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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

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Surrebuttal Testimony

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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

1 application of the DCF and CAPM models. He also specifically compared my present testimony
2 to testimony in a previous case.

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

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

10 **Q. PLEASE EXPLAIN.**

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

14 Although this example may appear unrealistic, it is a reasonable description of
15 the plight of public utility companies (gas, electric, water) in the United States. To attract
16 investors, these firms historically paid out most of their earnings as dividends. To
17 finance growth, they periodically sold additional common shares. As a result, EPS
18 growth rates were low. These firms were trapped in a vicious cycle. If they reduced their
19 dividend rates, their EPS growth rates would rise, and they might be considered growth
20 companies rather than bond substitutes.

21 In recent years, some utilities have reduced their dividends or restricted dividend
22 growth to increase retained earnings available for new investment. Other utilities have
23 long been successful in promoting themselves as growth companies by paying low
24 dividends and/or stock dividends and retaining their earnings for growth.

25
26 This passage, however, simply states the normal condition of the utility industry and is neither an
27 indictment of the industry nor Empire, and it does not link the dividend payout rates to the cost of
28 capital.

29 Historically, utilities have had high payout ratios even though they are a capital-intensive
30 industry. The first three words of the second sentence of the passage, "To attract investors....,"
31 explain utility industry dividend practice. The utility industry developed this capital formation

1 niche over time, and it is simply a characteristic of the industry. It is interesting to note that the
2 passage was written in 1998 when utilities generally were trying to recreate themselves as growth
3 companies. Such thinking has changed and the current mantra in the industry is "back to basics."

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

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

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

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

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

1 IF ANYTHING, EMPIRE'S RESISTANCE TO CUTTING ITS DIVIDEND IN
2 ORDER TO ACHIEVE A HEALTHIER PAYOUT RATIO CAUSES IT TO HAVE
3 TO ISSUE MORE COSTLY NEW COMMON EQUITY, IN ORDER TO
4 RESTORE THE EROSION THAT IT CAUSED TO ITS COMMON EQUITY
5 BALANCE BY HAVING NEGATIVE RETAINED EARNINGS....
6

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

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

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

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

1 in dividends.

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

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

6 **Q. HOW DO YOU RESPOND?**

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

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

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

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

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

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

3
4 The adjustment for size premium that Dr. Murry advocates is based on a study of all of
5 the stocks in the New York Stock Exchange, The American Stock Exchange, and the
6 NASDAQ [sic] National Market. The study did not apply specifically to regulated
7 utilities. Annie Wong, Associate Professor at Western Connecticut State University,
8 performed a study that refutes the need for an adjustment based upon the smaller size of
9 public utilities.

10
11 **Q. IS ANYTHING WRONG WITH MR. MURRAY'S POSTION CONCERNING THE SIZE**
12 **ADJUSTMENT FOR THE CAPM ANALYSES?**

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

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

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

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

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

14 **Q. IS HIS OBSERVATION ACCURATE?**

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

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

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

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

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

10 A. Close inspection shows that Empire's stock price has declined from the previous case to the
11 current one. On Surrebuttal Schedule DAM-2, I compared the 52 Week range and the two-week
12 range of Empire's stock price in both rate proceedings. In the previous rate case, the range I used
13 for Empire's stock price in my current analysis was \$20.62 and \$20.97 per share. Mr. Murray
14 insisted that I use a price in the current range of \$20 per share so I took the two weeks prior to his
15 filing of direct testimony as an appropriate time period. The range Mr. Murray desires to use is
16 about \$20.55 to \$20.63 per share. Essentially, it records no change in share prices in three years.
17 The prices over a longer period are even more revealing. As the schedule shows, the range in
18 2001 was \$17.50 to \$26.60. The current range is a much lower \$17.00 to \$22.45. Clearly, the
19 market appears to have assessed that Empire's common stock as more risky now than at the time
20 of the previous case.

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

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

24 1) Allowed equity returns in other jurisdictions are not appropriate benchmarks....2) Use
25 of a 6.00% growth rate drastically overstates investor expectations. 3) Used stale stock
26 price data in DCF analysis. 4) Performed inappropriate size adjustment in first CAPM
27 analysis. 5) Incorrectly used an inflated market return in second CAPM analysis. 6)
28 Inappropriately used two proxies for the risk-free rate in second CAPM analysis.
29

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

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

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

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

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

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

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

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

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

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

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

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

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

1 A. Yes. I looked at Zacks and FirstCall/Thomson, two services I do not normally use in my
2 discounted cash flow analysis. Zacks has forecasted earnings per share growth over the next five
3 years of five percent for Empire and five percent for the electric utility industry. Likewise,
4 FirstCall/Thomson, which Mr. Allen used in his direct testimony, has forecasted for the industry a
5 5.4 percent growth rate. These are in line with *Value Line*.

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

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

11 **Q. WHAT DO YOU MEAN?**

12 A. Market prices for common stock fluctuate over time, which is why viewing the range of prices
13 over a period of time is relevant to this proceeding. After all, rates from this proceeding may
14 remain in effect for a period of time measured in years, and taking a sample of prices from an
15 ephemeral market is not sound regulatory policy. The prices from the period that Mr. Allen
16 questions present a good example. In Surrebuttal Schedule DAM-4, I have graphed the closing
17 prices of Empire's stock since the beginning of 2004. As one can see from the graph, the average
18 closing price for the time period that I used, January 26 through February 6, is \$22.00 per share.
19 Mr. Allen called this stale data and suggested that I use price data closer to the filing date of April
20 30, 2004. However, the average price for Empire's common stock for the two weeks ending April
21 30, 2004 was \$21.47 per share. If I had the benefit of foresight to know what share prices would
22 be when Mr. Allen filed his direct testimony, then I could have used an average closing price of
23 \$20.42 per share. As the graph shows, between February and June 2004, the stock of the Empire
24 lost approximately fifteen percent of its market value.

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

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

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

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

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

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

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

11 **Q. YOU STATED THAT MR. ALLEN ALSO EXPRESSED CONCERN THAT YOUR**
12 **CAPM USED AN INFLATED MARKET RETURN. WHAT IS YOUR REPOSENSE TO**
13 **THIS CONCERN?**

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

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

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

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

3 I used an estimate of overall return on the market (R_m) of 15.0%. This value is the
4 average of the arithmetic means of the market returns of Large Company Stocks (12.7%)
5 and Small Company Stocks (17.3%) for the years 1926-2001, as calculated and reported
6 by Ibbotson & Associates.”
7

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

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

14 **A.** No. I could not.

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

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

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

24 **A.** On Surrebuttal Schedules DAM-5 and DAM-6 I have revised Rebuttal Schedules DAM-4
25 and DAM-9. These revisions correct calculation errors regarding the Funds From Operations
26 (“FFO”) Interest Coverage metric associated with Mr. Murray’s and Mr. Allen’s
27 recommendations and correspond with my rebuttal testimony on page 6, lines 18-21 and page 17,

1 line 9. The revisions show both Mr. Murray's and Mr. Allen's recommendations result in FFO
2 interest coverage of 3.54 times. Such a result is in the lower portion of S&P's guideline of 3.0-
3 4.2 times for a utility with Empire's business profile. Consequently, my recommendation is not
4 affected given the totality of the analysis regarding the S&P metrics and guidelines.

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

6 **A.** Yes.