

Exhibit No.:

Issues: Capital Structure/ROE

Witness: John C. Dunn

Sponsoring Party: Missouri Public  
Service

Case No.: ER-

Before the Public Service Commission  
of the State of Missouri

Direct Testimony

of

John C. Dunn

## TABLE OF CONTENTS

Summary of Testimony.....	1
Current Capital Market Conditions.....	2
Economic Background to Regulation.....	4
Component Cost of Capital.....	5
Investment Risk.....	8
Macro-Economic Events.....	9
Determination of the Components of Capital and Their Costs.....	10
Capital Structure.....	12
UtiliCorp Capital Allocation System.....	14
Comparison to Other Electric Utility Companies.....	17
Support in Financial Practice.....	18
Effects on Management Accountability.....	19
Protection for Customers and Application in Prior Rate Proceedings.....	20
Significance to Investors.....	21
Consolidated Capital Structure Alternative.....	22
Assignment of Debt and Cost of Debt.....	25
MPS Cost of Long-Term Debt.....	27
Cost of Common Equity.....	27
The Theory of the DCF Model.....	30
Impact of Industry Change on the DCF Analysis.....	32
Determination of Growth Rate.....	34
Determination of Dividend Yield.....	41
Benchmark Cost of Common Equity.....	46
Risk Adjustment for MPS.....	47
Specific Risk.....	47
Specific Risk.....	49
Calculation of Rate of Return.....	53

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI  
DIRECT TESTIMONY OF JOHN C. DUNN  
ON BEHALF OF MISSOURI PUBLIC SERVICE,  
A DIVISION OF UTILICORP UNITED INC.  
CASE NO. ER-\_\_\_\_\_**

1 Q. Please state your name and business address.

2 A. My name is John C. Dunn. My business address is 7400 West 110<sup>th</sup> Street, Suite 750,  
3 Overland Park, Kansas 66210.

4 Q. What is your occupation?

5 A. I am an economist and partner in the firm of John C. Dunn and Company. I am an  
6 economic consultant specializing in the general area of public utility economics and  
7 corporate finance with special emphasis on the analysis of money cost and rate of return.

8 Q. Have you prepared a statement of your qualifications and background?

9 A. Yes, I have. It is attached to my prepared testimony as Schedule 10.

10 **Summary**

11 Q. Please summarize the results of your rate of return determination in this case for Missouri  
12 Public Service ("MoPub" or "MPS"), a division of UtiliCorp United, Inc. ("UtiliCorp").

13 A. MPS is a fully integrated electric utility serving a substantial area in western Missouri,  
14 including a significant part of the Missouri portion of greater Kansas City. As a division  
15 of UtiliCorp United, Inc., MPS has its own capital structure and its own cost of debt.  
16 Based on the MPS book capital structure and cost of debt and a cost of equity in the range  
17 of 11.75% to 12.25%, I have determined that the minimum reasonable rate of return for  
18 MoPub for this proceeding is in the range of 9.91% to 10.15%. The specific calculation  
19 of the rate of return is as follows:

Missouri Public Service  
Cost of Capital  
January 31, 2001

			Weighted Cost Return on Equity of	
	<u>Ratio</u>	<u>Cost</u>	<u>11.75%</u>	<u>12.25%</u>
Long-Term Debt	52.00%	8.215%	4.27%	4.27%
Common Equity	<u>48.00</u>		<u>5.64</u>	<u>5.88</u>
Total	<u>100.00%</u>		<u>9.91%</u>	<u>10.15%</u>

This rate of return is based on the capital structure at January 31, 2001. It is the latest available at the time of this analysis. It should be updated with other elements of the case after the Commission's decision. I believe that this rate of return and the return on equity it incorporates reflects the risks associated with the MPS electric utility system. It is, however, an absolute minimum return given the emerging energy crisis. Furthermore, if the circumstances of the current capital markets shift again or the energy situation worsens, it will be necessary to increase the return.

**Current Capital Market Conditions**

Q. Mr. Dunn, can you compare the conditions of today's capital markets to previous conditions?

A. Yes. Several factors have combined to make the marketplace for capital today far different than at any time for at least the past twenty-five years and perhaps for our entire recent experience.

First, there has been a technological revolution which has divided the economy into the "old economy" and "new economy." Utilities are definitely viewed by investors today as a part of the old economy and are out of favor. Nonetheless, old economy companies,

1 particularly utilities, continue to need capital even though investors seem to have lost  
2 interest in them. Simply put, many investors have lost interest in the old economy  
3 because the risk-reward profile of the new economy is much better. While many investor  
4 passions have cooled because of the drop in tech stock prices, there remains a strong  
5 commitment to tech investing.

6 Second, the Federal Reserve, reacting to both the level and tone of the stock market and  
7 the perceived level of activity and potential for inflation in the economy at large has  
8 deployed two separate and conflicting policies in a period of less than two years.

9 Between June, 1999 and May, 2000, the Federal Reserve increased interest rates six  
10 times. Those changes had powerful impacts on utilities because of their capital intensity.

11 Before, however, the utilities completely adapted to the interest rate changes, the Federal  
12 Reserve implemented a policy of rate reduction and has reduced rates three times in the  
13 past three months. These changes have led to uncertainty and have been accompanied by  
14 a gyrating equity market characterized by instability, massive capital movements and  
15 extreme difficulty for those needing new capital.

16 Third, the nation has defined an energy "crisis" which started in California and on the  
17 west coast as a national problem. In my view, Missouri, to a significant degree, has  
18 avoided the problem because of careful planning and the proper deployment of assets by  
19 utilities in the State of Missouri. However, the utility industry has been pushed under a  
20 cloud and the term "crisis" may be used to justify extreme actions. While the California  
21 problem has led to the virtual bankruptcy of two utilities (and I don't believe anything as  
22 extreme as that can happen here), it is essential that we learn from the west coast  
23 problems and prepare for a difficult future.

1 In sum, all of the markets for capital are extremely uncertain and this is a difficult  
2 situation for utilities because of their capital intensity. Further, the industry is undergoing  
3 scrutiny and changes because of this environment. Although these are intangible  
4 environmental issues for the utilities, I believe the facts must be taken into consideration  
5 in the determination of rate of return and that utilities must be prepared to withstand a  
6 period of extreme difficulty if they are to be able to continue to provide the underlying  
7 facilities essential for continued economic growth.

8 **Economic Background to Regulation**

9 Q. How does the determination of rate of return fit into the regulatory proceeding?

10 A. One of the most important aspects of regulation is the process of rate review and  
11 authorization. By historic precedent (and statutory obligation), the Missouri Public  
12 Service Commission ("Commission") authorizes prices which a utility can charge  
13 customers for its services based on the actual costs incurred by the utility in delivering the  
14 services. The procedure used by the Commission involves the development of the  
15 utility's total cost of service or revenue requirement through the systematic step-by-step  
16 accumulation of its component parts. Then, through the process of rate design, this total  
17 cost is converted into prices for individual services for the various customer classes.  
18 An important component of the total costs incurred by MPS to provide electric service are  
19 payments made to the suppliers of capital. These payments include interest on borrowed  
20 capital and return for the equity investment in the company. These payments constitute  
21 the cost of capital portion of the utility total cost or revenue requirement.

22 Q. Can the process used to develop the cost of service be stated as an equation?

1 A. Yes. The specific procedure used by the Commission in developing the component costs  
2 and the overall revenue requirement can be symbolized as follows:

3 **Cost of Service Equation**

4 
$$RR = E + D + T + R (V - AD + A)$$

5 Where:

6	RR	=	Revenue requirement
7	E	=	Operating expense requirement
8	D	=	Depreciation on plant in rate base
9	T	=	Taxes including income tax related to return
10	R	=	Return requirement
11	(V-AD+A)	=	Rate base

12 Where:

13	V	=	Gross plant
14	AD	=	Accumulated depreciation
15	A	=	Other rate base items

16 This equation shows the revenue requirement as the sum of several elements including  
17 the return amount. The return requirement is calculated as the rate of return times the rate  
18 base. Key in this process is original cost of plant and the actual, precisely quantified rate  
19 of return.  
20

21 **Component Cost of Capital**

22 Q. How is the rate of return calculated?

23 A. The process involves a determination of the capital structure or the amount of each type  
24 of capital used in financing the particular utility or Company. Next, the percentage of  
25 each type of capital in the capital structure is calculated. Then the cost of each type of  
26 capital is established. Finally, the capital ratios are multiplied by the cost of each of the  
27 capital components to develop a weighted average rate of return stated as a percentage.

1 The average rate of return percentage multiplied by the rate base is the dollar return  
2 amount which is included in the cost of service.

3 Q. Can the calculation of the rate of return be stated as an equation?

4 A. The general formula used in the calculation of rate of return is as follows:

5 Rate of Return Equation

6 
$$R = DK_D + PK_P + EK_E$$

7 Where:

8	R	=	Return requirement
9	D	=	Debt ratio
10	$K_D$	=	Cost of debt
11	P	=	Preference stock ratio
12	$K_P$	=	Cost of preference stock
13	E	=	Equity ratio
14	$K_E$	=	Cost of equity

15  
16 This general formula is the weighted rate of return formula. The formula involves  
17 multiplying the cost of debt by the debt ratio, the cost of preferred by the preferred ratio,  
18 and the cost of equity by the equity ratio. The formula is a symbolic statement of the  
19 typical capital structure rate of return table.

20 Q. Is the cost of capital determination important for MPS?

21 A. Yes. The cost of capital determination is absolutely critical for MPS.

22 Q. Why?

23 A. MPS uses substantial facilities to provide service to its customers which for regulatory  
24 purposes are depreciated over long time periods. In the terminology of accounting and  
25 economics, the electric business is capital intensive. This means all of the facilities used  
26 in providing electric service must be financed and because the facilities are very costly,



1 the amount of capital used by MPS is very large. This makes the cost of capital a critical  
2 element of the rate determination.

3 Q. Who are the suppliers of MPS' capital?

4 A. Ultimately, all of the capital used by MPS, whether debt or equity, is supplied by  
5 individuals. Some of the capital is supplied directly by individuals through personal  
6 savings but most is supplied indirectly by institutions such as banks, pension funds, and  
7 mutual funds (investment intermediaries) on behalf of individuals. (These intermediaries  
8 gather the capital of individuals and make investments on their behalf.) Regardless of the  
9 direct supplier of capital, however, every dollar of investment capital used to support  
10 MPS' Missouri rate base is ultimately supplied by individuals.

11 Q. Can individuals make a direct investment in MPS?

12 A. No. The process of investment in MPS involves investment in UtiliCorp because MPS is  
13 a division of UtiliCorp and is not a publicly traded separate corporation.

14 Q. How does MPS obtain the capital needed for its operation?

15 A. Capital in the form of debt and equity is supplied by individuals and institutions to  
16 UtiliCorp which then allocates that capital to MPS and other corporate divisions and  
17 subsidiaries to finance needed facilities needed by each to provide their services.  
18 UtiliCorp allocates the capital directly to MPS based on the individual risk return profile  
19 of the activities undertaken by MPS.

20 Q. Generally speaking, how is the cost of capital determined?

21 A. The cost of a component of capital is an opportunity cost. It is the amount of return or  
22 income foregone by the investor selecting or choosing one investment as compared to the  
23 next best investment alternative.

1 The idea behind the concept is the reality of limited resources including limited capital.  
2 Whenever scarce resources such as capital are committed to a specific investment, the  
3 same resources cannot be used for some other activity and cannot generate the profits  
4 which would have been associated with that other activity. To make the commitment, the  
5 activity which ultimately receives (or attracts) the investment must attract it away from  
6 the alternatives.

7 **Investment Risk**

8 Q. How do the investors make the investment decision?

9 A. Investors choose individual investments from the wide variety of investment alternatives  
10 available. These alternatives range from very low risk to very high risk ranked along  
11 what is usually called a risk spectrum. Most investors focus on a segment of the  
12 spectrum. The individual choice of investment risk level is mostly determined by the  
13 investors' risk tolerance.

14 Within a risk category, investors rank alternatives by estimating the risk of each  
15 investment and its related return potential. Investors rank these risk-return pairs with the  
16 best combination of risk and return available at the top of the list or the most desirable  
17 investment. The best investment in this context is the combination of the lowest risk and  
18 highest return available within the risk class.

19 At any time, there are usually a number of investments which are similar but there are  
20 always slight differences in both risk and return -- either real or perceived by investors. It  
21 is within this group of near alternatives that the opportunity cost for a similar investment  
22 will be found.

23 Q. What are the implications for MPS?

1 A. At a minimum, to be an attractive investment alternative and to have access to the capital  
2 needed to meet customer demands, it is necessary for MPS to have risk-return  
3 characteristics which cause its securities to rank among the investment grade choices  
4 within the appropriate risk category. Since little can be done to lower or change the risk  
5 of MPS, the return must be set to match the risk of MPS. That risk is electric utility risk  
6 plus or minus the risk effects of the specific MPS operations.

7 Q. Does the level of risk associated with a particular investment change through time?

8 A. Yes, it does. There may be changes in the level of risk associated with a long-term debt  
9 security such as a bond and these changes are usually signified by changes in bond rating.  
10 Changes in the risk of equities also take place. Changes in risk are usually precipitated  
11 by the overall increase or decrease in riskiness in the industry or specific changes in the  
12 company or its operations, a reduction in the company's equity ratio, or some other  
13 specific change. External change such as the emergence of inflation also changes risk  
14 levels. The current "energy crisis" is a change in risk for the electric utility industry as  
15 compared to as recently as one year ago.

16 Q. Do investors change risk categories or their portfolios' risk level from time to time?

17 A. Yes they do. As I indicated, investors tend to focus on a specific area of the risk  
18 spectrum. However, from time to time, the opportunities, promises and potential rewards  
19 of investing in higher risk areas sometimes become so great that even conservative  
20 investors move in to high-risk categories.

21 **Macro-Economic Events**

22 Q. Are there other trends in the economy which are impacting on the cost of capital to public  
23 utilities such as MPS?

1 A. Yes. The economy is operating in an extremely high level but slowing perhaps abruptly.  
2 The total level of economic activity is still growing, unemployment is at historically low  
3 levels, and economic trends measured by almost any barometer are upward. This has  
4 tightened the market for capital. While these real economy factors persist, the market for  
5 equity capital has undergone wrenching gyrations.

6 Q. What is the effect on capital costs?

7 A. Except for debt, I believe there has been an actual increase in the cost of money which is  
8 observable in the marketplace. The price of equity in the marketplace has dropped far  
9 more than is currently justified by expectation for lower earnings. This means the cost of  
10 capital has increased.

11 **Determination of the Components of Capital and Their Costs**

12 Q. Why are different types of capital used in financing a company?

13 A. Different types of capital have different costs. Using the right blend of capital will attract  
14 the needed capital at the lowest overall cost of capital.

15 Q. Why do different types of capital have different costs?

16 A. Because the terms and conditions of the investment for each of the different types of  
17 capital make the risk for each type of capital different. For example, the lowest cost,  
18 lowest risk permanent capital is long-term debt. It is the lowest cost because it is the  
19 lowest risk. It is the lowest risk because it has a fixed level of annual income, first claim  
20 on income each year, substantial remedies if the interest (income) is not paid when due,  
21 and first claim on assets in a wind up of the enterprise. The capital commitment is also  
22 for a fixed term with full repayment promised at the end of the term. Finally, almost

1 none of the risk of the business is carried by the debt capital but rather concentrated in the  
2 equity investment.

3 Q. How does the risk of the operation get concentrated in the equity portion of the capital?

4 A. Business risk such as changes in demand and changes in weather cause net operating  
5 income or earnings for all capital to vary from year to year and sometimes to drop  
6 significantly. Regardless of the actual net operating income of the business during the  
7 year, normally the debt portion of the capital structure receives its interest payment. This  
8 means that the business activities of the company which translate into changes in earnings  
9 do not impact the debt investment which helps to support the utility assets. Conversely,  
10 all of the impact of the change in income is reflected in the amount available for the  
11 equity investment because common equity is last in line for income each year and  
12 receives its earnings only after contractual obligations to all other suppliers of capital  
13 have been met. Since equity income is less than total income but absorbs all of the  
14 variation, it absorbs all of the operating risk of the company.

15 Q. How are the costs of the different types of capital determined?

16 A. All capital costs are determined by measuring investor requirements. There are  
17 differences, however, in the methods used to measure investor requirements. The cost of  
18 debt is usually set for the term of the issue when the borrowing agreement is made.  
19 Therefore, for the debt capital used by MPS, the investor requirements are fully disclosed  
20 in the initial commitment and documented by its terms. This makes the cost of debt  
21 determination a matter of calculation. The cost of equity is quite different. The cost of  
22 equity is not a contractual cost. It is expectational. Investors have expectations  
23 concerning risk and return and make investments on the basis of those expectations.

1 These expectations change from time to time. The cost, therefore, must be estimated by  
2 evaluating the current actions of investors and evaluating the costs of the similar  
3 alternatives. This is done to determine current investor expectations and return  
4 requirements.

5 Q. With this background, how did you determine the cost of capital for MPS?

6 A. MPS uses debt and common equity capital to permanently finance the Missouri facilities.

7 The cost of each type of capital is different. It is the weighted average cost of all types of  
8 capital used which must be determined. As a result, the first step is to determine the  
9 capital structure or mix of capital used to finance the facilities. The next step is to  
10 determine the cost of each type of capital. The final step is to calculate the average cost  
11 of the total capital employed.

### 12 **Capital Structure**

13 Q. Please describe the capital structure which you have used in the calculation of rate of  
14 return for MPS.

15 I have calculated the rate of return using the MPS book divisional capital structure for the  
16 test year. The MPS test year book total capital structure is shown in the accounting  
17 exhibits. The capital structure at January 31, 2001, the latest information I have  
18 available, totaled \$696,447,000:

Missouri Public Service  
Divisional Capital Structure  
January 31, 2001

	<u>Amount</u> <u>(000)</u>	<u>Ratio</u>
Long-term debt	\$ 362,031	52.0%
Common equity	\$ 334,330	48.0
Total	<u>\$ 696,361</u>	<u>100.00%</u>

There is a small amount of short-term debt outstanding at January 31, 2001. It totals \$86,000. I have not included that small amount of short term debt in the capital structure.

The company has consistently financed its short term debt both at the parent and at the division level. Short term debt is not permanent capital. It is temporary capital used to develop new assets and support them until they are financed with permanent capital.

Q. How does this capital structure compare to the target capital structure established by UtiliCorp for the MPS division?

A. It is very close to the target equity ratio of 47.5%.

Q. Is the divisional capital structure of MPS the correct capital structure for the regulatory calculation of rate of return?

A. Yes.

Q. Why?

A. There are several reasons:

- 1) The divisional capital structure is the actual capital structure that has provided the actual financing of the electric utility properties of MPS which make up the rate base in this proceeding.
- 2) This capital structure is similar to the capital structures of other electric utility companies. This is the primary standard for determining appropriateness and, in this case, the book capital structures meet that standard.

- 3) This capital structure is the result of the application of a system of capital allocation which has been repeatedly audited, market tested and accepted and approved by the UtiliCorp board of directors.
- 4) This capital structure has the advantages of consistency, predictability, rationality and responsibility.
- 5) The divisional capital structure insulates MPS' regulated activities from the other activities of UtiliCorp and its other divisions.
- 6) The divisional capital structure procedures and the resultant capital structures are the only capital structures which are consistent with sound contemporary business practices and currently accepted financial theory.
- 7) The divisional capital structures and the procedures involved in the determination of those capital structures has been reviewed by this Commission and the Commissions of several other states. This Commission has both accepted and rejected the procedures. The states of Kansas, Nebraska, Michigan, Minnesota and West Virginia have reviewed the capital structure procedures and resulting capital structure and adopted the divisional capital structure approach. The states of Michigan and Minnesota undertook a specific investigation and, after that investigation, adopted the capital structure approach employed by UtiliCorp.

#### **UtiliCorp Capital Allocation System**

Q. How does UtiliCorp assign capital to MPS?

A. As indicated previously, MPS is a division of UtiliCorp and receives all of its capital from UtiliCorp. Its capital structure is a result of the operation of UtiliCorp's comprehensive system of capital allocation. Under this comprehensive system, UtiliCorp establishes and funds separate capital structures for each of the divisions and subsidiaries. The primary criteria used by UtiliCorp in establishing the capital structure for a regulated, nonregulated, or international division is to make the assigned capital structure appropriate to the line of business being financed. This means the capital structure must



1 be closely comparable to the capital structures of similar publicly traded companies, in  
2 this case, electric utility companies.

3 There are two primary activities required to establish a proper initial capital structure.

4 The first step is to establish the proper capital structure ratios. The second step is to  
5 determine the proper total amount of capital required. Once these two inputs are  
6 established, multiplication of the total amount needed by the capital structure ratios sets  
7 the proper amount of each type of capital.

8 Q. How did UtiliCorp determine the proper capital ratios for MPS?

9 A. The appropriate capital ratios were developed using a "proxy" analysis also known in  
10 financial analysis as "pure play" analysis. Proxy analysis is a standard technique of  
11 financial analysis. In proxy analysis, a group of companies, the activities of which are  
12 confined as nearly as possible in a single line of business (i.e. without diversification), is  
13 analyzed to determine the operational and financial characteristics associated with that  
14 line of business. These characteristics are then used to establish the requirements and  
15 performance of "lines of business" within a multi-business line company. This type of  
16 analysis is very similar to the "comparative company" analysis used in most regulatory  
17 reviews.

18 For the capital structure analysis, a proxy group publicly traded electric utility company  
19 was selected. The capital ratios of the group were analyzed to develop planned capital  
20 ratios for UtiliCorp's electric utility line of business. The target capital structures for  
21 electric utility was used to establish the divisional capital structure for MPS.

22 Nonregulated electric and international capital structures were determined in a similar  
23 manner.

1 The initial capital structure analysis took place in the late 1980's, shortly after the  
2 formation of UtiliCorp. The capital structure allocations were reviewed on at least three  
3 separate occasions and, on one of those occasions, the capital structure ratios for electric  
4 utility divisions was set at 47.5%. It has been at that level for at least the past five years.  
5 Previously, it was at 45.0%.

6 Q. Will the actual equity ratio of MPS calculated from its financial statements always be  
7 47.5 percent?

8 A. No. The 47.5 percent ratio is set as a target. The actual capital structure is the product of  
9 conventional accounting and financial methods. In the ordinary course of business, MPS  
10 uses long-term debt financing provided by UtiliCorp as a primary financial intermediary.  
11 MPS also has accrued retained earnings and pays dividends in the manner of typical  
12 electric utility companies. The result of these transactions is to produce a ratio that tends  
13 to closely move around the target ratio but does not always "hit" the target on a  
14 continuing basis.

15 Q. Has the Commission addressed the UtiliCorp capital allocation system?

16 A. Yes. In its Report and Order on Remand issued in Case No. ER-93-37 on April 4, 1997,  
17 the Commission discussed UtiliCorp's capital allocation system and adopted the result of  
18 that process. In so doing, the Commission said that while the use of UtiliCorp's  
19 consolidated capital structure may be a valid approach,

20 "...this is not the best approach for this case because UtiliCorp is comprised of  
21 both operating utility divisions and unregulated subsidiaries, and its capital  
22 structure reflects that mix. Use of MoPub's assigned capital structure will help  
23 insulate it to some extent from UtiliCorp's unregulated subsidiaries, and the  
24 assigned structure is actually analogous to the capital structures of comparable  
25 electric utilities...the Commission determines that use of MoPub's assigned  
26 capital structure is warranted. This structure was assigned to MoPub several years

1 prior to this case based upon a comprehensive system of capital structure  
2 allocation by UtiliCorp, in conformity with Securities and Exchange Commission  
3 (SEC) requirements and Generally Accepted Accounting Principals (GAAP). Use  
4 of it will allow year-to-year continuity and permit easier period-to-period  
5 comparisons. Finally, the Commission determines that in this case, it will not  
6 impose a different capital structure on a utility where the management of the  
7 company has chosen an appropriate capital structure.” (See Report and Order p.  
8 38-39).  
9

10 **Comparison to Other Electric Utility Companies**

11 Q. How does the MPS book equity ratio of 48.0% and the target equity ratio of 47.5%  
12 compare to other electric utilities?

13 A. Both are comparable to the actual equity ratios of the proxy electric utility companies that  
14 I used to determine the benchmark cost of equity. The average equity ratio for those  
15 publicly traded proxy electric utility companies was 46.24%. This means that the equity  
16 ratio of MPS is comparable to the proxy group and comparable to the industry standard.  
17 As a result, this equity ratio meets the standard of comparability for an appropriate equity  
18 ratio.

19 Q. Is it important that the equity ratio used to set rates for MPS be comparable to the equity  
20 ratio of the proxy group used to determine the return on equity?

21 A. Yes, for two reasons. First, the proxy group represents a subset of the electric utility  
22 business which is comparable to MPS. MPS should have capital ratios similar to its  
23 industry subset.

24 Second, there are two major kinds of risks associated with an equity investment --  
25 financial risk and business risk. Since MPS is comparable but not identical to the proxy  
26 group, it is necessary to determine the proxy group benchmark return and then adjust that  
27 return to the risk profile of MPS. Since the capital ratios of MPS are similar to the proxy

1 group, the total adjustment necessary from the benchmark to the specifics of MPS is  
2 reduced by virtue of the fact that there is no significant difference in financial risk  
3 between MPS and the proxy group.

4 Q. Are you saying that in all cases, for ratemaking purposes, a regulatory commission should  
5 use capital ratios similar to the industry?

6 A. Not necessarily. For example, there could be an instance in which a utility did not have  
7 access to any equity because it had been distributed or assigned or granted to another  
8 entity. In that type of a situation, to use for ratemaking purposes a hypothetical capital  
9 structure not based on a rational allocation system including an equity component similar  
10 to the industry would produce a return on equity far removed from reality. In that type of  
11 situation, it would be appropriate to analyze the real underlying financial circumstances  
12 and regulate based on that reality. This is not the situation, however, with respect to  
13 MPS. The MPS capital structure is realistic and is the result of a rational allocation  
14 system and this Commission has so found.

#### 15 Support in Financial Practice

16 Q. Is the use of target capital ratios by a multiline business supported by other sources?

17 A. Yes, the principle has been established as proper for many years. In Managerial Finance  
18 (Gitman, Joehnk and Pinches), a basic comprehensive financial text, the authors state that  
19 almost all companies with multiple lines of business base their investment decisions on  
20 divisional cost of capital. They go on to state that the appropriate procedure for  
21 determining capital costs and making financial structure decisions in a multi-line business  
22 involves determining appropriate target capital structures for each division followed by  
23 the calculation of explicit costs for each source of financing for each division (page 726).

1 There are also numerous articles in the literature of finance which use this assertion as a  
2 point of departure in an exposition on cost of capital, capital structure, and capital  
3 budgeting.

4 Q. From a practical perspective, is the divisional capital structure approach used to actually  
5 operate companies, budget capital, and provide financial advice to major corporations?

6 A. It is. Robert F. Bruner, Kenneth Eades, Robert Harris, and Robert Higgins recently  
7 conducted a survey of best practices in estimating the cost of capital which was published  
8 in Financial Practice and Education, Spring/Summer 1998, pages 13 to 28. That article  
9 reports on a survey of financial practices of 50 companies identified as world class  
10 financial management companies. It also reports on a survey of 10 of the most active  
11 merger and acquisition advisors from Institutional Investor and a selection of the four top  
12 text books and three top trade books (based on sales).

13 The survey results show that 100 percent of the text books and trade books use a distinct  
14 weighted average cost of capital for each division. One hundred percent of the financial  
15 advisors separately evaluated the individual divisions of a multi-division company and  
16 used different division weighted average costs of capital for the valuations. The paper  
17 defines weighted average cost of capital as using unique costs of capital and unique  
18 capital structures for each division.

19 This survey suggests almost 100 percent acceptance and use of the allocated capital  
20 approach by top companies, active financial advisors, and text/trade books.

#### 21 **Effects on Management Accountability**

22 Q. Does the capital structure system used by UtiliCorp affect management accountability?

23 A. Yes.

1 Q. Please explain.

2 A. Not only does the system place responsibility and costs appropriately, it also creates  
3 management incentive and responsibility for each part of the total company. Each  
4 manager must justify expenditures and then, when expenditures are made, a capital  
5 standard exists to measure performance. For regulated entities such as MPS, this system  
6 also provides a record of progress which is a performance measurement useful not only  
7 for management, but also by regulators.

8 **Protection for Customers and Application in Prior Rate Proceedings**

9 Q. Does the capital structure system used by UtiliCorp provide protection to customers?

10 A. Yes.

11 Q. Please explain.

12 A. UtiliCorp is active in the acquisition area. The use of a divisional capital structure  
13 insulates and separates each of the existing divisions from the other activities of UtiliCorp  
14 (and the activities of the other divisions and subsidiaries). It also holds the cost of debt  
15 and equity for each of the divisions to a level which is precisely related to that division's  
16 activities and, more importantly, not related to the overall activities of UtiliCorp. Over  
17 the long run, this works to give UtiliCorp's individual utility divisions the lowest possible  
18 cost of capital.

19 Q. Has UtiliCorp's capital structure system been reviewed in previous rate proceedings  
20 before commissions?

21 A. It has. It has been reviewed several times in Kansas, Minnesota, Michigan and Nebraska.  
22 It has also been reviewed in Missouri, Iowa, Colorado, and West Virginia. In most of

1 these states it has been used as the basis of the cost of capital for rate making. Missouri  
2 has reached different conclusions on capital structure in different rate proceedings.

3 Q. How has the Missouri Public Service Commission viewed the capital structure allocation  
4 system of UtiliCorp?

5 A. The Commission has reviewed the capital structure allocation system on three separate  
6 occasions. In Case No. ER-90-101, the Commission used the consolidated capital  
7 structure. In Case No. ER-93-37, a partially settled case ultimately decided by the  
8 Commission, the Commission considered and approved the use of the division capital  
9 structure. In Case No. ER-97-394, the Commission used the consolidated capital  
10 structure.

11 Q. Has the Commission indicated its desire to use a theoretically correct capital structure or  
12 one which matches industry standards?

13 A. Yes. In a St. Joseph Light & Power Company proceeding ("SJLP"), Case Nos. ER-93-41  
14 and EC-93-252, the Commission adopted a "industry capital structure" to set the rates for  
15 SJLP. It chose the industry capital structure because the Commission believed that the  
16 capital structure of SJLP was not typical.

17 **Significance to Investors**

18 Q. How would you characterize the determination of separate allocations of capital by  
19 UtiliCorp with respect to its investors?

20 A. It is significant.

21 Q. Please explain.

22 A. Yes. UtiliCorp is responsible in this process, as is any other company with multiple lines  
23 of business, to assure that the capital entrusted to it is invested so that the return produced

1 for the original individual investors in UtiliCorp is commensurate with the combined risk  
2 of the funds allocated to UtiliCorp's various activities. As a result, UtiliCorp must use  
3 risk-return calculations in its investment decisions and each recipient of capital from  
4 UtiliCorp must provide the proportionate return. Key in this risk-return determination is  
5 the assignment of divisional capital structures as UtiliCorp has done for MPS.

6 **Consolidated Capital Structure Alternative**

7 Q. Did you consider using the UtiliCorp consolidated capital structure?

8 A. I considered using the UtiliCorp consolidated capital structure but rejected it because it  
9 was inappropriate for revenue requirement purposes.

10 Q. Why is the UtiliCorp consolidated capital structure inappropriate for use in determining  
11 the revenue requirements of MPS?

12 A. A consolidated capital structure is only the summation of all of the individual division  
13 and subsidiary capital structures of a company, plus or minus accounting eliminations.  
14 With a diversified company such as UtiliCorp, the consolidated capital structure bears no  
15 particular relationship to the appropriate capital structure for any one of the individual  
16 lines of business.

17 Q. Please explain.

18 A. UtiliCorp owns and operates a wide range of businesses, including some investments in  
19 the electric utility business in the United States and internationally in Canada, New  
20 Zealand, and Australia. UtiliCorp has substantial investment in the non-utility energy  
21 business, in the communication business and in the natural gas business. Each of these  
22 activities has a specific capital structure or capital requirement based upon its specific  
23 industry and risk characteristics. The consolidated capital structure of UtiliCorp is just



1 the summation of these specific capital structures with no special relationship to any of  
2 the parts which make it up.

3 Q. Can you further explain the distinctions between UtiliCorp's different lines of business?

4 A. MPS is an electric utility operating solely in Missouri. UtiliCorp, on the other hand, is an  
5 international company with substantial natural gas and electric utility investments in the  
6 United States plus very substantial investments in the United Kingdom, Australia, New  
7 Zealand, and Canada. UtiliCorp also has significant business activities in the energy  
8 merchant area, the telecommunications section and pipeline and storage operations in  
9 Texas. MPS has no such activities.

10 UtiliCorp can best be described as a portfolio of energy and utility related investments.

11 This portfolio consists of numerous individual divisions and corporations, many of which  
12 are similar and many quite different from each other. As a portfolio or a group of  
13 companies operated under the name of UtiliCorp, the individual parts are different than  
14 the company as a whole. MPS is one of the individual parts. The UtiliCorp balance sheet  
15 exceeds \$14 Billion. MPS is much, much smaller.

16 Q. Are there other reasons why use of the UtiliCorp consolidated capital structure would be  
17 inappropriate?

18 A. Yes. A significant part of the long term debt that is included in the UtiliCorp  
19 consolidated capital structure is long term debt of subsidiaries that was issued directly by  
20 the subsidiaries. This long term debt of these subsidiaries is subject to indentures that  
21 contain covenants that limit the use of funds provided through the debt to the specific  
22 subsidiaries that issued the debt. As a result, that debt cannot be made available to fund  
23 any other activities of UtiliCorp and it not legally available to provide any funding for

1 MPS. There are also large amounts of long term debt which are contractually dedicated  
2 to specific purposes and not available for the general financing of the company.

3 Q. Can you further describe some of this debt?

4 A. Yes. Aquila Southwest, a UtiliCorp subsidiary, issued a substantial amount of long term  
5 debt while it was a publicly traded company partially owned by UtiliCorp. Some of that  
6 debt remains outstanding and that debt cannot be transferred to UtiliCorp. The UtiliCorp  
7 consolidated balance sheet also contains large amounts of long term debt that are  
8 explicitly limited to investments in operations in New Zealand, Australia, and Canada.  
9 There are legal restrictions that prevent the use of any of these funds in financing any of  
10 UtiliCorp's other operations, including MPS.

11 Q. What is the long term debt which is contractually dedicated to specific purposes?

12 A. UtiliCorp has several international utility investments. Those investments generally have  
13 associated with them a specific capital structure which includes long term debt. The long  
14 term debt related to these international ventures was borrowed under agreements  
15 (generally described as an indenture or offering statement) which included specific  
16 prohibitions required by the lender. These prohibitions required that the long term debt  
17 loaned to the company in connection with a specific international operation be used  
18 solely within the boundaries of a specific country for a specific purpose. In other words,  
19 the debt borrowed in Australia for certain Australian utility activities includes a  
20 contractual commitment that that debt will be used by UtiliCorp solely to finance certain  
21 properties identified in the agreement and not be used for any other purposes.

22 Q. How would you characterize the amounts of long term debt that are subject to legal or  
23 contractual restrictions that prevent other uses by UtiliCorp?

1 A. They are very substantial. As of December 31, 2000, UtiliCorp had \$2,345,900,000 of  
2 long-term debt outstanding. Of that amount, \$799,900,000 was issued internationally  
3 under indentures which limit the use of the funds to specific activities in Australia, New  
4 Zealand, and Canada. Also, \$25.0 Million was issued by Aquila Southwest when it was  
5 publicly traded. In addition, there are loans and Michigan debt included in the total. In  
6 sum, the restricted debt amounts to 35.1% of UtiliCorp's long-term debt. In this context,  
7 restricted means the debt cannot be used to finance MPS properties.

8 Q. What is the significance of including that much unavailable debt in a capital structure  
9 used for rate making purposes?

10 A. Including so much unavailable debt from UtiliCorp subsidiaries would cause a serious  
11 distortion of the capital structure should it be used to determine the rate of return required  
12 for MPS. In addition, as previously discussed, using the consolidated capital structure of  
13 a diversified company such as UtiliCorp is conceptually unsound.

14 **Assignment of Debt and Cost of Debt**

15 Q. How does UtiliCorp assign long term debt to the individual divisions?

16 A. Long-term debt is supplied to divisions based on need and request. Typically, divisions  
17 accumulate short term debt from constructing plant and facilities. Such accumulations  
18 are generally for a period of one year or less. When refinancing of the short term debt is  
19 needed, the divisions request the appropriate debt or equity financing usually at year end.  
20 UtiliCorp accumulates the requests and when the requests in combination total an  
21 amount which is sufficient to justify a long term issuance of new debt, UtiliCorp issues  
22 such debt market conditions permitting usually once a year.

1 The debt is then assigned to the individual divisions based on their individual requests. If  
2 there is not enough debt to meet all requests, the divisions receive long term debt in the  
3 proportion of their individual request as compared to the total of all requests, i.e. if a  
4 division request amounts to 10% of the total request for long term debt, that division  
5 would receive 10% of the new long term debt.

6 Debt is assigned to the division for the life of the issue. Once a division is assigned long  
7 term debt, that long term debt becomes a part of the division's permanent capital structure  
8 and is not reallocated or used in the financing of other divisions unless that division no  
9 longer needs the debt.

10 Q. Does UtiliCorp change the cost of debt when it is assigned to a division?

11 A. No. The cost of the assigned debt to the division is exactly the same as the cost of the  
12 debt to UtiliCorp. There are no adjustments nor changes in the cost of debt over the life  
13 of the issue unless they are related to the terms of the issue itself.

14 Q. How is the international long term debt assigned?

15 A. International debt, like the debt of divisions and subsidiaries which in some way is tied to  
16 those divisions and subsidiaries, is assigned to the property which gave rise to the long  
17 term debt initially. Said somewhat differently, if long term debt is borrowed specifically  
18 for property in Australia, usually from Australia lenders and typically with constraints  
19 confining the use of that debt to investment in Australian properties, that debt is assigned  
20 directly to those Australian properties.

21 Similarly, when long term debt is related to a specific division or subsidiary activity, it is  
22 assigned to that division or subsidiary activity. For example, Aquila Southwest issued  
23 long term debt when it was not a wholly owned subsidiary of UtiliCorp. Aquila

1 Southwest continues to carry that long term debt as directly assigned to it. It is not  
2 allocated to other UtiliCorp activities and it is not in any way used to impact the cost of  
3 debt of any other UtiliCorp transactions.

4 Furthermore, some companies, when acquired, bring with them certain amounts of long  
5 term debt. Those amounts of long term debt are directly assigned to that activity for the  
6 remaining life of those debt securities. This was the case in the establishment of the  
7 system when long term debt tied to properties of UtiliCorp's predecessor, Missouri Public  
8 Service Company by first mortgage indenture was brought to the consolidating entity.  
9 That long term debt was assigned to Missouri Public Service Company and remained  
10 there until it was retired in the ordinary course of events. Some of that debt remains and  
11 continues to be assigned to MPS.

#### 12 **MPS Cost of Long-Term Debt**

13 Q. What is the MPS cost of long-term debt?

14 A. The MPS cost of long-term debt at January 31, 2001, the date of the capital structure, is  
15 8.215%.

#### 16 **Cost of Common Equity**

17 Q. What procedure did you use to calculate the cost of common equity?

18 A. I used the Discounted Cash Flow ("DCF") model to make my initial calculations and  
19 establish a benchmark, industry cost of capital. The DCF model is a well accepted tool of  
20 financial analysis which has been tested repeatedly over many years of application by this  
21 Commission and many others. After the DCF calculations were completed, I used that  
22 data, a calculated risk adjustment, and judgment in finalizing my recommendations.

23 Q. What is the conceptual basis of the DCF model?

1 A. The DCF model is based on the assumption that investors value and commit to  
2 investments based upon the future stream of income which is expected to be produced by  
3 the investments. Therefore, if the future stream of income can be quantified, the investor  
4 discount rate can be estimated by the price which the investor sets on the investment  
5 since the price set is the investors' discounted value of the future stream of income.

6 Q. Please summarize the steps you took in your DCF analysis.

7 A. Using the DCF model, I determined the cost of equity for a proxy group of electric utility  
8 companies selected from the Value Line Investment Survey. This became an unadjusted  
9 electric utility return on equity requirement. I then compared the level of MPS risk to the  
10 risk of the pure play or proxy group to establish the relative risk vis-a-vis the proxy  
11 group. Based upon this analysis and my assessment of the near term future, I estimated  
12 the risk-adjusted cost of equity for MPS.

13 Q. Mr. Dunn, why didn't you determine a cost of common equity for UtiliCorp and use it for  
14 MPS?

15 A. The cost of common equity for UtiliCorp is very different from the cost of common  
16 equity for MPS for the same reasons the capital structure requirements are different. The  
17 UtiliCorp cost of common equity is the weighted average of the cost of common equity of  
18 all of its individual activities. The costs of common equity of the individual activities  
19 including MPS are related to the risks and opportunities of each of the specific business  
20 activities, not to the weighted average of UtiliCorp as a whole.

21 Q. What is the Value Line Investment Survey?

22 A. The Value Line Investment Survey is a respected and authoritative source of financial,  
23 operating and security price statistics for publicly traded companies. The Survey,

1 published weekly, covers ninety-five industry groups. It is widely used by investors,  
2 security analysts, and financial analysts in developing factual analyses of publicly traded  
3 companies.

4 Q. Please describe how you selected the companies which you used to determine the electric  
5 utility benchmark return requirement.

6 A. My selection process involved the identification of a group of companies that have most  
7 of their activities confined to the electric utility business. To identify that group, I  
8 reviewed the business description of the electric utility companies included in the  
9 January 5, 2001 Value Line Investment Survey.

10 I eliminated companies that were many times larger than the typical electric utility  
11 company, companies which had less than a full ten years of history and all companies  
12 controlled by mergers. The review process left none in my proxy group. The companies  
13 are listed on Schedule 2, with revenues, the customer count, debt and equity ratio for each  
14 company as reported by Value Line for each company.

15 Q. Please describe the characteristics of your proxy group of ten companies.

16 A. The proxy companies constitute a reasonably homogenous group of electric utility  
17 companies. The companies reflect the characteristics of reasonably sized, publicly  
18 traded, well known companies which can be used as the basis of an analysis to determine  
19 the required return on common equity for a similar nontraded electric utility company.  
20 Although some of the companies are diversified, they are still recognized as primarily  
21 electric utilities.

22 Q. What is the average equity ratio of the proxy group?

1 A. The average equity ratio of the group from Schedule 2, at December 31, 1999 is 46.24  
2 percent. The average equity ratio of the group for the period 1990 to 1999 was in the  
3 range of 47.5 percent to 50.5 percent. The ten-year history of the group equity ratio is  
4 shown on Schedule 3. The current equity ratio is the lowest equity ratio in the period at  
5 least in part due to a financial restructuring of IPALCO Enterprises, Inc. and the  
6 NiSource acquisition of Columbia Energy.

7 Q. How does the proxy group average equity ratio compared to the division equity ratios of  
8 MPS?

9 A. The 1999 proxy group equity ratio at 46.6 percent is just lower than the MPS target ratio  
10 of 47.5 percent. The group ratio has been consistently above the current level. This  
11 further validates the use of the division equity ratio for MPS.

### 12 **The Theory of the DCF Model**

13 Q. Before discussing the schedules which examine the data used in this analysis, would you  
14 please describe the DCF approach?

15 A. The Commission is very familiar with the DCF model, so I will present only a brief  
16 outline of the foundations of the model. As I indicated previously, the primary premise  
17 of the DCF model is that the value of an equity security, i.e. a share of common stock,  
18 can be defined as the present value of the expected future stream of income, hence its  
19 association with discounted cash flow.

20 The model can be understood by considering the procedure for valuing a stream of  
21 payments. Under certain circumstances, the value of a stream of payments can be  
22 determined by dividing the stream of payments by a required return or discount factor.

23 For example, if the stream of payments is \$10 per year and the required return or discount



rate is 10 percent, the value of the stream of payments is \$100. This can be stated mathematically as:

$$V = \frac{D}{K} \quad \text{or} \quad \$V = \frac{\$10}{10\%} = \$100$$

$$\text{or} \quad \text{Value} = \frac{\text{Dividend}}{\text{Discount Rate}}$$

This calculation of value assumed that the dividend or payment rate and the discount rate were known. The equation was then solved for value. If the value (price) and dividend rate are known, the equation can be solved for the required return as follows:

$$\text{For Value} \quad V = \frac{D}{K} = \frac{\$10}{10\%} = \$100$$

$$\text{For Return} \quad K = \frac{D}{V} = \frac{\$10}{\$100} = 10\%$$

To convert the formula to value stocks, the growth in the stream of payments must be added to the formula. In the context of a common equity investment, growth in overall value as caused by retention of earnings.

Incorporating growth into the formula and solving for the cost of common equity, the basic discounted cash flow formula is:

$$K = \frac{D_1}{P_0 + g} \quad \text{or Return} = \frac{\text{Dividend (first year of ownership)}}{\text{Price (Today)}} + \text{growth in dividends}$$

Where:

$D_1$  = Dividends per share end of the first year of ownership  
 $P_0$  = Price per share in the present time period  
 $g$  = The rate of growth of common stock dividends per share

Finally, the formula is adjusted to incorporate the effect of flotation (new issuance) cost and pre-offering pressure into the analysis. This is accomplished

by increasing the dividend yield component of the return by one minus the  
flotation expense or:

$$K = \frac{\frac{D_1}{P_0}}{1 - f} + g$$

Where:

f = Cost of issuance and pre-offering pressure

### **Impact of Industry Change on the DCF Analysis**

Q. Will dividends continue to play their prior prominent role in the DCF model as the utility industry changes?

A. No. Dividends are used in the formula to capture or measure a part of the return received by investors. For utilities, this has historically been a very large part of the total return to investors. Now and in the future, however, dividends are becoming less important and as dividends become less important, growth in dividends will be replaced by overall growth in earnings. This means that the best measure of future growth is not the pure growth in dividends but rather the growth in the company overall, particularly earnings.

Q. Please explain more about the changing role of dividends for utilities.

A. Historically, utilities paid out a large portion of earnings in the form of dividends and, to meet capital requirements, issued new capital on a very frequent basis. However, primarily in response to competition, investor demands and increased tax awareness, utilities have stated and analysts have begun to assume that dividend growth will be lower in the future so that companies can retain more of their earnings and consequently grow more rapidly with fewer new issues of debt and equity.

1 Q. Does this involve significant changes in the application of the DCF formula?

2 A. No. It only involves recognizing that growth in earnings will be the primary driver of  
3 investor return rather than growth in dividends as has historically been the case.

4 Q. Have recent events had an effect on the determination of the dividend yield which is  
5 included in the DCF formula?

6 A. Yes. There has been a substantial amount of merger activity in the utility industry. This  
7 has encompassed both the electric utility industry and the natural gas utility industry.  
8 This has the effect of reducing the number of companies in the industry and reducing the  
9 size of any potential pure play group.

10 Secondly, from time to time, utility companies either become involved in mergers or  
11 there is speculation that they may become involved in mergers. The latter fact applies to  
12 the industry as a whole. When this speculation exists, prices are at artificially high levels  
13 which in turn leads to an understatement of the dividend yield that would exist absent  
14 such speculation.

15 Q. What is the result of these market and industry changes?

16 A. Market changes and changes in the electric utility industry require a more critical  
17 approach to analysis. As a result, the use of historic data must be carefully evaluated  
18 simply because the future will be different than the past. This means that while historic  
19 data must be used in the calculations (because it is all that is available), it cannot be used  
20 uncritically and judgment must supplement the traditional uncritical use of data. I will  
21 supplement the historic data with an analysis of earnings forecasts.

22 Q. Does the change in the dividend policy of electric utilities impact the overall return  
23 received by shareholders?

1 A. The policy is more tax efficient. That is to say it reduces the total tax liability on  
2 investors, assuming that most investors are taxpayers. This is because the investor return  
3 is comprised of two parts, the dividend plus the growth in value of the shareholding. As  
4 the dividend is reduced, the growth in value is increased a pace. Growth in value is  
5 assumed to be taxed at a lower effective rate than dividends. As a consequence,  
6 shareholders should receive a slightly greater after-tax return. It is not expected that the  
7 change in policy to a reduced dividend and more rapid growth would result in a change in  
8 the pre-tax return.

9 Q. Please summarize the steps of your cost of equity analysis based on the DCF techniques.

10 A. The analysis involves the calculation of each of the components of the model. This  
11 requires first developing a reasonable estimate of investor growth expectations, the  
12 available dividend yield and the cost of flotation and pre-offering pressure. The elements  
13 are then combined as indicated in the model.

14 **Determination of Growth Rate**

15 Q. Please describe your determination of the growth rate.

16 A. My determination of the growth rate is designed to parallel an investor's analysis. To  
17 accomplish this, I have based my analysis to data and reports which are available to  
18 investors to assist them in making investment decisions. Investors use both historic data  
19 and market reports and forecasts in making their decisions.

20 Schedule 4 is an analysis of the five and ten year growth in earnings, dividends and book  
21 value for the proxy group. The analysis includes a detail of the growth rate for each of  
22 the companies in each of the three variables for both of the time periods. The data is  
23 taken from the Value Line Investment Survey dated January 5, 2001.

1 For the five and ten year periods, the average growth rates for the comparative group of  
2 electric utilities are as follows:

3 Missouri Public Service  
4 Proxy Electric Utilities  
5 Growth Rate Analysis

	<u>Growth Rate</u>	
	<u>Ten Year</u>	<u>Five Year</u>
6 Earnings per share	4.33%	5.86%
7 Dividends per share	4.43	3.50
8 Book value per share	2.44	3.14

9  
10 This array of growth rates represents the historic pattern of growth for each of the  
11 variables for all of the companies in the study. The data for the five-year term is  
12 distinctly different from the ten-year data. The relative rate of dividend growth has  
13 obviously slowed from the ten-year period to the five-year period. By relative rate of  
14 growth, I mean the earnings per share growth has increased substantially which would  
15 permit parallel increases in dividend growth. However, consistent with the new dividend  
16 policy discussed above, the five-year dividend growth rates are lower than the ten year  
17 rates.

18 Also, the earnings growth rate has increased significantly. The more recent growth rates  
19 are higher than the longer term growth rates. This is also to be expected because the  
20 relative retention rate is higher as a consequence of the slowing in dividend growth. If  
21 the dividend rate continues to slow, the impact of the slow down will be reflected in still  
22 higher earnings growth, and the future growth rate will be higher than the current five-  
23 year historic rate.

24 Q. How are the growth rates in earnings, dividends and book value related?

1 A. Historically, utility investors were primarily interested in dividends. In the future, this  
2 will change to emphasis on growth in the value of stock which today is driven by growth  
3 in earnings. Growth in dividends and growth in value is driven by growth in earnings. In  
4 this context, growth in value is the same as growth in share price and today it is most  
5 directly related to growth in earnings. In the past, it was assumed, other things being  
6 equal, that all three variables must move in tandem over the long term. Now dividend  
7 growth will be replaced by earnings growth as the stock price driver, as is the case for  
8 many if not most nonutility companies. This means that in the future, all variables will  
9 not move in tandem to the same extent as in the past. Accordingly, a simple average of  
10 growth rates is no longer appropriate since investors will focus on growth in earnings.

11 Q. Is it reasonable to remove selected observations from the group even if doing so would  
12 increase the average growth rate?

13 A. Yes. That certainly is what investors do. In selecting a group of companies to set a  
14 standard, investors would prune the bottom of the group and select an investment from  
15 the best. There is no requirement that the investor buy the average and certainly no  
16 requirement that an investor buy an "average" depressed by a few "bad" observations or  
17 poorly operating companies. In fact, in every case, the investor works to buy the best  
18 from every group. However, this is a pure play analysis and it is not necessary to prune  
19 the group because a risk adjustment will be made after the pure play studies are complete.  
20 It is, however, appropriate to eliminate negatives and zeros when calculating the  
21 averages and I have done so.

22 Q. Did you do any further growth rate analysis with the same group of companies?

1 A. Yes. I examined the forecast growth rates as forecast by the Value Line Investment  
2 Survey of January 5, 2001 for this proxy group of companies.

3 Q. What did that analysis show?

4 A. That analysis showed that Value Line expected faster growth in the future than in the  
5 past. It also showed that Value Line expected earnings to grow more rapidly than  
6 dividends. A comparison of the most recent five-year historic growth rate with the  
7 forecast growth rate is as follows:

8 Missouri Public Service  
9 Proxy Electric Utilities  
10 Comparative Growth Rate Analysis  
11

	<u>Growth Rate</u>	
	<u>Historic</u>	<u>Forecasted</u>
12		
13		
14		
15	Earnings per share	5.86% 8.19%
16	Dividends per share	3.50 3.43
17	Book value per share	3.14 7.44

18 Q. What do these data indicate?

19 A. They show that Value Line continues to expect that dividends will grow more slowly  
20 than earnings or book value. The data also shows that future earnings are expected to  
21 grow more rapidly than historic earnings.

22 Q. How do these expectations enter into an investor analysis when selecting a stock for  
23 investment?

24 A. Expectations are the basis for the acquisition of a security. Historic data is the data which  
25 must be reviewed and analyzed and converted into expectations or beliefs about the  
26 future. The forecasted earnings, dividends and book value growth rates are Value Line's

1 expectation for the future. They should be imbedded in the stock price of these electric  
2 utilities.

3 Q. Is Value Line an influential forecaster?

4 A. It is. Value Line subscription service is one of the largest publicly available stock  
5 reporting publications. It's forecasts are used by a great many investors, including  
6 institutional investors.

7 Q. Have you made any further analysis?

8 A. I examined the growth in earnings, dividends and book value per share for each of the  
9 companies for the period 1990 to 1999. Schedule 5 contains an analysis of the dividends  
10 paid per share by each of the companies for each of the years from 1990 to 1999, and the  
11 calculation of an average of the one-year growth rates for the period 1990 to 1999.

12 Schedule 6 is a parallel analysis of growth in earnings for the comparative companies.

13 Schedule 7 contains the same type of analysis of book value per share for the proxy  
14 companies.

15 The calculation used in Schedules 5, 6 and 7 is an additional method (in addition to the  
16 calculation used in Schedule 4 which is the Value Line method) to eliminate the effect of  
17 single year influences by averaging the results of each growth pair in the period to  
18 determine the period average.

19 Q. Have you considered any other growth rate data?

20 A. Yes I did. I examined the Thompson Financial "First Call" reported estimates of future  
21 growth for individual companies. Many investors use First Call forecasts and they are  
22 widely distributed on news programming concerning the stock market. The Thompson  
23 Financial Group accumulates growth and earnings forecasts from independent (surveyed



1 by Thompson Financial) investment analysts based on the analysts review of individual  
2 companies and individual industries. For the entire electric utility industry, the analysts  
3 expect growth in the range of 11 percent for 2001 and 12 percent for 2002. This  
4 represents a substantial expectation for growth as compared to historic expectations.  
5 For the individual companies in my proxy analysis, the expected growth ranges from 3.5  
6 percent to over 10.0 percent. The individual companies have been followed by as many  
7 as 13 analysts. The imbedded growth rate for 2000 growth forecasts for the individual  
8 companies are as follows:

9 MPS  
10 FIRST CALL  
11 FORECAST EARNINGS GROWTH

12			
13		Expected	Number of
14	<u>Company</u>	<u>2000 Growth</u>	<u>Analysts</u>
15			
16	Allete	10.0%	9
17	Ameren	5.0	9
18	CLECO Corp.	10.1%	4
19	DPL, Inc.	10.0	14
20	IPALCO Enterprises, Inc.	5.0	7
21	KCP&L.	5.0	5
22	NiSource	10.0	4
23	OGE Energy Corp.	-	8
24	Wisconsin Energy	4.0	13
25			

26 Q. Why is there a variation in the number of analysts for several of the individual  
27 companies?

28 A. Analysts simply follow different companies and not all analysts follow every company in  
29 a group or industry.

30 Q. What do you conclude from these "First Call" growth rates?

1 A. The growth expectation for these companies is substantial. Four of the companies in the  
2 group have 10% expectations. The average for the group is over 7.0%. Based on my  
3 general experience in the area of analyzing growth rates for utility companies, I believe  
4 these are higher than the growth rates which would have been expected several years ago.  
5 This suggests that expectations for the industry are higher than in the past and since many  
6 individual investors rely on the reported results of companies like Thompson's Financials  
7 First Call, individual investor expectations must be increasing also.

8 Q. Are the First Call expectations for growth consistent with the Value Line expectations?

9 A. They are.

10 Q. What conclusion did you reach as a result of this analysis of historic growth in dividends,  
11 earnings and book value per share?

12 A. Earnings growth rates are increasing. The historic five year earnings growth rate for the  
13 proxy companies is clearly higher than the ten year earnings growth rate for the same  
14 companies. This means that the increase, if displayed graphically, would be trending  
15 upward and to the right.

16 The First Call rate is in line with the Value Line forecast growth rates. The First Call  
17 current growth rate is 7.5%, as compared to a growth rate of over 8% based on the Value  
18 Line forecast.

19 In contrast, the increasing growth in earnings, the rate of growth in dividends is lower.  
20 This is to be expected in light of the dividend policy which has been enunciated by  
21 managements and repeated by analysts and which states that dividends will be increased  
22 more slowly in the future than in the past. This leads to an increase in retained earnings

1 and an acceleration in earnings growth. In this case, the facts and data actually  
2 correspond to the policy statements and analysts' comments on the industry.

3 Q. What do you conclude is a reasonable growth expectation for the future?

4 A. Based on the fact that the rates of growth are trending up and that the five year average  
5 growth in earnings has been almost 6%, I believe a reasonable investor growth  
6 expectation for a smaller electric utility company such as MPS is at least 7.0%. This is  
7 less than the Value Line forecast rate and the First Call rate. It is slightly above the  
8 historic rates which are increasing. Given the increase in rate shown by various  
9 measures, growth rates analyzed in line with a year from now should show a growth rate  
10 somewhat higher, assuming that the current trends continue and that the retention in  
11 earnings produces the desired impact on earnings growth. This means a 6.75% to 7.0%  
12 rate is conservative.

#### 13 **Determination of Dividend Yield**

14 Q. Please describe your analysis of dividend yield.

15 A. The first step in my analysis of dividend yield is contained on Schedule 5 of my  
16 Testimony. This schedule details the actual dividends paid by each of the proxy  
17 companies for the years 1990 through 1999.  
18 This information shows consistency of payment by each of the companies in each of the  
19 years. It also reveals steady growth in the dividends of the proxy group until 1999.  
20 The next step in the dividend yield analysis is a review of the current dividend yield  
21 calculated from the Commodity Systems, Inc. ("CSI") and the forecasted dividend yield  
22 from the Value Line Investment Survey. The data for that analysis is contained on  
23 Schedule 8, pp. 1 and 2.

1 Q. Please describe the analysis which is contained on Schedule 8.

2 A. Schedule 8 contains a calculation of the dividend from the Value Line Investment Survey,  
3 January 5, 2001. Schedule 8 also contains the calculation of dividend yield taken  
4 Commodity Systems, Inc. ("CSI") on December 29, 2000 and February 28, 2001.  
5 The dividend yield array by date is as follows:

	West Plains Dividend Yield Proxy Group	<u>Yield</u>
6 Value Line:	01-05-01	4.13%
7 Commodity Services:	12-29-00	4.14
8	02-28-01	4.41
9		
10		
11		
12		
13		
14		

15 The yield is also subject to some minor instability as a consequence of short run stock  
16 price changes.

17 Q. Have you included any older dividend yield data in your analysis?

18 A. I have not. The older dividend yield data has little value in determining the current return  
19 on equity requirement. The effort in the DCF analysis is to determine a longer term or  
20 secular growth rate using historic data as a spring board. Current dividends and current  
21 dividend yields are combined with that longer term growth rate to produce the current and  
22 upcoming cost of equity. Combining older dividend yields would mismatch the process  
23 and produce a cost of common equity for some other point in time. This is because the  
24 investor knows what they require for return and after determining the growth rate over  
25 which they have no control, they collectively move the stock price to produce a yield  
26 which, when combined with the stock price, meets their return requirements.

1 Q. After consideration of this data, what did you conclude is the appropriate dividend yield  
2 for the proxy group DCF cost of equity?

3 A. I concluded that the appropriate yield to include in my DCF calculation was 4.4 percent.  
4 This yield range equals the current yield and the year-end yield. The current yield  
5 reflects the probability that additional increases in rates by the Federal Reserve are highly  
6 likely, but such increases are not yet fully reflected in current distribution company yields  
7 because they are not certain.

8 Q. Is an adjustment to the reported yield necessary to reflect the increase in dividend which  
9 will take place during the next 12 months?

10 A. Yes. Such an adjustment is necessary. The adjustment is usually made by using the  
11 following form of the DCF model:

$$12 \quad K = \frac{D_0 (1 + g)}{P_0} + g$$

15 Where:

16  $D_0$  = Dividend current period

17  $g$  = Growth rate

18  $P_0$  = Price current period

19  
20 In this calculation, the current dividend was traditionally multiplied times one plus all or  
21 a part of the historic growth rate and then divided by the current market price. This  
22 calculation assumes future growth in the dividend and recognized it without individual  
23 forecasts. Since the growth in dividend has been de-emphasized and replaced with  
24 growth in value, the traditional calculation is not as large as in the past. Nonetheless,  
25 there will be future growth in dividends and that future growth must be reflected in the  
26 calculation. Many companies have announced that future growth in dividends will be in  
27 the range of 2 percent. As a result, I have used 2 percent to make this calculation in the

1 DCF estimate of return on equity to reflect the increase in dividend that will take place  
2 during the first year of ownership.

3 Q. Why is it necessary to reflect an increase in dividends during the first year of ownership?

4 A. The return on equity which is being established in a rate proceeding is first a return for  
5 the long term investor, not the day trader, and secondly, it is a return which looks forward  
6 for a reasonable period of time. Looking forward, an investor making a commitment  
7 today would assume that the components of return to be earned by that investment would  
8 include not only the current dividend paid in dollars but also any increase in that dividend  
9 paid in dollars during the first year of ownership. To ignore reasonably certain increases  
10 in dividend which are expected by investors evaluating securities is simply to understate  
11 the return on equity requirement.

12 Q. Did you make this calculation?

13 A. Yes. The dividend yield resulting from my calculation is 4.5 percent. This is the current  
14 rate of 4.4%.

15 Q. Please describe the adjustment for pre-offering pressure and expense.

16 A. Flotation costs and price pressures result from the sale of equity. The effect should be  
17 reflected in the cost of common equity. Such an adjustment is frequently based on a  
18 study contained in Public Utilities Fortnightly by Borun and Malley which indicates the  
19 average flotation cost of the common stock issued is 5.5 percent. With this adjustment,  
20 the calculated dividend yield component of the cost of equity should be increased to a  
21 range of 4.8 percent (4.5% ÷ 94.5%).

22 Q. Is such an adjustment based on the actual anticipation of the sale of new common equity?

1 A. It is. Since 1987, UtiliCorp has issued 79.2 million of the current 93.6 million shares  
2 outstanding. This represents 85% of the common shares outstanding. The actual  
3 adjusted shares issued is as follows:

	Million <u>Shares</u>
Beginning Balance	14.1
<u>Shares Issued</u>	
1987	12.0
1988	4.7
1989	3.2
1990	8.0
1991	9.6
1992	1.4
1993	9.9
1994	4.2
1995	1.8
1996	11.0
1997	.8
1998	12.9
1999	--

25 During 1999, there was a 3 for 2 stock split and UtiliCorp just issued an additional 10.0  
26 million shares in March of 2001.

27 Although UtiliCorp cannot provide specific information on future offerings because of  
28 the potential conflict with Securities and Exchange Commission requirements, it has  
29 issued press releases and made statements to rating agencies which indicate the company  
30 plans to issue adequate common equity to maintain its equity ratio and bond rating at  
31 reasonable levels.

32 Q. Do you believe that new equity will be required by UtiliCorp?

1 A. At some point in the near future, market conditions permitting, it certainly will. When  
2 possible, I believe new equity will be issued and it is reasonably certain that such an issue  
3 will take place in the next twelve months.

4 Q. Will MPS benefit directly from such an offering?

5 A. Yes it will.

6 **Benchmark Cost of Common Equity**

7 Q. Based upon your analysis of the dividend growth rate and your calculation of the  
8 dividend yield, what do you conclude is the DCF cost of common equity for the  
9 comparative group?

10 A. The adjusted dividend yield is 4.8 percent. My analysis of minimum growth indicates a  
11 growth rate of 7.0 percent.

12 Combining the dividend yield with the dividend growth rate indicates the DCF estimate  
13 for the bare bones cost of common equity is 11.65 percent to 12.10 percent for the  
14 comparative group. It is calculated as follows:

	Proxy Companies
	<u>Return on Equity Requirements</u>
15	
16	
17	
18	Dividend yield 4.8%
19	Growth <u>7.0</u>
20	Total <u>11.8%</u>
21	

22 Q. Based upon this analysis, what do you conclude is the equity cost for the proxy segment  
23 of the electric utility industry?

24 A. I believe that a 11.8 percent return on equity is the minimum level which would be  
25 appropriate to incorporate into a cost of service determination for the electric utility  
26 company which is equal in risk to the group.



**Risk Adjustment for MPS**

1

2 Q. Should the cost of equity for the proxy group be adjusted in any way for the specifics of  
3 MPS?

4 A. Yes. The cost of equity of the proxy group is based on the average risk of that group.  
5 That cost of equity must be adjusted to reflect the risk differences of MPS as compared to  
6 the proxy group used in making this benchmark determination.

7 Q. How should that adjustment be made?

8 A. To make this risk adjustment, I examined the risk characteristics of MPS' electric utility  
9 operations as compared to the proxy companies used in the DCF analysis. I also made  
10 calculations of statistical risk measures. I concluded, as a result, that MPS is more risky  
11 than the average of the proxy group as the result of several factors including the smaller  
12 size of MPS, and the greater volatility of its earnings. In reaching this conclusion, I was  
13 also influenced by the now substantial body of research on small company risk which  
14 states that all other things equal, small companies are more risky than larger companies.

15

**Specific Risk**

16 Q. How does MPS compare in size to the proxy group?

17 A. MPS is significantly smaller than the average. The average revenue for companies in the  
18 proxy group is shown on Schedule JCD-2, p. 2. The companies average 650,000  
19 customers and annual revenue of \$1.8 Billion Dollars. MPS' test year revenue forecast  
20 is far less.

21 Q. What is the nature of the research which indicates that smaller companies have greater  
22 risk than larger companies.

1 A. Ibbotson & Associates is a major provider of market data which is widely used in  
2 corporate financial analysis, both within corporations and within the financial industry.  
3 Beginning in 1995, Ibbotson Research, a division of Ibbotson & Associates, funded  
4 through grants, research on the capital asset pricing model and the use of beta. Beta is a  
5 dominant variable in the capital asset pricing model and is a measure of relative volatility.  
6 It is considered in this context an overall measure of risk. Those initial studies indicated  
7 stratification in the level of beta based on size.  
8 Subsequently, Ibbotson Research funded additional research into the impact of size on the  
9 cost of capital. Several articles which are maintained on the Ibbotson & Associates web  
10 site report on this research. Among those articles are: Roger G. Ibbotson, Ph.D., Paul D.  
11 Kaplan, Ph.D., CFF and James D. Peterson, Ph.D., Estimates of Small Stock Betas Are  
12 Much Too Low, Published in Journal of Portfolio Management, Summer 1997; Michael  
13 Annin, CFA, FAMA-French and Small Company Cost of Equity Calculations, March  
14 1997 Business Valuation Review; Michael Annin, CFA and Dominic Falaschetti, CFA, Is  
15 There Still A Size Premium, published in Winter 1998 CPA Expert; Michael Annin, CFA  
16 and Dominic Falaschetti, CFA, Equity Risk Premium Still Produces Debate, January-  
17 February 1998 Issue of Valuation Strategies.  
18 In addition to this research, there is a substantial body of research which appears in the  
19 Journal of Portfolio Management and, to a lesser extent, in the Financial Analyst Journal  
20 which supports the existence of a small company market premium, which means that  
21 small companies have a higher earnings level requirement than larger companies. All  
22 other things equal, this means that the smaller companies have more risk and a greater  
23 return requirement.

1 Q. What is the interest of Ibbotson & Associates in supporting research into the capital asset  
2 pricing model and related issues?

3 A. The company provides data used in economic and financial analysis. The company is  
4 academically based and was founded by individuals which recognized early in the  
5 development of the capital asset pricing model that reliable commercial sources of certain  
6 types of economic and financial data would be required to facilitate research into  
7 financial matters including research into the capital asset pricing model. This lead to the  
8 founding of Ibbotson & Associates and their funding of continued academic research.

9 **MPS Specific Risk**

10 Q. What are the specific business risks faced by MPS in providing electric service to its  
11 service areas in Missouri which are similar to other electric utility risks?

12 A. MPS experiences a full range of business or operating risks. First, there is a risk that  
13 sales will be different than the expected level and, thus, earnings will also be different.  
14 This could happen because of changes in business conditions, fluctuations in the number  
15 of ultimate customers, variations in ultimate customer usage patterns, price competition  
16 from other types of energy and changes in weather. These risk factors are embedded in  
17 the business and tend to be reflected in the patterns of income over long periods of time.  
18 For these factors, past can be reasonably considered prologue to the future.  
19 Second, MPS makes investments in facilities which have extremely long book investment  
20 and useful lives. This exposes the related capital to a number of business cycles, changes  
21 in public policy, and the effects of long-term inflation. It also exposes the capital to the  
22 long run risk of technological innovation, changing customer requirements and changing  
23 demographics. From an investor's perspective, many things, both good and bad can

1 happen during the 15 to 30 year period that represents the useful life of many electric  
2 utility distribution assets.

3 Third, MPS needs large quantities of material, capital and labor to supply its services.

4 This makes it vulnerable to inflation in operating expense, and to the availability and the  
5 price of labor, capital and material. Since the prices MPS charges its customers cannot be  
6 changed quickly, the impact of inflation and general price increases is first reflected as a  
7 decrease in earnings.

8 Q. Are there any new risks now appearing which impact the electric utility industry?

9 A. Yes. An emerging crisis has developed first in California and is now spreading across the  
10 western United States. That crisis began with the electric utilities in the area and has in  
11 many respects become a natural gas and electric utility nationwide problem. The problem  
12 has been elevated to the level of crisis in news reports and by political action of many of  
13 the participants.

14 While the issues are genuine, many do not directly affect Missouri. However, the energy  
15 problem or crisis as many choose to call it has become a highly politicized, highly  
16 emotional matter with charges, counter-charges and increasing levels of animosity.

17 While the underlying problems again are not present in Missouri, I believe that the  
18 overall California-west coast problem will impact the entire electric utility industry and  
19 may lead to regulations and in some cases even drastic action which would impact  
20 directly on Missouri. Those kinds of changes would be risk increasing for MPS as they  
21 would be risk increasing for all electric utilities.

22 Q. How do we know if these risks are more severe for MPS than for the electric utilities in  
23 the proxy group?

1 A. We must do a statistical comparison of MPS and the proxy group to determine if MPS  
2 has more, less or about the same amount of investment risk as the proxy group.

3 Incidentally, the new risks related to the energy crisis will not be reflected in this  
4 calculation since it is made on historic earnings.

5 Q. How does MPS compare based on a statistical analysis of risk?

6 A. MPS has more volatility in its equity investment return which makes it riskier than the  
7 proxy group.

8 Q. Please describe the statistical analysis of risk.

9 A. For a single investment opportunity, the appropriate measure of risk is the standard  
10 deviation which captures the effect of risk on one investment as compared to another. A  
11 standard deviation calculated on a series of historic returns measures the variability and  
12 dispersion of those returns about the average. The greater the standard deviation of part  
13 earnings, all other things equal, the higher the risk or the less predictable or certain the  
14 expected return assuming that the pattern of future returns will be similar to the pattern of  
15 past returns.

16 To compensate for the fact that standard deviation is stated in the units being measured,  
17 i.e. return percentage points, I converted the standard deviation to a coefficient of  
18 variation and calculated those statistics for MPS' rate of return, and for the industry  
19 average return on capital. The results of the calculations are as follows:

MPS  
Comparative Risk Measures

	<u>Rate of Return</u>	
	Standard Deviation	Coefficient of Variation
Electric Utility Proxy Group	.38	4.61%
MPS	.92	9.15

Calculations of standard deviation of return indicate that MPS' risk was greater than the level of risk in the pure play industry group.

Q. What is the coefficient of variation?

A. The coefficient of variation converts the standard deviation into a percentage statement. The standard deviation is stated in the units being measured. The coefficient of variation is the standard deviation divided by the average of the series. It relates the deviations to the average a percentage.

Q. What do you conclude as a result of this analysis?

A. The proxy group current cost of common equity is in the range of 11.8 percent. As a practical matter, the return component in the cost of service should not under any circumstances be lower than this amount. Given the greater risk of MPS' operations as compared to the industry group, and the probability of some unexpected negative events, a minimum return on equity in the range of 11.75 percent to 12.25 percent is appropriate. A return toward the upper limit of the range would be appropriate to reflect the greater risk of MPS. A higher return would also be appropriate and may be required as economic events unfold. This conclusion is based on the higher specific risk of MPS as compared to the proxy group and the proxy group benchmark return requirement.

**Calculation of Rate of Return**

- 1
- 2 Q. Did you calculate a rate of return to use in the cost of service determination?
- 3 A. I did. Based upon the capital structure previously discussed, the cost of debt and my
- 4 estimate of the appropriate return on equity, I calculated the overall rate of return using
- 5 the MPS division test year capital structure. The calculations are shown on Schedule 9.
- 6 Q. Does that conclude your direct prefled testimony at this time?
- 7 A. Yes sir, it does.

MISSOURI PUBLIC SERVICE  
INDEX TO SCHEDULES

<u>DESCRIPTION</u>	<u>SCHEDULE</u>
Comparative Company Profile	(2)
Selected Companies' Equity Ratios	(3)
Growth Analysis, Five and Ten Year	(4)
Dividends Per Share	(5)
Earnings Per Share	(6)
Book Value Per Share	(7)
Dividend Yield Analysis	(8)
Rate of Return	(9)
Statement of Qualifications	(10)



**MISSOURI PUBLIC SERVICE  
ELECTRIC UTILITY INDUSTRY  
COMPARATIVE COMPANY PROFILE**

COMPANY	REVENUE (000)	ELECTRIC CUSTOMERS	1999 RATIOS	
			DEBT	EQUITY
Allele	1,131,800	144,000	<b>50.50%</b>	49.60%
Ameren Corp	3,523,600	1,800,000	<b>43.50%</b>	<b>53.50%</b>
Cleco Corp	768,200	247,000	<b>57.50%</b>	<b>41.00%</b>
DPL Inc	1,338,900	N/A	<b>55.00%</b>	<b>51.60%</b>
IPALCO Enterprises Inc	834,700	433,000	<b>46.00%</b>	<b>42.20%</b>
Kansas City P & L	897,400	463,000	<b>47.00%</b>	<b>49.70%</b>
NiSource Inc	3,144,600	426,000	<b>59.00%</b>	<b>35.50%</b>
OGE Energy Corp	2,172,400	700,000	<b>61.00%</b>	<b>47.20%</b>
Wisconsin Energy	<u>2,272,600</u>	1,000,000	<b>62.50%</b>	<b>45.90%</b>
Average	<u>\$1,787,133</u>		<b>53.56%</b>	<b>46.24%</b>

Source: Value Investment Survey, January 5, 2001

**MISSOURI PUBLIC SERVICE  
SELECTED COMPANIES  
ELECTRIC UTILITY INDUSTRY  
EQUITY RATIO**

COMPANY	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Allete	47.5%	44.6%	45.2%	46.6%	46.4%	45.9%	43.3%	45.1%	50.2%	49.6%
Ameren Corp	48.3%	51.9%	53.5%	52.6%	52.6%	53.9%	53.9%	52.4%	54.8%	53.5%
Cleco Corp	49.4%	41.1%	47.4%	45.6%	47.5%	47.1%	49.7%	49.2%	51.9%	41.0%
DPL Inc	48.4%	48.8%	48.2%	45.8%	50.3%	51.3%	53.6%	56.4%	56.0%	51.6%
IPALCO Enterprises Inc	55.6%	56.2%	56.7%	57.0%	52.8%	52.3%	54.6%	33.6%	37.3%	42.2%
Kansas City P & L	50.2%	49.9%	49.3%	51.2%	49.6%	49.2%	46.8%	42.8%	47.4%	49.7%
NiSource Inc	42.6%	44.6%	45.7%	44.0%	44.8%	45.3%	46.4%	41.1%	38.8%	35.5%
OGE Energy Corp	49.4%	50.2%	50.4%	50.5%	54.1%	51.2%	52.3%	52.5%	52.7%	47.2%
Wisconsin Energy	55.9%	54.8%	54.1%	55.5%	57.0%	57.2%	57.4%	54.4%	51.7%	45.9%
AVERAGE	<u>49.70%</u>	<u>49.12%</u>	<u>50.06%</u>	<u>49.87%</u>	<u>50.57%</u>	<u>50.38%</u>	<u>50.89%</u>	<u>47.50%</u>	<u>48.98%</u>	<u>46.24%</u>

Source: Value Investment Survey, January 5, 2001

**MISSOURI PUBLIC SERVICE  
ELECTRIC UTILITY INDUSTRY  
GROWTH ANALYSIS  
FIVE AND TEN YEAR**

COMPANY	10 YEAR GROWTH		
	EARNINGS	DIVIDENDS	BOOK VALUE
Allete	2.00%	2.00%	2.00%
Ameren Corp	NMF	NMF	NMF
Cleco Corp	2.50%	3.50%	3.50%
DPL Inc	2.50%	4.00%	3.50%
IPALCO Enterprises Inc	5.00%	-0.50%	1.00%
Kansas City P & L	0.00%	3.50%	0.50%
NiSource Inc	11.50%	12.00%	4.00%
OGE Energy Corp	2.50%	1.50%	2.00%
Wisconsin Energy	-3.00%	4.50%	3.00%
Average	<u>4.33%</u>	<u>4.43%</u>	<u>2.44%</u>

	5 YEAR GROWTH		
	EARNINGS	DIVIDENDS	BOOK VALUE
	6.00%	1.00%	3.50%
	NMF	NMF	NMF
	4.00%	2.50%	4.50%
	5.50%	4.50%	5.00%
	12.50%	-4.00%	-0.50%
	1.00%	2.50%	0.50%
	5.50%	7.50%	4.50%
	6.50%	0.00%	2.50%
	-4.50%	3.00%	1.50%
	<u>5.86%</u>	<u>3.50%</u>	<u>3.14%</u>

Average does not include negative percentages or zero

Source: Value Investment Survey, January 5, 2001

**MISSOURI PUBLIC SERVICE  
ELECTRIC UTILITY INDUSTRY  
GROWTH ANALYSIS  
FORECAST GROWTH RATES**

COMPANY	FORECAST GROWTH		
	EARNINGS	DIVIDENDS	BOOK VALUE
Allele	10.50%	4.00%	7.50%
Ameren Corp	NMF	NMF	NMF
Cleco Corp	7.50%	2.50%	6.00%
DPL Inc	11.50%	1.00%	8.00%
IPALCO Enterprises Inc	4.00%	6.50%	11.50%
Kansas City P & L	5.50%	1.00%	2.50%
NiSource Inc	11.00%	7.50%	14.00%
OGE Energy Corp	5.00%	1.50%	5.00%
Wisconsin Energy	10.50%	-10.50%	5.00%
Average	<u>8.19%</u>	<u>3.43%</u>	<u>7.44%</u>

Average does not include negative percentages or zero

Source: Value Investment Survey, January 5, 2001

**MISSOURI PUBLIC SERVICE  
ELECTRIC UTILITY INDUSTRY  
DIVIDENDS PER SHARE**

COMPANY	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	AVERAGE GROWTH
Allele	0.93	0.95	0.97	0.99	1.01	1.02	1.02	1.02	1.02	1.07	1.58%
Ameren Corp	2.10	2.18	2.26	2.34	2.40	2.46	2.51	2.54	2.54	2.54	2.15%
Cleco Corp	1.27	1.33	1.37	1.41	1.45	1.49	1.53	1.57	1.61	1.65	2.95%
DPL Inc	0.69	0.72	0.72	0.75	0.79	0.83	0.87	0.91	0.94	0.94	3.51%
IPALCO Enterprises Inc	0.60	0.63	0.65	0.68	0.71	0.72	0.74	0.50	0.55	0.60	0.89%
Kansas City P & L	1.31	1.37	1.43	1.46	1.50	1.54	1.59	1.62	1.64	1.66	2.67%
NiSource Inc	0.54	0.59	0.63	0.68	0.74	0.80	0.86	0.92	0.98	1.04	7.56%
OGE Energy Corp	1.26	1.30	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	0.61%
Wisconsin Energy	1.16	1.23	1.29	1.34	1.40	1.46	1.51	1.54	1.56	1.56	3.36%
AVERAGE	<u>\$1.10</u>	<u>\$1.14</u>	<u>\$1.18</u>	<u>\$1.22</u>	<u>\$1.26</u>	<u>\$1.29</u>	<u>\$1.33</u>	<u>\$1.33</u>	<u>\$1.35</u>	<u>\$1.38</u>	<u>2.81%</u>

Source: Value Investment Survey, January 5, 2001

**MISSOURI PUBLIC SERVICE  
ELECTRIC UTILITY INDUSTRY  
EARNINGS PER SHARE**

COMPANY	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	AVERAGE GROWTH
Alltel	1.00	1.10	1.16	1.10	0.82	0.86	1.14	1.24	1.35	1.49	5.59%
Ameren Corp	2.74	3.01	2.65	2.77	3.01	2.95	2.86	2.44	2.82	2.81	0.73%
Cleco Corp	1.85	1.92	1.93	1.78	1.92	2.08	2.23	2.18	2.24	2.37	2.92%
DPL Inc	0.99	0.77	0.89	0.95	1.03	1.09	1.15	1.20	1.24	1.35	4.05%
IPALCO Enterprises Inc	0.86	0.91	0.78	0.67	0.82	0.94	1.01	1.21	1.43	1.49	7.12%
Kansas City P & L	1.66	1.58	1.35	1.66	1.64	1.92	1.69	1.69	1.89	1.26	-1.56%
NiSource Inc	0.91	0.97	1.00	1.16	1.24	1.36	1.44	1.54	1.59	1.27	4.25%
OGE Energy Corp	1.69	1.64	1.21	1.39	1.51	1.52	1.62	1.61	2.04	1.94	2.53%
Wisconsin Energy	1.85	1.87	1.67	1.81	1.67	2.13	1.97	0.54	1.65	1.88	17.55%
AVERAGE	<u>\$1.51</u>	<u>\$1.53</u>	<u>\$1.40</u>	<u>\$1.48</u>	<u>\$1.52</u>	<u>\$1.65</u>	<u>\$1.68</u>	<u>\$1.52</u>	<u>\$1.81</u>	<u>\$1.76</u>	<u>5.59%</u>

Average does not include negative percentages or zero  
Source: Value Investment Survey, January 5, 2001

**MISSOURI PUBLIC SERVICE  
ELECTRIC UTILITY INDUSTRY  
BOOK VALUE PER SHARE**

COMPANY	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	AVERAGE GROWTH
Allete	8.18	8.01	8.29	9.01	8.99	9.28	9.32	9.69	10.85	10.96	3.39%
Ameren Corp	19.79	20.62	21.19	21.60	22.22	22.71	23.06	22.00	22.27	22.52	1.47%
Cleco Corp	14.33	13.52	14.11	14.58	15.12	15.81	16.60	17.36	18.13	18.88	3.16%
DPL Inc	6.88	6.92	6.44	6.62	7.03	7.28	7.55	8.03	8.58	9.20	3.37%
IPALCO Enterprises Inc	6.55	6.83	6.97	6.96	7.08	7.24	7.52	5.89	6.46	7.91	2.72%
Kansas City P & L	13.75	13.90	13.79	13.99	14.13	14.50	14.71	14.19	14.41	13.97	0.20%
NiSource Inc	7.32	7.59	7.87	8.31	8.67	9.00	9.20	10.17	9.78	10.90	4.61%
OGE Energy Corp	10.96	11.30	11.18	11.24	11.41	11.61	11.91	12.19	12.91	13.09	2.01%
Wisconsin Energy	13.70	14.35	14.97	15.67	16.01	16.89	17.42	16.51	16.46	16.89	2.40%
AVERAGE	<u>\$11.27</u>	<u>\$11.45</u>	<u>\$11.65</u>	<u>\$12.00</u>	<u>\$12.30</u>	<u>\$12.70</u>	<u>\$13.03</u>	<u>\$12.89</u>	<u>\$13.32</u>	<u>\$13.81</u>	<u>2.59%</u>

Average does not include negative percentages or zero  
Source: Value Investment Survey, January 5, 2001

**MISSOURI PUBLIC SERVICE  
ELECTRIC UTILITY INDUSTRY  
DIVIDEND YIELD**

COMPANY	December 29, 2000			February 28, 2001		
	Price	Dividend	Yield	Price	Dividend	Yield
Allete	24.525	1.07	4.36%	23.500	1.07	4.55%
Ameren Corp	46.313	2.54	5.48%	42.170	2.54	6.02%
Cleco Corp	54.253	1.69	3.12%	45.390	1.69	3.72%
DPL Inc	32.931	0.94	2.85%	28.700	0.94	3.28%
IPALCO Enterprises Inc	24.188	0.64	2.65%	24.100	0.64	2.66%
Kansas City P & L	27.015	1.66	6.14%	26.110	1.66	6.36%
NiSource Inc	30.422	1.08	3.55%	28.630	1.08	3.77%
OGE Energy Corp	24.080	1.33	5.52%	23.220	1.33	5.73%
Wisconsin Energy	22.347	0.80	3.58%	22.120	0.80	3.62%
Average	<u>31.786</u>		<u>4.14%</u>	<u>29.327</u>		<u>4.41%</u>

Commodity Systems, Inc. (CSI).



**MISSOURI PUBLIC SERVICE  
ELECTRIC UTILITY INDUSTRY  
DIVIDEND YIELD**

COMPANY	December 29, 1999			Value Line Yield 01/05/01
	Price	Dividend	Yield	
Alete	24.525	1.07	4.36%	4.50%
Ameren Corp	46.313	2.54	5.48%	5.40%
Cleco Corp	54.253	1.69	3.12%	3.20%
DPL Inc	32.931	0.94	2.85%	2.80%
IPALCO Enterprises Inc	24.188	0.64	2.65%	2.70%
Kansas City P & L	27.015	1.66	6.14%	6.10%
NiSource Inc	30.422	1.08	3.55%	3.70%
OGE Energy Corp	24.080	1.33	5.52%	5.30%
Wisconsin Energy	<u>22.347</u>	0.80	<u>3.58%</u>	<u>3.50%</u>
Average	<u>31.786</u>		<u>4.14%</u>	<u>4.13%</u>

Source: Value Investment Survey, January 5, 2001

**MISSOURI PUBLIC SERVICE  
RECOMMENDED RATE OF RETURN  
PRO FORMA CAPITALIZATION**

Description	Ratio	Cost	Weighted Cost Return on Equity of	
			11.75%	12.25%
Long-Term Debt	52.00%	8.215%	4.27%	4.27%
Common Equity	<u>48.00%</u>		<u>5.64%</u>	<u>5.88%</u>
Total	<u>100.00%</u>		<u>9.91%</u>	<u>10.15%</u>

STATEMENT OF QUALIFICATIONS  
OF  
JOHN C. DUNN

Q. Please state your name.

A. John C. Dunn.

Q. What is your educational background?

A. I graduated from the University of Missouri - Kansas City, in 1967 with a Bachelor's Degree in Economics and Minor in Mathematics. In 1970, I received a Master of Arts Degree in Economics from the University of Missouri - Kansas City.

Q. What is your experience in the area of public utility economics?

A. I have been an economic consultant for over 20 years. I have specialized in the general area of public utility economics and corporate finance with a special emphasis in the area of cost of capital and rate of return. Prior to the formation of John C. Dunn & Company, I was a partner in predecessor firms for approximately 15 years. Prior to becoming a consultant, I was Chief of Economic Research for the Missouri Public Service Commission. I left the Commission to become Director of Economic and Financial Services and a principal in the Certified Public Accounting firm of Troupe, Kehoe, Whiteaker and Kent.

I received the designation, Certified Rate of Return Analyst, after successfully completing a comprehensive examination on the body of knowledge involved in evaluation and determination of rate of return, capital structure and related matters.

Q. Have you written any articles in the field of economics?

A. I have published a statistical volume analyzing the gas distribution (both integrated and combinations) and gas transmission industries. This volume was published in early 1972.

The volume was entitled, A Regulated Gas Utility Survey. Two other volumes, The Financial and Operating Analysis of Privately Owned Electric Utilities in the United States, 1961-1970, and The Inclusive Directory of Independent Operating Telephones, 1961-1970, were first published under my direction in 1971.

Shorter works include a presentation to the first annual Regulatory Information Systems Conference on the use of the computer as a tool of financial analysis; a presentation to the 1972 Regulatory Information Systems Conference on the use of the computer in augmenting traditional economic analysis; a presentation to the Missouri Valley Electric Association considered the capital requirements and the financial profile for the electric industry for the 1970's; a presentation on "The Independent Telephone Industry", and "The Future of the REA"; and a speech "The Regulation of ADR Deferrals" to a joint session of the Department of the Treasury and the Internal Revenue Service and a presentation on "The Use and Conservation of Helium" to a committee of the Kansas State Senate.

I lectured at Michigan State University NARUC courses from 1973 to 1976 on the use of the computer in regulation and quantitative methods. I was a discussant on rate design on the Missouri Energy Council program and I have been a panel moderator and chairperson on the Iowa State University conference on Public Utility Valuation and the Ratemaking Process and the chairman of the Capital Section of the 1979 Midwest Finance Association. I appeared before a select committee of the Indiana Senate on valuation methods in the ratemaking process.

I was a session chairman at the 1987 Western Economic Association International Conference and a panelist at the same conference. While attending the University of

Missouri, I was awarded a fellowship and as a consequence participated in numerous research projects and papers of regional economic importance.

Q. Do you belong to any professional organizations or associations?

A. Yes. The American Economic Association, the American Finance Association, the Econometric Society, the Federation of Financial Analysts, and regional and local associations such as the Western Finance Association, the Southern Economic Association, the Kansas City Society of Financial Analysts and the Kansas City Council on Business Economics.

I am a past member of the Governor's Advisory Council on Comprehensive Health Planning and the State Advisory Board on Medical Service Cost, both in the state of Missouri. From its inception in 1970 until February 1972, I was a member of the National Association of Regulatory Utility Commissioners Subcommittee of Staff Experts on Economics. From its inception until February 1972, I was Chairman of the National Association of Regulatory Utility Commissioners Joint Subcommittee on Electronic Data Processing.

I am also a member of the Iowa State University Board of Directors Conference on Public Utility Valuation, a member of the Program Planning Committee of the same organization and a past member of the faculty of the NARUC Short Course at Michigan State University. I am past chairman of the Advising Faculty of the Regulatory Information Systems Conference.

Q. Have you previously testified before any state or federal regulatory agencies?

A. Yes. I have testified on economic matters, including rate of return determinations, value determinations and rate design before courts in several jurisdictions, utility regulatory

agencies, both state and federal, and other regulatory bodies such as State Property Tax Boards. In particular, I have testified before the Federal Energy Regulatory Commission and its predecessor, the Federal Power Commission, the Interstate Commerce Commission and its successor on crude and product pipeline rates, the Federal Energy Regulatory Commission; and the state regulatory commissions of Kansas, Missouri, Mississippi, Illinois, Iowa, Michigan, Oklahoma, Indiana, Texas, Arkansas, Nevada, Colorado, Georgia, South Carolina, Tennessee and Louisiana, among others. I have testified before Federal District Courts in Nebraska, Kansas and Oklahoma and courts in the states of Mississippi, Kansas, Nebraska and Missouri.

Q. Does your background in finance and economics include special studies in the determination of appropriate capitalization and cost of capital?

A. It does.

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

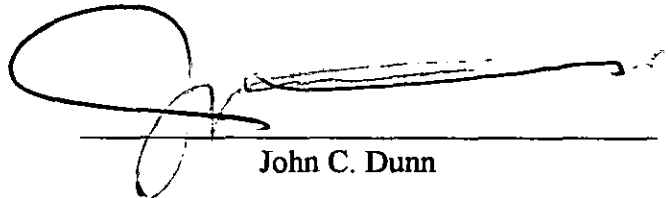
In the matter of Missouri Public Service     )  
of Kansas City, Missouri, for authority     )  
to file tariffs increasing electric rates     )  
for service provided to customers in the     )  
Missouri Public Service area                 )

Case No. ER-\_\_\_\_\_

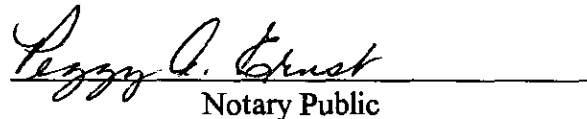
County of Jackson     )  
                               )     ss  
State of Missouri     )

**AFFIDAVIT OF JOHN C. DUNN**

John C. Dunn, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Direct Testimony of John C. Dunn;" that said testimony was prepared by him and under his direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge, information, and belief.

  
\_\_\_\_\_  
John C. Dunn

Subscribed and sworn to before me this 21<sup>st</sup> day of May, 2001.

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

My Commission expires:

April 21, 2004

