Exhibit No.:

Issues: Witness:

Case Nos.: EC-2002-1

Date Testimony Prepared:

Rate of Return Ronald L. Bible

Sponsoring Party: MoPSC Staff
Type of Exhibit: Direct Testimony

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

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

Economic and Legal Rationale for Regulation

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

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11/01/2001

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- Α. Short-term interest rates, those measured by Three-Month U.S. Treasury Bills, are expected to be 4.80 percent in 2001, 5.10 percent in 2002 and 5.20 percent in 2003 according to Value Line's predictions. Value Line expects long-term interest rates, those measured by the Thirty-Year U.S. Treasury Bond, to average 5.50 percent in 2001, 5.80 percent in 2002 and 6.00 percent in 2003. The current rates for the period ending April 30, 2001 are 3.97 percent for 3-month T-Bills and 5.64 percent for 30-year T-Bonds, as noted on the Federal Reserve website.
 - Q. What are the growth expectations for real GDP in the future?
- Α. Value Line expects real GDP to increase by 1.90 percent in 2001, 3.40 percent in 2002, and by 3.50 percent in 2003. The Budget and Economic Outlook, Fiscal Years 2002-2011 published by the Congressional Budget Office in January 2001 stated that real GDP is expected to increase by 2.40 percent in 2001, 3.40 percent in 2002 and 3.30 percent in 2003. (See Schedule 76.)
- Q. Please summarize your projections of the economic conditions that will affect AmerenUE for the next few years.
- A. Considering the previously mentioned sources, inflation is expected to be in the range of 2.50 to 2.80 percent, increase in real GDP in the range of 1.90 to 3.50 percent and long-term interest rates are expected to range from 5.50 to 6.00 percent. The Value Line Investment Survey: Selection & Opinion, April 27, 2001, states that:

The Federal Reserve Board's recent decision to reduce interest rates before its May 15th Federal Open Market Committee meeting suggests that the central bank is still worried about the health of the economy. Those worries are, in fact, well founded, as the economy is now showing weakness in such areas as manufacturing, housing, consumer confidence, and employment At the same time, inflation is muted, in part, because companies,

beset by falling demand, are having difficulty raising prices.

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

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

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

layer remains strong at about 53 percent of total capital."

Determination of the Cost of Capital

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

varied from a low of 1.46 times in 1999 to a high of 1.99 in year 2000 (see Schedule 9.8).

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

- O. What capital structure have you employed in developing a weighted cost of capital for AmerenUE?
- A. I employed AmerenUE's capital structure as of June 30, 2000, which is the end of the test year period, and as of December 31, 2000, which is the end of the update period. Schedules 10 9 and 11 10 present AmerenUE's capital structure and associated capital ratios. The resulting capital structure consists of 56.45 53.66 percent common stock equity, 3.63 3.44 percent preferred stock and 39.92 42.90 percent long-term debt for June 2000, and 58.00 57.30 percent common stock equity, 3.48 3.46 percent preferred stock and 38.52 39.24 percent long-term debt for December 2000.

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

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

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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. Ever
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 paren
16	company, is publicly traded on the New York Stock Exchange under the ticker symbol o
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 13 11 lists annual compound growth rates calculated for DPS, EPS and BVPS fo
23	the periods of 1990 through 2000 and 1995 through 2000. Schedule 14 12 presents the

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

- Q. Please explain how you determined for Ameren the yield term of the DCF formula.
- A. The expected yield term (D₁/P₀) of the DCF model is calculated by dividing the amount of common dividends per share expected to be paid over the next 12 months (D₁) by the current market price per share of the firm's common stock (P₀). Even though the model requires the use of a current or spot market price, I have chosen to use a monthly high/low average market price of Ameren's common stock for the period of January 1, 2000, through June 30, 2000 and July 1, 2000 through December 31, 2000 to represent separately the test year and update periods. This averaging technique is an attempt to minimize the effects on the dividend yield, which can occur due to daily volatility in the stock market.

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

Direct Testimony of Ronald L. Bible

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

Schedule $\frac{15}{14}$ presents the monthly high/low average stock market prices from July 1, 2000, through December 31, 2000. Ameren's common stock price has ranged from a low of \$34.063 per share to a high of \$46.930 per share for this time period. This has produced a range for the monthly average high/low market price of \$35.532 to \$44.900 per share and reflects more recent market conditions for the price term (P_0) in the DCF model.

The Value Line Investment Survey: Ratings & Reports, April 6, 2001, is estimating that Ameren's common dividend declared per share will be \$2.54 for 2001 and \$2.54 for 2002. This compares with the actual dividend Ameren paid in 2000 of \$2.54. Therefore, I have chosen to use the value of \$2.54 for the amount of common dividends per share (D₁) expected to be paid by Ameren for my analysis.

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

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

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

5. No Missouri Operations: This criterion eliminated Ameren.

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

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

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

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

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

Rate of Return for AmerenUE

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

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

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

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

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

- Q. Does this conclude your prepared direct testimony?
- A. Yes, it does.

AN ANALYSIS OF THE COST OF CAPITAL

FOR

UNION ELECTRIC COMPANY dba AmerenUE

CASE NO. EC-2002-1

 \mathbf{BY}

RONALD L. BIBLE

UTILITY SERVICES DIVISION

MISSOURI PUBLIC SERVICE COMMISSION

July 2001

List of Schedules

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1-2	List of Schedules (continued)
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18	Risk Premium Costs of Equity Estimates for Ameren Corporation
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21	The Three Comparable Electric Utility Companies

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	56.45% 53.66%
Preferred Stock	155,197.0	3.44% 3.44%
Long-Term Debt	1,709.296.0 1,932,444.0	39.92% 42.90%
Short-Term Debt	0	0.00%
Total Capitalization	\$4,281,704.0 \$4,504,852.0	100.00%

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	49.00%	58.50%	62.43%
(Average)			

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

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		58.01%	57.30%
Preferred Stock	154,124.0	155,197.0	3.48%	3.46%
Long-Term Debt	1,706,971.0	1,760,439.0	38.52%	39.24%
Short-Term Debt	0		0.00%	
Total Capitalization	\$4,431,747.0	\$4,486,288.0	100.00%	

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

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

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

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

	Dividends	Earnings	Book Value
<u>Year</u>	Per Share	Per Share	Per Share
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	\$22.55 \$22.52
2000	\$2.54	\$3.33	\$23.30

Annual Compound Growth Rates

	DPS	EPS	BVPS
1990 - 2000	1.92%	1.97%	1.65%
1995 - 2000	0.64%	2.45%	0.51%

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 (Mean 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
Uba Amerence
CASE NO EC.2002-1

Average Risk Premium above the Yields oC.va." Rand Mondy's Litilly,30 Year Treasury Bonds for Anderea Corporation's Expected Return on Common Equity

ABE's	Risk	Premium	5 4 5 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5	1 90%	6.21%	6 ()7%	5 97%	6 16%	\$ 97%	961.9	6 52%	6.45%	%/ c	20.20	* IT S	5.56%	5 73%	7.6† 9	9,574.9	6 50%	5.67%	%68 9	7 01%	0.69	% 10 0	4000	6.07%	6 30%	5 82%	2 %%	6 30%	****	6.737	7.84%	7.63%	7 42%	7 45%	7 19%	i i	, 02% , 01%	6 93%	6 74%	6.85%	6.65%	6.87%	7.27%	7.45%	7 1582	7 57%	7 65%	7 78%	7.67%	8.20%	8 22.6	8.51% 8.51%
30-Year U.S. Treasury	Bond	Vicids	0.00%	5,000	6.70%	976	7 03%	0 84%	7 03%	6.81%	0.48%	6.55%	0.83%	2000	7.00	6 94%	6.77%	6 51%	6.58%	%05 9	6.33%	%11.9	2 99%	286%	2016	5.92%	5.93%	5.70%	5 68%	5.54%	%07.5 01.5	0.01% 0.01%	 	\$ 16%	5 37%	2 58%	\$ 55%	581%	× 200	5 07% A 07%	6.07%	6.26%	6.15%	6.35%	6.63%	6 23%	5.03%	5.63%	\$ 91%	5.85%	5.72%	5.83%	5.80%	5.78%	2.49%
AEE's	Expected	ROE	1 50°	11 50%	00 £1	2 000 E	13 00%	13 00%	13 00%	13.00%	%00 FI	%00 F1	13.00%	%00 F	12.50%	12.50%	12.50%	13 00%	13 00%	13.00% 	3.00%	3 00%	*00.E1	5.50%	12.50%	12.00%	12.00%	12.00%	11 50%	20%	30%	17.00%	%00°1	13.00%	13.00%	13 00%	13 00%	% 00 5 00 5	*00 E	1 00%	13 00%	13 00%	13.00%	13.00%	13.50%	13.50%	13.50%	5 20%	705	13.50%	13 50%	13 50%	14 00%	14.00%	14 00%
		No Year	Feb	۲ ۲	PQ.	yeay.	Ę	Aug	Sep	Oct	ð. (- C4	1	N. P. N.	A Dr	May	Jun	Į.	Aug.	Sep.	5 :	, 0V.	30.00	14.7 4.4.7	Z Z	υdγ	νς. V	Jun	[n]	Aug.	0 5	20 20		6661 ng/	Feb	Z.	id (ye v	5 3	A Aug	g es	0	Nov	ž	Jan 2000	6 3	E 4	ž Š	i n	Ę	Aug	c _s	ö:	Š.	8
AEE's	Risk	Premium	2 47%	5.21%	4 70%	25.6	5 55%	\$ 86%	6 05%	6 57%	\$ 285 ¢	5 0 76%	\$50.5	5 53%	\$ 04%	\$ 11 <i>%</i>	\$ 16%	2 10%	5.61%	\$ 55%	*46.	%68 T	- 00°	%10 S	0.18%	5.65%	5.58%	5.69%	5.87%	6 18%	2 56%	7.00.7	7.25%	7.21%	7.01%	6.59%	6.23%	\$ 60 a	\$ 1.0 ×	5.51%	\$ 19%	5.56%	5.42%	5.63%	165%	\$ 28 C S	5 14%	2 5 5 %	\$ 93%	5.28%	2 14%	5,45%	5.63%	5 74%	2.36%
30-Year U.S. Freasury	Bond	Yields	8 03%	8.29%	% [8	%2-7-80 8-7-1-80	8.45%	8.14%	7 95%	7 93%	7.72%	7.58%	7.85%	7.97%	7 96%	7 89%	7 84%	7 60%	7.39%	7 3 4%	%FC /	% P P P	18 T	7.00%	6.82%	6 85%	6.92%	6.81%	663%	6.32%	\$ 94%	6.21%	6.25%	6.29%	6.19%	6.91%	7.27%	7 10%	7.58%	7 49%	7.71%	7 94%	8.08%	7.87%	7 85%	20 F	7.36%	%56.9	6 57%	6.72%	6.86%	6.55%	6.37%	6.26%	
AEE's	Expected	ROE	13.50%	13 50%	13.00%	13.00%	14 00%	14 00%	%00°+	14.50%	500 14.50%	3.50%	13.50%	13.50%	13.00%	13 00%	13.00%	13.00%	3005	13.00%	200	2000 C	11.00%	13.00%	13.00%	12.50%	12.50%	12.50%	12.50%	2.50% 12.50%	3 50%	13.50%	13.50%	13.50%	13.50%	13.50%	2.50%	305.51	11.00%	13 00%	13.00%	13.50%	13.50%	3.50%	12.50%	2 508	208.5	2.50%	12.50%	12.00%	12.00%	12.00%	12.00%	12:00%	17.00%
	;	Mo.Year	5	X	ኳ የ	į	74	3nV	g,	5 3	<u> </u>	Jan 1992	£	Mar	Apr	VeN.	un	2	8nY	e c	5 2	A 6	18 18	Feb	N.	Αp	Ye.	Jun :	<u>s</u> .	Sa C	g g	o Z	ž	Jan 1994	- Feb	N .	10 X	hay	<u> </u>	Aug	S p	oct O	No.)	S 53	2 5	You	A N) M	1	9 n∀	ę,	ë i	Š ć	ś

Uan 1991 - Dec 2000) 6.20% 8 51% 4.53% Sources: The Value Line Investment Survey: Ratings & Reports
St. Louis Federal Reserve Website. http://www.sts.frb.org/fred/data/irates/gs/30 Summary Information High Risk Premium: Low Risk Premium: 11/01/2001

Risk Premium Costs of Equity Estimates for Ameren Corporation

		30-Year		Equity		
AEE's	į	J.S. Treasury		Risk		
Cost of		Bond		Premium		
Common Equity	/ (Dec	ember 11, 2000)		(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:

Common		Current		Equity Risk
Equity	=	Cost of Debt	+	Premium

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.STruesury 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 Invetment 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%.

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

	(1)	(2)	(3)	(4)	(5)	(6)
		Projected	Projected	Projected		
	Average	5 Year	5 Year	3-5 Year		Average of
	10 Year	Growth	EPS	EPS	Average	Historical
	Annual	IBES	Growth	Growth	Projected	& Projected
Company Name	Compound	(Median)	(S&P)	Value Line	Growth	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%
Average	1.29%	6.67%	6.00%	8.50%	7.06%	4.17%

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.

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

	(1)	(2)	(3)	(4)	(5)
	Expected	Average	Projected	Average of Historical & Projected	Estimated Cost of
	Annual	High/Low	Projected Dividend	Growth	Common
	Dividend	Stock			
Company Name	(Avg 2000-2001)	Price	Yield	Rate	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			5.54%	4.17%	9.71%

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.

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

Weighted Cost of Capital Using Common Equity Return of:

Capital Component	Percentage of Capital	Embedded Cost	9.04%	9.54%	10.04%
Common Stock Equity	58.01% 5	57.30%	5.18%	5.47%	5.75%
Preferred Stock	3.48%	3.46% 5.72%	0.20%	0.20%	0.20%
Long-Term Debt	38.52 %	39.24% 7.00%	2.75%.	2.75%	2.75%
Short-Term Debt	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	•	8.14%	8.43%	8.72%
			8.13%	8.42%	8.70%

ROE Estimates

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