Exhibit No.

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Witness: James H. Vander Weide, Ph.D.
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Sponsoring Party: Empire District
Case No. ER-2008-0093

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

SURREBUTTAL TESTIMONY

OF

JAMES H. VANDER WEIDE, PH.D.

April 25, 2008

SURREBUTTAL TESTIMONY
OF
DR. JAMES H. VANDER WEIDE
ON BEHALF OF
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE
MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. ER-2008-0093

1 **Q. WHAT IS YOUR NAME AND BUSINESS ADDRESS?**

2 A. My name is James H. Vander Weide. I am Research Professor of

3 Finance and Economics at the Fuqua School of Business of Duke

4 University. I am also President of Financial Strategy Associates, a firm

5 that provides strategic and financial consulting services to corporate

6 clients. My business address is 3606 Stoneybrook Drive, Durham, North

7 Carolina.

8 **Q. ARE YOU THE SAME JAMES H. VANDER WEIDE WHO PRESENTED**

9 **DIRECT AND REBUTTAL TESTIMONIES IN THIS PROCEEDING**

10 **BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION**

11 **("COMMISSION")?**

12 A. Yes, I am.

13 **Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

14 A. I have been asked by The Empire District Electric Company ("Empire" or

15 "the Company") to review the rebuttal testimonies of Mr. Matthew J.

16 Barnes and Mr. Michael Gorman and to respond to their comments

17 regarding Empire's cost of equity. Mr. Barnes's testimony is presented on

18 behalf of the Staff of the Commission, and Mr. Gorman's testimony is

1   presented on behalf of Explorer Pipeline Company, General Mills, and

2   Praxair, Inc.

3 I. **SURREBUTTAL OF MR. BARNES**

4 Q. **DOES MR. BARNES AGREE WITH YOUR RECOMMENDED COST OF**

5   **EQUITY IN THIS PROCEEDING?**

6 A. No. Mr. Barnes disagrees with my recommendation on the grounds that:

7   (1) I failed to apply a financial risk adjustment to the cost of equity results

8   for my proxy companies; (2) I failed to apply my cost of equity

9   methodologies to a proxy group of natural gas companies; (3) I employed

10   a quarterly discounted cash flow model; and (4) my estimated cost of

11   equity is unreasonably high in relation to recent allowed rates of return on

12   equity.

13   **A.   FINANCIAL RISK ADJUSTMENT**

14 Q. **DID YOU PROVIDE EXPERT TESTIMONY ON EMPIRE'S COST OF**

15   **EQUITY IN CASE NOS. ER-2004-0570 AND ER-2006-0315?**

16 A. Yes, I did.

17 Q. **HOW DID YOU ESTIMATE EMPIRE'S COST OF EQUITY IN THOSE**

18   **CASES?**

19 A. I estimated Empire's cost of equity by: (1) estimating the average cost of

20   equity for a large proxy group of comparable risk companies, and

21   (1) adjusting the proxy group's estimated cost of equity to reflect the

22   difference between the proxy group's average financial risk and the

23   financial risk implicit in Empire's recommended capital structure.

1 Q. **ARE YOU RECOMMENDING A FINANCIAL RISK ADJUSTMENT IN**

2 **THIS CASE?**

3 A. No.

4 Q. **WOULD YOUR COST OF EQUITY RECOMMENDATION BE HIGHER IF**

5 **YOU WERE TO RECOMMEND A FINANCIAL RISK ADJUSTMENT IN**

6 **THIS CASE?**

7 A. Yes, it would.

8 Q. **WHY HAVE YOU DECIDED TO REFRAIN FROM RECOMMENDING A**

9 **FINANCIAL RISK ADJUSTMENT IN THIS CASE?**

10 A. I have decided to refrain from recommending a financial risk adjustment in

11 this case because the Commission did not accept a financial risk

12 adjustment in its AmerenUE order in Case No. ER-2007-0002; and, as a

13 result of that decision, the Company has requested that I not make a

14 financial risk adjustment in this proceeding [*see* Vander Weide Direct at

15 42].

16 Q. **IS YOUR DECISION TO REFRAIN FROM RECOMMENDING A**

17 **FINANCIAL RISK ADJUSTMENT IN THIS CASE INCONSISTENT WITH**

18 **YOUR DECISION TO RECOMMEND A FINANCIAL RISK**

19 **ADJUSTMENT IN PREVIOUS CASES BEFORE THIS COMMISSION?**

20 A. No. My decision to refrain from recommending the financial risk

21 adjustment is not based on my belief that a financial risk adjustment is

22 economically inappropriate. Rather, it is based on my and the Company's

23 recognition that, as a practical matter, the Commission rejected a financial

1   risk adjustment in the AmerenUE proceeding (even though the

2   Commission had previously accepted my financial risk adjustment in ER-

3   2004-0570). There is nothing inconsistent with refraining from making a

4   recommendation that the Commission has rejected in a prior case.

5   Q.   **HAS THE STAFF CHANGED ITS RECOMMENDED COST OF EQUITY**

6   **METHODS AND CONCLUSIONS IN THIS CASE BASED ON THE**

7   **REALITIES OF THE COMMISSION'S PREVIOUS DECISIONS?**

8   A.   Yes. Staff has used a different methodology and different proxy group

9   selection criteria in every Empire case in which I have testified in Missouri.

10   In Case No. ER-2004-0570, the Staff based its cost of equity

11   recommendation for Empire primarily on the result of a company-specific

12   DCF model applied to stock price, dividend, and growth data for Empire

13   alone. When the Commission criticized the Staff for basing its cost of

14   equity recommendation primarily on the results of a company-specific

15   DCF model, the Staff decided to base its cost of equity recommendation in

16   Case No. ER-2006-0315 on the application of DCF and other cost of

17   equity methods to a small group of five proxy companies. In that case, the

18   Commission also criticized the Staff's methodology because the Staff

19   proxy group contained only five proxy companies. In response to this

20   criticism, Staff has again changed its selection criteria and methodology to

21   obtain a larger proxy company group of 17 companies. Since Staff has

22   changed its cost of equity methodology at least twice in recent years in

23   response to prior Commission decisions, I am surprised that Staff would

1   criticize me for refraining from recommending my financial risk adjustment

2   in this case in response to Commission comments.

3   **B.   PROXY COMPANIES**

4   **Q.   WHAT PROXY COMPANIES DID YOU USE TO ESTIMATE EMPIRE'S**

5   **COST OF EQUITY IN CASE NOS. ER-2004-0570 AND ER-2006-0315?**

6   A.   I used both a proxy group of electric companies and a proxy group of

7   natural gas companies to estimate Empire's cost of equity in those cases.

8   **Q.   WHY DID YOU APPLY YOUR COST OF EQUITY METHODOLOGIES**

9   **TO A GROUP OF NATURAL GAS COMPANIES IN ADDITION TO A**

10   **GROUP OF ELECTRIC COMPANIES IN THOSE CASES?**

11   A.   I applied my cost of equity methodologies to both natural gas and electric

12   companies because the natural gas companies were similar in risk to the

13   electric companies and were experiencing less industry restructuring than

14   the electric companies at that time.

15   **Q.   DID YOUR COST OF EQUITY MODELS PRODUCE APPROXIMATELY**

16   **THE SAME RESULTS FOR BOTH THE ELECTRIC AND NATURAL**

17   **GAS COMPANY GROUPS?**

18   A.   Yes.

19   **Q.   WHY HAVE YOU DECIDED TO APPLY YOUR COST OF EQUITY**

20   **METHODOLOGIES ONLY TO ELECTRIC COMPANIES IN THIS**

21   **PROCEEDING?**

22   A.   I decided to apply my cost of equity methodologies only to electric

23   companies because the risk of investing in electric companies such as

1   Empire has increased relative to the risk of investing in natural gas

2   companies.   In addition, there are now fewer natural gas companies

3   available for inclusion in a proxy group, and there are fewer analysts

4   following the companies that remain.

5 Q. **WHY HAS THE RISK OF INVESTING IN ELECTRIC COMPANIES**

6   **INCREASED RELATIVE TO THE RISK OF INVESTING IN NATURAL**

7   **GAS COMPANIES?**

8 A. The risk of investing in electric companies has increased relative to the

9   risk of investing in natural gas companies because electric companies are

10   now investing heavily in new electric generation and transmission facilities

11   to meet the needs of their customers, whereas the capital expenditures of

12   natural gas companies are relative modest at this time.

13 Q. **IS YOUR GROUP OF COMPARABLE COMPANIES IN THIS**

14   **PROCEEDING "INCONSISTENT" WITH THE COMPARABLE**

15   **COMPANIES YOU SELECTED IN EARLIER PROCEEDINGS?**

16 A. No. In both this proceeding and earlier proceedings, I have attempted to

17   select the largest possible group of comparable risk companies for which

18   there is sufficient data to estimate the cost of equity. Since the natural gas

19   companies are no longer comparable in risk to Empire, it is not

20   inconsistent to rely on my large comparable group of electric companies in

21   this case.

1   **C.**   **QUARTERLY DCF MODEL**

2   **Q.**   **WHY DO YOU USE THE QUARTERLY DCF MODEL TO ESTIMATE**

3   **EMPIRE'S COST OF EQUITY?**

4   A.   I use the quarterly DCF model to estimate Empire's cost of equity because

5   my proxy companies all pay dividends quarterly, and, as explained in

6   Appendix 2 of my direct testimony, the quarterly DCF model is the only

7   DCF model that provides an accurate estimate of the cost of equity when

8   dividends are paid quarterly. Specifically, the annual DCF model cannot

9   be derived from an assumption that dividends are paid quarterly.

10   **Q.**   **DOES YOUR USE OF A QUARTERLY DCF MODEL HAVE A**

11   **SIGNIFICANT IMPACT ON YOUR DCF RESULTS IN THIS CASE?**

12   A.   No. As discussed below, my use of a quarterly DCF model has a 5-basis-

13   point impact on my DCF result in this case.

14   **Q.**   **DOES MR. BARNES AGREE WITH YOUR USE OF THE QUARTERLY**

15   **DCF MODEL TO ESTIMATE EMPIRE'S COST OF EQUITY?**

16   A.   No. Mr. Barnes claims that the quarterly DCF model should not be used

17   to estimate Empire's cost of equity because, in his opinion, investors do

18   not use the quarterly DCF model to estimate Empire's cost of equity

19   [Barnes Rebuttal at 8].

20   **Q.**   **DOES MR. BARNES ATTEMPT TO JUSTIFY HIS OPINION THAT**

21   **INVESTORS DO NOT USE A QUARTERLY DCF MODEL?**

22   A.   Yes, Mr. Barnes claims that investors could not possibly use a quarterly

23   DCF model because "Value Line does not publish projected quarterly

24   dividends." [Barnes Rebuttal at 8.]

1 **Q.** **DOES VALUE LINE PUBLISH PROJECTED QUARTERLY DIVIDENDS?**

2 A. Although Value Line does not specifically publish projected quarterly

3 dividends, they publish sufficient data for investors to reasonably project a

4 company's quarterly dividend payments.

5 **Q.** **IS IT REASONABLE TO APPLY A QUARTERLY DCF MODEL WHEN**

6 **GROWTH FORECASTS ARE STATED ON AN ANNUAL BASIS?**

7 A. Yes. As demonstrated in Appendix 2 of my direct testimony, there are two

8 versions of the quarterly DCF model. In one version, the quarterly

9 dividend growth rate is derived from the annual dividend growth rate by

10 raising the annual growth rate to the $1/4^{th}$ power [see, for example, Vander

11 Weide Direct, Schedule 7, pp. 2-6]. In another version, a company's next

12 four quarterly dividends are assumed to be 1 + the annual growth rate

13 times the previous four quarterly dividends [see, for example, Vander

14 Weide Direct at 19, and Schedule 1]. Both versions are economically

15 appropriate for companies that pay dividends quarterly.

16 **Q.** **DO YOU AGREE WITH MR. BARNES'S ASSERTION THAT YOU USE**

17 **THE QUARTERLY DCF MODEL "TO ARRIVE AT A HIGHER ...**

18 **RETURN ON EQUITY RECOMMENDATION"?**

19 A. No. I use the quarterly DCF model to estimate Empire's cost of equity

20 because: (1) the DCF model is based on the assumption that a

21 company's stock price is equal to the present value of the company's

22 expected future dividends; and (2) the quarterly DCF model is the only

23 DCF model that equates the present value of the company's expected

1   future dividends to its stock price when dividends are paid quarterly [*see*

2   Vander Weide Direct, Appendix 2.] Mr. Barnes fails to recognize that I

3   provide a very detailed and complete economic justification for the use of

4   the quarterly DCF model in Appendix 2 of my direct testimony. If I were to

5   use the quarterly methodology only to arrive at a higher return on equity

6   recommendation, I would not be able to provide a sound economic

7   foundation for my recommendation.

8 **Q.** **DOES MR. BARNES ATTEMPT TO REFUTE THE ECONOMIC**

9   **ARGUMENTS IN FAVOR OF THE QUARTERLY DCF MODEL THAT**

10   **YOU PRESENT IN YOUR DIRECT TESTIMONY?**

11 **A.** No, he does not.

12   **D.**   **AUTHORIZED RATES OF RETURN ON EQUITY**

13 **Q.** **MR. BARNES PRESENTS INFORMATION ON AVERAGE**

14   **AUTHORIZED RETURNS ON EQUITY FOR 2007 AND THE FIRST**

15   **QUARTER OF 2008. DOES MR. BARNES'S AVERAGE AUTHORIZED**

16   **ROE DATA INCLUDE AUTHORIZED RETURNS FOR BOTH**

17   **INTEGRATED AND WIRES-ONLY ELECTRIC UTILITIES?**

18 **A.** Yes.

19 **Q.** **FOR THE PURPOSE OF ASSESSING A RECOMMENDED RETURN ON**

20   **EQUITY FOR EMPIRE, IS IT REASONABLE TO CONSIDER**

21   **AUTHORIZED ROE DATA FOR WIRES-ONLY ELECTRIC UTILITIES?**

22 **A.** No. Since integrated electric utilities are more risky than wires-only

23   electric utilities, it is inappropriate to consider authorized ROE data for

1   wires-only electric utilities when assessing the reasonableness of an ROE

2   recommendation for an integrated utility such as Empire.

3   **Q.**   **WHY ARE INTEGRATED ELECTRIC UTILITIES MORE RISKY THAN**

4   **WIRES-ONLY ELECTRIC UTILITIES?**

5   A.   Integrated electric utilities are more risky than wires-only electric utilities

6   because integrated utilities are currently making large investments in

7   electric generation plants, whereas wires-only electric utilities are not.

8   **Q.**   **WHAT IS THE AVERAGE AUTHORIZED RETURN ON EQUITY FOR**

9   **INTEGRATED ELECTRIC UTILITIES DURING 2007?**

10   A.   The average authorized return on equity for integrated electric utilities

11   during 2007 is 10.51 percent (see Surrebuttal Schedule JVW-1).

12   **Q.**   **WHAT IS THE AVERAGE AUTHORIZED RETURN ON EQUITY FOR**

13   **INTEGRATED ELECTRIC UTILITIES FOR THE SIX-MONTH PERIOD**

14   **FROM OCTOBER 2007 THROUGH MARCH 2008?**

15   A.   The average authorized return on equity for integrated electric utilities

16   during the period October 2007 through March 2008 is 10.7 percent.

17   **Q.**   **WHAT IS THE AVERAGE AUTHORIZED RETURN ON EQUITY FOR**

18   **INTEGRATED ELECTRIC UTILITIES FOR THE ONE-YEAR PERIOD**

19   **FROM APRIL 2007 THROUGH MARCH 2008?**

20   A.   The average authorized return on equity for integrated electric utilities

21   during the one-year period from April 2007 through March 2008 is

22   10.6 percent.

1 Q. **IN VIEW OF THESE DATA, IS YOUR RECOMMENDED 11.6 PERCENT**

2   **RETURN ON EQUITY FOR EMPIRE WITHIN THE COMMISSION'S**

3   **"ZONE OF REASONABLENESS"?**

4 A. Yes. The Commission's zone of reasonableness extends 100 basis points

5   above and below the average authorized rate of return. Referring to the

6   average authorized return data over the most recent six-month period, the

7   Commission's zone of reasonableness extends from 9.7 percent to

8   11.7 percent. Furthermore, as explained in the testimony of Mr. Overcast,

9   Empire's risk is significantly higher than the average risk of the electric

10   utilities represented in the return data.

11 II. **SURREBUTTAL OF MR. GORMAN**

12 Q. **WHAT AREAS OF YOUR DIRECT TESTIMONY DOES MR. GORMAN**

13   **CRITIQUE IN HIS REBUTTAL TESTIMONY?**

14 A. Mr. Gorman critiques my: (1) DCF studies; (2) ex ante and ex post risk

15   premium studies; and (3) CAPM studies.

16   **A.   DCF STUDIES**

17 Q. **WHAT ARE MR. GORMAN'S CRITICISMS OF YOUR DCF ANALYSIS?**

18 A. Mr. Gorman argues that the analysts' growth forecasts used in my DCF

19   analysis are too high to be sustainable. He also claims that my DCF

20   results are "inflated" because I used market-weighted rather than simple

21   average results. Finally, he contends that I should have excluded the

22   impact of quarterly dividend payments in my DCF analyses.

1   **1. ANALYSTS' GROWTH FORECASTS**

2 Q. **WHY DO YOU USE ANALYSTS' GROWTH FORECASTS TO**

3   **ESTIMATE THE GROWTH COMPONENT OF YOUR DCF ANALYSIS?**

4 A. I use analysts' growth forecasts to estimate the growth component of my

5   DCF analysis because the DCF model requires the growth forecasts of

6   investors, and my studies indicate that analysts' growth forecasts are the

7   best proxy for investors' long-term growth expectations in the DCF model.

8 Q. **MR. GORMAN CLAIMS THAT THE AVERAGE ANALYSTS' GROWTH**

9   **RATES IN YOUR DCF ANALYSIS "EXCEED A REASONABLE AND**

10   **RATIONAL ASSESSMENT OF THE UTILITIES' LONG-TERM**

11   **SUSTAINABLE GROWTH RATES." [GORMAN REBUTTAL AT 6.] DO**

12   **YOU AGREE WITH HIS CONTENTION?**

13 A. No. First, I disagree with Mr. Gorman's attempt to impose his view of

14   "rationality" on investors. The cost of equity is determined by investors in

15   the marketplace, not by Mr. Gorman. If investors use analysts' growth

16   forecasts in making stock buy and sell decisions—and my studies indicate

17   that they do—the analysts' growth forecasts should be used to estimate

18   the growth component of the DCF model, whether or not Mr. Gorman

19   believes these growth forecasts are "rational.

20   Second, Mr. Gorman fails to recognize that investor growth

21   forecasts affect stock prices. If Mr. Gorman believes that investors'

22   growth forecasts are irrational, he should adjust the stock prices for the

23   companies in his DCF analyses as well as the growth forecasts. Making

1   such an adjustment to the stock price would significantly increase the

2   results of his two-stage DCF analysis.

3   Third, I disagree with Mr. Gorman's assumption that a "long-term

4   sustainable growth rate cannot exceed the nominal projected growth in

5   GDP." [Gorman Rebuttal at 6.]. A company's nominal growth can exceed

6   the nominal growth in GDP for many years if either: (1) the unit demand

7   for the company's products is expected to grow faster than GDP for many

8   years; or (2) the company's prices are expected to grow faster than the

9   general level of inflation for many years.

10   Q.   **MR. GORMAN ARGUES IN BOTH HIS DIRECT AND REBUTTAL**

11   **TESTIMONIES THAT HIS TWO-STAGE DCF MODEL SHOULD BE**

12   **USED TO ESTIMATE EMPIRE'S COST OF EQUITY. HAVE YOU DONE**

13   **ANY STUDIES TO TEST WHETHER MR. GORMAN'S TWO-STAGE**

14   **DCF MODEL CORRECTLY CAPTURES INVESTORS' GROWTH**

15   **EXPECTATIONS?**

16   A.   Yes. If Mr. Gorman's two-stage DCF model correctly captures investors'

17   growth expectations, the average growth rate in his two-stage DCF model

18   should be highly correlated with stock prices, and thus, price-earnings

19   ratios. In my rebuttal testimony, I demonstrate that there is no statistically

20   significant correlation between Mr. Gorman's average two-stage growth

21   rates and stock prices. These studies provide strong evidence that Mr.

22   Gorman's two-stage DCF model should not be used to estimate Empire's

23   cost of equity.

1   My studies also reveal that, in contrast to the lack of correlation

2   between Mr. Gorman's two-stage growth rates and stock prices, there is a

3   strong statistically significant correlation between the I/B/E/S growth rates

4   and stock prices. These studies provide strong evidence that the single-

5   stage DCF model should be used to estimate Empire's cost of equity and

6   that the I/B/E/S growth forecasts should be used to estimate the growth

7   component of the single-stage DCF model.

8   Q. **IN RESPONSE TO MR. GORMAN'S REBUTTAL TESTIMONY, HAVE**

9   **YOU PERFORMED ADDITIONAL ANALYSES OF MR. GORMAN'S**

10   **RECOMMENDED TWO-STAGE DCF MODEL?**

11 A. Yes. If Mr. Gorman's two-stage DCF model is a good representation of

12   investors' return expectations, then the average two-stage DCF result for

13   the industrial companies, which he claims are more risky than the electric

14   utilities, should exceed the average two-stage DCF result for electric

15   utilities.

16   To test whether Mr. Gorman's two-stage DCF model reasonably

17   represents investors' return expectations, I have compared the average

18   DCF result for the S&P 500, the industrial companies in the S&P 500, and

19   the electric utility companies in the S&P 500. Contrary to Mr. Gorman's

20   hypothesis that the cost of equity for industrial companies should be

21   greater than the cost of equity for electric utilities, the average two-stage

22   DCF result for industrial companies, 7.6 percent, is 180 basis points less

23   than the average two-stage DCF result of 9.4 percent for the electric

1   utilities; and the average result for the S&P 500 is 7.9 percent, 150 basis

2   points less than the 9.4 percent average result for the electric companies.

3   This finding further demonstrates the failure of Mr. Gorman's two-

4   stage DCF model to properly capture investors' return expectations (see

5   Surrebuttal Schedule JVW-2). Indeed, it is difficult to imagine that

6   investors would invest in either the S&P Industrials or the S&P 500 if they

7   expected returns of only 7 to 8 percent, as Mr. Gorman's two-stage DCF

8   model implies.

9
10
11

TABLE 1
ANOMALOUS DISCOUNTED CASH FLOW RESULTS
FROM MR. GORMAN'S TWO-STAGE DCF MODEL

COMPANY GROUP	TWO-STAGE DCF RESULT
Industrials in the S&P 500	7.6%
S&P 500	7.9%
Electric Companies	9.4%

12

13   **2.   MARKET-WEIGHTED AVERAGE RESULTS**

14 Q.   **WHY DO YOU USE MARKET-WEIGHTED RATHER THAN SIMPLE**

15   **AVERAGE RESULTS IN YOUR DCF ANALYSES?**

16 A.   I use market-weighted results because market weights indicate the

17   relative share of each company in the typical investor's portfolio of

18   companies; and the expected return on a portfolio of companies depends

19   on the market values of the companies in the portfolio.

20   **3.   THE QUARTERLY DCF MODEL**

21 Q.   **WHY DOES MR. GORMAN DISAGREE WITH YOUR USE OF THE**

22   **QUARTERLY DCF MODEL TO ESTIMATE EMPIRE'S COST OF**

23   **EQUITY?**

1 A. Mr. Gorman argues that the quarterly DCF model should not be used to

2 estimate the cost of equity for electric utilities because such use would

3 allow investors to earn reinvestment returns twice. [Gorman Rebuttal

4 at 5.]

5 Q. **DO YOU AGREE WITH MR. GORMAN'S ARGUMENT AGAINST THE**

6 **QUARTERLY DCF MODEL?**

7 A. No. The quarterly DCF model only assumes that dividends are reinvested

8 once, at the time they are received. Indeed, in this regard, the quarterly

9 DCF model is no different than the annual DCF model. As I explained

10 above and in my direct testimony, the quarterly DCF model is the correct

11 model to estimate the cost of equity for companies that pay dividends

12 quarterly because it is the only model that correctly equates the present

13 value of future dividends to the current stock price. There is no way

14 mathematically that an annual model can equate a company's quarterly

15 dividends to its stock price.

16 Q. **WHAT IMPACT DOES YOUR USE OF THE QUARTERLY DCF MODEL**

17 **RATHER THAN AN ANNUAL DCF MODEL HAVE ON YOUR DCF**

18 **RESULTS?**

19 A. My use of the quarterly DCF model has an impact of 5 basis points with

20 regard to the DCF analysis submitted with my direct testimony.[1] I have

21 updated my DCF analysis to use market data through March 2008 (see

[1] Mr. Gorman purports to present my quarterly DCF analysis in his rebuttal testimony in his Schedule MPG-1. However, every result shown under the column labeled "Quarterly Cost of Equity" is incorrect. The correct values are as shown in my direct testimony, Schedule 1.

1   Surrebuttal Schedule JVW-3). I also demonstrate in that schedule that

2   there is a difference of only 2 basis points in the result based on my

3   quarterly DCF model compared to the result using an annual DCF model.

4 Q. **WHAT AVERAGE DCF RESULT DO YOU OBTAIN FROM YOUR**

5   **UPDATED DCF ANALYSIS?**

6 A. I obtain an average DCF result of 12.1 percent.

7   **B.   EX ANTE RISK PREMIUM STUDIES**

8 Q. **WHAT ARE MR. GORMAN'S CRITICISMS OF YOUR EX ANTE RISK**

9   **PREMIUM STUDIES?**

10 A. Mr. Gorman claims that: (1) my ex ante risk premium results are

11   exaggerated by my use of a quarterly rather than an annual DCF model;

12   and (2) my ex ante risk premium model results are "suspiciously high" in

13   2006 and 2007 "compared to average industry authorized returns on

14   equity." [Gorman Rebuttal at 8 – 9.]

15 Q. **DO YOU AGREE WITH MR. GORMAN'S CLAIM THAT YOUR EX ANTE**

16   **RISK PREMIUM RESULTS ARE EXAGGERATED BY YOUR USE OF**

17   **THE QUARTERLY DCF MODEL?**

18 A. No. As noted above and in Appendix 2 of my direct testimony, the

19   quarterly DCF model is the only correct model when dividends are paid

20   quarterly. Further, Mr. Gorman has overstated the impact of my use of the

21   quarterly DCF model on my average DCF result. For the data shown in

22   Schedule 1 of my direct testimony, the impact of using the quarterly DCF

23   model on my DCF result alone is 5 basis points. For the updated data

1   shown in Surrebuttal Schedule JVW-3, as noted above, the impact of

2   using the quarterly DCF model rather than an annual DCF model is only 2

3   basis points.

4   Q.   **ARE YOUR EX ANTE RISK PREMIUM RESULTS FOR 2006 AND 2007**

5   **"SUSPICIOUSLY HIGH," AS MR. GORMAN ARGUES?   [GORMAN**

6   **REBUTTAL AT 8 – 9.]**

7   A.   No. My ex ante risk premium results are the correct results from my ex

8   ante risk premium model.   I have verified that I have correctly

9   implemented my ex ante risk premium model.

10   Q.   **IS IT REASONABLE TO COMPARE YOUR EX ANTE RISK PREMIUM**

11   **RESULTS TO AVERAGE INDUSTRY AUTHORIZED RETURNS ON**

12   **EQUITY FOR 2006 AND 2007?**

13   A.   No. The purpose of my testimony is to present my estimate of Empire's

14   cost of equity. Estimating the cost of equity based solely on authorized

15   returns on equity is inherently circular.   If all states used previously

16   authorized rates of return to estimate the cost of equity, the cost of equity

17   would never change.

18   Q.   **MR. GORMAN COMPARES THE DCF COMPONENT OF YOUR EX**

19   **ANTE RISK PREMIUM STUDIES TO AUTHORIZED RETURNS IN JUST**

20   **TWO YEARS, 2006 AND 2007. ARE THERE ANY YEARS IN WHICH**

21   **THE DCF COMPONENT OF YOUR ESTIMATED EX ANTE RISK**

22   **PREMIUM STUDIES ARE LOWER THAN AVERAGE AUTHORIZED**

23   **RETURNS?**

1   A.   Yes. In 2004 and 2005, the average DCF component in my ex ante risk

2   premium studies is 9.16 percent and 9.22 percent, respectively.   These

3   DCF components are 130 to 150 basis points less than the average

4   10.7 percent and 10.5 percent authorized returns in those years.[2]

5   Considering the years 2004 through 2007, the average DCF component in

6   my ex ante risk premium studies is less than the average authorized

7   return for these years.

8   **C.   EX POST RISK PREMIUM STUDIES**

9   Q.   **WHAT ARE MR. GORMAN'S CRITICISMS OF YOUR EX POST RISK**

10   **PREMIUM ANALYSES?**

11 A.   Mr. Gorman claims that: (1) I should have used actual rather than

12   forecasted interest rates in my ex post risk premium analyses; and (2) my

13   ex post risk premium results for the S&P 500 are not relevant.

14 Q.   **DID YOU USE FORECASTED INTEREST RATES IN YOUR EX POST**

15   **RISK PREMIUM ANALYSES?**

16 A.   No. As discussed in my direct testimony, I used current A-rated utility

17   bond yields as of July 2007, the time of the cost of equity studies reported

18   in my direct testimony. [*See* Vander Weide Direct at 29.]

19 Q.   **DO YOU AGREE WITH MR. GORMAN'S ARGUMENT THAT YOUR EX**

20   **POST RISK PREMIUM ANALYSES SHOULD HAVE BEEN BASED ON**

21   **A CURRENT A-RATED BOND YIELD OF 6.1 PERCENT, RATHER**

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2   The average authorized returns to which Mr. Gorman refers include returns for wires-only
    companies.

1   **THAN AN "EXAGGERATED PROJECTED A-RATED UTILITY BOND**

2   **YIELD OF 6.25 PERCENT"? [GORMAN REBUTTAL AT 11.]**

3   A.   No. As noted above, Mr. Gorman's claim that I used projected A-rated

4   utility bond yields is incorrect. In addition, recent Moody's A-rated utility

5   bond yields have been virtually the same as the 6.25 percent yield I used

6   in the studies reported in my direct testimony.

7   Q.   **DO YOU AGREE WITH MR. GORMAN'S CONTENTION THAT YOUR**

8   **EX POST RISK PREMIUM RESULTS FOR THE S&P 500 ARE NOT**

9   **RELEVANT IN THIS PROCEEDING?**

10   A.   No. Mr. Gorman fails to note that I provided ex post risk premium results

11   for both the S&P 500 and the S&P Utilities over the period 1937 through

12   2006. The ex post risk premium for the S&P 500 was 5.1 percent and the

13   ex post risk premium for the S&P Utilities was 4.5 percent over the yield

14   on A-rated utility bonds. Since the companies in the S&P Utilities faced

15   little or no competition over much of the period since 1937, I believe

16   electric utilities today face risks that are somewhere in between the

17   average risk of the S&P Utilities and the S&P 500 over the years of my

18   study. Thus, taken in conjunction with my ex post risk premium studies on

19   the S&P Utilities, the risk premium on the S&P 500 is relevant in this

20   proceeding.

21   **D.   CAPM ANALYSIS**

22   Q.   **WHAT   ARE   MR.   GORMAN'S   CRITICISMS   OF   YOUR   CAPM**

23   **ANALYSIS?**

1   A.   Mr. Gorman claims that: (1) I should have used the total return on bond

2   investments rather than the income return on bond investments to

3   measure the expected risk premium on the market portfolio; and (2) I over-

4   estimated the market risk premium in my DCF-based CAPM analysis.

5   Q.   **WHAT IS THE DIFFERENCE BETWEEN THE TOTAL RETURN ON A**

6   **BOND INVESTMENT AND THE INCOME RETURN ON A BOND**

7   **INVESTMENT?**

8   A.   The total return on a bond investment includes both the interest earned on

9   the bond investment and the capital gain or loss that the investor

10   experiences on the bond when interest rates change. The income return

11   on a bond investment includes only the known interest rate at the time the

12   investment is made.

13   Q.   **WHY DID YOU USE THE ARITHMETIC MEAN INCOME RETURN ON**

14   **LONG-TERM TREASURY BONDS RATHER THAN THE ARITHMETIC**

15   **MEAN TOTAL RETURN ON LONG-TERM TREASURY BONDS IN**

16   **YOUR CAPM ANALYSES?**

17   A.   I used the arithmetic mean income return on long-term Treasury bonds in

18   my CAPM analyses because the CAPM requires that the return on equity

19   investments be compared to the rate of return on a risk-free investment.

20   Since capital gains and losses are highly uncertain, the income return on

21   Treasury bonds is the best estimate of the risk-free rate in the long-

22   horizon CAPM.

1   Q.   **MR. GORMAN CRITICIZES YOUR DCF CAPM RESULTS BECAUSE**

2   **THEY ONLY REFLECT 'DIVIDEND-PAYING STOCKS IN THE S&P 500"**

3   **AND THUS "LIKELY" OVERSTATES "GROWTH PROSPECTS AND**

4   **EXPECTED RETURN ON S&P 500." [GORMAN REBUTTAL AT 15.]**

5   **WHY DID YOU EXCLUDE NON-DIVIDEND PAYING STOCKS IN YOUR**

6   **DCF-BASED CAPM ANALYSIS?**

7   A.   I eliminated non-dividend paying stocks in my DCF-based CAPM analysis

8   because the DCF model cannot be applied to companies that do not pay

9   dividends. The DCF model is based on the assumption that the dividend

10   at the end of period one is equal to the current dividend times (1 + the

11   growth rate). If the current dividend is zero, then all future dividends must

12   also be zero, because any number times zero is simply zero. Since the

13   present value of a constant stream of zero dividends is zero, and all non-

14   dividend-paying companies in the S&P 500 have positive stock prices, the

15   DCF model cannot be logically applied to non-dividend-paying stocks. (If

16   the model were applied, the result would be the nonsensical conclusion

17   that a zero net present value of future dividends is equal to a positive

18   stock price.)

19   Q.   **BY APPLYING YOUR DCF-BASED CAPM ANALYSIS ONLY TO**

20   **DIVIDEND-PAYING STOCKS IN THE S&P 500, DO YOUR RESULTS**

21   **OVERSTATE THE EXPECTED RETURN ON THE S&P 500?**

22   A.   No. Since non-dividend-paying companies are typically young companies

23   with high growth prospects, my exclusion of non-dividend-paying

1   companies, if anything, likely understates growth prospects for the S&P

2   500, and, hence, if it were possible to measure, understates the expected

3   return on the S&P 500.

4 Q. **AFTER MAKING NUMEROUS ADJUSTMENTS TO YOUR COST OF**

5   **EQUITY ANALYSES, MR. GORMAN CLAIMS THAT YOUR COST OF**

6   **EQUITY ANALYSES SUPPORT HIS RECOMMENDED COST OF**

7   **EQUITY FOR EMPIRE [GORMAN REBUTTAL AT 4]. IS THIS A FAIR**

8   **CHARACTERIZATION OF YOUR ANALYSES?**

9 A. No. My analyses conservatively support a 11.6 percent cost of equity, not

10   Mr. Gorman's low 10.0 percent cost of equity recommendation.

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

12 A. Yes, it does.

AUTHORIZED RETURNS ON EQUITY[3]
2007 THROUGH FIRST QUARTER 2008

DATE	COMPANY	STATE	ROE	WIRES ONLY
5-Jan-07	Oklahoma G & E	AR	10.00	
5-Jan-07	Puget Sound Energy	WA	10.40	
11-Jan-07	Metropolitan Edison	PA	10.10	wires
11-Jan-07	Pennsylvania Electric	PA	10.10	wires
11-Jan-07	Wisconsin Public Service	WI	10.90	
12-Jan-07	Portland General Electric	OR	10.10	
19-Jan-07	Wisconsin Power & Light	WI	10.80	
21-Mar-07	Pacific Gas and Electric	CA		
22-Mar-07	Rockland Electric	NJ	9.75	wires
15-May-07	Appalachian Power	VA	10.00	
17-May-07	Aquila MPS	MO	10.25	
17-May-07	Aquila LP	MO	10.25	
22-May-07	Monongahela	WV	10.50	
22-May-07	Union Electric	MO	10.20	
23-May-07	Nevada Power	NV	10.70	
24-May-07	AEP Texas	TX		wires
25-May-07	Public Service NH	NH	9.67	wires
15-Jun-07	Entergy AR	AR	9.90	
21-Jun-07	PacifiCorp	WA	10.20	
22-Jun-07	Appalachian Power	WV	10.50	
28-Jun-07	AZ Public Service	AZ	10.75	
3-Jul-07	El Paso Electric	NM		
12-Jul-07	Granite State Electric	HN	9.67	wires
19-Jul-07	DelMarva P & L	MD	10.00	wires
19-Jul-07	Potomac Electric Power	MD	10.00	wires
27-Jul-07	Southwestern PS	TX		
15-Aug-07	Southern Indiana G & E	IN	10.40	
9-Oct-07	Public Service Oklahoma	OK	10.00	
18-Oct-07	Orange and Rockland	NY	9.10	
31-Oct-07	Electric Transmission Texas	TX	9.96	wires
20-Nov-07	Kansas City Power & Light	KS		
29-Nov-07	Cheyenne Light	WY	10.90	
29-Nov-07	Wisconsin Power and Light	WI		
6-Dec-07	PPL Electric Utilities	PA		wires
6-Dec-07	Kansas City Power & Light	MO	10.75	
13-Dec-07	AEP Texas	TX	9.96	wires
14-Dec-07	South Carolina Electric & Gas	SC	10.70	
14-Dec-07	Madison Gas and Electric	WI	10.80	
19-Dec-07	Avista Corporation	WA	10.20	
20-Dec-07	Bangor Hydro-Electric	ME	10.20	wires
20-Dec-07	Duke Energy Carolinas	NC	11.00	
21-Dec-07	San Diego Gas & Electric	CA	11.10	
21-Dec-07	Pacific Gas and Electric	CA	11.35	
21-Dec-07	Southern California Edison	CA	11.50	
28-Dec-07	PacifiCorp	ID	10.25	
31-Dec-07	Georgia Power	GA	11.25	
	2007 Average ROE without wires-only results		**10.5**	

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[3] Regulatory Research Associates, "Major Rate Case Decisions–January 2006–December 2007," January 8, 2008; "Major Rate Case Decisions–January–March 2008," April 2, 2008.

AUTHORIZED RETURNS ON EQUITY
Q4 2007 — Q1 2008

DATE	COMPANY	STATE	ROE	WIRES ONLY
9-Oct-07	Public Service Oklahoma	OK	10.00	
18-Oct-07	Orange and Rockland	NY	9.10	
31-Oct-07	Electric Transmission Texas	TX	9.96	wires
20-Nov-07	Kansas City Power & Light	KS		
29-Nov-07	Cheyenne Light	WY	10.90	
29-Nov-07	Wisconsin Power and Light	WI		
6-Dec-07	PPL Electric Utilities	PA		wires
6-Dec-07	Kansas City Power & Light	MO	10.75	
13-Dec-07	AEP Texas	TX	9.96	wires
14-Dec-07	South Carolina Electric & Gas	SC	10.70	
14-Dec-07	Madison Gas and Electric	WI	10.80	
19-Dec-07	Avista Corporation	WA	10.20	
20-Dec-07	Bangor Hydro-Electric	ME	10.20	wires
20-Dec-07	Duke Energy Carolinas	NC	11.00	
21-Dec-07	San Diego Gas & Electric	CA	11.10	
21-Dec-07	Pacific Gas and Electric	CA	11.35	
21-Dec-07	Southern California Edison	CA	11.50	
28-Dec-07	PacifiCorp	ID	10.25	
31-Dec-07	Georgia Power	GA	11.25	
8-Jan-08	Northern States Power	WI	10.75	
17-Jan-08	Wisconsin Electric Power	WI	10.75	
28-Jan-08	Connecticut Light & Power	CT	9.40	wires
30-Jan-08	Potomac Electric Power	DC	10.00	wires
31-Jan-08	Central Vermont	VT	10.71	
6-Feb-08	Interstate Power & Light	IA	11.70	
28-Feb-08	Idaho Power	ID		wires
29-Feb-08	Fitchburg Gas & Electric	MA	10.25	wires
12-Mar-08	PacifiCorp	WY	10.25	
25-Mar-08	Consolidated Edison NY	NY	9.10	wires
	Average ROE without wires only results		**10.7**	

AUTHORIZED RETURNS ON EQUITY
MOST RECENT 12 MONTHS (Q2 2007 — Q1 2008)

DATE	COMPANY	STATE	ROE	WIRES ONLY
15-May-07	Appalachian Power	VA	10.00	
17-May-07	Aquila MPS	MO	10.25	
17-May-07	Aquila LP	MO	10.25	
22-May-07	Monongahela	WV	10.50	
22-May-07	Union Electric	MO	10.20	
23-May-07	Nevada Power	NV	10.70	
24-May-07	AEP	TX		wires
25-May-07	Public Service NH	NH	9.67	wires
15-Jun-07	Entergy AR	AR	9.90	
21-Jun-07	PacifiCorp	WA	10.20	
22-Jun-07	Appalachian Power	WV	10.50	
28-Jun-07	AZ Public Service	AZ	10.75	
3-Jul-07	El Paso Electric	NM		
12-Jul-07	Granite State Electric	HN	9.67	wires
19-Jul-07	DelMarva P & L	MD	10.00	wires
19-Jul-07	Potomac Electric Power	MD	10.00	wires
27-Jul-07	Southwestern PS	TX		
15-Aug-07	Southern Indiana G & E	IN	10.40	
9-Oct-07	Public Service Oklahoma	OK	10.00	
18-Oct-07	Orange and Rockland	NY	9.10	
31-Oct-07	Electric Transmission Texas	TX	9.96	wires
20-Nov-07	Kansas City Power & Light	KS		
29-Nov-07	Cheyenne Light	WY	10.90	
29-Nov-07	Wisconsin Power and Light	WI		
6-Dec-07	PPL Electric Utilities	PA		wires
6-Dec-07	Kansas City Power & Light	MO	10.75	
13-Dec-07	AEP Texas	TX	9.96	wires
14-Dec-07	South Carolina Electric & Gas	SC	10.70	
14-Dec-07	Madison Gas and Electric	WI	10.80	
19-Dec-07	Avista Corporation	WA	10.20	
20-Dec-07	Bangor Hydro-Electric	ME	10.20	wires
20-Dec-07	Duke Energy Carolinas	NC	11.00	
21-Dec-07	San Diego Gas & Electric	CA	11.10	
21-Dec-07	Pacific Gas and Electric	CA	11.35	
21-Dec-07	Southern California Edison	CA	11.50	
28-Dec-07	PacifiCorp	ID	10.25	
31-Dec-07	Georgia Power	GA	11.25	
8-Jan-08	Northern States Power	WI	10.75	
17-Jan-08	Wisconsin Electric Power	WI	10.75	
28-Jan-08	Connecticut Light & Power	CT	9.40	wires
30-Jan-08	Potomac Electric Power	DC	10.00	wires
31-Jan-08	Central Vermont	VT	10.71	
6-Feb-08	Interstate Power & Light	IA	11.70	
28-Feb-08	Idaho Power	ID		wires
29-Feb-08	Fitchburg Gas & Electric	MA	10.25	wires
12-Mar-08	PacifiCorp	WY	10.25	
25-Mar-08	Consolidated Edison NY	NY	9.10	wires
	Average without wires-only companies		**10.6**	

COMPARISON OF MR. GORMAN'S
TWO-STAGE DCF MODEL RESULTS FOR
S&P 500 INDUSTRIAL AND ELECTRIC COMPANY GROUPS

INDUSTRIAL COMPANIES

COMPANY	DIVIDEND	PRICE	I/B/E/S GROWTH	DIVIDEND YIELD	2-STAGE DCF
3m	2.00	78.87	11.30%	2.54%	8.42%
Abbott Labs.	1.44	55.28	11.85%	2.60%	8.59%
Abercrombie & Fitch	0.70	75.64	15.80%	0.93%	6.47%
Aetna	0.04	50.32	14.56%	0.08%	5.03%
Air Prds.& Chems.	1.76	90.71	14.86%	1.94%	8.03%
Alcoa	0.68	34.74	12.60%	1.96%	7.78%
Allergan	0.20	62.15	17.00%	0.32%	5.48%
Altera	0.16	18.04	18.22%	0.89%	6.57%
Amerisourcebergen	0.30	43.62	13.17%	0.69%	5.95%
Anadarko Petroleum	0.36	60.39	7.32%	0.60%	5.60%
Analog Devices	0.72	28.46	15.50%	2.53%	9.06%
Anheuser-Busch Cos.	1.32	48.34	8.22%	2.73%	8.22%
Apache	0.60	105.81	9.56%	0.57%	5.64%
Apple	0.12	140.36	22.96%	0.09%	5.10%
Applera Appd.Bios.	0.17	32.34	12.02%	0.53%	5.66%
Applied Mats.	0.24	18.68	12.84%	1.28%	6.82%
At&T	1.60	36.67	11.11%	4.36%	10.84%
Automatic Data Proc.	1.16	40.46	14.17%	2.87%	9.36%
Avon Products	0.80	37.85	12.31%	2.11%	7.97%
Baker Hughes	0.52	69.39	15.00%	0.75%	6.13%
Ball	0.40	44.34	9.93%	0.90%	6.09%
Bard C R	0.60	95.49	14.31%	0.63%	5.91%
Baxter Intl.	0.87	59.75	13.46%	1.46%	7.13%
Becton Dickinson	1.14	87.92	13.05%	1.30%	6.85%
Bemis	0.88	25.31	6.37%	3.48%	8.79%
Best Buy	0.52	44.92	14.85%	1.16%	6.78%
Bj Svs.	0.20	24.17	10.00%	0.83%	6.00%
Boeing	1.60	80.08	14.47%	2.00%	8.07%
Bristol Myers Squibb	1.24	23.00	11.96%	5.39%	12.44%
Brown-Forman 'B'	1.36	66.59	10.15%	2.04%	7.60%
Brunswick	0.60	17.19	11.00%	3.49%	9.65%
Ca	0.16	23.19	11.70%	0.69%	5.89%
Campbell Soup	0.88	32.60	7.24%	2.70%	8.04%
Cardinal Health	0.48	57.44	13.89%	0.84%	6.21%
Carnival	1.60	41.05	14.50%	3.90%	10.98%
Caterpillar	1.44	70.29	12.26%	2.05%	7.87%
Cbs 'B'	1.00	23.59	7.12%	4.24%	9.79%
Centurytel	0.27	36.29	3.90%	0.74%	5.64%
Ch Robinson Wwd.	0.88	52.89	17.96%	1.66%	7.95%
Chesapeake Energy	0.27	41.75	18.24%	0.65%	6.12%
Chevron	2.32	84.55	7.33%	2.74%	8.11%
Cintas	0.46	30.59	11.14%	1.50%	6.98%
Citizens Comms.	1.00	11.06	3.90%	9.05%	14.01%
Clorox	1.60	59.50	10.92%	2.69%	8.57%
Coca Cola	1.52	59.76	9.62%	2.54%	8.18%
Coca Cola Ents.	0.28	24.35	8.28%	1.15%	6.31%
Colgate-Palm.	1.60	76.44	11.05%	2.09%	7.78%
Comcast 'A'	0.25	18.55	14.70%	1.35%	7.08%
Conagra Foods	0.76	22.31	8.07%	3.41%	9.00%
Conocophillips	1.88	78.67	9.50%	2.39%	7.97%
Consol En.	0.40	71.15	14.22%	0.56%	5.80%
Cooper Inds.	1.00	43.09	13.25%	2.32%	8.39%
Corning	0.20	23.25	16.50%	0.86%	6.41%
Costco Wholesale	0.58	65.08	13.38%	0.89%	6.27%

COMPANY	DIVIDEND	PRICE	I/B/E/S GROWTH	DIVIDEND YIELD	2-STAGE DCF
Cummins	0.50	50.02	20.66%	1.00%	6.97%
Cvs Caremark	0.24	38.81	17.00%	0.62%	6.01%
D R Horton	0.60	14.78	11.67%	4.06%	10.56%
Danaher	0.12	75.84	13.79%	0.16%	5.15%
Darden Restaurants	0.72	28.75	12.40%	2.50%	8.54%
Deere	1.00	83.82	11.40%	1.19%	6.58%
Devon Energy	0.64	93.34	9.17%	0.69%	5.78%
Dillards 'A'	0.16	17.27	6.00%	0.93%	5.92%
Dover	0.80	41.00	15.33%	1.95%	8.11%
Dow Chemicals	1.68	37.37	11.57%	4.50%	11.13%
E I Du Pont De Nemours	1.64	45.48	7.94%	3.61%	9.22%
Eaton	2.00	81.60	13.09%	2.45%	8.56%
Ecolab	0.52	47.06	14.00%	1.10%	6.64%
El Paso	0.16	16.37	11.40%	0.98%	6.28%
Electronic Data Systems	0.20	18.10	11.00%	1.10%	6.43%
Eli Lilly	1.88	51.33	7.31%	3.66%	9.17%
Emerson Electric	1.20	50.73	12.80%	2.37%	8.40%
Ensco Intl.	0.10	57.18	20.52%	0.17%	5.27%
Eog Res.	0.48	103.73	8.41%	0.46%	5.47%
Equifax	0.16	34.62	11.25%	0.46%	5.55%
Estee Lauder Cos.'A'	0.55	42.86	12.03%	1.28%	6.75%
Expeditor Intl.	0.28	43.10	17.86%	0.65%	6.11%
Exxon Mobil	1.40	85.55	6.81%	1.64%	6.77%
Family Dollar Stores	0.50	19.38	11.43%	2.58%	8.50%
Fedex	0.40	88.42	11.12%	0.45%	5.53%
Fluor	1.00	130.27	16.41%	0.77%	6.24%
Fortune Brands	1.68	66.92	9.27%	2.51%	8.09%
Gannett	1.60	33.06	2.49%	4.84%	9.46%
Gap	0.34	19.55	12.33%	1.74%	7.43%
General Dynamics	1.40	83.28	9.89%	1.68%	7.11%
General Electric	1.24	34.89	10.96%	3.55%	9.73%
General Mills	1.60	55.85	8.60%	2.86%	8.44%
Genuine Parts	1.56	41.94	9.33%	3.72%	9.62%
Goodrich	0.90	61.64	16.26%	1.46%	7.41%
Grainger W W	1.40	76.99	13.09%	1.82%	7.63%
Halliburton	0.36	36.17	13.56%	1.00%	6.44%
Harley-Davidson	1.20	39.06	11.54%	3.07%	9.19%
Harman Intl.Inds.	0.05	47.16	19.47%	0.11%	5.11%
Hasbro	0.80	25.72	10.00%	3.11%	8.97%
Heinz Hj	1.52	44.52	8.62%	3.41%	9.11%
Hess	0.40	90.96	14.04%	0.44%	5.60%
Hewlett-Packard	0.32	45.70	14.59%	0.70%	6.03%
Home Depot	0.90	27.80	10.80%	3.24%	9.28%
Honeywell Intl.	1.10	57.11	12.60%	1.93%	7.73%
Illinois Tool Wks.	1.12	48.91	11.43%	2.29%	8.10%
Ims Health	0.12	22.48	12.09%	0.53%	5.68%
Ingersoll-Rand	0.72	41.20	13.99%	1.75%	7.63%
Intel	0.56	21.27	15.14%	2.63%	9.17%
International Bus.Mach.	1.60	109.14	10.44%	1.47%	6.87%
Intl.Game Tech.	0.56	43.11	13.13%	1.30%	6.86%
Itt	0.70	56.98	13.00%	1.23%	6.75%
Jabil Circuit	0.28	13.02	19.44%	2.15%	9.05%
Johnson & Johnson	1.66	63.83	7.42%	2.60%	7.95%
Jones Apparel Group	0.56	14.74	9.33%	3.80%	9.72%
Kellogg	1.24	50.26	9.13%	2.47%	8.02%
Kimberly-Clark	2.32	65.13	7.49%	3.56%	9.08%
Kla Tencor	0.60	41.82	14.30%	1.43%	7.17%
Kraft Foods	1.08	30.57	7.10%	3.53%	8.98%
Kroger	0.36	25.53	10.70%	1.41%	6.82%
Leggett&Platt	1.00	17.08	7.37%	5.86%	11.71%
Lennar 'A'	0.64	17.56	10.33%	3.65%	9.73%
Limited Brands	0.60	16.89	12.72%	3.55%	10.09%

COMPANY	DIVIDEND	PRICE	I/B/E/S GROWTH	DIVIDEND YIELD	2-STAGE DCF
Linear Tech.	0.84	28.82	16.34%	2.91%	9.83%
Lockheed Martin	1.68	102.83	11.53%	1.63%	7.20%
Lowe's Companies	0.32	23.51	12.91%	1.36%	6.94%
Macy's	0.52	24.78	12.04%	2.10%	7.91%
Manitowoc	0.08	39.63	33.67%	0.20%	5.60%
Marathon Oil	0.96	50.85	10.76%	1.89%	7.47%
Marriott Intl.'A'	0.30	34.54	13.54%	0.87%	6.24%
Masco	0.92	20.29	12.33%	4.53%	11.37%
Mattel	0.75	19.95	9.83%	3.76%	9.77%
Mccormick & Co Nv.	0.88	35.49	9.47%	2.48%	8.08%
Mcdonalds	1.50	54.55	9.36%	2.75%	8.41%
Mcgraw-Hill	0.88	40.13	8.90%	2.19%	7.65%
Mckesson	0.24	59.52	14.33%	0.40%	5.55%
Medtronic	0.50	48.06	13.72%	1.04%	6.52%
Merck & Co.	1.52	46.40	9.54%	3.28%	9.10%
Microchip Tech.	1.28	31.32	13.50%	4.09%	11.02%
Microsoft	0.44	30.62	12.83%	1.44%	7.04%
Molex	0.45	23.39	14.40%	1.92%	7.95%
Molson Coors Brewing 'B'	0.64	49.08	12.31%	1.30%	6.80%
Monsanto	0.70	109.08	36.92%	0.64%	7.35%
Motorola	0.20	11.30	9.64%	1.77%	7.20%
Murphy Oil	0.75	77.04	19.63%	0.97%	6.83%
National Semicon.	0.24	18.53	11.14%	1.30%	6.70%
New York Times 'A'	0.92	17.73	5.56%	5.19%	10.50%
Newmont Mining	0.40	51.53	18.10%	0.78%	6.35%
News Corp.'A'	0.12	18.85	14.58%	0.64%	5.93%
Nike 'B'	0.92	61.00	13.36%	1.51%	7.20%
Noble	0.16	47.93	20.04%	0.33%	5.58%
Noble Energy	0.48	74.28	10.14%	0.65%	5.76%
Nordstrom	0.64	35.51	11.54%	1.80%	7.44%
Northrop Grumman	1.48	79.46	15.56%	1.86%	8.00%
Novellus Systems	0.15	23.47	15.00%	0.64%	5.95%
Nucor	1.28	61.72	8.00%	2.07%	7.40%
Occidental Ptl.	1.00	71.79	11.59%	1.39%	6.87%
Officemax	0.60	21.65	10.43%	2.77%	8.60%
Omnicom Gp.	0.60	44.75	11.74%	1.34%	6.81%
Paccar	0.72	46.20	11.72%	1.56%	7.11%
Pall	0.52	37.58	13.67%	1.38%	7.04%
Parker-Hannifin	0.84	66.13	18.04%	1.27%	7.25%
Paychex	1.20	33.14	14.64%	3.62%	10.60%
Peabody Energy	0.24	53.24	15.18%	0.45%	5.65%
Penney Jc	0.80	43.43	13.85%	1.84%	7.76%
Pepsi Bottling Gp.	0.68	35.29	9.45%	1.93%	7.38%
Pepsico	1.50	70.91	10.92%	2.12%	7.79%
Perkinelmer	0.28	24.60	14.80%	1.14%	6.75%
Pfizer	1.28	22.38	4.39%	5.72%	10.77%
Pitney-Bowes	1.40	35.80	10.67%	3.91%	10.14%
Plum Creek Timber	1.68	41.26	6.53%	4.07%	9.49%
Polo Ralph Lauren 'A'	0.20	60.10	15.17%	0.33%	5.45%
Ppg Industries	2.08	63.16	12.15%	3.29%	9.61%
Praxair	1.50	81.26	13.40%	1.85%	7.71%
Prec.Castparts	0.12	111.19	18.00%	0.11%	5.10%
Procter & Gamble	1.40	67.49	12.12%	2.07%	7.89%
Qualcomm	0.56	40.11	18.93%	1.40%	7.57%
Quest Diagnostics	0.40	48.85	13.73%	0.82%	6.18%
Questar	0.49	53.49	9.00%	0.92%	6.06%
Qwest Comms.Intl.	0.08	5.50	6.55%	1.45%	6.55%
Radioshack	0.25	16.29	10.25%	1.53%	6.95%
Range Res.	0.16	56.21	15.00%	0.28%	5.37%
Raytheon 'B'	1.12	63.49	15.65%	1.76%	7.85%
Reynolds American	3.40	64.33	6.00%	5.29%	10.71%
Robert Half Intl.	0.44	25.75	17.00%	1.71%	7.92%

COMPANY	DIVIDEND	PRICE	I/B/E/S GROWTH	DIVIDEND YIELD	2-STAGE DCF
Rockwell Collins	0.64	60.09	17.96%	1.07%	6.87%
Rohm & Haas	1.48	52.32	12.80%	2.83%	9.06%
Rowan Cos.	0.40	37.32	15.49%	1.07%	6.69%
Ryder System	0.92	54.45	12.73%	1.69%	7.40%
Safeway	0.28	30.73	10.71%	0.91%	6.14%
Sara Lee	0.42	13.88	9.04%	3.03%	8.70%
Schering-Plough	0.26	20.50	17.90%	1.27%	7.24%
Schlumberger	0.84	84.56	19.75%	0.99%	6.88%
Scripps E W 'A'	0.56	41.55	9.00%	1.35%	6.60%
Sealed Air	0.48	24.51	11.33%	1.96%	7.63%
Sherwin-Williams	1.40	54.24	14.07%	2.58%	8.91%
Sigma Aldrich	0.52	53.49	9.87%	0.97%	6.18%
Smith Intl.	0.48	62.22	21.75%	0.77%	6.57%
Snap-On	1.20	47.70	10.67%	2.52%	8.30%
Southwest Airlines	0.02	12.11	11.78%	0.17%	5.14%
Spectra Energy	0.92	23.69	6.02%	3.88%	9.18%
Sprint Nextel	0.10	8.66	8.04%	1.15%	6.30%
Stanley Works	1.24	48.65	11.75%	2.55%	8.50%
Staples	0.33	22.47	13.65%	1.47%	7.17%
Starwood Htls.& Rsts	0.90	46.95	13.76%	1.92%	7.86%
Stryker	0.33	65.67	17.89%	0.50%	5.84%
Supervalu	0.68	29.62	7.84%	2.30%	7.65%
Sysco	0.88	28.86	13.11%	3.05%	9.44%
Target	0.56	52.15	14.82%	1.07%	6.65%
Texas Insts.	0.40	29.91	16.40%	1.34%	7.22%
Textron	0.92	56.20	13.00%	1.64%	7.35%
The Hershey Company	1.19	36.45	7.55%	3.26%	8.75%
Tiffany & Co	0.60	39.66	13.00%	1.51%	7.17%
Time Warner	0.25	15.43	13.07%	1.62%	7.34%
Tjx Cos.	0.44	31.01	12.57%	1.42%	6.99%
Trane	0.64	45.01	12.25%	1.42%	6.97%
Tyco International	0.60	39.37	20.67%	1.52%	8.02%
Tyson Foods 'A'	0.16	14.76	8.67%	1.08%	6.25%
United Parcel Ser.	1.80	70.59	13.16%	2.55%	8.72%
United Technologies	1.28	70.64	11.83%	1.81%	7.48%
Unitedhealth Gp.	0.03	46.99	15.30%	0.06%	5.00%
US.Steel	1.00	108.90	9.67%	0.92%	6.10%
V F	2.32	75.14	10.00%	3.09%	8.94%
Verizon Comms.	1.71	36.98	8.42%	4.62%	10.53%
Vulcan Materials	1.96	69.77	9.00%	2.81%	8.43%
Wal Mart Stores	0.95	49.79	11.71%	1.91%	7.60%
Walgreen	0.38	36.18	13.60%	1.05%	6.52%
Walt Disney	0.35	30.83	13.36%	1.14%	6.64%
Wendy's Intl.	0.50	24.10	12.02%	2.07%	7.87%
Weyerhaeuser	2.40	65.12	5.67%	3.69%	8.90%
Whole Foods Market	0.80	36.52	19.21%	2.19%	9.08%
Williams Cos.	0.40	33.32	19.67%	1.20%	7.28%
Windstream	1.00	11.80	4.33%	8.48%	13.59%
Wrigley William Jr.	1.34	58.81	10.52%	2.28%	7.96%
Wyeth	1.12	42.19	4.63%	2.65%	7.65%
Wyndham Worldwide	0.16	21.93	12.50%	0.73%	5.98%
Xerox	0.17	14.84	12.33%	1.15%	6.58%
Xilinx	0.56	21.97	14.21%	2.55%	8.88%
Xto En.	0.48	55.82	9.36%	0.86%	6.01%
Yum! Brands	0.60	35.48	11.92%	1.69%	7.32%
Market-weighted Average					7.7%
Average					7.6%

Notes:

Dividend	=	Current annual dividend from Thomson Financial.
Stock Price	=	Average of the monthly high and low stock prices during the three months ending March 2008 Thomson Financial.
Growth (g)	=	First 5 years growth from I/B/E/S forecast of future earnings growth March 2008; terminal growth 4.9% per Mr. Gorman.

COMPARISON OF MR. GORMAN'S
TWO-STAGE DCF MODEL RESULTS FOR
S&P 500 INDUSTRIAL AND ELECTRIC COMPANY GROUPS

ELECTRIC COMPANIES

COMPANY	DIVIDEND	PRICE	I/B/E/S GROWTH	DIVIDEND YIELD	2-STAGE DCF
Amer.Elec.Pwr.	1.64	42.91	6.57%	3.82%	9.21%
Ameren	2.54	45.00	4.75%	5.65%	10.78%
CMS Energy	0.36	15.13	5.08%	2.38%	7.42%
Consolidated Edison	2.34	43.15	3.22%	5.42%	10.19%
Constellation En.	1.91	92.78	16.45%	2.06%	8.44%
Dominion Res.	1.58	42.32	8.30%	3.73%	9.44%
DTE Energy	2.12	41.49	5.00%	5.11%	10.28%
Duke Energy	0.88	18.47	4.81%	4.77%	9.88%
Edison Intl.	1.22	50.84	9.11%	2.40%	7.93%
Entergy	3.00	109.12	12.42%	2.75%	8.89%
Exelon	2.00	78.26	9.30%	2.56%	8.15%
Firstenergy	2.20	70.31	8.50%	3.13%	8.74%
FPL Group	1.78	63.50	9.80%	2.80%	8.54%
Integrys Energy Group	2.68	48.07	6.67%	5.57%	11.20%
NiSource	0.92	17.99	2.90%	5.11%	9.81%
Pepco Holdings	1.08	25.76	11.40%	4.19%	10.68%
PG&E	1.56	40.02	8.14%	3.90%	9.60%
Pinnacle West Cap.	2.10	37.58	3.63%	5.59%	10.45%
PPL	1.34	47.95	14.22%	2.79%	9.26%
Progress Energy	2.46	44.08	5.95%	5.58%	11.02%
Pub.Ser.Enter.Gp.	0.64	45.71	15.60%	1.40%	7.24%
Sempra En.	1.28	54.99	7.66%	2.33%	7.66%
Southern	1.61	36.46	5.29%	4.42%	9.61%
TECO Energy	0.78	15.93	4.72%	4.90%	10.00%
Xcel Energy	0.92	20.73	6.46%	4.44%	9.88%
Market-weighted Average					9.0%
Average					9.4%

**COMPARISON OF MR. GORMAN'S
TWO-STAGE DCF MODEL RESULTS FOR
S&P 500 INDUSTRIAL AND ELECTRIC COMPANY GROUPS**

S&P 500 COMPANIES

COMPANY	DIVIDEND	PRICE	IBES GROWTH	DIVIDEND YIELD	2-STAGE DCF
ALCOA	0.68	34.74	12.60%	1.96%	7.78%
APPLE	0.12	140.36	22.96%	0.09%	5.10%
AMERISOURCEBERGEN	0.30	43.62	13.17%	0.69%	5.95%
APPLERA APPD.BIOS.	0.17	32.34	12.02%	0.53%	5.66%
AMBAC FINANCIAL	0.28	11.95	13.00%	2.34%	8.39%
ABBOTT LABS.	1.44	55.28	11.85%	2.60%	8.59%
AMER.CAPITAL STRATEGIES	4.04	33.51	7.72%	12.05%	18.95%
ACE	1.08	57.26	12.04%	1.89%	7.61%
ANALOG DEVICES	0.72	28.46	15.50%	2.53%	9.06%
AUTOMATIC DATA PROC.	1.16	40.46	14.17%	2.87%	9.36%
AETNA	0.04	50.32	14.56%	0.08%	5.03%
AFLAC	0.96	62.02	14.86%	1.55%	7.41%
ALLERGAN	0.20	62.15	17.00%	0.32%	5.48%
AMERICAN INTL.GP.	0.80	49.28	11.71%	1.62%	7.20%
ASSURANT	0.48	62.88	11.25%	0.76%	5.97%
ALLSTATE	1.64	48.07	7.24%	3.41%	8.87%
ALTERA	0.16	18.04	18.22%	0.89%	6.57%
APPLIED MATS.	0.24	18.68	12.84%	1.28%	6.82%
AMERIPRISE FINL.	0.60	52.11	10.50%	1.15%	6.46%
ABERCROMBIE & FITCH	0.70	75.64	15.80%	0.93%	6.47%
AON	0.60	42.55	9.43%	1.41%	6.72%
APACHE	0.60	105.81	9.56%	0.57%	5.64%
ANADARKO PETROLEUM	0.36	60.39	7.32%	0.60%	5.60%
AIR PRDS.& CHEMS.	1.76	90.71	14.86%	1.94%	8.03%
AVON PRODUCTS	0.80	37.85	12.31%	2.11%	7.97%
AMERICAN EXPRESS	0.72	45.65	11.64%	1.58%	7.13%
BOEING	1.60	80.08	14.47%	2.00%	8.07%
BANK OF AMERICA	2.56	39.99	8.86%	6.40%	12.80%
BAXTER INTL.	0.87	59.75	13.46%	1.46%	7.13%
BB&T	1.84	32.77	7.18%	5.61%	11.38%
BEST BUY	0.52	44.92	14.85%	1.16%	6.78%
BRUNSWICK	0.60	17.19	11.00%	3.49%	9.65%
BARD C R	0.60	95.49	14.31%	0.63%	5.91%
BECTON DICKINSON	1.14	87.92	13.05%	1.30%	6.85%
FRANK.RES.	0.80	98.21	12.00%	0.81%	6.08%
BROWN-FORMAN 'B'	1.36	66.59	10.15%	2.04%	7.60%
BAKER HUGHES	0.52	69.39	15.00%	0.75%	6.13%
BJ SVS.	0.20	24.17	10.00%	0.83%	6.00%
BANK OF NEW YORK MELLON	0.96	44.79	11.29%	2.14%	7.88%
BALL	0.40	44.34	9.93%	0.90%	6.09%
BEMIS	0.88	25.31	6.37%	3.48%	8.79%
BRISTOL MYERS SQUIBB	1.24	23.00	11.96%	5.39%	12.44%
BURL.NTHN.SANTA FE C	1.28	86.72	14.12%	1.48%	7.22%
BEAR STEARNS	1.28	68.89	10.50%	1.86%	7.40%

COMPANY	DIVIDEND	PRICE	IBES GROWTH	DIVIDEND YIELD	2-STAGE DCF
PEABODY ENERGY	0.24	53.24	15.18%	0.45%	5.65%
ANHEUSER-BUSCH COS.	1.32	48.34	8.22%	2.73%	8.22%
CITIGROUP	1.28	24.64	9.50%	5.20%	11.50%
CA	0.16	23.19	11.70%	0.69%	5.89%
CONAGRA FOODS	0.76	22.31	8.07%	3.41%	9.00%
CARDINAL HEALTH	0.48	57.44	13.89%	0.84%	6.21%
CATERPILLAR	1.44	70.29	12.26%	2.05%	7.87%
CHUBB	1.32	50.87	9.50%	2.59%	8.23%
COOPER INDS.	1.00	43.09	13.25%	2.32%	8.39%
CBS 'B'	1.00	23.59	7.12%	4.24%	9.79%
COCA COLA ENTS.	0.28	24.35	8.28%	1.15%	6.31%
CARNIVAL	1.60	41.05	14.50%	3.90%	10.98%
COUNTRYWIDE FINL.	0.60	6.27	8.80%	9.57%	16.58%
CHESAPEAKE ENERGY	0.27	41.75	18.24%	0.65%	6.12%
CH ROBINSON WWD.	0.88	52.89	17.96%	1.66%	7.95%
CIGNA	0.04	46.90	11.80%	0.09%	5.02%
CIT GROUP	1.00	21.49	9.80%	4.65%	10.90%
COLGATE-PALM.	1.60	76.44	11.05%	2.09%	7.78%
CLOROX	1.60	59.50	10.92%	2.69%	8.57%
COMERICA	2.64	39.33	4.80%	6.71%	11.91%
COMCAST 'A'	0.25	18.55	14.70%	1.35%	7.08%
CUMMINS	0.50	50.02	20.66%	1.00%	6.97%
CONSOL EN.	0.40	71.15	14.22%	0.56%	5.80%
CAPITAL ONE FINL.	1.50	49.15	12.10%	3.05%	9.26%
ROCKWELL COLLINS	0.64	60.09	17.96%	1.07%	6.87%
CONOCOPHILLIPS	1.88	78.67	9.50%	2.39%	7.97%
COSTCO WHOLESALE	0.58	65.08	13.38%	0.89%	6.27%
CAMPBELL SOUP	0.88	32.60	7.24%	2.70%	8.04%
CSX	0.72	48.99	17.22%	1.47%	7.53%
CINTAS	0.46	30.59	11.14%	1.50%	6.98%
CENTURYTEL	0.27	36.29	3.90%	0.74%	5.64%
CVS CAREMARK	0.24	38.81	17.00%	0.62%	6.01%
CHEVRON	2.32	84.55	7.33%	2.74%	8.11%
CITIZENS COMMS.	1.00	11.06	3.90%	9.05%	14.01%
E I DU PONT DE NEMOURS	1.64	45.48	7.94%	3.61%	9.22%
DILLARDS 'A'	0.16	17.27	6.00%	0.93%	5.92%
DEERE	1.00	83.82	11.40%	1.19%	6.58%
QUEST DIAGNOSTICS	0.40	48.85	13.73%	0.82%	6.18%
D R HORTON	0.60	14.78	11.67%	4.06%	10.56%
DANAHER	0.12	75.84	13.79%	0.16%	5.15%
WALT DISNEY	0.35	30.83	13.36%	1.14%	6.64%
DOVER	0.80	41.00	15.33%	1.95%	8.11%
DOW CHEMICALS	1.68	37.37	11.57%	4.50%	11.13%
DARDEN RESTAURANTS	0.72	28.75	12.40%	2.50%	8.54%
DEVON ENERGY	0.64	93.34	9.17%	0.69%	5.78%
ECOLAB	0.52	47.06	14.00%	1.10%	6.64%
ELECTRONIC DATA SYSTEMS	0.20	18.10	11.00%	1.10%	6.43%
EQUIFAX	0.16	34.62	11.25%	0.46%	5.55%
ESTEE LAUDER COS.'A'	0.55	42.86	12.03%	1.28%	6.75%
EMERSON ELECTRIC	1.20	50.73	12.80%	2.37%	8.40%

COMPANY	DIVIDEND	PRICE	IBES GROWTH	DIVIDEND YIELD	2-STAGE DCF
EOG RES.	0.48	103.73	8.41%	0.46%	5.47%
EL PASO	0.16	16.37	11.40%	0.98%	6.28%
ENSCO INTL.	0.10	57.18	20.52%	0.17%	5.27%
EATON	2.00	81.60	13.09%	2.45%	8.56%
EXPEDITOR INTL.	0.28	43.10	17.86%	0.65%	6.11%
FAMILY DOLLAR STORES	0.50	19.38	11.43%	2.58%	8.50%
FEDEX	0.40	88.42	11.12%	0.45%	5.53%
FIRST HORIZON NATIONAL	0.80	18.10	6.50%	4.42%	9.87%
FEDERATED INVRS.'B'	0.84	40.95	12.25%	2.05%	7.87%
FIDELITY NAT.INFO.SVS.	0.20	40.04	13.95%	0.50%	5.69%
FIFTH THIRD BANCORP	1.76	24.13	7.14%	7.30%	13.29%
FLUOR	1.00	130.27	16.41%	0.77%	6.24%
FANNIE MAE	1.40	30.79	10.51%	4.55%	10.94%
FORTUNE BRANDS	1.68	66.92	9.27%	2.51%	8.09%
FREDDIE MAC	1.00	28.02	9.82%	3.57%	9.53%
NICOR	1.86	37.23	4.00%	5.00%	9.94%
GANNETT	1.60	33.06	2.49%	4.84%	9.46%
GENERAL DYNAMICS	1.40	83.28	9.89%	1.68%	7.11%
GENERAL ELECTRIC	1.24	34.89	10.96%	3.55%	9.73%
GENERAL MILLS	1.60	55.85	8.60%	2.86%	8.44%
CORNING	0.20	23.25	16.50%	0.86%	6.41%
GENWORTH FINANCIAL	0.40	22.70	10.11%	1.76%	7.23%
GENUINE PARTS	1.56	41.94	9.33%	3.72%	9.62%
GAP	0.34	19.55	12.33%	1.74%	7.43%
GOODRICH	0.90	61.64	16.26%	1.46%	7.41%
GOLDMAN SACHS GP.	1.40	181.95	11.57%	0.77%	5.99%
GRAINGER W W	1.40	76.99	13.09%	1.82%	7.63%
HALLIBURTON	0.36	36.17	13.56%	1.00%	6.44%
HARMAN INTL.INDS.	0.05	47.16	19.47%	0.11%	5.11%
HASBRO	0.80	25.72	10.00%	3.11%	8.97%
HUNTINGTON BCSH.	1.06	12.25	5.82%	8.65%	14.32%
HUDSON CITY BANC.	0.36	15.93	14.50%	2.26%	8.48%
HOME DEPOT	0.90	27.80	10.80%	3.24%	9.28%
HESS	0.40	90.96	14.04%	0.44%	5.60%
HARTFORD FINL.SVS.GP.	2.12	74.96	10.50%	2.83%	8.69%
HEINZ HJ	1.52	44.52	8.62%	3.41%	9.11%
HARLEY-DAVIDSON	1.20	39.06	11.54%	3.07%	9.19%
HONEYWELL INTL.	1.10	57.11	12.60%	1.93%	7.73%
STARWOOD HTLS.& RSTS. WORLDWIDE	0.90	46.95	13.76%	1.92%	7.86%
HEWLETT-PACKARD	0.32	45.70	14.59%	0.70%	6.03%
H&R BLOCK	0.57	18.91	11.67%	3.01%	9.13%
THE HERSHEY COMPANY	1.19	36.45	7.55%	3.26%	8.75%
INTERNATIONAL BUS.MACH.	1.60	109.14	10.44%	1.47%	6.87%
INTL.GAME TECH.	0.56	43.11	13.13%	1.30%	6.86%
INTEL	0.56	21.27	15.14%	2.63%	9.17%
INGERSOLL-RAND	0.72	41.20	13.99%	1.75%	7.63%
ITT	0.70	56.98	13.00%	1.23%	6.75%
ILLINOIS TOOL WKS.	1.12	48.91	11.43%	2.29%	8.10%
JABIL CIRCUIT	0.28	13.02	19.44%	2.15%	9.05%
PENNEY JC	0.80	43.43	13.85%	1.84%	7.76%

COMPANY	DIVIDEND	PRICE	IBES GROWTH	DIVIDEND YIELD	2-STAGE DCF
JOHNSON & JOHNSON	1.66	63.83	7.42%	2.60%	7.95%
JANUS CAPITAL GP.	0.04	25.52	20.96%	0.16%	5.23%
JONES APPAREL GROUP	0.56	14.74	9.33%	3.80%	9.72%
JP MORGAN CHASE & CO.	1.52	43.37	7.50%	3.50%	9.02%
NORDSTROM	0.64	35.51	11.54%	1.80%	7.44%
KELLOGG	1.24	50.26	9.13%	2.47%	8.02%
KEYCORP	1.50	23.34	5.50%	6.43%	11.82%
KRAFT FOODS	1.08	30.57	7.10%	3.53%	8.98%
KLA TENCOR	0.60	41.82	14.30%	1.43%	7.17%
KIMBERLY-CLARK	2.32	65.13	7.49%	3.56%	9.08%
COCA COLA	1.52	59.76	9.62%	2.54%	8.18%
KROGER	0.36	25.53	10.70%	1.41%	6.82%
LEGGETT&PLATT	1.00	17.08	7.37%	5.86%	11.71%
LEHMAN BROS.HDG.	0.68	50.55	12.07%	1.35%	6.84%
LENNAR 'A'	0.64	17.56	10.33%	3.65%	9.73%
LINEAR TECH.	0.84	28.82	16.34%	2.91%	9.83%
ELI LILLY	1.88	51.33	7.31%	3.66%	9.17%
LEGG MASON	0.96	66.57	11.17%	1.44%	6.90%
LOCKHEED MARTIN	1.68	102.83	11.53%	1.63%	7.20%
LINCOLN NAT.	1.66	51.50	11.49%	3.22%	9.38%
LOWE'S COMPANIES	0.32	23.51	12.91%	1.36%	6.94%
LIMITED BRANDS	0.60	16.89	12.72%	3.55%	10.09%
SOUTHWEST AIRLINES	0.02	12.11	11.78%	0.17%	5.14%
MACY'S	0.52	24.78	12.04%	2.10%	7.91%
MARRIOTT INTL.'A'	0.30	34.54	13.54%	0.87%	6.24%
MASCO	0.92	20.29	12.33%	4.53%	11.37%
MATTEL	0.75	19.95	9.83%	3.76%	9.77%
MCDONALDS	1.50	54.55	9.36%	2.75%	8.41%
MICROCHIP TECH.	1.28	31.32	13.50%	4.09%	11.02%
MCKESSON	0.24	59.52	14.33%	0.40%	5.55%
MOODY'S	0.40	35.90	10.97%	1.11%	6.44%
MEDTRONIC	0.50	48.06	13.72%	1.04%	6.52%
MERRILL LYNCH & CO.	1.40	50.59	12.00%	2.77%	8.84%
METLIFE	0.74	58.17	10.73%	1.27%	6.63%
MCGRAW-HILL	0.88	40.13	8.90%	2.19%	7.65%
MARSHALL & ILSLEY	1.24	24.82	8.00%	5.00%	10.88%
MCCORMICK & CO NV.	0.88	35.49	9.47%	2.48%	8.08%
MARSH & MCLENNAN	0.80	26.09	7.50%	3.07%	8.51%
3M	2.00	78.87	11.30%	2.54%	8.42%
MOLEX	0.45	23.39	14.40%	1.92%	7.95%
MONSANTO	0.70	109.08	36.92%	0.64%	7.35%
MOTOROLA	0.20	11.30	9.64%	1.77%	7.20%
MERCK & CO.	1.52	46.40	9.54%	3.28%	9.10%
MARATHON OIL	0.96	50.85	10.76%	1.89%	7.47%
MORGAN STANLEY	1.08	45.26	12.57%	2.39%	8.39%
MICROSOFT	0.44	30.62	12.83%	1.44%	7.04%
M&T BK.	2.80	83.88	8.78%	3.34%	9.05%
MGIC INVESTMENT	0.10	14.97	9.66%	0.67%	5.77%
MANITOWOC	0.08	39.63	33.67%	0.20%	5.60%
MURPHY OIL	0.75	77.04	19.63%	0.97%	6.83%

COMPANY	DIVIDEND	PRICE	IBES GROWTH	DIVIDEND YIELD	2-STAGE DCF
NOBLE ENERGY	0.48	74.28	10.14%	0.65%	5.76%
NATIONAL CITY	0.84	14.52	9.38%	5.79%	12.20%
NOBLE	0.16	47.93	20.04%	0.33%	5.58%
NEWMONT MINING	0.40	51.53	18.10%	0.78%	6.35%
NIKE 'B'	0.92	61.00	13.36%	1.51%	7.20%
NORTHROP GRUMMAN	1.48	79.46	15.56%	1.86%	8.00%
NORFOLK SOUTHERN	1.16	52.14	15.06%	2.22%	8.51%
NATIONAL SEMICON.	0.24	18.53	11.14%	1.30%	6.70%
NORTHERN TRUST	1.12	69.91	11.81%	1.60%	7.18%
NUCOR	1.28	61.72	8.00%	2.07%	7.40%
NOVELLUS SYSTEMS	0.15	23.47	15.00%	0.64%	5.95%
NEWS CORP.'A'	0.12	18.85	14.58%	0.64%	5.93%
NEW YORK TIMES 'A'	0.92	17.73	5.56%	5.19%	10.50%
NYSE EURONEXT	1.20	70.69	21.88%	1.70%	8.52%
OMNICOM GP.	0.60	44.75	11.74%	1.34%	6.81%
OFFICEMAX	0.60	21.65	10.43%	2.77%	8.60%
OCCIDENTAL PTL.	1.00	71.79	11.59%	1.39%	6.87%
PAYCHEX	1.20	33.14	14.64%	3.62%	10.60%
PEPSI BOTTLING GP.	0.68	35.29	9.45%	1.93%	7.38%
PITNEY-BOWES	1.40	35.80	10.67%	3.91%	10.14%
PACCAR	0.72	46.20	11.72%	1.56%	7.11%
PLUM CREEK TIMBER	1.68	41.26	6.53%	4.07%	9.49%
PREC.CASTPARTS	0.12	111.19	18.00%	0.11%	5.10%
PEPSICO	1.50	70.91	10.92%	2.12%	7.79%
PFIZER	1.28	22.38	4.39%	5.72%	10.77%
PRINCIPAL FINL.GP.	0.90	56.69	11.17%	1.59%	7.10%
PROCTER & GAMBLE	1.40	67.49	12.12%	2.07%	7.89%
PROGRESSIVE OHIO	0.14	17.93	6.85%	0.78%	5.80%
PARKER-HANNIFIN	0.84	66.13	18.04%	1.27%	7.25%
PERKINELMER	0.28	24.60	14.80%	1.14%	6.75%
PALL	0.52	37.58	13.67%	1.38%	7.04%
PNC FINL.SVS.GP.	2.64	62.59	9.66%	4.22%	10.32%
PPG INDUSTRIES	2.08	63.16	12.15%	3.29%	9.61%
PRUDENTIAL FINL.	1.15	77.84	14.46%	1.48%	7.26%
PRAXAIR	1.50	81.26	13.40%	1.85%	7.71%
QWEST COMMS.INTL.	0.08	5.50	6.55%	1.45%	6.55%
QUALCOMM	0.56	40.11	18.93%	1.40%	7.57%
RYDER SYSTEM	0.92	54.45	12.73%	1.69%	7.40%
REYNOLDS AMERICAN	3.40	64.33	6.00%	5.29%	10.71%
ROWAN COS.	0.40	37.32	15.49%	1.07%	6.69%
REGIONS FINL.NEW	1.52	22.08	7.50%	6.88%	12.93%
ROBERT HALF INTL.	0.44	25.75	17.00%	1.71%	7.92%
POLO RALPH LAUREN 'A'	0.20	60.10	15.17%	0.33%	5.45%
ROHM & HAAS	1.48	52.32	12.80%	2.83%	9.06%
RANGE RES.	0.16	56.21	15.00%	0.28%	5.37%
RADIOSHACK	0.25	16.29	10.25%	1.53%	6.95%
RAYTHEON 'B'	1.12	63.49	15.65%	1.76%	7.85%
IMS HEALTH	0.12	22.48	12.09%	0.53%	5.68%
SPRINT NEXTEL	0.10	8.66	8.04%	1.15%	6.30%
SAFECO	1.60	48.07	9.50%	3.33%	9.16%

COMPANY	DIVIDEND	PRICE	IBES GROWTH	DIVIDEND YIELD	2-STAGE DCF
SCHWAB (CHARLES)	0.20	20.99	18.83%	0.95%	6.73%
SPECTRA ENERGY	0.92	23.69	6.02%	3.88%	9.18%
SEALED AIR	0.48	24.51	11.33%	1.96%	7.63%
SCHERING-PLOUGH	0.26	20.50	17.90%	1.27%	7.24%
SHERWIN-WILLIAMS	1.40	54.24	14.07%	2.58%	8.91%
SIGMA ALDRICH	0.52	53.49	9.87%	0.97%	6.18%
SMITH INTL.	0.48	62.22	21.75%	0.77%	6.57%
SCHLUMBERGER	0.84	84.56	19.75%	0.99%	6.88%
SARA LEE	0.42	13.88	9.04%	3.03%	8.70%
SNAP-ON	1.20	47.70	10.67%	2.52%	8.30%
STAPLES	0.33	22.47	13.65%	1.47%	7.17%
SCRIPPS E W 'A'	0.56	41.55	9.00%	1.35%	6.60%
SUNTRUST BANKS	3.08	61.41	10.57%	5.02%	11.56%
QUESTAR	0.49	53.49	9.00%	0.92%	6.06%
STATE STREET	0.92	79.21	12.19%	1.16%	6.59%
SUPERVALU	0.68	29.62	7.84%	2.30%	7.65%
STANLEY WORKS	1.24	48.65	11.75%	2.55%	8.50%
SAFEWAY	0.28	30.73	10.71%	0.91%	6.14%
STRYKER	0.33	65.67	17.89%	0.50%	5.84%
SYSCO	0.88	28.86	13.11%	3.05%	9.44%
AT&T	1.60	36.67	11.11%	4.36%	10.84%
MOLSON COORS BREWING 'B'	0.64	49.08	12.31%	1.30%	6.80%
TARGET	0.56	52.15	14.82%	1.07%	6.65%
TIFFANY & CO	0.60	39.66	13.00%	1.51%	7.17%
TJX COS.	0.44	31.01	12.57%	1.42%	6.99%
TORCHMARK	0.56	59.84	8.22%	0.94%	6.04%
T ROWE PRICE GP.	0.96	50.87	14.25%	1.89%	7.87%
TRAVELERS COS.	1.16	47.51	9.40%	2.44%	8.02%
TYSON FOODS 'A'	0.16	14.76	8.67%	1.08%	6.25%
TOTAL SYSTEM SERVICES	0.28	22.92	12.88%	1.22%	6.73%
TRANE	0.64	45.01	12.25%	1.42%	6.97%
TIME WARNER	0.25	15.43	13.07%	1.62%	7.34%
TEXAS INSTS.	0.40	29.91	16.40%	1.34%	7.22%
TEXTRON	0.92	56.20	13.00%	1.64%	7.35%
TYCO INTERNATIONAL	0.60	39.37	20.67%	1.52%	8.02%
UNITEDHEALTH GP.	0.03	46.99	15.30%	0.06%	5.00%
UNUM GROUP	0.30	22.17	10.20%	1.35%	6.70%
UNION PACIFIC	1.76	121.98	14.75%	1.44%	7.23%
UNITED PARCEL SER.	1.80	70.59	13.16%	2.55%	8.72%
US BANCORP	1.70	32.27	8.14%	5.27%	11.23%
UNITED TECHNOLOGIES	1.28	70.64	11.83%	1.81%	7.48%
V F	2.32	75.14	10.00%	3.09%	8.94%
VULCAN MATERIALS	1.96	69.77	9.00%	2.81%	8.43%
VERIZON COMMS.	1.71	36.98	8.42%	4.62%	10.53%
WALGREEN	0.38	36.18	13.60%	1.05%	6.52%
WACHOVIA	2.56	32.47	9.63%	7.88%	14.87%
WENDY'S INTL.	0.50	24.10	12.02%	2.07%	7.87%
WELLS FARGO & CO	1.24	30.43	9.67%	4.08%	10.14%
WHOLE FOODS MARKET	0.80	36.52	19.21%	2.19%	9.08%
WINDSTREAM	1.00	11.80	4.33%	8.48%	13.59%

COMPANY	DIVIDEND	PRICE	IBES GROWTH	DIVIDEND YIELD	2-STAGE DCF
WASHINGTON MUTUAL	0.60	15.15	8.67%	3.96%	9.79%
WILLIAMS COS.	0.40	33.32	19.67%	1.20%	7.28%
WAL MART STORES	0.95	49.79	11.71%	1.91%	7.60%
WESTERN UNION	0.04	21.40	12.38%	0.19%	5.18%
WRIGLEY WILLIAM JR.	1.34	58.81	10.52%	2.28%	7.96%
WEYERHAEUSER	2.40	65.12	5.67%	3.69%	8.90%
WYETH	1.12	42.19	4.63%	2.65%	7.65%
WYNDHAM WORLDWIDE	0.16	21.93	12.50%	0.73%	5.98%
US.STEEL	1.00	108.90	9.67%	0.92%	6.10%
XL CAP.'A'	1.52	39.17	11.10%	3.88%	10.19%
XILINX	0.56	21.97	14.21%	2.55%	8.88%
EXXON MOBIL	1.40	85.55	6.81%	1.64%	6.77%
XEROX	0.17	14.84	12.33%	1.15%	6.58%
XTO EN.	0.48	55.82	9.36%	0.86%	6.01%
YUM! BRANDS	0.60	35.48	11.92%	1.69%	7.32%
ZIONS BANCORP.	1.72	49.19	8.33%	3.50%	9.16%
Market-weighted Average			11.7%	2.34%	8.0%
Average			12.0%	2.23%	7.9%

SUMMARY OF UPDATED DISCOUNTED CASH FLOW ANALYSIS
FOR VALUE LINE ELECTRIC COMPANIES

LINE NO.	COMPANY	D_4	P_0	GROWTH	COST OF EQUITY ANNUAL MODEL	COST OF EQUITY QUARTERLY MODEL
1	Ameren Corp.	0.635	44.995	4.75%	10.7%	10.9%
2	Amer. Elec. Power	0.410	42.912	6.57%	10.6%	10.7%
3	Black Hills	0.350	38.008	6.67%	10.6%	10.7%
5	Dominion Resources	0.395	42.320	8.30%	12.3%	12.2%
6	DPL Inc.	0.275	26.932	7.25%	11.6%	11.6%
7	DTE Energy	0.530	41.488	5.00%	10.4%	10.6%
9	Edison Int'l	0.305	50.838	9.11%	11.7%	11.8%
10	Entergy Corp.	0.750	109.120	12.42%	15.5%	15.4%
11	Exelon Corp.	0.500	78.262	9.30%	12.1%	12.0%
12	FirstEnergy Corp.	0.550	70.312	8.50%	11.9%	11.8%
13	FPL Group	0.445	63.497	9.80%	12.9%	12.8%
14	G't Plains Energy	0.415	26.535	4.24%	10.8%	11.0%
15	Hawaiian Elec.	0.310	22.573	4.17%	9.9%	10.1%
16	Alliant Energy	0.350	36.690	6.33%	10.4%	10.3%
17	MDU Resources	0.145	25.678	8.73%	11.2%	11.2%
19	NSTAR	0.350	31.973	6.04%	10.7%	10.6%
20	Northeast Utilities	0.200	27.033	8.90%	12.1%	12.2%
21	Otter Tail Corp.	0.298	33.548	7.33%	11.1%	11.3%
22	PG&E Corp.	0.360	40.020	8.14%	12.0%	12.2%
24	Progress Energy	0.615	44.077	5.95%	11.9%	12.1%
27	Pepco Holdings	0.270	25.760	11.40%	16.1%	16.2%
28	PPL Corp.	0.305	47.950	14.22%	17.1%	17.3%
29	SCANA Corp.	0.460	38.323	5.56%	10.6%	10.7%
30	Southern Co.	0.403	36.462	5.29%	9.9%	10.1%
31	Sempra Energy	0.320	54.993	7.66%	10.2%	10.2%
32	TECO Energy	0.195	15.927	4.72%	9.8%	10.0%
33	Integrys Energy	0.670	48.073	6.67%	12.6%	12.8%
34	Vectren Corp.	0.325	26.978	4.75%	9.8%	9.9%
35	Wisconsin Energy	0.270	45.145	9.65%	12.3%	12.2%
36	Westar Energy	0.290	23.703	5.53%	10.7%	10.6%
37	Xcel Energy Inc.	0.230	20.727	6.46%	11.2%	11.3%
38	Market-weighted Average				12.1%	12.1%

Notes for quarterly DCF model cost of equity calculation:

Companies	=	Comparable companies selected according to criteria described in Vander Weide direct testimony. To be conservative, the 3 highest and lowest results were excluded.
d_0	=	Most recent quarterly dividend.
d_1, d_2, d_3, d_4	=	Next four quarterly dividends, calculated by multiplying the last four quarterly dividends per Value Line by the factor $(1 + g)$.
P_0	=	Average of the monthly high and low stock prices during the three months ending March 2008 Thomson Financial.
g	=	I/B/E/S forecast of future earnings growth March 2008 from Thomson financial.
k	=	Cost of equity using the quarterly version of the DCF model.

SURREBUTTAL SCHEDULE JVW-3
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$$k = \frac{d_1(1+k)^{.75} + d_2(1+k)^{.50} + d_3(1+k)^{.25} + d_4}{P_0} + g$$

Notes for annual DCF model cost of equity calculation:

Dividend (D)	=	Most recent quarterly dividend.
Stock Price (P)	=	Average of the monthly high and low stock prices during the three months ending March 2008 Thomson Financial.
Growth (g)	=	I/B/E/S forecast of future earnings growth March 2008.
Cost of Equity (K)	=	Cost of equity using the annual version of the DCF model.

$$K = \frac{D(1+g)}{P_0} + g$$

AFFIDAVIT OF JAMES H. VANDER WEIDE

STATE OF NORTH CAROLINA)
) ss

COUNTY OF DURHAM   )

On the 25 day of April, 2008, before me appeared James H. Vander Weide, to me personally known, who, being by me first duly sworn, states that he is Research Professor of Finance and Economics at the Fuqua School of Business of Duke University and also President of Financial Strategy Associates and acknowledges 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.

_____
James H. Vander Weide

Subscribed and sworn to before me this 25 day of April, 2008.

_____
Notary Public

My commission expires: 2 | 29 | 2012