u>Average</u>	<u>High</u>	<u>Low</u>	<u>Average</u>	<u>Median</u>
Black Hills Corporation	6.96%	10.99%	3.50%	7.25%	6.00%
Cleco Corporation	4.38%	8.80%	2.50%	5.65%	4.25%
DPL, Inc.	5.93%	16.39%	1.00%	8.70%	4.25%
DQE, Inc.	4.48%	7.67%	0.00%	3.84%	5.00%
Hawaii [sic] Electric	2.65%	7.20%	0.00%	3.60%	2.25%
IDACORP	3.50%	<u>7.67%</u>	<u>0.00%</u>	<u>3.84%</u>	<u>3.45%</u>
Average	4.65%	9.79%	1.17%	5.48%	4.20%
Empire District Electric Company	2.20%	4.77%	0.00%	2.39%	2.25%

Source: Public Counsel Witness Mark Burdette's Schedule MB-6, page 1 of 8.

DCF Cost of Common Equity Calculations

	Dividend	Growth		Cost of Equity	
	<u>Yield</u>	<u>Low</u>	<u>High</u>	<u>Low</u>	<u>High</u>
Empire District Electric	6.56%	0.00%	4.77%	6.56%	11.33%
Black Hills Corporation	2.71%	3.50%	10.99%	6.21%	13.70%
Cleco Corporation	3.86%	2.50%	8.80%	6.36%	12.66%
DPL, Inc.	3.36%	1.00%	16.39%	4.36%	19.75%
DQE, Inc.	5.41%	0.00%	7.67%	5.41%	13.08%
Hawaii [sic] Electric	6.91%	0.00%	7.20%	6.91%	14.11%
IDACORP	<u>5.08%</u>	<u>0.00%</u>	<u>7.67%</u>	<u>5.08%</u>	<u>12.75%</u>
Average	4.56%	1.17%	9.79%	5.72%	14.34%

Source: Public Counsel Witness Mark Burdette's Schedule MB-8

Capital Asset [sic] Pricing Model (CAPM) Cost of Common Equity (Ke)

$$\text{Formula: } K_e = R_f + \text{beta}(R_m - R_f)$$

Risk Free Rate (Rf) = 5.27%
 Market Premium (Rm-Rf) = 8.10%

Value Line Investment Survey Water [sic] Companies

	<u>Beta</u>	<u>Size Premium</u>	<u>CAPM Ke</u>
Empire District Electric Company	0.50	0.80%	10.12%
Black Hills Corporation	0.50	0.80%	10.12%
Cleco Corporation	0.55	0.20%	9.93%
DPL, Inc.	0.60	0.00%	10.13%
DQE, Inc.	0.50	0.20%	9.52%
Hawaii [sic] Electric	0.50	0.20%	9.52%
IDACORP	0.50	0.20%	<u>9.52%</u>

Average CAPM cost of equity: 9.79%

Sources:

Public Counsel Witness Mark Burdette's Schedule MB-9
 Ibbotson Associates 2000 SBBI Yearbook: Valuation Edition