

Exhibit No.  
Witness: Michael Gorman  
Type of Exhibit: Rebuttal Testimony  
Sponsoring Party: Missouri Industrial Energy Consumers  
Case No. EC-2002-1  
Subjects: Return on Common Equity and Overall  
Rate of Return

**Before the  
Missouri Public Service Commission**

Staff of the Missouri Public Service Commission	)	
	)	
Complainant	)	
v.	)	Case No. EC-2002-1
Union Electric Company, d/b/a	)	
AmerenUE	)	
Respondent.	)	

Rebuttal Testimony of

**Michael Gorman**

Exhibit No. 115  
Date 7/10/02 Case No. EC-2002-1  
Reporter Kem

On Behalf of

**Missouri Industrial Energy Consumers**

May 17, 2002  
Project 7651



BRUBAKER & ASSOCIATES, INC.  
ST. LOUIS, MO 63141-2000

**Before the Public Service Commission  
of the State of Missouri**

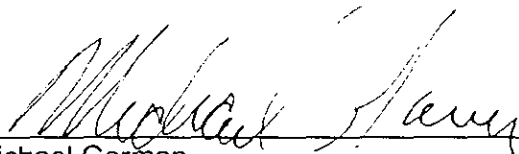
<b>Staff of the Missouri Public Service Commission</b>	)	
	)	
<b>Complainant</b>	)	
v.	)	<b>Case No. EC-2002-1</b>
<b>Union Electric Company, d/b/a AmerenUE</b>	)	
	)	
<b>Respondent.</b>	)	

STATE OF MISSOURI     )  
                                  )     SS  
COUNTY OF ST. LOUIS   )

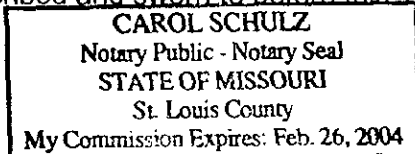
**Affidavit of Michael Gorman**

Michael Gorman, being first duly sworn, on his oath states:

1. My name is Michael Gorman. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.
2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony which was prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. EC-2002-1.
3. I hereby swear and affirm that the rebuttal testimony is true and correct and shows the matters and things it purports to show.

  
\_\_\_\_\_  
Michael Gorman

Subscribed and sworn to before this 16th day of May 2002.



  
\_\_\_\_\_  
Notary Public

My Commission Expires February 26, 2004.

**Before the  
Missouri Public Service Commission**

<b>Staff of the Missouri Public Service Commission</b>	)	
	)	
<b>Complainant</b>	)	
<b>v.</b>	)	<b>Case No. EC-2002-1</b>
<b>Union Electric Company, d/b/a AmerenUE</b>	)	
	)	
<b>Respondent.</b>	)	

**Rebuttal Testimony of Michael Gorman**

1    **Q     PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2    **A     My name is Michael Gorman and my business address is 1215 Fern Ridge Parkway,**  
3       **Suite 208, St. Louis, MO 63141-2000.**

4    **Q     WHAT IS YOUR OCCUPATION?**

5    **A     I am a consultant in the field of public utility regulation and a principal at Brubaker &**  
6       **Associates, Inc., energy, economic and regulatory consultants.**

7    **Q     PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8    **A     These are set forth in Appendix A to my testimony.**

9    **Q     ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

10   **A     I am appearing on behalf of the Missouri Industrial Energy Consumers (MIEC). The**  
11       **MIEC Group includes many of AmerenUE's (UE or Company) largest purchasers of**  
12       **electricity service.**

**Michael Gorman  
Page 1**

1    **Q     WHAT IS THE SUBJECT OF YOUR TESTIMONY?**

2    A     I will respond to the testimony of Staff witness Ronald L. Bible dated March 2002.

3    **Q     PLEASE SUMMARIZE STAFF WITNESS BIBLE'S DIRECT TESTIMONY IN THIS**  
4    **PROCEEDING.**

5    A     Mr. Bible estimated UE's overall rate of return, which Staff then used to develop the  
6    revenue requirement for UE's Missouri retail jurisdictional electric operations. Mr.  
7    Bible recommends using UE's actual capital structure as of June 30, 2001, excluding  
8    short-term debt, and accepts the Company's estimates for embedded cost of long-  
9    term debt and preferred stock. Lastly, Mr. Bible estimated UE's return on equity to fall  
10   in the range of 8.91% to 9.91%.

11            Using these parameters, Mr. Bible's estimated UE's overall rate of return, as  
12   shown on his Schedule 26, to be in the range of 8.01% to 8.61%. As shown on my  
13   Exhibit MPG-1, Schedule 1, reflecting income taxes, and using Mr. Bible's proposed  
14   capital structure and component costs, Mr. Bible's recommendation would provide UE  
15   with a pre-tax rate of return in the range of 11.43% to 12.39%.

16   **Q     WHAT IS THE PRE-TAX RATE OF RETURN, AND HOW IS IT CALCULATED?**

17   A     A pre-tax rate of return represents the total cost of capital to UE's customers. Total  
18   cost of capital includes the rate of return, which is made up of debt and equity returns,  
19   plus applicable income taxes. Equity returns are not tax deductible, therefore to  
20   provide a company with the full opportunity to recover its cost of equity, the equity  
21   return must be grossed-up for income taxes. In contrast, interest on debt obligations  
22   is deductible for income tax purposes. Therefore, debt interest expense need not be  
23   grossed-up for income taxes.

1 In order to adjust a rate of return to a pre-tax basis, it is necessary to gross-up  
2 the weighted cost of common and preferred equity for the applicable composite  
3 income tax rate. Based on Staff's excess earnings analysis, I have estimated a tax  
4 gross-up factor to be 1.6248.<sup>1</sup> This factor is applied to the weighted common equity  
5 and weighted preferred equity returns in order to state these numbers on a pre-tax  
6 basis. Again, no adjustment is made to the weighted cost of debt because these  
7 costs are tax deductible and are therefore already stated on a pre-tax basis.

8 These calculations are shown on my Exhibit MPG-1, Schedule 1, on Staff's  
9 proposed capital structure by adjusting Column 4, Lines 1 and 2, and Lines 7 and 8,  
10 by the tax factor adjustment of 1.6248.

11 **Q WHAT CONCLUSIONS AND RECOMMENDATIONS DO YOU MAKE IN**  
12 **RESPONSE TO MR. BIBLE'S RATE OF RETURN RECOMMENDATIONS FOR**  
13 **UE?**

14 **A** Based on my analysis, I find that a reasonable pre-tax rate of return for UE is in the  
15 range of 11.75% to 12.48%. Mr. Bible's mid-point and high-end recommendation fall  
16 within this range, therefore, I find them to be reasonable. However, while I reach a  
17 comparable pre-tax rate of return recommendation for UE, I developed my overall  
18 rate of return reflecting a different capital structure and return on common equity  
19 which I believe are more reasonable for UE.

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<sup>1</sup>  $\frac{1}{(1 - \text{Composite Tax Rate})}$

1    **Q    PLEASE SUMMARIZE THE DIFFERENCES IN THE WAY YOU DEVELOPED A**  
2           **PRE-TAX OVERALL RATE OF RETURN FOR UE, AND THE METHOD USED BY**  
3           **STAFF WITNESS BIBLE.**

4    **A    My recommended pre-tax rate of return differs from Mr. Bible's in two important**  
5           **respects. First, I do not accept the Company's actual capital structure because I**  
6           **believe it is too heavily weighted with common equity, and therefore is not reasonable**  
7           **to use for ratemaking purposes.**

8           Second, while Mr. Bible's return on equity is reasonable in conjunction with his  
9           reliance on the Company's actual capital structure, I believe it is too low to use with  
10          my recommended capital structure for UE.

11   **Q    WHY WOULD A CAPITAL STRUCTURE THAT IS TOO HEAVILY WEIGHTED**  
12          **WITH COMMON EQUITY BE UNREASONABLE FOR RATEMAKING PURPOSES?**

13   **A    It would be unreasonably expensive and would not benefit customers. In developing**  
14          **rates, only utility costs that are prudently incurred and reasonable should be allowed.**  
15          **Prudent and reasonable is a necessary ingredient in a utility's obligation to provide**  
16          **reliable utility service in a least cost manner.**

17          A capital structure that is too heavily weighted with common equity will  
18          unreasonable increase the utility's revenue requirements and rates to retail  
19          customers. Too much common equity increases the rate of return and income tax  
20          expense, because common equity is the highest cost form of capital and is subject to  
21          income taxes. As a result, a capital structure that contains too much common equity  
22          will unreasonably increase the utility's required operating income, income tax  
23          expense, and rates.

1    **Q     SHOULD IT BE INCUMBENT ON THE UTILITY TO MANAGE ITS CAPITAL**  
2           **STRUCTURE IN ORDER TO MINIMIZE ITS COST OF CAPITAL WHILE**  
3           **PRESERVING ITS FINANCIAL INTEGRITY?**

4    **A     Yes. Regulation is a surrogate for competition. In a competitive market, a company**  
5           **must be competitive in terms of price, product quality and reliability to win customers**  
6           **who have a choice of suppliers. In a regulated market, customers do not have a**  
7           **choice of suppliers. Thus, regulation should impose strict obligations on utilities to**  
8           **manage service quality and reliability and minimize costs in a way that maintains the**  
9           **utility's financial integrity.**

10   **Q     WHY DO YOU BELIEVE THE COMPANY'S ACTUAL CAPITAL STRUCTURE IS**  
11           **TOO HEAVILY WEIGHTED WITH COMMON EQUITY?**

12   **A     UE's capital structure contains too much common equity by several measures,**  
13           **including the following:**

- 14           a. The capital structure contains significantly more common equity than is needed to  
15           be consistent with bond rating agency financial benchmarks to maintain UE's  
16           existing "A+" bond rating.
- 17           b. UE's common equity ratio is unreasonably high in comparison to a peer utility  
18           group.
- 19           c. UE's common equity ratio is unreasonably high in comparison to industry  
20           averages.
- 21           d. UE's common equity ratio is considerably higher than that of the comparable  
22           group that I will use to estimate its cost of common equity.  
23

24   **Q     PLEASE DESCRIBE THE PUBLISHED BOND RATING AGENCY FINANCIAL**  
25           **BENCHMARKS THAT ARE USED IN THE DETERMINATION OF UTILITY BOND**  
26           **RATINGS.**

1 A Standard & Poor's (S&P) publishes financial benchmarks that it uses to establish  
2 utility credit profiles and bond ratings. S&P establishes a utility's bond rating on the  
3 basis of its financial risk and business risk. S&P's financial benchmarks are based on  
4 a matrix that sets (for each specific bond rating) more stringent financial requirements  
5 for utilities that have high business risk, and lower financial requirements for utilities  
6 that have low business risk.

7 Standard & Poor's ranks utility companies on the business risk position of one  
8 to 10, where one is the highest business position or lowest business risk, and 10 is  
9 the lowest business position ranking or highest business risk.

10 UE's current S&P business position ranking is "4" and its bond rating is "A+".<sup>2</sup>

11 **Q WHAT IS S&P'S TOTAL DEBT RATIO BENCHMARK FOR A UTILITY WITH UE'S**  
12 **BOND RATING?**

13 A Standard & Poor's total debt to capital ratio benchmark for an "A" rated utility with a  
14 business position ranking of four is in the range of 43.0% to 49.5%.<sup>3</sup>

15 **Q HOW DOES UE'S TOTAL DEBT TO TOTAL CAPITALIZATION RATIO COMPARE**  
16 **TO THE S&P BENCHMARK?**

17 A In its debt ratio calculation, S&P considers all debt including long-term, short-term and  
18 off-balance sheet debt equivalents. According to S&P, UE does not have material  
19 off-balance sheet debt equivalents, but does have some short-term debt. In UE's  
20 supplemental response to Staff Data Request 3802, it listed \$185.6 million of short-  
21 term debt outstanding at December 31, 2001, but noted that \$83.8 million of that was

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<sup>2</sup> UE response to Staff Data Request 3808, and Standard & Poor's Utilities & Perspectives, January 29, 2001 at 10.

<sup>3</sup> Standard & Poor's Utilities & Perspectives, June 21, 1999 at 3.



1 used to make inter-company affiliate loans. Thus, \$101.8 million was used by UE.  
2 As shown on my Exhibit MPG-1, Schedule 2, including \$101.8 million of short-term  
3 debt in Staff's proposed capital structure produces a total debt ratio of 38.8%.  
4 Similarly, S&P in its November 1, 2001 report on UE, provide in response to Staff  
5 Data Request 3808, listed UE's total debt ratio at 39.2% on June 30, 2001. Hence,  
6 UE's total debt ratio is significantly lower, as a result of too much equity, than the low  
7 end of S&P's debt ratio range, 43% to 49.5%, for an "A" rated utility with UE's  
8 business position ranking.

9 UE's debt ratio is too low and its common equity ratio is too high in  
10 comparison to the S&P benchmarks.

11 **Q HOW DOES UE'S COMMON EQUITY RATIO COMPARE TO A PEER GROUP OF**  
12 **ELECTRIC UTILITY COMPANIES?**

13 A In its June 2001, credit report on Ameren and its subsidiaries including UE, Moody's  
14 compared UE's financial ratios to those of a peer group of companies. Moody's listed  
15 UE's common equity ratio at December 31, 2000 as 57.3% and a peer group's  
16 common equity at the same time as 44.4%. UE's common equity ratio is  
17 unreasonably high in comparison to a peer utility group selected by Moody's.  
18 (Moody's Investor Service Ameren Corporation, June 2001, at 4, provide by UE in  
19 response to Staff Data Request 3808).

20 **Q WHAT IS THE INDUSTRY AVERAGE CAPITAL STRUCTURE FOR ELECTRIC**  
21 **UTILITY COMPANIES?**

22 A Two publications list average equity ratios for electric utility companies. First, The  
23 Value Line Investment Survey publishes an average common equity ratio for the

1 electric utilities it follows. Value Line excludes short-term debt from the total  
2 capitalization when it calculates the common equity ratio. Hence, Value Line's  
3 common equity ratio is based on the ratio of common equity to total long-term capital.  
4 For the year 2002, Value Line states that the average common equity ratio for electric  
5 utilities is 44.5%, and noted that the industry's equity ratio is projected to increase to  
6 48.5% by the period 2005-2007.<sup>4</sup>

7 The second publication is the C.A. Turner Utility Reports. In contrast to the  
8 Value Line Investment Survey, C.A. Turner publishes a common equity ratio that  
9 includes short-term debt in the total capitalization. The average common equity ratios  
10 for the utilities followed by the C.A. Turner Utility Reports is 42%. (C.A. Turner Utility  
11 Reports April 2002 at page 7, and The Value Line Investment Survey, April 5, 2002 at  
12 page 695.)

13 In significant contrast, UE's common equity ratio, when short-term debt is not  
14 included in the capital structure, is 59.1% as shown by Staff witness Bible at June 30,  
15 2001, and as shown on my Schedule 2, UE's common equity ratio is 57.7% including  
16 its UE-related December 31, 2001 short-term debt balance. In both cases, UE's  
17 common equity as a percent of total capital is substantially higher than that of the  
18 electric utility industry, both now and as projected by Moody's over the next three to  
19 five years.

20 **Q WHAT IS THE AVERAGE COMMON EQUITY RATIO FOR THE COMPARABLE**  
21 **GROUPS USED IN YOUR ANALYSIS OF A FAIR RETURN ON EQUITY FOR UE?**

22 **A** I will discuss my analysis in more detail later in my testimony. But, as shown later in  
23 my testimony (see Exhibit MPG-1, Schedule 5), the average common equity ratio of

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<sup>4</sup> The Value Line Investment Survey, April 5, 2002 at 695.

my proxy utility group is 48% as reported by Value Line (excluding short-term debt), and 40% as reported by C.A. Turner Utility Reports (including short-term debt). Again, these common equity ratios are considerable lower than UE's 59.1% and 57.7% equity ratios without and with short-term debt, respectively, included in total capital.

**Q WHAT RETURN ON COMMON EQUITY AND RELATED COMMON EQUITY RATIO HAVE REGULATORY COMMISSIONS TYPICALLY AWARDED TO ELECTRIC UTILITY COMPANIES?**

A As shown below in Table 1, I have listed the average annual electric utility authorized return on common equity, and common equity to total capital authorized by regulatory commissions in setting overall rates of return for utilities. This data was taken from the Regulatory Focus, Major Rate Case Decisions, January 1990 through December 2000. As shown below in Table 1, authorized return on common equity for the last five years has averaged 11.33%, and the common equity ratio has averaged 46.63%.

Table 1		
<u>Annual Regulatory Authorized Electric Returns</u>		
<u>Year</u>	<u>Return on Common Equity</u>	<u>Common Equity Ratio</u>
2000	11.43	48.85
1999	10.77	45.08
1998	11.66	46.14
1997	11.40	48.79
1996	<u>11.39</u>	<u>44.34</u>
Average	11.33%	46.63%
Source: Major Rate Case Decisions, June-July 1990 – December 2000, Regulatory Focus		

1           UE's actual capital structure common equity ratio of 59% is significantly out of  
2 line with the capital structures used by regulatory commissions, on average, over the  
3 last five years to establish utility overall rates of return.

4   **Q   WHAT IS THE RELATIONSHIP BETWEEN AN EQUITY RATIO AND A FAIR**  
5   **RETURN ON COMMON EQUITY?**

6   A   A common equity ratio measures the financial leverage the utility has used to finance  
7 its utility assets. The greater the financial leverage, the greater the financial risk.  
8 Hence, a low common equity ratio would equate to high financial risk because there  
9 would be more debt leverage used to finance utility assets. Conversely, a high  
10 common equity ratio would equate to low financial risk because the utility would use  
11 less financial leverage to finance utility assets.

12           From this, if the Commission were to agree with Staff and use UE's actual  
13 capital structure, containing a high common equity ratio and low financial leverage,  
14 then it should reduce the return on equity to reflect this reduced financial risk.

15   **Q   CAN THERE BE EXTENUATING FACTORS THAT JUSTIFY A UTILITY'S NEED**  
16   **FOR A HIGH OR LOW COMMON EQUITY RATIO?**

17   A   Yes. If a utility has high business risk (that is, sales risk, poor management, uncertain  
18 cost recovery), it may be appropriate for a utility to have a high common equity ratio in  
19 order to lower financial risk to offset the high business risk. However, this does not  
20 apply to UE. As noted by Standard & Poor's, UE has a strong service area, and  
21 robust financial parameters<sup>5</sup>. Therefore, it has, at worst, average business risk, and  
22 at best, lower than average business risk. Thus, there is no reason for AmerenUE to

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<sup>5</sup> Standard & Poor's Rating Direct, Union Electric, November 2001, response to Staff #3808.

1 have a higher common equity ratio in order to maintain its credit strength and  
2 financial integrity.

3 **Q WHAT RETURN ON COMMON EQUITY DO YOU RECOMMEND BE USED IN**  
4 **CONJUNCTION WITH YOUR RECOMMENDED CAPITAL STRUCTURE TO**  
5 **ESTABLISH UE'S RATE OF RETURN?**

6 **A** Based on the analysis I describe later in this testimony, I have estimated a fair rate of  
7 return on common equity for UE to be in the range of 9.6% to 11.2%. This rate of  
8 return on common equity recommendation, however, should only be used if the  
9 Commission accepts my recommendation to reject UE's actual capital structure  
10 because it is too heavily weighted with common equity and therefore unreasonable.  
11 Instead, my recommended return on common equity for UE should be used with a  
12 capital structure that balances the interest of investors and ratepayers. A balanced  
13 capital structure should both help preserve the Company's credit rating and financial  
14 integrity, and minimize the utility's rate of return and income taxes to help make its  
15 rates more reasonable and competitive.

16 **Q WHAT CAPITAL STRUCTURE DO YOU RECOMMEND FOR UE IN THIS**  
17 **PROCEEDING?**

18 **A** I recommend adjusting UE's actual capital structure to increase the amount of debt  
19 and reduce the amount of common equity. UE's rate making capital structure should  
20 have a debt ratio within the parameters of S&P's utility bond rating benchmarks for  
21 UE's current "A" bond rating and business position rating of 4. In accordance with  
22 S&P's financial benchmarks, I recommend adjusting UE's capital structure to increase

1 the debt ratio into the range of 43.0% to 49.5%. My adjustment to UE's actual capital  
2 structure is developed on my Exhibit MPG-1, Schedule 3.

3 **Q PLEASE EXPLAIN HOW YOU ADJUSTED UE'S ACTUAL CAPITAL**  
4 **STRUCTURE?**

5 A I started with UE's actual capital structure at January 30, 2001 as used by Staff  
6 witness Bible. For this calculation I included short-term debt in UE's capital structure  
7 and assumed UE would have short-term debt equal to its December 31, 2001  
8 balance of \$101.8 million<sup>6</sup>, and no off-balance sheet debt. I then included additional  
9 debt at a cost of 7.5% until the total debt to total capital structure ratio was within  
10 S&P's financial benchmark range of 43.0% to 49.5%. The 7.5% rate for additional  
11 debt was based on an "A" rated utility bond current yield of 7.3% (Mergent Public  
12 Utility, Friday, April 26, 2002), adjusted up to 7.5% to reflect issuance costs.

13 As shown on my Exhibit MPG-1, Schedule 3, with this method, I developed  
14 three capital structures with total debt ratios of 43.0%, 46.5%, and 49.4%. These  
15 debt ratios are the low, midpoint and high end total debt ratio ranges established by  
16 S&P for companies with UE's current bond rating.

17 **Q ARE YOU RECOMMENDING THAT UE'S OVERALL RATE OF RETURN BE**  
18 **DEVELOPED USING A CAPITAL STRUCTURE INCLUDING SHORT-TERM DEBT**  
19 **IN THIS PROCEEDING?**

20 A No. The capital structure developed on my Schedule 3 is based on total debt, in  
21 order to be consistent with S&P's benchmarks. The capital structure I recommend  
22 the Commission use to set AmerenUE's overall rate of return would exclude short-

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<sup>6</sup> UE's balance of \$185.6 million, less \$83.8 million loaned to affiliate companies.

term debt, as long as short-term debt is lower than the Company's balance of construction work in progress. An adjusted capital structure that I recommend for setting rates is shown on my Exhibit MPG-1, Schedule 4. On Schedule 4, I develop a ratemaking capital structure that is identical to the capital structure developed on my Schedule 3, but excludes short-term debt. As shown on my Schedule 4, I recommend that AmerenUE's ratemaking capital structure contain a common equity ratio in the range of 48.3% to 54.8%.

**Q WHAT PRETAX RATE OF RETURN DO YOU RECOMMEND FOR UE IN THIS PROCEEDING?**

**A** As shown on my Exhibit MPG-1 Schedule 4, using the capital structure developed above, but excluding short-term debt, and using a return on common equity in the range of 9.6% to 11.2%, I conclude that a reasonable pretax rate of return for UE is in the range of 11.75% to 12.48%.

**Q PLEASE COMPARE YOUR ESTIMATE OF UE'S OVERALL RATE OF RETURN TO THE SAME ESTIMATE MADE BY STAFF WITNESS BIBLE.**

**A** In Table 2 below, I show Staff's and my pre-tax rate of return recommendations.

Table 2						
<u>Rate of Return Recommendations</u>						
<u>Description</u>	<u>Return On Equity</u>		<u>Common Equity Ratio</u>		<u>Pre-Tax Rate of Return</u>	
	<u>Low</u>	<u>Low</u>	<u>High</u>	<u>Low</u>	<u>Low</u>	<u>High</u>
Staff	8.91%	9.91%	59.1%	59.1%	11.34%	12.39%
Gorman	9.60%	11.20%	48.3%	54.8%	11.75%	12.48%

1 As shown in Table 2, I conclude that Staff's mid-point and high-end return  
2 recommendations fall within a reasonable range.

3 **Q WOULD THE RETURN ON EQUITY AND RECOMMENDED CAPITAL**  
4 **STRUCTURE YOU ARE RECOMMENDING, AND THAT RECOMMENDED BY**  
5 **STAFF WITNESS BIBLE, PROVIDE ADEQUATE EARNINGS COVERAGE OF**  
6 **DEBT INTEREST EXPENSE IN ORDER TO MAINTAIN AMERENUE'S EXISTING**  
7 **BOND RATING?**

8 A Yes. As shown below in Table 3, and as developed on my Exhibit MPG-1, Schedules  
9 2 and 3, the amount of debt interest expense allocated to AmerenUE's Missouri retail  
10 operations, and the earnings coverage of that debt interest expense provided by  
11 Missouri UE retail customers, based on Staff's recommendation, provides UE with a  
12 pre-tax interest coverage ratio in the range of 4.4x to 4.8x.<sup>7</sup> Similarly, my  
13 recommended rate of return for Missouri retail customers will provide a coverage of  
14 debt interest expense allocated to the Missouri jurisdiction in the range of 3.6x to  
15 4.0x.<sup>8</sup>

16 In comparison, S&P's financial benchmarks for a single A-rated utility with a  
17 business position ranking of four is for a pre-tax interest coverage ratio in the range of  
18 3.3x to 4.0x. Accordingly, both my recommendation and that of Staff witness Bible  
19 will provide robust earnings coverage of UE's debt interest expense allocated to retail  
20 Missouri operations that is adequate to support its existing bond rating.

<sup>7</sup> Using the capital structure weights would allocate debt interest, equity return and income taxes based on the Missouri rate base.

<sup>8</sup> For purposes of this calculation, I used UE's money pool rate in the year 2001 of 3.95% as a proxy for UE's short-term debt interest rate. This is a conservative assumption because in the year 2001, UE's actual short-term debt cost was 1.8%. (UE FERC Form 1, 2000, note 3)



**Table 3**

**Pre-Tax Debt Interest Coverage Ranges**

	<u>Staff</u>	<u>Gorman</u>	<u>S&amp;P Range</u>
High	4.7x	4.0x	4.0x
Low	4.4x	3.6x	3.3x

Source: Standard & Poor's Utilities Perspectives,  
June 21, 1999 at 3.

1    **Q     DOES S&P ESTABLISH UE'S BOND RATING BASED ON THE EARNINGS FROM**  
2       **ITS MISSOURI RETAIL OPERATIONS, OR FROM THE TOTAL COMPANY?**

3    **A     S&P would be concerned about the Company's total earnings coverage of total debt**  
4       interest obligations. However, the purpose of this proceeding is to evaluate whether  
5       UE's Missouri retail rates are just and reasonable. Hence, I have attempted to  
6       measure whether Missouri retail rates provide adequate earnings coverage of debt  
7       interest expense that is properly allocated to Missouri retail operations. Thus, for  
8       purposes of evaluating UE's Missouri retail rates, the proper benchmark is the  
9       earnings coverage of debt interest expense which should be provided by Missouri  
10      retail rates, and not UE's total revenues and debt interest obligations.

11   **Q     WILL YOUR CAPITAL STRUCTURE ADJUSTMENT RESULT IN A RETURN**  
12      **DISALLOWANCE**

13   **A     No, UE can conform its actual capital structure to comply with the capital structure**  
14      objective approved by the Commission and used to set rates. In effect a capital  
15      structure adjustment is no different than expecting UE to respond to a Commission

**Michael Gorman**  
**Page 15**

1 finding that some cost of service component is unreasonable and should not be  
2 allowed in rates at the historic level. UE can adjust its actual capital structure by  
3 buying back stock, paying an extraordinary dividend to its parent company, or through  
4 incremental external borrowing to fund plant infrastructure investments. The bottom  
5 line is that UE can and should adjust its actual capital structure to be in conformance  
6 with S&P's published financial benchmarks.

### 7 **Return on Common Equity**

8 **Q PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED**  
9 **COMPANY'S COST OF COMMON EQUITY.**

10 A In general, determining a fair cost of common equity for a regulated utility has been  
11 framed by two decisions of the U.S. Supreme Court, in Bluefield Water Works vs  
12 West Virginia PSC (1923) and Federal Power Commission vs Hope Natural Gas  
13 Company (1944).

14 These decisions identify the general standards to be considered in  
15 establishing the cost of common equity for a public utility. Those general standards  
16 are that the authorized return should: (1) be sufficient to maintain financial integrity,  
17 (2) attract capital under reasonable terms, and (3) be commensurate with returns  
18 investors could earn by investing in other enterprises of comparable risk.

19 **Q PLEASE DESCRIBE WHAT IS MEANT BY THE TERM "UTILITY'S COST OF**  
20 **COMMON EQUITY."**

21 A The utility's cost of common equity is the return investors expect, or require, in order  
22 to make an investment. Investors expect to achieve their return requirement from  
23 receiving dividends and stock price appreciation.

1    **Q     PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE THE COST**  
2    **OF COMMON EQUITY FOR UE.**

3    A     I have used several models based on financial theory to estimate UE's cost of  
4    common equity. These models are: (1) the constant growth discounted cash flow  
5    (DCF) model, (2) the bond yield plus equity risk premium model, and (3) a capital  
6    asset pricing model (CAPM). I have applied these models to a group of publicly  
7    traded utilities that represent the investment risk of an electric utility similar to UE.

8    **Q     HOW WILL YOU DEVELOP A DISCOUNTED CASH FLOW ANALYSIS AND RISK**  
9    **PREMIUM ESTIMATES FOR UE?**

10   A     I relied on a broad based group of electric utility companies to estimate UE's return  
11   on equity.

12   **Q     HOW DID YOU SELECT A BROAD BASED GROUP OF ELECTRIC UTILITY**  
13   **COMPANIES?**

14   A     I started with all the electric and combination electric and gas utilities followed by the  
15   C.A. Turner Utility Reports. I limited the comparable group to the utilities which met  
16   the following criteria: (a) had at least 80% of their revenues from the provision of  
17   electric service; (b) a bond rating from both Standard & Poor's and Moody's of A or  
18   better, (c) currently paying a dividend, and (d) utilities that have an earnings growth  
19   rate published by First Call.

20            As shown on my Exhibit MPG-1, Schedule 5, this selection criteria produced a  
21   broad-based group of electric companies from which to estimate a fair return for UE.

## DISCOUNTED CASH FLOW (DCF) MODEL

**Q PLEASE DESCRIBE THE DCF MODEL.**

**A** The DCF model posits that a stock price is valued by summing the present value of expected future cash flows, discounted at the investor's required rate of return (ROR) or cost of capital. This model is expressed mathematically as follows:

$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \dots + \frac{D_\infty}{(1+K)^\infty} \quad \text{where} \quad (\text{Equation 1})$$

$P_0$  = Current stock price

$D$  = Dividends in periods 1 -  $\infty$

$K$  = Investor's required return

This model can be rearranged in order to estimate the discount rate or investor required return, "K." If it is reasonable to assume that earnings and dividends will grow at a constant rate, then Equation 1 can be rearranged as follows:

$$K = D_1/P_0 + G \quad (\text{Equation 2})$$

$K$  = Investor's required return

$D_1$  = Dividend adjusted for growth

$P_0$  = Current stock price

$G$  = Expected constant dividend growth rate

Equation 2 is referred to as the "constant growth" annual DCF model.

**Q PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.**

**A** As shown under Equation 2 above, the DCF model requires a current stock price, expected dividend, and expected growth rate in dividends.

**Q WHAT STOCK PRICE AND DIVIDEND HAVE YOU RELIED ON IN YOUR CONSTANT GROWTH DCF MODEL?**

1 A I relied on the average of the weekly high and low stock prices over a 13-week period  
2 ending April 15, 2002. An average stock price is less susceptible to aberrant market  
3 price movements, which may not be reflective of the stock's long-term value.

4 I used the most recently paid quarterly dividend, as reported in the Value Line  
5 Investment Survey. This dividend was annualized (multiplied by 4) and adjusted for  
6 next year's growth to produce the  $D_1$  factor for use in Equation 2 above.

7 **Q WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR DCF MODEL?**

8 A There are several methods which one can use in order to estimate the expected  
9 growth in dividends. However, for purposes of determining the market required return  
10 on common equity, one must attempt to estimate what the consensus of investors  
11 believe the dividend or earnings growth rate will be, and not what an individual  
12 investor or analyst may use to form individual investment decisions.

13 Security analyst growth estimates have been shown to be more accurate  
14 predictors of future returns than growth rates derived from historical data.<sup>9</sup> Because  
15 they are more reliable estimates, and assuming the market, in general, makes  
16 rational investment decisions, analysts' growth projections are the most likely growth  
17 estimates that are built into stock prices.

18 For my constant growth DCF analysis, I have relied on a consensus, or mean,  
19 of professional security analysts' earnings growth estimates as a proxy for the  
20 investor consensus dividend growth rate expectations. I used First Call (formerly the  
21 Institutional Brokers Estimate System) consensus analyst projections available on  
22 April 17, 2002, as reported on-line by the Thomson Investors Network. First Call

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<sup>9</sup> See, for example, David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," The Journal of Portfolio Management, Spring 1989.

1 surveys security analysts and publishes a simple arithmetic average or mean of  
2 surveyed analysts' earnings growth forecast. A simple average of the First Call  
3 growth forecast gives equal weight to all surveyed analysts' projections. It is  
4 problematic as to whether any particular analyst's forecast is most representative of  
5 general market expectations. Therefore, a simple average, or arithmetic mean,  
6 analyst forecast is a good proxy for market consensus expectations.

7 **Q WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?**

8 A The results of my DCF analyses are shown on Exhibit MPG-1, Schedule 6. As shown  
9 on Schedule 6, the average DCF cost of common equity for the comparable group is  
10 11.2%.

11 **RISK PREMIUM MODEL**

12 **Q PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.**

13 A This model is based on the principle that investors require a higher ROR to assume  
14 greater risk. Common equity investments have greater risk than bonds because  
15 bonds have more security of payment in bankruptcy proceedings than common equity  
16 and the coupon payments on bonds represent contractual obligations. In contrast,  
17 companies are not required to pay dividends on common equity, or to guarantee  
18 returns on common equity investments. Therefore, common equity securities are  
19 considered to be more risky than bond securities.

20 This risk model is based on the difference between the required return on  
21 utility common equity investments and Treasury bonds. The difference between the  
22 required return on common equity and the bond yield is the risk premium. I estimated  
23 the risk premium on an annual basis for each year over the period 1986 through year-

1 end 2000. The required returns on common equity were based on regulatory  
2 commission-authorized returns for electric utility companies. Regulatory authorized  
3 returns are a reasonable proxy for estimates of contemporary investor required  
4 returns because authorized returns are typically based on expert witnesses' estimate  
5 of the contemporary investor required return.

6 Based on this analysis, as shown on my Exhibit MPG-1, Schedule 3, the  
7 average indicated equity risk premium of authorized electric utility common equity  
8 returns over U.S. Treasury bond yields has been 4.75%. Of the 15 observations, 11  
9 indicated risk premiums fall in the range of 4.0% to 5.5%. Since the risk premium can  
10 vary depending upon market conditions, I believe using an estimated range of risk  
11 premiums provides the best method to measure the current return on common equity  
12 using this methodology.

13 **Q HOW DID YOU ESTIMATE UE'S COST OF COMMON EQUITY WITH THIS**  
14 **MODEL?**

15 **A** I added to my estimated equity risk premium a projected 30-year Treasury bond yield.  
16 Blue Chip Financial Forecasts projects long-term Treasury bond yields to be 6.2%,  
17 and a 10-year Treasury bond to be 5.8%. I will use an average of the long-term and  
18 ten-year Treasury security returns, or 6.0% in my analysis. Using the average  
19 Treasury bond yield of 6.0%, and an equity risk premium of 4.0% to 5.5%, produces  
20 an estimated common equity return in the range of 10.0% to 11.5%, with a mid-point  
21 estimate at 10.8%.

## CAPITAL ASSET PRICING MODEL

**Q PLEASE DESCRIBE THE CAPM.**

**A** The CAPM method of analysis is based upon the theory that the market required ROR for a security is equal to the risk-free ROR, plus a risk premium associated with the specific security. This relationship between risk and return can be expressed mathematically as follows:

$$R_i = R_f + B_i \times (R_m - R_f) \text{ where:}$$

$R_i$  = Required ROR for stock i

$R_f$  = Risk-free rate

$R_m$  = Expected return for the market portfolio

$B_i$  = Measure of the risk for stock i

The stock specific risk term in the above equation is beta. Beta represents the investment risk that cannot be diversified away when the security is held in a diversified portfolio. When stocks are held in a diversified portfolio, firm-specific risks can be eliminated by balancing the portfolio with securities that react in opposite direction to firm-specific risk factors (e.g., business cycle, competition, product mix and production limitations).

The risks that cannot be eliminated when held in diversified portfolio are nondiversifiable risks. Nondiversifiable risks are related to the market in general and are referred to as systematic risks. Risks that can be eliminated by diversification are regarded as unsystematic risks. In a broad sense, systematic risks are market risks, and unsystematic risks are business risks. The CAPM theory suggests that the market will not compensate investors for assuming risks that can be diversified away. Therefore, the only risk that investors will be compensated for are systematic or nondiversifiable risks. The beta is a measure of the systematic or nondiversifiable risks.



1    **Q     PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.**

2    A     The CAPM requires an estimate of the market risk-free rate, the company's beta, and  
3           the market risk premium.

4    **Q     WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE RATE?**

5    A     I used a 6% yield, which is the average of the Blue Chip Financial Forecast's  
6           projected long-term Treasury bond yield of 6.2%, and ten year Treasury bond yield of  
7           5.8% (February 1, 2002 at 2).

8    **Q     WHY DID YOU USE TREASURY BOND YIELDS AS AN ESTIMATE OF THE RISK-  
9           FREE RATE?**

10   A     Treasury securities are backed by the full faith and credit of the United States  
11           government. Therefore, long-term Treasury bonds are considered to have negligible  
12           credit risk. Also, long-term Treasury bonds have an investment horizon similar to that  
13           of common stock. As a result, investor-anticipated long-run inflation expectations are  
14           reflected in both common stock required returns and long-term bond yields.  
15           Therefore, the nominal risk-free rate (or expected inflation rate and real risk-free rate)  
16           included in a long-term bond yield is a reasonable estimate of the nominal risk-free  
17           rate included in common stock returns.

18           Treasury bond yields, however, do include risk premiums related to unantici-  
19           pated future inflation and interest rates. Therefore, a Treasury bond yield is not a  
20           risk-free rate. Risk premiums related to unanticipated inflation and interest rates are  
21           systematic or market risks. Consequently, for companies with betas less than one,  
22           using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis  
23           can produce an overstated estimate of the CAPM return.

Michael Gorman  
Page 23

**Q WHAT BETA DID YOU USE IN YOUR ANALYSIS?**

A I relied on the group average beta estimate for the comparable group. Group average beta is more reliable than a single company beta and will, therefore, produce a more reliable CAPM estimate.

A group average beta has stronger statistical parameters that better describe the systematic risk of the group, than does an individual company beta. For this reason, a group average beta will produce a more reliable return estimate.

As shown on Exhibit MPG-1, Schedule 8, the group average beta estimate is 0.51.

**Q HOW DID YOU DERIVE YOUR MARKET PREMIUM ESTIMATE?**

A I derived two market premium estimates, a forward-looking estimate and one based on a long-term historical average.

The forward-looking estimate was derived by estimating the expected return on the market (S&P 500) and subtracting the risk-free rate from this estimate. I estimated the expected return on the S&P 500 by adding an expected inflation rate to the long-term historical arithmetic average real return on the market. The real return on the market represents the achieved return above the rate of inflation.

The Ibbotson and Associates' Stocks, Bonds, Bills and Inflation 2002 Year Book publication estimates the historical arithmetic average real market return over the period 1926-2000 as 9.4%. A current consensus analyst inflation projection, as measured by the Consumer Price Index, is 2.5% through 2002 (Blue Chip Financial Forecasts, April 1, 2002). Using these estimates, the expected market return is 12.1%. The market premium then is the difference between the 12.1% expected market return, and my 6.0% risk-free rate estimate, or 6.1%.

1           The historical estimate of the market risk premium was also estimated by  
2           Ibbotson and Associates in the Stock, Bonds, Bills and Inflation, 2002 Year Book.  
3           Over the period 1926 through 2002, Ibbotson's study estimated that the arithmetic  
4           average of the achieved total return on the S&P 500 was 12.7%, and the total return  
5           on long-term Treasury bonds was 5.7%. The indicated equity risk premium is 7.0%  
6           (12.7% - 5.7% = 7.0%).

7   **Q    WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?**

8   A    As shown on Exhibit MPG-1, Schedule 9, based on the prospective market risk  
9           premium estimate of 6.1% and the historical estimate of 7.0%, the CAPM estimated  
10          return on equity is between 9.1% and 9.6%. I will rely on the high end result, 9.6%,  
11          as a conservative estimate using this analysis.

12   **RETURN ON EQUITY SUMMARY**

13   **Q    BASED ON THE RESULTS OF YOUR RATE OF RETURN ON COMMON EQUITY**  
14           **ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO**  
15           **YOU RECOMMEND FOR UE?**

16   A    Based on my analyses, I estimated an appropriate return on equity for UE in the  
17          range of 9.6% to 11.2%, with a mid-point estimate of 10.4%. The high end of my  
18          estimated range, 11.2%, is based on my DCF analyses and risk premium, and the  
19          bottom of my range is based on my CAPM analysis.

20               My recommended rate of return on common equity should again only be used  
21               with my recommended capital structure for UE. If the Commission adopts UE's actual  
22               capital structure, then I believe my recommended return on common equity would be  
23               too high and would provide unreasonable compensation to UE. I reached this

**Michael Gorman**  
**Page 25**

1 conclusion based on my findings above that UE's capital structure is over-weighted  
2 with common equity and is therefore unreasonable. If the Commission finds UE's  
3 actual capital structure to be reasonable, I believe Staff witness Bible's recommended  
4 return on common equity is reasonable for UE in this proceeding.

Table 4	
<u>Return on Common Equity Summary</u>	
<u>Description</u>	<u>Percent</u>
Constant Growth DCF	11.2%
Risk Premium	10.8%
CAPM	9.6%

5 **RATE OF RETURN SUMMARY**

6 **Q WHAT IS YOUR RATE OF RETURN RECOMMENDATION FOR AMERENUE IN**  
7 **THIS PROCEEDING?**

8 **A** I recommend setting AmerenUE's return on common equity at the mid-point of my  
9 range, or 10.4%. I recommend developing Ameren's overall rate of return using my  
10 adjusted capital structure with a common equity ratio that reflects the mid-point of  
11 Standard & Poor's debt ratio range of 43.0% to 49.5%. This produces a common  
12 equity ratio of 51.2%, and an overall rate of return of 8.67%. My recommended  
13 overall rate of return for AmerenUE is shown on my Exhibit MPG-1, Schedule 10, and  
14 was developed on my Schedules 3 and 4.

15 **Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

16 **A** Yes, it does.

### Qualifications of Michael Gorman

1    **Q     PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2    A     Michael P. Gorman. My business mailing address is P. O. Box 412000, 1215 Fern  
3           Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000.

4    **Q     PLEASE STATE YOUR OCCUPATION.**

5    A     I am a consultant in the field of public utility regulation and a principal with Brubaker &  
6           Associates, Inc., energy, economic and regulatory consultants.

7    **Q     PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK  
8           EXPERIENCE.**

9    A     In 1983 I received a Bachelors of Science Degree in Electrical Engineering from  
10          Southern Illinois University, and in 1986, I received a Masters Degree in Business  
11          Administration with a concentration in Finance from the University of Illinois at  
12          Springfield. I have also completed several graduate level economics courses.

13                In August of 1983, I accepted an analyst position with the Illinois Commerce  
14          Commission (ICC). In this position, I performed a variety of analyses for both formal  
15          and informal investigations before the ICC, including: marginal cost of energy, central  
16          dispatch, avoided cost of energy, annual system production costs, and working  
17          capital. In October of 1986, I was promoted to the position of Senior Analyst. In this  
18          position, I assumed the additional responsibilities of technical leader on projects, and  
19          my areas of responsibility were expanded to include utility financial modeling and  
20          financial analyses.

1           In 1987, I was promoted to Director of the Financial Analysis Department. In  
2           this position, I was responsible for all financial analyses conducted by the staff.  
3           Among other things, I conducted analyses and sponsored testimony before the ICC  
4           on rate of return, financial integrity, financial modeling and related issues. I also  
5           supervised the development of all Staff analyses and testimony on these same  
6           issues. In addition, I supervised the Staff's review and recommendations to the  
7           Commission concerning utility plans to issue debt and equity securities.

8           In August of 1989, I accepted a position with Merrill-Lynch as a financial  
9           consultant. After receiving all required securities licenses, I worked with individual  
10          investors and small businesses in evaluating and selecting investments suitable to  
11          their requirements.

12          In September of 1990, I accepted a position with Drazen-Brubaker &  
13          Associates, Inc. In April 1995 the firm of Brubaker & Associates, Inc. (BAI) was  
14          formed. It includes most of the former DBA principals and Staff. Since 1990, I have  
15          performed various analyses and sponsored testimony on cost of capital, cost/benefits  
16          of utility mergers and acquisitions, utility reorganizations, level of operating expenses  
17          and rate base, cost of service studies, and analyses relating industrial jobs and  
18          economic development. I also participated in a study used to revise the financial  
19          policy for the municipal utility in Kansas City, Kansas.

20          At BAI, I also have extensive experience working with large energy users to  
21          distribute and critically evaluate responses to requests for proposals (RFPs) for  
22          electric, steam, and gas energy supply from competitive energy suppliers. These  
23          analyses include the evaluation of gas supply and delivery charges, cogeneration  
24          and/or combined cycle unit feasibility studies, and the evaluation of third-party  
25          asset/supply management agreements. I have also analyzed commodity pricing

1 indices and forward pricing methods for third party supply agreements. Continuing, I  
2 have also conducted regional electric market price forecasts.

3 In addition to our main office in St. Louis, the firm also has branch offices in  
4 Kerrville, Texas; Plano, Texas; Asheville, North Carolina; Denver, Colorado; and  
5 Chicago, Illinois.

6 **Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?**

7 A Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of  
8 service and other issues before the regulatory commissions in Arizona, Delaware,  
9 Florida, Georgia, Illinois, Indiana, Michigan, Missouri, New Mexico, Oklahoma,  
10 Tennessee, Texas, Utah, Vermont, West Virginia, Wisconsin and Wyoming. I have  
11 also sponsored testimony before the Board of Public Utilities in Kansas City, Kansas;  
12 presented rate setting position reports to the regulatory board of the municipal utility  
13 in Austin, Texas, and Salt River Project, Arizona, on behalf of industrial customers;  
14 and negotiated rate disputes for industrial customers of the Municipal Electric  
15 Authority of Georgia in the LaGrange, Georgia district.

16 **Q PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR ORGANIZA-**  
17 **TIONS TO WHICH YOU BELONG.**

18 A I earned the designation of Chartered Financial Analyst (CFA) from the Association  
19 for Investment Management and Research (AIMR). The CFA charter was awarded  
20 after successfully completing three examinations which covered the subject areas of  
21 financial accounting, economics, fixed income and equity valuation and professional  
22 and ethical conduct. I am a member of AIMR's Financial Analyst Society.

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# AmerenUE

## Staff's Proposed Capital Structure

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	Percentage of <u>Total</u> (2)	<u>Cost</u> (3)	Weighted <u>Cost</u> (4)	Pre-Tax Weighted <u>Cost</u> (5)
1	Common Equity	2,603,364	59.1%	9.91	5.85	9.51
2	Preferred Stock	155,197	3.5%	5.72	0.20	0.33
3	Long-Term Debt	1,648,373	37.4%	6.82	2.55	2.55
4	Short-Term Debt	-	0.0%		-	-
5	Total	4,406,934	100.0%		8.61	12.39
6	Tax Factor	1.6248				

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	Percentage of <u>Total</u> (2)	<u>Cost</u> (3)	Weighted <u>Cost</u> (4)	Pre-Tax Weighted <u>Cost</u> (5)
7	Common Equity	2,603,364	59.1%	8.91	5.26	8.55
8	Preferred Stock	155,197	3.5%	5.72	0.20	0.33
9	Long-Term Debt	1,648,373	37.4%	6.82	2.55	2.55
10	Short-Term Debt	-	0.0%		-	-
11	Total	4,406,934	100.0%		8.02	11.43
12	Tax Factor	1.6248				



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## Staff's Proposed Capital Structure With Short-Term Debt

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
1	Common Equity	2,603,364	57.7%	8.91	5.14	8.36
2	Preferred Stock	155,197	3.4%	5.72	0.20	0.32
3	Long-Term Debt	1,648,373	36.6%	6.82	2.49	2.49
4	Short-Term Debt	<u>101,800</u>	<u>2.3%</u>	<u>3.95</u>	<u>0.09</u>	<u>0.09</u>
5	Total	4,508,734	100.0%		7.92	11.26
6	Tax Factor	1.6248				
7	Total Debt Ratio		38.8%			
8	S&P Total Debt Ratio Benchmark		43.0% - 49.5%			
9	Pre-Tax Interest Coverage					4.4
10	S&P Interest Coverage Benchmark					3.3 - 4.0

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
11	Common Equity	2,603,364	57.7%	9.91	5.72	9.30
12	Preferred Stock	155,197	3.4%	5.72	0.20	0.32
13	Long-Term Debt	1,648,373	36.6%	6.82	2.49	2.49
14	Short-Term Debt	<u>101,800</u>	<u>2.3%</u>	<u>3.95</u>	<u>0.09</u>	<u>0.09</u>
15	Total	4,508,734	100.0%		8.50	12.20
16	Tax Factor	1.6248				
17	Total Debt Ratio		38.8%			
18	S&P Total Debt Ratio Benchmark		43.0% - 49.5%			
19	Pre-Tax Interest Coverage					4.7
20	S&P Interest Coverage Benchmark					3.3 - 4.0

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## Adjusted Capital Structure - Including Short-Term Debt With S&P Benchmarks

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
1	Common Equity	2,416,364	53.6%	9.60	5.14	8.36
2	Preferred Stock	155,197	3.4%	5.72	0.20	0.32
3	Long-Term Debt	1,648,373	36.6%	6.82	2.49	2.49
4	Short-Term Debt	101,800	2.3%	3.95	0.09	0.09
5	Add Long-Term Debt	<u>187,000</u>	<u>4.1%</u>	<u>7.50</u>	<u>0.31</u>	<u>0.31</u>
6	Total	4,508,734	100.0%			11.57
5	Tax Factor	1.6248				
6	Total Debt Ratio		43.0%			
7	S&P Total Debt Ratio Benchmark		43.0% - 49.5%			
8	Pre-Tax Interest Coverage					4.0
9	S&P Interest Coverag Benchmark					3.3 - 4.0

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
10	Common Equity	2,258,364	50.1%	10.40	5.21	8.46
11	Preferred Stock	155,197	3.4%	5.72	0.20	0.32
12	Long-Term Debt	1,648,373	36.6%	6.82	2.49	2.49
13	Short-Term Debt	101,800	2.3%	3.95	0.09	0.09
14	Add Long-Term Debt	<u>345,000</u>	<u>7.7%</u>	<u>7.5</u>	<u>0.57</u>	<u>0.57</u>
15	Total	4,508,734	100.0%			11.94
14	Tax Factor	1.6248				
15	Total Debt Ratio		46.5%			
16	S&P Total Debt Ratio Benchmark		43.0% - 49.5%			
17	Pre-Tax Interest Coverage					3.8
18	S&P Total Debt Ratio Benchmark					3.3 - 4.0

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
19	Common Equity	2,128,364	47.2%	11.20	5.29	8.59
20	Preferred Stock	155,197	3.4%	5.72	0.20	0.32
21	Long-Term Debt	1,648,373	36.6%	6.82	2.49	2.49
22	Short-Term Debt	101,800	2.3%	3.95	0.09	0.09
23	Add Long-Term Debt	<u>475,000</u>	<u>10.5%</u>	<u>7.5</u>	<u>0.79</u>	<u>0.79</u>
24	Total	4,508,734	100.0%			12.28
23	Tax Factor	1.6248				
24	Total Debt Ratio		49.4%			
25	S&P Total Debt Ratio Benchmark		43.0% - 49.5%			
26	Pre-Tax Interest Coverage					3.6
27	S&P Total Debt Ratio Benchmark		43% - 49.5%			3.3 - 4.0

# AmerenUE

## Adjusted Capital Structure - Excluding Short-Term Debt

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
1	Common Equity	2,416,364	54.8%	9.60	5.26	8.55
2	Preferred Stock	155,197	3.5%	5.72	0.20	0.33
3	Long-Term Debt	1,648,373	37.4%	6.82	2.55	2.55
4	Add Long-Term Debt	<u>187,000</u>	<u>4.2%</u>	7.50	<u>0.32</u>	<u>0.32</u>
5	Total	4,406,934	100.0%		8.33	11.75
6	Tax Factor	1.6248				

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
7	Common Equity	2,258,364	51.2%	10.40	5.33	8.66
8	Preferred Stock	155,197	3.5%	5.72	0.20	0.33
9	Long-Term Debt	1,648,373	37.4%	6.82	2.55	2.55
10	Add Long-Term Debt	<u>345,000</u>	<u>7.8%</u>	7.50	<u>0.59</u>	<u>0.59</u>
11	Total	4,406,934	100.0%		8.67	12.12
12	Tax Factor	1.6248				

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
13	Common Equity	2,128,364	48.3%	11.20	5.41	8.79
14	Preferred Stock	155,197	3.5%	5.72	0.20	0.33
15	Long-Term Debt	1,648,373	37.4%	6.82	2.55	2.55
16	Add Long-Term Debt	<u>475,000</u>	<u>10.8%</u>	7.50	<u>0.81</u>	<u>0.81</u>
17	Total	4,406,934	100.0%		8.97	12.48
18	Tax Factor	1.6248				

## AmerenUE

### Comparable Group- Electric and Electric & Gas

<u>Line</u>	<u>Utility</u>	At Least 80% Electric	<u>Bond Ratings <sup>2</sup></u>		Net Plant	<u>Common Equity Ratios</u>	
		<u>Revenues <sup>2</sup></u>	<u>S&amp;P</u>	<u>Moody's</u>	<u>Assets \$ MIL</u>	<u>Value Line <sup>1</sup></u>	<u>C.A. Turner <sup>2</sup></u>
		(1)	(2)	(3)	(4)	(5)	(6)
1	Ameren Corporation	92%	A+	Aa2	8,426.6	52%	46%
2	FPL Group Inc.	88%	A	Aa3	11,284.0	58%	47%
3	Great Plains Energy	93%	A	A1	2,623.7	45%	33%
4	NSTAR	84%	A	A3	2,579.5	40%	32%
5	Pinnacle West Capital Corp.	97%	A-	A3	5,620.6	53%	46%
6	Southern Company	87%	A+	A1	22,774.3	42%	38%
<b>7</b>	<b>Average</b>	<b>90%</b>			<b>8,884.8</b>	<b>48%</b>	<b>40%</b>

Sources:

<sup>1</sup> The Value Line Investment Survey, dated February 15, 2002, March 8, 2002 and April 5, 2002.

Value Line excludes short-term debt in calculating the common equity ratio

<sup>2</sup> C.A. Turner Utility Reports, April 2002

C.A. Turner includes short-term debt in calculating the common equity ratio.

Note:

The comparable group includes companies with bond ratings of "A" or better and 80% or higher Elec Rev.

# AmerenUE

## 13-Week Average Stock Price Constant Growth DCF Model

Line	Utility	13 Week Average Price <sup>1</sup> (1)	FirstCall Estimated Growth % <sup>2</sup> (2)	Annual Dividend <sup>3</sup> (3)	Adjusted Yield (4)	Constant Growth DCF (5)
1	Ameren Corporation	41.62	4.5%	2.54	6.4%	10.9%
2	FPL Group Inc.	56.09	7.0%	2.32	4.4%	11.4%
3	Great Plains Energy	24.97	4.5%	1.66	6.9%	11.4%
4	NSTAR	44.02	7.0%	2.12	5.2%	12.2%
5	Pinnacle West Capital Corp.	42.82	7.0%	1.60	4.0%	11.0%
6	Southern Company	25.71	5.0%	1.34	5.5%	10.5%
7	<b>Average</b>	<b>39.21</b>	<b>5.8%</b>	<b>1.93</b>	<b>5.4%</b>	<b>11.2%</b>

### Sources:

<sup>1</sup> Stock prices downloaded from Yahoo.com, historical quotes

<sup>2</sup> Long-term growth rates downloaded from ThompsonFN.com, First Call Consensus Estimate

<sup>3</sup> The Value Line Investment Survey, dated February 15, 2002, March 8, 2002 and April 5, 2002.

## AmerenUE

### Equity Risk Premium

<u>Line</u>	<u>Year</u>	<u>Treasury Bond Yield <sup>1</sup></u> (1)	<u>Authorized Electric Returns <sup>2</sup></u> (2)	<u>Indicated Risk Premium</u> (3)
1	1986	7.78%	13.93%	6.15%
2	1987	8.59%	12.99%	4.40%
3	1988	8.96%	12.79%	3.83%
4	1989	8.45%	12.97%	4.52%
5	1990	8.61%	12.70%	4.09%
6	1991	8.14%	12.55%	4.41%
7	1992	7.67%	12.09%	4.42%
8	1993	6.59%	11.41%	4.82%
9	1994	7.37%	11.34%	3.97%
10	1995	6.88%	11.55%	4.67%
11	1996	6.71%	11.39%	4.68%
12	1997	6.61%	11.40%	4.79%
13	1998	5.58%	11.66%	6.08%
14	1999	5.87%	10.77%	4.90%
15	2000	5.94%	11.43%	5.49%
16	<b>Average</b>	<b>7.32%</b>	<b>12.06%</b>	<b>4.75%</b>

**Sources:**

<sup>1</sup> Economic Report of the President, January, 2001 and the St. Louis Federal Reserve Bank website

<sup>2</sup> Regulatory Research Associates, Inc., Regulatory Focus

## AmerenUE

### Comparable Group Beta

<u>Line</u>	<u>Utility</u>	<u>Value Line Beta <sup>1</sup></u>
1	Ameren Corporation	0.55
2	FPL Group Inc.	0.45
3	Great Plains Energy	0.55
4	NSTAR	0.55
5	Pinnacle West Capital Corp.	0.45
6	Southern Company	NMF
7	<b>Average</b>	<b>0.51</b>

Source:

<sup>1</sup> The Value Line Investment Survey, dated 02/15/02, 03/08/02 and 04/05/02.

## AmerenUE

### CAPM Return Estimate

<u>Line</u>	<u>Description</u>	<u>Historical Premium</u>
1	CAPM	9.6%
2	Rf	6.0%
3	Risk Premium	7.0%
4	Beta	0.51
		<u>Prospective Premium</u>
5	CAPM	9.1%
6	Rf	6.0%
7	Risk Premium	6.1%
8	Beta	0.51
9	CAPM Average	9.3%

Sources:

- <sup>1</sup> The Value Line Investment Survey, dated 02/15/02, 03/08/02 and 04/05/02.  
SBBI, Ibbotson Associates, 2001 Yearbook  
Blue Chip Financial Forecast, 9/1/01



## AmerenUE

### **Adjusted Capital Structure Gorman's Recommendation**

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	Percentage of <u>Total</u> (2)	<u>Cost</u> (3)	Weighted <u>Cost</u> (4)
1	Common Equity	2,258,364	51.2%	10.4	5.33
2	Preferred Stock	155,197	3.5%	5.72	0.20
3	Long-Term Debt	1,648,373	37.4%	6.82	2.55
4	Add Long-Term Debt	345,000	<u>7.8%</u>	7.5	<u>0.59</u>
5	Total	4,406,934	100.0%		8.67

Exhibit No.  
Witness: Michael Gorman  
Type of Exhibit: Rebuttal Testimony  
Sponsoring Party: Missouri Industrial Energy Consumers  
Case No. EC-2002-1  
Subjects: Return on Common Equity and Overall  
Rate of Return

**Before the  
Missouri Public Service Commission**

Staff of the Missouri Public Service Commission	)	
	)	
Complainant	)	
v.	)	Case No. EC-2002-1
Union Electric Company, d/b/a	)	
AmerenUE	)	
Respondent.	)	

Rebuttal Testimony of

**Michael Gorman**

On Behalf of

**Missouri Industrial Energy Consumers**

May 17, 2002  
Project 7651



BRUBAKER & ASSOCIATES, INC.  
ST. LOUIS, MO 63141-2000

**Before the Public Service Commission  
of the State of Missouri**

Staff of the Missouri Public Service Commission	)	
	)	
Complainant	)	
v.	)	Case No. EC-2002-1
Union Electric Company, d/b/a	)	
AmerenUE	)	
Respondent.	)	

STATE OF MISSOURI     )  
                                  )     SS  
COUNTY OF ST. LOUIS   )

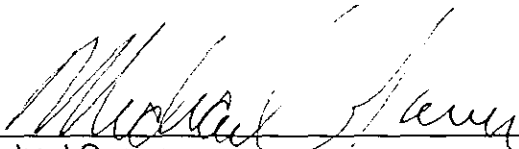
**Affidavit of Michael Gorman**

Michael Gorman, being first duly sworn, on his oath states:

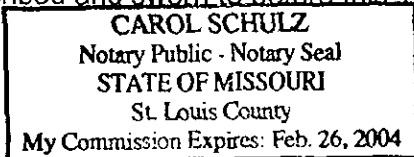
1. My name is Michael Gorman. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony which was prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. EC-2002-1.

3. I hereby swear and affirm that the rebuttal testimony is true and correct and shows the matters and things it purports to show.

  
\_\_\_\_\_  
Michael Gorman

Subscribed and sworn to before this 16th day of May 2002.



  
\_\_\_\_\_  
Notary Public

My Commission Expires February 26, 2004.

**Before the  
Missouri Public Service Commission**

<b>Staff of the Missouri Public Service Commission</b>	)	
	)	
<b>Complainant</b>	)	
<b>v.</b>	)	<b>Case No. EC-2002-1</b>
<b>Union Electric Company, d/b/a AmerenUE</b>	)	
	)	
<b>Respondent.</b>	)	

**Rebuttal Testimony of Michael Gorman**

1    **Q     PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2    **A     My name is Michael Gorman and my business address is 1215 Fern Ridge Parkway,**  
3       **Suite 208, St. Louis, MO 63141-2000.**

4    **Q     WHAT IS YOUR OCCUPATION?**

5    **A     I am a consultant in the field of public utility regulation and a principal at Brubaker &**  
6       **Associates, Inc., energy, economic and regulatory consultants.**

7    **Q     PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8    **A     These are set forth in Appendix A to my testimony.**

9    **Q     ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

10   **A     I am appearing on behalf of the Missouri Industrial Energy Consumers (MIEC). The**  
11       **MIEC Group includes many of AmerenUE's (UE or Company) largest purchasers of**  
12       **electricity service.**

**Michael Gorman  
Page 1**

1    **Q     WHAT IS THE SUBJECT OF YOUR TESTIMONY?**

2    **A     I will respond to the testimony of Staff witness Ronald L. Bible dated March 2002.**

3    **Q     PLEASE SUMMARIZE STAFF WITNESS BIBLE'S DIRECT TESTIMONY IN THIS**  
4    **PROCEEDING.**

5    **A     Mr. Bible estimated UE's overall rate of return, which Staff then used to develop the**  
6    **revenue requirement for UE's Missouri retail jurisdictional electric operations. Mr.**  
7    **Bible recommends using UE's actual capital structure as of June 30, 2001, excluding**  
8    **short-term debt, and accepts the Company's estimates for embedded cost of long-**  
9    **term debt and preferred stock. Lastly, Mr. Bible estimated UE's return on equity to fall**  
10   **in the range of 8.91% to 9.91%.**

11            Using these parameters, Mr. Bible's estimated UE's overall rate of return, as  
12   shown on his Schedule 26, to be in the range of 8.01% to 8.61%. As shown on my  
13   Exhibit MPG-1, Schedule 1, reflecting income taxes, and using Mr. Bible's proposed  
14   capital structure and component costs, Mr. Bible's recommendation would provide UE  
15   with a pre-tax rate of return in the range of 11.43% to 12.39%.

16   **Q     WHAT IS THE PRE-TAX RATE OF RETURN, AND HOW IS IT CALCULATED?**

17   **A     A pre-tax rate of return represents the total cost of capital to UE's customers. Total**  
18   **cost of capital includes the rate of return, which is made up of debt and equity returns,**  
19   **plus applicable income taxes. Equity returns are not tax deductible, therefore to**  
20   **provide a company with the full opportunity to recover its cost of equity, the equity**  
21   **return must be grossed-up for income taxes. In contrast, interest on debt obligations**  
22   **is deductible for income tax purposes. Therefore, debt interest expense need not be**  
23   **grossed-up for income taxes.**

1 In order to adjust a rate of return to a pre-tax basis, it is necessary to gross-up  
2 the weighted cost of common and preferred equity for the applicable composite  
3 income tax rate. Based on Staff's excess earnings analysis, I have estimated a tax  
4 gross-up factor to be 1.6248.<sup>1</sup> This factor is applied to the weighted common equity  
5 and weighted preferred equity returns in order to state these numbers on a pre-tax  
6 basis. Again, no adjustment is made to the weighted cost of debt because these  
7 costs are tax deductible and are therefore already stated on a pre-tax basis.

8 These calculations are shown on my Exhibit MPG-1, Schedule 1, on Staff's  
9 proposed capital structure by adjusting Column 4, Lines 1 and 2, and Lines 7 and 8,  
10 by the tax factor adjustment of 1.6248.

11 **Q WHAT CONCLUSIONS AND RECOMMENDATIONS DO YOU MAKE IN**  
12 **RESPONSE TO MR. BIBLE'S RATE OF RETURN RECOMMENDATIONS FOR**  
13 **UE?**

14 **A** Based on my analysis, I find that a reasonable pre-tax rate of return for UE is in the  
15 range of 11.75% to 12.48%. Mr. Bible's mid-point and high-end recommendation fall  
16 within this range, therefore, I find them to be reasonable. However, while I reach a  
17 comparable pre-tax rate of return recommendation for UE, I developed my overall  
18 rate of return reflecting a different capital structure and return on common equity  
19 which I believe are more reasonable for UE.

---

<sup>1</sup>  $\frac{1}{(1 - \text{Composite Tax Rate})}$

1    **Q     PLEASE SUMMARIZE THE DIFFERENCES IN THE WAY YOU DEVELOPED A**  
2       **PRE-TAX OVERALL RATE OF RETURN FOR UE, AND THE METHOD USED BY**  
3       **STAFF WITNESS BIBLE.**

4    **A     My recommended pre-tax rate of return differs from Mr. Bible's in two important**  
5       respects. First, I do not accept the Company's actual capital structure because I  
6       believe it is too heavily weighted with common equity, and therefore is not reasonable  
7       to use for ratemaking purposes.

8                Second, while Mr. Bible's return on equity is reasonable in conjunction with his  
9       reliance on the Company's actual capital structure, I believe it is too low to use with  
10      my recommended capital structure for UE.

11   **Q     WHY WOULD A CAPITAL STRUCTURE THAT IS TOO HEAVILY WEIGHTED**  
12      **WITH COMMON EQUITY BE UNREASONABLE FOR RATEMAKING PURPOSES?**

13   **A     It would be unreasonably expensive and would not benefit customers. In developing**  
14      rates, only utility costs that are prudently incurred and reasonable should be allowed.  
15      Prudent and reasonable is a necessary ingredient in a utility's obligation to provide  
16      reliable utility service in a least cost manner.

17                A capital structure that is too heavily weighted with common equity will  
18      unreasonable increase the utility's revenue requirements and rates to retail  
19      customers. Too much common equity increases the rate of return and income tax  
20      expense, because common equity is the highest cost form of capital and is subject to  
21      income taxes. As a result, a capital structure that contains too much common equity  
22      will unreasonably increase the utility's required operating income, income tax  
23      expense, and rates.

1    **Q    SHOULD IT BE INCUMBENT ON THE UTILITY TO MANAGE ITS CAPITAL**  
2           **STRUCTURE IN ORDER TO MINIMIZE ITS COST OF CAPITAL WHILE**  
3           **PRESERVING ITS FINANCIAL INTEGRITY?**

4    **A    Yes.** Regulation is a surrogate for competition. In a competitive market, a company  
5           must be competitive in terms of price, product quality and reliability to win customers  
6           who have a choice of suppliers. In a regulated market, customers do not have a  
7           choice of suppliers. Thus, regulation should impose strict obligations on utilities to  
8           manage service quality and reliability and minimize costs in a way that maintains the  
9           utility's financial integrity.

10   **Q    WHY DO YOU BELIEVE THE COMPANY'S ACTUAL CAPITAL STRUCTURE IS**  
11           **TOO HEAVILY WEIGHTED WITH COMMON EQUITY?**

12   **A    UE's capital structure contains too much common equity by several measures,**  
13           including the following:

- 14           a. The capital structure contains significantly more common equity than is needed to  
15           be consistent with bond rating agency financial benchmarks to maintain UE's  
16           existing "A+" bond rating.
- 17           b. UE's common equity ratio is unreasonably high in comparison to a peer utility  
18           group.
- 19           c. UE's common equity ratio is unreasonably high in comparison to industry  
20           averages.
- 21           d. UE's common equity ratio is considerably higher than that of the comparable  
22           group that I will use to estimate its cost of common equity.  
23

24   **Q    PLEASE DESCRIBE THE PUBLISHED BOND RATING AGENCY FINANCIAL**  
25           **BENCHMARKS THAT ARE USED IN THE DETERMINATION OF UTILITY BOND**  
26           **RATINGS.**



1 A Standard & Poor's (S&P) publishes financial benchmarks that it uses to establish  
2 utility credit profiles and bond ratings. S&P establishes a utility's bond rating on the  
3 basis of its financial risk and business risk. S&P's financial benchmarks are based on  
4 a matrix that sets (for each specific bond rating) more stringent financial requirements  
5 for utilities that have high business risk, and lower financial requirements for utilities  
6 that have low business risk.

7 Standard & Poor's ranks utility companies on the business risk position of one  
8 to 10, where one is the highest business position or lowest business risk, and 10 is  
9 the lowest business position ranking or highest business risk.

10 UE's current S&P business position ranking is "4" and its bond rating is "A+".<sup>2</sup>

11 **Q WHAT IS S&P'S TOTAL DEBT RATIO BENCHMARK FOR A UTILITY WITH UE'S**  
12 **BOND RATING?**

13 A Standard & Poor's total debt to capital ratio benchmark for an "A" rated utility with a  
14 business position ranking of four is in the range of 43.0% to 49.5%.<sup>3</sup>

15 **Q HOW DOES UE'S TOTAL DEBT TO TOTAL CAPITALIZATION RATIO COMPARE**  
16 **TO THE S&P BENCHMARK?**

17 A In its debt ratio calculation, S&P considers all debt including long-term, short-term and  
18 off-balance sheet debt equivalents. According to S&P, UE does not have material  
19 off-balance sheet debt equivalents, but does have some short-term debt. In UE's  
20 supplemental response to Staff Data Request 3802, it listed \$185.6 million of short-  
21 term debt outstanding at December 31, 2001, but noted that \$83.8 million of that was

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<sup>2</sup> UE response to Staff Data Request 3808, and Standard & Poor's Utilities & Perspectives, January 29, 2001 at 10.

<sup>3</sup> Standard & Poor's Utilities & Perspectives, June 21, 1999 at 3.

1 used to make inter-company affiliate loans. Thus, \$101.8 million was used by UE.  
2 As shown on my Exhibit MPG-1, Schedule 2, including \$101.8 million of short-term  
3 debt in Staff's proposed capital structure produces a total debt ratio of 38.8%.  
4 Similarly, S&P in its November 1, 2001 report on UE, provide in response to Staff  
5 Data Request 3808, listed UE's total debt ratio at 39.2% on June 30, 2001. Hence,  
6 UE's total debt ratio is significantly lower, as a result of too much equity, than the low  
7 end of S&P's debt ratio range, 43% to 49.5%, for an "A" rated utility with UE's  
8 business position ranking.

9 UE's debt ratio is too low and its common equity ratio is too high in  
10 comparison to the S&P benchmarks.

11 **Q HOW DOES UE'S COMMON EQUITY RATIO COMPARE TO A PEER GROUP OF**  
12 **ELECTRIC UTILITY COMPANIES?**

13 A In its June 2001, credit report on Ameren and its subsidiaries including UE, Moody's  
14 compared UE's financial ratios to those of a peer group of companies. Moody's listed  
15 UE's common equity ratio at December 31, 2000 as 57.3% and a peer group's  
16 common equity at the same time as 44.4%. UE's common equity ratio is  
17 unreasonably high in comparison to a peer utility group selected by Moody's.  
18 (Moody's Investor Service Ameren Corporation, June 2001, at 4, provide by UE in  
19 response to Staff Data Request 3808).

20 **Q WHAT IS THE INDUSTRY AVERAGE CAPITAL STRUCTURE FOR ELECTRIC**  
21 **UTILITY COMPANIES?**

22 A Two publications list average equity ratios for electric utility companies. First, The  
23 Value Line Investment Survey publishes an average common equity ratio for the

1 electric utilities it follows. Value Line excludes short-term debt from the total  
2 capitalization when it calculates the common equity ratio. Hence, Value Line's  
3 common equity ratio is based on the ratio of common equity to total long-term capital.  
4 For the year 2002, Value Line states that the average common equity ratio for electric  
5 utilities is 44.5%, and noted that the industry's equity ratio is projected to increase to  
6 48.5% by the period 2005-2007.<sup>4</sup>

7 The second publication is the C.A. Turner Utility Reports. In contrast to the  
8 Value Line Investment Survey, C.A. Turner publishes a common equity ratio that  
9 includes short-term debt in the total capitalization. The average common equity ratios  
10 for the utilities followed by the C.A. Turner Utility Reports is 42%. (C.A. Turner Utility  
11 Reports April 2002 at page 7, and The Value Line Investment Survey, April 5, 2002 at  
12 page 695.)

13 In significant contrast, UE's common equity ratio, when short-term debt is not  
14 included in the capital structure, is 59.1% as shown by Staff witness Bible at June 30,  
15 2001, and as shown on my Schedule 2, UE's common equity ratio is 57.7% including  
16 its UE-related December 31, 2001 short-term debt balance. In both cases, UE's  
17 common equity as a percent of total capital is substantially higher than that of the  
18 electric utility industry, both now and as projected by Moody's over the next three to  
19 five years.

20 **Q WHAT IS THE AVERAGE COMMON EQUITY RATIO FOR THE COMPARABLE**  
21 **GROUPS USED IN YOUR ANALYSIS OF A FAIR RETURN ON EQUITY FOR UE?**

22 **A** I will discuss my analysis in more detail later in my testimony. But, as shown later in  
23 my testimony (see Exhibit MPG-1, Schedule 5), the average common equity ratio of

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<sup>4</sup> The Value Line Investment Survey, April 5, 2002 at 695.

1 my proxy utility group is 48% as reported by Value Line (excluding short-term debt),  
2 and 40% as reported by C.A. Turner Utility Reports (including short-term debt).  
3 Again, these common equity ratios are considerable lower than UE's 59.1% and  
4 57.7% equity ratios without and with short-term debt, respectively, included in total  
5 capital.

6 **Q WHAT RETURN ON COMMON EQUITY AND RELATED COMMON EQUITY RATIO**  
7 **HAVE REGULATORY COMMISSIONS TYPICALLY AWARDED TO ELECTRIC**  
8 **UTILITY COMPANIES?**

9 **A** As shown below in Table 1, I have listed the average annual electric utility authorized  
10 return on common equity, and common equity to total capital authorized by regulatory  
11 commissions in setting overall rates of return for utilities. This data was taken from  
12 the Regulatory Focus, Major Rate Case Decisions, January 1990 through December  
13 2000. As shown below in Table 1, authorized return on common equity for the last  
14 five years has averaged 11.33%, and the common equity ratio has averaged 46.63%.

<b>Table 1</b>		
<b><u>Annual Regulatory Authorized Electric Returns</u></b>		
<b><u>Year</u></b>	<b><u>Return on Common Equity</u></b>	<b><u>Common Equity Ratio</u></b>
2000	11.43	48.85
1999	10.77	45.08
1998	11.66	46.14
1997	11.40	48.79
1996	<u>11.39</u>	<u>44.34</u>
Average	11.33%	46.63%
Source: Major Rate Case Decisions, June-July 1990 – December 2000, Regulatory Focus		

1           UE's actual capital structure common equity ratio of 59% is significantly out of  
2 line with the capital structures used by regulatory commissions, on average, over the  
3 last five years to establish utility overall rates of return.

4   **Q     WHAT IS THE RELATIONSHIP BETWEEN AN EQUITY RATIO AND A FAIR**  
5   **RETURN ON COMMON EQUITY?**

6   A     A common equity ratio measures the financial leverage the utility has used to finance  
7 its utility assets. The greater the financial leverage, the greater the financial risk.  
8 Hence, a low common equity ratio would equate to high financial risk because there  
9 would be more debt leverage used to finance utility assets. Conversely, a high  
10 common equity ratio would equate to low financial risk because the utility would use  
11 less financial leverage to finance utility assets.

12           From this, if the Commission were to agree with Staff and use UE's actual  
13 capital structure, containing a high common equity ratio and low financial leverage,  
14 then it should reduce the return on equity to reflect this reduced financial risk.

15   **Q     CAN THERE BE EXTENUATING FACTORS THAT JUSTIFY A UTILITY'S NEED**  
16   **FOR A HIGH OR LOW COMMON EQUITY RATIO?**

17   A     Yes. If a utility has high business risk (that is, sales risk, poor management, uncertain  
18 cost recovery), it may be appropriate for a utility to have a high common equity ratio in  
19 order to lower financial risk to offset the high business risk. However, this does not  
20 apply to UE. As noted by Standard & Poor's, UE has a strong service area, and  
21 robust financial parameters<sup>5</sup>. Therefore, it has, at worst, average business risk, and  
22 at best, lower than average business risk. Thus, there is no reason for AmerenUE to

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<sup>5</sup> Standard & Poor's Rating Direct, Union Electric, November 2001, response to Staff #3808.

1 have a higher common equity ratio in order to maintain its credit strength and  
2 financial integrity.

3 **Q WHAT RETURN ON COMMON EQUITY DO YOU RECOMMEND BE USED IN**  
4 **CONJUNCTION WITH YOUR RECOMMENDED CAPITAL STRUCTURE TO**  
5 **ESTABLISH UE'S RATE OF RETURN?**

6 **A** Based on the analysis I describe later in this testimony, I have estimated a fair rate of  
7 return on common equity for UE to be in the range of 9.6% to 11.2%. This rate of  
8 return on common equity recommendation, however, should only be used if the  
9 Commission accepts my recommendation to reject UE's actual capital structure  
10 because it is too heavily weighted with common equity and therefore unreasonable.  
11 Instead, my recommended return on common equity for UE should be used with a  
12 capital structure that balances the interest of investors and ratepayers. A balanced  
13 capital structure should both help preserve the Company's credit rating and financial  
14 integrity, and minimize the utility's rate of return and income taxes to help make its  
15 rates more reasonable and competitive.

16 **Q WHAT CAPITAL STRUCTURE DO YOU RECOMMEND FOR UE IN THIS**  
17 **PROCEEDING?**

18 **A** I recommend adjusting UE's actual capital structure to increase the amount of debt  
19 and reduce the amount of common equity. UE's rate making capital structure should  
20 have a debt ratio within the parameters of S&P's utility bond rating benchmarks for  
21 UE's current "A" bond rating and business position rating of 4. In accordance with  
22 S&P's financial benchmarks, I recommend adjusting UE's capital structure to increase

1 the debt ratio into the range of 43.0% to 49.5%. My adjustment to UE's actual capital  
2 structure is developed on my Exhibit MPG-1, Schedule 3.

3 **Q PLEASE EXPLAIN HOW YOU ADJUSTED UE'S ACTUAL CAPITAL**  
4 **STRUCTURE?**

5 A I started with UE's actual capital structure at January 30, 2001 as used by Staff  
6 witness Bible. For this calculation I included short-term debt in UE's capital structure  
7 and assumed UE would have short-term debt equal to its December 31, 2001  
8 balance of \$101.8 million<sup>6</sup>, and no off-balance sheet debt. I then included additional  
9 debt at a cost of 7.5% until the total debt to total capital structure ratio was within  
10 S&P's financial benchmark range of 43.0% to 49.5%. The 7.5% rate for additional  
11 debt was based on an "A" rated utility bond current yield of 7.3% (Mergent Public  
12 Utility, Friday, April 26, 2002), adjusted up to 7.5% to reflect issuance costs.

13 As shown on my Exhibit MPG-1, Schedule 3, with this method, I developed  
14 three capital structures with total debt ratios of 43.0%, 46.5%, and 49.4%. These  
15 debt ratios are the low, midpoint and high end total debt ratio ranges established by  
16 S&P for companies with UE's current bond rating.

17 **Q ARE YOU RECOMMENDING THAT UE'S OVERALL RATE OF RETURN BE**  
18 **DEVELOPED USING A CAPITAL STRUCTURE INCLUDING SHORT-TERM DEBT**  
19 **IN THIS PROCEEDING?**

20 A No. The capital structure developed on my Schedule 3 is based on total debt, in  
21 order to be consistent with S&P's benchmarks. The capital structure I recommend  
22 the Commission use to set AmerenUE's overall rate of return would exclude short-

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<sup>6</sup> UE's balance of \$185.6 million, less \$83.8 million loaned to affiliate companies.

term debt, as long as short-term debt is lower than the Company's balance of construction work in progress. An adjusted capital structure that I recommend for setting rates is shown on my Exhibit MPG-1, Schedule 4. On Schedule 4, I develop a ratemaking capital structure that is identical to the capital structure developed on my Schedule 3, but excludes short-term debt. As shown on my Schedule 4, I recommend that AmerenUE's ratemaking capital structure contain a common equity ratio in the range of 48.3% to 54.8%.

**Q WHAT PRETAX RATE OF RETURN DO YOU RECOMMEND FOR UE IN THIS PROCEEDING?**

**A** As shown on my Exhibit MPG-1 Schedule 4, using the capital structure developed above, but excluding short-term debt, and using a return on common equity in the range of 9.6% to 11.2%, I conclude that a reasonable pretax rate of return for UE is in the range of 11.75% to 12.48%.

**Q PLEASE COMPARE YOUR ESTIMATE OF UE'S OVERALL RATE OF RETURN TO THE SAME ESTIMATE MADE BY STAFF WITNESS BIBLE.**

**A** In Table 2 below, I show Staff's and my pre-tax rate of return recommendations.

Table 2						
<u>Rate of Return Recommendations</u>						
<u>Description</u>	<u>Return On Equity</u>		<u>Common Equity Ratio</u>		<u>Pre-Tax Rate of Return</u>	
	<u>Low</u>	<u>Low</u>	<u>High</u>	<u>Low</u>	<u>Low</u>	<u>High</u>
Staff	8.91%	9.91%	59.1%	59.1%	11.34%	12.39%
Gorman	9.60%	11.20%	48.3%	54.8%	11.75%	12.48%

Michael Gorman  
Page 13



1 As shown in Table 2, I conclude that Staff's mid-point and high-end return  
2 recommendations fall within a reasonable range.

3 **Q WOULD THE RETURN ON EQUITY AND RECOMMENDED CAPITAL**  
4 **STRUCTURE YOU ARE RECOMMENDING, AND THAT RECOMMENDED BY**  
5 **STAFF WITNESS BIBLE, PROVIDE ADEQUATE EARNINGS COVERAGE OF**  
6 **DEBT INTEREST EXPENSE IN ORDER TO MAINTAIN AMERENUE'S EXISTING**  
7 **BOND RATING?**

8 **A** Yes. As shown below in Table 3, and as developed on my Exhibit MPG-1, Schedules  
9 2 and 3, the amount of debt interest expense allocated to AmerenUE's Missouri retail  
10 operations, and the earnings coverage of that debt interest expense provided by  
11 Missouri UE retail customers, based on Staff's recommendation, provides UE with a  
12 pre-tax interest coverage ratio in the range of 4.4x to 4.8x.<sup>7</sup> Similarly, my  
13 recommended rate of return for Missouri retail customers will provide a coverage of  
14 debt interest expense allocated to the Missouri jurisdiction in the range of 3.6x to  
15 4.0x.<sup>8</sup>

16 In comparison, S&P's financial benchmarks for a single A-rated utility with a  
17 business position ranking of four is for a pre-tax interest coverage ratio in the range of  
18 3.3x to 4.0x. Accordingly, both my recommendation and that of Staff witness Bible  
19 will provide robust earnings coverage of UE's debt interest expense allocated to retail  
20 Missouri operations that is adequate to support its existing bond rating.

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<sup>7</sup> Using the capital structure weights would allocate debt interest, equity return and income taxes based on the Missouri rate base.

<sup>8</sup> For purposes of this calculation, I used UE's money pool rate in the year 2001 of 3.95% as a proxy for UE's short-term debt interest rate. This is a conservative assumption because in the year 2001, UE's actual short-term debt cost was 1.8%. (UE FERC Form 1, 2000, note 3)

Table 3			
<u>Pre-Tax Debt Interest Coverage Ranges</u>			
	<u>Staff</u>	<u>Gorman</u>	<u>S&amp;P Range</u>
High	4.7x	4.0x	4.0x
Low	4.4x	3.6x	3.3x
Source: Standard & Poor's Utilities Perspectives, June 21, 1999 at 3.			

1    **Q     DOES S&P ESTABLISH UE'S BOND RATING BASED ON THE EARNINGS FROM**  
2       **ITS MISSOURI RETAIL OPERATIONS, OR FROM THE TOTAL COMPANY?**

3    **A     S&P would be concerned about the Company's total earnings coverage of total debt**  
4       **interest obligations. However, the purpose of this proceeding is to evaluate whether**  
5       **UE's Missouri retail rates are just and reasonable. Hence, I have attempted to**  
6       **measure whether Missouri retail rates provide adequate earnings coverage of debt**  
7       **interest expense that is properly allocated to Missouri retail operations. Thus, for**  
8       **purposes of evaluating UE's Missouri retail rates, the proper benchmark is the**  
9       **earnings coverage of debt interest expense which should be provided by Missouri**  
10      **retail rates, and not UE's total revenues and debt interest obligations.**

11   **Q     WILL YOUR CAPITAL STRUCTURE ADJUSTMENT RESULT IN A RETURN**  
12      **DISALLOWANCE**

13   **A     No, UE can conform its actual capital structure to comply with the capital structure**  
14      **objective approved by the Commission and used to set rates. In effect a capital**  
15      **structure adjustment is no different than expecting UE to respond to a Commission**

**Michael Gorman**  
**Page 15**

1 finding that some cost of service component is unreasonable and should not be  
2 allowed in rates at the historic level. UE can adjust its actual capital structure by  
3 buying back stock, paying an extraordinary dividend to its parent company, or through  
4 incremental external borrowing to fund plant infrastructure investments. The bottom  
5 line is that UE can and should adjust its actual capital structure to be in conformance  
6 with S&P's published financial benchmarks.

### 7 Return on Common Equity

8 **Q PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED**  
9 **COMPANY'S COST OF COMMON EQUITY.**

10 A In general, determining a fair cost of common equity for a regulated utility has been  
11 framed by two decisions of the U.S. Supreme Court, in Bluefield Water Works vs  
12 West Virginia PSC (1923) and Federal Power Commission vs Hope Natural Gas  
13 Company (1944).

14 These decisions identify the general standards to be considered in  
15 establishing the cost of common equity for a public utility. Those general standards  
16 are that the authorized return should: (1) be sufficient to maintain financial integrity,  
17 (2) attract capital under reasonable terms, and (3) be commensurate with returns  
18 investors could earn by investing in other enterprises of comparable risk.

19 **Q PLEASE DESCRIBE WHAT IS MEANT BY THE TERM "UTILITY'S COST OF**  
20 **COMMON EQUITY."**

21 A The utility's cost of common equity is the return investors expect, or require, in order  
22 to make an investment. Investors expect to achieve their return requirement from  
23 receiving dividends and stock price appreciation.

1    **Q     PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE THE COST**  
2       **OF COMMON EQUITY FOR UE.**

3    A     I have used several models based on financial theory to estimate UE's cost of  
4       common equity. These models are: (1) the constant growth discounted cash flow  
5       (DCF) model, (2) the bond yield plus equity risk premium model, and (3) a capital  
6       asset pricing model (CAPM). I have applied these models to a group of publicly  
7       traded utilities that represent the investment risk of an electric utility similar to UE.

8    **Q     HOW WILL YOU DEVELOP A DISCOUNTED CASH FLOW ANALYSIS AND RISK**  
9       **PREMIUM ESTIMATES FOR UE?**

10   A     I relied on a broad based group of electric utility companies to estimate UE's return  
11       on equity.

12   **Q     HOW DID YOU SELECT A BROAD BASED GROUP OF ELECTRIC UTILITY**  
13       **COMPANIES?**

14   A     I started with all the electric and combination electric and gas utilities followed by the  
15       C.A. Turner Utility Reports. I limited the comparable group to the utilities which met  
16       the following criteria: (a) had at least 80% of their revenues from the provision of  
17       electric service; (b) a bond rating from both Standard & Poor's and Moody's of A or  
18       better, (c) currently paying a dividend, and (d) utilities that have an earnings growth  
19       rate published by First Call.

20               As shown on my Exhibit MPG-1, Schedule 5, this selection criteria produced a  
21       broad-based group of electric companies from which to estimate a fair return for UE.

## **DISCOUNTED CASH FLOW (DCF) MODEL**

**Q PLEASE DESCRIBE THE DCF MODEL.**

**A** The DCF model posits that a stock price is valued by summing the present value of expected future cash flows, discounted at the investor's required rate of return (ROR) or cost of capital. This model is expressed mathematically as follows:

$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \dots + \frac{D_\infty}{(1+K)^\infty} \quad \text{where} \quad (\text{Equation 1})$$

$P_0$  = Current stock price

$D$  = Dividends in periods 1 -  $\infty$

$K$  = Investor's required return

This model can be rearranged in order to estimate the discount rate or investor required return, "K." If it is reasonable to assume that earnings and dividends will grow at a constant rate, then Equation 1 can be rearranged as follows:

$$K = D_1/P_0 + G \quad (\text{Equation 2})$$

$K$  = Investor's required return

$D_1$  = Dividend adjusted for growth

$P_0$  = Current stock price

$G$  = Expected constant dividend growth rate

Equation 2 is referred to as the "constant growth" annual DCF model.

**Q PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.**

**A** As shown under Equation 2 above, the DCF model requires a current stock price, expected dividend, and expected growth rate in dividends.

**Q WHAT STOCK PRICE AND DIVIDEND HAVE YOU RELIED ON IN YOUR CONSTANT GROWTH DCF MODEL?**

1 A I relied on the average of the weekly high and low stock prices over a 13-week period  
2 ending April 15, 2002. An average stock price is less susceptible to aberrant market  
3 price movements, which may not be reflective of the stock's long-term value.

4 I used the most recently paid quarterly dividend, as reported in the Value Line  
5 Investment Survey. This dividend was annualized (multiplied by 4) and adjusted for  
6 next year's growth to produce the D1 factor for use in Equation 2 above.

7 **Q WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR DCF MODEL?**

8 A There are several methods which one can use in order to estimate the expected  
9 growth in dividends. However, for purposes of determining the market required return  
10 on common equity, one must attempt to estimate what the consensus of investors  
11 believe the dividend or earnings growth rate will be, and not what an individual  
12 investor or analyst may use to form individual investment decisions.

13 Security analyst growth estimates have been shown to be more accurate  
14 predictors of future returns than growth rates derived from historical data.<sup>9</sup> Because  
15 they are more reliable estimates, and assuming the market, in general, makes  
16 rational investment decisions, analysts' growth projections are the most likely growth  
17 estimates that are built into stock prices.

18 For my constant growth DCF analysis, I have relied on a consensus, or mean,  
19 of professional security analysts' earnings growth estimates as a proxy for the  
20 investor consensus dividend growth rate expectations. I used First Call (formerly the  
21 Institutional Brokers Estimate System) consensus analyst projections available on  
22 April 17, 2002, as reported on-line by the Thomson Investors Network. First Call

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<sup>9</sup> See, for example, David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," The Journal of Portfolio Management, Spring 1989.

1 surveys security analysts and publishes a simple arithmetic average or mean of  
2 surveyed analysts' earnings growth forecast. A simple average of the First Call  
3 growth forecast gives equal weight to all surveyed analysts' projections. It is  
4 problematic as to whether any particular analyst's forecast is most representative of  
5 general market expectations. Therefore, a simple average, or arithmetic mean,  
6 analyst forecast is a good proxy for market consensus expectations.

7 **Q WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?**

8 A The results of my DCF analyses are shown on Exhibit MPG-1, Schedule 6. As shown  
9 on Schedule 6, the average DCF cost of common equity for the comparable group is  
10 11.2%.

11 **RISK PREMIUM MODEL**

12 **Q PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.**

13 A This model is based on the principle that investors require a higher ROR to assume  
14 greater risk. Common equity investments have greater risk than bonds because  
15 bonds have more security of payment in bankruptcy proceedings than common equity  
16 and the coupon payments on bonds represent contractual obligations. In contrast,  
17 companies are not required to pay dividends on common equity, or to guarantee  
18 returns on common equity investments. Therefore, common equity securities are  
19 considered to be more risky than bond securities.

20 This risk model is based on the difference between the required return on  
21 utility common equity investments and Treasury bonds. The difference between the  
22 required return on common equity and the bond yield is the risk premium. I estimated  
23 the risk premium on an annual basis for each year over the period 1986 through year-

1 end 2000. The required returns on common equity were based on regulatory  
2 commission-authorized returns for electric utility companies. Regulatory authorized  
3 returns are a reasonable proxy for estimates of contemporary investor required  
4 returns because authorized returns are typically based on expert witnesses' estimate  
5 of the contemporary investor required return.

6 Based on this analysis, as shown on my Exhibit MPG-1, Schedule 3, the  
7 average indicated equity risk premium of authorized electric utility common equity  
8 returns over U.S. Treasury bond yields has been 4.75%. Of the 15 observations, 11  
9 indicated risk premiums fall in the range of 4.0% to 5.5%. Since the risk premium can  
10 vary depending upon market conditions, I believe using an estimated range of risk  
11 premiums provides the best method to measure the current return on common equity  
12 using this methodology.

13 **Q HOW DID YOU ESTIMATE UE'S COST OF COMMON EQUITY WITH THIS**  
14 **MODEL?**

15 **A** I added to my estimated equity risk premium a projected 30-year Treasury bond yield.  
16 Blue Chip Financial Forecasts projects long-term Treasury bond yields to be 6.2%,  
17 and a 10-year Treasury bond to be 5.8%. I will use an average of the long-term and  
18 ten-year Treasury security returns, or 6.0% in my analysis. Using the average  
19 Treasury bond yield of 6.0%, and an equity risk premium of 4.0% to 5.5%, produces  
20 an estimated common equity return in the range of 10.0% to 11.5%, with a mid-point  
21 estimate at 10.8%.



1 **CAPITAL ASSET PRICING MODEL**

2 **Q PLEASE DESCRIBE THE CAPM.**

3 A The CAPM method of analysis is based upon the theory that the market required  
4 ROR for a security is equal to the risk-free ROR, plus a risk premium associated with  
5 the specific security. This relationship between risk and return can be expressed  
6 mathematically as follows:

7 
$$R_i = R_f + B_i \times (R_m - R_f) \text{ where:}$$

8  $R_i$  = Required ROR for stock i  
9  $R_f$  = Risk-free rate  
10  $R_m$  = Expected return for the market portfolio  
11  $B_i$  = Measure of the risk for stock i

12 The stock specific risk term in the above equation is beta. Beta represents the  
13 investment risk that cannot be diversified away when the security is held in a  
14 diversified portfolio. When stocks are held in a diversified portfolio, firm-specific risks  
15 can be eliminated by balancing the portfolio with securities that react in opposite  
16 direction to firm-specific risk factors (e.g., business cycle, competition, product mix  
17 and production limitations).

18 The risks that cannot be eliminated when held in diversified portfolio are  
19 nondiversifiable risks. Nondiversifiable risks are related to the market in general and  
20 are referred to as systematic risks. Risks that can be eliminated by diversification are  
21 regarded as unsystematic risks. In a broad sense, systematic risks are market risks,  
22 and unsystematic risks are business risks. The CAPM theory suggests that the  
23 market will not compensate investors for assuming risks that can be diversified away.  
24 Therefore, the only risk that investors will be compensated for are systematic or  
25 nondiversifiable risks. The beta is a measure of the systematic or nondiversifiable  
26 risks.

1    **Q     PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.**

2    A     The CAPM requires an estimate of the market risk-free rate, the company's beta, and  
3           the market risk premium.

4    **Q     WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE RATE?**

5    A     I used a 6% yield, which is the average of the Blue Chip Financial Forecast's  
6           projected long-term Treasury bond yield of 6.2%, and ten year Treasury bond yield of  
7           5.8% (February 1, 2002 at 2).

8    **Q     WHY DID YOU USE TREASURY BOND YIELDS AS AN ESTIMATE OF THE RISK-  
9           FREE RATE?**

10   A     Treasury securities are backed by the full faith and credit of the United States  
11           government. Therefore, long-term Treasury bonds are considered to have negligible  
12           credit risk. Also, long-term Treasury bonds have an investment horizon similar to that  
13           of common stock. As a result, investor-anticipated long-run inflation expectations are  
14           reflected in both common stock required returns and long-term bond yields.  
15           Therefore, the nominal risk-free rate (or expected inflation rate and real risk-free rate)  
16           included in a long-term bond yield is a reasonable estimate of the nominal risk-free  
17           rate included in common stock returns.

18           Treasury bond yields, however, do include risk premiums related to unantici-  
19           pated future inflation and interest rates. Therefore, a Treasury bond yield is not a  
20           risk-free rate. Risk premiums related to unanticipated inflation and interest rates are  
21           systematic or market risks. Consequently, for companies with betas less than one,  
22           using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis  
23           can produce an overstated estimate of the CAPM return.

**Q WHAT BETA DID YOU USE IN YOUR ANALYSIS?**

A I relied on the group average beta estimate for the comparable group. Group average beta is more reliable than a single company beta and will, therefore, produce a more reliable CAPM estimate.

A group average beta has stronger statistical parameters that better describe the systematic risk of the group, than does an individual company beta. For this reason, a group average beta will produce a more reliable return estimate.

As shown on Exhibit MPG-1, Schedule 8, the group average beta estimate is 0.51.

**Q HOW DID YOU DERIVE YOUR MARKET PREMIUM ESTIMATE?**

A I derived two market premium estimates, a forward-looking estimate and one based on a long-term historical average.

The forward-looking estimate was derived by estimating the expected return on the market (S&P 500) and subtracting the risk-free rate from this estimate. I estimated the expected return on the S&P 500 by adding an expected inflation rate to the long-term historical arithmetic average real return on the market. The real return on the market represents the achieved return above the rate of inflation.

The Ibbotson and Associates' Stocks, Bonds, Bills and Inflation 2002 Year Book publication estimates the historical arithmetic average real market return over the period 1926-2000 as 9.4%. A current consensus analyst inflation projection, as measured by the Consumer Price Index, is 2.5% through 2002 (Blue Chip Financial Forecasts, April 1, 2002). Using these estimates, the expected market return is 12.1%. The market premium then is the difference between the 12.1% expected market return, and my 6.0% risk-free rate estimate, or 6.1%.

1           The historical estimate of the market risk premium was also estimated by  
2 Ibbotson and Associates in the Stock, Bonds, Bills and Inflation, 2002 Year Book.  
3 Over the period 1926 through 2002, Ibbotson's study estimated that the arithmetic  
4 average of the achieved total return on the S&P 500 was 12.7%, and the total return  
5 on long-term Treasury bonds was 5.7%. The indicated equity risk premium is 7.0%  
6  $(12.7\% - 5.7\% = 7.0\%)$ .

7   **Q   WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?**

8   A   As shown on Exhibit MPG-1, Schedule 9, based on the prospective market risk  
9 premium estimate of 6.1% and the historical estimate of 7.0%, the CAPM estimated  
10 return on equity is between 9.1% and 9.6%. I will rely on the high end result, 9.6%,  
11 as a conservative estimate using this analysis.

12 **RETURN ON EQUITY SUMMARY**

13 **Q   BASED ON THE RESULTS OF YOUR RATE OF RETURN ON COMMON EQUITY**  
14 **ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO**  
15 **YOU RECOMMEND FOR UE?**

16 A   Based on my analyses, I estimated an appropriate return on equity for UE in the  
17 range of 9.6% to 11.2%, with a mid-point estimate of 10.4%. The high end of my  
18 estimated range, 11.2%, is based on my DCF analyses and risk premium, and the  
19 bottom of my range is based on my CAPM analysis.

20           My recommended rate of return on common equity should again only be used  
21 with my recommended capital structure for UE. If the Commission adopts UE's actual  
22 capital structure, then I believe my recommended return on common equity would be  
23 too high and would provide unreasonable compensation to UE. I reached this

1 conclusion based on my findings above that UE's capital structure is over-weighted  
2 with common equity and is therefore unreasonable. If the Commission finds UE's  
3 actual capital structure to be reasonable, I believe Staff witness Bible's recommended  
4 return on common equity is reasonable for UE in this proceeding.

Table 4	
<u>Return on Common Equity Summary</u>	
<u>Description</u>	<u>Percent</u>
Constant Growth DCF	11.2%
Risk Premium	10.8%
CAPM	9.6%

5 **RATE OF RETURN SUMMARY**

6 **Q WHAT IS YOUR RATE OF RETURN RECOMMENDATION FOR AMERENUE IN**  
7 **THIS PROCEEDING?**

8 A I recommend setting AmerenUE's return on common equity at the mid-point of my  
9 range, or 10.4%. I recommend developing Ameren's overall rate of return using my  
10 adjusted capital structure with a common equity ratio that reflects the mid-point of  
11 Standard & Poor's debt ratio range of 43.0% to 49.5%. This produces a common  
12 equity ratio of 51.2%, and an overall rate of return of 8.67%. My recommended  
13 overall rate of return for AmerenUE is shown on my Exhibit MPG-1, Schedule 10, and  
14 was developed on my Schedules 3 and 4.

15 **Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

16 A Yes, it does.

### Qualifications of Michael Gorman

1    **Q     PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2    **A     Michael P. Gorman. My business mailing address is P. O. Box 412000, 1215 Fern**  
3       **Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000.**

4    **Q     PLEASE STATE YOUR OCCUPATION.**

5    **A     I am a consultant in the field of public utility regulation and a principal with Brubaker &**  
6       **Associates, Inc., energy, economic and regulatory consultants.**

7    **Q     PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK**  
8       **EXPERIENCE.**

9    **A     In 1983 I received a Bachelors of Science Degree in Electrical Engineering from**  
10       **Southern Illinois University, and in 1986, I received a Masters Degree in Business**  
11       **Administration with a concentration in Finance from the University of Illinois at**  
12       **Springfield. I have also completed several graduate level economics courses.**

13                In August of 1983, I accepted an analyst position with the Illinois Commerce  
14       Commission (ICC). In this position, I performed a variety of analyses for both formal  
15       and informal investigations before the ICC, including: marginal cost of energy, central  
16       dispatch, avoided cost of energy, annual system production costs, and working  
17       capital. In October of 1986, I was promoted to the position of Senior Analyst. In this  
18       position, I assumed the additional responsibilities of technical leader on projects, and  
19       my areas of responsibility were expanded to include utility financial modeling and  
20       financial analyses.

1           In 1987, I was promoted to Director of the Financial Analysis Department. In  
2           this position, I was responsible for all financial analyses conducted by the staff.  
3           Among other things, I conducted analyses and sponsored testimony before the ICC  
4           on rate of return, financial integrity, financial modeling and related issues. I also  
5           supervised the development of all Staff analyses and testimony on these same  
6           issues. In addition, I supervised the Staff's review and recommendations to the  
7           Commission concerning utility plans to issue debt and equity securities.

8           In August of 1989, I accepted a position with Merrill-Lynch as a financial  
9           consultant. After receiving all required securities licenses, I worked with individual  
10          investors and small businesses in evaluating and selecting investments suitable to  
11          their requirements.

12          In September of 1990, I accepted a position with Drazen-Brubaker &  
13          Associates, Inc. In April 1995 the firm of Brubaker & Associates, Inc. (BAI) was  
14          formed. It includes most of the former DBA principals and Staff. Since 1990, I have  
15          performed various analyses and sponsored testimony on cost of capital, cost/benefits  
16          of utility mergers and acquisitions, utility reorganizations, level of operating expenses  
17          and rate base, cost of service studies, and analyses relating industrial jobs and  
18          economic development. I also participated in a study used to revise the financial  
19          policy for the municipal utility in Kansas City, Kansas.

20          At BAI, I also have extensive experience working with large energy users to  
21          distribute and critically evaluate responses to requests for proposals (RFPs) for  
22          electric, steam, and gas energy supply from competitive energy suppliers. These  
23          analyses include the evaluation of gas supply and delivery charges, cogeneration  
24          and/or combined cycle unit feasibility studies, and the evaluation of third-party  
25          asset/supply management agreements. I have also analyzed commodity pricing

1 indices and forward pricing methods for third party supply agreements. Continuing, I  
2 have also conducted regional electric market price forecasts.

3 In addition to our main office in St. Louis, the firm also has branch offices in  
4 Kerrville, Texas; Plano, Texas; Asheville, North Carolina; Denver, Colorado; and  
5 Chicago, Illinois.

6 **Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?**

7 A Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of  
8 service and other issues before the regulatory commissions in Arizona, Delaware,  
9 Florida, Georgia, Illinois, Indiana, Michigan, Missouri, New Mexico, Oklahoma,  
10 Tennessee, Texas, Utah, Vermont, West Virginia, Wisconsin and Wyoming. I have  
11 also sponsored testimony before the Board of Public Utilities in Kansas City, Kansas;  
12 presented rate setting position reports to the regulatory board of the municipal utility  
13 in Austin, Texas, and Salt River Project, Arizona, on behalf of industrial customers;  
14 and negotiated rate disputes for industrial customers of the Municipal Electric  
15 Authority of Georgia in the LaGrange, Georgia district.

16 **Q PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR ORGANIZA-**  
17 **TIONS TO WHICH YOU BELONG.**

18 A I earned the designation of Chartered Financial Analyst (CFA) from the Association  
19 for Investment Management and Research (AIMR). The CFA charter was awarded  
20 after successfully completing three examinations which covered the subject areas of  
21 financial accounting, economics, fixed income and equity valuation and professional  
22 and ethical conduct. I am a member of AIMR's Financial Analyst Society.

MPG:cs/7651/29102



# AmerenUE

## Staff's Proposed Capital Structure

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
1	Common Equity	2,603,364	59.1%	9.91	5.85	9.51
2	Preferred Stock	155,197	3.5%	5.72	0.20	0.33
3	Long-Term Debt	1,648,373	37.4%	6.82	2.55	2.55
4	Short-Term Debt	-	0.0%		-	-
5	Total	4,406,934	100.0%		8.61	12.39
6	Tax Factor	1.6248				

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
7	Common Equity	2,603,364	59.1%	8.91	5.26	8.55
8	Preferred Stock	155,197	3.5%	5.72	0.20	0.33
9	Long-Term Debt	1,648,373	37.4%	6.82	2.55	2.55
10	Short-Term Debt	-	0.0%		-	-
11	Total	4,406,934	100.0%		8.02	11.43
12	Tax Factor	1.6248				

# AmerenUE

## Staff's Proposed Capital Structure With Short-Term Debt

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
1	Common Equity	2,603,364	57.7%	8.91	5.14	8.36
2	Preferred Stock	155,197	3.4%	5.72	0.20	0.32
3	Long-Term Debt	1,648,373	36.6%	6.82	2.49	2.49
4	Short-Term Debt	<u>101,800</u>	<u>2.3%</u>	<u>3.95</u>	<u>0.09</u>	<u>0.09</u>
5	Total	4,508,734	100.0%		7.92	11.26
6	Tax Factor	1.6248				
7	Total Debt Ratio		38.8%			
8	S&P Total Debt Ratio Benchmark		43.0% - 49.5%			
9	Pre-Tax Interest Coverage					4.4
10	S&P Interest Coverage Benchmark					3.3 - 4.0

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
11	Common Equity	2,603,364	57.7%	9.91	5.72	9.30
12	Preferred Stock	155,197	3.4%	5.72	0.20	0.32
13	Long-Term Debt	1,648,373	36.6%	6.82	2.49	2.49
14	Short-Term Debt	<u>101,800</u>	<u>2.3%</u>	<u>3.95</u>	<u>0.09</u>	<u>0.09</u>
15	Total	4,508,734	100.0%		8.50	12.20
16	Tax Factor	1.6248				
17	Total Debt Ratio		38.8%			
18	S&P Total Debt Ratio Benchmark		43.0% - 49.5%			
19	Pre-Tax Interest Coverage					4.7
20	S&P Interest Coverage Benchmark					3.3 - 4.0

# AmerenUE

## Adjusted Capital Structure - Including Short-Term Debt With S&P Benchmarks

Line	Description	Amount (1)	Percentage of Total (2)	Cost (3)	Weighted Cost (4)	Pre-Tax Weighted Cost (5)
1	Common Equity	2,416,364	53.6%	9.60	5.14	8.36
2	Preferred Stock	155,197	3.4%	5.72	0.20	0.32
3	Long-Term Debt	1,648,373	36.6%	6.82	2.49	2.49
4	Short-Term Debt	101,800	2.3%	3.95	0.09	0.09
5	Add Long-Term Debt	187,000	4.1%	7.50	0.31	0.31
6	Total	4,508,734	100.0%			11.57
5	Tax Factor	1.6248				
6	Total Debt Ratio		43.0%			
7	S&P Total Debt Ratio Benchmark		43.0% - 49.5%			
8	Pre-Tax Interest Coverage					4.0
9	S&P Interest Coverage Benchmark					3.3 - 4.0

Line	Description	Amount (1)	Percentage of Total (2)	Cost (3)	Weighted Cost (4)	Pre-Tax Weighted Cost (5)
10	Common Equity	2,258,364	50.1%	10.40	5.21	8.46
11	Preferred Stock	155,197	3.4%	5.72	0.20	0.32
12	Long-Term Debt	1,648,373	36.6%	6.82	2.49	2.49
13	Short-Term Debt	101,800	2.3%	3.95	0.09	0.09
14	Add Long-Term Debt	345,000	7.7%	7.5	0.57	0.57
15	Total	4,508,734	100.0%			11.94
14	Tax Factor	1.6248				
15	Total Debt Ratio		46.5%			
16	S&P Total Debt Ratio Benchmark		43.0% - 49.5%			
17	Pre-Tax Interest Coverage					3.8
18	S&P Total Debt Ratio Benchmark					3.3 - 4.0

Line	Description	Amount (1)	Percentage of Total (2)	Cost (3)	Weighted Cost (4)	Pre-Tax Weighted Cost (5)
19	Common Equity	2,128,364	47.2%	11.20	5.29	8.59
20	Preferred Stock	155,197	3.4%	5.72	0.20	0.32
21	Long-Term Debt	1,648,373	36.6%	6.82	2.49	2.49
22	Short-Term Debt	101,800	2.3%	3.95	0.09	0.09
23	Add Long-Term Debt	475,000	10.5%	7.5	0.79	0.79
24	Total	4,508,734	100.0%			12.28
23	Tax Factor	1.6248				
24	Total Debt Ratio		49.4%			
25	S&P Total Debt Ratio Benchmark		43.0% - 49.5%			
26	Pre-Tax Interest Coverage					3.6
27	S&P Total Debt Ratio Benchmark		43% - 49.5%			3.3 - 4.0

# AmerenUE

## Adjusted Capital Structure - Excluding Short-Term Debt

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	Percentage of <u>Total</u> (2)	<u>Cost</u> (3)	Weighted <u>Cost</u> (4)	Pre-Tax Weighted <u>Cost</u> (5)
1	Common Equity	2,416,364	54.8%	9.60	5.26	8.55
2	Preferred Stock	155,197	3.5%	5.72	0.20	0.33
3	Long-Term Debt	1,648,373	37.4%	6.82	2.55	2.55
4	Add Long-Term Debt	<u>187,000</u>	<u>4.2%</u>	7.50	<u>0.32</u>	<u>0.32</u>
5	Total	4,406,934	100.0%		8.33	11.75
6	Tax Factor	1.6248				

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	Percentage of <u>Total</u> (2)	<u>Cost</u> (3)	Weighted <u>Cost</u> (4)	Pre-Tax Weighted <u>Cost</u> (5)
7	Common Equity	2,258,364	51.2%	10.40	5.33	8.66
8	Preferred Stock	155,197	3.5%	5.72	0.20	0.33
9	Long-Term Debt	1,648,373	37.4%	6.82	2.55	2.55
10	Add Long-Term Debt	<u>345,000</u>	<u>7.8%</u>	7.50	<u>0.59</u>	<u>0.59</u>
11	Total	4,406,934	100.0%		8.67	12.12
12	Tax Factor	1.6248				

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	Percentage of <u>Total</u> (2)	<u>Cost</u> (3)	Weighted <u>Cost</u> (4)	Pre-Tax Weighted <u>Cost</u> (5)
13	Common Equity	2,128,364	48.3%	11.20	5.41	8.79
14	Preferred Stock	155,197	3.5%	5.72	0.20	0.33
15	Long-Term Debt	1,648,373	37.4%	6.82	2.55	2.55
16	Add Long-Term Debt	<u>475,000</u>	<u>10.8%</u>	7.50	<u>0.81</u>	<u>0.81</u>
17	Total	4,406,934	100.0%		8.97	12.48
18	Tax Factor	1.6248				

## AmerenUE

### Comparable Group- Electric and Electric & Gas

<u>Line</u>	<u>Utility</u>	At Least	<u>Bond Ratings <sup>2</sup></u>		Net Plant	<u>Common Equity Ratios</u>	
		<u>80% Electric Revenues <sup>2</sup></u>	<u>S&amp;P</u>	<u>Moody's</u>	<u>Assets \$ MIL</u>	<u>Value Line <sup>1</sup></u>	<u>C.A. Turner <sup>2</sup></u>
		(1)	(2)	(3)	(4)	(5)	(6)
1	Ameren Corporation	92%	A+	Aa2	8,426.6	52%	46%
2	FPL Group Inc.	88%	A	Aa3	11,284.0	58%	47%
3	Great Plains Energy	93%	A	A1	2,623.7	45%	33%
4	NSTAR	84%	A	A3	2,579.5	40%	32%
5	Pinnacle West Capital Corp.	97%	A-	A3	5,620.6	53%	46%
6	Southern Company	87%	A+	A1	22,774.3	42%	38%
<b>7</b>	<b>Average</b>	<b>90%</b>			<b>8,884.8</b>	<b>48%</b>	<b>40%</b>

Sources:

<sup>1</sup> The Value Line Investment Survey, dated February 15, 2002, March 8, 2002 and April 5, 2002.

Value Line excludes short-term debt in calculating the common equity ratio

<sup>2</sup> C.A. Turner Utility Reports, April 2002

C.A. Turner includes short-term debt in calculating the common equity ratio.

Note:

The comparable group includes companies with bond ratings of "A" or better and 80% or higher Elec Rev.

# AmerenUE

## 13-Week Average Stock Price Constant Growth DCF Model

<u>Line</u>	<u>Utility</u>	13 Week Average Price <sup>1</sup> (1)	FirstCall Estimated Growth % <sup>2</sup> (2)	Annual Dividend <sup>3</sup> (3)	Adjusted Yield (4)	Constant Growth DCF (5)
1	Ameren Corporation	41.62	4.5%	2.54	6.4%	10.9%
2	FPL Group Inc.	56.09	7.0%	2.32	4.4%	11.4%
3	Great Plains Energy	24.97	4.5%	1.66	6.9%	11.4%
4	NSTAR	44.02	7.0%	2.12	5.2%	12.2%
5	Pinnacle West Capital Corp.	42.82	7.0%	1.60	4.0%	11.0%
6	Southern Company	25.71	5.0%	1.34	5.5%	10.5%
7	<b>Average</b>	<b>39.21</b>	<b>5.8%</b>	<b>1.93</b>	<b>5.4%</b>	<b>11.2%</b>

### Sources:

<sup>1</sup> Stock prices downloaded from Yahoo.com, historical quotes

<sup>2</sup> Long-term growth rates downloaded from ThompsonFN.com, First Call Consensus Estimate

<sup>3</sup> The Value Line Investment Survey, dated February 15, 2002, March 8, 2002 and April 5, 2002.

# AmerenUE

## Equity Risk Premium

<u>Line</u>	<u>Year</u>	<u>Treasury Bond Yield <sup>1</sup></u> (1)	<u>Authorized Electric Returns <sup>2</sup></u> (2)	<u>Indicated Risk Premium</u> (3)
1	1986	7.78%	13.93%	6.15%
2	1987	8.59%	12.99%	4.40%
3	1988	8.96%	12.79%	3.83%
4	1989	8.45%	12.97%	4.52%
5	1990	8.61%	12.70%	4.09%
6	1991	8.14%	12.55%	4.41%
7	1992	7.67%	12.09%	4.42%
8	1993	6.59%	11.41%	4.82%
9	1994	7.37%	11.34%	3.97%
10	1995	6.88%	11.55%	4.67%
11	1996	6.71%	11.39%	4.68%
12	1997	6.61%	11.40%	4.79%
13	1998	5.58%	11.66%	6.08%
14	1999	5.87%	10.77%	4.90%
15	2000	5.94%	11.43%	5.49%
16	Average	7.32%	12.06%	4.75%

### Sources:

<sup>1</sup> Economic Report of the President, January, 2001 and the St. Louis Federal Reserve Bank website

<sup>2</sup> Regulatory Research Associates, Inc., Regulatory Focus

## AmerenUE

### Comparable Group Beta

<u>Line</u>	<u>Utility</u>	<u>Value Line Beta <sup>1</sup></u>
1	Ameren Corporation	0.55
2	FPL Group Inc.	0.45
3	Great Plains Energy	0.55
4	NSTAR	0.55
5	Pinnacle West Capital Corp.	0.45
6	Southern Company	NMF
7	<b>Average</b>	<b>0.51</b>

Source:

<sup>1</sup> The Value Line Investment Survey, dated 02/15/02, 03/08/02 and 04/05/02.



## AmerenUE

### CAPM Return Estimate

<u>Line</u>	<u>Description</u>	<u>Historical Premium</u>
1	CAPM	9.6%
2	Rf	6.0%
3	Risk Premium	7.0%
4	Beta	0.51
		<u>Prospective Premium</u>
5	CAPM	9.1%
6	Rf	6.0%
7	Risk Premium	6.1%
8	Beta	0.51
9	CAPM Average	9.3%

Sources:

- <sup>1</sup> The Value Line Investment Survey, dated 02/15/02, 03/08/02 and 04/05/02.  
SBBI, Ibbotson Associates, 2001 Yearbook  
Blue Chip Financial Forecast, 9/1/01

## AmerenUE

### **Adjusted Capital Structure Gorman's Recommendation**

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	Percentage of <u>Total</u> (2)	<u>Cost</u> (3)	Weighted <u>Cost</u> (4)
1	Common Equity	2,258,364	51.2%	10.4	5.33
2	Preferred Stock	155,197	3.5%	5.72	0.20
3	Long-Term Debt	1,648,373	37.4%	6.82	2.55
4	Add Long-Term Debt	345,000	<u>7.8%</u>	7.5	<u>0.59</u>
5	Total	4,406,934	100.0%		8.67

Exhibit No.  
Witness: Michael Gorman  
Type of Exhibit: Rebuttal Testimony  
Sponsoring Party: Missouri Industrial Energy Consumers  
Case No. EC-2002-1  
Subjects: Return on Common Equity and Overall  
Rate of Return

**Before the  
Missouri Public Service Commission**

Staff of the Missouri Public Service Commission	)	
	)	
Complainant	)	
v.	)	Case No. EC-2002-1
Union Electric Company, d/b/a	)	
AmerenUE	)	
Respondent.	)	

Rebuttal Testimony of

**Michael Gorman**

On Behalf of

**Missouri Industrial Energy Consumers**

May 17, 2002  
Project 7651



BRUBAKER & ASSOCIATES, INC.  
ST. LOUIS, MO 63141-2000

**Before the Public Service Commission  
of the State of Missouri**

<b>Staff of the Missouri Public Service Commission</b>	)	
	)	
<b>Complainant</b>	)	
v.	)	<b>Case No. EC-2002-1</b>
<b>Union Electric Company, d/b/a AmerenUE</b>	)	
	)	
<b>Respondent.</b>	)	

STATE OF MISSOURI     )  
                                  )     SS  
COUNTY OF ST. LOUIS   )

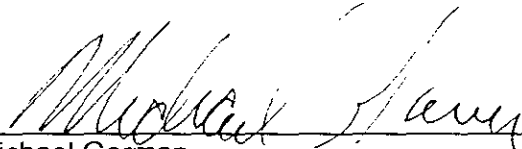
**Affidavit of Michael Gorman**

Michael Gorman, being first duly sworn, on his oath states:

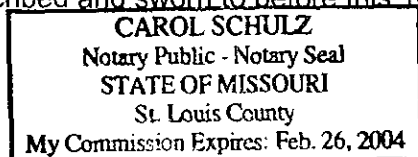
1. My name is Michael Gorman. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony which was prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. EC-2002-1.

3. I hereby swear and affirm that the rebuttal testimony is true and correct and shows the matters and things it purports to show.

  
\_\_\_\_\_  
Michael Gorman

Subscribed and sworn to before this 16th day of May 2002.



  
\_\_\_\_\_  
Notary Public

My Commission Expires February 26, 2004.

**Before the  
Missouri Public Service Commission**

<b>Staff of the Missouri Public Service Commission</b>	)	
	)	
<b>Complainant</b>	)	
<b>v.</b>	)	<b>Case No. EC-2002-1</b>
<b>Union Electric Company, d/b/a</b>	)	
<b>AmerenUE</b>	)	
<b>Respondent.</b>	)	

**Rebuttal Testimony of Michael Gorman**

1    **Q     PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2    **A     My name is Michael Gorman and my business address is 1215 Fern Ridge Parkway,**  
3       **Suite 208, St. Louis, MO 63141-2000.**

4    **Q     WHAT IS YOUR OCCUPATION?**

5    **A     I am a consultant in the field of public utility regulation and a principal at Brubaker &**  
6       **Associates, Inc., energy, economic and regulatory consultants.**

7    **Q     PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8    **A     These are set forth in Appendix A to my testimony.**

9    **Q     ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

10   **A     I am appearing on behalf of the Missouri Industrial Energy Consumers (MIEC). The**  
11       **MIEC Group includes many of AmerenUE's (UE or Company) largest purchasers of**  
12       **electricity service.**

**Michael Gorman  
Page 1**

1    **Q     WHAT IS THE SUBJECT OF YOUR TESTIMONY?**

2    **A     I will respond to the testimony of Staff witness Ronald L. Bible dated March 2002.**

3    **Q     PLEASE SUMMARIZE STAFF WITNESS BIBLE'S DIRECT TESTIMONY IN THIS**  
4    **PROCEEDING.**

5    **A     Mr. Bible estimated UE's overall rate of return, which Staff then used to develop the**  
6    **revenue requirement for UE's Missouri retail jurisdictional electric operations. Mr.**  
7    **Bible recommends using UE's actual capital structure as of June 30, 2001, excluding**  
8    **short-term debt, and accepts the Company's estimates for embedded cost of long-**  
9    **term debt and preferred stock. Lastly, Mr. Bible estimated UE's return on equity to fall**  
10   **in the range of 8.91% to 9.91%.**

11            Using these parameters, Mr. Bible's estimated UE's overall rate of return, as  
12   shown on his Schedule 26, to be in the range of 8.01% to 8.61%. As shown on my  
13   Exhibit MPG-1, Schedule 1, reflecting income taxes, and using Mr. Bible's proposed  
14   capital structure and component costs, Mr. Bible's recommendation would provide UE  
15   with a pre-tax rate of return in the range of 11.43% to 12.39%.

16   **Q     WHAT IS THE PRE-TAX RATE OF RETURN, AND HOW IS IT CALCULATED?**

17   **A     A pre-tax rate of return represents the total cost of capital to UE's customers. Total**  
18   **cost of capital includes the rate of return, which is made up of debt and equity returns,**  
19   **plus applicable income taxes. Equity returns are not tax deductible, therefore to**  
20   **provide a company with the full opportunity to recover its cost of equity, the equity**  
21   **return must be grossed-up for income taxes. In contrast, interest on debt obligations**  
22   **is deductible for income tax purposes. Therefore, debt interest expense need not be**  
23   **grossed-up for income taxes.**

1 In order to adjust a rate of return to a pre-tax basis, it is necessary to gross-up  
2 the weighted cost of common and preferred equity for the applicable composite  
3 income tax rate. Based on Staff's excess earnings analysis, I have estimated a tax  
4 gross-up factor to be 1.6248.<sup>1</sup> This factor is applied to the weighted common equity  
5 and weighted preferred equity returns in order to state these numbers on a pre-tax  
6 basis. Again, no adjustment is made to the weighted cost of debt because these  
7 costs are tax deductible and are therefore already stated on a pre-tax basis.

8 These calculations are shown on my Exhibit MPG-1, Schedule 1, on Staff's  
9 proposed capital structure by adjusting Column 4, Lines 1 and 2, and Lines 7 and 8,  
10 by the tax factor adjustment of 1.6248.

11 **Q WHAT CONCLUSIONS AND RECOMMENDATIONS DO YOU MAKE IN**  
12 **RESPONSE TO MR. BIBLE'S RATE OF RETURN RECOMMENDATIONS FOR**  
13 **UE?**

14 **A** Based on my analysis, I find that a reasonable pre-tax rate of return for UE is in the  
15 range of 11.75% to 12.48%. Mr. Bible's mid-point and high-end recommendation fall  
16 within this range, therefore, I find them to be reasonable. However, while I reach a  
17 comparable pre-tax rate of return recommendation for UE, I developed my overall  
18 rate of return reflecting a different capital structure and return on common equity  
19 which I believe are more reasonable for UE.

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<sup>1</sup>  $\frac{1}{(1 - \text{Composite Tax Rate})}$

1    **Q    PLEASE SUMMARIZE THE DIFFERENCES IN THE WAY YOU DEVELOPED A**  
2           **PRE-TAX OVERALL RATE OF RETURN FOR UE, AND THE METHOD USED BY**  
3           **STAFF WITNESS BIBLE.**

4    **A    My recommended pre-tax rate of return differs from Mr. Bible's in two important**  
5           respects. First, I do not accept the Company's actual capital structure because I  
6           believe it is too heavily weighted with common equity, and therefore is not reasonable  
7           to use for ratemaking purposes.

8           Second, while Mr. Bible's return on equity is reasonable in conjunction with his  
9           reliance on the Company's actual capital structure, I believe it is too low to use with  
10          my recommended capital structure for UE.

11   **Q    WHY WOULD A CAPITAL STRUCTURE THAT IS TOO HEAVILY WEIGHTED**  
12          **WITH COMMON EQUITY BE UNREASONABLE FOR RATEMAKING PURPOSES?**

13   **A    It would be unreasonably expensive and would not benefit customers. In developing**  
14          rates, only utility costs that are prudently incurred and reasonable should be allowed.  
15          Prudent and reasonable is a necessary ingredient in a utility's obligation to provide  
16          reliable utility service in a least cost manner.

17          A capital structure that is too heavily weighted with common equity will  
18          unreasonable increase the utility's revenue requirements and rates to retail  
19          customers. Too much common equity increases the rate of return and income tax  
20          expense, because common equity is the highest cost form of capital and is subject to  
21          income taxes. As a result, a capital structure that contains too much common equity  
22          will unreasonably increase the utility's required operating income, income tax  
23          expense, and rates.



1    **Q     SHOULD IT BE INCUMBENT ON THE UTILITY TO MANAGE ITS CAPITAL**  
2       **STRUCTURE IN ORDER TO MINIMIZE ITS COST OF CAPITAL WHILE**  
3       **PRESERVING ITS FINANCIAL INTEGRITY?**

4    A     Yes. Regulation is a surrogate for competition. In a competitive market, a company  
5       must be competitive in terms of price, product quality and reliability to win customers  
6       who have a choice of suppliers. In a regulated market, customers do not have a  
7       choice of suppliers. Thus, regulation should impose strict obligations on utilities to  
8       manage service quality and reliability and minimize costs in a way that maintains the  
9       utility's financial integrity.

10   **Q     WHY DO YOU BELIEVE THE COMPANY'S ACTUAL CAPITAL STRUCTURE IS**  
11       **TOO HEAVILY WEIGHTED WITH COMMON EQUITY?**

12   A     UE's capital structure contains too much common equity by several measures,  
13       including the following:

- 14       a. The capital structure contains significantly more common equity than is needed to  
15       be consistent with bond rating agency financial benchmarks to maintain UE's  
16       existing "A+" bond rating.
- 17       b. UE's common equity ratio is unreasonably high in comparison to a peer utility  
18       group.
- 19       c. UE's common equity ratio is unreasonably high in comparison to industry  
20       averages.
- 21       d. UE's common equity ratio is considerably higher than that of the comparable  
22       group that I will use to estimate its cost of common equity.  
23

24   **Q     PLEASE DESCRIBE THE PUBLISHED BOND RATING AGENCY FINANCIAL**  
25       **BENCHMARKS THAT ARE USED IN THE DETERMINATION OF UTILITY BOND**  
26       **RATINGS.**

1 A Standard & Poor's (S&P) publishes financial benchmarks that it uses to establish  
2 utility credit profiles and bond ratings. S&P establishes a utility's bond rating on the  
3 basis of its financial risk and business risk. S&P's financial benchmarks are based on  
4 a matrix that sets (for each specific bond rating) more stringent financial requirements  
5 for utilities that have high business risk, and lower financial requirements for utilities  
6 that have low business risk.

7 Standard & Poor's ranks utility companies on the business risk position of one  
8 to 10, where one is the highest business position or lowest business risk, and 10 is  
9 the lowest business position ranking or highest business risk.

10 UE's current S&P business position ranking is "4" and its bond rating is "A+".<sup>2</sup>

11 **Q WHAT IS S&P'S TOTAL DEBT RATIO BENCHMARK FOR A UTILITY WITH UE'S**  
12 **BOND RATING?**

13 A Standard & Poor's total debt to capital ratio benchmark for an "A" rated utility with a  
14 business position ranking of four is in the range of 43.0% to 49.5%.<sup>3</sup>

15 **Q HOW DOES UE'S TOTAL DEBT TO TOTAL CAPITALIZATION RATIO COMPARE**  
16 **TO THE S&P BENCHMARK?**

17 A In its debt ratio calculation, S&P considers all debt including long-term, short-term and  
18 off-balance sheet debt equivalents. According to S&P, UE does not have material  
19 off-balance sheet debt equivalents, but does have some short-term debt. In UE's  
20 supplemental response to Staff Data Request 3802, it listed \$185.6 million of short-  
21 term debt outstanding at December 31, 2001, but noted that \$83.8 million of that was

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<sup>2</sup> UE response to Staff Data Request 3808, and Standard & Poor's Utilities & Perspectives, January 29, 2001 at 10.

<sup>3</sup> Standard & Poor's Utilities & Perspectives, June 21, 1999 at 3.

1 used to make inter-company affiliate loans. Thus, \$101.8 million was used by UE.  
2 As shown on my Exhibit MPG-1, Schedule 2, including \$101.8 million of short-term  
3 debt in Staff's proposed capital structure produces a total debt ratio of 38.8%.  
4 Similarly, S&P in its November 1, 2001 report on UE, provide in response to Staff  
5 Data Request 3808, listed UE's total debt ratio at 39.2% on June 30, 2001. Hence,  
6 UE's total debt ratio is significantly lower, as a result of too much equity, than the low  
7 end of S&P's debt ratio range, 43% to 49.5%, for an "A" rated utility with UE's  
8 business position ranking.

9 UE's debt ratio is too low and its common equity ratio is too high in  
10 comparison to the S&P benchmarks.

11 **Q HOW DOES UE'S COMMON EQUITY RATIO COMPARE TO A PEER GROUP OF**  
12 **ELECTRIC UTILITY COMPANIES?**

13 **A** In its June 2001, credit report on Ameren and its subsidiaries including UE, Moody's  
14 compared UE's financial ratios to those of a peer group of companies. Moody's listed  
15 UE's common equity ratio at December 31, 2000 as 57.3% and a peer group's  
16 common equity at the same time as 44.4%. UE's common equity ratio is  
17 unreasonably high in comparison to a peer utility group selected by Moody's.  
18 (Moody's Investor Service Ameren Corporation, June 2001, at 4, provide by UE in  
19 response to Staff Data Request 3808).

20 **Q WHAT IS THE INDUSTRY AVERAGE CAPITAL STRUCTURE FOR ELECTRIC**  
21 **UTILITY COMPANIES?**

22 **A** Two publications list average equity ratios for electric utility companies. First, The  
23 Value Line Investment Survey publishes an average common equity ratio for the

1 electric utilities it follows. Value Line excludes short-term debt from the total  
2 capitalization when it calculates the common equity ratio. Hence, Value Line's  
3 common equity ratio is based on the ratio of common equity to total long-term capital.  
4 For the year 2002, Value Line states that the average common equity ratio for electric  
5 utilities is 44.5%, and noted that the industry's equity ratio is projected to increase to  
6 48.5% by the period 2005-2007.<sup>4</sup>

7 The second publication is the C.A. Turner Utility Reports. In contrast to the  
8 Value Line Investment Survey, C.A. Turner publishes a common equity ratio that  
9 includes short-term debt in the total capitalization. The average common equity ratios  
10 for the utilities followed by the C.A. Turner Utility Reports is 42%. (C.A. Turner Utility  
11 Reports April 2002 at page 7, and The Value Line Investment Survey, April 5, 2002 at  
12 page 695.)

13 In significant contrast, UE's common equity ratio, when short-term debt is not  
14 included in the capital structure, is 59.1% as shown by Staff witness Bible at June 30,  
15 2001, and as shown on my Schedule 2, UE's common equity ratio is 57.7% including  
16 its UE-related December 31, 2001 short-term debt balance. In both cases, UE's  
17 common equity as a percent of total capital is substantially higher than that of the  
18 electric utility industry, both now and as projected by Moody's over the next three to  
19 five years.

20 **Q WHAT IS THE AVERAGE COMMON EQUITY RATIO FOR THE COMPARABLE**  
21 **GROUPS USED IN YOUR ANALYSIS OF A FAIR RETURN ON EQUITY FOR UE?**

22 **A** I will discuss my analysis in more detail later in my testimony. But, as shown later in  
23 my testimony (see Exhibit MPG-1, Schedule 5), the average common equity ratio of

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<sup>4</sup> The Value Line Investment Survey, April 5, 2002 at 695.

my proxy utility group is 48% as reported by Value Line (excluding short-term debt), and 40% as reported by C.A. Turner Utility Reports (including short-term debt). Again, these common equity ratios are considerable lower than UE's 59.1% and 57.7% equity ratios without and with short-term debt, respectively, included in total capital.

**Q WHAT RETURN ON COMMON EQUITY AND RELATED COMMON EQUITY RATIO HAVE REGULATORY COMMISSIONS TYPICALLY AWARDED TO ELECTRIC UTILITY COMPANIES?**

**A** As shown below in Table 1, I have listed the average annual electric utility authorized return on common equity, and common equity to total capital authorized by regulatory commissions in setting overall rates of return for utilities. This data was taken from the Regulatory Focus, Major Rate Case Decisions, January 1990 through December 2000. As shown below in Table 1, authorized return on common equity for the last five years has averaged 11.33%, and the common equity ratio has averaged 46.63%.

Table 1		
<u>Annual Regulatory Authorized Electric Returns</u>		
<u>Year</u>	<u>Return on Common Equity</u>	<u>Common Equity Ratio</u>
2000	11.43	48.85
1999	10.77	45.08
1998	11.66	46.14
1997	11.40	48.79
1996	<u>11.39</u>	<u>44.34</u>
Average	11.33%	46.63%
Source: Major Rate Case Decisions, June-July 1990 -- December 2000, Regulatory Focus		

1           UE's actual capital structure common equity ratio of 59% is significantly out of  
2 line with the capital structures used by regulatory commissions, on average, over the  
3 last five years to establish utility overall rates of return.

4   **Q     WHAT IS THE RELATIONSHIP BETWEEN AN EQUITY RATIO AND A FAIR**  
5   **RETURN ON COMMON EQUITY?**

6   A     A common equity ratio measures the financial leverage the utility has used to finance  
7 its utility assets. The greater the financial leverage, the greater the financial risk.  
8 Hence, a low common equity ratio would equate to high financial risk because there  
9 would be more debt leverage used to finance utility assets. Conversely, a high  
10 common equity ratio would equate to low financial risk because the utility would use  
11 less financial leverage to finance utility assets.

12           From this, if the Commission were to agree with Staff and use UE's actual  
13 capital structure, containing a high common equity ratio and low financial leverage,  
14 then it should reduce the return on equity to reflect this reduced financial risk.

15   **Q     CAN THERE BE EXTENUATING FACTORS THAT JUSTIFY A UTILITY'S NEED**  
16   **FOR A HIGH OR LOW COMMON EQUITY RATIO?**

17   A     Yes. If a utility has high business risk (that is, sales risk, poor management, uncertain  
18 cost recovery), it may be appropriate for a utility to have a high common equity ratio in  
19 order to lower financial risk to offset the high business risk. However, this does not  
20 apply to UE. As noted by Standard & Poor's, UE has a strong service area, and  
21 robust financial parameters<sup>5</sup>. Therefore, it has, at worst, average business risk, and  
22 at best, lower than average business risk. Thus, there is no reason for AmerenUE to

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<sup>5</sup> Standard & Poor's Rating Direct, Union Electric, November 2001, response to Staff #3808.

1 have a higher common equity ratio in order to maintain its credit strength and  
2 financial integrity.

3 **Q WHAT RETURN ON COMMON EQUITY DO YOU RECOMMEND BE USED IN**  
4 **CONJUNCTION WITH YOUR RECOMMENDED CAPITAL STRUCTURE TO**  
5 **ESTABLISH UE'S RATE OF RETURN?**

6 **A** Based on the analysis I describe later in this testimony, I have estimated a fair rate of  
7 return on common equity for UE to be in the range of 9.6% to 11.2%. This rate of  
8 return on common equity recommendation, however, should only be used if the  
9 Commission accepts my recommendation to reject UE's actual capital structure  
10 because it is too heavily weighted with common equity and therefore unreasonable.  
11 Instead, my recommended return on common equity for UE should be used with a  
12 capital structure that balances the interest of investors and ratepayers. A balanced  
13 capital structure should both help preserve the Company's credit rating and financial  
14 integrity, and minimize the utility's rate of return and income taxes to help make its  
15 rates more reasonable and competitive.

16 **Q WHAT CAPITAL STRUCTURE DO YOU RECOMMEND FOR UE IN THIS**  
17 **PROCEEDING?**

18 **A** I recommend adjusting UE's actual capital structure to increase the amount of debt  
19 and reduce the amount of common equity. UE's rate making capital structure should  
20 have a debt ratio within the parameters of S&P's utility bond rating benchmarks for  
21 UE's current "A" bond rating and business position rating of 4. In accordance with  
22 S&P's financial benchmarks, I recommend adjusting UE's capital structure to increase

1 the debt ratio into the range of 43.0% to 49.5%. My adjustment to UE's actual capital  
2 structure is developed on my Exhibit MPG-1, Schedule 3.

3 **Q PLEASE EXPLAIN HOW YOU ADJUSTED UE'S ACTUAL CAPITAL**  
4 **STRUCTURE?**

5 A I started with UE's actual capital structure at January 30, 2001 as used by Staff  
6 witness Bible. For this calculation I included short-term debt in UE's capital structure  
7 and assumed UE would have short-term debt equal to its December 31, 2001  
8 balance of \$101.8 million<sup>6</sup>, and no off-balance sheet debt. I then included additional  
9 debt at a cost of 7.5% until the total debt to total capital structure ratio was within  
10 S&P's financial benchmark range of 43.0% to 49.5%. The 7.5% rate for additional  
11 debt was based on an "A" rated utility bond current yield of 7.3% (Mergent Public  
12 Utility, Friday, April 26, 2002), adjusted up to 7.5% to reflect issuance costs.

13 As shown on my Exhibit MPG-1, Schedule 3, with this method, I developed  
14 three capital structures with total debt ratios of 43.0%, 46.5%, and 49.4%. These  
15 debt ratios are the low, midpoint and high end total debt ratio ranges established by  
16 S&P for companies with UE's current bond rating.

17 **Q ARE YOU RECOMMENDING THAT UE'S OVERALL RATE OF RETURN BE**  
18 **DEVELOPED USING A CAPITAL STRUCTURE INCLUDING SHORT-TERM DEBT**  
19 **IN THIS PROCEEDING?**

20 A No. The capital structure developed on my Schedule 3 is based on total debt, in  
21 order to be consistent with S&P's benchmarks. The capital structure I recommend  
22 the Commission use to set AmerenUE's overall rate of return would exclude short-

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<sup>6</sup> UE's balance of \$185.6 million, less \$83.8 million loaned to affiliate companies.



term debt, as long as short-term debt is lower than the Company's balance of construction work in progress. An adjusted capital structure that I recommend for setting rates is shown on my Exhibit MPG-1, Schedule 4. On Schedule 4, I develop a ratemaking capital structure that is identical to the capital structure developed on my Schedule 3, but excludes short-term debt. As shown on my Schedule 4, I recommend that AmerenUE's ratemaking capital structure contain a common equity ratio in the range of 48.3% to 54.8%.

**Q WHAT PRETAX RATE OF RETURN DO YOU RECOMMEND FOR UE IN THIS PROCEEDING?**

**A** As shown on my Exhibit MPG-1 Schedule 4, using the capital structure developed above, but excluding short-term debt, and using a return on common equity in the range of 9.6% to 11.2%, I conclude that a reasonable pretax rate of return for UE is in the range of 11.75% to 12.48%.

**Q PLEASE COMPARE YOUR ESTIMATE OF UE'S OVERALL RATE OF RETURN TO THE SAME ESTIMATE MADE BY STAFF WITNESS BIBLE.**

**A** In Table 2 below, I show Staff's and my pre-tax rate of return recommendations.

<b>Table 2</b>						
<b><u>Rate of Return Recommendations</u></b>						
<b><u>Description</u></b>	<b><u>Return On Equity</u></b>		<b><u>Common Equity Ratio</u></b>		<b><u>Pre-Tax Rate of Return</u></b>	
	<b><u>Low</u></b>	<b><u>Low</u></b>	<b><u>High</u></b>	<b><u>Low</u></b>	<b><u>Low</u></b>	<b><u>High</u></b>
Staff	8.91%	9.91%	59.1%	59.1%	11.34%	12.39%
Gorman	9.60%	11.20%	48.3%	54.8%	11.75%	12.48%

**Michael Gorman**  
**Page 13**

1 As shown in Table 2, I conclude that Staff's mid-point and high-end return  
2 recommendations fall within a reasonable range.

3 **Q WOULD THE RETURN ON EQUITY AND RECOMMENDED CAPITAL**  
4 **STRUCTURE YOU ARE RECOMMENDING, AND THAT RECOMMENDED BY**  
5 **STAFF WITNESS BIBLE, PROVIDE ADEQUATE EARNINGS COVERAGE OF**  
6 **DEBT INTEREST EXPENSE IN ORDER TO MAINTAIN AMERENUE'S EXISTING**  
7 **BOND RATING?**

8 **A** Yes. As shown below in Table 3, and as developed on my Exhibit MPG-1, Schedules  
9 2 and 3, the amount of debt interest expense allocated to AmerenUE's Missouri retail  
10 operations, and the earnings coverage of that debt interest expense provided by  
11 Missouri UE retail customers, based on Staff's recommendation, provides UE with a  
12 pre-tax interest coverage ratio in the range of 4.4x to 4.8x.<sup>7</sup> Similarly, my  
13 recommended rate of return for Missouri retail customers will provide a coverage of  
14 debt interest expense allocated to the Missouri jurisdiction in the range of 3.6x to  
15 4.0x.<sup>8</sup>

16 In comparison, S&P's financial benchmarks for a single A-rated utility with a  
17 business position ranking of four is for a pre-tax interest coverage ratio in the range of  
18 3.3x to 4.0x. Accordingly, both my recommendation and that of Staff witness Bible  
19 will provide robust earnings coverage of UE's debt interest expense allocated to retail  
20 Missouri operations that is adequate to support its existing bond rating.

<sup>7</sup> Using the capital structure weights would allocate debt interest, equity return and income taxes based on the Missouri rate base.

<sup>8</sup> For purposes of this calculation, I used UE's money pool rate in the year 2001 of 3.95% as a proxy for UE's short-term debt interest rate. This is a conservative assumption because in the year 2001, UE's actual short-term debt cost was 1.8%. (UE FERC Form 1, 2000, note 3)

Table 3			
<u>Pre-Tax Debt Interest Coverage Ranges</u>			
	<u>Staff</u>	<u>Gorman</u>	<u>S&amp;P Range</u>
High	4.7x	4.0x	4.0x
Low	4.4x	3.6x	3.3x
Source: Standard & Poor's Utilities Perspectives, June 21, 1999 at 3.			

1    **Q     DOES S&P ESTABLISH UE'S BOND RATING BASED ON THE EARNINGS FROM**  
2       **ITS MISSOURI RETAIL OPERATIONS, OR FROM THE TOTAL COMPANY?**

3    **A     S&P would be concerned about the Company's total earnings coverage of total debt**  
4       **interest obligations. However, the purpose of this proceeding is to evaluate whether**  
5       **UE's Missouri retail rates are just and reasonable. Hence, I have attempted to**  
6       **measure whether Missouri retail rates provide adequate earnings coverage of debt**  
7       **interest expense that is properly allocated to Missouri retail operations. Thus, for**  
8       **purposes of evaluating UE's Missouri retail rates, the proper benchmark is the**  
9       **earnings coverage of debt interest expense which should be provided by Missouri**  
10      **retail rates, and not UE's total revenues and debt interest obligations.**

11   **Q     WILL YOUR CAPITAL STRUCTURE ADJUSTMENT RESULT IN A RETURN**  
12      **DISALLOWANCE**

13   **A     No, UE can conform its actual capital structure to comply with the capital structure**  
14      **objective approved by the Commission and used to set rates. In effect a capital**  
15      **structure adjustment is no different than expecting UE to respond to a Commission**

**Michael Gorman**  
**Page 15**

1 finding that some cost of service component is unreasonable and should not be  
2 allowed in rates at the historic level. UE can adjust its actual capital structure by  
3 buying back stock, paying an extraordinary dividend to its parent company, or through  
4 incremental external borrowing to fund plant infrastructure investments. The bottom  
5 line is that UE can and should adjust its actual capital structure to be in conformance  
6 with S&P's published financial benchmarks.

### 7 **Return on Common Equity**

8 **Q PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED**  
9 **COMPANY'S COST OF COMMON EQUITY.**

10 A In general, determining a fair cost of common equity for a regulated utility has been  
11 framed by two decisions of the U.S. Supreme Court, in Bluefield Water Works vs  
12 West Virginia PSC (1923) and Federal Power Commission vs Hope Natural Gas  
13 Company (1944).

14 These decisions identify the general standards to be considered in  
15 establishing the cost of common equity for a public utility. Those general standards  
16 are that the authorized return should: (1) be sufficient to maintain financial integrity,  
17 (2) attract capital under reasonable terms, and (3) be commensurate with returns  
18 investors could earn by investing in other enterprises of comparable risk.

19 **Q PLEASE DESCRIBE WHAT IS MEANT BY THE TERM "UTILITY'S COST OF**  
20 **COMMON EQUITY."**

21 A The utility's cost of common equity is the return investors expect, or require, in order  
22 to make an investment. Investors expect to achieve their return requirement from  
23 receiving dividends and stock price appreciation.

1    **Q     PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE THE COST**  
2    **OF COMMON EQUITY FOR UE.**

3    **A     I have used several models based on financial theory to estimate UE's cost of**  
4    **common equity. These models are: (1) the constant growth discounted cash flow**  
5    **(DCF) model, (2) the bond yield plus equity risk premium model, and (3) a capital**  
6    **asset pricing model (CAPM). I have applied these models to a group of publicly**  
7    **traded utilities that represent the investment risk of an electric utility similar to UE.**

8    **Q     HOW WILL YOU DEVELOP A DISCOUNTED CASH FLOW ANALYSIS AND RISK**  
9    **PREMIUM ESTIMATES FOR UE?**

10   **A     I relied on a broad based group of electric utility companies to estimate UE's return**  
11   **on equity.**

12   **Q     HOW DID YOU SELECT A BROAD BASED GROUP OF ELECTRIC UTILITY**  
13   **COMPANIES?**

14   **A     I started with all the electric and combination electric and gas utilities followed by the**  
15   **C.A. Turner Utility Reports. I limited the comparable group to the utilities which met**  
16   **the following criteria: (a) had at least 80% of their revenues from the provision of**  
17   **electric service; (b) a bond rating from both Standard & Poor's and Moody's of A or**  
18   **better, (c) currently paying a dividend, and (d) utilities that have an earnings growth**  
19   **rate published by First Call.**

20                As shown on my Exhibit MPG-1, Schedule 5, this selection criteria produced a  
21                broad-based group of electric companies from which to estimate a fair return for UE.

## DISCOUNTED CASH FLOW (DCF) MODEL

**Q PLEASE DESCRIBE THE DCF MODEL.**

A The DCF model posits that a stock price is valued by summing the present value of expected future cash flows, discounted at the investor's required rate of return (ROR) or cost of capital. This model is expressed mathematically as follows:

$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \dots + \frac{D_\infty}{(1+K)^\infty} \quad \text{where} \quad (\text{Equation 1})$$

$P_0$  = Current stock price

$D$  = Dividends in periods 1 -  $\infty$

$K$  = Investor's required return

This model can be rearranged in order to estimate the discount rate or investor required return, "K." If it is reasonable to assume that earnings and dividends will grow at a constant rate, then Equation 1 can be rearranged as follows:

$$K = D_1/P_0 + G \quad (\text{Equation 2})$$

$K$  = Investor's required return

$D_1$  = Dividend adjusted for growth

$P_0$  = Current stock price

$G$  = Expected constant dividend growth rate

Equation 2 is referred to as the "constant growth" annual DCF model.

**Q PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.**

A As shown under Equation 2 above, the DCF model requires a current stock price, expected dividend, and expected growth rate in dividends.

**Q WHAT STOCK PRICE AND DIVIDEND HAVE YOU RELIED ON IN YOUR CONSTANT GROWTH DCF MODEL?**

1 A I relied on the average of the weekly high and low stock prices over a 13-week period  
2 ending April 15, 2002. An average stock price is less susceptible to aberrant market  
3 price movements, which may not be reflective of the stock's long-term value.

4 I used the most recently paid quarterly dividend, as reported in the Value Line  
5 Investment Survey. This dividend was annualized (multiplied by 4) and adjusted for  
6 next year's growth to produce the D1 factor for use in Equation 2 above.

7 **Q WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR DCF MODEL?**

8 A There are several methods which one can use in order to estimate the expected  
9 growth in dividends. However, for purposes of determining the market required return  
10 on common equity, one must attempt to estimate what the consensus of investors  
11 believe the dividend or earnings growth rate will be, and not what an individual  
12 investor or analyst may use to form individual investment decisions.

13 Security analyst growth estimates have been shown to be more accurate  
14 predictors of future returns than growth rates derived from historical data.<sup>9</sup> Because  
15 they are more reliable estimates, and assuming the market, in general, makes  
16 rational investment decisions, analysts' growth projections are the most likely growth  
17 estimates that are built into stock prices.

18 For my constant growth DCF analysis, I have relied on a consensus, or mean,  
19 of professional security analysts' earnings growth estimates as a proxy for the  
20 investor consensus dividend growth rate expectations. I used First Call (formerly the  
21 Institutional Brokers Estimate System) consensus analyst projections available on  
22 April 17, 2002, as reported on-line by the Thomson Investors Network. First Call

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<sup>9</sup> See, for example, David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," The Journal of Portfolio Management, Spring 1989.

1 surveys security analysts and publishes a simple arithmetic average or mean of  
2 surveyed analysts' earnings growth forecast. A simple average of the First Call  
3 growth forecast gives equal weight to all surveyed analysts' projections. It is  
4 problematic as to whether any particular analyst's forecast is most representative of  
5 general market expectations. Therefore, a simple average, or arithmetic mean,  
6 analyst forecast is a good proxy for market consensus expectations.

7 **Q WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?**

8 A The results of my DCF analyses are shown on Exhibit MPG-1, Schedule 6. As shown  
9 on Schedule 6, the average DCF cost of common equity for the comparable group is  
10 11.2%.

11 **RISK PREMIUM MODEL**

12 **Q PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.**

13 A This model is based on the principle that investors require a higher ROR to assume  
14 greater risk. Common equity investments have greater risk than bonds because  
15 bonds have more security of payment in bankruptcy proceedings than common equity  
16 and the coupon payments on bonds represent contractual obligations. In contrast,  
17 companies are not required to pay dividends on common equity, or to guarantee  
18 returns on common equity investments. Therefore, common equity securities are  
19 considered to be more risky than bond securities.

20 This risk model is based on the difference between the required return on  
21 utility common equity investments and Treasury bonds. The difference between the  
22 required return on common equity and the bond yield is the risk premium. I estimated  
23 the risk premium on an annual basis for each year over the period 1986 through year-



1 end 2000. The required returns on common equity were based on regulatory  
2 commission-authorized returns for electric utility companies. Regulatory authorized  
3 returns are a reasonable proxy for estimates of contemporary investor required  
4 returns because authorized returns are typically based on expert witnesses' estimate  
5 of the contemporary investor required return.

6 Based on this analysis, as shown on my Exhibit MPG-1, Schedule 3, the  
7 average indicated equity risk premium of authorized electric utility common equity  
8 returns over U.S. Treasury bond yields has been 4.75%. Of the 15 observations, 11  
9 indicated risk premiums fall in the range of 4.0% to 5.5%. Since the risk premium can  
10 vary depending upon market conditions, I believe using an estimated range of risk  
11 premiums provides the best method to measure the current return on common equity  
12 using this methodology.

13 **Q HOW DID YOU ESTIMATE UE'S COST OF COMMON EQUITY WITH THIS**  
14 **MODEL?**

15 **A** I added to my estimated equity risk premium a projected 30-year Treasury bond yield.  
16 Blue Chip Financial Forecasts projects long-term Treasury bond yields to be 6.2%,  
17 and a 10-year Treasury bond to be 5.8%. I will use an average of the long-term and  
18 ten-year Treasury security returns, or 6.0% in my analysis. Using the average  
19 Treasury bond yield of 6.0%, and an equity risk premium of 4.0% to 5.5%, produces  
20 an estimated common equity return in the range of 10.0% to 11.5%, with a mid-point  
21 estimate at 10.8%.

## CAPITAL ASSET PRICING MODEL

**Q PLEASE DESCRIBE THE CAPM.**

**A** The CAPM method of analysis is based upon the theory that the market required ROR for a security is equal to the risk-free ROR, plus a risk premium associated with the specific security. This relationship between risk and return can be expressed mathematically as follows:

$$R_i = R_f + B_i \times (R_m - R_f) \text{ where:}$$

$R_i$  = Required ROR for stock i

$R_f$  = Risk-free rate

$R_m$  = Expected return for the market portfolio

$B_i$  = Measure of the risk for stock i

The stock specific risk term in the above equation is beta. Beta represents the investment risk that cannot be diversified away when the security is held in a diversified portfolio. When stocks are held in a diversified portfolio, firm-specific risks can be eliminated by balancing the portfolio with securities that react in opposite direction to firm-specific risk factors (e.g., business cycle, competition, product mix and production limitations).

The risks that cannot be eliminated when held in diversified portfolio are nondiversifiable risks. Nondiversifiable risks are related to the market in general and are referred to as systematic risks. Risks that can be eliminated by diversification are regarded as unsystematic risks. In a broad sense, systematic risks are market risks, and unsystematic risks are business risks. The CAPM theory suggests that the market will not compensate investors for assuming risks that can be diversified away. Therefore, the only risk that investors will be compensated for are systematic or nondiversifiable risks. The beta is a measure of the systematic or nondiversifiable risks.

1    **Q     PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.**

2    **A     The CAPM requires an estimate of the market risk-free rate, the company's beta, and**  
3           the market risk premium.

4    **Q     WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE RATE?**

5    **A     I used a 6% yield, which is the average of the Blue Chip Financial Forecast's**  
6           projected long-term Treasury bond yield of 6.2%, and ten year Treasury bond yield of  
7           5.8% (February 1, 2002 at 2).

8    **Q     WHY DID YOU USE TREASURY BOND YIELDS AS AN ESTIMATE OF THE RISK-**  
9           **FREE RATE?**

10   **A     Treasury securities are backed by the full faith and credit of the United States**  
11           government. Therefore, long-term Treasury bonds are considered to have negligible  
12           credit risk. Also, long-term Treasury bonds have an investment horizon similar to that  
13           of common stock. As a result, investor-anticipated long-run inflation expectations are  
14           reflected in both common stock required returns and long-term bond yields.  
15           Therefore, the nominal risk-free rate (or expected inflation rate and real risk-free rate)  
16           included in a long-term bond yield is a reasonable estimate of the nominal risk-free  
17           rate included in common stock returns.

18           Treasury bond yields, however, do include risk premiums related to unantici-  
19           pated future inflation and interest rates. Therefore, a Treasury bond yield is not a  
20           risk-free rate. Risk premiums related to unanticipated inflation and interest rates are  
21           systematic or market risks. Consequently, for companies with betas less than one,  
22           using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis  
23           can produce an overstated estimate of the CAPM return.

**Q WHAT BETA DID YOU USE IN YOUR ANALYSIS?**

A I relied on the group average beta estimate for the comparable group. Group average beta is more reliable than a single company beta and will, therefore, produce a more reliable CAPM estimate.

A group average beta has stronger statistical parameters that better describe the systematic risk of the group, than does an individual company beta. For this reason, a group average beta will produce a more reliable return estimate.

As shown on Exhibit MPG-1, Schedule 8, the group average beta estimate is 0.51.

**Q HOW DID YOU DERIVE YOUR MARKET PREMIUM ESTIMATE?**

A I derived two market premium estimates, a forward-looking estimate and one based on a long-term historical average.

The forward-looking estimate was derived by estimating the expected return on the market (S&P 500) and subtracting the risk-free rate from this estimate. I estimated the expected return on the S&P 500 by adding an expected inflation rate to the long-term historical arithmetic average real return on the market. The real return on the market represents the achieved return above the rate of inflation.

The Ibbotson and Associates' Stocks, Bonds, Bills and Inflation 2002 Year Book publication estimates the historical arithmetic average real market return over the period 1926-2000 as 9.4%. A current consensus analyst inflation projection, as measured by the Consumer Price Index, is 2.5% through 2002 (Blue Chip Financial Forecasts, April 1, 2002). Using these estimates, the expected market return is 12.1%. The market premium then is the difference between the 12.1% expected market return, and my 6.0% risk-free rate estimate, or 6.1%.

1           The historical estimate of the market risk premium was also estimated by  
2 Ibbotson and Associates in the Stock, Bonds, Bills and Inflation, 2002 Year Book.  
3 Over the period 1926 through 2002, Ibbotson's study estimated that the arithmetic  
4 average of the achieved total return on the S&P 500 was 12.7%, and the total return  
5 on long-term Treasury bonds was 5.7%. The indicated equity risk premium is 7.0%  
6  $(12.7\% - 5.7\% = 7.0\%)$ .

7   **Q   WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?**

8   A   As shown on Exhibit MPG-1, Schedule 9, based on the prospective market risk  
9 premium estimate of 6.1% and the historical estimate of 7.0%, the CAPM estimated  
10 return on equity is between 9.1% and 9.6%. I will rely on the high end result, 9.6%,  
11 as a conservative estimate using this analysis.

12   **RETURN ON EQUITY SUMMARY**

13   **Q   BASED ON THE RESULTS OF YOUR RATE OF RETURN ON COMMON EQUITY**  
14   **ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO**  
15   **YOU RECOMMEND FOR UE?**

16   A   Based on my analyses, I estimated an appropriate return on equity for UE in the  
17 range of 9.6% to 11.2%, with a mid-point estimate of 10.4%. The high end of my  
18 estimated range, 11.2%, is based on my DCF analyses and risk premium, and the  
19 bottom of my range is based on my CAPM analysis.

20           My recommended rate of return on common equity should again only be used  
21 with my recommended capital structure for UE. If the Commission adopts UE's actual  
22 capital structure, then I believe my recommended return on common equity would be  
23 too high and would provide unreasonable compensation to UE. I reached this

Michael Gorman  
Page 25

1 conclusion based on my findings above that UE's capital structure is over-weighted  
2 with common equity and is therefore unreasonable. If the Commission finds UE's  
3 actual capital structure to be reasonable, I believe Staff witness Bible's recommended  
4 return on common equity is reasonable for UE in this proceeding.

Table 4	
<u>Return on Common Equity Summary</u>	
<u>Description</u>	<u>Percent</u>
Constant Growth DCF	11.2%
Risk Premium	10.8%
CAPM	9.6%

5 **RATE OF RETURN SUMMARY**

6 **Q WHAT IS YOUR RATE OF RETURN RECOMMENDATION FOR AMERENUE IN**  
7 **THIS PROCEEDING?**

8 A I recommend setting AmerenUE's return on common equity at the mid-point of my  
9 range, or 10.4%. I recommend developing Ameren's overall rate of return using my  
10 adjusted capital structure with a common equity ratio that reflects the mid-point of  
11 Standard & Poor's debt ratio range of 43.0% to 49.5%. This produces a common  
12 equity ratio of 51.2%, and an overall rate of return of 8.67%. My recommended  
13 overall rate of return for AmerenUE is shown on my Exhibit MPG-1, Schedule 10, and  
14 was developed on my Schedules 3 and 4.

15 **Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

16 A Yes, it does.

### Qualifications of Michael Gorman

1    **Q     PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2    **A     Michael P. Gorman. My business mailing address is P. O. Box 412000, 1215 Fern**  
3       **Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000.**

4    **Q     PLEASE STATE YOUR OCCUPATION.**

5    **A     I am a consultant in the field of public utility regulation and a principal with Brubaker &**  
6       **Associates, Inc., energy, economic and regulatory consultants.**

7    **Q     PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK**  
8       **EXPERIENCE.**

9    **A     In 1983 I received a Bachelors of Science Degree in Electrical Engineering from**  
10       **Southern Illinois University, and in 1986, I received a Masters Degree in Business**  
11       **Administration with a concentration in Finance from the University of Illinois at**  
12       **Springfield. I have also completed several graduate level economics courses.**

13                In August of 1983, I accepted an analyst position with the Illinois Commerce  
14       Commission (ICC). In this position, I performed a variety of analyses for both formal  
15       and informal investigations before the ICC, including: marginal cost of energy, central  
16       dispatch, avoided cost of energy, annual system production costs, and working  
17       capital. In October of 1986, I was promoted to the position of Senior Analyst. In this  
18       position, I assumed the additional responsibilities of technical leader on projects, and  
19       my areas of responsibility were expanded to include utility financial modeling and  
20       financial analyses.

1           In 1987, I was promoted to Director of the Financial Analysis Department. In  
2           this position, I was responsible for all financial analyses conducted by the staff.  
3           Among other things, I conducted analyses and sponsored testimony before the ICC  
4           on rate of return, financial integrity, financial modeling and related issues. I also  
5           supervised the development of all Staff analyses and testimony on these same  
6           issues. In addition, I supervised the Staff's review and recommendations to the  
7           Commission concerning utility plans to issue debt and equity securities.

8           In August of 1989, I accepted a position with Merrill-Lynch as a financial  
9           consultant. After receiving all required securities licenses, I worked with individual  
10          investors and small businesses in evaluating and selecting investments suitable to  
11          their requirements.

12          In September of 1990, I accepted a position with Drazen-Brubaker &  
13          Associates, Inc. In April 1995 the firm of Brubaker & Associates, Inc. (BAI) was  
14          formed. It includes most of the former DBA principals and Staff. Since 1990, I have  
15          performed various analyses and sponsored testimony on cost of capital, cost/benefits  
16          of utility mergers and acquisitions, utility reorganizations, level of operating expenses  
17          and rate base, cost of service studies, and analyses relating industrial jobs and  
18          economic development. I also participated in a study used to revise the financial  
19          policy for the municipal utility in Kansas City, Kansas.

20          At BAI, I also have extensive experience working with large energy users to  
21          distribute and critically evaluate responses to requests for proposals (RFPs) for  
22          electric, steam, and gas energy supply from competitive energy suppliers. These  
23          analyses include the evaluation of gas supply and delivery charges, cogeneration  
24          and/or combined cycle unit feasibility studies, and the evaluation of third-party  
25          asset/supply management agreements. I have also analyzed commodity pricing



1 indices and forward pricing methods for third party supply agreements. Continuing, I  
2 have also conducted regional electric market price forecasts.

3 In addition to our main office in St. Louis, the firm also has branch offices in  
4 Kerrville, Texas; Plano, Texas; Asheville, North Carolina; Denver, Colorado; and  
5 Chicago, Illinois.

6 **Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?**

7 A Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of  
8 service and other issues before the regulatory commissions in Arizona, Delaware,  
9 Florida, Georgia, Illinois, Indiana, Michigan, Missouri, New Mexico, Oklahoma,  
10 Tennessee, Texas, Utah, Vermont, West Virginia, Wisconsin and Wyoming. I have  
11 also sponsored testimony before the Board of Public Utilities in Kansas City, Kansas;  
12 presented rate setting position reports to the regulatory board of the municipal utility  
13 in Austin, Texas, and Salt River Project, Arizona, on behalf of industrial customers;  
14 and negotiated rate disputes for industrial customers of the Municipal Electric  
15 Authority of Georgia in the LaGrange, Georgia district.

16 **Q PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR ORGANIZA-**  
17 **TIONS TO WHICH YOU BELONG.**

18 A I earned the designation of Chartered Financial Analyst (CFA) from the Association  
19 for Investment Management and Research (AIMR). The CFA charter was awarded  
20 after successfully completing three examinations which covered the subject areas of  
21 financial accounting, economics, fixed income and equity valuation and professional  
22 and ethical conduct. I am a member of AIMR's Financial Analyst Society.

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# AmerenUE

## Staff's Proposed Capital Structure

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	Percentage of <u>Total</u> (2)	<u>Cost</u> (3)	Weighted <u>Cost</u> (4)	Pre-Tax Weighted <u>Cost</u> (5)
1	Common Equity	2,603,364	59.1%	9.91	5.85	9.51
2	Preferred Stock	155,197	3.5%	5.72	0.20	0.33
3	Long-Term Debt	1,648,373	37.4%	6.82	2.55	2.55
4	Short-Term Debt	-	0.0%		-	-
5	Total	4,406,934	100.0%		8.61	12.39
6	Tax Factor	1.6248				

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	Percentage of <u>Total</u> (2)	<u>Cost</u> (3)	Weighted <u>Cost</u> (4)	Pre-Tax Weighted <u>Cost</u> (5)
7	Common Equity	2,603,364	59.1%	8.91	5.26	8.55
8	Preferred Stock	155,197	3.5%	5.72	0.20	0.33
9	Long-Term Debt	1,648,373	37.4%	6.82	2.55	2.55
10	Short-Term Debt	-	0.0%		-	-
11	Total	4,406,934	100.0%		8.02	11.43
12	Tax Factor	1.6248				

# AmerenUE

## Staff's Proposed Capital Structure With Short-Term Debt

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
1	Common Equity	2,603,364	57.7%	8.91	5.14	8.36
2	Preferred Stock	155,197	3.4%	5.72	0.20	0.32
3	Long-Term Debt	1,648,373	36.6%	6.82	2.49	2.49
4	Short-Term Debt	<u>101,800</u>	<u>2.3%</u>	<u>3.95</u>	<u>0.09</u>	<u>0.09</u>
5	Total	4,508,734	100.0%		7.92	11.26
6	Tax Factor	1.6248				
7	Total Debt Ratio		38.8%			
8	S&P Total Debt Ratio Benchmark		43.0% - 49.5%			
9	Pre-Tax Interest Coverage					4.4
10	S&P Interest Coverage Benchmark					3.3 - 4.0

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
11	Common Equity	2,603,364	57.7%	9.91	5.72	9.30
12	Preferred Stock	155,197	3.4%	5.72	0.20	0.32
13	Long-Term Debt	1,648,373	36.6%	6.82	2.49	2.49
14	Short-Term Debt	<u>101,800</u>	<u>2.3%</u>	<u>3.95</u>	<u>0.09</u>	<u>0.09</u>
15	Total	4,508,734	100.0%		8.50	12.20
16	Tax Factor	1.6248				
17	Total Debt Ratio		38.8%			
18	S&P Total Debt Ratio Benchmark		43.0% - 49.5%			
19	Pre-Tax Interest Coverage					4.7
20	S&P Interest Coverage Benchmark					3.3 - 4.0

**AmerenUE**

**Adjusted Capital Structure - Including Short-Term Debt**  
**With S&P Benchmarks**

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
1	Common Equity	2,416,364	53.6%	9.60	5.14	8.36
2	Preferred Stock	155,197	3.4%	5.72	0.20	0.32
3	Long-Term Debt	1,648,373	36.6%	6.82	2.49	2.49
4	Short-Term Debt	101,800	2.3%	3.95	0.09	0.09
5	Add Long-Term Debt	<u>187,000</u>	<u>4.1%</u>	7.50	0.31	<u>0.31</u>
6	Total	4,508,734	100.0%			11.57
5	Tax Factor	1.6248				
6	Total Debt Ratio		43.0%			
7	S&P Total Debt Ratio Benchmark		43.0% - 49.5%			
8	Pre-Tax Interest Coverage					4.0
9	S&P Interest Coverag Benchmark					3.3 - 4.0

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
10	Common Equity	2,258,364	50.1%	10.40	5.21	8.46
11	Preferred Stock	155,197	3.4%	5.72	0.20	0.32
12	Long-Term Debt	1,648,373	36.6%	6.82	2.49	2.49
13	Short-Term Debt	101,800	2.3%	3.95	0.09	0.09
14	Add Long-Term Debt	<u>345,000</u>	<u>7.7%</u>	7.5	0.57	<u>0.57</u>
15	Total	4,508,734	100.0%			11.94
14	Tax Factor	1.6248				
15	Total Debt Ratio		46.5%			
16	S&P Total Debt Ratio Benchmark		43.0% - 49.5%			
17	Pre-Tax Interest Coverage					3.8
18	S&P Total Debt Ratio Benchmark					3.3 - 4.0

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
19	Common Equity	2,128,364	47.2%	11.20	5.29	8.59
20	Preferred Stock	155,197	3.4%	5.72	0.20	0.32
21	Long-Term Debt	1,648,373	36.6%	6.82	2.49	2.49
22	Short-Term Debt	101,800	2.3%	3.95	0.09	0.09
23	Add Long-Term Debt	<u>475,000</u>	<u>10.5%</u>	7.5	0.79	<u>0.79</u>
24	Total	4,508,734	100.0%			12.28
23	Tax Factor	1.6248				
24	Total Debt Ratio		49.4%			
25	S&P Total Debt Ratio Benchmark		43.0% - 49.5%			
26	Pre-Tax Interest Coverage					3.6
27	S&P Total Debt Ratio Benchmark		43% - 49.5%			3.3 - 4.0

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## Adjusted Capital Structure - Excluding Short-Term Debt

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
1	Common Equity	2,416,364	54.8%	9.60	5.26	8.55
2	Preferred Stock	155,197	3.5%	5.72	0.20	0.33
3	Long-Term Debt	1,648,373	37.4%	6.82	2.55	2.55
4	Add Long-Term Debt	<u>187,000</u>	<u>4.2%</u>	7.50	<u>0.32</u>	<u>0.32</u>
5	Total	4,406,934	100.0%		8.33	11.75
6	Tax Factor	1.6248				

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
7	Common Equity	2,258,364	51.2%	10.40	5.33	8.66
8	Preferred Stock	155,197	3.5%	5.72	0.20	0.33
9	Long-Term Debt	1,648,373	37.4%	6.82	2.55	2.55
10	Add Long-Term Debt	<u>345,000</u>	<u>7.8%</u>	7.50	<u>0.59</u>	<u>0.59</u>
11	Total	4,406,934	100.0%		8.67	12.12
12	Tax Factor	1.6248				

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Percentage of</u> <u>Total</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
13	Common Equity	2,128,364	48.3%	11.20	5.41	8.79
14	Preferred Stock	155,197	3.5%	5.72	0.20	0.33
15	Long-Term Debt	1,648,373	37.4%	6.82	2.55	2.55
16	Add Long-Term Debt	<u>475,000</u>	<u>10.8%</u>	7.50	<u>0.81</u>	<u>0.81</u>
17	Total	4,406,934	100.0%		8.97	12.48
18	Tax Factor	1.6248				

## AmerenUE

### Comparable Group- Electric and Electric & Gas

Line	Utility	At Least 80% Electric Revenues <sup>2</sup>	Bond Ratings <sup>2</sup>		Net Plant Assets \$ MIL	Common Equity Ratios	
		(1)	S&P (2)	Moody's (3)	(4)	Value Line <sup>1</sup> (5)	C.A. Turner <sup>2</sup> (6)
1	Ameren Corporation	92%	A+	Aa2	8,426.6	52%	46%
2	FPL Group Inc.	88%	A	Aa3	11,284.0	58%	47%
3	Great Plains Energy	93%	A	A1	2,623.7	45%	33%
4	NSTAR	84%	A	A3	2,579.5	40%	32%
5	Pinnacle West Capital Corp.	97%	A-	A3	5,620.6	53%	46%
6	Southern Company	87%	A+	A1	22,774.3	42%	38%
7	<b>Average</b>	<b>90%</b>			<b>8,884.8</b>	<b>48%</b>	<b>40%</b>

Sources:

<sup>1</sup> The Value Line Investment Survey, dated February 15, 2002, March 8, 2002 and April 5, 2002.

Value Line excludes short-term debt in calculating the common equity ratio

<sup>2</sup> C.A. Turner Utility Reports, April 2002

C.A. Turner includes short-term debt in calculating the common equity ratio.

Note:

The comparable group includes companies with bond ratings of "A" or better and 80% or higher Elec Rev.

# AmerenUE

## 13-Week Average Stock Price Constant Growth DCF Model

<u>Line</u>	<u>Utility</u>	<u>13 Week Average Price <sup>1</sup></u> (1)	<u>FirstCall Estimated Growth % <sup>2</sup></u> (2)	<u>Annual Dividend <sup>3</sup></u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	Ameren Corporation	41.62	4.5%	2.54	6.4%	10.9%
2	FPL Group Inc.	56.09	7.0%	2.32	4.4%	11.4%
3	Great Plains Energy	24.97	4.5%	1.66	6.9%	11.4%
4	NSTAR	44.02	7.0%	2.12	5.2%	12.2%
5	Pinnacle West Capital Corp.	42.82	7.0%	1.60	4.0%	11.0%
6	Southern Company	25.71	5.0%	1.34	5.5%	10.5%
7	<b>Average</b>	<b>39.21</b>	<b>5.8%</b>	<b>1.93</b>	<b>5.4%</b>	<b>11.2%</b>

Sources:

<sup>1</sup> Stock prices downloaded from Yahoo.com, historical quotes

<sup>2</sup> Long-term growth rates downloaded from ThompsonFN.com, First Call Consensus Estimate

<sup>3</sup> The Value Line Investment Survey, dated February 15, 2002, March 8, 2002 and April 5, 2002.

## AmerenUE

### Equity Risk Premium

<u>Line</u>	<u>Year</u>	<u>Treasury Bond Yield <sup>1</sup></u> (1)	<u>Authorized Electric Returns <sup>2</sup></u> (2)	<u>Indicated Risk Premium</u> (3)
1	1986	7.78%	13.93%	6.15%
2	1987	8.59%	12.99%	4.40%
3	1988	8.96%	12.79%	3.83%
4	1989	8.45%	12.97%	4.52%
5	1990	8.61%	12.70%	4.09%
6	1991	8.14%	12.55%	4.41%
7	1992	7.67%	12.09%	4.42%
8	1993	6.59%	11.41%	4.82%
9	1994	7.37%	11.34%	3.97%
10	1995	6.88%	11.55%	4.67%
11	1996	6.71%	11.39%	4.68%
12	1997	6.61%	11.40%	4.79%
13	1998	5.58%	11.66%	6.08%
14	1999	5.87%	10.77%	4.90%
15	2000	5.94%	11.43%	5.49%
16	<b>Average</b>	<b>7.32%</b>	<b>12.06%</b>	<b>4.75%</b>

Sources:

<sup>1</sup> Economic Report of the President, January, 2001 and the St. Louis Federal Reserve Bank website

<sup>2</sup> Regulatory Research Associates, Inc., Regulatory Focus



## AmerenUE

### Comparable Group Beta

<u>Line</u>	<u>Utility</u>	<u>Value Line</u> <u>Beta <sup>1</sup></u>
1	Ameren Corporation	0.55
2	FPL Group Inc.	0.45
3	Great Plains Energy	0.55
4	NSTAR	0.55
5	Pinnacle West Capital Corp.	0.45
6	Southern Company	NMF
7	<b>Average</b>	<b>0.51</b>

Source:

<sup>1</sup> The Value Line Investment Survey, dated 02/15/02, 03/08/02 and 04/05/02.

## AmerenUE

### CAPM Return Estimate

<u>Line</u>	<u>Description</u>	<u>Historical Premium</u>
1	CAPM	9.6%
2	Rf	6.0%
3	Risk Premium	7.0%
4	Beta	0.51
		<u>Prospective Premium</u>
5	CAPM	9.1%
6	Rf	6.0%
7	Risk Premium	6.1%
8	Beta	0.51
9	CAPM Average	9.3%

Sources:

<sup>1</sup> The Value Line Investment Survey, dated 02/15/02, 03/08/02 and 04/05/02.

SBBI, Ibbotson Associates, 2001 Yearbook

Blue Chip Financial Forecast, 9/1/01

## AmerenUE

### Adjusted Capital Structure Gorman's Recommendation

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	Percentage of <u>Total</u> (2)	<u>Cost</u> (3)	Weighted <u>Cost</u> (4)
1	Common Equity	2,258,364	51.2%	10.4	5.33
2	Preferred Stock	155,197	3.5%	5.72	0.20
3	Long-Term Debt	1,648,373	37.4%	6.82	2.55
4	Add Long-Term Debt	345,000	<u>7.8%</u>	7.5	<u>0.59</u>
5	Total	4,406,934	100.0%		8.67