DIRECT TESTIMONY

OF

MARK BURDETTE

FILED²

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Missouri P.
Service Commission

Submitted on Behalf of
the Office of the Public Counsel

UTILICORP UNITED, INC.

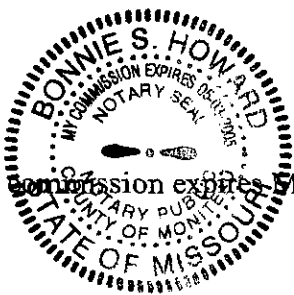## Case No. ER-2001-672

December 6, 2001

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the tariff filing of Missouri)
Public Service ("MPS") a division of)
UtiliCorp United Inc., ("UtiliCorp") to)
implement a general rate increase for)   Case No. ER-2001-672
retail electric service provided to customers)
in the Missouri service area of MPS)

AFFIDAVIT OF MARK BURDETTE

STATE OF MISSOURI   )
) ss
COUNTY OF COLE   )

Mark Burdette, of lawful age and being first duly sworn, deposes and states:

1.   My name is Mark Burdette. I am a Financial Analyst for the Office of the Public Counsel.

2.   Attached hereto and made a part hereof for all purposes is my direct testimony consisting of pages 1 through 43 and Schedules MB-1 through MB-12.

3.   I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

Mark Burdette

Subscribed and sworn to me this 6th day of December 2001.

Bonnie S. Howard
Notary Public

My commission expires May 3, 2005.

DIRECT TESTIMONY

OF

MARK BURDETTE

UTILICORP UNITED INC.

CASE NO. ER-01-672

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. Mark Burdette, P.O. Box 7800, Jefferson City, Missouri 65102-7800.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Office of the Public Counsel of the State of Missouri (OPC or Public Counsel) as a Public Utility Financial Analyst. Also, I am an adjunct faculty member with Columbia College, Jefferson City, Missouri. I teach undergraduate Business Finance and graduate-level Managerial Finance.

A. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND.

Q. I earned a Bachelor of Science in Electrical Engineering from the University of Iowa in May 1988. I earned a Master's in Business Administration with double emphases in Finance and Investments from the University of Iowa Graduate School of Management in December 1994.

Q. PLEASE DESCRIBE YOUR CONTINUING EDUCATION.

A. I have attended various regulatory seminars presented by the Financial Research Institute, University of Missouri-Columbia and the National Association of State Utility Consumer

1   Advocates. Also, I attended The Basics of Regulation: Practical Skills for a Changing

2   Environment presented by the Center for Public Utilities, New Mexico State University.

3 Q.   DO YOU HAVE ANY PROFESSIONAL AFFILIATIONS?

4 A.   Yes. I am a member of the Society of Utility and Regulatory Financial Analysts (SURFA).

5 Q.   DO YOU HOLD ANY PROFESSIONAL DESIGNATIONS?

6 A.   Yes. I have been awarded the professional designation Certified Rate of Return Analyst

7   (CRRA) by the Society of Utility and Regulatory Financial Analysts. This designation is

8   awarded based upon work experience and successful completion of a written examination.

9 Q.   HAVE YOU PREVIOUSLY FILED TESTIMONY BEFORE THE MISSOURI PUBLIC
10   SERVICE COMMISSION (MPSC OR THE COMMISSION)?

11 A.   Yes.

12 Q.   WHAT IS THE PURPOSE OF THIS TESTIMONY?

13 A.   I will present a cost-of-capital analysis for UtiliCorp United Inc. (UtiliCorp, UCU, the

14   Company), which operates in Missouri under the fictitious names Missouri Public Service

15   (MPS) and St. Joseph Light & Power (SJLP).

16 Q.   HAVE YOU PREPARED SCHEDULES IN SUPPORT OF YOUR TESTIMONY?

17 A.   Yes. I have prepared an analysis consisting of twelve schedules that is attached to this

18   testimony (MB-1-MB-12). This analysis was prepared by me and is correct to the best of

19   my knowledge and belief.

ANALYSIS

1

2 Q.   DOES UTILICORP HAVE PUBLICLY TRADED STOCK?

3 A.   Yes. UtiliCorp has stock traded on the New York Stock Exchange under the ticker symbol

4   UCU. Therefore, I was able to utilize actual historical and current data from UtiliCorp's

5   own publicly traded stock as a source in my analysis. However, the operating divisions of

6   UCU (Missouri Public Service and St. Joseph Light & Power) are not separate corporate

7   entities and do not issue their own stock or long term debt.

8   Schedule MB-1 contains historical financial information for UCU.

9 Q.   HOW DID YOU CALCULATE A FAIR RETURN ON COMMON EQUITY FOR UCU?

10 A.   I performed a Discounted Cash Flow (DCF) analysis on UtiliCorp and a group of five

11   publicly traded comparable electric utilities in order to formulate a reasonable cost of

12   common equity recommendation for the regulated electric operations of UCU. The

13   comparable group is comprised of electric utilities that derive at least 73% of revenues from

14   the sale of electricity.

15   Additionally, I corroborated my DCF analysis with a Capital Asset Pricing Model

16   (CAPM) analysis performed on UCU and the five comparison companies.

17 Q.   DOES UTILICORP'S CORPORATE STRUCTURE AFFECT A COST OF COMMON
18   EQUITY ANALYSIS FOR ITS REGULATED ELECTRIC OPERATIONS?

19 A.   Yes. This case concerns a *portion* of the regulated electric utility component of UtiliCorp,

20   operating within the MPSC's jurisdiction. Missouri Public Service (MPS) exists only as an

21   operating division of UCU, and therefore does not issue its own capital nor maintain its

22   own capital structure.

23   A strict application of the Discounted Cash Flow model (or any other market-based

24   analysis tool) to only a portion of UCU's regulated operations is not possible as there is not

25   publicly-traded stock and no market-based financial information.

1 Q. HOW DO THESE FACTORS AFFECT AN ANALYSIS OF UCU'S COST OF EQUITY?

2 A. Because UtiliCorp's stock represents the entire company, including the potentially greater

3   risks associated with nonregulated entities, a DCF analysis of UtiliCorp's stock must be

4   interpreted and perhaps adjusted downward to accurately represent the lower risk level of

5   and appropriate return for a regulated electric utility.

6   For this reason, I analyzed the group of electric utilities that are much less

7   diversified than UtiliCorp. I used the calculations of the group's cost of common equity to

8   assist in making any adjustments to and determine the reasonableness of the cost of equity

9   calculated for UtiliCorp as applied to regulated operations. The companies included in my

10   analysis are intended for this purpose, and are not intended to be comparable to UtiliCorp

11   United Inc. as a whole.

12

13   **SUMMARY OF FINDINGS**

14 Q. WHAT OVERALL RATE OF RETURN DID YOU CALCULATE FOR UTILICORP?

15 A. The Missouri-jurisdictional electric utility operations of UtiliCorp United, Inc. should be

16   allowed an overall return of 8.89% to 9.01% based on a capital structure dated 30 June

17   2001.

18

19   **CAPITAL STRUCTURE**

20 Q. WHAT CAPITAL STRUCTURE DID YOU UTILIZE TO CALCULATE AN OVERALL
21   COST OF CAPITAL FOR UTILICORP'S MISSOURI-JURISDICTIONAL ELECTRIC
22   OPERATIONS?

23 A. I used UtiliCorp United, Inc.'s consolidated capital structure as of 30 June 2001.

24   UtiliCorp's capital structure consists of 47.44% common equity, 6.24% preferred stock,

25   43.27% long term debt and 3.04% short term debt. This capital structure is shown on

26   Schedule MB-2.

1
2

Q. WHY DID YOU USE UCU'S CONSOLIDATED CAPITAL STRUCTURE RATHER THAN A COMPANY-ASSIGNED DIVISIONAL CAPITAL STRUCTURE?

3

A. UCU's regulated electric operations are not an independent company and do not maintain

4

an independent capital structure. Any capital structure which the Company claims to exist

5

for Missouri Public Service or St. Joseph Light & Power (SJLP) has simply been assigned

6

by management and does not represent the true sources or ratios of capital supporting the

7

regulated electric utility assets. The capital structures assigned by UCU to its divisions are

8

purely hypothetical.

9

Q. IS IT POSSIBLE FOR AN INVESTOR TO INVEST IN MPS OR SJLP ONLY?

10

A. No. The only way to invest in MPS or SJLP is to invest in UCU as a whole - including

11

UCU's consolidated capital structure. Therefore, it is appropriate to use UCU's capital

12

structure.

13
14
15

Q. ARE THERE POTENTIAL PROBLEMS ASSOCIATED WITH USING AN "ASSIGNED" CAPITAL STRUCTURE FOR THE REGULATED OPERATIONS OF A DIVERSIFIED COMPANY?

16

A. Yes. Any capital structure assigned by UCU to a particular division is at management's

17

discretion and exists on paper only. UCU's management could choose to assign any level

18

of debt and equity to MPS or SJLP, regardless of how far that assigned capital structure

19

strayed from reality. However, that assignment on paper would have no effect on the actual

20

levels of debt and equity supporting the utility assets or the actual cost of capital.

21

Q. PLEASE EXPLAIN FURTHER.

22

A. For example, if UCU took on more debt, those dollars would be thrown into the corporate

23

pot and one result would be a real shift in UCU's capital structure to a lower common

24

equity ratio. UtiliCorp's overall cost of capital would most likely decrease given that debt

25

capital is usually less expensive than equity capital. However, UCU's management could

26

arbitrarily choose to assign *none* of that new debt to the hypothetical capital structure of the

27

regulated utility operations. Therefore, on paper, MPS or SJLP would maintain the higher

1   common equity ratio which also retains the higher overall cost of capital. However, the

2   higher common equity ratio and resultant higher overall cost of capital claimed by UCU for

3   that division would be entirely management-created and not representative of the true

4   capital structure supporting the utility assets. In effect, the regulated operations would be

5   subsidizing the remainder of the consolidated company.

6   Obviously, UCU's actual capital structure and overall cost of capital are supporting

7   the utility operations, rather than a management created fictitious capital structure and

8   overall cost of capital. UCU's actual capital structure must be applied to the regulated

9   utility assets.

10 Q. DOES UCU MAINTAIN SPECIFIC LONG TERM DEBT ISSUES WHICH ARE
11   COLLATERALIZED BY AND USED TO PAY FOR MPS' OR SJLP'S ELECTRIC
12   UTILITY ASSETS?

13 A. No, it does not.

14 Q. IS THE CURRENT CAPITAL STRUCTURE CONSISTENT WITH HOW UTILICORP
15   HAS BEEN CAPITALIZED IN THE PAST?

16 A. Generally. The 30 June 2001 capital structure contains more common equity (47.44%) than

17 UCU has maintained the past few years. The Company enhanced its common equity ratio

18 through the issuance of 10,000,000 shares of common stock on 9 March 2001.

19 The four-year average (1997-2000, year-end) common equity ratio for UCU is

20 38.2%. Over that time, UCU's capital structure varied, with the common equity ratio

21 ranging from a low of 35.0% at the end of 2000 to a high of 42.5% at the end of 1998.

22 Q. HOW DOES UCU'S CURRENT CAPITAL STRUCTURE COMPARE WITH OTHER
23   ELECTRIC UTILITIES'?

24 A. According to Value Line Composite Statistics, the common equity ratio for electric utility

25 companies covered by Value Line averaged 43.0% for the years 1997 through 2000

26 (Schedule MB-3), compared with UCU's average of 38.2% over the same time period, and

27 its June 2001 level of over 47%.

1   The 26 Electric Companies covered by C.A. Turner Utility Reports (November

2   2001) have an average common equity ratio of 36%. The 46 Combination Electric and Gas

3   Companies covered by C.A. Turner (which includes UCU) have an average common equity

4   ratio of 37%.

5   UtiliCorp's capital structure varies, but is generally consistent with other electric

6   and electric/gas companies.

7 Q.   IS UCU'S LEVEL OF COMMON EQUITY APPROPRIATE TO USE TO CALCULATE
8   AN OVERALL RATE OF RETURN FOR UCU'S REGULATED ELECTRIC UTILITY
9   ASSETS?

10 A.   Yes.

11 Q.   PLEASE SHOW THE CAPITAL STRUCTURE THAT YOU RECOMMEND.

12 A.   I calculated and recommend the following actual capital structure to use for UCU's

13   Missouri-jurisdictional operations:

	Percent
Common equity	47.44%
Preferred stock	6.24%
Long term debt	43.27%
Short term debt	3.04%
	100.00%

21 Q.   WHY DID YOU INCLUDE SHORT TERM DEBT AS PART OF UCU'S CAPITAL
22   STRUCTURE?

23 A.   I use two criteria to determine whether to include short term debt in a company's capital

24   structure: 1) is the level of short term debt (less any construction work in progress, or

25   CWIP) significant compared to the other capital structure components; and 2) is the

26   company's use of short term debt consistent over the year?

27   In UCU's case, both of these criteria are met. On 6/30/01, UCU's capital structure

28   contained 3.04% short term debt (month-end balance, less CWIP). Also, as can be seen on

29   Schedule MB-5, UCU consistently uses short term debt to satisfy some of the company's

30   capital needs. Therefore, I included short term debt as a component of capital structure.

1   **EMBEDDED COSTS**

2   Q.   WHAT IS THE EMBEDDED COST OF PREFERRED STOCK FOR UCU?

3   A.   UtiliCorp's "preferred stock" is company-obligated preferred securities, which UCU

4   actually lists on its long term debt schedule. The embedded cost of these securities is

5   9.61%. See Schedule MB-4 for the calculation.

6   Q.   WHAT IS UCU'S EMBEDDED COST OF LONG TERM DEBT?

7   A.   For the purposes of direct testimony in this proceeding, I've chosen to adopt the Missouri

8   Public Service Commission Staff's methodology and recommendations for the calculation

9   of the level and embedded cost of long term debt. At the time of this filing, Staff's

10   recommendation is for $2,397,871,325 of long term debt to be included in UCU's 30 June

11   2001 capital structure, with an embedded cost of 7.70%.

12   Q.   WHAT IS UCU'S EMBEDDED COST OF SHORT TERM DEBT?

13   A.   For the period ending 30 June 2001, the weighted average cost was 6.932%. I calculated

14   this cost as a weighted average monthly cost for the twelve months preceding 30 June 2001.

15   These calculations are shown on Schedule MB-6.

16

17   **COST OF COMMON EQUITY**

18   Q.   WHAT IS YOUR RECOMMENDED COST OF COMMON EQUITY FOR THE
19   REGULATED ELECTRIC OPERATIONS OF UCU?

20   UCU's electric operations in Missouri should be allowed a return on common equity of

21   10.00% to 10.25%.

22   Q.   PLEASE SUMMARIZE YOUR COST OF COMMON EQUITY ANALYSIS RESULTS.

23   A.   I relied primarily on a Discounted Cash Flow analysis of UtiliCorp United and a group of

24   five electric utilities comparable to UCU's regulated electric operations. The results of the

25   analysis for UCU are as follows:

DCF Cost of Common Equity for UtiliCorp:

	Dividend Yield	Growth	Cost of Equity
Low	4.31%	0.00%	4.31%
Average	4.31%	5.94%	10.25%
High	4.31%	13.00%	17.31%

The results of the analysis on the group of five electric utilities comparable to the regulated electric operations of UCU are as follows:

DCF Cost of Common Equity for Comparable Electric Utilities:

	Dividend Yield	Growth	Cost of Equity
Low	5.12%	0.42%	5.54%
Average	5.12%	2.70%	7.82%
High	5.12%	5.81%	10.99%

Q. PLEASE EXPLAIN IN DETAIL HOW YOU ARRIVED AT YOUR RECOMMENDED COST OF COMMON EQUITY.

A. First, I performed a Discounted Cash Flow (DCF) analysis applied directly to UtiliCorp's publicly traded stock. I then considered the risk of UtiliCorp as a whole versus regulated electric utility operations of more traditional electric utilities to determine if an adjustment to my calculated ROE was appropriate. (A comparison of financial statistics and risk indicators for UCU and the comparison group is shown on Schedule MB-7.) I believe the existence of a variety of businesses within UtiliCorp's corporate structure, especially unregulated entities, makes UCU more risky overall and leads to a calculated ROE for UtiliCorp which is greater than the ROE appropriate for regulated electric utility operations.

To assist in making any adjustments to UCU's DCF cost of equity, I analyzed a group of five regulated electric utilities which are less diversified into nonregulated areas than UtiliCorp. Each company in the group derives at least 73% of revenues from the sale of electricity. Generally, looking at a variety of risk measures, this group of traditional electric utilities is less risky than UtiliCorp as a whole.

1 Q. DOES THE MPSC GENERALLY RELY ON THE CONTINUOUS GROWTH
2   DISCOUNTED CASH FLOW MODEL TO DETERMINE THE COST OF COMMON
3   EQUITY FOR REGULATED COMPANIES OPERATING IN MISSOURI?

4 A. Yes. The Report and Order from case WR-95-145, The St. Louis County Water Company,

5   clearly states that the MPSC believes the continuous growth DCF model to be substantially

6   more reliable than any other method or combination of methods (Report and Order, pg. 38).

7

8   **DISCOUNTED CASH FLOW MODEL**

9 Q. PLEASE DESCRIBE THE STANDARD DISCOUNTED CASH FLOW (DCF) MODEL
10   YOU USED TO ARRIVE AT THE APPROPRIATE COST OF EQUITY CAPITAL.

11 A. The model is represented by the following equation:

12     $$k = D_1/P_0 + g$$

13   where "k" is the cost of equity capital (i.e. investors' required return), "D_1/P_0" is the

14   expected dividend yield (next expected dividend (D_1) divided by current stock price (P_0))

15   and "g" is the expected sustainable growth rate.

16   If future dividends are expected to grow at a constant rate (i.e., the constant growth

17   assumption) and dividends, earnings and stock price are expected to increase in proportion

18   to each other, the sum of the current dividend yield (D/P) and the expected growth rate (g)

19   equals the required rate of return, or the cost of equity, to the firm. This form of the DCF

20   model is commonly used in the regulatory arena and is known as the constant growth, or

21   Gordon, DCF model. The constant growth DCF model is based on the following

22   assumptions:

23   1) A constant rate of growth,

24   2) The constant growth will continue for an infinite period,

25   3) The dividend payout ratio remains constant,

26   4) The discount rate must exceed the growth rate, and

27   5) The stock price grows proportionately to the growth rate.

1   Although all of these assumptions do not always hold in a technical sense, the relaxation of

2   these assumptions does not make the model unreliable.

3   The DCF model is based on two basic financial principals. First; the current market

4   price of any financial asset, including a share of stock, is equivalent to the value of all

5   expected future cash flows associated with that asset discounted back to the present at the

6   appropriate discount rate. The discount rate that equates anticipated future cash flows and

7   the current market price is defined as the rate of return or the company's cost of equity

8   capital.

9   Cash flows associated with owning a share of common stock can take two forms:

10 selling the stock and dividends. Just as the current value of a share of stock is a function of

11 future cash flows (dividends), the *future* price of the stock at any time is also a function of

12 future dividends. When a share of stock is sold, what is given up is the right to receive all

13 future dividends. Therefore, the DCF model, using expected future dividends as the cash

14 flows, is appropriate regardless of how long the investor plans to hold the stock.

15 Determination of a holding period and an associated terminal price is unnecessary. The

16 irrelevance of investors' time horizons is emphasized by Brealey and Myers:

17
18   How far out could we look? In principle the horizon period H could be
19   infinitely distant. Common Stocks do not expire of old age. Barring such
20   corporate hazards as bankruptcy or acquisition, they are immortal. As H
21   approaches infinity, the present value of the terminal price ought to
22   approach zero.... We can, therefore, forget about the terminal price entirely
23   and express today's price as the present value of a perpetual stream of cash
24   dividends. (Principles of Corporate Financing, Fourth Edition, page 52).

25 The other basic financial principal on which the DCF is grounded is the "time value of

26 money." Investors view a dollar received today as being worth more than a dollar received

27 in the future because a dollar today can immediately be invested. Therefore, future cash

28 flows are discounted. The rate used by investors to discount future cash flows to the

29 present is the discount rate or opportunity cost of capital.

30

METHODOLOGY FOR DETERMINATION OF SUSTAINABLE GROWTH

Q. TO WHAT DOES THE GROWTH COMPONENT OF THE DCF FORMULA REFER?

A. The growth rate variable, g, in the traditional DCF model is the dividend growth rate investors expect to continue into the *indefinite future* (i.e., the sustainable growth rate). This is not necessarily the same growth rate that a company or analysts expect over the next one year or even the next five years.

Q. HOW IS THE SUSTAINABLE GROWTH RATE DETERMINED?

A. Sustainable growth is determined by analyzing various historical and projected growth rates for the Company. These growth rates might be calculated from raw data or taken from financial resources such as Value Line Investment Survey. The growth rates analyzed can include historical and projected growth rates of, for example, earnings per share (EPS), dividends per share (DPS) and book value per share (BVPS). Analysts also consider retention growth (both historical and projected), which is a calculation of the level of earnings the company retains and does not pay out in dividends.

Q. COULD YOU DESCRIBE THE VARIOUS PARAMETERS AND METHODS WHICH CAN BE USED TO CALCULATE SUSTAINABLE GROWTH?

A. Yes. Methods sometimes used for determining the investor-expected sustainable growth rate utilized in the DCF model include: 1) *historical* growth rates, and 2) analysts' *projections* of expected growth rates. Three commonly-employed historical growth parameters are: 1) earnings per share (EPS), 2) dividends per share (DPS), and 3) book value per share (BVPS). Additionally, analysts' projections of future growth in earnings per share, dividends per share, and book value per share are sometimes used as an estimate of the sustainable growth rate.

As a matter of completeness, I utilized **all** of the above-mentioned techniques for measuring growth in order to calculate a sustainable growth rate. A summary of growth rate calculations is shown on Schedule MB-8, page 1.

1   Q.   DID YOU USE ANY OTHER METHODS OF CALCULATING GROWTH?

2   A.   Yes, I did. I calculated both historical and projected retention growth. It is important to

3   recognize the fundamentals of long-term investor-expected growth when developing a

4   sustainable growth rate. Future dividends will be generated by future earnings and the

5   primary source of growth in future earnings is the reinvestment of present earnings back

6   into the firm. This reinvestment of earnings also contributes to the growth in book value.

7   Furthermore, it is the earned return on reinvested earnings and existing capital (i.e., book

8   value) that ultimately determines the basic level of future cash flows. Therefore, one proxy

9   for the future growth rate called for in the DCF formula is found by multiplying the future

10   expected earned return on book equity (r) by the percentage of earnings expected to be

11   retained in the business (b). This calculation, known as the "b*r" method, or *retention*

12   growth rate, results in one measure of the sustainable growth rate called for in the

13   Discounted Cash Flow formula. While the retention growth rate can be calculated using

14   historical data on earnings retention and equity returns, this information is relevant only to

15   the extent that it provides a meaningful basis for determining the future sustainable growth

16   rate. Consequently, projected data on earnings retention and return on book equity are

17   generally more representative of investors' expectations.

18   Q.   CAN YOU PROVIDE AN EXAMPLE THAT ILLUSTRATES THE FUNDAMENTALS
19   OF SUSTAINABLE GROWTH AS MEASURED BY RETENTION GROWTH?

20   A.   Yes. To better understand the principles of retention growth, it is helpful to compare the

21   growth in a utility's cash flows to the fundamental causes of growth in an individual's

22   passbook account. For an individual who has $100 in a passbook account paying 5.0%

23   interest, earnings will be $5 for the first year. If this individual leaves 100% of the earnings

24   in the passbook account (retention ratio equals 100%), the account balance at the end of the

25   first year will be $105. Total earnings in the second year will be $5.25 ($105 x 5.0%), and

26   the growth rate of the account in year two is 5.0% [100%(b) x 5%(r)]. On the other hand, if

27   the individual withdraws $3 of the earnings from the first year and reinvests only $2

1   (retention ratio equals 40%) earnings in the second year will be only $5.10 ($102 x 5.0%),

2   with growth equaling 2.0% [($102-$100)/$100 = 2.0% = 40%(b) x 5%(r)]. In both cases,

3   the return, along with the level of earnings retained, dictate future earnings.

4   These exact principles regarding growth apply to a utility's common stock. When

5   earnings are retained, they are available for additional investment and, as such, generate

6   future growth. When earnings are distributed in the form of dividends, they are unavailable

7   for reinvestment in those assets that would ultimately produce future growth. Either way,

8   for both a utility's common stock or an individual's passbook account, the level of earnings

9   retained, along with the rate of return, determine the level of sustainable growth.

10 Q.   ARE THERE ANY OTHER FACTORS THAT INFLUENCE INVESTOR-EXPECTED
11   SUSTAINABLE GROWTH?

12 A.   Yes. Stock financing will cause investors to expect additional growth if a company is

13   expected to issue new shares at a price above book value. The excess of market price over

14   book value would benefit current shareholders, increasing their per share book equity.

15   Therefore, if stock financing is expected at prices above book value, shareholders will

16   expect their book value to increase, and that adds to the growth expectation stemming from

17   earnings retention, or "b*r" growth. A more thorough explanation of "external" growth is

18   included in Appendix (I). This external growth factor has been included in all historic and

19   projected retention growth rate calculations for UCU and the group of comparison utilities.

20 Q.   DID YOU EXCLUDE ANY OF YOUR CALCULATED GROWTH RATES FROM THE
21   DETERMINATION OF AVERAGES?

22 A.   Yes, I did. I excluded any negative growth rates from my calculations.

23   Also, I excluded any compound earnings per share (EPS) growth rates which

24   included a year when the payout ratio was greater than one (the dividend paid out was

25   greater than earnings for that year.) In those circumstances, the calculated compound

26   growth rate was artificially high. Any particular growth rate excluded from calculations is

27   shown in italics on Schedule MB-7.

14

1 Q.   THE DCF GROWTH RATE IS THE SUSTAINABLE GROWTH RATE FOR DIVIDENDS
2   PER SHARE. IS THE HISTORIC GROWTH RATE IN DIVIDENDS PER SHARE AN
3   APPROPRIATE PROXY FOR THE SUSTAINABLE GROWTH RATE?

4 A.   Not necessarily. The historic growth rate in dividends per share will tend to overstate

5   (understate) the sustainable growth rate when the dividend payout ratio has increased

6   (decreased) over the measurement period. For an extended discussion and illustration of

7   this phenomenon, please see Appendix I.

8

9   **DETERMINATION OF SUSTAINABLE GROWTH**

10 Q.   DID   YOU   RELY   ON   DATA   FROM   UCU   ONLY   TO   ARRIVE   AT   A
11   RECOMMENDATION OF SUSTAINABLE GROWTH?

12 A.   No. In addition to analyzing growth rates for UCU, I analyzed a group of five electric

13   utilities much less diversified than UCU to provide some insight as to the reasonableness of

14   a sustainable growth rate for the regulated electric operations of UCU. A comparison of

15   financial statistics and risk factors for UCU and the group is presented on Schedule MB-7.

16   The following companies were included in the analysis: 1) DPL Inc.; 2) Hawaiian

17   Electric Industries; 3) IDACORP, Inc.; 4) NSTAR; and 5) Potomac Electric Power Co.

18   The company DQE, Inc. was initially included in this group, having met all the

19   selection criteria. However, according the Value Line, DQE is expected to have a negative

20   payout ratio (meaning it pays out in dividends more than it earns) for the years 2001 and

21   2002. Given that DQE is forecasted to earn less than it pays out over the next two years, I

22   chose to exclude it from my calculations.

23 Q.   WHAT GROWTH RATE PARAMETERS HAVE YOU EXAMINED IN ORDER TO
24   ESTABLISH   INVESTOR-EXPECTED   GROWTH   FOR   UCU'S   ELECTRIC
25   OPERATIONS?

26 A.   The following growth parameters have been reviewed for UCU and the group of five

27   electric utilities: 1) my calculations of historic compound growth in earnings, dividends,

28   and book value based on data from Value Line; 2) average of five-year and ten-year

1   historic growth in earnings, dividends, and book value; 3) projected growth rate in earnings,

2   dividends, and book value; 4) historic retention growth rate; and, 5) projected retention

3   growth rate.

4   Q.   PLEASE SUMMARIZE YOUR HISTORICAL AND PROJECTED GROWTH RATE
5   ANALYSIS FOR UCU.

6   A.   The following table outlines the results of the analysis of growth rates for UCU found on

7   Schedule MB-8, page 2. The overall average of all analyzed growth rates for UCU is

8   5.94%.

10   **Growth rate summary for UCU:**

	EPS	DPS	BVPS
Historical Compound Growth	8.50%	0.71%	4.60%
Historical Value Line Growth	5.50%	1.25%	4.25%
Projected Growth	12.25%	0.00%	13.00%

	Historical	Projected
Retention Growth	5.15%	8.25%

20   Q.   PLEASE EXPLAIN IN MORE DETAIL HOW THE HISTORICAL GROWTH RATES OF
21   EARNINGS, DIVIDENDS, AND BOOK VALUE WERE DETERMINED.

22   A.   Historical rates of growth in earnings per share (EPS), dividends per share (DPS), and book

23   value per share (BVPS) were analyzed using two methods. First, compound growth rates

24   were calculated for five-year periods ending 1998, 1999 and 2000. These three five-year

25   compound growth rates were then averaged and are labeled "Ave. Compound Gr." on line

26   16 of Schedule MB-8, pages 2-7.

27   The second measure of historical growth was taken from Value Line. The

28   historical rates of growth furnished by Value Line are included in this analysis because:

29   1) The Value Line growth rates are readily available for investor use;

30   2) The Value Line rates of growth reflect both a five-year and ten-year time frame;

31   and

1   3) The Value Line rates are measured from an average of three base years to an

2   average of three ending years, smoothing the results and limiting the impact of nonrecurring

3   events.

4   The Value Line growth rates are found on line 19 of Schedule MB-8, pages 2-7.

5   Q.   PLEASE DISCUSS YOUR ANALYSIS OF PROJECTED GROWTH RATE DATA.

6   A.   Projected growth rates in EPS, DPS, and BVPS were taken from Value Line and are found

7   on line 30 of Schedule MB-8, pages 2-7. Projected growth in EPS was also taken from

8   First Call Corporation (line 32). If First Call did not issue a projection for a particular

9   company, that space contains n/a. Information from First Call is available to the average

10   investor. The projected growth in EPS found on line 36 is the average of earnings growth

11   projections furnished by Value Line and First Call. Value Line's projected growth in

12   dividends and book value are listed again on line 36.

13   Q.   PLEASE DISCUSS YOUR ANALYSIS OF HISTORICAL AND PROJECTED
14   RETENTION GROWTH RATES.

15   A   Historical retention growth was determined using the product of return (r) and retention rate

16   (b) for the years 1996-2000, and the average was calculated (line 10, final column). The

17   projected retention growth data, found on lines 25-27 of Schedule MB-8, pages 2-7 is based

18   on information from Value Line. Projected retention growth was calculated for 2001, 2002

19   and the period 2004-06. An average of these growth rates was calculated and compared to

20   the growth rate for the 2004-06 period alone. The *larger* value, either the average or the

21   2004-06 rate, was utilized as the projected retention growth rate.

22   Investors' expectations regarding growth from external sources (i.e. sales of

23   additional stock at prices above book value) has been included in the determination of both

24   historical and projected growth (lines 13 and 33, respectively).

1 | Q. | DID YOU RELY ON DATA FROM UTILICORP ONLY TO ARRIVE AT A
2 | | RECOMMENDATION OF SUSTAINABLE GROWTH?

3 | A. | No. I analyzed a group of utilities with similar characteristics and risk profiles to UCU's

4 | | regulated electric operations to provide some insight as to the reasonableness of the

5 | | sustainable growth rate. Schedule MB-7 shows a comparison of some risk factors for UCU

6 | | and my group of comparison companies.

7 | | Appendix G, attached to this testimony, describes the selection criteria used to

8 | | develop a group of companies with risk characteristics similar to those of UCU's regulated

9 | | electric operations. The following companies met the selection criteria: 1) DPL Inc.; 2)

10 | | Hawaiian Electric Industries; 3) IDACORP, Inc.; 4) NSTAR; and 5) Potomac Electric

11 | | Power Co. Schedule MB-8, pages 2-7 contain growth rate calculations for UCU and the

12 | | group of comparison companies. These calculations are summarized on Schedule MB-8,

13 | | page 1.

14 | Q. | PLEASE SUMMARIZE YOUR HISTORICAL AND PROJECTED GROWTH RATE
15 | | ANALYSIS FOR YOUR GROUP OF COMPARISON COMPANIES.

16 | A. | The following table outlines the results of the analysis of growth rates for the comparison

17 | | group. The high average growth rate is 7.12% (projected retention) and the low average

18 | | growth rate is 0.80% (projected DPS). The overall average of all growth rates for all five

19 | | companies is 3.23% (Schedule MB-8, page 1). In all cases, negative growth rates were *not*

20 | | included in the calculation of averages.

21 | | **Comparison group growth rate summary:**

	EPS	DPS	BVPS
Historical Compound Growth	3.14%	1.20%	2.68%
Historical Value Line Growth	2.75%	1.85%	2.65%
Projected Growth	6.50%	0.80%	4.50%

	Historical	Projected
Retention Growth	2.34%	7.12%

1 Q. WHAT GROWTH RATE DO YOU CONSIDER TO BE REFLECTIVE OF THE
2   INVESTOR-EXPECTED GROWTH FOR YOUR COMPARISON COMPANIES?

3 A. I would expect a sustainable growth rate for this group of utilities to be in the range of, at

4   most, 4.0% to 5.0% on average.

5   The largest two comparable company growth rates are projected EPS (6.50%) and

6   projected retention growth (7.12%). However, both of these calculated growth rates are

7   greatly effected by the growth rates for a single company, DPL Inc. DPL's projected EPS

8   growth rate is 10.25%. Without this value, the overall average projected EPS growth rate

9   for the companies is 5.56% rather than 6.50%. DPL's projected retention growth rate is

10   13.80%. Without that value, the overall average projected retention growth is 5.45% rather

11   than 7.12%.

12

13   **STOCK PRICE AND DIVIDEND YIELD**

14 Q. WHAT DIVIDEND YIELD DID YOU USE IN YOUR ANALYSIS TO CALCULATE A
15   DCF COST OF COMMON EQUITY FOR THE REGULATED ELECTRIC OPERATIONS
16   OF UCU?

17 A. I used dividend yields of 4.31%, which is the expected yield on UCU common stock, and

18   5.04%, which is the average expected yield for the comparable group.

19 Q. EXPLAIN YOUR CALCULATION OF THE DIVIDEND YIELD.

20 A. Dividend yield is equal to the expected dividend divided by current stock price. Schedule

21   MB-9 shows the average stock prices for a recent six-week period, the expected 2002

22   dividends (as taken from Value Line), and the calculation of the expected dividend yields

23   for UCU and the group of comparable companies.

24   I used a six-week period for determining the average stock price because I believe

25   that period of time is long enough to avoid daily fluctuations and recent enough so that the

26   stock price captured is representative of current expectations. The stock price for each

27   company is the average of the Friday closing price from 10/26/01 through 11/30/01. This

1   time period accurately reflects investor's current expectations for UCU's and the

2   comparison group's stock. Non-current stock prices simply do not capture investor's

3   current expectations and are inappropriate to use in the DCF.

4   Q.   IS THE METHOD YOU USED TO CALCULATE THE DIVIDEND YIELD CONSISTENT
5   WITH DCF PRINCIPLES?

6   A.   Yes. The DCF equation calls for the dividend yield calculated from the expected dividend

7   and current market price of stock, which I utilized in my calculation.

8

9   **COST OF EQUITY**

10   Q.   WHAT IS THE COST-OF-EQUITY FOR UCU?

11   A.   The following table, using data from Schedule MB-10, outlines the DCF cost of equity

12   range for UCU based on UCU's actual expected dividend yield and my growth rate

13   calculations:
14
15
	Dividend Yield	Growth	Cost of Equity
Low	4.31%	0.00%	4.31%
Average	4.31%	5.94%	10.25%
High	4.31%	13.00%	17.31%
19

20   Q.   WHAT IS THE COST-OF-EQUITY RANGE FOR YOUR COMPARABLE GROUP?

21   A.   The following table, using data from Schedule MB-10, outlines the cost of equity range for

22   the group of companies.
23
24
	Dividend Yield	Growth	Cost of Equity
Low	5.04%	0.54%	5.57%
Average	5.04%	3.23%	8.27%
High	5.04%	7.40%	12.44%
28

29   The upper-end of the DCF result for the group is lower than the upper-end DCF result for

30   UCU. This higher DCF result for UCU is to be expected given that UCU is a diversified

31   company and consists of nonregulated subsidiaries which are more risky than the electric

1   utility operations of either the comparison group or UCU itself. However, my cost of

2   equity recommendation is for regulated electric utility operations - not for UCU on the

3   whole.

4   Q.   WHAT RETURN ON COMMON EQUITY DO YOU RECOMMEND FOR UCU IN THIS
5   PROCEEDING?

6   A.   The Missouri jurisdictional electric utility operations of UtiliCorp should be allowed a

7   return on common equity of 10.00% to 10.25%. This is based on my analysis of both UCU

8   and the group of five comparable companies.

9   This range is within the upper half of the ROE range I calculated for the

10   comparison group, and includes UCU's cost of equity using average growth.

11   Q.   IS YOUR COST OF COMMON EQUITY RECOMMENDATION REASONABLE
12   CONSIDERING THE DIFFERENCES IN POTENTIAL RISK BETWEEN UCU AS A
13   WHOLE, THE REGULATED ELECTRIC OPERATIONS OF UCU, AND THE GROUP
14   OF COMPARISON COMPANIES?

15   A.   Yes, it is. My cost of equity recommendation is below the high end of my cost of equity

16   range for UCU. This is appropriate because electric utility operations are less risky than

17   UCU's operations overall.

18

19   **CAPITAL ASSET PRICING MODEL**

20   Q.   WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?

21   A.   As can be seen on Schedule MB-11, I performed a CAPM analysis on UCU and the group

22   of five comparison companies. The CAPM cost of common equity for UCU is 9.64%. The

23   average CAPM cost of common equity for the group is 9.41%, with a high of 10.03% and a

24   low of 9.25%.

25   Interest rates have been declining during 2001, fueled by multiple rate cuts by the

26   Federal Reserve. This drop in interest rates flows through to the CAPM cost of equity via

27   the risk free rate component of the formula. I believe it makes sense that my calculated cost

1   of equity using the CAPM at this time produces results below my DCF calculations. With

2   that in mind, I believe my 9.64% CAPM cost of equity for UCU provides support for my

3   recommendation of 10.00% to 10.25% for UCU's cost of common equity.

4   Q.   PLEASE DESCRIBE THE CAPITAL ASSET PRICING MODEL YOU USED TO
5   SUBSTANTIATE YOUR RECOMMENDED RETURN ON COMMON EQUITY.

6   A.   The Capital Asset Pricing Model (CAPM) is described by the following equation:

7          $$K = R_f + \beta(R_m - R_f)$$

8   where,

9   K = the cost of common equity for the security being analyzed,

10   R_f = the risk free rate,

11   β = beta = the company- or industry-specific beta risk measure,

12   R_m = market return, and

13         $(R_m - R_f)$ = market premium.

14   The formula states that the cost of common equity is equal to the risk free rate of interest,

15   plus, beta multiplied by the difference between the return on the market and the risk free

16   rate (the market premium).

17   The formula says that the cost of common equity is equal to the risk free rate plus

18   some proportion of the market premium - that proportion being equal to beta. The market

19   overall has a beta of 1.0. Firms with beta less than 1.0 are assumed to be less risky than the

20   market; firms with beta greater than 1.0 are assumed to be more risky than the market. The

21   appropriate beta to use in the CAPM formula is the beta that represents the risk of the

22   company (or project) being analyzed.

23   Q.   HOW DID YOU ARRIVE AT THE VALUES OF THE RISK FREE RATE AND THE
24   MARKET RETURN (OR MARKET PREMIUM) USED IN YOUR ANALYSIS?

25   A.   The 5.35% risk free rate I utilized for my CAPM analysis is the 30-year U.S. Government

26   bond rate as reported by the Value Line Investment Survey (21 November 2001). The

1   7.80% value I used for the market premium (R_m-R_f) is equal to the market premium

2   calculated by Ibbottson and Associates, calculated using arithmetic means.

3   Q.   DO YOU SUBSCRIBE TO THE CAPM AS AN ACCURATE MEASURE OF MARKET-
4   BASED COST OF EQUITY?

5   A.   I believe the CAPM - and its dependence on the single company-specific risk measure, beta

6   - has limitations. However, many investors continue to rely on the CAPM. Therefore, I

7   included the analysis as a check on and to provide support for my DCF analysis.

8

9   **WEIGHTED AVERAGE COST OF CAPITAL**

10   Q.   WHAT WEIGHTED AVERAGE COST OF CAPITAL (WACC) DO YOU RECOMMEND?

11   A.   The regulated electric operations of UCU should be allowed an overall cost of capital

12   (WACC) of 8.89% to 9.01%. Schedule MB-12 shows my WACC calculations. Please see

13   Appendix B for details on the general WACC calculation.

14   Q.   WHAT PRETAX INTEREST COVERAGE RATIOS RESULT FROM YOUR ROE AND
15   WACC RECOMMENDATIONS?

16   A.   An ROE of 10.00% produces a pretax interest coverage ratio of 3.45 times for UCU. An

17   ROE of 10.25% produces a coverage of 3.50 times.

18   Q.   DOES THIS CONCLUDE YOUR TESTIMONY?

19   A.   Yes, it does.

1 **APPENDIX A**

2 **DEVELOPMENT & PURPOSES OF REGULATION**

3 Q.   WHY ARE PUBLIC UTILITIES REGULATED?

4 A.   The nature of public utility services generally requires a monopolistic mode of operation.

5   Only a limited number of companies (and quite often only one) are normally allowed to

6   provide a particular utility service in a specific geographic area. Public utilities are often

7   referred to as "natural" monopolies; a state created by such powerful economies of scale or

8   scope that only one firm can or should provide a given service. Even when a utility is not a

9   pure monopoly, it still has substantial market power over at least some of its customers.

10   In order to secure the benefits arising from monopolistic-type operations, utilities

11   are generally awarded an exclusive franchise (or certificate of public convenience) by the

12   appropriate governmental body. Since an exclusive franchise generally protects a firm from

13   the effects of competition, it is critical that governmental control over the rates and services

14   provided by public utilities is exercised. Consequently, a primary objective of utility

15   regulation is to produce market results that closely approximate the conditions that would

16   be obtained if utility rates were determined competitively. Based on this competitive

17   standard, utility regulation must: 1) secure safe and adequate service; 2) establish rates

18   sufficient to provide a utility with the opportunity to cover all reasonable costs, including a

19   fair rate of return on the capital employed; and 3) restrict monopoly-type profits.

1 **APPENDIX B**

2 **CALCULATION OF THE WEIGHTED AVERAGE COST OF CAPITAL**

3 Q. PLEASE EXPLAIN HOW THE WEIGHTED AVERAGE COST OF CAPITAL IS USED
4 IN TRADITIONAL RATEMAKING AND HOW IT IS DERIVED.

5 A. The basic standard of rate regulation is the revenue-requirement standard, often referred to

6 as the rate base-rate of return standard. Simply stated, a regulated firm must be permitted to

7 set rates which will cover operating costs and provide an opportunity to earn a reasonable

8 rate of return on assets devoted to the business. A utility's total revenue requirement can be

9 expressed as the following formula:

10 $$R = O + (V - D + A)r$$

11 where R = the total revenue required,

12 O = cost of operations,

13 V = the gross value of the property,

14 D = the accrued depreciation, and

15 A = other rate base items,

16 r = the allowed rate of return/weighted average cost of capital.

17 This formula indicates that the process of determining the total revenue requirement for a

18 public utility involves three major steps. First, allowable operating costs must be

19 ascertained. Second, the net depreciated value of the tangible and intangible property, or

20 net investment in property, of the enterprise must be determined. This net value, or

21 investment (V - D), along with other allowable items is referred to as the rate base. Finally,

22 a "fair rate of return" or weighted average cost of capital (WACC) must be determined.

23 This rate, expressed as a percentage, is multiplied by the rate base. The weighted average

24 cost of capital (WACC) is applied to the rate base (V-D+A) since it is generally recognized

25 the rate base is financed with the capital structure and these two items are normally similar

26 in size. The allowed rate of return, or WACC, is typically defined as follows:

1          $r = i(D/C) + l(P/C) + k(E/C)$

2   where   i = embedded cost of debt capital,

3   D = amount of debt capital,

4   l = embedded cost of preferred stock,

5   P = amount of preferred stock,

6   k = cost of equity capital,

7   E = amount of equity capital, and

8   C = amount of total capital.

9   This formula indicates that the process of determining WACC involves separate

10   determinations for each type of capital utilized by a utility. Under the weighted cost

11   approach, a utility company's total invested capital is expressed as 100 percent and is

12   divided into percentages that represent the capital secured by the issuance of long-term

13   debt, preferred stock, common stock, and sometimes short-term debt. This division of total

14   capital by reference to its major sources permits the analyst to compute separately the cost

15   of both debt and equity capital. The cost rate of each component is weighted by the

16   appropriate percentage that it bears to the overall capitalization. The sum of the weighted

17   cost rates is equal to the overall or weighted average cost of capital and is used as the basis

18   for the fair rate of return that is ultimately applied to rate base.

1 **APPENDIX C**

2 **ECONOMIC PRINCIPLES OF REGULATION**

3 Q. BRIEFLY DESCRIBE THE ECONOMIC RATIONALE FOR RATE BASE-RATE OF
4 RETURN REGULATION.

5 A. Rate base-rate of return regulation is based, in part, on basic economic and financial theory

6 that applies to both regulated and unregulated firms.
7

8 Although it is well recognized that no form of economic regulation can
9 ever be a perfect substitution for competition in determining market prices
10 for goods and services, there is nearly unanimous acceptance of the
11 principle that regulation should act as a substitute for competition in utility
12 markets. (Parcell, The Cost of Capital Manual p.1-4).
13

14 It is the interaction of competitive markets forces that holds the prices an unregulated firm

15 can charge for its products or services in line with the actual costs of production. In fact,

16 competition between companies is generally viewed as the mechanism that allows

17 consumers to not only purchase goods and services at prices consistent with the costs of

18 production but also allows consumers to receive the highest quality product. Since

19 regulated utilities are franchised monopolies generally immune to competitive market

20 forces, a primary objective of utility regulation is to produce results that closely

21 approximate the conditions that would exist if utility rates were determined in a competitive

22 atmosphere.

23 Under basic financial theory, it is generally assumed the goal for all firms is the

24 maximization of shareholder wealth. Additionally, capital budgeting theory indicates that,

25 in order to achieve this goal, an unregulated firm should invest in any project which, given

26 a certain level of risk, is expected to earn a rate of return at or above its weighted average

27 cost of capital.

28 Competition, in conjunction with the wealth maximization goal, induces firms to

29 increase investment as long as the expected rate of return on an investment is greater that

1   the cost of capital. Competitive equilibrium is achieved when the rate of return on the last

2   investment project undertaken just equals the cost of capital. When competitive

3   equilibrium is achieved, the price ultimately received for goods or services reflects the full

4   costs of production. Therefore, not only does competition automatically drive unregulated

5   firms to minimize their capital costs (investment opportunities are expanded and

6   competitive position is enhanced when capital costs can be lowered), it also ensures that the

7   marginal return on investment just equals the cost of capital.

8   Given that regulation is intended to emulate competition and that, under

9   competition, the marginal return on investment should equal the cost of capital, it is crucial

10   for regulators to set the authorized rate of return equal to the **actual** cost. If this is

11   accomplished, the marginal return on prudent and necessary investment just equals cost and

12   the forces of competition are effectively emulated.

1 **APPENDIX D**

2 **LEGAL REQUIREMENT FOR A FAIR RATE OF RETURN**

3 Q.   IS THERE A JUDICIAL REQUIREMENT RELATED TO THE DETERMINATION OF
4   THE APPROPRIATE RATE OF RETURN FOR A REGULATED UTILITY?

5 A.   Yes.   The criteria established by the U.S. Supreme Court closely parallels economic

6   thinking on the determination of an appropriate rate of return under the cost of service

7   approach to regulation.   The judicial background to the regulatory process is largely

8   contained in two seminal decisions handed down in 1923 and 1944. These decisions are:
9
10   Bluefield Water Works and Improvement
11   Company v. Public Service Commission,
12   262 U.S. 679 (1923), and
13
14   FPC v. Hope Natural Gas Co., 320 U.S.
15   591 (1944)
16

17   In the Bluefield Case, the Court states,
18   A public utility is entitled to such rates as will permit it to earn a return on
19   the value of the property which it employs for the convenience of the
20   public equal to that generally being made at the same time and in the same
21   general part of the country on investments in other business undertakings
22   which are attended by corresponding risks and uncertainties; but has no
23   constitutional right to profits such as are realized or anticipated in highly
24   profitable enterprises or speculative ventures.   The return should be
25   reasonably sufficient to assure confidence in the financial soundness of the
26   utility, and should be adequate, under efficient and economical
27   management, to maintain and support its credit and enable it to raise the
28   money necessary for the proper discharge of its public duties. A rate of
29   return may be reasonable at one time, and become too high or too low by
30   changes affecting opportunities for investment, the money market, and
31   business conditions generally.
32

33   Together, Hope and Bluefield have established the following standards,

34   1). A utility is entitled to a return similar to that available to other enterprises with

35   similar risks;

29

1

2

3

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7

2). A utility is entitled to a return level reasonably sufficient to assure financial

soundness and support existing credit, as well as raise new capital; and

3). A fair return can change along with economic conditions and capital markets.

Furthermore, in Hope, the Court makes clear that regulation does not guarantee utility

profits and, in Permian Basin Area Rate Cases, 390 US 747 (1968), that, while investor

interests (profitability) are certainly pertinent to setting adequate utility rates, those interests

do not exhaust the relevant considerations.

1   **APPENDIX E**

2   **REGULATION IN MISSOURI**

3   Q.   WHAT IS THE ORIGIN AND RATIONALE FOR THE REGULATION OF PUBLIC
4   UTILITIES IN THE STATE OF MISSOURI?

5   A.   All investor owned public utilities operating in the state of Missouri are subject to the

6   Public Service Commission Act, as amended. The Public Service Commission Act was

7   initially passed by the Forty-Seventh General Assembly on April 15, 1913. (Laws of 1913

8   pp. 557-651, inclusive).

9   In State ex rel Kansas City v. Kansas City Gas Co. 163 S.W. 854 (Mo.1914), the

10   case of first impression pertaining to the Public Service Commission Act, the Missouri

11   Supreme Court described the rationale for the regulation of public utilities in Missouri as

12   follows:
13
14   That act (Public Service Commission Act) is an elaborate law bottomed on
15   the police power. It evidences a public policy hammered out on the anvil
16   of public discussion. It apparently recognizes certain generally accepted
17   economic principles and conditions, to wit: That a public utility (like gas,
18   water, car service, etc.) is in its nature a monopoly; that competition is
19   inadequate to protect the public, and, if it exists, is likely to become an
20   economic waste; that regulation takes the place of and stands for
21   competition; that such regulation to command respect from patron or utility
22   owner, must be in the name of the overlord, the state, and, to be effective,
23   must possess the power of intelligent visitation and the plenary supervision
24   of every business feature to be finally (however invisible) reflected in rates
25   and quality of service. (Kansas City Gas Co. at 857-58).
26

27   The General Assembly has determined that the provisions of the Public Service

28   Commission Act "shall be liberally construed with a view to the public welfare, efficient

29   facilities and substantial justice between patrons and public utilities" (See: 386.610 RSMo

30   1978). Pursuant to the above legislative directive, when developing the cost of equity

31   capital for a public utility operating in Missouri, it is appropriate to do so with a view

1   toward the public welfare; giving the utility an amount that will allow for efficient use of its

2   facilities and the proper balance of interests between the ratepayers and the utility.

APPENDIX F

MARKET-TO-BOOK RATIO ILLUSTRATION

Q. COULD YOU PROVIDE AN EXAMPLE ILLUSTRATING THE IMPORTANCE OF MARKET-TO-BOOK RATIOS AND THEIR RELATIONSHIP TO THE COST OF EQUITY CAPITAL?

A. Yes. Assume that a utility's equity has a book value of $10 per share and that, for simplicity, this utility pays out all its earnings in dividends. If regulators allow the utility a 12% return, investors will expect the company to earn (and pay out) $1.20 per share. If investors require a 12% return on this investment, they will be willing to provide a market price of $10 per share for this stock ($1.20 dividends/$10 market price = 12%). In that case, the allowed/expected return is equal to the cost of capital and the market price is equal to the book value.

Now, assume the investors' required return is 10%. Investors would be drawn to a utility stock in a risk class for which they require a 10% return but was expected to pay out a 12% return. The increased demand by investors would result in an increase in the market price of the stock until the total share yield equaled the investors' required return. In our example, that point would be $12 per share ($1.20 dividends/$12 market price = 10%). As such, the allowed/expected return (12%) is greater than the required return (10%) and the per share market price ($12/share) exceeds book value ($10/share), producing a market-to-book ratio greater than one ($12/$10 = 1.20). Consequently, when the market-to-book ratio for a given utility is greater than one, the earned or projected return on book equity is greater than the cost of capital.

1   **APPENDIX G**

2   **DEVELOPMENT OF AN INDUSTRY GROUP**

3   Q.   PLEASE EXPLAIN HOW YOU DEVELOPED A GROUP OF ELECTRIC UTILITIES
4   WITH FINANCIAL RISK CHARACTERISTICS SIMILAR TO THE REGULATED
5   ELECTRIC OPERATIONS OF UCU.

6   A.   The following selection criteria have been used to develop a group of comparable electric

7   utilities:

8   1). Publicly traded company;

9   2). No Missouri-regulated operations;

10   3). At least 70 percent of total revenues from electric;

11   4). Total revenues less than $4.0 billion;

12   5). Standard & Poor's Bond Rating between BBB+ and AA-;

13   6). Covered by Value Line;

14   The following companies met the selection criteria:. 1) DPL Inc.; 2) Hawaiian

15   Electric Industries; 3) IDACORP, Inc.; 4) NSTAR; and 5) Potomac Electric Power Co.

16   Q.   HAVE YOU MADE ANY RISK EVALUATIONS FOR THE COMPARABLE GROUP?

17   A.   Yes. As shown on Schedule MB-7, I have examined several measures that typically act as

18   indicators of relative risk.

19   The beta coefficient;

20   Fixed charge coverage;

21   Value Line Safety rating;

22   Bond Rating from Standard & Poor's;

23   Average common equity ratio;

24   Value Line Financial Strength.

25   Also, many of the selection criteria also act as risk measures, such as the level of revenues

26   from regulated electric operations and whether a company used nuclear generation.

1   Q.   WHAT CONCLUSIONS CAN BE DRAWN FROM THIS ANALYSIS?

2   A.   Generally, the level of overall, or total, risk for the companies is lower than the overall level

3   of risk faced by UCU. However, I consider the overall risk of this industry group to be

4   more representative of the risks faced by regulated electric utilities - which is the purpose of

5   using the comparison group.

1

APPENDIX H

2

EFFICIENT NATURE OF THE CAPITAL MARKETS

3 Q. IS THE DISCOUNTED CASH FLOW MODEL INHERENTLY CAPABLE OF
4   ADJUSTING FOR THE LEVEL OF REAL OR PERCEIVED RISKINESS TO A GIVEN
5   SECURITY?

6 A. Yes. It is impossible for any one analyst to systematically interpret the impact that each and

7   every risk variable facing an individual firm has on the cost of equity capital to that firm.

8   Fortunately, this type of risk-by-risk analysis is not necessary when determining the

9   appropriate variables to be plugged into the DCF formula.

10   As stated earlier, the DCF model can correctly identify the cost of equity capital to

11   a firm by adding the current dividend yield (D/P) to the correct determination of investor-

12   expected growth (g). Thus, the difficult task of determining the cost of equity capital is

13   made easier, in part, by the relative ease of locating dividend and stock price information

14   and the efficient nature of the capital markets.

15 Q. PLEASE EXPLAIN THAT STATEMENT.

16 A. The DCF model is based on the assumption that investors (1) calculate intrinsic values for

17   stocks on the basis of their interpretation of available information concerning future cash

18   flows and risk, (2) compare the calculated intrinsic value for each stock with its current

19   market price, and (3) make buy or sell decisions based on whether a stock's intrinsic value

20   is greater or less than its market price.

21   Only if its market price is equal to or lower than its intrinsic value as calculated by

22   the marginal investor will a stock be demanded by that investor. If a stock sells at a price

23   significantly above or below its calculated intrinsic value, buy or sell orders will quickly

24   push the stock towards market equilibrium. The DCF model takes on the following form

25   when used by investors to calculate the intrinsic value of a given security,

26         $P^\wedge = D/k\text{-}g$

1   where P^= the intrinsic value of the security,

2   D = the current dividend,

3   g = the expected growth rate, and

4   k = the required return on the security

5   Since the required rate of return for any given investor is based on both the perceived

6   riskiness of the security and return opportunities available in other segments of the market,

7   it can be easily demonstrated that when perceived riskiness is increased, the investors'

8   required return is also increased and the market value of the investment falls as it is valued

9   less by the marginal investor. Returning to the form of the DCF model used to determine

10   the cost of equity capital to the firm,

11        $k = D/P + g$

12   we see that the required return rises as an increase in the perceived risk associated with a

13   given security drives the price down. Within this context, the DCF formula incorporates all

14   known information, including information regarding risks, into the cost of equity capital

15   calculation. This is known as the "efficient market" hypothesis.

16   Q.   IS THE "EFFICIENT MARKET" HYPOTHESIS SUPPORTED IN THE FINANCIAL
17   LITERATURE?

18   A.   Yes. Modern investment theory maintains that the U.S. capital markets are efficient and, at

19   any point in time, the prices of publicly traded stocks and bonds reflect all available

20   information about those securities. Additionally, as new information is discovered, security

21   prices adjust virtually instantaneously. This implies that, at any given time, security prices

22   reflect "real" or intrinsic values. This point is further clarified by Brealey and Myers in

23   Principles of Corporate Finance, Fourth Edition:

25   When economists say that the security market is efficient, they are not
26   talking about whether the filing is up-to-date or whether the desktops are
27   tidy. They mean that information is widely and cheaply available to
28   investors and that all relevant and ascertainable information is already
29   reflected in security prices. (pg. 290)

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Suppose, e.g., that you wish to sell an antique painting at an auction but you have no idea of its value. Can you be sure of receiving a fair price? The answer is that you can if the auction is sufficiently competitive. In other words, you need to satisfy yourself that it is to be properly conducted (that includes no collusion among bidders), that there is no substantial cost involved in submitting a bid, and that the auction is attended by a reasonable number of skilled potential bidders, each of whom has access to the available information. In this case, no matter how ignorant *you* may be, competition among experts will ensure that the price you realize fully reflects the value of the painting.

In just the same way, competition among investment analysts will lead to a stock market in which prices at all times reflect true value. But what do we mean by *true value*? It is a potentially slippery phrase. True value does not mean ultimate *future* value -- we do not expect investors to be fortune-tellers. It means an equilibrium price which incorporates *all* the information available to investors at that time. That was our definition of an efficient market. (pg. 293-294)

1   **APPENDIX I**

2   **DETERMINATION OF RETENTION (BR + SV) GROWTH &**

3   **SUSTAINABLE GROWTH VS. EARNINGS AND DIVIDEND GROWTH RATES**

4   Q.   PREVIOUSLY YOU STATED THAT IT IS CRITICAL TO UNDERSTAND THE
5   SOURCES OF GROWTH WHEN DEVELOPING A SUSTAINABLE GROWTH RATE
6   RECOMMENDATION. PLEASE PROVIDE AN EXAMPLE THAT ILLUSTRATES
7   HOW SUSTAINABLE GROWTH IS MEASURED.

8   A.   To understand how investors develop a growth rate expectation, it is helpful to look at an

9   illustration that shows how expected growth is measured. To do this, assume that a

10   hypothetical utility has a first period common equity, or book value per share of $20.00; the

11   investor-expected return on that equity is 12 percent; and the stated company policy is to

12   pay out 50 percent of earnings in dividends. The first period earnings per share are

13   expected to be $2.40 ($20 per share book equity x 12% equity) and the expected dividend is

14      $1.20. The amount of earnings not paid out to shareholders ($1.20), referred to as retained

15   earnings, raises the book value of the equity to $21.20 in the second period. The following

16   table continues the hypothetical for a three-year period and illustrates the underlying

17   determinants of growth.

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	Year 1	Year 2	Year 3	Gr.
Book Value	$20.00	$21.20	$22.47	6.00%
Equity Return	12%	12%	12%	
Earnings/Sh.	$2.40	$2.54	$2.67	6.00%
Payout Ratio	50%	50%	50%	
Dividend/Sh.	$1.20	$1.27	$1.34	6.00%

25   As can be seen, earnings, dividends, and book value all grow at the same rate when the

26   payout ratio and return on equity remain stable. Moreover, key to this growth is the amount

27   of earnings retained or reinvested in the firm and the return on equity.

28   Letting "b" equal the retention ratio of the firm (or 1 minus the payout ratio) and

29   letting "r" equal the firm's expected return on equity, the DCF growth rate "g" (also referred

30   to as the sustainable growth rate) is equal to their product, or

1       $g = br$.

2 As shown in the example, the growth rate for the hypothetical company is 6.00 percent

3 (12% ROE x 50% payout ratio).

4   Dr. Gordon has determined that this equation embodies the underlying

5 fundamentals of growth and, therefore, is a primary measure of growth to be used in the

6 DCF model (Gordon, The Cost of Capital to a Public Utility, 1974, p.81). It should be

7 noted, however, Dr. Gordon's research also indicates that analysts' growth rate projections

8 are useful in estimating investors' expectations. As a result, analysts' published growth rate

9 projections, along with other historic and projected growth rates, are considered in this

10 analysis for the purpose of reaching an accurate estimation of the expected sustainable

11 growth rate.

12 Q.   CAN THE RETENTION GROWTH RATE MODEL BE FURTHER REFINED IN ORDER
13   TO BEST REPRESENT INVESTORS' EXPECTATIONS?

14 A.   Yes. The above hypothetical example does not allow for the existence of external sources

15 of equity financing (i.e., sales of common stock). Stock financing will cause investors to

16 expect additional growth if the company is expected to issue additional shares at a market

17 price which exceeds book value.

18   The excess of market value over book value per share would benefit current

19 shareholders by increasing their per share equity value. Therefore, if the company is

20 expected to continue to issue stock at a price that exceeds book value per share, the

21 shareholders would continue to expect their book value to increase and would add that

22 growth expectation to that stemming from the retention of earnings, or internal growth.

23   On the other hand, if a company is expected to issue new common equity at a price

24 below book value, that would have a negative effect on shareholders' current growth rate

25 expectations. Finally, with little or no expected equity financing or a market-to-book ratio

26 at or near one, investors would expect the long-term sustainable growth rate for the

27 company to equal the growth from earnings retention.

1   Dr. Gordon identifies the growth rate which includes both expected internal and

2   external financing as,

3          $g = br + sv$

4   where, g = DCF expected growth rate,

5   r = return on equity,

6   b = retention ratio,

7   v = fraction of new common stock sold that accrues to the current shareholder,

8   s = funds raised from the sale of stock as a fraction of existing equity.

9   Additionally,

10         $v = 1 - BV/MP$

11   where,
12   MP = market price,
13   BV = book value.

14   The second term (sv), which represents the external portion of the expected growth rate,

15   does not normally represent a major source of growth when compared to the expected

16   growth attributed to the retention of earnings. For example, the FERC Generic Rate of

17   Return Model estimates the (sv) component in the range of 0.1% to 0.2%. However, I have

18   used this equation as the basis for determining sustainable growth for the comparable

19   group.

20   Q.   IS HISTORIC OR PROJECTED GROWTH IN EARNINGS OR DIVIDENDS
21   APPROPRIATE FOR DETERMINING THE DCF GROWTH RATE?

22   A.   No, not always. As I have stated, growth derived from earnings or dividends alone can be

23   unreliable for ratemaking purposes due to external influences on these parameters such as

24   changes in the historic or expected rate of return on common equity or changes in the

25   payout ratio. An extended example will demonstrate this point.

26   If we take the example above and assume that, in year two, the expected return on

27   equity rises from 12 percent to 15 percent, the resulting growth rate in earnings and

1   dividends per share dramatically exceeds what the company could sustain indefinitely. The

2   error that can result from exclusive reliance on earnings or dividends growth is illustrated in

3   the following table:

4

	Year 1	Year 2	Year 3	Gr.
Book Value	$20.00	$21.20	$22.79	6.75%
Equity Return	12%	15%	15%	
Earnings/Sh.	$2.40	$3.18	$3.42	19.37%
Payout Ratio	50%	50%	50%	
Dividends/Sh.	$1.20	$1.59	$1.71	19.37%

12   Due to the change in return on equity in year two, the compound growth rate for dividends

13   and earnings is greater than 19 percent, which is the result only of a short-term increase in

14   the equity return rather than the intrinsic ability of the firm to grow continuously at a 19

15   percent annual rate.

16   For year one, the sustainable rate of growth (g=br) is 6.00 percent, just as it was in

17   the previous example. On the other hand, in years two and three, the sustainable growth

18   rate increases to 7.50 percent. (15% ROE x 50% retention rate = 7.50%). Consequently, if

19   the utility is expected to continually earn a 15 percent return on equity and retain 50 percent

20   of earnings for reinvestment, a growth rate of 7.50 percent would be a reasonable estimate

21   of the long-term sustainable growth rate. However, the compound growth rate in earnings

22   and dividends, which is over 19 percent, dramatically exceeds the actual investor-expected

23   growth rate.

24   As can be seen in the hypothetical, the 19 percent growth rate is simply the result of

25   the change in return on equity from year one to year two, not the firm's ability to grow

26   sustainably at that rate. Consequently, this type of growth rate cannot be relied upon to

27   accurately measure investors' sustainable growth rate expectations. In this instance, to rely

28   on either earnings or dividend growth would be to assume the return on equity could

29   continue to increase indefinitely. This, of course, is a faulty assumption; the recognition of

30   which emphasizes the need to analyze the fundamentals of actual growth.

1 Q.   IS HISTORIC GROWTH IN DIVIDENDS AN ACCURATE INDICATOR OF
2   INVESTORS' GROWTH EXPECTATIONS WHEN THE HISTORICAL PAYOUT RATIO
3   HAS BEEN ERRATIC OR TRENDED DOWNWARD OVER TIME?

4 A.   As stated, no. It can also be demonstrated that a change in our hypothetical utility's payout

5   ratio makes the past rate of growth in dividends an unreliable basis for predicting investor-

6   expected growth. If we assume the hypothetical utility consistently earns its expected equity

7   return but in the second year changes its payout ratio from 50 percent to 75 percent, the

8   resulting growth rate in dividends far exceeds a reasonable level of sustainable growth.

	Year 1	Year 2	Year 3	Gr.
Book Value	$20.00	$21.20	$21.84	4.50%
Equity Return	12%	12%	12%	
Earnings/Sh.	$2.40	$2.54	$2.62	4.50%
Payout Ratio	50%	75%	75%	
Dividends/Sh.	$1.20	$1.91	$1.97	28.13%

17   Although the company has registered a high dividend growth rate (28.13%), it is not

18   representative of the growth that could be sustained, as called for in the DCF model. In

19   actuality, the sustainable growth rate (br) has declined due to the increased payout ratio. To

20   utilize a 28 percent growth rate in a DCF analysis for this hypothetical utility would be to

21   assume that the payout ratio could continue to increase indefinitely and lead to the unlikely

22   result that the firm could consistently pay out more in dividends than it earns. The

23   problems associated with sole reliance on historic dividend growth has been recognized in

24   the financial literature. According to Brigham and Gapenski:

26   If earnings and dividends are growing at the same rate, there is no problem,
27   but if these two growth rates are unequal, we do have a problem. First, the
28   DCF model calls for the expected dividend growth rate. However, if EPS
29   and DPS are growing at different rates, something is going to have to
30   change: these two series cannot grow at two different rates indefinitely
31   (Intermediate Financial Management, p.145).

43

BURDETTE - DIRECT
ER-2001-672   UtiliCorp United, Inc.

Historical Financial Information

ROE

	2000	1999	1998	1997	Average
UtiliCorp United, Inc.	13.46%	10.80%	11.43%	10.27%	**11.49%**

Capital Structure

	2000	1999	1998	1997	Average
Common Equity	35.0%	34.9%	42.5%	40.3%	**38.2%**
Company-obligated Preferred	8.7%	8.0%	2.9%	3.5%	**5.8%**
Short term debt	9.7%	5.7%	6.9%	3.9%	**6.6%**
Long Term Debt	46.6%	51.4%	47.7%	52.3%	**49.5%**
	100.0%	100.0%	100.0%	100.0%	**100.0%**

These percentages are calculated differently than my recommended capital structure.

Financial Ratios

	2000	1999	1998	1997	Average
EPS	$2.21	$1.75	$1.63	$1.51	$1.78
DPS	$1.20	$1.20	$1.20	$1.17	$1.19
Payout	54.3%	68.6%	73.6%	77.5%	67.2%
BVPS	$17.94	$16.34	$15.83	$14.43	$16.14

Source: UtiliCorp Annual Report 2000; Value Line

BURDETTE - DIRECT
ER-2001-672   UtiliCorp United, Inc.

UtiliCorp United, Inc.
Capital Structure as of 30 June 2001

	Amount	Percent
Common Stock Equity	$ 2,629,002,000	47.44%
Company-obligated Preferred	$ 346,042,788	6.24%
Long Term Debt	$ 2,397,871,325	43.27%
Short Term Debt	$ 168,521,262	3.04%
	$5,541,437,375	100.00%

Source: Company response to OPC DR2001, 2002, 2003; Schedules MB-4-6.

Schedule MB-2

BURDETTE - DIRECT
ER-2001-672   UtiliCorp United, Inc.

Common Equity

	2000	1999	1998	1997	Average
UtiliCorp United, Inc.	**35.0%**	**34.9%**	**42.5%**	**40.3%**	**38.2%**
Value Line Composite Index	**40.5%**	**41.9%**	**44.4%**	**45.0%**	**43.0%**
(Gas Distribution Industry)					

Comparable Companies' Common Equity

	2000	1999	1998	1997	Average
DPL Inc.	27.7%	51.6%	56.0%	56.4%	47.9%
Hawaiian Electric Industries	39.9%	41.4%	43.1%	44.0%	42.1%
IDACORP, Inc.	45.9%	44.8%	44.2%	46.8%	45.4%
NSTAR	39.4%	47.2%	50.1%	46.5%	45.8%
Potomac Electric Power	47.3%	38.2%	45.0%	44.5%	43.8%
Average	**43.1%**	**42.9%**	**45.6%**	**45.5%**	**44.3%**
Value Line Composite Index	**40.5%**	**41.9%**	**44.4%**	**45.0%**	**43.0%**
UtiliCorp United, Inc.	**35.0%**	**34.9%**	**42.5%**	**40.3%**	**38.2%**

Note: Calculations do not include short term debt
Source: Value Line Investment Survey

BURDETTE - DIRECT
ER-2001-672   UtiliCorp United, Inc.

UtiliCorp United, Inc.
Embedded Cost of Company-obligated Preferred Securities
 as of 30 June 2001

Issue:	Amount	Unamortized Issuance Exp.	Net Proceeds	Coupon Rate	Dividend Requirement
UCU Capital L.P.	$100,000,000	$2,957,625	$97,042,375	8.875%	$8,875,000
UCU Capital Trust I	$250,000,000	$999,587	$249,000,413	9.750%	$24,375,000
TOTAL:	$350,000,000		$346,042,788		$33,250,000

Amount Outstanding $346,042,788
Dividend Requirement: $33,250,000

Embedded Cost Rate: **9.61%**

Source: Company response to Staff data request 3802.

UtiliCorp United, Inc.
Embedded Cost of Long Term Debt as of 30 June 2001

See Direct Testimony, page 8, for details on long term debt.

UtiliCorp United, Inc.
Embedded Cost of Short Term Debt through 30 June 2001

	Effective Interest Rate	Month-end Balance	CWIP	Balance less CWIP	Weight	Weighted Cost
Jul-00	6.902%	$ 408,175,000	$36,511,081	$ 371,663,919	18.38%	1.268%
Aug-00	6.776%	$ 145,175,000	$37,762,175	$ 107,412,825	5.31%	0.360%
Sep-00	6.864%	$ 206,175,000	$41,014,232	$ 165,160,768	8.17%	0.561%
Oct-00	6.821%	$ 291,175,000	$38,061,780	$ 253,113,220	12.52%	0.854%
Nov-00	7.145%	$ 75,000,000	$41,860,685	$ 33,139,315	1.64%	0.117%
Dec-00	7.752%	$ 263,000,000	$40,105,999	$ 222,894,001	11.02%	0.854%
Jan-01	7.530%	$ 367,800,000	$23,075,993	$ 344,724,007	17.05%	1.284%
Feb-01	7.220%	$ 199,000,000	$24,440,665	$ 174,559,335	8.63%	0.623%
Mar-01	6.320%	$ 100,000,000	$11,481,381	$ 88,518,619	4.38%	0.277%
Apr-01	6.360%	$ 100,000,000	$12,425,267	$ 87,574,733	4.33%	0.275%
May-01	5.650%	$ 100,000,000	$12,848,268	$ 87,151,732	4.31%	0.243%
Jun-01	5.040%	$ 100,000,000	$13,657,336	$ 86,342,664	4.27%	0.215%
		$ 2,355,500,000		$ 2,022,255,138	100.00%	6.932%

Average Monthly Level: $ 196,291,667   = sum of month-end balances, divided by 12

Average Monthly Level less CWIP: **$ 168,521,262**   = sum of month-end balances, less CWIP, divided by 12

Weighted average interst rate: **6.932%**

Source: Company response to OPC data request 2004

BURDETTE - DIRECT
ER-2001-672   UtiliCorp United, Inc.

Risk Measures

	Public	(millions) Revenue	% Rev Gas	S&P	Missouri Regulation?
DPL Inc.	Yes	$1,323.70	99.0%	BBB+	No
Hawaiian Electric Industries	Yes	$1,767.70	74.0%	BBB+	No
IDACORP, Inc.	Yes	$1,224.80	73.0%	AA-	No
NSTAR	Yes	$3,001.10	82.0%	AA-	No
Potomac Electric Power	Yes	$2,675.10	82.0%	A	No
Average		**$2,167.18**	**82.0%**	**BBB+/A**	
UtiliCorp United, Inc.	Yes	**$40,875.70**	**4.0%**	**BBB+**	**Yes**

	Beta	Payout Ratio	Common Equity	Safety	MTB	Long Term Interest Earned	Fixed Charge Coverage	Financial Strength
DPL Inc.	0.60	39.0%	24.0%	2.0	3.75	1.7	362%	B+
Hawaiian Electric Industries	0.50	97.0%	21.0%	3.0	1.51	2.8	234%	B+
IDACORP, Inc.	0.50	51.0%	41.0%	2.0	1.63	4.6	329%	B++
NSTAR	0.50	60.0%	31.0%	1.0	1.79	3.0	231%	A
Potomac Electric Power	0.50	29.0%	42.0%	2.0	1.25	3.9	230%	B++
Average	**0.52**	**55.2%**	**31.8%**	**2.0**	**1.99**	**3.2**	**277%**	**B++**
UtiliCorp United, Inc.	**0.55**	**37.0%**	**44.0%**	**3.0**	**1.40**	**3.2**	**153%**	**B+**

Source: C.A. Turner Utility Reports; Value Line Investment Survey

BURDETTE - DIRECT
ER-2001-672 UtiliCorp United, Inc.

Summary - Discounted Cash Flow Growth
Note: Negative growth is not included in averages.

Historical Growth

COMPANY	br + sv	Compound Growth EPS	DPS	BVPS	Value Line EPS	DPS	BVPS
DPL Inc.	1.30%	5.12%	3.19%	5.57%	4.00%	4.25%	4.25%
Hawaiian Electric Industries	1.82%	2.69%	1.14%	1.38%	1.25%	1.75%	1.50%
IDACORP, Inc.	3.66%	1.28%	0.00%	0.94%	3.50%	0.00%	2.00%
NSTAR	4.60%	5.34%	1.68%	4.60%	5.00%	1.75%	4.00%
Potomac Electric Power	0.31%	1.28%	0.00%	0.94%	0.00%	1.50%	1.50%
Average	**2.34%**	**3.14%**	**1.20%**	**2.68%**	**2.75%**	**1.85%**	**2.65%**
UtiliCorp United, Inc.	**5.15%**	**8.50%**	**1.07%**	**4.60%**	**5.50%**	**2.50%**	**4.25%**

Projected Growth

COMPANY	br + sv	Value Line/First Call EPS	DPS	BVPS
DPL Inc.	13.80%	10.25%	1.00%	6.00%
Hawaiian Electric Industries	4.12%	4.25%	0.00%	2.50%
IDACORP, Inc.	5.23%	5.25%	0.00%	5.50%
NSTAR	5.73%	6.75%	3.00%	3.00%
Potomac Electric Power	6.72%	6.00%	0.00%	5.50%
Average	**7.12%**	**6.50%**	**0.80%**	**4.50%**
UtiliCorp United, Inc.	**8.25%**	**12.50%**	**0.00%**	**13.00%**

Ranges

COMPANY	Overall Average	High	Low*	Hi/Low Average	Median
DPL Inc.	5.34%	13.80%	1.00%	7.40%	4.25%
Hawaiian Electric Industries	2.04%	4.25%	0.00%	2.13%	1.75%
IDACORP, Inc.	2.49%	5.50%	0.00%	2.75%	2.00%
NSTAR	4.13%	6.75%	1.68%	4.22%	4.60%
Potomac Electric Power	2.16%	6.72%	0.00%	3.36%	1.28%
Average	**3.23%**	**7.40%**	**0.54%**	**3.97%**	**2.78%**
UtiliCorp United, Inc.	**5.94%**	**13.00%**	**0.00%**	**6.50%**	**5.15%**

Note: Negative growth rates not included in averages and are excluded from determination of "Low".

BURDETTE - DIRECT
ER-2001-672 UtiliCorp United, Inc.

Discounted Cash Flow Growth Parameters
UtiliCorp United, Inc.

Historical Growth

		Compound Growth			Retention Growth		
					Retention	Equity	Growth
	Historical Data	EPS	DPS	BVPS	Ratio (b)	Return (r)	(b*r)
1	1994	1.37	1.13	13.55	0.175		
2	1995	1.25	1.15	13.72	0.080		
3	1996	1.39	1.17	14.55	0.158	8.50%	1.35%
4	1997	1.51	1.17	14.49	0.225	10.40%	2.34%
5	1998	1.63	1.20	15.82	0.264	9.10%	2.40%
6	1999	1.75	1.20	16.35	0.314	10.50%	3.30%
7	2000	2.21	1.20	17.94	0.457	11.50%	5.26%
8							
9		Compound Growth Rates				Ave. Internal	
10	'94-98	4.44%	1.51%	3.95%		Growth (br):	2.93%
11							
12	'95-99	8.78%	1.07%	4.48%		ADD: External	
13						Growth (sv):	2.22%
14	'96-00	12.29%	0.63%	5.38%			
15						Historical	
16	Ave.Compound Gr.	**8.50%**	**1.07%**	**4.60%**		"br + sv" Gr.	**5.15%**
17							
18	Value Line	EPS	DPS	BVPS			
19	Historical Gr.	**5.50%**	**2.50%**	**4.25%**			
20	(Avg of 5 and 10 yr. if both are available)						
21							

Projected Growth

					Retention	Equity	Growth
23	*Retention Growth Calculation*				Ratio (b)	Return (r)	(b*r)
24	Value Line	EPS	DPS	BVPS			
25	2001 est'd	$2.50	$1.20	$23.60	0.520	10.00%	5.20%
26	2002 est'd	2.75	1.20	25.35	0.564	11.00%	6.20%
27	2004-06 est'd	3.75	1.20	32.25	0.680	12.00%	8.16%
28							
29	*Analyst's Estimates*					Projected	
30	Value Line	15.00%	0.00%	13.00%		Growth (br):	8.16%
31							
32	First Call	10.00%				ADD: External	
33						Growth (sv):	0.09%
34							
35	Average					Projected	
36	Proj'd Growth	**12.50%**	**0.00%**	**13.00%**		"br + sv" Gr.	**8.25%**

Note: Negative (b*r) growth is not included in retention growth averages.
SOURCE: The Value Line Investment Survey; C.A. Turner Utility Reports;   Schedule MB- 8
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BURDETTE - DIRECT
ER-2001-672 UtiliCorp United, Inc.

Discounted Cash Flow Growth Parameters
DPL Inc.

Historical Growth

		Compound Growth				Retention Growth	
					Retention	Equity	Growth
	Historical Data	EPS	DPS	BVPS	Ratio (b)	Return (r)	(b*r)
1	1994	1.03	0.79	7.03	0.233		
2	1995	1.09	0.83	7.28	0.239		
3	1996	1.15	0.87	7.55	0.243	14.30%	3.48%
4	1997	1.20	0.91	8.03	0.242	14.00%	3.38%
5	1998	1.24	0.94	8.58	0.242	13.60%	3.29%
6	1999	1.35	0.94	9.20	0.304	14.00%	4.25%
7	2000	1.49	0.94	6.80	0.369	22.30%	8.23%
8							
9		Compound Growth Rates				Ave. Internal	
10	'94-98	4.75%	4.44%	5.11%		Growth (br):	4.53%
11							
12	'95-99	5.49%	3.16%	6.03%		ADD: External	
13						Growth (sv):	-3.23%
14	'96-00	6.69%	1.95%	-2.58%			
15						Historical	
16	Ave.Compound Gr.	**5.12%**	**3.19%**	**5.57%**		"br + sv" Gr.	**1.30%**
17							
18	Value Line	EPS	DPS	BVPS			
19	Historical Gr.	**4.00%**	**4.25%**	**4.25%**			
20	(Avg of 5 and 10 yr. if both are available)						
21							
22	**Projected Growth**						
23	*Retention Growth Calculation*				Retention	Equity	Growth
24	Value Line	EPS	DPS	BVPS	Ratio (b)	Return (r)	(b*r)
25	2001 est'd	$1.75	$0.94	$6.80	0.463	27.50%	12.73%
26	2002 est'd	1.95	0.94	7.60	0.518	27.50%	14.24%
27	2004-06 est'd	2.50	1.00	11.60	0.600	23.00%	13.80%
28							
29	*Analyst's Estimates*					Projected	
30	Value Line	10.50%	1.00%	6.00%		Growth (br):	13.80%
31							
32	First Call	10.00%				ADD: External	
33						Growth (sv):	0.00%
34							
35	Average					Projected	
36	Proj'd Growth	**10.25%**	**1.00%**	**6.00%**		"br + sv" Gr.	**13.80%**

Note: Negative (b*r) growth is not included in retention growth averages.

SOURCE: The Value Line Investment Survey; C.A. Turner Utility Reports; Schedule MB- 8
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Discounted Cash Flow Growth Parameters
Hawaiian Electric Industries, Inc.

Historical Growth

		Compound Growth				Retention Growth	
					Retention	Equity	Growth
	Historical Data	EPS	DPS	BVPS	Ratio (b)	Return (r)	(b*r)
1	1994	2.60	2.33	23.80	0.104		
2	1995	2.66	2.37	24.51	0.109		
3	1996	2.60	2.41	25.05	0.073	10.20%	0.75%
4	1997	2.76	2.44	25.54	0.116	10.60%	1.23%
5	1998	2.96	2.48	25.75	0.162	11.40%	1.85%
6	1999	2.89	2.48	26.31	0.142	11.00%	1.56%
7	2000	2.54	2.48	25.43	0.024	9.80%	0.23%
8							
9		Compound Growth Rates				Ave. Internal	
10	'94-98	3.30%	1.57%	1.99%		Growth (br):	1.12%
11							
12	'95-99	2.09%	1.14%	1.79%		ADD: External	
13						Growth (sv):	0.70%
14	'96-00	-0.58%	0.72%	0.38%			
15						Historical	
16	Ave.Compound Gr.	**2.69%**	**1.14%**	**1.38%**		"br + sv" Gr.	**1.82%**
17							
18	Value Line	EPS	DPS	BVPS			
19	Historical Gr.	**1.25%**	**1.75%**	**1.50%**			
20	(Avg of 5 and 10 yr. if both are available)						
21							
22	**Projected Growth**						
23	*Retention Growth Calculation*				Retention	Equity	Growth
24	Value Line	EPS	DPS	BVPS	Ratio (b)	Return (r)	(b*r)
25	2001 est'd	$3.15	$2.48	$26.05	0.213	11.50%	2.45%
26	2002 est'd	3.25	2.48	26.90	0.237	12.00%	2.84%
27	2004-06 est'd	3.75	2.50	30.00	0.333	12.00%	4.00%
28							
29	*Analyst's Estimates*					Projected	
30	Value Line	5.00%	0.00%	2.50%		Growth (br):	4.00%
31							
32	First Call	3.50%				ADD: External	
33						Growth (sv):	0.12%
34							
35	Average					Projected	
36	Proj'd Growth	**4.25%**	**0.00%**	**2.50%**		"br + sv" Gr.	**4.12%**

Note: Negative (b*r) growth is not included in retention growth averages.

BURDETTE - DIRECT
ER-2001-672 UtiliCorp United, Inc.

Discounted Cash Flow Growth Parameters
IDACORP, Inc.

Historical Growth

		Compound Growth				Retention Growth	
					Retention	Equity	Growth
	Historical Data	EPS	DPS	BVPS	Ratio (b)	Return (r)	(b*r)
1	1994	1.80	1.86	17.91	-0.033		
2	1995	2.10	1.86	18.15	0.114		
3	1996	2.21	1.86	18.47	0.158	11.90%	1.88%
4	1997	2.32	1.86	18.93	0.198	12.20%	2.42%
5	1998	2.37	1.86	19.42	0.215	12.20%	2.63%
6	1999	2.43	1.86	20.02	0.235	12.10%	2.84%
7	2000	3.50	1.86	21.82	0.469	16.00%	7.50%
8							
9		Compound Growth Rates				Ave. Internal	
10	'94-98	7.12%	0.00%	2.04%		Growth (br):	3.66%
11							
12	'95-99	3.72%	0.00%	2.48%		ADD: External	
13						Growth (sv):	0.00%
14	'96-00	12.18%	0.00%	4.26%			
15						Historical	
16	Ave.Compound Gr.	**7.67%**	**0.00%**	**2.93%**	#	"br + sv" Gr.	**3.66%**
17							
18	Value Line	EPS	DPS	BVPS			
19	Historical Gr.	**3.50%**	**0.00%**	**2.00%**			
20	(Avg of 5 and 10 yr. if both are available)						
21							

Projected Growth

23	*Retention Growth Calculation*				Retention	Equity	Growth
24	Value Line	EPS	DPS	BVPS	Ratio (b)	Return (r)	(b*r)
25	2001 est'd	$3.25	$1.86	$23.20	0.428	14.00%	5.99%
26	2002 est'd	3.05	1.86	24.40	0.390	12.50%	4.88%
27	2004-06 est'd	3.20	1.86	28.30	0.419	11.50%	4.82%
28							
29	*Analyst's Estimates*					Projected	
30	Value Line	2.50%	0.00%	5.50%		Growth (br):	5.23%
31							
32	First Call	8.00%				ADD: External	
33						Growth (sv):	0.00%
34							
35	Average					Projected	
36	Proj'd Growth	**5.25%**	**0.00%**	**5.50%**		"br + sv" Gr.	**5.23%**

Note: Negative (b*r) growth is not included in retention growth averages.

SOURCE: The Value Line Investment Survey; C.A. Turner Utility Reports;   Schedule MB- 8
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Discounted Cash Flow Growth Parameters
NSTAR

Historical Growth

		Compound Growth				Retention Growth	
					Retention	Equity	Growth
	Historical Data	EPS	DPS	BVPS	Ratio (b)	Return (r)	(b*r)
1	1994	2.41	1.78	20.11	0.261		
2	1995	2.08	1.84	20.61	0.115		
3	1996	2.61	1.88	21.09	0.280	12.30%	3.44%
4	1997	2.71	1.88	21.96	0.306	12.30%	3.77%
5	1998	2.76	1.90	22.27	0.312	12.60%	3.93%
6	1999	2.77	1.96	26.57	0.292	9.10%	2.66%
7	2000	3.19	2.02	25.31	0.367	13.00%	4.77%
8							
9		Compound Growth Rates				Ave. Internal	
10	'94-98	3.45%	1.64%	2.58%		Growth (br):	3.71%
11							
12	'95-99	7.42%	1.59%	6.56%		ADD: External	
13						Growth (sv):	0.89%
14	'96-00	5.14%	1.81%	4.67%			
15						Historical	
16	Ave.Compound Gr.	5.34%	1.68%	4.60%		"br + sv" Gr.	4.60%
17							
18	Value Line	EPS	DPS	BVPS			
19	Historical Gr.	5.00%	1.75%	4.00%			
20	(Avg of 5 and 10 yr. if both are available)						
21							

Projected Growth

					Retention	Equity	Growth
23	*Retention Growth Calculation*				Ratio (b)	Return (r)	(b*r)
24	Value Line	EPS	DPS	BVPS			
25	2001 est'd	$3.50	$2.08	$24.55	0.406	14.50%	5.88%
26	2002 est'd	3.75	2.14	26.15	0.429	14.50%	6.23%
27	2004-06 est'd	4.25	2.32	29.75	0.454	14.50%	6.58%
28							
29	*Analyst's Estimates*					Projected	
30	Value Line	6.50%	3.00%	3.00%		Growth (br):	6.58%
31							
32	First Call	7.00%				ADD: External	
33						Growth (sv):	-0.86%
34							
35	Average					Projected	
36	Proj'd Growth	6.75%	3.00%	3.00%		"br + sv" Gr.	5.73%

Note: Negative (b*r) growth is not included in retention growth averages.

SOURCE: The Value Line Investment Survey; C.A. Turner Utility Reports;   Schedule MB- 8
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Discounted Cash Flow Growth Parameters
Potomac Electric Power Co.

Historical Growth

		Compound Growth				Retention Growth	
					Retention	Equity	Growth
	Historical Data	EPS	DPS	BVPS	Ratio (b)	Return (r)	(b*r)
1	1994	1.79	1.66	16.54	0.073		
2	1995	1.69	1.66	15.79	0.018		
3	1996	1.86	1.66	15.94	0.108	11.70%	1.26%
4	1997	1.66	1.66	15.72	0.000	10.60%	0.00%
5	1998	1.79	1.66	15.84	0.073	11.40%	0.83%
6	1999	1.87	1.66	16.12	0.112	11.80%	1.33%
7	2000	1.58	1.66	16.82	-0.051	10.10%	-0.51%
8							
9		Compound Growth Rates				Ave. Internal	
10	'94-98	0.00%	0.00%	*-1.08%*		Growth (br):	0.58%
11							
12	'95-99	2.56%	0.00%	0.52%		ADD: External	
13						Growth (sv):	-0.27%
14	'96-00	*-4.00%*	0.00%	1.35%			
15						Historical	
16	Ave.Compound Gr.	**1.28%**	**0.00%**	**0.94%**		"br + sv" Gr.	**0.31%**
17							
18	Value Line	EPS	DPS	BVPS			
19	Historical Gr.		1.50%	1.50%			
20	(Avg of 5 and 10 yr. if both are available)						
21							
22	**Projected Growth**						
23	*Retention Growth Calculation*				Retention	Equity	Growth
24	Value Line	EPS	DPS	BVPS	Ratio (b)	Return (r)	(b*r)
25	2001 est'd	$1.90	$1.17	$17.45	0.384	11.00%	4.23%
26	2002 est'd	2.10	1.00	18.50	0.524	11.50%	6.02%
27	2004-06 est'd	2.60	1.08	22.60	0.585	11.50%	6.72%
28							
29	*Analyst's Estimates*					Projected	
30	Value Line	7.00%		5.50%		Growth (br):	6.72%
31							
32	First Call	5.00%				ADD: External	
33						Growth (sv):	0.00%
34							
35	Average					Projected	
36	Proj'd Growth	**6.00%**	**0.00%**	**5.50%**		"br + sv" Gr.	**6.72%**

Note: Negative (b*r) growth is not included in retention growth averages.

SOURCE: The Value Line Investment Survey; C.A. Turner Utility Reports;   Schedule MB- 8
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BURDETTE - DIRECT

ER-2001-672   UtiliCorp United, Inc.

Stock Prices and Dividend Yields

Stock Price

	Fri 10/26/2001	Fri 11/02/2001	Mon 11/09/2001	Fri 11/16/2001	Fri 11/23/2001	Fri 11/30/2001	Average
UtiliCorp United, Inc.	$29.52	$29.43	$27.91	$27.59	$26.94	$25.71	**$27.85**
DPL Inc.	$23.29	$23.16	$24.62	$23.67	$23.64	$23.50	**$23.65**
Hawaiian Electric Industries	$38.07	$38.18	$38.09	$37.41	$37.71	$37.40	**$37.81**
IDACORP, Inc.	$37.01	$37.71	$38.15	$37.89	$37.45	$37.42	**$37.61**
NSTAR	$40.69	$42.55	$43.69	$43.35	$43.58	$43.24	**$42.85**
Potomac Electric Power	$21.05	$21.42	$21.75	$20.98	$21.08	$21.11	**$21.23**

Expected Dividend and Dividend Yield

	Average Stk. Price	Expected 2002 Dividend	Expected Dividend Yield
UtiliCorp United, Inc.	$27.85	$1.20	**4.31%**
DPL Inc.	$23.65	$0.94	**3.98%**
Hawaiian Electric Industries	$37.81	$2.48	**6.56%**
IDACORP, Inc.	$37.61	$1.86	**4.95%**
NSTAR	$42.85	$2.14	**4.99%**
Potomac Electric Power	$21.23	$1.00	**4.71%**

Comparable company average: **5.04%**

Schedule MB-9

BURDETTE - DIRECT

ER-2001-672   UtiliCorp United, Inc.

DCF Cost of Common Equity Calculations

	Dividend Yield	Low	Growth Average	High	Cost of Equity Low	Average	High
UtiliCorp United, Inc.	4.31%	0.00%	5.94%	13.00%	**4.31%**	**10.25%**	**17.31%**
DPL Inc.	3.98%	1.00%	5.34%	13.80%	4.98%	9.31%	17.78%
Hawaiian Electric Industries	6.56%	0.00%	2.04%	4.25%	6.56%	8.60%	10.81%
IDACORP, Inc.	4.95%	0.00%	2.49%	5.50%	4.95%	7.43%	10.45%
NSTAR	4.99%	1.68%	4.13%	6.75%	6.68%	9.13%	11.74%
Potomac Electric Power	4.71%	0.00%	2.16%	6.72%	4.71%	6.87%	11.43%
Average	**5.04%**	**0.54%**	**3.23%**	**7.40%**	**5.57%**	**8.27%**	**12.44%**

Source: Schedules MB-8 and MB-9.

BURDETTE - DIRECT
ER-2001-672 UtiliCorp United, Inc.

Capital Assest Pricing Model (CAPM) Cost of Common Equity (Ke)

Formula: Ke = Rf + beta(Rm - Rf)

Risk Free Rate (Rf) =	5.35%
Market Premium (Rm - Rf) =	7.80%

	Beta	CAPM Ke
UtiliCorp United, Inc.	0.55	**9.64%**
DPL Inc.	0.60	10.03%
Hawaiian Electric Industries	0.50	9.25%
IDACORP, Inc.	0.50	9.25%
NSTAR	0.50	9.25%
Potomac Electric Power	0.50	9.25%
Average CAPM cost of equity:		**9.41%**

Source: Value Line Investment Survey; Ibottson Associates;

BURDETTE - DIRECT
ER-2001-672 UtiliCorp United, Inc.

UtiliCorp United, Inc.
Weighted Average Cost of Capital - 30 June 2001

	Amount	Percent	Cost Rate	Weighted Cost	Cost Rate	Weighted Cost
Common Stock Equity	$ 2,629,002,000	47.44%	*10.00%*	4.74%	*10.25%*	4.86%
Preferred Stock	$ 346,042,788	6.24%	9.61%	0.60%	9.61%	0.60%
Long Term Debt	$ 2,397,871,325	43.27%	7.70%	3.33%	7.70%	3.33%
Short Term Debt	$ 168,521,262	3.04%	6.93%	0.21%	6.93%	0.21%
	$ 5,541,437,375	100.00%		**8.89%**		**9.01%**

Pre-Tax Interest Coverage   Tax factor = 1.62308

	Weighted Cost	Pre-tax Weighted Cost	Weighted Cost	Pre-tax Weighted Cost
Common Stock Equity	4.74%	7.70%	4.86%	7.89%
Preferred Stock	0.600%	0.974%	0.600%	0.974%
Long Term Debt	3.33%	3.33%	3.33%	3.33%
Short Term Debt	0.21%	0.21%	0.21%	0.21%
Total	8.89%	12.22%	9.01%	12.41%

Pre-tax wtd. cost:	12.22%	Pre-tax weighted cost:	12.41%
Cost of Debt (long term and short term):	3.54%	Cost of Debt:	3.54%
Pre-tax Interest Coverage	**3.45**		**3.50**

Source: Schedules MB-2, MB-4, MB-5, MB-9.

Schedule MB-12