Exhibit No.:
Issue(s): Rate of Return
Witness/Type of Exhibit: Burdette/Direct
Sponsoring Party: Public Counsel
Case No.: GR-2001-629

DIRECT TESTIMONY

OF

MARK BURDETTE

Submitted on Behalf of
the Office of the Public Counsel

LACLEDE GAS COMPANY

Case No. GR-2001-629

October 11, 2001

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's	)	
Tariff to Revise Natural Gas Rate Schedules.	)	Case No. GR-2001-629

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 44 and Schedules MB1 through MB11.

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
Mark Burdette

Subscribed and sworn to me this 11th day of October 2001.

BONNIE S. HOWARD
MY COMMISSION EXPIRES MAY 3, 2005
NOTARY SEAL
NOTARY PUBLIC
MONITEAU COUNTY
MISSOURI

Bonnie S. Howard
Notary Public

My commission expires May 3, 2005.

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DIRECT TESTIMONY

OF

MARK BURDETTE

LACLEDE GAS COMPANY

CASE NO. GR-2001-629

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. 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

Advocates. Also, I attended The Basics of Regulation: Practical Skills for a Changing Environment presented by the Center for Public Utilities, New Mexico State University.

Q. DO YOU HAVE ANY PROFESSIONAL AFFILIATIONS?

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

Q. DO YOU HOLD ANY PROFESSIONAL DESIGNATIONS?

A. Yes. I have been awarded the professional designation Certified Rate of Return Analyst (CRRA) by the Society of Utility and Regulatory Financial Analysts. This designation is awarded based upon work experience and successful completion of a written examination.

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

A. Yes.

Q. WHAT IS THE PURPOSE OF THIS TESTIMONY?

A. I will present a cost-of-capital analysis for the Laclede Gas Company (Laclede, the Company). I will recommend and testify to the capital structure, embedded costs of long-term debt, short term debt and preferred stock, a fair return on common equity, and the overall weighted average cost of capital that should be allowed in this proceeding.

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

A. Yes. I have prepared an analysis consisting of 11 schedules that is attached to this testimony (MB-1 through MB-11). This analysis was prepared by me and is correct to the best of my knowledge and belief.

ANALYSIS

Q. PLEASE DESCRIBE LACLEDE GAS COMPANY.

A. Laclede Gas Company has gone through a reorganization in which a holding company, the Laclede Group Inc., has been formed. From a Laclede press release dated 16 August 2001:

> Under the new holding company structure, Laclede Gas would become a wholly owned subsidiary of The Laclede Group, Inc., but would continue to operate as a regulated natural gas distribution utility. Existing corporate subsidiaries of Laclede Gas — Laclede Energy Resources, Inc., Laclede Venture Corp., Laclede Development Company, Laclede Investment Corporation, Laclede Gas Family Services, Inc., and Laclede Pipeline Company — would become subsidiaries of The Laclede Group, Inc., and would remain unregulated. New subsidiaries may be formed as The Laclede Group enters into new ventures.

Within the Laclede Group Inc., Laclede Gas Company remains a wholly owned, regulated utility under the jurisdiction of the Missouri Public Service Commission.

Q. *DO COMMON EQUITY SHARES OF LACLEDE GAS COMPANY CONTINUE TO* TRADE ON THE OPEN MARKET?

A. No. According to a press release from The Laclede Group Inc., dated 5 October 2001:

> Common shares of stock that had been trading on the New York Stock Exchange under the Laclede Gas Company ticker symbol "LG" now are being traded under the name of The Laclede Group, Inc., the holding company that became operational Oct. 1, 2001, and which now uses that ticker symbol (NYSE: LG).

SUMMARY OF FINDINGS

Q. PLEASE SUMMARIZE YOUR FINDINGS CONCERNING THE OVERALL COST OF CAPITAL FOR THE LACLEDE GAS COMPANY.

A. Laclede Gas Company should be allowed an overall return of 8.54% to 8.43% on its net original cost rate base. This return has been determined using Laclede's capital structure at 28 February 2001, which is the end of the test year in this case. Selected historical financial information for Laclede is shown on Schedule MB-1.

CAPITAL STRUCTURE

Q. HOW IS LACLEDE GAS COMPANY CURRENTLY CAPITALIZED?

A. At 28 February 2001, Laclede's capital structure consisted of 46.22% common equity, 0.27% preferred stock, 35.39% long term debt, and 18.12% short term debt. This capital structure was utilized for calculations and is shown on schedule MB-2.

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

A. Generally, yes. Laclede's capital structures (not including short term debt) for the past four years are shown on Schedule MB-1. Common equity averaged 58.1% over that time. Common equity percentages only (not capital structure) are also shown on Schedule MB-3. As shown in the middle of Schedule MB-2, if I removed short-term debt from my recommended capital structure, Laclede would have a common equity ratio of 56.45% as of 28 February 2001.

The common equity ratio has been variable over the past four years, ranging from a high of 61.6% in 1997 to a low of 54.5% in 2000. If short term debt is not included as part of Laclede's capital structure, the Company tends to have a relatively high common equity ratio, and the current capital structure continues that trend. Also shown on Schedule MB-3 is a comparison of Laclede's common equity ratio and The Value Line Composite Index common equity ratio for the gas distribution industry.

Q. HOW DOES LACLEDE'S CURRENT CAPITAL STRUCTURE COMPARE WITH OTHER GAS DISTRIBUTION UTILITIES?

A. Laclede has a higher common equity ratio than the Value Line average for LDCs, and a correspondingly lower ratio of long term debt. According to Value Line Composite Statistics, the common equity ratio for Natural Gas (Distribution) companies has averaged 46.6% for the four years 1997 through 2000 (the years data are available, see Schedule

MB-3). Over these same years, Laclede's common equity ratio has averaged 58.1% (not including short term debt). The 29 Natural Gas Distribution and Integrated Natural Gas Companies covered by C.A. Turner Utility Reports have an average common equity ratio of 40.0%.

This higher level of common equity for Laclede indicates comparable if not a relatively lower level of financial risk due to capital structure for Laclede's shareholders than the average LDC covered by Value Line and C.A. Turner. When short term debt is included in Laclede's capital structure, the Company's common equity ratio of 46.22% remains inline with the industry.

Q. HOW DOES LACLEDE'S CAPITAL STRUCTURE COMPARE WITH THE CAPITAL STRUCTURE OF YOUR GROUP OF COMPARISON COMPANIES?

A. As shown on Schedule MB-3, over the past four years Laclede has had a higher common equity ratio every year than the average for the five comparison companies (not including short term debt for any of the companies), except for 2000, when Laclede's dropped slightly below the average.

Q. COULD YOU DEFINE RISK AND EXPAND ON THE CONCEPT OF RISK?

A. Yes. Risk can be defined as the possibility that actual earnings from an asset or an investment may differ from expected earnings. The wider the range of possible earnings, the greater the risk associated with that asset or investment.

Total risk can be divided into two categories: business risk and financial risk.

Business risk is the uncertainty (variability) associated with earnings due to fundamental business conditions faced by the company, such as cyclical markets, weather-sensitive sales, changing technology, unforeseen events, or competition. Business risk is the *inherent riskiness of a firm's assets* due to the operations of the company and the

industry in which in operates. In other words, business risk is not connected to the way the firm finances its assets.

Financial risk is the uncertainty associated with earnings available to common shareholders due to debt and/or preferred stock being used to finance the firm's assets. This additional risk stems from the fact that cash flows to common shareholders are subordinate to a firm's required debt service (i.e. a firm must pay its debt service and any preferred dividends before it can pay common dividends.) From a common shareholder's perspective, a firm with less debt and preferred stock in its capital structure has fewer bills to pay before it can allocate earnings to common dividends, and is therefore less risky.

Q. PLEASE SHOW THE CAPITAL STRUCTURE THAT YOU RECOMMEND.

A. I recommend the following capital structure be used in this proceeding (also shown on Schedule MB-2):

	Percent
Common Equity	46.22%
Preferred Stock	0.27%
Long term debt	35.39%
Short term debt	18.12%
	100.00%

Q. DO YOU HAVE SPECIFIC CRITERIA TO DETERMINE WHETHER TO INCLUDE SHORT TERM DEBT IN A COMPANY'S CAPITAL STRUCTURE?

A. Yes. When determining whether to include short term debt, I consider the level of short term debt in the capital structure (less construction work in progress (CWIP) amounts) and whether the level of short term debt is consistent. Laclede not only has a significant portion of its capital structure as short term debt in February 2001 ($136,005,515 average daily balance for the month, net of CWIP), but maintains a significant level throughout the year. The *lowest* average-daily balance for any month in the test year is over $81 million in May 2000.

I included $119,427,609 of short term debt in Laclede's 28 February 2001 capital structure, which is 18.22% of the total. This amount is the twelve-month average level of short term debt (average daily balance for each month, less CWIP) for the test year.

Q. IS THERE SUPPORT IN FINANCIAL LITERATURE FOR INCLUSION OF SHORT TERM DEBT IN CAPITAL STRUCTURE?

A. Yes. Standard & Poor's Corporate Finance Criteria states:

> Seasonal, self-liquidating debt is excluded from the permanent debt amount, but this situation is rare - with the exception of certain gas utilities. Given the long life of almost all utility assets, short-term debt may expose these companies to interest-rate volatility, remarketing risk, bank line backup risk, and regulatory exposure that cannot be readily offset. The lower cost of short-term obligations (assuming a positively sloped yield curve) is a positive factor that partially mitigates the risk of interest-rate volatility. As a rule of thumb, a level of short-term debt that exceeds 10% of total capital is cause for concern. [S&P Corporate Ratings Criteria, 1996]

Also,

> Traditional measures focusing on long-term debt have lost much of their significance, since companies rely increasingly on short-term borrowings. It is now commonplace to find permanent layers of short-term debt, which finances not only seasonal working capital but also an ongoing portion of asset base. [S&P Corporate Ratings Criteria, 1999]

As shown on Schedule MB-2 (and calculated on Schedule MB-5), Laclede's short term debt is consistently a significant part of the capital structure, and is therefore appropriately included.

EMBEDDED COST RATES

Q. WHAT IS THE APPROPRIATE EMBEDDED COST RATE FOR LACLEDE'S PREFERRED STOCK?

A. The embedded cost rate is 4.96% for Laclede's preferred stock. Calculation of the embedded cost of preferred stock is shown on Schedule MB-4.

Q. WHAT IS THE APPROPRIATE EMBEDDED COST RATE FOR LACLEDE'S LONG TERM DEBT?

A. The embedded cost rate is 7.70% for Laclede's long term debt, as provided by the Company in response to OPC data request 2002.

Q. WHAT IS THE APPROPRIATE EMBEDDED COST RATE FOR LACLEDE'S SHORT TERM DEBT?

A. The embedded cost rate is 6.47% for Laclede's short term debt. Calculation of the embedded cost of short term debt is shown on Schedule MB-5.

COST OF COMMON EQUITY

Q. WHAT IS YOUR RECOMMENDED COST OF COMMON EQUITY FOR LACLEDE?

A. Laclede Gas Company should be allowed a return on common equity of 10.00% to 9.75%.

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

A. I relied primarily on a Discounted Cash Flow (DCF) analysis to calculate a cost of common equity for Laclede.

The reasonableness of my calculation was substantiated by performing a similar DCF analysis on a group of five comparison LDCs. A comparison of risk measures for Laclede and the comparable group is shown on Schedule MB-6.

Additionally, I checked the reasonableness of my calculated cost of common equity by performing a Capital Asset Pricing Model analysis for Laclede and the group of comparison companies.

DISCOUNTED CASH FLOW MODEL

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

A. The model is represented by the following equation:

$$k = D/P + g$$

where "k" is the cost of equity capital (i.e. investors' required return), "D/P" is the current dividend yield (dividend (D) divided by the stock price (P)) and "g" is the expected sustainable growth rate.

If future dividends are expected to grow at a constant rate (i.e., the constant growth assumption) and dividends, earnings and stock price are expected to increase in proportion to each other, the sum of the current dividend yield (D/P) and the expected growth rate (g) equals the required rate of return, or the cost of equity, to the firm. This form of the DCF model is commonly used in the regulatory arena and is known as the constant growth, or Gordon, DCF model. The constant growth DCF model is based on the following assumptions:

1) A constant rate of growth,

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

3) The dividend payout ratio remains constant,

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

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

Although all of these assumptions do not always hold in a technical sense, the relaxation of these assumptions does not make the model unreliable.

The DCF model is based on two basic financial principals. First; the current market price of any financial asset, including a share of stock, is equivalent to the value of all expected future cash flows associated with that asset discounted back to the present at the

appropriate discount rate. The discount rate that equates anticipated future cash flows and the current market price is defined as the rate of return or the company's cost of equity capital.

Cash flows associated with owning a share of common stock can take two forms: selling the stock and dividends. Just as the current value of a share of stock is a function of future cash flows (dividends), the *future* price of the stock at any time is also a function of future dividends. When a share of stock is sold, what is given up is the right to receive all future dividends. Therefore, the DCF model, using expected future dividends as the cash flows, is appropriate regardless of how long the investor plans to hold the stock. Determination of a holding period and an associated terminal price is unnecessary. The irrelevance of investors' time horizons is emphasized by Brealey and Myers:

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

The other basic financial principal on which the DCF is grounded is the "time value of money." Investors view a dollar received today as being worth more than a dollar received in the future because a dollar today can immediately be invested. Therefore, future cash flows are discounted. The rate used by investors to discount future cash flows to the present is the discount rate or opportunity cost of capital.

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-7, page 1.

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

A. Yes, I did. I calculated both historical and projected retention growth. It is important to recognize the fundamentals of long-term investor-expected growth when developing a sustainable growth rate. Future dividends will be generated by future earnings and the primary source of growth in future earnings is the reinvestment of present earnings back into the firm. This reinvestment of earnings also contributes to the growth in book value. Furthermore, it is the earned return on reinvested earnings and existing capital (i.e., book value) that ultimately determines the basic level of future cash flows. Therefore, one proxy for the future growth rate called for in the DCF formula is found by multiplying the future expected earned return on book equity (r) by the percentage of earnings expected to be retained in the business (b). This calculation, known as the "b*r" method, or *retention* growth rate, results in one measure of the sustainable growth rate called for in the Discounted Cash Flow formula. While the retention growth rate can be calculated using historical data on earnings retention and equity returns, this information is relevant only to the extent that it provides a meaningful basis for determining the future sustainable growth rate. Consequently, projected data on earnings retention and return on book equity are generally more representative of investors' expectations.

Q. CAN YOU PROVIDE AN EXAMPLE THAT ILLUSTRATES THE FUNDAMENTALS OF RETENTION GROWTH AS A PROXY FOR SUSTAINABLE GROWTH?

A. Yes. To better understand the principles of sustainable growth, it is helpful to compare the growth in a utility's cash flows to the fundamental causes of growth in an individual's passbook account. For an individual who has $1,000 in a passbook account paying 5.0%

interest, earnings will be $50 for the first year. If this individual leaves 100% of the earnings in the passbook account (retention ratio equals 100%), the account balance at the end of the first year will be $1,050. Total earnings in the second year will be $52.50 ($1,050 x 5.0%), and the growth rate of the account in year two is 5.0% [100%(b) x 5%(r)]. On the other hand, if the individual withdraws $30 of the earnings from the first year and reinvests only $20 (retention ratio equals 40%) earnings in the second year will be only $51.00 ($1,020 x 5.0%), with growth equaling 2.0% [($1,020-$1,000)/$1,000 = 2.0% = 40%(b) x 5%(r)]. In both cases, the return, along with the level of earnings retained, dictate future earnings.

These exact principles regarding growth apply to a utility's common stock. When earnings are retained, they are available for additional investment and, as such, generate future growth. When earnings are distributed in the form of dividends, they are unavailable for reinvestment in those assets that would ultimately produce future growth. Either way, for both a utility's common stock or an individual's passbook account, the level of earnings retained, along with the rate of return, determine the level of sustainable growth.

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

A. Yes. Stock financing will cause investors to expect additional growth if a company is expected to issue new shares at a price above book value. The excess of market price over book value would benefit current shareholders, increasing their per share book equity. Therefore, if stock financing is expected at prices above book value, shareholders will expect their book value to increase, and that adds to the growth expectation stemming from earnings retention, or "b*r" growth. A more thorough explanation of "external" growth is included in Appendix (I). This external growth factor has been included in all historical and projected retention growth rate calculations for the group of comparable utilities.

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

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

Also, I excluded any compound earnings per share (EPS) growth rates which included a year when the payout ratio was greater than one (the dividend paid out was greater than earnings for that year.) In those circumstances, the calculated compound growth rate was artificially high. Any particular growth rate excluded from calculations is shown in italics on Schedule MB-7.

Q. IS THE HISTORICAL GROWTH RATE IN DIVIDENDS PER SHARE AN APPROPRIATE PROXY FOR DETERMINING THE SUSTAINABLE GROWTH RATE?

A. Not usually. The historical growth rate in dividends per share will tend to overstate (understate) the sustainable growth rate when the dividend payout ratio has increased (decreased) over the measurement period. For an extended discussion and illustration of this phenomenon, please see Appendix I.

SUSTAINABLE GROWTH ANALYSIS

Q. WHAT GROWTH RATE DO YOU CONSIDER TO BE REFLECTIVE OF THE INVESTOR-EXPECTED GROWTH FOR LACLEDE GAS COMPANY?

A. I believe a growth rate of approximately 4.00% to 4.25% is a reasonable representation of investors' expectations for Laclede's sustainable growth rate. I chose to rely more heavily on my projected growth rate calculations, and therefore used a rate at the high end of my calculated range for my DCF calculation for Laclede.

Also, the comparable companies' calculated growth rates are consistently higher than Laclede's. The overall average for all five companies is 4.40%. I would note also that the comparable companies' dividend yields are all below Laclede's dividend yield.

Q. WHAT GROWTH RATE PARAMETERS HAVE YOU EXAMINED IN ORDER TO ESTABLISH INVESTOR-EXPECTED GROWTH FOR LACLEDE?

A. The following growth parameters have been reviewed for Laclede: 1) my calculations of historical compound growth in earnings, dividends, and book value based on data from Value Line; 2) average of five-year and ten-year historical growth in EPS, DPS, and BVPS; 3) projected growth rate in EPS, DPS, and BVPS; 4) historical retention growth rate; and 5) projected retention growth rate.

As mentioned previously, for completeness **all** of the above-mentioned techniques for measuring growth were utilized in order to calculate a sustainable growth rate.

Q. PLEASE SUMMARIZE YOUR HISTORICAL AND PROJECTED GROWTH RATE ANALYSIS FOR LACLEDE GAS COMPANY.

A. The following table outlines the results of the analysis of growth rates for Laclede found on Schedule MB-7, page 2. The overall average of all analyzed growth rates for Laclede is 2.71%.

Growth rate summary for Laclede:

	EPS	DPS	BVPS
Historical Compound Growth	3.21%	1.83%	3.25%
Historical Value Line Growth	0.75%	1.50%	3.00%
Projected Growth	4.25%	1.50%	3.50%

	Historical	Projected
Retention Growth	2.80%	4.26%

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

A. Historical rates of growth in earnings per share (EPS), dividends per share (DPS), and book value per share (BVPS) were analyzed using two methods. First, compound growth rates were calculated for five-year periods ending 1998, 1999 and 2000. These three five-year compound growth rates were then averaged and are labeled "Ave. Compound Gr." on line 16 of Schedule MB-7, pages 2-7.

The second measure of historical growth was taken from Value Line. The historical rates of growth furnished by Value Line are included in this analysis because:

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

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

3) The Value Line rates are measured from an average of three base years to an average of three ending years, smoothing the results and limiting the impact of nonrecurring events.

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

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

A. Projected growth rates in EPS, DPS, and BVPS were taken from Value Line and are found on line 30 of Schedule MB-7, pages 2-7. Projected growth in EPS was also taken from First Call Corporation (line 32). If First Call did not issue a projection for a particular company, that space contains n/a. Information from First Call is available to the average investor. The projected growth in EPS found on line 36 is the average of earnings growth projections furnished by Value Line and First Call. Value Line's projected growth in dividends and book value are listed again on line 36.

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

A Historical retention growth was determined using the product of return (r) and retention rate (b) for the years 1996-2000, and the average was calculated (line 10, final column). The projected retention growth data, found on lines 25-27 of Schedule MB-7, pages 2-7 is based on information from Value Line. Projected retention growth was calculated for 2001, 2002 and the period 2004-06. An average of these growth rates was calculated and compared to

the growth rate for the 2004-06 period alone. The *larger* value, either the average or the 2004-06 rate, was utilized as the projected retention growth rate.

Investors' expectations regarding growth from external sources (i.e. sales of additional stock at prices above book value) has been included in the determination of both historical and projected growth (lines 13 and 33, respectively).

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

A. No. I analyzed a group of utilities with similar characteristics and risk profiles to Laclede to provide some insight as to the reasonableness of the sustainable growth rate calculated for Laclede. Schedule MB-6 shows a comparison of some risk factors for Laclede and my group of comparison companies.

Appendix G, attached to this testimony, describes the selection criteria used to develop a group of LDCs with risk characteristics similar to those of Laclede. The following companies met the selection criteria: 1) AGL Resources; 2) NICOR; 3) N.W. Natural Gas; 4) Piedmont Natural Gas, Inc.; and 5) WGL Holdings. Schedule MB-7, pages 2-7 contain growth rate calculations for Laclede and the group of comparison companies. These calculations are summarized on Schedule MB-7, page 1.

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

A. The following table outlines the results of the analysis of growth rates for the comparison group. The high average growth rate is 6.90% (projected EPS) and the low average growth rate is 2.60% (projected DPS). The overall average of all growth rates for all five companies is 4.40% (Schedule MB-7, page 1). In all cases, negative growth rates were *not* included in the calculation of averages.

Comparison group growth rate summary:

	EPS	DPS	BVPS
Historical Compound Growth	4.04%	3.17%	4.62%
Historical Value Line Growth	3.63%	3.00%	4.25%
Projected Growth	6.90%	2.60%	5.70%

	Historical	Projected
Retention Growth	4.58%	5.96%

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

A. I would expect a sustainable growth rate for this group of gas utilities to be in the range of approximately 4.5% to 5.5%.

STOCK PRICE AND DIVIDEND YIELD

Q. WHAT IS THE APPROPRIATE DIVIDEND YIELD TO USE IN THE DCF?

A. The appropriate dividend yield to use in the DCF is the *expected* dividend yield calculated from a current stock price and the expected dividend.

Q. WHAT IS THE APPROPRIATE DIVIDEND YIELD FOR LACLEDE?

A. I chose to use a dividend yield for Laclede of 5.75%. The expected dividend yield for Laclede is 5.73%, based on an expected 2002 dividend of $1.36 and Laclede's recent six-week average stock price of $23.72. The expected dividend yield is 5.77% using the same $1.36 expected 2002 dividend and a 3-month weekly average stock price ($23.58). And the dividend yield is 5.67% using a 1-month daily average stock price for September 2001 ($24.00).

Q. PLEASE EXPLAIN YOUR CALCULATION OF THE DIVIDEND YIELD.

A. Dividend yield is equal to the expected dividend divided by stock price. Schedule MB-8 shows the average stock prices for a recent six-week period, the expected 2002 dividends (as taken from Value Line), and the calculation of the dividend yields for Laclede and the group of comparison companies.

I primarily used a six-week period for determining the average stock price because I believe that period of time is long enough to avoid daily fluctuations and recent enough so that the stock price captured is representative of current expectations. The stock price for each company is the average of the Friday closing price from 8/31/01 through 10/5/01. This time period accurately reflects investor's current expectations for the companies' stock. Non-current stock prices simply do not capture investor's current expectations and are inappropriate to use in the DCF.

For comparison purposes, using the same $1.36 expected 2002 dividend, I calculated a 3-month weekly average stock price ($23.58), which gave a dividend yield of 5.77%, and a 1-month daily average stock price for September 2001 ($24.00), which gave a dividend yield of 5.67%. These calculations are shown on Schedule MB-8, page 2.

My three stock price and dividend yield calculations produced consistent results.

Q. HAVE YOU CALCULATED THE DIVIDEND YIELDS FOR THE COMPARISON GROUP?

A. Yes. The average expected dividend yield for my comparison group is 4.97%. The calculations are shown on Schedule MB-8, page 1. For the group, the high dividend yield was 5.24% (N.W. Natural Gas) and the low was 4.63% (NICOR).

COST OF EQUITY

Q. WHAT IS THE DCF COST-OF-EQUITY RANGE FOR LACLEDE BASED ON THE PREVIOUSLY DETERMINED DIVIDEND YIELD AND YOUR GROWTH RATE RANGE?

A. The following table, using data from Schedule MB-9, outlines the cost of equity range for Laclede using my recommended growth rate range and dividend yield:

	Dividend Yield	Growth	Cost of Equity
High	5.75%	4.25%	10.00%
Low	5.75%	4.00%	9.75%

Q. WHAT RETURN ON COMMON EQUITY DO YOU RECOMMEND FOR LACLEDE?

A. I believe Laclede's allowed return on common equity should be set between 10.00% and 9.75% which is based on a dividend yield of 5.75% and an investor-expected sustainable growth rate in a range of 4.25% to 4.00%.

I recommend the MPSC focus on the high end of that range in recognition of Laclede's projected growth rates. Also, the analysis of my comparable companies supports an ROE in the high end of my recommended range.

Q. WHAT IS THE DCF COST OF EQUITY FOR YOUR COMPARISON GROUP BASED ON THE PREVIOUSLY DETERMINED DIVIDEND YIELDS AND GROWTH RATES?

A. The average DCF cost of common equity for the group is 9.93%, which provides good corroboration for my recommendation for Laclede.

The following table shows the average high and low cost of common equity for my comparable group:

	Dividend Yield	Growth	Cost of Equity
Low	4.97%	2.29%	7.26%
High	4.97%	7.62%	12.59%

The DCF cost of equity capital for the comparison group is found on Schedule MB-9.

Q. DOES THE COST OF EQUITY CALCULATED FOR YOUR COMPARISON GROUP SUPPORT THE REASONABLENESS OF YOUR RECOMMENDATION FOR LACLEDE?

A. Yes, I believe the 9.93% average DCF cost of equity calculated for my comparison group supports my recommendation for Laclede. The group of LDCs in my comparison group are similar in risk to Laclede. In general, the growth rate averages for the comparison group are higher than those for Laclede. However, Laclede's dividend yield is greater than the average for the group. Although Laclede and the comparison group differ in respect to both dividend yield and sustainable growth rate, DCF calculations place the cost of common equity solidly in the 10.00% to upper-nine percent range for each. This result is as it should be, given the equivalent levels of risk between the companies.

CAPITAL ASSET PRICING MODEL

Q. WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?

A. As can be seen on Schedule MB-10, I performed a CAPM analysis on Laclede and the group of five comparison LDCs. The CAPM cost of common equity for Laclede is 9.33%. The average CAPM cost of common equity for the group is 9.92%, with a high of 10.11% and a low of 9.72%. The overall average CAPM cost of equity for all six companies is 9.88%. I believe this analysis provides good support for my recommendation for Laclede's cost of common equity.

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

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

$$K = Rf + \beta(Rm - Rf)$$

where,

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

Rf = the risk free rate,

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

Rm = market return, and

(Rm - Rf) = market premium.

The formula states that the cost of common equity is equal to the risk free rate of interest, plus, beta multiplied by the difference between the return on the market and the risk free rate (the market premium).

The formula says that the cost of common equity is equal to the risk free rate plus some proportion of the market premium - that proportion being equal to beta. The market overall has a beta of 1.0. Firms with beta less than 1.0 are assumed to be less risky than the market; firms with beta greater than 1.0 are assumed to be more risky than the market. The appropriate beta to use in the CAPM formula is the beta that represents the risk of the company (or project) being analyzed. Laclede Gas Company's beta is 0.50. Betas for my group of comparison companies are all either 0.55 or 0.6. Gas utilities are generally viewed as relatively safe investments, and this is reflected in beta values below 1.0.

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

A. The 5.43% risk free rate I utilized for my CAPM analysis is the 30-year U.S. Government bond rate as reported by the Value Line Investment Survey (5 October 2001). The 7.80% value I used for the market premium (Rm-Rf) is equal to the market premium calculated by Ibbottson and Associates, calculated using arithmetic means.

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

A. I believe the CAPM - and its dependence on the single risk measure, beta - has limitations in its ability to accurately take into account the risk factors faced by a company, and

therefore that company's cost of equity. However, some investors continue to rely on the CAPM. Therefore, I included the analysis as a check on and to provide support for my DCF analysis.

WEIGHTED AVERAGE COST OF CAPITAL

Q. WHAT OVERALL, OR WEIGHTED AVERAGE, COST OF CAPITAL IS INDICATED BY YOUR ANALYSIS?

A. The weighted average cost of capital (WACC) I calculated for Laclede is 8.53% using a cost of equity of 10.00% (Schedule MB-11) and 8.42% using an ROE of 9.75%. I would note that the weighted average cost of capital for Laclede is lower than it would be if the Company did not carry such a large percentage of short term debt in it's capital structure. Any comparisons of my current ROR recommendation to past Laclede RORs or other companies' RORs must take this fact into consideration.

Q. WHAT PRE-TAX COVERAGE RATIO IS IMPLIED BY YOUR RECOMMENDATION?

A. Based on a WACC of 8.53% and an assumed tax factor of 1.62308, the pre-tax coverage ratio (for both long AND short term debt) is approximately 2.93 times. The pre-tax coverage ratio for long term debt only is 3.76 times. The derivation of pre-tax coverage is shown on Schedule MB-11.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

APPENDIX A

DEVELOPMENT & PURPOSES OF REGULATION

Q. WHY ARE PUBLIC UTILITIES REGULATED?

A. The nature of public utility services generally requires a monopolistic mode of operation. Only a limited number of companies (and quite often only one) are normally allowed to provide a particular utility service in a specific geographic area. Public utilities are often referred to as "natural" monopolies; a state created by such powerful economies of scale or scope that only one firm can or should provide a given service. Even when a utility is not a pure monopoly, it still has substantial market power over at least some of its customers.

In order to secure the benefits arising from monopolistic-type operations, utilities are generally awarded an exclusive franchise (or certificate of public convenience) by the appropriate governmental body. Since an exclusive franchise generally protects a firm from the effects of competition, it is critical that governmental control over the rates and services provided by public utilities is exercised. Consequently, a primary objective of utility regulation is to produce market results that closely approximate the conditions that would be obtained if utility rates were determined competitively. Based on this competitive standard, utility regulation must: 1) secure safe and adequate service; 2) establish rates sufficient to provide a utility with the opportunity to cover all reasonable costs, including a fair rate of return on the capital employed; and 3) restrict monopoly-type profits.

APPENDIX B

CALCULATION OF THE WEIGHTED AVERAGE COST OF CAPITAL

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

A. The basic standard of rate regulation is the revenue-requirement standard, often referred to as the rate base-rate of return standard. Simply stated, a regulated firm must be permitted to set rates which will cover operating costs and provide an opportunity to earn a reasonable rate of return on assets devoted to the business. A utility's total revenue requirement can be expressed as the following formula:

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

where R = the total revenue required,

O = cost of operations,

V = the gross value of the property,

D = the accrued depreciation, and

A = other rate base items,

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

This formula indicates that the process of determining the total revenue requirement for a public utility involves three major steps. First, allowable operating costs must be ascertained. Second, the net depreciated value of the tangible and intangible property, or net investment in property, of the enterprise must be determined. This net value, or investment (V - D), along with other allowable items is referred to as the rate base. Finally, a "fair rate of return" or weighted average cost of capital (WACC) must be determined. This rate, expressed as a percentage, is multiplied by the rate base. The weighted average cost of capital (WACC) is applied to the rate base (V-D+A) since it is generally recognized

the rate base is financed with the capital structure and these two items are normally similar in size. The allowed rate of return, or WACC, is typically defined as follows:

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

where i = embedded cost of debt capital,

D = amount of debt capital,

l = embedded cost of preferred stock,

P = amount of preferred stock,

k = cost of equity capital,

E = amount of equity capital, and

C = amount of total capital.

This formula indicates that the process of determining WACC involves separate determinations for each type of capital utilized by a utility. Under the weighted cost approach, a utility company's total invested capital is expressed as 100 percent and is divided into percentages that represent the capital secured by the issuance of long-term debt, preferred stock, common stock, and sometimes short-term debt. This division of total capital by reference to its major sources permits the analyst to compute separately the cost of both debt and equity capital. The cost rate of each component is weighted by the appropriate percentage that it bears to the overall capitalization. The sum of the weighted cost rates is equal to the overall or weighted average cost of capital and is used as the basis for the fair rate of return that is ultimately applied to rate base.

APPENDIX C

ECONOMIC PRINCIPLES OF REGULATION

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

A. Rate base-rate of return regulation is based, in part, on basic economic and financial theory that applies to both regulated and unregulated firms.

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

It is the interaction of competitive markets forces that holds the prices an unregulated firm can charge for its products or services in line with the actual costs of production. In fact, competition between companies is generally viewed as the mechanism that allows consumers to not only purchase goods and services at prices consistent with the costs of production but also allows consumers to receive the highest quality product. Since regulated utilities are franchised monopolies generally immune to competitive market forces, a primary objective of utility regulation is to produce results that closely approximate the conditions that would exist if utility rates were determined in a competitive atmosphere.

Under basic financial theory, it is generally assumed the goal for all firms is the maximization of shareholder wealth. Additionally, capital budgeting theory indicates that, in order to achieve this goal, an unregulated firm should invest in any project which, given a certain level of risk, is expected to earn a rate of return at or above its weighted average cost of capital.

Competition, in conjunction with the wealth maximization goal, induces firms to increase investment as long as the expected rate of return on an investment is greater that the cost of capital. Competitive equilibrium is achieved when the rate of return on the last investment project undertaken just equals the cost of capital. When competitive equilibrium is achieved, the price ultimately received for goods or services reflects the full costs of production. Therefore, not only does competition automatically drive unregulated firms to minimize their capital costs (investment opportunities are expanded and competitive position is enhanced when capital costs can be lowered), it also ensures that the marginal return on investment just equals the cost of capital.

Given that regulation is intended to emulate competition and that, under competition, the marginal return on investment should equal the cost of capital, it is crucial for regulators to set the authorized rate of return equal to the **actual** cost. If this is accomplished, the marginal return on prudent and necessary investment just equals cost and the forces of competition are effectively emulated.

APPENDIX D

LEGAL REQUIREMENT FOR A FAIR RATE OF RETURN

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

A. Yes. The criteria established by the U.S. Supreme Court closely parallels economic thinking on the determination of an appropriate rate of return under the cost of service approach to regulation. The judicial background to the regulatory process is largely contained in two seminal decisions handed down in 1923 and 1944. These decisions are,

> Bluefield Water Works and Improvement Company v. Public Service Commission, 262 U.S. 679 (1923), and
>
> FPC v. Hope Natural Gas Co., 320 U.S. 591 (1944)

In the Bluefield Case, the Court states,

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

Together, Hope and Bluefield have established the following standards,

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

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.

APPENDIX E

REGULATION IN MISSOURI

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

A. All investor owned public utilities operating in the state of Missouri are subject to the Public Service Commission Act, as amended. The Public Service Commission Act was initially passed by the Forty-Seventh General Assembly on April 15, 1913. (Laws of 1913 pp.557-651, inclusive).

In State ex rel Kansas City v. Kansas City Gas Co. 163 S.W. 854 (Mo.1914), the case of first impression pertaining to the Public Service Commission Act, the Missouri Supreme Court described the rationale for the regulation of public utilities in Missouri as follows:

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

The General Assembly has determined that the provisions of the Public Service Commission Act "shall be liberally construed with a view to the public welfare, efficient facilities and substantial justice between patrons and public utilities" (See: 386.610 RSMo 1978). Pursuant to the above legislative directive, when developing the cost of equity capital for a public utility operating in Missouri, it is appropriate to do so with a view

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

APPENDIX G

DEVELOPMENT OF A COMPARISON GROUP

Q. PLEASE EXPLAIN HOW YOU DEVELOPED A GROUP OF GAS UTILITIES WITH FINANCIAL RISK CHARACTERISTICS SIMILAR TO LACLEDE.

A. The following selection criteria have been used to develop a group of comparable gas utilities:

1). Publicly traded company;

2). No Missouri-regulated operations;

3). Greater than 85% of total revenues from regulated sales of gas;

4). Total capitalization less than 2.0 billion;

5). Standard & Poor's Bond Rating of at least A-;

6). Covered by Value Line;

The following companies met the selection criteria: 1) AGL Resources; 2) NICOR; 3) N.W. Natural Gas; 4) Piedmont Natural Gas, Inc.; and 5) WGL Holdings.

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

A. Yes. As shown on Schedule MB-4, I have examined several measures that typically act as indicators of relative risk.

The beta coefficient;

Fixed charge coverage;

Value Line Safety rating;

Bond Rating from Standard & Poor's;

Average common equity ratio;

Value Line Financial Strength.

Also, many of the selection criteria also act as risk measures, such as the level of revenues from regulated gas operations.

Q. WHAT CONCLUSIONS CAN BE DRAWN FROM THIS ANALYSIS?

A. Generally, the level of overall, or total, risk for the industry companies is representative of the risks faced by Laclede as a regulated natural gas distributor.

APPENDIX H

EFFICIENT NATURE OF THE CAPITAL MARKETS

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

A. Yes. It is impossible for any one analyst to systematically interpret the impact that each and every risk variable facing an individual firm has on the cost of equity capital to that firm. Fortunately, this type of risk-by-risk analysis is not necessary when determining the appropriate variables to be plugged into the DCF formula.

As stated earlier, the DCF model can correctly identify the cost of equity capital to a firm by adding the current dividend yield (D/P) to the correct determination of investor-expected growth (g). Thus, the difficult task of determining the cost of equity capital is made easier, in part, by the relative ease of locating dividend and stock price information and the efficient nature of the capital markets.

Q. PLEASE EXPLAIN THAT STATEMENT.

A. The DCF model is based on the assumption that investors (1) calculate intrinsic values for stocks on the basis of their interpretation of available information concerning future cash flows and risk, (2) compare the calculated intrinsic value for each stock with its current market price, and (3) make buy or sell decisions based on whether a stock's intrinsic value is greater or less than its market price.

Only if its market price is equal to or lower than its intrinsic value as calculated by the marginal investor will a stock be demanded by that investor. If a stock sells at a price significantly above or below its calculated intrinsic value, buy or sell orders will quickly push the stock towards market equilibrium. The DCF model takes on the following form when used by investors to calculate the intrinsic value of a given security,

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

where $P^{\wedge}$= the intrinsic value of the security,

D = the current dividend,

g = the expected growth rate, and

k = the required return on the security

Since the required rate of return for any given investor is based on both the perceived riskiness of the security and return opportunities available in other segments of the market, it can be easily demonstrated that when perceived riskiness is increased, the investors' required return is also increased and the market value of the investment falls as it is valued less by the marginal investor. Returning to the form of the DCF model used to determine the cost of equity capital to the firm,

$k = D/P + g$

we see that the required return rises as an increase in the perceived risk associated with a given security drives the price down. Within this context, the DCF formula incorporates all known information, including information regarding risks, into the cost of equity capital calculation. This is known as the "efficient market" hypothesis.

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

A. Yes. Modern investment theory maintains that the U.S. capital markets are efficient and, at any point in time, the prices of publicly traded stocks and bonds reflect all available information about those securities. Additionally, as new information is discovered, security prices adjust virtually instantaneously. This implies that, at any given time, security prices reflect "real" or intrinsic values. This point is further clarified by Brealey and Myers in Principles of Corporate Finance, Fourth Edition:

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

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)

APPENDIX I

DETERMINATION OF RETENTION (BR + SV) GROWTH & SUSTAINABLE GROWTH VS. EARNINGS AND DIVIDEND GROWTH RATES

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

A. To understand how investors develop a growth rate expectation, it is helpful to look at an illustration that shows how expected growth is measured. To do this, assume that a hypothetical utility has a first period common equity, or book value per share of $20.00; the investor-expected return on that equity is 12 percent; and the stated company policy is to pay out 50 percent of earnings in dividends. The first period earnings per share are expected to be $2.40 ($20 per share book equity x 12% equity) and the expected dividend is $1.20. The amount of earnings not paid out to shareholders ($1.20), referred to as retained earnings, raises the book value of the equity to $21.20 in the second period. The following table continues the hypothetical for a three-year period and illustrates the underlying determinants of growth.

	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%

As can be seen, earnings, dividends, and book value all grow at the same rate when the payout ratio and return on equity remain stable. Moreover, key to this growth is the amount of earnings retained or reinvested in the firm and the return on equity.

Letting "b" equal the retention ratio of the firm (or 1 minus the payout ratio) and letting "r" equal the firm's expected return on equity, the DCF growth rate "g" (also referred to as the sustainable growth rate) is equal to their product, or

$$g = br.$$

As shown in the example, the growth rate for the hypothetical company is 6.00 percent (12% ROE x 50% payout ratio).

Dr. Gordon has determined that this equation embodies the underlying fundamentals of growth and, therefore, is a primary measure of growth to be used in the DCF model (Gordon, The Cost of Capital to a Public Utility, 1974, p.81). It should be noted, however, Dr. Gordon's research also indicates that analysts' growth rate projections are useful in estimating investors' expectations. As a result, analysts' published growth rate projections, along with other historical and projected growth rates, are considered in this analysis for the purpose of reaching an accurate estimation of the expected sustainable growth rate.

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

A. Yes. The above hypothetical example does not allow for the existence of external sources of equity financing (i.e., sales of common stock). Stock financing will cause investors to expect additional growth if the company is expected to issue additional shares at a market price which exceeds book value.

The excess of market value over book value per share would benefit current shareholders by increasing their per share equity value. Therefore, if the company is expected to continue to issue stock at a price that exceeds book value per share, the shareholders would continue to expect their book value to increase and would add that growth expectation to that stemming from the retention of earnings, or internal growth.

On the other hand, if a company is expected to issue new common equity at a price below book value, that would have a negative effect on shareholders' current growth rate expectations. Finally, with little or no expected equity financing or a market-to-book ratio at or near one, investors would expect the long-term sustainable growth rate for the company to equal the growth from earnings retention.

Dr. Gordon identifies the growth rate which includes both expected internal and external financing as,

$$g = br + sv$$

where, g = DCF expected growth rate,

r = return on equity,

b = retention ratio,

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

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

Additionally,

$$v = 1 - BV/MP$$

where,

MP = market price,
BV = book value.

The second term (sv), which represents the external portion of the expected growth rate, does not normally represent a major source of growth when compared to the expected growth attributed to the retention of earnings. For example, the FERC Generic Rate of Return Model estimates the (sv) component in the range of 0.1% to 0.2%. However, I have used this equation as the basis for determining sustainable growth for the comparable group.

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

A. No, not always. As I have stated, growth derived from earnings or dividends alone can be unreliable for ratemaking purposes due to external influences on these parameters such as changes in the historical or expected rate of return on common equity or changes in the payout ratio. An extended example will demonstrate this point.

If we take the example above and assume that, in year two, the expected return on equity rises from 12 percent to 15 percent, the resulting growth rate in earnings and dividends per share dramatically exceeds what the company could sustain indefinitely. The error that can result from exclusive reliance on earnings or dividends growth is illustrated in the following table:

	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%

Due to the change in return on equity in year two, the compound growth rate for dividends and earnings is greater than 19 percent, which is the result only of a short-term increase in the equity return rather than the intrinsic ability of the firm to grow continuously at a 19 percent annual rate.

For year one, the sustainable rate of growth (g=br) is 6.00 percent, just as it was in the previous example. On the other hand, in years two and three, the sustainable growth rate increases to 7.50 percent. (15% ROE x 50% retention rate = 7.50%). Consequently, if the utility is expected to continually earn a 15 percent return on equity and retain 50 percent of earnings for reinvestment, a growth rate of 7.50 percent would be a reasonable estimate

of the long-term sustainable growth rate. However, the compound growth rate in earnings and dividends, which is over 19 percent, dramatically exceeds the actual investor-expected growth rate.

As can be seen in the hypothetical, the 19 percent growth rate is simply the result of the change in return on equity from year one to year two, not the firm's ability to grow sustainably at that rate. Consequently, this type of growth rate cannot be relied upon to accurately measure investors' sustainable growth rate expectations. In this instance, to rely on either earnings or dividend growth would be to assume the return on equity could continue to increase indefinitely. This, of course, is a faulty assumption; the recognition of which emphasizes the need to analyze the fundamentals of actual growth.

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

A. As stated, no. It can also be demonstrated that a change in our hypothetical utility's payout ratio makes the past rate of growth in dividends an unreliable basis for predicting investor-expected growth. If we assume the hypothetical utility consistently earns its expected equity return but in the second year changes its payout ratio from 50 percent to 75 percent, the 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%

Although the company has registered a high dividend growth rate (28.13%), it is not representative of the growth that could be sustained, as called for in the DCF model. In actuality, the sustainable growth rate (br) has declined due to the increased payout ratio. To

utilize a 28 percent growth rate in a DCF analysis for this hypothetical utility would be to assume that the payout ratio could continue to increase indefinitely and lead to the unlikely result that the firm could consistently pay out more in dividends than it earns. The problems associated with sole reliance on historical dividend growth has been recognized in the financial literature. According to Brigham and Gapenski,

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

BURDETTE - DIRECT
GR-2001-629 Laclede Gas Company

Historical Financial Information

ROE

	2000	1999	1998	1997	Average
Laclede Gas Company	9.10%	9.50%	10.80%	12.9%	**10.58%**

Capital Structure

	2000	1999	1998	1997	Average
Common Equity	54.5%	57.8%	58.6%	61.6%	**58.1%**
Preferred Stock	0.3%	0.4%	0.5%	0.4%	**0.4%**
Long Term Debt	45.2%	41.8%	40.9%	38.0%	**41.5%**
	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	$1.37	$1.47	$1.58	$1.84	$1.57
DPS	$1.34	$1.34	$1.32	$1.30	$1.33
Payout	97.8%	91.2%	83.5%	70.7%	84.7%
BVPS	$14.99	$14.96	$14.57	$14.26	$14.70

Source: Value Line Investment Survey.

BURDETTE - DIRECT
GR-2001-629 Laclede Gas Company

Laclede Gas Company
Capital Structure as of 28 February 2001

	Amount	Percent
Common Stock Equity	$304,626,511.71	46.22%
Preferred Stock	$1,784,050.00	0.27%
Long Term Debt	$233,222,698.68	35.39%
Short Term Debt	$119,427,609.08	18.12%
	$659,060,869.47	100.00%

Not including short-term debt; for comparison purposes only.

	Amount	Percent
Common Stock Equity	$304,626,511.71	56.45%
Preferred Stock	$1,784,050.00	0.33%
Long Term Debt	$233,222,698.68	43.22%
	$539,633,260.39	100.00%

Common Stock Equity

Common Stock	$20,743,625.00
Paid-in capital	$85,424,341.72
Gain on stock, net of expenses	$413,450.72
Retained Earnings	$222,062,051.60
less Treasury Stock	($24,016,957.33)
	$304,626,511.71

Source: Company response to OPC DR2001, 2002, 2003; Schedules MB-4 and MB-5

BURDETTE - DIRECT
GR-2001-629 Laclede Gas Company

Common Equity Percent

	2000	1999	1998	1997	Average
Laclede Gas Company	**54.5%**	**57.8%**	**58.6%**	**61.6%**	**58.1%**
Value Line Composite Index *(Gas Distribution Industry)*	**43.1%**	**47.1%**	**48.0%**	**47.5%**	**46.4%**

Comparable Companies' Percent Common Equity

	2000	1999	1998	1997	Average
AGL Resources	48.3%	49.2%	47.1%	45.9%	47.6%
NICOR	66.7%	64.0%	57.4%	57.2%	61.3%
N.W. Natural Gas	50.9%	49.9%	50.6%	49.0%	50.1%
Piedmont Natural Gas	53.9%	53.8%	55.3%	52.4%	53.9%
WGL Holdings	54.8%	56.1%	57.1%	56.2%	56.1%
Average	**54.9%**	**54.6%**	**53.5%**	**52.1%**	**53.8%**
Laclede Gas Company	**54.5%**	**57.8%**	**58.6%**	**61.6%**	**58.1%**

Note: Calculations do not include short term debt

Source: Value Line Investment Survey

BURDETTE - DIRECT
GR-2001-629 Laclede Gas Company

Laclede Gas Company
Embedded Cost of Preferred Stock as of 28 February 2001

Issue:	Amount	Coupon Rate	Dividend Requirement
5.00% Series B	$1,621,375	5.00%	$81,069
4.56% Series C	$162,675	4.56%	$7,418
TOTAL:	$1,784,050		$88,487

Amount Outstanding	$1,784,050
Dividend Requirement:	$88,487
Embedded Cost Rate:	**4.96%**

Source: Company response to OPC data request 2003

BURDETTE - DIRECT
GR-99-315 Laclede Gas Company

Laclede Gas Company
Embedded Cost of Short Term Debt through 28 February 2001

	Wtd. Avg. Effective Interest Rate	Average Daily Balance	CWIP	Balance less CWIP	Weight	Weighted Cost
Mar-00	5.928%	$ 97,161,625	$ 3,456,156	$ 93,705,469	6.54%	0.388%
Apr-00	6.067%	$ 88,618,804	$ 4,287,403	$ 84,331,401	5.88%	0.357%
May-00	6.280%	$ 85,170,940	$ 3,937,563	$ 81,233,377	5.67%	0.356%
Jun-00	6.618%	$ 87,746,607	$ 4,962,200	$ 82,784,407	5.78%	0.382%
Jul-00	6.690%	$ 102,357,955	$ 5,445,949	$ 96,912,006	6.76%	0.452%
Aug-00	6.669%	$ 124,483,974	$ 9,176,212	$ 115,307,762	8.05%	0.537%
Sep-00	6.630%	$ 135,459,651	$ 6,811,755	$ 128,647,896	8.98%	0.595%
Oct-00	6.610%	$ 136,108,860	$ 11,480,869	$ 124,627,991	8.70%	0.575%
Nov-00	6.620%	$ 161,313,074	$ 9,033,262	$ 152,279,812	10.63%	0.703%
Dec-00	6.609%	$ 178,875,335	$ 7,738,155	$ 171,137,180	11.94%	0.789%
Jan-01	6.506%	$ 171,522,333	$ 5,363,840	$ 166,158,493	11.59%	0.754%
Feb-01	6.175%	$ 140,190,154	$ 4,184,639	$ 136,005,515	9.49%	0.586%
		$ 1,509,009,312		$ 1,433,131,309	100.00%	6.475%

Average Monthly Level: $ 125,750,776

Average Monthly Level less CWIP: **$ 119,427,609**

Weighted average interst rate: **6.47%**

Source: Company response to OPC data request 2004

BURDETTE - DIRECT
GR-2001-629 Laclede Gas Company

Risk Measures

	Public	(millions) Revenue	% Rev Gas	S&P	Missouri Regulation?
AGL Resources	Yes	$954.30	99.0%	A-	No
NICOR	Yes	$3,137.10	85.0%	AA	No
N.W. Natural Gas	Yes	$591.30	97.0%	A	No
Piedmont Natural Gas	Yes	$1,157.90	87.0%	A	No
WGL Holdings	Yes	$1,484.60	100.0%	AA-	No
Average		**$1,465.04**	**93.6%**	**A/AA-**	
Laclede Gas Company	Yes	**$991.80**	**99.0%**	**AA-**	**Yes**

	Beta	Payout Ratio	Common Equity	Safety	MTB	Total Interest Coverage	Fixed Charge Coverage	Financial Strength
AGL Resources	0.55	58.0%	33.0%	2	1.83	2.5	235%	B++
NICOR	0.60	49.0%	51.0%	1	2.41	4.8	510%	A+
N.W. Natural Gas	0.55	71.0%	49.0%	2	1.36	3.0	250%	B++
Piedmont Natural Gas	0.55	68.0%	54.0%	2	1.81	3.8	385%	B++
WGL Holdings	0.60	61.0%	53.0%	1	1.56	4.0	375%	A
Average	**0.57**	**61.4%**	**48.0%**	**1.60**	**1.79**	**3.62**	**351%**	**B++**
Laclede Gas Company	**0.50**	**93.0%**	**39.0%**	**2**	**1.57**	**2.7**	**255%**	**B++**

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

BURDETTE - DIRECT
GR-2001-629 Laclede Gas Company

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

Historical Growth		Compound Growth			Value Line		
COMPANY	br + sv	EPS	DPS	BVPS	EPS	DPS	BVPS
AGL Resources	2.37%	4.78%	0.79%	2.83%	1.50%	1.25%	2.50%
NICOR	6.44%	4.93%	4.98%	3.80%	4.50%	4.50%	4.00%
N.W. Natural Gas	5.17%	1.20%	2.08%	4.90%	-	1.25%	4.00%
Piedmont Natural Gas	4.66%	8.10%	5.90%	6.66%	5.75%	5.75%	6.25%
WGL Holdings	4.23%	1.20%	2.08%	4.90%	2.75%	2.25%	4.50%
Average	**4.58%**	**4.04%**	**3.17%**	**4.62%**	**3.63%**	**3.00%**	**4.25%**
Laclede Gas Company	**2.80%**	**3.21%**	**1.83%**	**3.25%**	**0.75%**	**1.50%**	**3.00%**

Projected Growth		Value Line/First Call		
COMPANY	br + sv	EPS	DPS	BVPS
AGL Resources	6.10%	8.75%	1.00%	5.00%
NICOR	8.01%	6.25%	4.50%	7.00%
N.W. Natural Gas	5.04%	6.25%	1.00%	4.00%
Piedmont Natural Gas	4.93%	6.25%	5.00%	7.00%
WGL Holdings	5.74%	7.00%	1.50%	5.50%
Average	**5.96%**	**6.90%**	**2.60%**	**5.70%**
Laclede Gas Company	**4.26%**	**4.25%**	**1.50%**	**3.50%**

Ranges	Overall			Hi/Low	
COMPANY	Average	High	Low*	Average	Median
AGL Resources	3.35%	8.75%	0.79%	4.77%	2.50%
NICOR	5.36%	8.01%	3.80%	5.91%	4.93%
N.W. Natural Gas	3.49%	6.25%	1.00%	3.63%	4.00%
Piedmont Natural Gas	6.02%	8.10%	4.66%	6.38%	5.90%
WGL Holdings	3.79%	7.00%	1.20%	4.10%	4.23%
Average	**4.40%**	**7.62%**	**2.29%**	**4.96%**	**4.31%**
Laclede Gas Company	**2.71%**	**4.26%**	**0.75%**	**2.51%**	**3.00%**

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

BURDETTE - DIRECT
GR-2001-629 Laclede Gas Company

Discounted Cash Flow Growth Parameters
Laclede Gas Company

Historical Growth

		Compound Growth			Retention Growth		
	Historical Data	EPS	DPS	BVPS	Retention Ratio (b)	Equity Return (r)	Growth (b*r)
1	1994	1.42	1.22	12.44	0.141		
2	1995	1.27	1.24	13.05	0.024		
3	1996	1.87	1.26	13.72	0.326	13.60%	4.44%
4	1997	1.84	1.30	14.26	0.293	12.90%	3.79%
5	1998	1.58	1.32	14.57	0.165	10.80%	1.78%
6	1999	1.47	1.34	14.96	0.088	9.50%	0.84%
7	2000	1.37	1.34	14.99	0.022	9.10%	0.20%
8							
9		Compound Growth Rates				Ave. Internal	
10	'94-98	2.71%	1.99%	4.03%		Growth (br):	2.21%
11							
12	'95-99	3.72%	1.96%	3.47%		ADD: External	
13						Growth (sv):	0.59%
14	'96-00	*-7.48%*	1.55%	2.24%			
15						Historical	
16	Ave.Compound Gr.	**3.21%**	**1.83%**	**3.25%**		"br + sv" Gr.	**2.80%**
17							
18	Value Line	EPS	DPS	BVPS			
19	Historical Gr.	**0.75%**	**1.50%**	**3.00%**			
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	$1.60	$1.35	$15.25	0.156	10.50%	1.64%
26	2002 est'd	1.85	1.36	15.85	0.265	11.50%	3.05%
27	2004-06 est'd	2.15	1.45	18.30	0.326	11.50%	3.74%
28							
29	*Analyst's Estimates*					Projected	
30	Value Line	6.50%	1.50%	3.50%		Growth (br):	3.74%
31							
32	First Call	2.00%				ADD: External	
33						Growth (sv):	0.52%
34							
35	Average					Projected	
36	Proj'd Growth	**4.25%**	**1.50%**	**3.50%**		"br + sv" Gr.	**4.26%**

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

SOURCE: The Value Line Investment Survey; C.A. Turner Utility Reports; First Call Corporation

BURDETTE - DIRECT
GR-2001-629 Laclede Gas Company

Discounted Cash Flow Growth Parameters
AGL Resources

Historical Growth

		Compound Growth			Retention	Retention Growth Equity	Growth
	Historical Data	EPS	DPS	BVPS	Ratio (b)	Return (r)	(b*r)
1	1994	1.17	1.04	10.19	0.111		
2	1995	1.33	1.04	10.12	*0.218*		
3	1996	1.37	1.06	10.56	0.226	12.10%	2.74%
4	1997	1.37	1.08	10.99	0.212	11.30%	2.39%
5	1998	1.41	1.08	11.42	0.234	12.30%	2.88%
6	1999	0.91	1.08	11.59	-0.187	7.90%	*-1.48%*
7	2000	1.29	1.08	11.50	0.163	11.50%	1.87%
8							
9		Compound Growth Rates				Ave. Internal	
10	'94-98	4.78%	0.95%	2.89%		Growth (br):	2.47%
11							
12	'95-99	*-9.05%*	0.95%	3.45%		ADD: External	
13						Growth (sv):	-0.10%
14	'96-00	***-1.49%***	0.47%	2.15%			
15						Historical	
16	Ave.Compound Gr.	**4.78%**	**0.79%**	**2.83%**		"br + sv" Gr.	**2.37%**
17							
18	Value Line	EPS	DPS	BVPS			
19	Historical Gr.	**1.50%**	**1.25%**	**2.50%**			
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	$1.50	$1.08	$12.00	0.280	12.50%	3.50%
26	2002 est'd	1.65	1.08	12.55	0.345	13.00%	4.49%
27	2004-06 est'd	2.05	1.16	15.45	0.434	13.50%	5.86%
28							
29	*Analyst's Estimates*					Projected	
30	Value Line	9.50%	1.00%	5.00%		Growth (br):	5.86%
31							
32	First Call	8.00%				ADD: External	
33						Growth (sv):	0.24%
34							
35	Average					Projected	
36	Proj'd Growth	**8.75%**	**1.00%**	**5.00%**		"br + sv" Gr.	**6.10%**

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

SOURCE: The Value Line Investment Survey; C.A. Turner Utility Reports; First Call Corporation

BURDETTE - DIRECT
GR-2001-629 Laclede Gas Company

Discounted Cash Flow Growth Parameters
NICOR

Historical Growth

		Compound Growth			Retention	Retention Growth Equity	Growth
	Historical Data	EPS	DPS	BVPS	Ratio (b)	Return (r)	(b*r)
1	1994	2.07	1.25	13.26	0.396		
2	1995	1.96	1.28	13.67	0.347		
3	1996	2.42	1.32	14.74	0.455	16.60%	7.55%
4	1997	2.55	1.40	15.43	0.451	16.70%	7.53%
5	1998	2.31	1.48	15.97	0.359	14.60%	5.25%
6	1999	2.57	1.54	16.80	0.401	15.40%	6.17%
7	2000	2.94	1.66	15.56	0.435	19.20%	8.36%
8							
9		Compound Growth Rates				Ave. Internal	
10	'94-98	2.78%	4.31%	4.76%		Growth (br):	6.97%
11							
12	'95-99	7.01%	4.73%	5.29%		ADD: External	
13						Growth (sv):	-0.53%
14	'96-00	4.99%	5.90%	1.36%			
15						Historical	
16	Ave.Compound Gr.	**4.93%**	**4.98%**	**3.80%**		"br + sv" Gr.	**6.44%**
17							
18	Value Line	EPS	DPS	BVPS			
19	Historical Gr.	**4.50%**	**4.50%**	**4.00%**			
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	$3.00	$1.74	$16.85	0.420	17.50%	7.35%
26	2002 est'd	3.25	1.80	18.65	0.446	17.50%	7.81%
27	2004-06 est'd	4.00	2.04	24.25	0.490	16.50%	8.09%
28							
29	*Analyst's Estimates*					Projected	
30	Value Line	6.50%	4.50%	7.00%		Growth (br):	8.09%
31							
32	First Call	6.00%				ADD: External	
33						Growth (sv):	-0.07%
34							
35	Average					Projected	
36	Proj'd Growth	**6.25%**	**4.50%**	**7.00%**		"br + sv" Gr.	**8.01%**

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

SOURCE: The Value Line Investment Survey; C.A. Turner Utility Reports; First Call Corporation

BURDETTE - DIRECT
GR-2001-629 Laclede Gas Company

Discounted Cash Flow Growth Parameters
N.W. Natural Gas

Historical Growth

		Compound Growth				Retention Growth	
	Historical Data	EPS	DPS	BVPS	Retention Ratio (b)	Equity Return (r)	Growth (b*r)
1	1994	1.63	1.17	13.63	0.282		
2	1995	1.61	1.18	14.55	0.267		
3	1996	1.97	1.20	15.37	0.391	12.00%	4.69%
4	1997	1.76	1.21	16.02	0.313	11.60%	3.63%
5	1998	1.02	1.22	16.59	-0.196	12.10%	*-2.37%*
6	1999	1.70	1.23	17.12	0.276	14.80%	4.09%
7	2000	1.79	1.24	17.93	0.307	12.00%	3.69%
8							
9		Compound Growth Rates				Ave. Internal	
10	'94-98	*-11.06%*	1.05%	5.04%		Growth (br):	4.02%
11							
12	'95-99	1.37%	1.04%	4.15%		ADD: External	
13						Growth (sv):	1.14%
14	'96-00	*-2.37%*	0.82%	3.93%			
15						Historical	
16	Ave.Compound Gr.	**1.37%**	**0.97%**	**4.37%**	#	"br + sv" Gr.	**5.17%**
17							
18	Value Line	EPS	DPS	BVPS			
19	Historical Gr.	-	**1.25%**	**4.00%**			
20	(Avg of 5 and 10 yr. if both are available)						

Projected Growth

	Retention Growth Calculation				Retention	Equity	Growth
24	Value Line	EPS	DPS	BVPS	Ratio (b)	Return (r)	(b*r)
25	2001 est'd	$1.75	$1.25	$18.45	0.286	9.50%	2.71%
26	2002 est'd	1.95	1.26	19.15	0.354	10.00%	3.54%
27	2004-06 est'd	2.40	1.30	21.60	0.458	11.00%	5.04%
28							
29	*Analyst's Estimates*					Projected	
30	Value Line	8.00%	1.00%	4.00%		Growth (br):	5.04%
31							
32	First Call	4.50%				ADD: External	
33						Growth (sv):	0.00%
34							
35	Average					Projected	
36	Proj'd Growth	**6.25%**	**1.00%**	**4.00%**		"br + sv" Gr.	**5.04%**

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

SOURCE: The Value Line Investment Survey; C.A. Turner Utility Reports; First Call Corporation

BURDETTE - DIRECT
GR-2001-629 Laclede Gas Company

Discounted Cash Flow Growth Parameters
Piedmont Natural Gas

Historical Growth

		Compound Growth			Retention Growth		
	Historical Data	EPS	DPS	BVPS	Retention Ratio (b)	Equity Return (r)	Growth (b*r)
1	1994	1.35	1.01	11.36	0.252		
2	1995	1.45	1.09	12.31	0.248		
3	1996	1.67	1.15	13.07	0.311	12.60%	3.92%
4	1997	1.85	1.21	13.90	0.346	13.10%	4.53%
5	1998	1.96	1.28	14.91	0.347	13.20%	4.58%
6	1999	1.86	1.36	15.71	0.269	11.80%	3.17%
7	2000	2.01	1.44	16.52	0.284	12.10%	3.43%
8							
9		Compound Growth Rates				Ave. Internal	
10	'94-98	9.77%	6.10%	7.03%		Growth (br):	3.93%
11							
12	'95-99	6.42%	5.69%	6.29%		ADD: External	
13						Growth (sv):	0.73%
14	'96-00	4.74%	5.78%	6.03%			
15						Historical	
16	Ave.Compound Gr.	**8.10%**	**5.90%**	**6.66%**		"br + sv" Gr.	**4.66%**
17							
18	Value Line	EPS	DPS	BVPS			
19	Historical Gr.	**5.75%**	**5.75%**	**6.25%**			
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	$2.05	$1.52	$18.90	0.259	10.50%	2.71%
26	2002 est'd	2.20	1.60	19.85	0.273	11.00%	3.00%
27	2004-06 est'd	3.00	1.82	23.95	0.393	12.00%	4.72%
28							
29	*Analyst's Estimates*					Projected	
30	Value Line	7.50%	5.00%	7.00%		Growth (br):	4.72%
31							
32	First Call	5.00%				ADD: External	
33						Growth (sv):	0.21%
34							
35	Average					Projected	
36	Proj'd Growth	**6.25%**	**5.00%**	**7.00%**		"br + sv" Gr.	**4.93%**

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

SOURCE: The Value Line Investment Survey; C.A. Turner Utility Reports; First Call Corporation

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Discounted Cash Flow Growth Parameters
WGL Holdings

Historical Growth

		Compound Growth			Retention Growth		
	Historical Data	EPS	DPS	BVPS	Retention Ratio (b)	Equity Return (r)	Growth (b*r)
1	1994	1.42	1.11	11.51	0.218		
2	1995	1.45	1.12	11.95	0.228		
3	1996	1.85	1.14	12.79	0.384	14.40%	5.53%
4	1997	1.85	1.17	13.48	0.368	13.70%	5.04%
5	1998	1.54	1.20	13.86	0.221	11.10%	2.45%
6	1999	1.47	1.22	14.72	0.170	9.90%	1.68%
7	2000	1.79	1.24	15.31	0.307	11.70%	3.59%
8							
9		Compound Growth Rates				Ave. Internal	
10	'94-98	2.05%	1.97%	4.75%		Growth (br):	3.66%
11							
12	'95-99	0.34%	2.16%	5.35%		ADD: External	
13						Growth (sv):	0.57%
14	'96-00	*-0.82%*	2.12%	4.60%			
15						Historical	
16	Ave.Compound Gr.	**1.20%**	**2.08%**	**4.90%**		"br + sv" Gr.	**4.23%**
17							
18	Value Line	EPS	DPS	BVPS			
19	Historical Gr.	**2.75%**	**2.25%**	**4.50%**			
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	$1.92	$1.26	$16.50	0.344	11.00%	3.78%
26	2002 est'd	1.90	1.28	17.10	0.326	10.50%	3.43%
27	2004-06 est'd	2.55	1.35	20.25	0.471	12.00%	5.65%
28							
29	*Analyst's Estimates*					Projected	
30	Value Line	8.00%	1.50%	5.50%		Growth (br):	5.65%
31							
32	First Call	6.00%				ADD: External	
33						Growth (sv):	0.09%
34							
35	Average					Projected	
36	Proj'd Growth	**7.00%**	**1.50%**	**5.50%**		"br + sv" Gr.	**5.74%**

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

SOURCE: The Value Line Investment Survey; C.A. Turner Utility Reports; First Call Corporation

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Stock Prices and Dividend Yields

Stock Price

	Fri 08/31/2001	Fri 09/07/2001	Mon 09/17/2001	Fri 09/21/2001	Fri 09/28/2001	Fri 10/05/2001	Average
Laclede Gas Company	$23.90	$23.50	$23.50	$23.03	$24.00	$24.40	**$23.72**
AGL Resources	$21.30	$21.40	$20.85	$19.70	$19.97	$21.03	**$20.71**
NICOR	$38.76	$39.11	$39.50	$38.27	$38.75	$38.92	**$38.89**
N.W. Natural Gas	$25.00	$25.15	$24.19	$23.10	$23.39	$23.41	**$24.04**
Piedmont Natural Gas	$32.55	$33.89	$32.75	$30.30	$31.14	$31.61	**$32.04**
WGL Holdings	$27.01	$27.02	$26.39	$25.90	$26.89	$27.50	**$26.79**

Expected Dividend and Dividend Yield

	Average Stk. Price	Expected 2002 Dividend	Expected Dividend Yield
Laclede Gas Company	$23.72	$1.36	**5.73%**
AGL Resources	$20.71	$1.08	**5.22%**
NICOR	$38.89	$1.80	**4.63%**
N.W. Natural Gas	$24.04	$1.26	**5.24%**
Piedmont Natural Gas	$32.04	$1.60	**4.99%**
WGL Holdings	$26.79	$1.28	**4.78%**
Comparable company average:			**4.97%**

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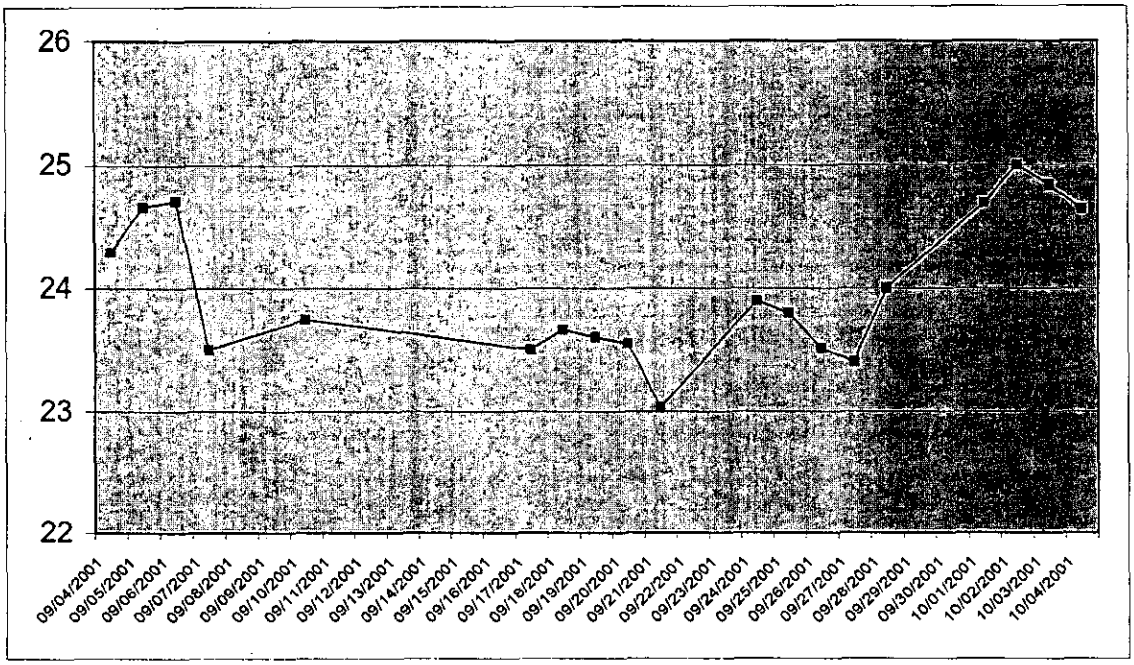
Laclede's Stock Price

3-Month Weekly Average		1-Month Daily Average		
	Closing		Closing	
Date	Price	Date	Price	
01-Jul-01	$24.15	09/04/2001	$24.30	Laclede Gas Company
08-Jul-01	$23.50	09/05/2001	$24.67	
15-Jul-01	$22.89	09/06/2001	$24.72	
22-Jul-01	$22.64	09/07/2001	$23.50	
29-Jul-01	$22.80	09/10/2001	$23.75	
05-Aug-01	$22.60	09/17/2001	$23.50	* The NYSE was closed 9/11 - 9/14
12-Aug-01	$24.31	09/18/2001	$23.66	
19-Aug-01	$24.40	09/19/2001	$23.60	
26-Aug-01	$23.90	09/20/2001	$23.55	
02-Sep-01	$23.50	09/21/2001	$23.03	
09-Sep-01	$23.75	09/24/2001	$23.90	
16-Sep-01	$23.03	09/25/2001	$23.80	
23-Sep-01	$24.00	09/26/2001	$23.51	
30-Sep-01	$24.70	09/27/2001	$23.40	
Average	**$23.58**	09/28/2001	$24.00	
		10/01/2001	*$24.70*	*Laclede Group Inc.*
Dividend Yield	**5.77%**	*10/02/2001*	*$25.00*	
		10/03/2001	*$24.84*	
		10/04/2001	*$24.65*	
		Average	**$24.00**	
		Dividend Yield	**5.67%**	

1-Month Daily Average



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DCF Cost of Common Equity Calculations

	Dividend Yield	Growth Low	Growth High	Cost of Equity Low	Cost of Equity High
Laclede Gas Company	5.73%	0.75%	4.26%	6.48%	9.99%
Recommended	***5.75%***	***4.00%***	***4.25%***	***9.75%***	***10.00%***
AGL Resources	5.22%	0.79%	8.75%	6.00%	13.97%
NICOR	4.63%	3.80%	8.01%	8.43%	12.64%
N.W. Natural Gas	5.24%	1.00%	6.25%	6.24%	11.49%
Piedmont Natural Gas	4.99%	4.66%	8.10%	9.66%	13.09%
WGL Holdings	4.78%	1.20%	7.00%	5.97%	11.78%
Average	**4.97%**	**2.29%**	**7.62%**	**7.26%**	**12.59%**

Comparison companys' DCF Hi/Low average: 9.93%

Source: Schedules MB-7 and MB-8.

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

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

Risk Free Rate (Rf) = 5.43%
Market Premium (Rm - Rf) = 7.80%

	Beta	CAPM Ke
Laclede Gas Company	0.50	**9.33%**
AGL Resources	0.55	9.72%
NICOR	0.60	10.11%
N.W. Natural Gas	0.55	9.72%
Piedmont Natural Gas	0.55	9.72%
WGL Holdings	0.60	10.11%
Average CAPM cost of equity:		**9.92%**
Overall Average:		**9.88%**

Source: Value Line Investment Survey; Ibottson Associates;

BURDETTE - DIRECT
GR-2001-629 Laclede Gas Company

Laclede Gas Company
Weighted Average Cost of Capital - 28 February 2001

		Amount	Percent	Cost Rate	Weighted Cost	Cost Rate	Weighted Cost
Common Stock Equity	$	304,626,512	46.22%	***10.00%***	4.62%	***9.750%***	4.51%
Preferred Stock	$	1,784,050	0.27%	4.96%	0.013%	4.960%	0.013%
Long Term Debt	$	233,222,699	35.39%	7.700%	2.72%	7.700%	2.72%
Short Term Debt	$	119,427,609	18.12%	6.475%	1.17%	6.475%	1.17%
	$	659,060,869	100.00%		**8.53%**		**8.42%**

Pre-Tax Interest Coverage Tax factor = 1.62308

	Weighted Cost	Pre-tax Weighted Cost	Weighted Cost	Pre-tax Weighted Cost
Common Stock Equity	4.62%	7.50%	4.51%	7.31%
Preferred Stock	0.013%	0.022%	0.013%	0.022%
Long Term Debt	2.72%	2.72%	2.72%	2.72%
Short Term Debt	1.17%	1.17%	1.17%	1.17%
Total	8.53%	11.42%	8.42%	11.23%
Pre-tax wtd. cost:		11.42%	Pre-tax weighted cost:	11.23%
Cost of Debt (long term and short term):		3.90%	Cost of Debt:	3.90%
Pre-tax Interest Coverage		**2.93**		**2.88**

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