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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EC-2002-1

CROSS-SURREBUTTAL TESTIMONY

OF

KATHLEEN C. McSHANE

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a AmerenUE

St. Louis, Missouri
June, 2002

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CROSS-SURREBUTTAL TESTIMONY

OF

KATHLEEN C. McSHANE

CASE NO. EC-2002-1

Q. Please state your name and business address.

A. My name is Kathleen C. McShane. My business address is Foster Associates, Inc., 4550 Montgomery Avenue, Bethesda, Maryland 20814.

Q. Are you the same Kathleen C. McShane who previously filed rebuttal testimony in this proceeding?

A. Yes.

Q. What is the purpose of your cross-surrebuttal testimony?

A. The purpose of my cross-surrebuttal testimony is to respond to the cost of capital testimonies of Mark Burdette (Office of the Public Counsel), and Michael Gorman (Missouri Industrial Energy Consumers).

SUMMARY

Q. Please summarize the recommendations of these two witnesses and your conclusions regarding the reasonableness of their recommendations.

A. Mr. Burdette recommends a return on equity of 9.40% to 9.83% for AmerenUE. Mr. Gorman recommends a return on equity of 10.4%, the mid-point of a 9.6% to 11.2% range. Mr. Gorman also recommends that the MoPSC impute a hypothetical capital structure containing a common equity ratio of 51.2%.

Both Mr. Burdette's and Mr. Gorman's recommended rates of return on equity are well below a just and reasonable level. Correcting Mr. Burdette's and Mr. Gorman's cost of equity tests leads to estimated ROEs of 10.7% to 11.2% and 11.1% to 11.3% respectively. Further, Mr. Gorman's hypothetical capital structure is unwarranted because AmerenUE's actual capital structure is reasonable given UE's risks and other factors.

GENERAL APPROACH

Q. As noted above, Mr. Burdette recommends a return on equity of 9.40% to 9.83%, which is equal to his DCF calculation for Ameren. What is wrong with his approach generally?

A. Similar to Mr. Bible, Mr. Burdette's results are based solely on a single test, the DCF test, applied to a single company, Ameren. I have discussed, in detail, the problems, with this approach in my rebuttal testimony (pages 39-47). The problems include:

(1) no single test is enough to be relied upon exclusively;

(2) potential measurement error when using data for a single company;

(3) circularity in applying the DCF model to the very company whose allowed rate of return is being set.

In addition, many of Mr. Burdette's DCF results are seriously downward biased, in large part due to his use of inappropriate historic growth rates.

Q. Do the same errors occur in Mr. Gorman's testimony?

A. No. Mr. Gorman does not perform an Ameren-only DCF test. His DCF results are based on a sample of electric utilities, and his recommendation, while flawed, explicitly considers the results of his various methodologies. In stark contrast to the calculations of Mr. Bible and Mr. Burdette, Mr. Gorman recognizes the importance of relying on investors' consensus growth forecasts for calculating DCF costs of equity in today's rapidly changing industry. Mr. Gorman's DCF methodology yields an average ROE of 11.2% -- a result that is fully consistent with his CAPM and risk premium methods, once those methods are corrected for obvious errors.

DISCOUNTED CASH FLOW METHOD

Q. What errors have been committed in the witnesses' application of the DCF model?

A. The principal error is Mr. Burdette's reliance on historic growth rates to estimate the DCF cost of equity.

Q. Does Mr. Burdette recognize that historic growth rates may not be representative of investor expectations?

A. Yes. As he states at pages 8-9 of his rebuttal testimony, "Historical growth rates can provide an indication of how the company has done in the past, but they are relevant to a forward-looking cost of capital analysis only to the extent that future economic conditions will mimic historical conditions." (emphasis added).

Further, Mr. Burdette states, "While the retention growth rate can be calculated using historical data on earnings retention and equity returns, this information is relevant only to the extent that it provides a meaningful basis for determining the future

sustainable growth rate. Consequently, projected data on earnings retention and return on book equity are generally more representative of investors' expectations." (page 9, emphasis added).

It is ironic that Mr. Burdette recognizes the problems with using history, but proceeds to rely on it extensively. Mr. Burdette certainly is aware that the electric utility industry is in the process of significant fundamental structural changes that render historical growth rates highly suspect as measures of investor expectations. Further, as I noted in my rebuttal testimony (page 27), to the extent historical growth rates are relevant, analysts already factored them into their forecast growth rates, making reliance on historical growth rates redundant.

In addition to the fundamental changes impacting the entire industry, Mr. Burdette's sample of five electric utilities provides a number of pertinent sample-specific examples of the irrelevance of historic growth rates to investors' forward-looking expectations:

- Southern Company's historic growth rates include the operations of what is now Mirant, spun off in 2000;
- DPL's historic growth rates include its gas distribution business, divested in 2000;
- FirstEnergy reflects a merger between Centerior and Ohio Edison. Value Line specifically says data prior to 1998 reflect Ohio Edison on a stand-alone basis and are not comparable with FirstEnergy data;
- FPL Group has been building its non-regulated power portfolio. Earnings from non-regulated operations, particularly FPL Energy, the independent power

subsidiary of FPL Group, were minor in 1996-1999, but are expected to contribute up to 20% of the company's total earnings by 2003.

Q. What growth rates should be used to capture investor expectations?

A. Analysts' consensus projected growth rates provide the best estimates of investor growth expectations. To quote Mr. Gorman,

> "Security analyst growth estimates have been shown to be more accurate predictors of future returns than growth rates derived from historical data. Because they are more reliable estimates, and assuming the market, in general, makes rational investment decisions, analysts' growth projections are the most likely growth estimates that are built into stock prices." (page 19, lines 13-17).

Q. Are there consensus forecasts available for dividends, book value or sustainable growth?

A. No. The only consensus forecasts available to investors are earnings growth forecasts. For this reason, cost of capital experts typically focus on consensus earnings growth estimates. I note that this is indeed the case in Mr. Gorman's testimony.

Q. Do you have any concerns about Mr. Burdette's use of forecast growth rates?

A. Yes. Mr. Burdette gives too much weight to Value Line forecasts. The Value Line forecasts represent the outlook of a single analyst. Mr. Burdette uses four Value Line forecasts (earnings, dividends, book value and sustainable growth) and a consensus earnings forecast (First Call). The First Call consensus forecast for Ameren reflects seven long-term earnings growth forecasts.

Mr. Burdette averages the Value Line earnings forecast with the First Call consensus earnings forecast to come up with a single earnings growth forecast. That single earnings growth forecast is then given similar weight to the other three Value Line

forecasts (dividends, book value and sustainable growth). Consequently, Mr. Burdette ends up giving the preponderance of weight to the Value Line forecasts.

Q. What is wrong with this approach?

A. As Mr. Gorman explains (page 19, lines 9-12),

> "for purposes of determining the market required return on common equity, one must attempt to estimate what the consensus of investors believe the dividend or earnings growth rate will be, and not what an individual investor or analyst may use to form individual investment decisions." (emphasis added).

The Value Line forecasts are not consensus forecasts; each Value Line forecast represents the views of the same (single) analyst. It is unreasonable to assign the preponderance of weight to the forecasts of a single analyst, as Mr. Burdette does. To ensure that the market consensus view of growth is captured, consensus forecasts should be given preponderant weight.

Q. In addition to the problem of overweighting Value Line growth forecasts, are the other growth rates relied on by Mr. Burdette useful to estimate investor expectations of the constant future growth rate required by the constant growth DCF model?

A. No. The dividend per share growth rates certainly are not. As Mr. Burdette states at page 40 of his testimony,

> "Q. IS HISTORICAL GROWTH IN DIVIDENDS AN ACCURATE INDICATOR OF INVESTORS' GROWTH EXPECTATIONS WHEN THE HISTORICAL PAYOUT RATIO HAS BEEN ERRATIC OR TRENDED DOWNWARD OVER TIME?
> A. As stated, no. It can also be demonstrated that a change in our hypothetical utility's payout ratio makes the past rate of growth in dividends an unreliable basis for predicting investor-expected growth."

It is equally true that near-term future dividend growth will not be representative of investors' long-term growth expectations when the payout ratio is

expected to continue declining, as it is for Mr. Burdette's sample, as shown in Mr. Burdette's Schedule MB-3, pages 3-11, and in the table below.

Table 1

Dividend Payout Ratios for Mr. Burdette's Sample		
Year	**Sample Median**	**Sample Average**
1998	76%	65%
1999	60%	59%
2000	56%	56%
2001	53%	56%
2002	48%	52%
2003	48%	52%
2005/7	47%	50%

Source: Schedule 1.

Consequently, the forecast dividend growth rates cited by Mr. Burdette are not representative of what investors would expect the long-term constant rate of growth to be.

Q. Can a similar conclusion be drawn about forecast book value per share growth rates?

A. Yes, book value per share growth rates are largely the complement of dividend growth rates. Earnings per share can be divided into two components: dividends and retained earnings per share. Retained earnings per share augment book value per share. Consequently, if the rate of growth in dividends per share growth rates cannot be relied upon when payout ratios are changing, neither can the rate of growth in book value per share.

Q. At page 17, lines 15-16, of his testimony, Mr. Burdette develops the upper end of his DCF estimate of the cost of equity for Ameren based on "the maximum projected growth rate [of] 3.75% for projected dividends per share." What is wrong with this calculation?

A. First, Mr. Burdette's supporting documentation (Schedule MB-3) indicates that the 3.75% growth rate is for earnings growth, not for dividend growth. Second, the 3.75% is an average of the Value Line (single analyst) earnings forecast (3.0%) and the average of the First Call (4.5%) consensus earnings growth forecasts.

As noted above, First Call includes seven long-term earnings growth forecasts for Ameren, of which the median value is currently 5.0%.[1] There is no reason not to consider the Value Line earnings forecast, but it should be given equal weight to each of the other seven forecasts. Using the median of the seven First Call forecasts and then giving each of the eight forecasts, including Value Line, equal weight, the earnings growth forecast for Ameren is 4.75%, not 3.75%, which adds 100 basis points to Mr. Burdette's DCF results for Ameren.

Q. Has Mr. Burdette correctly calculated the dividend yield component of his DCF test?

A. No. Mr. Burdette claims he is using a constant growth DCF model. The constant growth DCF model requires that the same growth rate forecast be applied to each future cash flow. The constant growth DCF model is premised on the notion that the current price of a stock is equal to the present value of the expected future cash flows discounted by the investor's required rate of return, expressed as follows:

[1] The median value is a better indicator of the central tendency of the values than the average (i.e., the mean), particularly when the number of observations is relatively small.

$$P_o = \frac{D_1}{(1+k)^1} + \frac{D_2}{(1+k)^2} \cdots\cdots \frac{D_8}{(1+k)^8}$$

P_o = current price

D_1 = next expected dividend

k = required rate of return

The model can be rearranged to be expressed in terms of "k"; when the rate of growth is expected to be constant, the rearranged model reduces to:

$$k = \frac{D_1}{P_o} + g$$

where D_1 is equal to $D_o (1+g)$.

Unless the current dividend yield D_o/P_o is increased to reflect the expected constant growth rate, i.e.,

$$\frac{D_1}{P_o} = \frac{D_o (1+g)}{P_o},$$

the resulting DCF cost will be biased downward.

Q. Does Mr. Gorman calculate the dividend yield in the manner described above?

A. Yes. That this is the correct way to determine the dividend yield for the constant growth DCF method is recognized in Mr. Gorman's testimony.

Q. Mr. Burdette uses current dividend yields for Ameren of 6.01% and 6.07%, which have not been increased to reflect the expected constant rate of growth. What is the impact on the expected dividend yields if the 4.75% expected earnings growth rate developed above is applied to appropriately determine the dividend yields required for the constant growth DCF test?

A. The 6.01% dividend yield becomes 6.30%; the 6.07% dividend yield becomes 6.36%, adding another 29 basis points to Mr. Burdette's understated DCF result for Ameren.

Q. What would Mr. Burdette's DCF result for Ameren have been had he used the consensus earnings growth forecast of 4.75% and the correct dividend yields?

A. The Ameren DCF cost would have been 11.05% to 11.1%. This is 1.3 to 1.6 percentage points higher than the 9.40% to 9.83% ROE he proposes.

Q. What would be the DCF results for Mr. Burdette's sample of electric utilities had he relied on analysts' consensus of forecast earnings growth and the correct dividend yields?

A. Table 2 below shows the results. For each company, the median of the First Call long-term earnings growth forecasts (rather than the average) was used in conjunction with the Value Line earnings forecast, and the dividend yield was adjusted for the same forecast (constant) growth rate. As Table 2 shows, the median DCF cost of equity for Mr. Burdette's sample is 10.9%, 1.5 percentage points higher than his reported sample average DCF cost of 9.40%.

Table 2

Company	Forecast Earnings Growth	Corrected Dividend Yield	DCF Cost
DPL	7.17%	3.88%	11.04%
FirstEnergy	7.00%	4.81%	11.81%
FPL Group	6.83%	4.06%	10.89%
Pinnacle West	5.94%	3.78%	9.72%
Southern Company	5.12%	5.16%	10.28%
		Median	**10.89%**

Source: Schedule 2.

Q. In the context of his discussion of retention growth rates, Mr. Burdette states that "projected data on earnings retention and return on book equity are generally more representative of investors' expectations" than historic data (page 9, emphasis added). What would the DCF cost of equity for Mr. Burdette's sample have been had he relied on his projected retention growth rates?

A. Table 3 shows the DCF costs for the sample had Mr. Burdette relied solely on forecast retention growth rates (which he calls projected "br+sv" growth). These retention growth rates were calculated by Mr. Burdette as the product of the Value Line forecast returns on equity and earnings retention rates, which he believes are more representative of investor expectations. The median DCF cost for the sample is 11.51%, which is 2.5 percentage points higher than the sample average DCF results of 9.40% used

by Mr. Burdette. Note, however, that Mr. Burdette's projected retention growth rates are based only on the projections from a single investment analyst, Value Line.

Table 3

Company	Current Dividend Yield	Retention Growth	Corrected Dividend Yield	DCF Cost
DPL	3.62%	16.35%	4.21%	20.56%
FirstEnergy	4.50%	6.85%	4.81%	11.66%
FPL Group	3.80%	7.43%	4.08%	11.51%
Pinnacle West	3.57%	6.06%	3.79%	9.85%
Southern Company	4.91%	5.31%	5.17%	10.48%
			Median	**11.51%**

Source: Schedules MB-3 and MB-4, and Schedule 3.

Q. How do the re-estimated DCF results for Mr. Burdette's sample compare to the DCF results provided by Mr. Gorman?

A. Mr. Gorman calculates the DCF cost for a sample of electric utilities using the First Call consensus earnings projections as a proxy for investors' consensus dividend growth projections. Mr. Gorman's DCF costs for his sample (which includes Ameren) range from 10.5% to 12.2%, with 11.2% as the median (Exhibit MPG-1, Schedule 6). Mr. Gorman's 11.2% median DCF result is comparable to Mr. Burdette's corrected results, lying between the median DCF cost of equity of 10.9% for Mr. Burdette's sample based on consensus earnings growth forecasts (Table 2) and the 11.5% median DCF cost of equity for Mr. Burdette's sample based on forecast retention growth estimates (Table 3).

Q. How do the re-estimated DCF results for Mr. Burdette's sample compare to the DCF results found in your own rebuttal testimony?

A. They are very similar. The DCF results for my sample of electric utilities were in the range of 11.0% to 11.6%.[2]

CAPITAL ASSET PRICING MODEL (CAPM)

Q. Both Mr. Burdette and Mr. Gorman apply the CAPM. What specific issues do you have with their application?

A. In both cases, errors were made with respect to the risk-free rate, market risk premium and beta, which create a significant downward bias to the results.

Risk-Free Rate

Q. Please discuss the errors made with respect to the risk-free rate.

A. Mr. Burdette relied on a "spot" yield for the risk-free rate, which was the average of the 10-year and 30-year Treasury yields on a single day: April 25, 2002.

It is clearly inappropriate to use a "spot" yield for the risk-free rate, since bond yields, like dividend yields, vary from day to day. I note that Mr. Burdette did not use a spot yield for the purpose of calculating dividend yields in the DCF test. Instead, he used a six-week average of prices, which he determined was long enough to avoid daily fluctuations (page 15, lines 11-12). It is as inappropriate to use a "spot" bond yield in the CAPM as it would be to use "spot" dividend yields in the DCF test.

[2] Before conversion of the market-derived DCF cost to a fair return on original cost book equity.

Mr. Burdette also inappropriately averages the 10-year and 30-year Treasury yields, despite recognizing that "the 30-year U.S. government bond is losing favor as the indication of the risk-free rate..." (page 20). The main reason it has lost favor, as I discussed in my pre-filed evidence (pages 61-62), is the Federal Government's announcement that it will no longer issue 30-year bonds. The result has been a "scarcity premium" in the 30-year yield, which currently manifests itself in a negative spread between 20- and 30-year Treasury bond yields at a time when the rest of the yield curve has a significant upward slope. On April 25, 2002, the date of Mr. Burdette's "spot" yields, the 20-year Treasury yield was 5.77%, higher than his 30-year Treasury yield of 5.62%. Since the market risk premium used by Mr. Burdette is calculated using a 20-year government bond, the 5.77% "spot" yield on the 20-year bond would have been a more appropriate choice of risk-free rate than the 5.36% average of the "spot" 10- and 30-year bond yields.

Finally, at the time Mr. Burdette prepared his evidence, long-term government interest rates were expected to rise. Mr. Burdette used an average of a "spot" 10-year Treasury yield of 5.09% and a 30-year Treasury yield of 5.62% to determine a long-term bond yield, when the consensus forecast shows yields of 5.8% and 6.1% for 10- and long-term Treasuries respectively within the next twelve months (Blue Chip Financial Forecasts, May 1, 2002), with an average of 6.0%.[3] Thus, Mr. Burdette's "spot" average yield understates the expected yield by 64 basis points (6.0% minus 5.36%).

[3] No consensus forecast of 20-year yields is available.

Q. Does Mr. Gorman make the same error of using an understated risk-free rate?

A. No. Mr. Gorman, appropriately uses a forecast yield of 6.0%, reflecting the average of the 10-year and long-term Treasury forecasts.

Market Risk Premium

Q. Mr. Burdette uses a historic market risk premium of 7.3%, "as calculated and reported by Ibbotson & Associates" (page 20, lines 13-14). Mr. Gorman uses a historic risk premium of 7.0%, which, he states (page 25), is the difference between the 1926-2001 arithmetic average of the achieved total return on the S&P 500 (12.7%) and the total return on long-term Treasury bonds (5.7%). Are these correct estimates of the market risk premium from historic data?

A. No, the correct way to estimate the market risk premium from historic data is to use the income, not total returns on government bonds, as explained in authoritative financial treatises and discussed in my rebuttal testimony at page 52. At page 66 of Ibbotson Associates, Stocks, Bonds, Bills, and Inflation: Valuation Edition, 2002 Yearbook, the long-horizon (1926-2001) market risk premium (based on income returns, as required) is specifically calculated to be 7.4%.

Q. Mr. Gorman also calculates a prospective risk premium of 6.1%, which combines the historic real return on stocks (9.4%) with the consumer price index through 2002 (2.5%) to arrive at an expected market return of 12.1%. Do you have any issues with this calculation?

A. Yes. The cost of equity is a long-term concept, so the expected inflation rate should also be a long-term forecast. Blue Chip Economic Indicators, March 10,

2002, forecasts the annual average increase in the CPI from 2001-2013 at 2.75%. Using a 2.75% inflation rate raises the expected market return from 12.1% to 12.4%, and the market risk premium from 6.1% to 6.4%. Again, this shows that Mr. Gorman's market risk premium and CAPM results are understated.

Betas

Q. Mr. Burdette uses a beta for Ameren of 0.55 and an average beta for his sample of electric utilities of 0.525. Mr. Gorman uses an average beta of 0.51 for his sample of electrics. How reliable are these betas as measures of the relative investment risk of these companies?

A. They are not at all reliable. As I discuss in my rebuttal testimony at pages 55-56, over the past several years, there has been a decoupling between the movement in electric utility stock prices and those of the market in general: electric utility stock prices and the overall market have been moving in opposite directions. In large part this occurred because utility stocks were not part of the speculative bubble in the stock market, i.e., the meteoric rise and subsequent precipitous decline. However, there is no evidence that electric utility stocks are less risky today than in 1997 and earlier when electric utility betas were consistently around 0.70.

Both Mr. Burdette's and Mr. Gorman's samples of electric utilities consistently had betas of close to 0.70 from 1986 until 1998 (see Schedules 4 and 5), when the market spike and subsequent decline decoupled utility prices from the rest of the market. As laid out clearly on Schedules 6 and 7, a comparison of risk measures for Mr. Burdette's and Mr. Gorman's samples of electric utilities, including Ameren, from 1996 to 2002 shows that electric utilities today are no less risky than prior to the stock

market "bubble and bust". Consequently, use of a beta based on anomalous stock market behavior for purposes of applying the CAPM to a sample of electric utilities understates their fundamental risk and creates an unwarranted downward bias to the cost of equity. A beta of 0.70 is more representative of the true level of relative risk for Ameren and the comparable electric utilities than the beta values calculated over a period characterized by this anomalous pattern of equity market price behavior.

Q. How do the results of the witnesses' CAPM tests change if the above corrections to the risk free rate, market risk premium and betas are made?

A. With a forecast (rather than spot) risk-free rate of 6.0% (as used by Mr. Gorman), a market risk premium of 7.4%, rather than 7.3%, and a beta of 0.70 for Ameren and his sample of electric utilities, Mr. Burdette's CAPM results for his sample of comparable electric utilities would have been 11.2% rather than 9.4% and 9.2% respectively . Mr. Gorman's CAPM result, with the above noted changes in the market risk premium and beta, would have been 10.5% to 11.2%, rather than 9.1% to 9.6% as shown on Table 4 below.

Table 4

	Mr. Burdette's CAPM Test		**Mr. Gorman's CAPM Test**	
	Proposed	**Corrected**	**Proposed**	**Corrected**
Risk Free Rate	5.36%	6.0%	6.0%	6.0%
Market Risk Premium	7.3%	7.4%	6.1-7.0%	6.4-7.4%
Beta				
Ameren	0.55	0.70	N/A	N/A
Sample of Electric Utilities	0.525	0.70	0.51	0.70
CAPM Result				
Ameren	9.4%	**11.2%**	N/A	N/A
Sample of Electric Utilities	9.2%	**11.2%**	9.1-9.6%	**10.5-11.2%**

Risk Premium Model

Q. Mr. Gorman uses a risk premium model to estimate the cost of equity. Do you have any criticisms of that model?

A. Yes. Mr. Gorman's risk premium model attempts to determine an appropriate ROE by looking to average commission-authorized ROEs as a "proxy for estimates of contemporary investor required returns" (page 21). To adjust for changes in interest rates, Mr. Gorman then takes the average difference between the returns on equity authorized by regulators and the corresponding average thirty-year Treasury yields over the period 1986-2000, and applies the average difference to the forecast risk-free rate of 6.0%. In doing so, however, Mr. Gorman has crafted a methodology that, for recent years, substantially understates the investor's required return relative to the ROE that regulatory commissions have actually authorized.

For example, if one applies the average differential of 4.75% to the 2000 Treasury bond yield of 5.94% reported on Mr. Gorman's Schedule 7, Mr. Gorman's ROE result for the year 2000 would have been 10.7%. In contrast, the average authorized return in 2000 was 11.43%, as shown on Exhibit MPG-1, Schedule 7. Consequently, by using the average risk premium, Mr. Gorman understates the actual year 2000 authorized return by more than 70 basis points. Since Mr. Gorman testified that the authorized returns (i.e., 11.43%) are a reasonable proxy for the investor required returns, this result does not make sense.

What applying the average indicated risk premium fails to do is recognize, during the period used by Mr. Gorman, that risk premiums were generally lower when interest rates were higher and vice versa. In part, the reason lies in the recent artificially

low 30-year Treasury bond yields which have developed as a result of the shrinking 30-year Treasury market. Moreover, costs of equity do not change in tandem (one-for-one) with long Treasury yields, as the use of a simple average risk premium implies.

Over much of the period used by Mr. Gorman, the 30-year Treasury bond yield averaged well in excess of the forecast 6.0% long-Treasury yield. From 1986-87, the average yield was 7.7%, and the average indicated risk premium was 4.6%. However, as Mr. Gorman's Schedule 7 shows, the risk premium was 5.5% on average during 1998-2000, almost a full percentage point higher. During 1998-2000, 30-year Treasury bond yields averaged 5.8%, which is very close to Mr. Gorman's 6.0% forecast of long-term Treasuries.

Clearly, the 1998-2000 period is more relevant to current circumstances in terms of similarity of capital market conditions. The 1998-2000 risk premium of 5.5%, when added to Mr. Gorman's 6.0% forecast of the long-term Treasury bond yield, results in an 11.5% required return on equity, 70 basis points higher than Mr. Gorman's result of 10.8%.

Q. Please summarize Mr. Burdette's and Mr. Gorman's return on equity recommendations and the corrected levels of their results.

A. Table 5 below summarizes their recommendations and the corrected results.

Table 5

	Mr. Burdette		Mr. Gorman	
	Results	**Corrected Results**	**Results**	**Corrected Results**
DCF-Ameren	8.80-9.83%	9.6-11.1%	N/A	N/A
DCF-Comparables	9.40%	10.9-11.5%	11.2%	11.2%
CAPM-Ameren	9.37%	11.2%	N/A	N/A
CAPM-Comparables	9.19%	11.2%	9.1-9.6%	10.5-11.2%
Risk Premium	N/A	N/A	10.8%	11.5%
Average	9.19-9.45%	**10.7-11.2%**	10.4-10.5%	**11.1-11.3%**
Recommendation	9.40-9.83%		10.4%	

As can be seen from this table, when corrected, both Mr. Burdette's and Mr. Gorman's results support an ROE of 11.2%, materially higher than their respective recommendations of 9.4-9.8% and 10.4%, but still below Mr. Bible's corrected results.

CAPITAL STRUCTURE

Q. Mr. Gorman claims that AmerenUE's actual capital structure is unreasonable for ratemaking purposes and should be replaced with a hypothetical capital structure (based on a common equity ratio of 51.2%). Do you agree?

A. No. Capital structure decisions are the prerogative of management. Management's discretion over the choice of capital structure should only be superceded for ratemaking purposes when the actual capital structure clearly lies outside a reasonable range. For AmerenUE, that is not the case.

Q. Have Mr. Bible and Mr. Burdette raised any concerns about UE's capital structure in their direct and rebuttal testimonies?

A. No. On the contrary, Mr. Bible specifically recommended using AmerenUE's capital structure as of September 30, 2001 consisting of "59.08 percent common stock equity, 3.52 percent preferred stock and 37.40 percent long-term debt" (Bible, page 18). Mr. Bible's capital structure recommendation was then specifically endorsed by Mr. Burdette, who "adopted it" because he believed "this capital structure to be appropriate to use to calculate the overall rate of return for Union Electric Company" (Burdette, page 4).

Q. Can you provide an example of how these principles have been applied by regulators elsewhere?

A. Yes. The FERC has adopted a capital structure policy which includes a clear preference for utilizing the regulated entity's actual capital structure, imputation of a hypothetical capital structure only if the regulated entity's own equity ratio is so far outside the range of other approved equity ratios and the range of proxy company equity ratios that it is unreasonable, and a comparison of the applicant's capital structure with those approved for other regulated companies and those of the proxy companies to determine a reasonable range, explicitly recognizing that reasonable capitals structures can be outside the range of the proxy companies. (TransContinental Gas Pipe Line Corporation, Docket Nos. RP95-197-032 et.al., Opinion 414-A, July 29, 1998, page 6).

In the specific case in which the policy was adopted, the applicant's actual (approved) common equity ratio of 57.6% compared to a proxy sample average of approximately 47%. The FERC, however, also noted that it had previously found equity ratios of 62% and 69% to be reasonable. In the cases in which the actual capital structure was rejected, the equity ratio was 90% or above.

Q. Has the FERC made downward adjustments to the allowed return on equity because the applicant's equity ratio was higher than the proxy sample average?

A. No. For purposes of setting the ROE, the FERC has used the proxy sample mid-point DCF cost unless the level of business risk was demonstrably higher or lower than average for the industry.

Q. Mr. Gorman develops what he believes should be a reasonable range for AmerenUE's common equity ratio and then recommends that the MoPSC set the ratio at the mid-point of the range. What is wrong with that approach in principle?

A. There are at least two things wrong. First, as I will show below, Mr. Gorman's range is too narrow considering UE's business risk factors. Second, Mr. Gorman's mid-point approach results in the disallowance of capital structures that, based on his own standards, are clearly reasonable. The concept of a reasonable range means that all of the values within the range are reasonable. Mr. Gorman has determined that a common equity ratio range of 48.3% to 54.8% is reasonable for ratemaking purposes. If AmerenUE's common equity had been 54.8%, it would be reasonable by Mr. Gorman's own standard. Nevertheless, by proposing the mid-point of his recommended range, he proceeds to recommend that the Commission disallow all reasonable equity ratios between the mid-point and the upper end of this range. Such an approach is punitive and confiscatory.

Q. To support his contention, Mr. Gorman claims that AmerenUE's capital structure contains significantly more common equity than is necessary to be

consistent with S&P bond rating financial benchmarks to maintain the existing A+ debt rating. What is your response?

A. Mr. Gorman's focus on the S&P debt ratio benchmarks as the limits of the range is unreasonable for a number of reasons. First, the S&P capital structure benchmarks[4] are guidelines; they are not hard and fast rules. As S&P states,

> "Ratio ranges are helpful in broadly defining a company's position relative to rating categories. The ranges are not meant to be precise; rather, they are intended to convey ranges that characterize levels of credit quality as represented by the rating categories. (S&P, Ratings Direct: International Utility Ratings and Ratios, September 2001)

Second, there are four published quantitative financial targets. Two of these – funds from operations interest coverage and funds from operations to total debt – were not even considered by Mr. Gorman. Funds from operations are key to the ability of a utility to service debt and are given most emphasis by the debt rating agencies. The Staff's depreciation proposals – along with their recommended reduction in return – would most seriously impair the funds from operations measures, and, as I have discussed on page 17 of my rebuttal testimony, lead to a strong chance of a downgrading of UE's credit rating.

Third, S&P relies on quantitative measures other than the four published targets in making rating decisions. S&P states,

> "Standard & Poor's also incorporates a greater reliance on several additional ratios in its credit analysis. These include, but are not limited to, pretax return on permanent capital, funds from operations to current obligations, earnings before interest and taxes to total assets, net cash flow to capital expenditures, and capital expenditures to average total capital. Additionally, further analysis of the cash flow coverage of all obligations (including preferred stock) is performed. Although these measures do not have published targets, broader use of these financial ratios, combined with the four principal targets,

[4] Debt ratio range of 43.0% to 49.5% for an A rating based on AmerenUE's business profile score of 4.

> provides greater depth to the fundamental analysis used in the rating evaluation process.
>
> Consistent with Standard & Poor's ratings methodology, the four published financial targets will be used with other quantitative measures, business risk analysis, and comparative measures, business risk analysis, and comparative analysis of peer groupings to determine credit ratings." (Standard & Poor's, "Utility Financial Targets Are Revised", Utilities & Perspectives, June 21, 1999)

The debt rating agency's use of "net cash flow to total capital expenditures" is particularly consequential in light of Staff's and other intervenors' proposed drastic cut in UE's cash flows, given UE's significant infrastructure requirements.

Fourth, S&P – as well as the other credit rating agencies – rely on qualitative assessments of business, financial, and regulatory risks to determine credit ratings. For example, the June 21, 2001 Moody's report on AmerenUE (cited by Mr. Gorman at page 7 of his testimony) specifically stated that there is no specific ability for AmerenUE to recover purchased power costs. Standard & Poor's (Ratings Direct, November 2, 2001) highlighted AmerenUE's heavy asset concentration, represented by its 100%-owned Callaway nuclear station, which, it said, tempers otherwise strong business profile and financial parameters. The combination of these two risk factors (i.e., no fuel adjustment clause and nuclear exposure) clearly point to the need for a stronger capital structure than the typical range for UE's rating category or the average of Mr. Gorman's proxy companies.

Fifth, Mr. Gorman's argument is circular and is not supported by the credit rating agencies' assessment of UE. AmerenUE has achieved an A+ rating by S&P given its current capital structure. If the company had too much equity for its debt rating category, presumably it would be rated in the AA category, not in the A category.

Further, despite AmerenUE's actual capital structure, S&P has placed the Company on "CreditWatch" with negative implications (May 2002), stating,

> "Potentially significant electric rate reductions at Union Electric, lower forward energy prices, additional financing requirements for installation of combustion turbines, and higher operating expenses will continue to pressure cash flow, earnings protection measures, and capital structure balance."

To reduce AmerenUE's common equity ratio as suggested by Mr. Gorman would virtually assure a reduction in AmerenUE's S&P credit rating.[5]

Finally, S&P is not the only debt rating agency. AmerenUE is rated higher by Moody's (Aa3 on senior secured debt) and Fitch (AA on senior secured debt) than by S&P. However, both rating agencies have assigned negative outlooks to AmerenUE's debt as a result of the Staff rate reduction filing, and Moody's has indicated the possibility of a three notch downgrade. While neither Fitch nor Moody's publish quantitative financial targets, the S&P debt ratio guidelines for a AA rating for AmerenUE's business profile are 37.5-43.0%. AmerenUE's actual total debt ratio falls within that range.

Q. Mr. Gorman claims UE's common equity ratio is unreasonably high by comparison to a Moody's peer utility group. What is your response?

A. To arrive at this conclusion, Mr. Gorman relies on a June 2001 Moody's credit report for AmerenUE which indicates the average common equity ratio for a "peer group" is 44%. This "peer group" is, however, all of the 123 electric utility companies rated by Moody's. The average debt rating for this "peer group" is A3 -- three notches

[5] As noted earlier, Mr. Gorman recommends reducing AmerenUE's common equity ratio to the mid-point of a range. That range is based on S&P's debt ratio guidelines for an A rating. Since AmerenUE is rated A+, the upper end of the range would, again, be more relevant than the mid-point.

below AmerenUE's Moody's rating of Aa3. As a result, the average capital structure for this "peer group" clearly cannot be indicative of what is reasonable for an Aa3 rated utility such as AmerenUE.

Q. What are the capital structures according to Moody's for the vertically integrated utilities in Moody's Aa3 debt rating category?

A. For the seven electric utilities in AmerenUE's Aa3 Moody's credit rating category, the average common equity ratio at year-end 2000 was 50%, with a range of 36.4% (West Penn Power) to 59.5% (Florida Power and Light) (Schedule 8). Consequently, the filed-for AmerenUE common equity ratio is within the range maintained by utilities with the same Moody's debt rating as AmerenUE.

Q. Mr. Gorman also concludes that AmerenUE's common equity ratio is too high by comparing it to two other industry averages, C.A. Turner and Value Line. Are the industry averages relevant?

A. No, industry averages clearly are not relevant when the "average" company has a much lower credit rating than AmerenUE. The average credit ratings for the C.A. Turner companies (sample of 25) are BBB+ by S&P and A3 by Moody's, well below AmerenUE's ratings of A+ and Aa3. Further, the industry averages are not a viable benchmark when they reflect deteriorating credit quality, as they do in the case of the electric utility industry. S&P has highlighted the steep decline in credit quality in 2001, citing business risk factors, including:

> "risk related to investments outside the traditional regulated utility business, eroding bondholder protection fundamentals, mergers and acquisitions, unsympathetic regulatory arenas, and corporate restructuring efforts." (S&P, Ratings Direct, "Research: U.S. Utilities; Credit Quality Displayed Steep Decline in 2001; Negative Trend Likely to Continue", January 18, 2002).

In its April 29, 2002 Industry Report Card: U.S. Electric-Gas-Water, S&P noted that the average rating for the electric and combined energy business is now BBB+, down from A- a year ago.

Q. What about the Value Line common equity ratios?

A. The same point is salient. Industry averages are not the benchmark. The average encompasses a broad range of capital structures, within which AmerenUE's actual capital structure falls.

To illustrate, Ameren Corp. has a Value Line "Safety" rating of "1". There are ten electric utilities covered by Value Line, including Ameren Corp., with a Safety rating of 1. As shown on Schedule 9, these electric utilities are of equivalent investment risk to Ameren – same average beta (0.55), same Value Line financial strength (A+), and similar average S&P credit rating (A). The average 2001 common equity ratio for the 10 electric utilities as reported by Value Line is 50.7%, with a range of 39.5% to 64.6%. Again, AmerenUE's actual common equity ratio clearly is within that range.

Q. Mr. Gorman also concludes that AmerenUE's common equity ratio is too high because it is considerably higher than the average of the comparable group he uses to estimate the cost of equity. What are your comments?

A. I agree the average common equity ratio is lower for Mr. Gorman's sample; however, the range of common equity ratios is quite wide, from 40-58%, based on permanent capital (Exhibit MPG-1, Schedule 5). The upper end of the range of Mr. Gorman's sample is very close to the common equity ratio being proposed for AmerenUE. Further, the DCF cost of equity for the sample company with the highest

common equity ratio (FPL Group) is actually higher than the average DCF cost of equity for the sample (11.4% versus 11.2%) (Exhibit MPG-1, Schedule 6).

Q. Mr. Gorman claims that his recommended return on equity would be too high if applied to AmerenUE's actual capital structure. Do you agree?

A. No. I disagree because Mr. Gorman has specifically selected his group of comparable companies to have the same level of business and financial risk as UE, including a similar S&P bond rating. As Mr. Gorman testifies on page 6, "S&P establishes a utility's bond rating on the basis of its financial risk and business risks."

I tested the proposition that the return is too high by estimating the DCF cost of equity for the sample of 10 Value Line electric utilities discussed above using the exact methodology employed by Mr. Gorman. If Mr. Gorman were correct, the DCF cost for this sample with a higher average common equity ratio should be lower than Mr. Gorman's DCF result for his own sample (which has a lower average equity ratio.) This is not the case. Schedule 10 shows that the average DCF cost for the sample is 11.6%, with a median of 12.1%. The estimated average DCF cost for this sample is measurably higher than the 11.2% average DCF cost of Mr. Gorman's sample.

As Mr. Gorman clearly explained on page 17 of his testimony, he specifically selected this group of comparable companies to "represent the equity investment risk of an electric utility similar to UE." As a result, Mr. Gorman's ROE estimate already reflects the business and financial risks of UE.

In summary, Mr. Gorman's conclusion is erroneous. Mr. Gorman's 11.2% DCF result is not too high if applied to AmerenUE's actual capital structure and there is no reason to adjust his DCF results downward if the Company's actual common

equity ratio is used. A reduction in UE's equity ratio would require an increase in the ROE above the ROE results for Mr. Gorman's sample.

Q. Your analysis show that AmerenUE's capital structure is reasonable given the Company's business risks and financial conditions. If the Commission, nevertheless, decided to adopt a hypothetical capital structure based on Mr. Gorman's testimony, what would the equity ratio need to be?

A. Mr. Gorman's Schedule 10 imputes $345 million of additional long-term debt to adjust UE's capital structure to the mid-point of his range. However, his Schedule 4 shows that adding only $187 million in hypothetical long-term debt would result in a capital structure for UE within what Mr. Gorman claims is a reasonable range. This would result in an equity ratio of 54.8% -- which is well above Mr. Gorman's proposed hypothetical capital structure. The Commission should thus reject Mr. Gorman's proposed capital structure adjustment to the mid-point of his range. However, as I have shown above, UE's actual capital structure is within a reasonable range. Given that UE's actual capital structure is reasonable, no adjustment of any kind is warranted.

Q. Does this conclude your testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

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

AFFIDAVIT OF KATHLEEN C. McSHANE

STATE OF MARYLAND)
) ss
CITY OF BETHESDA)

Kathleen C. McShane, being first duly sworn on her oath, states:

1. My name is Kathleen C. McShane. I work in Bethesda, Maryland, and I am employed at Foster Associates, Inc.

2. Attached hereto and made a part hereof for all purposes is my Cross-Surrebuttal Testimony on behalf of Union Electric Company d/b/a AmerenUE consisting of 29 pages, which has been prepared in written form for introduction into evidence in the above-referenced docket.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

Kathleen C. McShane

Subscribed and sworn to before me this 17th day of June, 2002.

Notary Public

My commission expires:

My Commission Expires
10/14/02

Value Line Dividend Payout Ratios for Ameren and Mr. Burdette's Sample of Electric Utility Companies

	1998	1999	2000	2001	2002	2003	2005/07
Ameren	90.1%	90.4%	76.3%	74.5%	77.0%	74.7%	72.9%
Sample:							
DPL	75.8%	69.6%	63.1%	53.4%	50.8%	48.2%	40.0%
FPL	51.9%	51.1%	52.2%	47.8%	48.3%	49.0%	50.5%
First Energy	76.9%	60.0%	55.8%	52.8%	42.3%	41.0%	42.2%
Pinnacle West	43.2%	41.8%	42.7%	41.6%	44.1%	44.9%	47.2%
Southern	77.5%	73.2%	66.7%	82.7%	76.6%	74.6%	69.1%
Sample							
Average	**65.1%**	**59.2%**	**56.1%**	**55.7%**	**52.4%**	**51.5%**	**49.8%**
Median	**75.8%**	**60.0%**	**55.8%**	**52.8%**	**48.3%**	**48.2%**	**47.2%**

Source: Value Line

VLP

Schedule 1

DCF Cost of Equity for Mr. Burdette's Sample of Electric Utility Companies
Based on Consensus Earnings Forecasts

	Current Dividend (1)	Average Price (2)	Current Dividend Yield (1)/(2)=(3)	First Call Consensus Growth (June 2002) (4)	First Call Number of Estimates (5)	Value Line EPS Forecast (6)	Weighted Average Earnings Growth Forecast (7)	Corrected Dividend Yield (3)*(1+(7))=(8)	DCF Cost (7)+(8)=(9)
DPL	0.94	25.99	3.62	7.0	11	9.0	7.17	3.88	11.04
FirstEnergy	1.50	33.35	4.50	7.0	20	NA	7.00	4.81	11.81
FPL Group	2.32	61.12	3.80	7.0	17	4.0	6.83	4.06	10.89
Pinnacle West	1.60	44.80	3.57	6.0	7	5.5	5.94	3.78	9.72
Southern Co.	1.34	27.31	4.91	5.0	16	7.0	5.12	5.16	10.28
Average	**1.54**	**38.51**	**4.08**	**6.4**	**14**	**6.38**	**6.41**	**4.34**	**10.75**
Median	**1.50**	**33.35**	**3.80**	**7.0**	**16**	**6.25**	**6.83**	**4.06**	**10.89**

Source by Column:
(1) Value Line (March & May 2002)
(2) Burdette Rebuttal Testimony Schedule MB-4
(4) & (5) First Call Corporation
(6) Burdette Rebuttal Testimony Schedule MB-3

BDCF

Schedule 2

DCF Cost of Equity for Mr. Burdette's Sample of Electric Utility Companies
Based on Retention Growth Forecasts

	Current Dividend (1)	Average Price (2)	Current Dividend Yield (1)/(2)=(3)	Sustainable Growth (4)	Corrected Dividend Yield (3)*(1+(4))=(5)	DCF Cost (4)+(5)=(6)
DPL	0.94	25.99	3.62	16.35	4.21	20.56
FirstEnergy	1.50	33.35	4.50	6.85	4.81	11.66
FPL Group	2.32	61.12	3.80	7.43	4.08	11.51
Pinnacle West	1.60	44.80	3.57	6.06	3.79	9.85
Southern Co.	1.34	27.31	4.91	5.31	5.17	10.48
Average	**1.54**	**38.51**	**4.08**	**8.40**	**4.41**	**12.81**
Median	**1.50**	**33.35**	**3.80**	**6.85**	**4.21**	**11.51**

Source by Column:
(1) Value Line
(2) Burdette Rebuttal Testimony Schedule MB-4
(4) Burdette Rebuttal Testimony Schedule MB-3

BDCFB

Schedule 3

Historic Value Line Betas for Mr. Burdette's Sample of Electric Utility Companies

	DPL Inc	First Energy	FPL Group Inc	Pinnacle West	Southern Company	**Average**	**Median**
1986	0.65	0.70	0.75	NA	0.65	0.69	0.68
1987	0.75	0.75	0.75	0.85	0.75	0.77	0.75
1988	0.70	0.75	0.70	0.75	0.70	0.72	0.70
1989	0.70	0.80	0.75	0.75	0.75	0.75	0.75
1990	0.70	0.80	0.75	0.80	0.75	0.76	0.75
1991	0.65	0.80	0.70	0.85	0.70	0.74	0.70
1992	0.55	0.75	0.65	0.80	0.65	0.68	0.65
1993	0.55	0.80	0.65	0.90	0.65	0.71	0.65
1994	0.55	0.85	0.70	0.95	0.65	0.74	0.70
1995	0.60	0.75	0.70	0.80	0.65	0.70	0.70
1996	0.70	0.80	0.75	0.80	0.65	0.74	0.75
1997	0.75	0.80	0.80	0.75	0.75	0.77	0.75
1998	0.70	0.70	0.70	0.70	0.65	0.69	0.70
1999	0.55	0.50	0.45	0.45	0.45	0.48	0.45
2000	0.55	0.55	0.45	0.45	0.45	0.49	0.45
2001	0.60	0.55	0.45	0.45	NMF	0.51	0.50
2002	0.65	0.55	0.45	0.45	NMF	0.53	0.50

Source: Value Line

BEB

Historic Value Line Betas for Mr. Gorman's Sample of Electric Utility Companies

	Ameren Corp	FPL Group Inc	Great Plains Energy	NSTAR	Pinnacle West	Southern Company	**Average**	**Median**
1986	0.70	0.75	0.55	0.60	NA	0.65	**0.65**	**0.65**
1987	0.75	0.75	0.75	0.65	0.85	0.75	**0.75**	**0.75**
1988	0.75	0.70	0.65	0.70	0.75	0.70	**0.71**	**0.70**
1989	0.80	0.75	0.70	0.70	0.75	0.75	**0.74**	**0.75**
1990	0.80	0.75	0.70	0.70	0.80	0.75	**0.75**	**0.75**
1991	0.70	0.70	0.70	0.70	0.85	0.70	**0.73**	**0.70**
1992	0.70	0.65	0.60	0.70	0.80	0.65	**0.68**	**0.68**
1993	0.65	0.65	0.60	0.70	0.90	0.65	**0.69**	**0.65**
1994	0.65	0.70	0.65	0.75	0.95	0.65	**0.73**	**0.68**
1995	0.65	0.70	0.65	0.75	0.80	0.65	**0.70**	**0.68**
1996	0.70	0.75	0.80	0.75	0.80	0.65	**0.74**	**0.75**
1997	0.70	0.80	0.75	0.70	0.75	0.75	**0.74**	**0.75**
1998	0.65	0.70	0.80	0.65	0.70	0.65	**0.69**	**0.68**
1999	0.50	0.45	0.60	0.50	0.45	0.45	**0.49**	**0.48**
2000	0.55	0.45	0.60	0.55	0.45	0.45	**0.51**	**0.50**
2001	0.55	0.45	0.60	0.55	0.45	NMF	**0.52**	**0.55**
2002	0.55	0.45	0.55	0.55	0.45	NMF	**0.51**	**0.55**

Source: Value Line

BEG

Value Line and S&P Risk Measures
for Mr. Burdette's Sample of Electric Utility Companies

	1996	1997	1998	1999	2000	2001	2002
Value Line							
Earnings Predictability							
DPL Inc	85	85	95	100	100	95	95
FirstEnergy	90	95	95	100	100	100	95
FPL Group Inc	90	95	95	100	100	100	95
Pinnacle West	5	5	5	15	85	90	95
Southern Company	90	90	85	90	90	nmf	nmf
Median	**90**	**90**	**95**	**100**	**100**	**98**	**95**
Financial Strength							
DPL Inc	A	A+	A+	A+	A	B+	B+
FirstEnergy	A	A	A	A	A	A	B+
FPL Group Inc	A	A	A	A	A	A	A
Pinnacle West	B	B	B++	A	A+	A+	A+
Southern Company	A	A	A	A	B++	B++	A
Median	**A**	**A**	**A**	**A**	**A**	**A**	A
Safety Rank							
DPL Inc	2	1	1	1	1	2	2
FirstEnergy	2	2	2	2	2	2	3
FPL Group Inc	2	2	2	2	2	2	2
Pinnacle West	3	3	2	2	2	1	1
Southern Company	1	1	1	1	2	2	2
Median	**2**	**2**	**2**	**2**	**2**	**2**	**2**
Standard & Poor's							
Business Profile							
DPL Inc	n/a	4	n/a	4	5	6	6
FirstEnergy	n/a	8	n/a	8	8	6	6
FPL Group Inc	n/a	3	n/a	5	5	6	6
Pinnacle West	n/a	--	n/a	6	6	5	5
Southern Company	n/a	5	n/a	5	4	4	4
Median	**n/a**	**4.5**	**n/a**	**5.0**	**5.0**	**6.0**	**6.0**
Bond Rating							
DPL Inc	AA-	AA-	AA-	A+	BBB+	BBB+	BBB+
FirstEnergy	BBB-	BB+	BB+	BB+	BB+	BBB	BBB
FPL Group Inc	A+	AA-	A+	A+	AA-	A	A
Pinnacle West	BBB-	--	BBB	BBB	BBB	BBB	BBB
Southern Company	A+	A+	A	A	A	A	A
Median	**A+**	**A+ / AA-**	**A**	**A**	**BBB+**	**BBB+**	**BBB+**

Source: Value Line, Standard & Poor's Utilities and Perspectives.

Note: Dayton Power & Light data shown for DPL Inc 1996-97; Ohio Edison data shown for FirstEnergy 1996-2000
Bond Rating for Pinnacle West not available in 1997

RKB

Value Line and S&P Risk Measures
for Mr. Gorman's Sample of Electric Utility Companies

	1996	1997	1998	1999	2000	2001	2002
Value Line							
Earnings Predictability							
Ameren Corp	95	95	90	85	85	85	90
FPL Group	90	95	95	100	100	100	95
Great Plains Energy	75	70	70	75	60	60	55
NSTAR	80	80	85	85	85	90	90
Pinnacle West Capital Corp	5	5	5	15	85	90	95
Southern Company	90	90	85	90	90	nmf	nmf
Median	**85**	**85**	**85**	**85**	**85**	**90**	**90**
Financial Strength							
Ameren Corp	A+	A+	A+	A+	A+	A+	A+
FPL Group	A	A	A	A	A	A	A
Great Plains Energy	A	A	A	B++	A	A	B++
NSTAR	B	B+	B++	A	A	A	A
Pinnacle West Capital Corp	B	B	B++	A	A+	A+	A+
Southern Company	A	A	A	A	B++	B++	A
Median	**A**	**A**	**A**	**A**	**A**	**A**	**A**
Safety Rank							
Ameren Corp	1	1	1	1	1	1	1
FPL Group	2	2	2	2	2	2	2
Great Plains Energy	2	2	2	2	2	2	2
NSTAR	3	3	2	1	1	1	1
Pinnacle West Capital Corp	3	3	2	2	2	1	1
Southern Company	1	1	1	1	2	2	2
Median	**2**	**2**	**2**	**2**	**2**	**2**	**2**
Standard & Poor's							
Business Profile							
Ameren Corp	n/a	5	n/a	4	5	5	5
FPL Group	n/a	3	n/a	5	5	6	6
Great Plains Energy	n/a	5	n/a	5	6	6	6
NSTAR	n/a	6	n/a	4	4	3	3
Pinnacle West Capital Corp	n/a	--	n/a	6	6	5	5
Southern Company	n/a	5	n/a	5	4	4	4
Median	**n/a**	**5**	**n/a**	**5**	**5**	**5**	**5**
Bond Rating							
Ameren Corp	AA-	AA-	A+	A+	A+	A+	A+
FPL Group	A+	AA-	A+	A+	AA-	A	A
Great Plains Energy	A	A	A	A	A-	A-	BBB
NSTAR	BBB	BBB	A-	A-	A-	A	A
Pinnacle West Capital Corp	BBB-	--	BBB	BBB	BBB	BBB	BBB
Southern Company	A+	A+	A	A	A	A	A
Median	**A+**	**A+**	**A**	**A**	**A**	**A**	**A**

Source: Value Line, Standard & Poor's Utilities and Perspectives.

Note: Union Electric data shown for Ameren through 1997; NSTAR was Boston Edison 1997.
Bond Rating for Pinnacle West not available in 1997

RKG

Schedule 7

Common Equity Ratios for Moody's
Aa3 Rated Electric Utilities

	2000
AmerenUE	57.30
Florida Power & Light Company	59.48
Mississippi Power Company	45.08
Northern States Power Company (Minnesota)	42.40
Northern States Power Company (Wisconisn)	54.26
Tampa Electric Company	57.36
West Penn Power Company	36.37
Average	**50.32**
Range	**36.37 - 59.48**
Standard Deviation	**8.97**

Source: Moody's Electric Industry, October 2001

ERM

Common Equity Ratios and Selected Risk Measures for Value Line Electric Utilities with a Safety Rank of 1

	2001 Common Equity Ratio	2005-07 Common Equity Ratio	S&P Debt Rating	Value Line Beta	Value Line Financial Strength
Allegheny Energy	48.5	49.0	BBB+	0.60	A+
Ameren Corp.	52.2	52.5	A+	0.55	A+
CH Energy Group	64.6	60.5	NR	0.60	A++
Consol. Edison	49.5	53.0	A+	0.45	A+
Duke Energy	46.5	46.5	A+	0.60	A+
MDU Resources	58.1	63.0	A	0.60	A+
NSTAR	39.5	46.5	A	0.55	A
Pinnacle West Capital	48.3	53.5	BBB	0.50	A+
TECO Energy	53.5	54.0	A-	0.55	A+
WPS Resources	46.3	51.0	A+	0.55	A
All Companies					
Average	**50.7**	**53.0**	**A**	**0.56**	**A+**
Median	**49.0**	**52.8**	**A**	**0.55**	**A+**
Range	**39.5-64.6**	**46.5-63.0**			
Standard Deviation	**6.9**	**5.4**			

Source: Value Line Investment Survey (March & May 2002); Standard & Poor's (6/11/02)

VLRS

Application of Mr. Gorman's Constant Growth DCF Methodology to Value Line Electric Utilities with a Safety Rank of 1

	Average Price	Dividend	First Call Consensus Forecast	Expected Dividend Yield	Constant Growth DCF
Allegheny Energy	36.87	1.72	7.00	4.99	11.99
Ameren Corp.	41.62	2.54	5.00	6.41	11.41
CH Energy Group	46.65	2.16	1.50	4.70	6.20
Consol. Edison	40.78	2.22	4.00	5.66	9.66
Duke Energy	35.60	1.10	12.25	3.47	15.72
MDU Resources	29.34	0.92	10.00	3.45	13.45
NSTAR	44.02	2.12	7.00	5.15	12.15
Pinnacle West Capital	42.82	1.60	6.00	3.96	9.96
TECO Energy	25.95	1.38	7.00	5.69	12.69
WPS Resources	38.14	2.10	7.00	5.89	12.89
All Companies					
Average	**38.18**	**1.79**	**6.68**	**4.94**	**11.61**
Median	**39.46**	**1.91**	**7.00**	**5.07**	**12.07**

Sources:
Prices: Yahoo.com
Dividends: Value Line
Growth: Firstcall.com; Value Line EPS growth forecast used for CH Energy as no First Call estimate available.

DCFC