

**BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

Staff of the Missouri Public Service Commission )  
)  
)  
Complainant, )  
)  
v. )  
)  
Union Electric Company, d/b/a )  
AmerenUE, )  
)  
Respondent. )

Case No. EC-2002-1

**STAFF'S MOTION FOR LEAVE TO CORRECT THE PRE-FILED  
DIRECT TESTIMONY OF STAFF WITNESS RONALD L. BIBLE**

COMES NOW the Staff of the Missouri Public Service Commission ("Staff"), and for its Motion for Leave to Correct the Pre-filed Direct Testimony of Staff Witness Ronald L. Bible, states as follows:

1. Staff witness Ronald L. Bible has discovered errors in the inputs for long-term debt and preferred stock that he used in calculations he relied on for numbers that appear in his direct testimony. Due to these erroneous inputs, numbers appearing at several pages and on several schedules of his pre-filed testimony are incorrect.
2. In addition, the direct testimony as filed includes non-substantive items that need to be corrected, including the inclusion of an extraneous table on Schedule 29.
3. Having identified the need to make these corrections to Mr. Bible's direct testimony and schedules the Staff thought it best to make these corrections at this time. The Staff points out that these corrections result in a change in the weighted cost of capital range recommended by Mr. Bible from 8.14 to 8.72 percent filed on July 2, 2001 to 8.13 to 8.70 percent filed this date.

Exhibit No. 4  
Date 7/10/02 Case No. EC-2002-1  
Reporter KEM

4. The pages of the direct testimony of Staff witness Ronald L. Bible where he would make corrections are denoted as follows: Pages 2, 13, 16, 18, 21, 22, 23, 28, 30 and 31; Schedules 1-1, 9, 10, 11, 12, 17, 18, 23, 25 and 29.

5. Attached hereto are pages to the direct testimony of Staff witness Ronald L. Bible that show, in red text or red strikethrough, the corrections to the direct testimony of Staff witness Ronald L. Bible that he would make. Also accompanying this pleading are an original and eight conformed copies of the direct testimony and schedules of Ronald L. Bible, containing the corrections without red text or red strikethrough. In the original and copies of the complete direct testimony and schedules being filed today, the date "11/01/2001," appears on the bottom left-hand corner of the cover sheet and on the bottom left-hand corner of each page where a correction has been made; this is the testimony that the Staff anticipates offering into evidence as an exhibit at the evidentiary hearing.

**WHEREFORE**, the Staff requests the Commission for leave to make this filing of corrections to the direct testimony of Staff witness Ronald L. Bible that was filed with the Staff's complaint on July 2, 2001.

Respectfully submitted,

DANA K. JOYCE  
General Counsel



Nathan Williams  
Associate General Counsel  
Missouri Bar No. 35512

Attorney for the Staff of the  
Missouri Public Service Commission  
P. O. Box 360  
Jefferson City, MO 65102  
(573) 751-8702 (Telephone)  
(573) 751-9285 (Fax)  
nwilliam@mail.state.mo.us (e-mail)

**Certificate of Service**

I hereby certify that copies of the foregoing have been mailed or hand-delivered to all counsel of record as shown on the attached service list this 1<sup>st</sup> day of November, 2001.

Nathan Williams

**Service List for**  
**Case No. EC-2002-1**  
**Verified: October 30, 2001 (rr)**

**James J. Cook**  
Ameren Services  
P.O. Box 66149 (M/C 1310)  
St. Louis, MO 63166

**Office of the Public Counsel**  
P. O. Box 7800  
Jefferson City, MO 65102

**Robin E. Fulton**  
Schnapp, Fulton, Fall, McNamara & Silvey  
135 E. Main St., P.O. Box 151  
Fredericktown, MO 63645-0151

**Robert C. Johnson**  
**Lisa C. Langeneckert**  
Law Office of Robert C. Johnson  
720 Olive Street, Suite 2400  
St. Louis, MO 63101

**Diana M. Vulysteke**  
Bryan Cave LLP  
One Metropolitan Square  
211 North Broadway, Suite 3600  
St. Louis, MO 63102

**Michael C. Pendergast**  
Laclede Gas Company  
720 Olive Street, Room 1520  
St. Louis, MO 63101

**Robert J. Cynkar**  
**Victor J. Wolski**  
Cooper, Carvin & Rosenthal  
1500 K Street, N.W., Suite 200  
Washington, DC 20005

*Exhibit No.:*  
*Issues:* *Rate of Return*  
*Witness:* *Ronald L. Bible*  
*Sponsoring Party:* *MoPSC Staff*  
*Type of Exhibit:* *Direct Testimony*  
*Case Nos.:* *EC-2002-1*  
*Date Testimony Prepared:* *July 2, 2001*

**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY SERVICES DIVISION**

**REPLACEMENT PAGES**

**TO**

**DIRECT TESTIMONY**

***(RED TEXT & STRIKETHROUGH)***

**OF**

**RONALD L. BIBLE**

**UNION ELECTRIC COMPANY  
d/b/a AMERENUE**

**CASE NO. EC-2002-1**

*Jefferson City, Missouri  
July 2001*

1 Q. Have you previously filed testimony before this Commission?

2 A. Yes. I have testified before the MoPSC a number of times. My testimony  
3 at the MoPSC has addressed issues including rate of return, proposed financings, and  
4 merger and acquisition issues.

5 Q. What is the purpose of your testimony in this case?

6 A. My testimony is presented to provide a recommendation to the  
7 Commission as to a fair and reasonable rate of return (cost of capital) to be applied to the  
8 rate base for Union Electric Company d/b/a AmerenUE (AmerenUE).

9 Q. Have you prepared any schedules to your analysis of the cost of capital for  
10 AmerenUE?

11 A. Yes. I am sponsoring a study entitled "An Analysis of the Cost of Capital  
12 for Union Electric d/b/a AmerenUE, Case No. EC-2002-1" consisting of ~~34~~ 29 schedules  
13 which are attached to this direct testimony (see Schedule 1).

14 Q. What do you conclude is the cost of capital for AmerenUE?

15 A. My analysis leads me to conclude that the cost of capital for AmerenUE is  
16 in the range of ~~8.14~~ 8.13 to ~~8.72~~ 8.70 percent.

17 Q. What range are you proposing for the return on common equity (ROE) for  
18 AmerenUE?

19 A. I estimate AmerenUE's return on common equity to be in the range of  
20 9.04 percent to 10.04 percent with a midpoint of 9.54 percent.

21 **Economic and Legal Rationale for Regulation**

22 Q. Why are the prices charged to customers by utilities such as AmerenUE  
23 regulated?

1           A.     Short-term interest rates, those measured by Three-Month U.S. Treasury  
2 Bills, are expected to be 4.80 percent in 2001, 5.10 percent in 2002 and 5.20 percent in  
3 2003 according to Value Line's predictions. Value Line expects long-term interest rates,  
4 those measured by the Thirty-Year U.S. Treasury Bond, to average 5.50 percent in 2001,  
5 5.80 percent in 2002 and 6.00 percent in 2003. The current rates for the period ending  
6 April 30, 2001 are 3.97 percent for 3-month T-Bills and 5.64 percent for 30-year  
7 T-Bonds, as noted on the Federal Reserve website.

8           Q.     What are the growth expectations for real GDP in the future?

9           A.     Value Line expects real GDP to increase by 1.90 percent in 2001,  
10 3.40 percent in 2002, and by 3.50 percent in 2003. The Budget and Economic Outlook,  
11 Fiscal Years 2002-2011 published by the Congressional Budget Office in January 2001  
12 stated that real GDP is expected to increase by 2.40 percent in 2001, 3.40 percent in 2002  
13 and 3.30 percent in 2003. (See Schedule 7 6.)

14          Q.     Please summarize your projections of the economic conditions that will  
15 affect AmerenUE for the next few years.

16          A.     Considering the previously mentioned sources, inflation is expected to be  
17 in the range of 2.50 to 2.80 percent, increase in real GDP in the range of 1.90 to  
18 3.50 percent and long-term interest rates are expected to range from 5.50 to 6.00 percent.

19          *The Value Line Investment Survey: Selection & Opinion*, April 27, 2001, states that:

20                   **The Federal Reserve Board's recent decision to reduce interest**  
21                   **rates before its May 15<sup>th</sup> Federal Open Market Committee**  
22                   **meeting suggests that the central bank is still worried about the**  
23                   **health of the economy.** Those worries are, in fact, well founded,  
24 as the economy is now showing weakness in such areas as  
25 manufacturing, housing, consumer confidence, and employment.  
26 At the same time, inflation is muted, in part, because companies,  
27 beset by falling demand, are having difficulty raising prices.

1           Q.     What historical financial information have you relied upon for  
2 AmerenUE?

3           A.     Schedules 8 7 and 9 8 present historical capital structures and selected  
4 financial ratios from 1996 to 2000 for AmerenUE. AmerenUE's common equity ratio  
5 has ranged from a high of 57.30 percent to a low of 53.85 percent over the time period of  
6 1996 through 2000. *The Value Line Investment Survey: Ratings & Reports* dated  
7 April 6, 2001, reported that the average common equity ratio (figured excluding  
8 short-term debt) for the electric utility (central) industry for 1999 was 41.90 percent and  
9 estimated to be 44.50 percent, 44.50 percent, 45.00 percent for 2000, 2001, 2002,  
10 respectively, and 47.5 percent for the period 2004 to 2006. According to Standard &  
11 Poor's Corporation: *Ratings Direct*, dated November 10 2001, "UE's common equity  
12 layer remains strong at about 53 percent of total capital."

13                 AmerenUE's reported return on year-end common equity (ROE) has  
14 fluctuated during this time period ranging from a low of 12.38 percent in 1996 to a high  
15 of ~~14.00~~ 14.60 percent in 2000 (see Schedule 9 8). AmerenUE's ROE of 14.60 percent for 2000  
16 is above the estimated average of 12.50 percent for the electric utility (central) industry  
17 according to *The Value Line Investment Survey: Ratings & Reports*, April 6, 2001. *The*  
18 *Value Line Investment Survey: Ratings & Reports*, April 6, 2001 estimates that Ameren's  
19 return on equity for 2001 will be 14.00 percent. AmerenUE's market-to-book ratio has  
20 varied from a low of 1.46 times in 1999 to a high of 1.99 in year 2000 (see Schedule 9 8).

21 **Determination of the Cost of Capital**

22           Q.     Please describe your approach for determining a utility company's cost of  
23 capital.



1 consolidated corporation, consisting of its operating divisions and its subsidiaries.  
2 Therefore, in order to analyze AmerenUE's divisional cost of capital, an investor must  
3 derive AmerenUE's divisional cost of capital from Ameren's overall cost of capital.

4 Q. What capital structure have you employed in developing a weighted cost  
5 of capital for AmerenUE?

6 A. I employed AmerenUE's capital structure as of June 30, 2000, which is  
7 the end of the test year period, and as of December 31, 2000, which is the end of the  
8 update period. Schedules ~~40~~ 9 and ~~44~~ 10 present AmerenUE's capital structure and associated  
9 capital ratios. The resulting capital structure consists of ~~56.45~~ 53.66 percent common stock  
10 equity, ~~3.63~~ 3.44 percent preferred stock and ~~39.92~~ 42.90 percent long-term debt for June 2000, and  
11 ~~58.09~~ 57.30 percent common stock equity, ~~3.48~~ 3.46 percent preferred stock and ~~38.52~~ 39.24 percent  
12 long-term debt for December 2000.

13 It is the Staff's opinion that only the short-term debt that exceeds the  
14 amount of construction work in progress (CWIP) should be included in the capital  
15 structure. An assumption is made that CWIP, which is not yet included in rate base, is  
16 financed with short-term debt. In this case, AmerenUE's CWIP at June 30, 2000 and  
17 December 31, 2000 exceeded the amount of short-term debt; therefore, no short-term  
18 debt is being included in the capital structure.

19 Q. What was the embedded cost of long-term debt for AmerenUE on  
20 June 30, 2000 and December 31, 2000?

21 A. I determined the embedded cost of long-term debt, for AmerenUE to be  
22 6.95 percent on June 30, 2000 and 7.04 percent on December 31, 2000. I arrived at these  
23 figures by adopting AmerenUE's response to Staff Data Request No. 3802.

- 1                   3. Constant payout ratio,
- 2                   4. Payout of less than 100% earnings,
- 3                   5. Constant price/earnings ratio,
- 4                   6. Constant growth in cash dividends,
- 5                   7. Stability in interest rates over time,
- 6                   8. Stability in required rates of return over time; and
- 7                   9. Stability in earned returns over time.

8                   The DCF method also assumes that an investor's growth horizon is  
9 unlimited and that earnings, book values and market prices grow hand-in-hand. Even  
10 though the entire list of above assumptions is rarely met, the DCF model is a reasonable  
11 working model describing an actual investor's expectations and resulting behaviors.

12               Q.     Can you directly analyze the cost of equity for AmerenUE?

13               A.     No. In order to arrive at a company-specific DCF result, the company  
14 must have common stock that is publicly-traded and must pay dividends. AmerenUE's  
15 stock is not publicly traded. However, Ameren Corporation, AmerenUE's parent  
16 company, is publicly traded on the New York Stock Exchange under the ticker symbol of  
17 "AEE." Therefore, I used Ameren as a surrogate for AmerenUE in the DCF model.

18               Q.     Please explain how you determined for Ameren a value range for the  
19 growth term of the DCF formula.

20               A.     I reviewed Ameren's actual dividends per share (DPS), earnings per share  
21 (EPS) and book values per share (BVPS) as well as projected growth rates for Ameren.  
22 Schedule 43 11 lists annual compound growth rates calculated for DPS, EPS and BVPS for  
23 the periods of 1990 through 2000 and 1995 through 2000. Schedule 44 12 presents the  
24

1 historical DPS, EPS and BVPS growth rates and projected growth rates for Ameren. The  
2 projected growth rates were obtained from two outside sources. I/B/E/S Inc.'s  
3 *Institutional Brokers Estimate System*, March 15, 2001, projects a five-year growth in  
4 EPS of 3.00 percent for Ameren. Standard & Poor's Corporation's *Earnings Guide*,  
5 April 2001, projects a five-year EPS growth rate of 4.00 percent for Ameren. The  
6 average of the two outside sources produces a projected EPS growth rate of 3.50 percent.  
7 Combining the average of the historical DPS, EPS and BVPS of 1.52 percent with the  
8 projected EPS growth rates produces a reasonable growth rate range of 2.00 to 3.00  
9 percent. This range of growth (g) is the range that I used in the DCF model to calculate a  
10 cost of common equity for Ameren. (see Schedules 15 and 16)

11 Q. Please explain how you determined for Ameren the yield term of the DCF  
12 formula.

13 A. The expected yield term ( $D_1/P_0$ ) of the DCF model is calculated by  
14 dividing the amount of common dividends per share expected to be paid over the next 12  
15 months ( $D_1$ ) by the current market price per share of the firm's common stock ( $P_0$ ). Even  
16 though the model requires the use of a current or spot market price, I have chosen to use a  
17 monthly high/low average market price of Ameren's common stock for the period of  
18 January 1, 2000, through June 30, 2000 and July 1, 2000 through December 31, 2000 to  
19 represent separately the test year and update periods. This averaging technique is an  
20 attempt to minimize the effects on the dividend yield, which can occur due to daily  
21 volatility in the stock market.

22 Schedule ~~15~~ 13 presents the monthly high/low average stock market prices  
23 from January 1, 2000, through June 30, 2000. Ameren's common stock price has ranged

1 from a low of \$27.563 per share to a high of \$38.000 per share for this time period. This  
2 has produced a range for the monthly average high/low market price of \$29.376 to  
3 \$36.157 per share and reflects recent market conditions for the price term ( $P_0$ ) in the DCF  
4 model.

5 Schedule ~~45~~ 14 presents the monthly high/low average stock market prices  
6 from July 1, 2000, through December 31, 2000. Ameren's common stock price has  
7 ranged from a low of \$34.063 per share to a high of \$46.930 per share for this time  
8 period. This has produced a range for the monthly average high/low market price of  
9 \$35.532 to \$44.900 per share and reflects more recent market conditions for the price  
10 term ( $P_0$ ) in the DCF model.

11 *The Value Line Investment Survey: Ratings & Reports*, April 6, 2001, is  
12 estimating that Ameren's common dividend declared per share will be \$2.54 for 2001 and  
13 \$2.54 for 2002. This compares with the actual dividend Ameren paid in 2000 of \$2.54.  
14 Therefore, I have chosen to use the value of \$2.54 for the amount of common dividends  
15 per share ( $D_1$ ) expected to be paid by Ameren for my analysis.

16 Combining the expected dividend of \$2.54 per share and an average  
17 market price range of \$29.376 to \$36.157 per share produces an expected dividend yield  
18 of 7.71 percent for June 30, 2000.

19 Combining the expected dividend of \$2.54 per share and an average  
20 market price range of \$35.532 to \$44.900 per share produces an expected dividend yield  
21 of 6.36 percent for December 31, 2000.

22 Q. Please summarize the results of your expected dividend yield and growth  
23 rate analysis for the DCF return on common equity for Ameren.

1  
2 5. No Missouri Operations: This criterion eliminated Ameren.

3 On average, this final group of three publicly traded electric utility  
4 companies (comparable electric utility companies) is comparable to Ameren because of  
5 similar business operations and financial conditions. The three comparable electric utility  
6 companies are listed on Schedule 21.

7 Q. Please explain how you approached the determination of the cost of equity  
8 for the comparable electric utility companies.

9 A. I have calculated a DCF cost of equity for each of the three comparable  
10 electric utility companies. The first step was to calculate a growth rate. Basically, I used  
11 the same approach of obtaining a growth rate estimate for the three comparable electric  
12 companies as I used in calculating a growth rate for Ameren (see Schedules 22 and 23).  
13 The comparable electric utility companies' average historical growth rates ranged from  
14 0.06 to 2.99 percent with an overall average of 1.29 percent for the group (Column 1 of  
15 Schedule 23). The projected growth rates ranged from 5.17 to 10.00 percent with an  
16 average of 7.06 percent (Schedule 23). Taking into account the projected and historical  
17 growth rates, a proposed range of growth of 2.61 to 6.50 percent (Column 6 of  
18 Schedule 23) was used in the DCF calculation for the comparable companies. The  
19 growth rate range of 2.00 to 3.00 percent as calculated for Ameren (see Schedule 44 12) falls  
20 within and below the proposed range of growth for the three comparable electric utility  
21 companies.

22 The next step was to calculate an expected dividend yield for each of the  
23 three comparable electric utility companies. Schedule 24 presents the average high/low  
24 stock price for the period of September 1, 2000, through December 31, 2000, for each

1           A.     Yes. A pro forma pre-tax interest coverage calculation was completed for  
2 AmerenUE (see Schedule 27) utilizing the proposed range and midpoint ROE for  
3 Ameren. It reveals that the return on common equity range of 9.04 to 10.04 percent  
4 would yield a pre-tax interest coverage ratio in the range of 4.30 times to 4.65 times.  
5 This interest coverage range is in line with Standard & Poor's range for an "AA to BBB"  
6 rated electric utility company, which is 4.17 to 2.33 times. AmerenUE's midpoint of  
7 4.47 times makes it consistent with an "AA" rating.

8           **Rate of Return for AmerenUE**

9           Q.     Please explain how the returns developed for each capital component are  
10 used in the ratemaking approach you have adopted to be applied to AmerenUE's electric  
11 utility operations.

12          A.     The cost of service ratemaking method was adopted in this case. This  
13 approach develops the public utility's revenue requirement. The cost of service (revenue  
14 requirement) is based on the following components: revenues, prudent operation costs,  
15 rate base and a return allowed on the rate base (see Schedule 28).

16               It is my responsibility to calculate and recommend a rate of return that  
17 should be authorized on the rate base of AmerenUE. Under the cost of service  
18 ratemaking approach, a weighted cost of capital in the range of ~~8.14~~ 8.13 to ~~8.72~~ 8.70 percent was  
19 developed for AmerenUE's electric utility operations (see Schedule 29). This rate was  
20 calculated by applying an average embedded cost of long-term debt for June 30, 2000  
21 and December 31, 2000 of 7.00 percent, an embedded cost of preferred stock of 5.72  
22 percent and a return on common equity range of 9.04 to 10.04 percent to a capital  
23 structure consisting of ~~38.52~~ 39.24 percent long-term debt, ~~3.48~~ 3.46 percent preferred stock and

Direct Testimony of  
Ronald L. Bible

1 ~~58.00~~ 57.30 percent common equity. Therefore, as I suggested earlier, I am recommending that  
2 AmerenUE's electric utility operations be allowed to earn a return on its original cost rate  
3 base in the range of ~~8.14~~ 8.13 to ~~8.72~~ 8.70 percent.

4 Through this analysis, I believe I have developed a fair and reasonable rate  
5 of return. My rate of return is based on a return on common equity range of 9.04 to 10.04  
6 percent. My return range is based on the historical and projected economic conditions.  
7 This range is sufficient to assure confidence in the financial soundness of the utility and  
8 will be adequate, under efficient and economical management, to maintain and support its  
9 financial standing, as well as allow AmerenUE the opportunity to earn the revenue  
10 requirement developed in this rate case.

11 Q. Does this conclude your prepared direct testimony?

12 A. Yes, it does.

**AN ANALYSIS OF THE COST OF CAPITAL**

**FOR**

**UNION ELECTRIC COMPANY  
dba AmerenUE**

**CASE NO. EC-2002-1**

**BY**

**RONALD L. BIBLE**

**UTILITY SERVICES DIVISION**

**MISSOURI PUBLIC SERVICE COMMISSION**

**July 2001**



UNION ELECTRIC COMPANY  
d/b/a AmerenUE  
CASE NO. EC-2002-1

**List of Schedules**

Schedule Number	Description of Schedule
1-1	List of Schedules
1-2	List of Schedules (continued)
2-1	Federal Reserve Discount Rate Changes
2-2	Graph of Federal Reserve Discount Rates
3-1	Average Prime Interest Rates
3-2	Graph of Average Prime Interest Rates
4-1	Rate of Inflation
4-2	Graph of Rate of Inflation
5-1	Average Yields on Mergent's Public Utility Bonds
5-2	Average Yields on Thirty Year U.S. Treasury Bonds
5-3	Graph of Average Yields on Mergent's Public Utility Bonds and Thirty Year U.S. Treasury Bonds
5-4	Graph of Monthly Spreads Between Yields on Mergent's Public Utility Bonds and Thirty Year U.S. Treasury Bonds
6	Economic Estimates and Projections, 2001-2003
7	Historical Capital Structures for Union Electric Company
8	Selected Financial Ratios for Union Electric Company (Consolidated Basis)
9	Capital Structure as of June 30, 2000 for Union Electric Company (Consolidated Basis)
10	Capital Structure as of December 31, 2000 for Union Electric Company (Consolidated Basis)
11	Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for Ameren Corporation
12	Historical and Projected Growth Rates for Ameren Corporation
13	Monthly High / Low Average Dividend Yields for Ameren Corporation, January 1, 2000-June 30, 2000
14	Monthly High / Low Average Dividend Yields for Ameren Corporation, July 1, 2000-December 31, 2000
15	Discounted Cash Flow Estimated Cost of Common Equity for Ameren Corporation as of June 30, 2000
16	Discounted Cash Flow Estimated Cost of Common Equity for Ameren Corporation as of December 31, 2000
17	Average Risk Premium Above the Yields of "Aa" Rated Moody's Public Utility Bonds for 30 Year Treasury Bonds for Ameren Corporation's Expected Returns on Common Equity
18	Risk Premium Costs of Equity Estimates for Ameren Corporation
19	Capital Asset Pricing Model (CAPM) Costs of Equity Estimates for Ameren Corporation
20	Criteria for Selecting Comparable Electric Utility Companies
21	The Three Comparable Electric Utility Companies

UNION ELECTRIC COMPANY  
d/b/a AmerenUE  
CASE NO. EC-2002-1

**Capital Structure as of June 30, 2000**  
**for Union Electric Company (Consolidated Basis)**  
(thousands of dollars)

Capital Component	Amount in Dollars	Percentage of Capital
Common Stock Equity	\$2,417,211.0	<del>56.45%</del> 53.66%
Preferred Stock	155,197.0	<del>3.44%</del> 3.44%
Long-Term Debt	<del>1,709,296.0</del> 1,932,444.0	<del>39.92%</del> 42.90%
Short-Term Debt	0	0.00%
<b>Total Capitalization</b>	<b><u><u>\$4,281,704.0</u></u></b> <b>\$4,504,852.0</b>	<b><u><u>100.00%</u></u></b>

**Financial Ratio Benchmarks**  
**Total Debt / Total Capital - Including Preferred Stock**

Standard & Poor's Corporation's Utility Rating Service 7/7/2000	AA	A	BBB
Electric Companies (Average)	49.00%	58.50%	62.43%

Source: Union Electric Company's response to Staff's Data Information Request Nos. 3801 and 3802.

UNION ELECTRIC COMPANY  
d/b/a AmerenUE  
CASE NO. EC-2002-1

**Capital Structure as of December 31, 2000**  
**for Union Electric Company (Consolidated Basis)**  
(thousands of dollars)

Capital Component	Amount in Dollars	Percentage of Capital	
Common Stock Equity	\$2,570,652.0	<del>58.01%</del>	57.30%
Preferred Stock	<del>154,124.0</del> 155,197.0	<del>3.48%</del>	3.46%
Long-Term Debt	<del>1,706,971.0</del> 1,760,439.0	<del>38.52%</del>	39.24%
Short-Term Debt	0	0.00%	
<b>Total Capitalization</b>	<b><u><u>\$4,431,747.0</u></u></b> \$4,486,288.0	<b><u><u>100.00%</u></u></b>	

**Financial Ratio Benchmarks**  
**Total Debt / Total Capital - Including Preferred Stock**

Standard & Poor's Corporation's Utility Rating Service 7/7/2000	AA	A	BBB
Electric Companies (Average)	49.00%	58.50%	62.43%

Source: Union Electric Company's response to Staff's Data Information Request Nos. 3801 and 3802.

UNION ELECTRIC COMPANY  
d/b/a AmerenUE  
CASE NO. EC-2002-1

**Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates  
for Ameren Corporation**

<u>Year</u>	<u>Dividends Per Share</u>	<u>Earnings Per Share</u>	<u>Book Value Per Share</u>	
1990	\$2.10	\$2.74	\$19.79	
1991	\$2.18	\$3.01	\$20.62	
1992	\$2.26	\$2.65	\$21.19	
1993	\$2.34	\$2.77	\$21.60	
1994	\$2.40	\$3.01	\$22.22	
1995	\$2.46	\$2.95	\$22.71	
1996	\$2.51	\$2.86	\$23.06	
1997	\$2.54	\$2.44	\$22.00	
1998	\$2.54	\$2.82	\$22.27	
1999	\$2.54	\$2.81	<del>\$22.55</del>	\$22.52
2000	\$2.54	\$3.33	\$23.30	

**Annual Compound Growth Rates**

	<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>
1990 - 2000	1.92%	1.97%	1.65%
1995 - 2000	0.64%	2.45%	0.51%

UNION ELECTRIC COMPANY  
d/b/a AmerenUE  
CASE NO. EC-2002-1

**Historical and Projected Growth Rates  
for Ameren Corporation**

Historical Growth Rates

DPS Annual Compound Growth (1995 - 2000)	0.64%
DPS Annual Compound Growth (1990 - 2000)	1.92%
BVPS Annual Compound Growth (1995 - 2000)	0.51%
BVPS Annual Compound Growth (1990 - 2000)	1.65%
EPS Annual Compound Growth (1995 - 2000)	2.45%
EPS Annual Compound Growth (1990 - 2000)	1.97%
Average of Historical Growth Rates	1.52%

Projected Growth Rates from Outside Sources

5 Year Growth Forecast ( <del>Mean</del> Median) I/B/E/S Inc.'s Institutional Brokers Estimate System March 15, 2001	3.00%
5-Year Projected EPS Growth Rate Standard & Poor's Corporation's Earnings Guide April 2001	4.00%
Average of Projected Growth Rates	3.50%
Average of historical and projected growth	2.51%

**Proposed Range of Growth  
for Union Electric Company: 2.00% - 3.00%**

Source: See Schedule 11 for Historical Growth Rate Information.

UNION ELECTRIC COMPANY  
d/b/a AmerenUE  
CASE NO. EC-2002-1

Average Risk Premium above the Yields of ~~AAA~~ ~~Rated Moody's Aaa~~ 30 Year Treasury Bonds for  
Ameren Corporation's Expected Return on Common Equity

Mo/Year	AEE's Expected ROE	30-Year U.S. Treasury Bond Yields	AEE's Risk Premium	Mo/Year	AEE's Expected ROE	30-Year U.S. Treasury Bond Yields	AEE's Risk Premium
Jan 1991	13.50%	8.27%	5.23%	Jan 1996	11.50%	6.05%	5.45%
Feb	13.50%	8.03%	5.47%	Feb	11.50%	6.24%	5.26%
Mar	13.50%	8.29%	5.21%	Mar	11.50%	6.60%	4.90%
Apr	13.00%	8.21%	4.79%	Apr	13.00%	6.79%	6.21%
May	13.00%	8.27%	4.73%	May	13.00%	6.93%	6.07%
Jun	13.00%	8.47%	4.53%	Jun	13.00%	7.06%	5.94%
Jul	14.00%	8.45%	5.55%	Jul	13.00%	7.03%	5.97%
Aug	14.00%	8.14%	5.86%	Aug	13.00%	6.84%	6.16%
Sep	14.00%	7.95%	6.05%	Sep	13.00%	7.03%	5.97%
Oct	14.50%	7.93%	6.57%	Oct	13.00%	6.81%	6.19%
Nov	14.50%	7.92%	6.58%	Nov	13.00%	6.48%	6.52%
Dec	14.50%	7.70%	6.80%	Dec	13.00%	6.55%	6.45%
Jan 1992	13.50%	7.58%	5.92%	Jan 1997	13.00%	6.83%	6.17%
Feb	13.50%	7.85%	5.65%	Feb	13.00%	6.69%	6.31%
Mar	13.50%	7.97%	5.53%	Mar	13.00%	6.93%	6.07%
Apr	13.00%	7.96%	5.04%	Apr	12.50%	7.09%	5.41%
May	13.00%	7.89%	5.11%	May	12.50%	6.94%	5.56%
Jun	13.00%	7.84%	5.16%	Jun	12.50%	6.77%	5.73%
Jul	13.00%	7.60%	5.40%	Jul	13.00%	6.51%	6.49%
Aug	13.00%	7.39%	5.61%	Aug	13.00%	6.58%	6.42%
Sep	13.00%	7.34%	5.66%	Sep	13.00%	6.50%	6.50%
Oct	12.50%	7.53%	4.97%	Oct	13.00%	6.33%	6.67%
Nov	12.50%	7.61%	4.89%	Nov	13.00%	6.11%	6.89%
Dec	12.50%	7.44%	5.06%	Dec	13.00%	5.99%	7.01%
Jan 1993	13.00%	7.34%	5.66%	Jan 1998	12.50%	5.81%	6.69%
Feb	13.00%	7.09%	5.91%	Feb	12.50%	5.89%	6.61%
Mar	13.00%	6.82%	6.18%	Mar	12.50%	5.95%	6.55%
Apr	12.50%	6.85%	5.65%	Apr	12.00%	5.92%	6.08%
May	12.50%	6.92%	5.58%	May	12.00%	5.93%	6.07%
Jun	12.50%	6.81%	5.69%	Jun	12.00%	5.70%	6.30%
Jul	12.50%	6.63%	5.87%	Jul	11.50%	5.68%	5.82%
Aug	12.50%	6.32%	6.18%	Aug	11.50%	5.54%	5.96%
Sep	12.50%	6.00%	6.50%	Sep	11.50%	5.20%	6.30%
Oct	13.50%	5.94%	7.56%	Oct	12.00%	5.01%	6.99%
Nov	13.50%	6.21%	7.29%	Nov	12.00%	5.25%	6.75%
Dec	13.50%	6.25%	7.25%	Dec	12.00%	5.06%	6.94%
Jan 1994	13.50%	6.29%	7.21%	Jan 1999	13.00%	5.16%	7.84%
Feb	13.50%	6.49%	7.01%	Feb	13.00%	5.37%	7.63%
Mar	13.50%	6.91%	6.59%	Mar	13.00%	5.58%	7.42%
Apr	13.50%	7.27%	6.23%	Apr	13.00%	5.55%	7.45%
May	13.50%	7.41%	6.09%	May	13.00%	5.81%	7.19%
Jun	13.50%	7.40%	6.10%	Jun	13.00%	6.04%	6.96%
Jul	13.00%	7.58%	5.42%	Jul	13.00%	5.98%	7.02%
Aug	13.00%	7.49%	5.51%	Aug	13.00%	6.07%	6.93%
Sep	13.00%	7.71%	5.29%	Sep	13.00%	6.07%	6.93%
Oct	13.50%	7.94%	5.56%	Oct	13.00%	6.26%	6.74%
Nov	13.50%	8.08%	5.42%	Nov	13.00%	6.15%	6.85%
Dec	13.50%	7.87%	5.63%	Dec	13.00%	6.35%	6.65%
Jan 1995	12.50%	7.85%	4.65%	Jan 2000	13.50%	6.63%	6.87%
Feb	12.50%	7.61%	4.89%	Feb	13.50%	6.23%	7.27%
Mar	12.50%	7.45%	5.05%	Mar	13.50%	6.05%	7.45%
Apr	12.50%	7.36%	5.14%	Apr	13.50%	5.85%	7.65%
May	12.50%	6.95%	5.55%	May	13.50%	6.15%	7.35%
Jun	12.50%	6.57%	5.93%	Jun	13.50%	5.93%	7.57%
Jul	12.00%	6.72%	5.28%	Jul	13.50%	5.85%	7.65%
Aug	12.00%	6.86%	5.14%	Aug	13.50%	5.72%	7.78%
Sep	12.00%	6.55%	5.45%	Sep	13.50%	5.83%	7.67%
Oct	12.00%	6.37%	5.63%	Oct	14.00%	5.80%	8.20%
Nov	12.00%	6.26%	5.74%	Nov	14.00%	5.78%	8.22%
Dec	12.00%	6.06%	5.94%	Dec	14.00%	5.49%	8.51%

Summary Information (Jan 1991 - Dec 2000)

Sources: The Value Line Investment Survey: Ratings & Reports  
St. Louis Federal Reserve Website: <http://www.stls.frb.org/fred/data/irates/ga30>

Average Risk Premium: 6.20%

High Risk Premium: 8.51%

Low Risk Premium: 4.53%

UNION ELECTRIC COMPANY  
d/b/a AmerenUE  
CASE NO. EC-2002-1

**Risk Premium Costs of Equity Estimates  
for Ameren Corporation**

AEE's Cost of Common Equity		30-Year U.S. Treasury Bond (December 11, 2000)		Equity Risk Premium (1/90 - 12/00)
11.74%	=	5.54%	+	6.20%

**Risk Premium Approach**

The risk premium approach is based upon the proposition that common stocks are more risky than debt and, as a result, investors require a higher expected return on stocks than bonds. In this approach, the cost of common equity is computed by the following formula:

$$\begin{array}{ccccc} \text{Common} & & \text{Current} & & \text{Equity Risk} \\ \text{Equity} & = & \text{Cost of Debt} & + & \text{Premium} \end{array}$$

where:

The Current Cost of Debt is represented by the yield on 30-Year U.S. Treasury Bonds,  
The appropriate rate was determined by using the yield on U.S. Treasury Bonds on December 11, 2000

The Equity Risk Premium represents the difference between AEE's expected return on common equity (ROE) as projected in the Value Line Investment Survey and the yield on U.S. Treasury Bonds on December 11, 2000. The appropriate Equity Risk Premium was determined to be the average risk premium for the period January 1990 through December 2000. See Schedule 17 for the calculation of the Equity Risk Premium of 6.20%.

UNION ELECTRIC COMPANY  
d/b/a AmerenUE  
CASE NO. EC-2002-1

**Historical and Projected Growth Rates  
for the Three Comparable Electric Utility Companies**

	(1)	(2)	(3)	(4)	(5)	(6)
Company Name	Average 10 Year Annual Compound Growth	Projected 5 Year IBES (Median) Growth	Projected 5 Year EPS Growth (S&P)	Projected 3-5 Year EPS Growth Value Line	Average Projected Growth	Average of Historical & Projected Growth
Cinergy	0.06%	5.00%	5.00%	5.50%	5.17%	2.61%
Constellation Energy Group	2.99%	9.00%	8.00%	13.00%	10.00%	6.50%
Potomac Electric Power	0.82%	6.00%	5.00%	7.00%	6.00%	3.41%
<b>Average</b>	<b>1.29%</b>	<b>6.67%</b>	<b>6.00%</b>	<b>8.50%</b>	<b>7.06%</b>	<b>4.17%</b>

Notes: Column 5 = [ ( Column 2 + Column 3 + Column 4 ) / 3 ].

~~Notes: Column 5 = [ ( Column 2 + Column 3 + Column 4 ) / 4 ].~~

Column 6 = [ ( Column 1 + Column 5 ) / 2 ].

Sources: Column 1 = Average of 10 Year Annual Compound Growth Rates from Schedule 22.

Column 2 = I/B/E/S Inc.'s Institutional Brokers Estimate System, March 15, 2001.

Column 3 = Standard & Poor's Corporation's Earnings Guide, April 2001.

Column 4 = Value Line Investment Survey, Ratings & Reports, January 5 and March 9, 2001.



UNION ELECTRIC COMPANY  
d/b/a AmerenUE  
CASE NO. EC-2002-1

**DCF Estimated Costs of Common Equity  
for the Three Comparable Electric Utility Companies**

	(1)	(2)	(3)	(4)	(5)
Company Name	Expected Annual Dividend (Avg 2000-2001)	Average High/Low Stock Price	Projected Dividend Yield	Average of Historical & Projected Growth Rate	Estimated Cost of Common Equity
Cinergy	\$1.820	\$31.544	5.77%	2.61%	8.38%
Constellation Energy Group	\$1.680	\$43.301	3.88%	6.50%	10.38%
Potomac Electric Power	\$1.660	\$23.838	6.96%	3.41%	10.37%
Average			<u>5.54%</u>	<u>4.17%</u>	<u>9.71%</u>

Notes: Column 1 = Estimated Dividends Declared per share represents the average actual and projected dividends for 2000 and 2001.

Column 3 = ( Column 1 / Column 2 ).

Column 5 = ( Column 3 + Column 4 ).

Sources: Column 1 = The Value Line Investment Survey: Ratings & Reports, April-January 5 and March 9, 2000.

Column 2 = Schedule 24.

Column 4 = Schedule 23.

UNION ELECTRIC COMPANY  
d/b/a AmerenUE  
CASE NO. EC-2002-1

**Weighted Cost of Capital as of December 31, 2000  
for Union Electric Company (Consolidated Basis)**

Capital Component	Percentage of Capital	Embedded Cost	Weighted Cost of Capital Using Common Equity Return of:		
			9.04%	9.54%	10.04%
Common Stock Equity	<del>58.01%</del> 57.30%	-----	5.18%	5.47%	5.75%
Preferred Stock	<del>3.48%</del> 3.46%	5.72%	0.20%	0.20%	0.20%
Long-Term Debt	<del>38.52%</del> 39.24%	7.00%	2.75%	2.75%	2.75%
Short-Term Debt	0.00%	0.00%	0.00%	0.00%	0.00%
Total	<u><u>100.00%</u></u>		<u><u>8.14%</u></u>	<u><u>8.43%</u></u>	<u><u>8.72%</u></u>
			8.13%	8.42%	8.70%

**ROE Estimates**

	<u>Low</u>	<u>Mid</u>	<u>High</u>
<del>DCF Company Specific</del>	<del>9.71%</del>	<del>10.21%</del>	<del>10.71%</del>
<del>Risk Premium Company</del>		11.74%	
<del>CAPM Company</del>	<del>9.83%</del>	<del>10.27%</del>	<del>10.72%</del>
<del>CAPM Gas Utilities</del>	<del>10.56%</del>	<del>10.13%</del>	<del>9.70%</del>
<del>DCF Gas Utilities</del>		9.71%	
<b>Overall Average</b>		<b>10.46%</b>	