Exhibit No.: _____
Issue: Rate of Return
Witness: John C. Dunn
Sponsoring Party: Missouri Gas Energy
Case No.:

BEFORE THE PUBLIC SERVICE COMMISSION
STATE OF MISSOURI

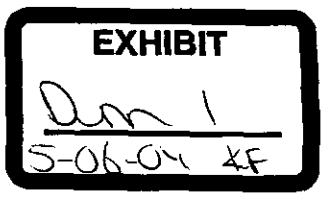
MISSOURI GAS ENERGY
CASE NO.

DIRECT TESTIMONY

OF

JOHN C. DUNN

November 2003



DIRECT TESTIMONY OF JOHN C. DUNN
ON BEHALF OF
MISSOURI GAS ENERGY

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Q. Please state your name and business address.

A. My name is John C. Dunn. My business address is 7400 West 110th Street, Suite 750, Overland Park, Kansas 66210.

Q. What is your occupation?

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

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

A. Yes, I have. It is attached to my prepared testimony as Appendix A.

Summary

Q. Please summarize the results of your rate of return determination.

A. Missouri Gas Energy ("MGE" or "Company") is a division of Southern Union Company ("Southern Union"). Southern Union is comprised, essentially, of several gas distribution companies operating in the midwest and northeast. It also owns as a subsidiary a natural gas pipeline company. Southern Union has a gas distribution company capital structure and cost of debt. After analyzing Southern Union, I elected to use Southern Union's capital structure and cost of debt exclusive of Panhandle Eastern Pipe Line, together with a

specific return on equity requirement for MGE to calculate the rate of return requirement for MGE.

Q. How did you make the capital structure and return on equity determination?

A. Because Southern Union has more activities than just MGE, I analyzed a group of gas distribution companies to test my selection of the Southern Union capital structure for MGE. Based on this analysis, I found the capital structure which I had selected to be reasonable. The Southern Union capital structure contains approximately 43.3% common equity. While this is less than the industry average and lower than the common equity ratio of the industry group I analyzed, which has about 47% common equity, it is within the zone of reasonableness. Furthermore, as I will explain later, the lower equity ratio means MGE has more financial risk which means the Company requires a higher return on equity than the industry group to compensate for this risk. This requirement was satisfied by a total risk analysis and an appropriate risk adjustment to the industry return to properly align the MGE return on equity with the industry return.

I also used this group of gas distribution companies to establish an industry-wide, non-company specific return on equity requirement for a natural gas distribution company. I then specifically adjusted that industry average return on equity requirement to the specific risk level of MGE as it compares to the risk level of the distribution group. This adjustment was

based on the specific circumstances of MGE and a comparative statistical analysis of MGE and the proxy group.

Q. What did you conclude from this process?

A. This process led me to conclude that the appropriate cost of common equity for MGE is at least 12.0% at the present time. The calculated cost of long-term debt is 7.348%. The cost of preferred securities is 7.863%. Combining the capital ratios, the cost of debt, the cost of preferred and the cost of equity produces an overall rate of return requirement for MGE calculated as follows:

Cost of Capital
Missouri Gas Energy
June 30, 2003

	Ratio	Cost	Weighted Cost Capital
Long-term debt	46.13%	7.348	3.389
Preferred equity	10.53	7.863	.828
Common equity	43.34	12.000	5.200
Total	100.00%		9.417

I believe that this rate of return and the return on equity it incorporates reflects the risks associated with the MGE natural gas utility system at the present time. It is, however, an absolute minimum return given the current direction or trend in the cost of capital which is currently up. It is also a minimum considering the unusual and extraordinary risks faced by MGE. If

current trends in the cost of capital continue, it may be that a higher return on equity will be required.

Q. Are there any risks faced by MGE?

A. Yes. MGE, like other companies in the natural gas distribution business, faces a number of general or industry-wide business risks. These include risks related to the relatively high, by historic standards, price of natural gas; the substitution and potential for substitution of alternate fuels; and a general public concern about utilities following incidents in the electric utility industry in the northeast. There is also a popular concern that natural gas is moving into an area of short supply.

However, in addition to these risks, MGE faces several specific unusual risks, both business and financial, which cause it to have great difficulty in earning its cost of capital in both the short and long run and which combined constitute a serious regulatory risk which requires an incremental increase in the industry return on equity.

Q. What are the financial risks which are faced by MGE, but are not faced by the industry group which you analyzed?

A. Financial risk is specifically the risk created by the use of leverage in the capital structure. MGE has a lower equity ratio, at 43.3% common equity, than the group I used in my analysis which had an average common equity

ratio of 47.0%. This means that MGE has greater financial risk and consequently requires higher return on common equity.

Q. In addition to this greater financial risk, are there any specific risks faced by MGE which necessitate a higher return on equity requirement for MGE than the natural gas distribution industry group?

A. Yes. All of the rates of MGE are regulated by the Missouri Public Service Commission ("Commission"). As shown in the direct testimony of MGE witness Michael R. Noack, MGE's rates have not enabled it to achieve its Commission-authorized rate of return. This is a risk that appears to be driven by the regulatory process in Missouri as it has affected MGE that is not applicable to the other companies in the comparable group because they do not have Missouri-regulated operations.

Q. In addition to the consistent inability to achieve its authorized rate of return with rates set through the regulatory process, are there any other Missouri-specific regulatory risks faced by MGE that an investment in the Company more risky than the average investment in a natural gas distribution company?

A. Yes, MGE's depreciation rates are well below the average rates of the companies included in my comparative analysis. This means that the Company will be less likely, in comparison to the companies included in my

comparative analysis, over the economic or useful life of the facilities to have a reasonable opportunity to realize a full return of capital.

Considered together, these elements make MGE more risky than its peers in the natural gas distribution business. These specifics have resulted in greater variability of income for the Company and in the context of financial analysis and the individual company, such as MGE, variability of income is synonymous with risk where greater variability equates to greater risk. In turn, greater risk leads to the necessity of a higher return.

Q. Did you make a statistical analysis of the risk of MGE as compared to the natural gas distribution company group which you employed in your determination of an industry average return on equity requirement?

A. Yes I did.

Q. And what did it show?

A. It showed that MGE had higher risk than the average of the group.

Q. I notice that you did not include short term debt in the capital structure in calculating the cost of capital. Why have you taken that approach?

A. The cost of capital is the cost of permanent capital invested in and related to the rate base used to provide service to the Company's customers. Short-term capital is primarily used to finance the seasonal cash flow needs of the company's business, including natural gas purchases and other energy costs, outstanding customer accounts, certain tax payments, maintenance

requirements and other working capital requirements. Current short-term borrowings of the Company are scheduled for permanent financing.

Current Capital Market Conditions

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

A. The economy is making the first tentative steps into a full blown economic recovery. At the moment, the assumption that the economy will recover is a reasonable assumption, but it is by no means certain that the economy will achieve economic recovery and a return to a "normal" level of growth. Risks of an economic relapse or a false start are still substantial as is the current risk of deflation. In fact, after its most recent meeting, the Chairman of the Federal Reserve Board indicated that the Board remains concerned about the possibility of deflation and weighs the risks of deflation and inflation as approximately the same at this moment.

This is almost the same as saying the risk of relapse and recovery are the same. Once the economy, however, begins to move and is firmly established on an upward track, the risks of inflation traditionally become much greater and lead to increases in interest rates and capital costs. I believe that with each passing day the probability of a recovery and some inflation, increases while the probability of relapse and deflation decreases.

Q. How are economic circumstances appropriately grouped together and related to the cost of capital?

A. On the one hand, recession, the risk of deflation and slowing economic activity match up with declining capital costs and lower overall costs of capital. This is in part a result of the fact that one of the typical responses to a decline in economic activity is a reduction in interest rates which in turn leads to reductions in other types of capital costs.

Q. Has this been evident in the past recession?

A. It has. The Federal Reserve has reduced its base rates to the lowest level in over 40 years. In fact, it is reasonable to say that for practical purposes the Federal Reserve cannot lower re-lending rates further.

Q. What is the opposite economic circumstance?

A. As the economy recovers, the demand for capital increases and the necessity that the Federal Reserve facilitate or jump-start economic growth declines. Consequently, the Federal Reserve permits interest rates and capital costs to increase. While rates are increasing and demand increases, the mechanisms and economic tools which permit the economy to meet that demand lag the growth in demand. This leads to inflation and further increases in the cost of capital.

To sum up, on the one hand the period of recession is a period of lower capital costs. The economy has experienced a period recession and is now

moving out of the recessionary period into a growth period. The period of growth typically is associated with higher capital costs and increased demands for capital.

We are currently transitioning from recession to expansion.

Q. Have there been any non-economic events which are impacting the utility industry in a negative fashion and increasing the cost of capital to the industry?

A. Yes. While these macro-economic events have been unfolding, a significant event occurred in the northeast United States involving a failure of the electric utility grid in that area. This failure led to concern about the reliability of the electric utility industry and by extension concern about utilities in general, including the natural gas distribution industry. This problem comes on the heels of a generalized concern about the natural gas industry and the adequacy of natural gas supplies to meet the needs of this country.

Q. What is the effect of the concern about the supply of natural gas?

A. To the extent there is a shortfall in the supply of natural gas, it will raise the price of natural gas and tend to lead to lower levels of customer satisfaction. To the extent possible, it makes customers more likely to consider alternatives.

Q. How will that affect MGE?

A. No company wants to see the price of its products increase as a result of the actions of its suppliers. Rising prices are obviously not good for a company's customers and rising prices also cause the usage of a company's product to decline to the extent that consumption of the product is responsive to the price of the product. Finally, price increases make the price of natural gas less competitive in a highly competitive energy market.

Economic Background to Regulation

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

A. One of the most important aspects of regulation is the process of rate review and authorization. The Commission authorizes prices which a utility can charge customers for its services based on the actual costs incurred by the utility in delivering the services. The procedure used by the Commission involves the development of the utility's total cost of service or revenue requirement through the systematic step-by-step accumulation of its component parts. Then, through the process of rate design, this total cost is converted into prices for individual services for the various customer classes.

An important component of the total cost incurred by MGE to provide natural gas distribution service are payments made to the suppliers of capital. These payments include interest on borrowed capital and a competitive return for the ownership or equity investment in the Company.

These payments constitute the cost of capital portion of the utility total cost or revenue requirement.

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

A. Yes. Based on my experience, the specific procedure used by the Commission in developing the component costs and the overall revenue requirement can be symbolized as follows:

Missouri Gas Energy
Cost of Service Equation

$$\text{Revenue Requirement} = E + D + T + R\,(V - AD + A)$$

Where:

E	=	*Operating expense requirement*
D	=	Depreciation on plant in rate base
T	=	Taxes including income tax related to return
R	=	Return requirement
(V-AD+A)	=	Rate base

Where:

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

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

Q. How important is the rate of return to MGE?

A. The rate of return is the cost of the capital employed in delivering the natural gas distribution service to MGE's customers. It is extremely important because a substantial amount of capital is required to provide utility service, particularly natural gas utility service. At the present time, the MGE rate base is approximately $543.0 Million and MGE has expended approximately $384 Million of capital on plant additions in the past ten years. Utility service capital expenditures require the attraction and retention of investor capital and that attraction and retention in turn requires that investors be reasonably compensated while their capital is employed in the provision of public utility service in the MGE Service Area. If a reasonable compensation of capital is not forthcoming, MGE will be unable to attract and retain, on reasonable terms, the capital it needs to continue to provide safe and reliable service.

Component Cost of Capital

Q. How is the rate of return calculated?

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

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

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

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

Missouri Gas Energy
Rate of Return Equation

	R	=	$DK_D + PK_P + EK_E$
Where:	R	=	Return requirement
	D	=	Debt ratio
	K_D	=	Cost of debt
	P	=	Preference stock ratio
	K_P	=	Cost of preference stock
	E	=	Equity ratio
	K_E	=	Cost of equity

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

Q. Who are the suppliers of MGE's capital?

A. All of the capital used by MGE, whether debt or equity, is ultimately supplied by individuals through their savings. Some of the capital is supplied directly by individuals through personal savings but most is supplied indirectly by institutions such as pension funds and mutual funds (investment intermediaries) which make investments on behalf of individuals. Regardless of the direct supplier of capital, however, every dollar of investment capital

used to support MGE's rate base is ultimately supplied by individuals. Many of those individuals live in Missouri.

Q. Can individuals make a direct investment in MGE?

A. No. The process of investment in MGE involves investment in Southern Union because MGE is a division of Southern Union, rather than a publicly traded separate corporation and, therefore, MGE does not issue its own debt or capital stock securities.

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

A. During the past several years, Southern Union has invested capital in MGE to assure that the Company could meet its obligations to its customers and service area. Because its efforts have resulted in material improvements in these regards, MGE now believes that it has achieved a level of service which meets or exceeds customer expectations.

Q. How does the risk profile and the return as it relates to that risk profile impact Southern Union's assignment capital to MGE?

A. In addition to its responsibility to provide safe and reliable service to its customers, Southern Union has a fiduciary responsibility to its investors. That fiduciary responsibility requires that Southern Union appropriately invest the capital which is entrusted to it. If Southern Union does not take into consideration the level of risk and the probable returns related to investment in MGE and the appropriateness of the relationship between the risk and

return of further investment in the Company, Southern Union is not meeting its fiduciary duties and responsibilities. Consequently, MGE must produce a return which is reasonable in light of the risk associated with the Company in order for Southern Union to successfully invest capital in it.

Q. Do you believe that MGE requires or is entitled to special consideration for its accomplishments in meeting service objectives for its customers in the past several years?

A. Yes I do. MGE has "taken care of business." MGE, as shown in the direct testimony of MGE witness Carlton A. Ricketts, has provided high quality service and met what it believes to be its customers' expectations. It has done so at a significant cost to its investors, including continuing to make investments when an adequate return was not being produced by the Missouri-regulated rates of the company. Furthermore, MGE and Southern Union have maintained their business activities and their expansions in areas where they were knowledgeable and capable.

Q. How is the cost of capital determined?

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

The idea behind the concept is the reality of limited resources including limited capital. Whenever a scarce resource, such as capital, is

committed to a specific investment, the same resource cannot be used for some other activity and cannot generate the profits which would have been associated with that other activity. To make the commitment, the activity which ultimately receives (or attracts) the investment must attract it away from the alternatives, and must earn at a competitive risk-adjusted level.

Investment Risk

Q. How do the investors make investment decisions?

A. Investors choose individual investments from the wide variety of investment alternatives available to produce a combination of the highest possible return with the lowest possible risk. These alternatives range from very low risk to very high risk along what is usually called a "risk spectrum." Most investors focus on a segment of the spectrum. The individual choice of investment risk level is mostly determined by the investors' risk tolerance. The individual investor's risk category causes investors to select investments which are "comfortable" and generally of similar risk levels. For convenience, we will call all of the investments of similar risk a risk category. Further, a risk category narrowly defined is generally comprised of a single industry, or at least closely related investments.

Within a risk category, investors rank alternatives by estimating the risk of each investment and its related return potential. Investors rank these risk-return pairs with the best combination of risk and return available at the top

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Dr. Morin holds a Bachelor of Electrical Engineering degree and an MBA in Finance from McGill University, Montreal, Canada. Dr. Morin received his PhD in Finance and Econometrics at the Wharton School of Finance, University of Pennsylvania. He has taught at the Wharton School of Finance at the University of Pennsylvania, Amos Tuck School of Business at Dartmouth College, Drexel University, University of Montreal's Hautes Etudes Commerciales, McGill University, and Georgia State University. Dr. Morin has developed and conducted numerous executive development programs. Dr. Morin was a faculty member of Advanced Management Research International, and currently a faculty member of EXNET, L.P. for whom he conducts national executive level education seminars throughout the United States and Canada. In the last twelve years, Dr. Morin has developed and conducted ongoing national seminars on "Utility Cost of Capital", "Alternative Regulatory Frameworks", and "Utility Capital Allocation" on behalf of EXNET and Public Utilities Reports, Inc.

Dr. Morin has authored several books, monographs, and articles in academic scientific journals on the subject of finance, some of which have appeared in a variety of journals, including *The Journal of Finance The Journal of Business Administration International Management Review* , and *Public Utilities Fortnightly*. He has published a widely used treatise on cost of capital entitled *Utilities' Cost of Capital*(1984). Dr. Morin has engaged in extensive consulting activities on behalf of numerous corporations and legal firms in matters of finance management and corporate litigation. He has served as a financial consultant and expert witness on behalf of both companies and regulatory commissions before numerous federal and provincial/state regulatory boards in both Canada and the U.S., including the Federal Energy Regulatory Commission, the Federal Communications Commission, the Canadian Radio Television and Telecommunications Commission, and the National Energy Board of Canada.

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of the list or the most desirable investment. The best investment in this context is the combination of the lowest risk and highest return available within the risk class.

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

Q. How does the current market environment for common stock impact investor thinking?

A. Many investors were badly hurt by the bear market of the past two years. While the market has begun to improve, investors are uncertain if that improvement is a "false start" or the beginning of a new and improved market environment. In either case, many investors remain on the side line and are waiting to see if the current market improvement is for real. These investors must be attracted back to the market. Other investors, many of whom are now actively investing, are still concerned and jittery and ready to leave the market for individual securities almost on a moment's notice.

Q. Has the bear market affected the public utility industry?

A. The public utility industry has had its own set of problems associated with "deregulation" and diversification. Generally, the diversification efforts of the utility industry can be considered a failure. Very few companies confined

their diversification efforts to areas where the management of the companies had expertise and were successful. This set of circumstances has caused all utilities, whether or not they were successful or tended to business, to be "suspect" because of the actions of a few.

Q. What are the implications for MGE?

A. At a minimum, to be an attractive investment alternative and to have access to the capital needed to meet customer demands, it is necessary for MGE to have risk-return characteristics ranking among the investment grade choices within the appropriate risk category. That risk is utility distribution risk plus or minus the specific risk effects of the MGE operations.

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

A. Yes, it does. Changes in risk levels are usually precipitated by the overall increase or decrease in riskiness in the industry or specific changes in the company or its operations, a change in the company's equity ratio, or some other specific change such as ill-advised diversification into non-regulated activities.

External change such as the emergence of inflation also changes risk levels but these changes are either industry-wide or across the entire economy. In my opinion, current events in the utility and the energy markets are risk increasing for gas distribution companies.

Q. What events in utility industry and in energy markets are risk increasing for gas distribution companies?

A. Anything which causes the public perception of utilities to erode tends to be risk increasing. In the recent past, some utilities have been involved in unsuccessful diversifications into non-regulated activities, a number of energy market scandals, and most recently a mechanical failure which caused wide-spread blackouts across the northeast United States. These events have caused both outrage by investors and concern by consumers, and are genuinely risk increasing to all utilities.

Insofar as energy markets themselves are concerned, there is a wide-spread, popular opinion that there is a shortage of energy, particular fossil fuels such as oil and natural gas, and that increases in the price of gasoline reflect some combination of gouging and shortage and increases in the price of natural gas reflect some level of shortage. These perceptions, whether real or imagined, are risk increasing for energy companies, including natural gas distribution companies.

Q. Has Southern Union been involved in either questionable energy trading practices or unsuccessful diversification into non-regulated activities?

A. No. Southern Union has not been involved in or accused of any improprieties in any way. Furthermore, Southern Union has not been involved in any unsuccessful diversification efforts into non-regulated activities.

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

A. Yes they do. As I indicated, investors tend to focus on a specific area of the risk spectrum. However, from time to time, the opportunities, promises and potential rewards of investing in higher risk areas sometimes become so great that even conservative investors move into high-risk categories. Conversely, fear of losses causes investors to become more risk adverse. I should point out, however, that this type of movement is generally confined to individual investors as large institutional investors tend to stay fully invested using a specific style and risk profile for long periods of time.

Determination of the Components of Capital and Their Costs

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

A. Different types of capital have different costs. Using the right blend of capital will attract the needed capital at the most reasonable overall cost.

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

A. Because the terms and conditions of the investment for each of the different types of capital make the risk for each type of capital different. For example, the lowest cost, lowest risk permanent capital is long-term debt. It is the lowest cost, lowest risk because it has a fixed level of annual income, first claim on income each year, substantial remedies if the interest is not paid when due, and first claim on assets in the event of a wind-up of the

enterprise. The capital commitment is also for a fixed term with full repayment promised at the end of the term. Finally, almost none of the risk of the business is carried by the debt capital but rather concentrated in the equity investment. Thus, the equity investment directly impacts the risk of the debt investment.

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

A. Business risk such as changes in demand and changes in weather cause net operating income or earnings for all capital to vary from year to year and sometimes to drop significantly. Regardless of the actual net operating income of the business during the year, the debt portion of the capital structure normally receives its interest payment. Consequently, all of the impact of the shortfall is absorbed by the equity investor. This means that the business activities of a company which translate into changes in earnings do not impact the debt investment which helps to support the utility assets. This means all of the risk of a company - short of extreme jeopardy - are borne by equity investors.

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

A. All capital costs are determined by measuring investor requirements. There are differences, however, in the methods used to measure investor requirements. The cost of debt is usually set for the term of the issue when the

borrowing agreement is made. This makes the cost of debt determination a matter of calculation.

The cost of equity is quite different. The cost of equity is not a contractual cost. It is an expectational cost. Investors have expectations concerning risk and return and develop "capital cost" estimates on the basis of those expectations. These capital cost estimates are then used as the basis for investments. Although these expectations change from time to time, the cost of capital can be estimated by evaluating the current actions of investors and evaluating the costs of the similar alternatives. This is done to determine current investor expectations and return requirements.

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

A. MGE uses debt and equity capital to permanently finance facilities. The cost of each type of capital is different. It is the weighted average cost of all types of permanent capital used which must be determined. As a result, the first step is to determine the capital structure or mix of capital used to finance the facilities. The next step is to determine the cost of each type of capital. The final step is to calculate the average cost of the total capital employed.

Capital Structure

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

A. I have calculated the rate of return using the pro-forma June 30, 2003 Southern Union capital structure exclusive of Panhandle Eastern Pipe Line. The structure consists of 46.13% long-term debt, 10.53% preferred equity securities, and 43.34% common equity.

Q. What pro-forma adjustments did you make to the capital structure?

A. The Company has refinanced its 9.925% preferred stock with a new series of preferred stock at 7.75%. I removed the existing 9.925% preferred stock from the capital structure and replaced it with the new 7.75% issue. I also reduced the amount of the term loan by $130 Million, the amount of the new preferred issue used to reduce that term loan.

Q. What was the effect of this transaction or series of pro-forma adjustments on the equity ratio?

A. It had only a *de-minimus* impact on the ratio reducing it by 6 basis points.

Q. Why did you exclude Panhandle Eastern Pipeline ("Panhandle") from the capital structure you used?

A. Panhandle operates a line of business separate from the distribution operations of Southern Union, in the form of a separate corporation with

separately issued and rated debt securities. Therefore, it would not be appropriate to include Panhandle in developing a cost of capital for MGE. My recommendation is independent of Panhandle and the acquisition of that entity by Southern Union.

Q. In this regard, has there been any impact on the cost of capital for MGE resulting from the Panhandle acquisition?

A. Not to my knowledge. Furthermore, consistent with my approach, my analysis separated or insulated the MGE activities from Panhandle so there could be no impact on MGE's cost of capital in any event. My work focused completely on MGE and does not consider factors associated with the Panhandle transaction. In other words, the requested cost of capital for MGE in this case is based on factors which ignore the Panhandle transaction.

Q. Did you test the reasonableness of the capital structure you used?

A. Yes I did. I tested it by examining the capital structures of my proxy companies as compared to my pro-forma capital structure.

Q. Please explain your analysis.

A. For my determination of the cost of common equity, I have selected a group of natural gas distribution companies followed by the Value Line Investment Service. These companies are essentially non-diversified natural gas distribution companies and an analysis of these companies to determine the appropriateness of the capital structure of Southern Union or the cost of

common equity for MGE is usually called either a proxy analysis or a "pure play" analysis. Proxy analysis is a standard technique of financial analysis. In such an analysis, a group of companies, the activities of which are confined as nearly as possible to a single line of business, is analyzed to determine the operational and financial characteristics associated with that line of business, i.e. the capital structure, the appropriate capital ratios, and the return realized and required. This type of analysis is very similar to the "comparative company" analysis used in many regulatory reviews.

Q. Please describe your proxy analysis.

A. As I indicated, I selected a group of natural gas distribution companies. I intended to use that group, first to establish an appropriate equity ratio, and second to determine the cost of common equity. The group of utilities were selected natural gas distribution companies selected from the Value Line Investment Survey.

Q. What is the Value Line Investment Survey?

A. The Value Line Investment Survey is a respected and authoritative source of financial, operating and security price statistics for publicly traded companies. The Survey, published weekly, covers ninety-five industry groups. It is widely used by investors, security analysts, and financial analysts in developing factual analyses of publicly traded companies. Data from the survey has been adopted by this Commission in many cases.

Q. Please describe how you selected the companies which you used to determine the natural gas distribution utility benchmark return requirement.

A. I approached my selection process with the intention of using all of the companies in the Value Line Investment Service which were classified as "natural gas distribution companies." There are eighteen such companies in the Value Line Investment Service. I reviewed each of the companies and eliminated three. The first company eliminated was Southern Union because it is the entity under consideration in this proceeding. I also eliminated Energen because its prospects were so outstanding and because its activities are so different in many respects from a typical gas distribution company because of its natural gas production business. Finally, I eliminated SEMCO because of uncertainty about the company's finances and abnormal fluctuation in the dividend yield caused by changes and expectation of change in the dividend payout.

This process left me with fifteen companies which is the entire remainder of the Value Line natural gas distribution group.

Q. Please describe the characteristics of your proxy group of fifteen companies.

A. The proxy companies constitute a reasonably homogenous group of natural gas distribution companies. The companies reflect the characteristics of reasonably sized, publicly traded, well known companies which can be used as the basis of an analysis to determine the required return on common

equity for a similar non-traded natural gas distribution company such as MGE.

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

A. The average equity ratio of the group from Schedule JCD-2, is 46.6% taken from Value Line Investment Survey dated September 19, 2003. I also examined the average equity ratio of the group for the period 1993 through 2002. This data is also taken from the Value Line Investment Survey dated September 19, 2003, and is reproduced on Schedule JCD-3.

Q. What is Schedule JCD-2?

A. Schedule JCD-2 is an analysis of the revenue, customer account, debt ratio and equity ratio of each of the companies in the proxy group. The data for the companies is taken from the Value Line Investment Survey dated September 19, 2003.

Q. What is Schedule JCD-3?

A. Schedule JCD-3 is an analysis of the equity ratio reported by Value Line for each of the companies in the proxy group for each of the years 1993 through 2002.

Q. What does the ten year study show?

A. The average equity ratio for the group has been decreasing somewhat through time. In part, because of a significant change to the equity ratio of UGI Corp. in 1994-1995. For the entire period the equity ratio has varied

between 46% and 50% and, at the present time is at the lowest level of the 10-year period.

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

A. Yes, for two reasons. First, the proxy group represents a subset of the gas distribution business which is somewhat comparable to MGE. To be truly comparable, MGE should have capital ratios similar to its industry subset.

Second, there are two major kinds of risks associated with an equity investment --financial risk and business risk. Since MGE is comparable but not identical to the proxy group, it is necessary to use the proxy group to establish a benchmark return for the industry subset and then adjust that return to the risk profile of MGE. Since the capital ratios of MGE are lower than the proxy group, the total adjustment necessary from the benchmark to the specifics of MGE will be larger by virtue of the fact that there is a meaningful difference in financial risk between MGE and the proxy group.

Q. As I understand what you just said, are you implying that a hypothetical capital structure equal to the industry average might be the best solution?

A. Yes, to the extent that a subject company's capital structure differs from the industry average capital structure or the group of companies used in determining the return on equity for an individual company, an adjustment is necessary. The larger the difference, the larger the adjustment. If the capital

structure is made to equal the industry average capital structure, then no adjustment is necessary for financial risk.

Q. Would this be the use of a hypothetical capital structure equal to the industry average?

A. Yes, it would be.

Q. Would the use of such a capital structure be consistent with the appropriate theory of regulatory rate determination?

A. It would. The basic presumption of the regulatory process is that it will, through time, produce results similar to the competitive market place. In a competitive market place, all producers assuming the same level of operational efficiency and capital productivity will produce the same percentage of revenue to net operating income. In other words, their rate of return will be the same. This means that to the extent the capital structure varies for a competitive company from the average, a difference will be realized in return on equity. This exactly complies with the theory of finance and our current understanding of financial risk.

Q. What does that mean in the regulatory context?

A. To the extent that a company which is regulated has a lower equity ratio than typical for its type of company, it must earn a higher equity return. To the extent that it has a higher equity ratio, it should earn a lower return on

equity. In all cases, the company would earn the same rate of return as other comparable companies in the industry.

Q. Are there modifications to this which are necessary for the regulatory model?

A. Yes. As a matter of fairness, the regulatory model needs to be modified to reflect the fact that companies' financing requirements which follow their growth requirements occur at different points in time and hence companies have different capital costs based primarily on the cost incurred for long-term debt. That, however, is a matter of calculation and the use of a different cost of long-term debt in determining the rate of return does not affect the calculation or adjustment to the cost of common equity based upon the difference in financial risk between a subject company and an industry average equity ratio.

This discussion notwithstanding, I cannot emphasize enough the importance of an appropriate risk adjustment to reflect the financial risk of MGE which is higher than the financial risk of the comparative companies or proxy group. MGE has a lower equity ratio and consequently deserves a higher return on equity. If it is decided that such an adjustment is not appropriate, then the only proper and appropriate methodology which remains is to adjust the capital ratios so that the equity ratio of MGE for rate-making purposes equals the industry equity ratio.

Cost of Long Term Debt

Q. What is the cost of MGE's long term debt?

A. The MGE cost of long term debt for the test year is 7.348%. The cost of long term debt is based on Southern Union debt costs for the distribution operations.

Cost of Common Equity

Q. What procedure did you use to calculate the cost of common equity for MGE for purposes of this case?

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

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

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

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

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

The Theory of the DCF Model

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

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

The model can be understood by considering the procedure for valuing a stream of payments. Under certain circumstances, the value of a stream of payments can be determined by dividing the stream of payments by a required return or discount factor. For example, if the stream of payments is $10 per year and the required return or discount rate is 10

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

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

$$\text{or Value} = \frac{\text{Return}}{\text{Discount Rate}}$$

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

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

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

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

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

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

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

Where:

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

Finally, the formula is adjusted to incorporate the effect of flotation (new issuance) cost and pre-offering pressure into the analysis. This is accomplished by increasing the dividend yield component of the return by one minus the flotation expense or:

$$K = \frac{D_1}{P_o (1 - f)} + g$$

Where:

f=Cost of issuance and pre-offering pressure

Impact of Industry Change on the DCF Analysis

Q. Will dividends play their prior prominent role in the DCF model as the natural gas distribution utility industry changes?

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

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

A. Historically, utilities paid out a large portion of earnings in the form of dividends and, to meet capital requirements, issued new capital on a very frequent basis. However, primarily in response to competition, investor demands and increased tax awareness, gas distribution utilities have stated, and analysts have begun to assume, that dividend growth will be lower in the future so that companies can retain more of their earnings and consequently grow more rapidly with fewer new issues of debt and equity. One such example of analysts assuming the existence of this trend and its impact is contained in the March 24, 2000 discussion of the natural gas distribution industry in the Value Line Investment Service, which states that: "Cautious management will probably maintain slow dividend growth of 1 to 3% per year to bring the corporate payout ratio below 70%."

Q. Is there evidence which demonstrates that the pattern of increasing dividends for the natural gas distribution industry has changed?

A. Yes. As we will see as we analyze the growth and dividends, earnings and book value over different periods of time, the growth in the dividend has declined through time and has been replaced by greater growth in earnings. I believe the evidence which we will review is conclusive and leaves little doubt as to the specific approach which has been employed with respect to growth in natural gas distribution company dividends.

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

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

Q. There has been a recent change in the tax rate on dividends. It has been said that this is very advantageous to individual investors. Will this change the policy of utilities with respect to increases in the dividend?

A. It may, but I expect that any change would not be significant nor would it be reflected in the very near future.

Q. Why?

A. Utilities already pay a substantial portion of their earnings to investors in the form of dividends. Certainly utilities have recognized the fact that the payment of extraordinarily high dividends is not financially healthy. Consequently, I doubt if any utility management or board of directors would want to return to the extremely high payout procedures of the past. However, it may well be when the dividend payout ratio of utilities is reduced to more normal levels as compared to other companies, that growth in dividends at a somewhat higher rate will be resumed. Reflecting such a change in future calculations of the cost of capital using the discounted cash flow model should not be a problem.

Q. Has there been consolidation and mergers in the natural gas distribution business?

A. Yes. There has been a substantial amount of merger activity in the natural gas distribution industry. At year end 1998, the Value Line natural gas distribution industry contained thirty-three companies. In September, 2000, the number was down to twenty-one and today it is eighteen.

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

A. Market changes and changes in the natural gas distribution industry require a more critical approach to analysis. As a result, the use of historic data must be carefully evaluated simply because the future will be different than the past. This means that while historic data must be used in the calculations, it cannot be used uncritically. Furthermore, judgment must supplement the traditional use of historic data. I will supplement the historic data with an analysis of earnings forecasts.

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

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

Determination of Growth Rate

Q. Please describe your determination of the growth rate.

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

Schedule JCD-4 is an analysis of the five and ten year growth in earnings, dividends and book value for the 15 company proxy group. The analysis includes a detail of the growth rate for each of the companies in each of the three variables for both of the time periods. The data is taken from the Value Line Investment Survey dated September 19, 2003.

For the five and ten year periods, the average growth rates for the comparative group of natural gas distribution utilities are as follows:

MGE
Proxy Gas Utilities
Growth Rate Analysis

	Growth Rate	
	Ten Year	Five Year
Earnings per share	4.37%	7.18%
Dividends per share	2.23	2.46
Book value per share	3.46	3.36

This array of growth rates represents the historic pattern of growth for each of the variables for all of the companies in the study. The data for the five year

term is distinctly different from the ten year data. The earnings growth rate has increased significantly.

Q. Does this pattern of 5 and 10 year growth rates reveal the difference in dividend growth and earnings growth?

A. This pattern reveals the fact that earnings growth is much more rapid than dividend growth for the 5-year period than for the 10-year period, and that earnings growth is increasing through time. Dividends growth is about the same for the 5 and 10-year periods.

If a similar analysis was performed using older data, it would be obvious that the dividend per share growth was higher in the past than it is currently.

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

A. Historically, utility investors were primarily interested in dividends. In the future, this will change to emphasis on growth in the value of stock which today is driven by growth in earnings. Growth in dividends is driven by growth in earnings, but growth in value is also driven by growth in earnings. In this context, growth in value is the same as growth in share price and today it is most directly related to growth in earnings. In the past, this suggested, other things being equal, that all three variables must move in tandem over the long term. Now dividend growth will be replaced by earnings growth as the stock price driver, as is the case for many if not most non-utility companies.

This means that in the future, all variables will not move in tandem to the same extent as in the past. Accordingly, a simple average of growth rates is no longer appropriate since investors will focus on growth in earnings.

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

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

Q. Please explain in somewhat more detail how an investor would approach this problem of selecting a security?

A. An investor would likely perform an analysis similar to that contained on Schedule JCD-4 and the other analyses which will follow. However, the investor would only use that particular analysis to establish an industry

standard. From within that industry group, the investor would make an effort to select the best possible investment from the group.

Of course, this may not apply to institutional investors which would likely take a position within a group which would encompass some investment in virtually every member of the group except for what would likely be the poorest performers in the group.

Q. Did you do any further growth rate analysis of the group?

A. Yes, I did. I examined the Value Line forecast growth of earnings, dividends and book value for each of the companies in the proxy group. The results of that analysis are contained on Schedule JCD-5, which details the forecast earnings, dividend and book value growth for each of the companies as forecast by Value Line in the Value Line Investment Survey dated September 19, 2003.

Q. How does this forecast growth compare to the historic growth?

A. The forecast growth in earnings is about the same as the 5-year historic growth and earnings. The 5-year historic growth and earnings is 7.18% and the forecast growth is 6.93%.

The dividend growth is somewhat different. The historic 5-year dividend growth is 2.46% and the forecast 5-year dividend growth is 1.85%. Book value growth is also somewhat different, with Value Line expecting an increase in the book value growth rate. This is a logical consequence of the

higher level of earnings growth coupled with the lower level of dividend growth.

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

A. I examined the growth in earnings, dividends and book value per share for each of the companies for the period 1993 to 2002. Schedule JCD-6 contains an analysis of the earnings per share by each of the companies for each of the years from 1993 to 2002, and the calculation of an average of the one-year growth rates for the period 1993 to 2002.

Schedule JCD-7 is a parallel analysis of growth in dividends for the comparative companies. Schedule JCD-8 contains the same type of analysis of book value per share for the proxy companies.

The calculation used in Schedules JCD-5, JCD-6 and JCD-7 is an additional method (in addition to the calculation used in Schedule JCD-3 which is the Value Line method) to eliminate the effect of single year influences by averaging the results of each growth pair in the period to determine the period average.

Q. Have you considered any other growth rate data?

A. Yes I did. I examined analyst's opinions and reported estimates of future growth for individual companies accumulated by Thomson Financial Network. Many investors use such forecasts and they are widely distributed

on news programming concerning the stock market. The Thomson report accumulates growth and earnings forecasts from independent investment analysts based on the analysts review of individual companies and individual industries.

For the individual companies in my proxy analysis, the expected growth ranges from a low of 2% to a high of 6%. The individual estimates have been made by several analysts. The long term growth forecasts for the individual companies are as follows:

Thomson Financial
Expected Growth Rate
Next Five Years

Company	Average Expected Growth
AGL Resources	5.5%
Atmos Energy	6.0
Cascade Natural	4.0
Keyspan	6.0
Laclede Gas	4.0
New Jersey Resources	6.5
NICOR	4.5
Northwest Natural	5.0
NUI	2.0
Peoples	5.0
Piedmont	5.0
South Jersey	4.0
Southwest Gas	5.5
UGI Corp.	6.0
WGL Holdings	4.0
Average	4.9%

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

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

Forecast earnings growth is comparable to the five year (higher) rate by the Value Line forecast. The analyst growth forecast at 4.9% is the lowest rate. The analysis growth forecast for the industry is 6.4%.

In contrast to the increasing growth in earnings, the rate of growth in dividends is slowing. This is to be expected in light of the dividend policy which has been enunciated by managements and repeated by analysts and which states that dividends will be increased more slowly in the future than in the past. This leads to an increase in retained earnings and an acceleration in earnings growth. In this case, the facts and data actually correspond to the policy statements and analysts' comments on the industry.

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

A. Based on the fact that the rates of growth are trending up and some forecasts are for much higher growth in earnings, I believe a reasonable investor growth expectation for a smaller natural gas distribution company such as MGE is at least 6%, particularly in light of the fact that MGE has been

under-performing earnings- wise over the past decade. This is lower than the industry forecast rate by Value Line, and lower than the last five year growth.

Q. You said for a smaller company. Is MGE a small company as compared to the proxy group?

A. Yes. MGE's gas sales revenues for fiscal year end June 30, 2003 were $495.0 Million. The average proxy group revenue reported by Value Line was $1.45 Billion as shown on Schedule JCD-2.

Determination of Dividend Yield

Q. Please describe your analysis of dividend yield.

A. The first step in my analysis of dividend yield is contained on Schedule JCD-5. This schedule details the actual dividends paid by each of the 11 proxy companies for the years 1993 through 2002.

This information shows consistency of payment for the group although some of the companies in some of the years modified (i.e., reduced) dividend payments. It also reveals steady growth in the dividends of the proxy group for the period 1995 to 2002.

The next step in the dividend yield analysis is a review of the historic dividend yield calculated from Reuters News Service and the forecasted dividend yield from the Value Line Investment Survey. The data for that analysis is contained on Schedule JCD-10.

Q. Please describe the analysis which is contained on Schedule JCD-10.

A. Schedule JCD-10 contains a calculation of the dividend yield from the Value Line Investment Survey, at June 20, 2003 and at September 19, 2003. Schedule JCD-10 also contains the calculation of dividend yield made from data from Reuters on September 19, 2003.

The Reuters dividend yields are calculated by dividing the reported annualized dividend by the reported price. The dividend yield for each company as calculated by Value Line based upon the dividend currently being paid plus a Value Line estimated increase in the dividend based upon the historic pattern of dividend payments and dividend increases for that company.

Q. What are the results of this dividend yield analysis?

A. The primary result is the indication that dividend yield is increasing on a regular basis through time. The dividend yield array by date is as follows:

Value Line 6-20-03	4.51%
Value Line 9-19-03	4.55%
Reuters 9-19-03	4.51%

The dividend yield is fluctuating only slightly at 4.5%.

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

A. I have not. The older dividend yield data has little value in determining the current return on equity requirement. The effort in the DCF analysis is to determine a longer term or secular growth rate using historic data as a spring board. Current dividends and current dividend yields are combined with

that longer term growth rate to produce the current and upcoming cost of equity. Combining older dividend yields would mismatch the process and produce a cost of common equity for some other point in time. This is because the investor knows what they require for return and after determining the growth rate over which they have no control, they collectively move the stock price to produce a yield which, when combined with the stock price, meets their return requirements.

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

A. I concluded that the appropriate yield to include in my DCF calculation was 4.5 %. The current yield reflects the probability that additional returns are now expected by investors to be in the form of capital gains rather than taxable cash income. This is at the very bottom of the recent range of yields for the group.

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

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

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

Where:

D_o = Dividend current period
g = Growth rate
P_o = Price current period

In this calculation, the current dividend was traditionally multiplied times one plus all or a part of the historic growth rate and then divided by the current market price. This calculation assumes future growth in the dividend. Since the growth in dividend has been de-emphasized and replaced with growth in value, the traditional calculation is not as large as in the past. Nonetheless, there will be future growth in dividends and that future growth must be reflected in the calculation. As a result, I have used 2 percent to make this calculation in the DCF estimate of return on equity to reflect the increase in dividend that will take place during the first year of ownership.

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

A. The return on equity which is being established in a rate proceeding is first a return for the long term investor, not the day trader, and secondly, it is a return which looks forward for a reasonable period of time. Looking forward, an investor making a commitment today would assume that the components of return to be earned by that investment would include not only the current dividend paid in dollars but also any increase in that

dividend paid in dollars during the first year of ownership. To ignore reasonably certain increases in dividend which are expected by investors evaluating securities is simply to err and deliberately understate the return on equity requirement.

Q. Did you make this calculation?

A. Yes. The dividend yield in my calculation is 4.5%. This rate was adjusted 2 percent. This produced an expected dividend yield of 4.6 % (4.5% x 1.020%).

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

A. Flotation costs and price pressures result from the sale of equity. The effect should be reflected in the cost of common equity. Such an adjustment is frequently based on a study contained in Public Utilities Fortnightly by Borun and Malley which indicates the average flotation cost of the common stock issued is 5.5 percent. With this adjustment, the calculated dividend yield component of the cost of equity should be increased to 4.9% (4.6% ÷ 94.5%).

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

A. It is. I have been advised that Southern Union is committed to maintaining investment grade securities. To do so may require equity sales at some time in the future.

Q. Will MGE benefit directly from such an offering?

A. Yes it will.

Benchmark Cost of Common Equity

Q. Based upon your analysis of the dividend growth rate and your calculation of the dividend yield, what do you conclude is the discounted cash flow cost of common equity for the comparative group?

A. The calculated dividend yield is in the range of 4.5%. The adjusted dividend yield is 4.9%. My analysis of minimum growth indicates a growth rate of at least 6.0 %. The growth rate could be as high as 7.0%, approximately the five year historic average and the Value Line forecast.

Combining the dividend yield with the dividend growth rate indicates the discounted cash flow estimate for the bare bones cost of common equity is 10.9% for the proxy group. A higher level of return at 11.9% is also indicated. The range is calculated as follows:

	Proxy Companies Return on Equity Requirements	
Dividend yield	4.9%	4.9%
Growth	6.0	7.0
Total	10.9%	11.9%

Q. Do market conditions require consideration of any other factors?

A. Yes. The rates which will be established as a result of this procedure will go into effect sometime during 2004 and be effective for subsequent periods. It is very important that the rates be established anticipating the facts which will be in effect during the time that the rates will be in effect. It is reasonable

to anticipate that the cost of equity will be increasing from its current lower levels to higher levels during the period these rates will be in effect. This leads me to believe that a higher return than that indicated by the raw DCF calculation is appropriate because the probability of a worsening of equity market conditions for utilities (i.e. rising interest rates) increases each day.

Q. Based upon this analysis, what do you conclude is the equity cost for the proxy segment of the natural gas distribution company?

A. I believe that a realized return on equity in the range of 10.9% to 11.9% is the minimum level which would be appropriate to incorporate into a cost of service determination for the natural gas company which is equal in risk to the average of the group.

Q. How does the cost of equity which you have established for the proxy group compare to the historic returns on equity produced by the proxy group for the past 10 years?

A. Schedule JCD-9 is an analysis of the return on equity actually achieved by the proxy group for the period 1993 through 2002. For most of the years during that period of analysis, 7 out of 10, the proxy group produced an average return of over 11%. For two of the years, the proxy group produced an average return of over 12%. The return on equity which I have determined for the proxy group is toward the lower segment of the pattern of

returns produced by the group historically. The detail of this data is shown on Schedule JCD-9.

Recent Rate Decisions

Q. Are rate decisions regarding gas local distribution companies by other regulatory jurisdictions relevant to the Commission's responsibilities in this proceeding?

A. Yes. As a stock publicly traded on the New York Stock Exchange, Southern Union competes for capital in a national market. Consequently, the investment community is generally aware of authorized returns and make investment decisions, investment recommendations and financing transactions on the basis of this information, among other things.

Q. Do you have any information regarding returns authorized recently by state commissions for gas utilities?

A. Yes. The following chart shows summary information pertaining to rate decisions made each year since 1998:

Year	ROR	ROE	Common Equity as % of Cap. Structure
1998	9.436%	11.51%	49.50%
1999	8.86	10.66	49.06
2000	9.33	11.39	48.59
2001	8.51	10.95	43.96
2002	8.80	11.03	48.29
2003*	9.02	11.37	50.53

(*Year to Date)

Risk Adjustment for MGE

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

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

Q. How should that adjustment be made?

A. To make this risk adjustment, I examined the risk characteristics of MGE's natural gas distribution utility operations as compared to the proxy companies used in the DCF analysis. I also made calculations of statistical risk measures. I concluded, as a result, that MGE is significantly more risky than the average of the proxy group as the result of several factors including the smaller size of MGE, the regulatory risks experienced by MGE, and the significantly greater volatility of its earnings (at least in part as a result of greater financial risk). In reaching this conclusion, I was also influenced by the now substantial body of research on small company risk which states that all other things equal, small companies are more risky than larger companies.

MGE Specific Risk

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

A. MGE is significantly smaller than the average of the proxy group. The average revenue for companies in the proxy group is shown on Schedule

JCD-2. The companies average 983,131 customers, and an annual revenue of $1,448,780,000. MGE's Fiscal 2003 revenue is $495.0 Million.

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

A. Ibbotson & Associates is a major provider of market data which is widely used in corporate financial analysis, both within corporations and within the financial industry.

Beginning in 1995, Ibbotson Research, a division of Ibbotson & Associates, funded through grants, research on the capital asset pricing model and the use of beta. Beta is a dominant variable in the capital asset pricing model and is a measure of relative volatility. It is considered in this context an overall measure of risk. Those initial studies indicated stratification in the level of beta based on size.

Subsequently, Ibbotson Research funded additional research into the impact of size on the cost of capital. Several articles which are maintained on the Ibbotson & Associates web site report on this research. Among those articles are: Roger G. Ibbotson, Ph.D., Paul D. Kaplan, Ph.D., CFF and James D. Peterson, Ph.D., Estimates of Small Stock Betas Are Much Too Low, Published in Journal of Portfolio Management, Summer 1997; Michael Annin, CFA, FAMA-French and Small Company Cost of Equity Calculations, March 1997 Business Valuation Review; Michael Annin, CFA and Dominic

Falaschetti, CFA, Is There Still A Size Premium, published in Winter 1998 CPA Expert; Michael Annin, CFA and Dominic Falaschetti, CFA, Equity Risk Premium Still Produces Debate, January-February 1998 Issue of Valuation Strategies.

In addition to this research, there is a substantial body of research which appears in the Journal of Portfolio Management and, to a lesser extent, in the Financial Analyst Journal which supports the existence of a small company market premium, which means that small companies have a higher earnings level requirement than larger companies. All other things equal, this means that the smaller companies have more risk and a greater return requirement.

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

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

Q. What are the specific business risks faced by MGE in providing gas service to its service areas in the State of Missouri?

A. MGE experiences a full range of business or operating risks. First, there is a risk that sales will be different than the expected level and, thus, earnings will also be different. This could happen because of changes in business conditions, fluctuations in the number of ultimate customers, variations in ultimate customer usage patterns, price competition from other types of energy and changes in weather. These risk factors are embedded in the business and tend to be reflected in the patterns of income over long periods of time. For these factors, past can be reasonably considered prologue to the future.

Second, MGE makes investments in facilities which have extremely long book investment and useful lives. This exposes the related capital to a number of business cycles, changes in public policy, and the effects of long-term inflation. It also exposes the capital to the long run risk of technological innovation, changing customer requirements and changing demographics. From an investor's perspective, many things, both good and bad, can happen during the 15 to 30 year period that represents the useful life of many natural gas distribution assets. The problem here is magnified by the low depreciation rates authorized for MGE which will be discussed later.

Third, MGE needs large quantities of material, capital and labor to supply its services. This makes it vulnerable to inflation on operating expense, and to the availability and the price of labor, capital and material. Since the prices MGE charges its customers cannot be changed quickly, the impact of inflation and general price increases is first reflected as a decrease in earnings. Like other risks, MGE tends to be exposed to this complex of negative factors over long periods of time. In some time frames, labor will be scarce and inflation high. In others, labor abundant and inflation low and stable. So while these risks change through time they tend to always be present.

Another critical risk element for MGE is the fact that their substantial investment in facilities to serve customers is immobile. It is fixed in place and cannot be moved. On the other hand, a competitor, the propane industry, has moveable and mobile assets. The competitor also has price advantages from time to time and the ability to price freely so that it can compete on a different playing field than the one MGE must operate on. In addition to propane, there is also a pipeline bypass risk which continues.

Q. Aren't most of these risks common to the natural gas distribution business?

A. To a varying degree, yes. Each and every company in the natural gas business experiences these risks to a greater or lesser degree. The relative impact of these risks will be quantified in the statistical analysis which I intend

to perform to determine with precision the relative risk of MGE as compared to the relative level of risk of the proxy group.

Q. Are there any risks which are specific to MGE?

A. Yes. I have identified regulatory risks which are specific to MGE and which are not shared by other companies in this proxy group.

Q. What are those risks?

A. One risk arises because, as shown in the direct testimony of MGE witness Michael R. Noack, MGE's rates developed as a result of the rate making process have consistently produced actual earnings that fall short of MGE's authorized return.

Second, MGE's depreciation rates are substantially lower than the average depreciation rates employed by the comparative companies or proxy group of gas distribution companies. This results in artificially long regulatory lives for MGE's property and exposes investors to the distinct possibility that their capital may not be recovered as a result of the ordinary process of depreciation collected through a revenue requirement.

Statistical Risk Analysis

Q. How does the MGE risk compare to the proxy group risk based on a statistical analysis of risk?

A. MGE is significantly riskier than the proxy group.

Q. Please describe the statistical analysis of risk.

A. For a single investment opportunity, the appropriate measure of risk is the standard deviation which captures the effect of risk of one investment as compared to another. A standard deviation calculated on a series of historic returns measures the variability and dispersion of those returns about the average return. The greater the standard deviation, all other things equal, the higher the risk or the less predictable or certain the expected return assuming that the pattern of future returns will be similar to the pattern of past returns. This higher risk must be offset with an increase in return.

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

Missouri Gas Energy
Risk Measures
1995 - 1999

	Rate of Return 1995 - 1999	
	Standard Deviation	Coefficient of Variation
Natural gas distribution industry	.34	4.56%
MGE	1.09	18.92

Calculations of standard deviation of return dramatically indicate that MGE's risk was greater than the level of risk in the pure play industry group. In addition, MGE produced a lower than average return than the group during the five year period of the analysis.

Q. What is the coefficient of variation?

A. The coefficient of variation converts the standard deviation into a percentage statement. The standard deviation is stated in the units being measured. The coefficient of variation is the standard deviation divided by the average of the series. It relates the deviations to the average a percentage. In the case of MGE, the variation amounts to 10% of the average, whereas for the natural gas proxy group, the variation amounts to only 4.4% of the average. In other words, there is more than twice as much variation in the MGE return as in the proxy group return.

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

A. The proxy group current cost of common equity is in the range of 10.9% to 11.9%. As a practical matter, the return component in the cost of service should not under any circumstances be lower than this amount and for a typical company the authorization should be at the upper limit of the range. Given the greater risk of MGE's operations as compared to the industry group, a minimum return on equity of 12.0 percent is appropriate. A higher return above that level would also be appropriate and may be required as

economic events unfold and if inflation and increases in capital costs are greater than currently expected. In total, my 12% recommendation represents only a 10 basis point increase from the current top of the proxy group range. I believe that is a minimum adjustment and assumes that some of the regulatory risk will be moderated in this proceeding.

Calculation of Rate of Return

Q. Did you calculate a rate of return to use in the cost of service determination?

A. I did. Based upon the capital structure previously discussed, the cost of debt and my estimate of the appropriate return on equity at 12.0%, I calculated the overall rate of return using the MGE division test year capital structure. The calculations are shown on Schedule JCD-11.

Rate of Return Management Efficiency Adjustment

Q. Are there circumstances in this proceeding which you believe make an adjustment to rate of return for management efficiency appropriate?

A. Yes there are. The Commission has previously adjusted the return for MGE related to efficiency.

Q. What is that history?

A. In MGE's first two rate cases, Case Nos. GR-96-285 and GR-98-140, the Commission made specific reference to customer service performance in its return on equity findings. In Case No. GR-96-285, the Commission expressed grave reservations about service quality and adopted the low end of the

Staff's return on equity range. In Case No. GR-98-140, the Commission decided not to adopt an upward adjustment to return on equity for risk at least in part on account of its stated finding that MGE still provided less than satisfactory customer service. Because the Commission has used less than satisfactory customer service as a justification for awarding a lower than indicated return on equity, then symmetry, fairness and reasonableness require that the Commission also use high quality customer service as a justification for awarding a higher than indicated return on equity.

Achieving high quality customer service performance levels while maintaining reasonable rate levels is a clear indicator of management efficiency that the Commission has in the past rewarded with upward adjustment to the indicated return on equity. The propriety of such an adjustment has been recognized by the Courts and other Commissions, too. See, *Empire District Electric,* Case No. ER-83-42, 26 Mo.P.S.C. (N.S.) 58, 68-71 (1983). *See also Kansas City Power & Light Company,* Case No. ER-83-49, ER-83-72 and EO-82-65, 26 Mo. P.S.C. (N.S.) 104, 147-150 (1983).

Q. What size adjustment do you believe is appropriate?

A. I believe it is appropriate to make an adjustment in the amount of .25% as an addition to the rate of return. I also believe that the Commission should identify this management efficiency adjustment as such in its Order.

Q. Does that conclude your direct prefiled testimony at this time?

A. Yes sir, it does.

APPENDIX A

STATEMENT OF QUALIFICATIONS
OF
JOHN C. DUNN

Q. Please state your name.

A. John C. Dunn.

Q. What is your educational background?

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

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

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

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

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

A. I have published a statistical volume analyzing the gas distribution (both integrated and combinations) and gas transmission industries. This volume was published in early 1972. The volume was entitled, A Regulated Gas Utility Survey. Two other volumes, The Financial and Operating Analysis of Privately Owned Electric Utilities in the United States, 1961-1970, and The Inclusive Directory of Independent Operating Telephones, 1961-1970, were first published under my direction in 1971.

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

Treasury and the Internal Revenue Service and a presentation on "The Use and Conservation of Helium" to a committee of the Kansas State Senate.

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

I was a session chairman at the 1987 Western Economic Association International Conference and a panelist at the same conference. While attending the University of Missouri, I was awarded a fellowship and as a consequence participated in numerous research projects and papers of regional economic importance.

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

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

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

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

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

A. Yes. I have testified on economic matters, including rate of return determinations, value determinations and rate design before courts in several jurisdictions, utility regulatory agencies, both state and federal, and other regulatory bodies such as State Property Tax Boards. In particular, I have testified before the Federal Energy Regulatory Commission and its predecessor, the Federal Power Commission, the Interstate Commerce Commission and its successor on crude and product

pipeline rates, the Federal Energy Regulatory Commission; and the state regulatory commissions of Kansas, Missouri, Mississippi, Illinois, Iowa, Michigan, Oklahoma, Indiana, Texas, Arkansas, Nevada, Colorado, Georgia, South Carolina, Tennessee and Louisiana, among others. I have testified before Federal District Courts in Nebraska, Kansas and Oklahoma and courts in the states of Mississippi, Kansas, Nebraska and Missouri.

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

A. It does.

SCHEDULE JCD - 1

SOUTHERN UNION COMPANY
MISSOURI GAS ENERGY
PROXY GROUP

Line No.	DESCRIPTION	Schedule
	(a)	(b)
1	Comparative Company Profile	(2)
2	Proxy Group Equity Ratios	(3)
3	Growth Analysis, Five and Ten Year	(4)
4	Growth Analysis, Value Line Forecast	(5)
5	Earnings Per Share	(6)
6	Dividends Per Share	(7)
7	Book Value Per Share	(8)
8	Return on Equity	(9)
9	Dividend Yield	(10)
10	Recommended Rate of Return	(11)

SCHEDULE JCD - 2

SOUTHERN UNION COMPANY
MISSOURI GAS ENERGY
PROXY GROUP
COMPARATIVE COMPANY PROFILE

Line No.	COMPANY	REVENUE (000)	CUSTOMERS	DEBT RATIO	EQUITY RATIO
	(a)	(b)	(c)	(d)	(e)
1	AGL RESOURCES, INC.	$ 868,900	2,000,000	58.3%	41.7%
2	ATMOS ENERGY CORP	950,800	1,389,341	53.9%	46.1%
3	CASCADE NATURAL GAS	321,000	200,000	59.1%	40.9%
4	KEYSPAN CORP	5,970,700	2,500,000	63.3%	35.7%
5	LACLEDE GAS COMPANY	755,200	628,638	47.5%	52.3%
6	NEW JERSEY RESOURCES	1,830,800	439,000	50.6%	49.4%
7	NICOR INC	1,897,400	2,000,000	35.1%	64.5%
8	NORTHWEST NATURAL GAS	641,400	540,931	47.6%	51.5%
9	NUI CORP	556,500	385,000	52.6%	47.4%
10	PEOPLES ENERGY CORP	1,482,500	1,000,000	40.7%	59.3%
11	PIEDMONT NATURAL GAS	832,000	740,000	43.9%	56.1%
12	SOUTH JERSEY INDUSTRIES	505,100	298,767	53.6%	46.1%
13	SOUTHWEST GAS CORP	1,320,900	1,400,000	62.5%	34.1%
14	UGI CORP	2,213,700	286,000	77.0%	21.7%
15	WGL HOLDINGS INC	1,584,800	939,291	45.7%	52.4%
16	AVERAGE	$ 1,448,780	983,131	52.8%	46.6%

Source: Value Line Investment Survey, September 19, 2003

SCHEDULE JCD - 3

SOUTHERN UNION COMPANY
MISSOURI GAS ENERGY
PROXY GROUP
EQUITY RATIO

Line No.	COMPANY	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	AGL RESOURCES, INC.	53.1%	45.8%	47.6%	48.9%	45.9%	47.1%	49.2%	48.3%	38.7%	41.7%
2	ATMOS ENERGY CORP	56.7%	52.0%	54.7%	58.5%	51.9%	48.2%	50.0%	51.9%	45.7%	46.1%
3	CASCADE NATURAL GAS	47.3%	44.8%	45.0%	50.0%	46.5%	48.7%	46.6%	48.8%	49.3%	40.9%
4	KEYSPAN CORP	50.8%	52.2%	53.2%	55.6%	56.5%	59.4%	60.6%	39.2%	37.7%	35.7%
5	LACLEDE GAS COMPANY	53.1%	55.5%	59.3%	57.1%	61.6%	58.6%	57.8%	54.5%	50.2%	52.3%
6	NEW JERSEY RESOURCES	42.6%	42.0%	41.0%	45.8%	47.1%	45.6%	51.2%	52.9%	49.9%	49.4%
7	NICOR INC	59.7%	59.3%	59.0%	58.1%	57.2%	57.4%	64.0%	66.7%	61.7%	64.5%
8	NORTHWEST NATURAL GAS	45.0%	45.1%	50.3%	52.8%	49.0%	50.6%	49.9%	50.9%	53.2%	51.5%
9	NUI CORP	44.2%	45.2%	37.7%	42.7%	47.8%	48.4%	46.6%	48.5%	48.1%	47.4%
10	PEOPLES ENERGY CORP	54.3%	50.6%	50.8%	56.4%	57.6%	58.9%	59.6%	64.9%	55.6%	59.3%
11	PIEDMONT NATURAL GAS	50.6%	49.1%	49.6%	49.7%	52.4%	55.3%	53.8%	53.9%	52.4%	56.1%
12	SOUTH JERSEY INDUSTRIES	48.9%	49.9%	47.9%	53.2%	35.8%	33.5%	37.0%	37.6%	35.9%	46.1%
13	SOUTHWEST GAS CORP	35.0%	33.7%	34.8%	34.4%	31.5%	35.3%	35.5%	35.8%	39.6%	34.1%
14	UGI CORP	49.3%	51.6%	30.9%	30.0%	30.0%	28.7%	19.8%	19.1%	17.4%	21.7%
15	WGL HOLDINGS INC	54.9%	56.7%	58.9%	59.4%	56.2%	57.1%	56.1%	54.8%	56.3%	52.4%
16	AVERAGE	49.70%	48.90%	48.05%	50.19%	48.47%	48.85%	49.18%	48.52%	46.11%	46.61%

Source: Value Line Investment Survey, September 19, 2003

SCHEDULE JCD - 4

SOUTHERN UNION COMPANY
MISSOURI GAS ENERGY
PROXY GROUP
GROWTH ANALYSIS
FIVE AND TEN YEAR

Line No.	COMPANY	10 YEAR GROWTH			5 YEAR GROWTH		
		EARNINGS	DIVIDENDS	BK VALUE	EARNINGS	DIVIDENDS	BK VALUE
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	AGL RESOURCES, INC.	4.00%	0.50%	2.50%	2.50%	0.50%	2.50%
2	ATMOS ENERGY CORP	3.50%	4.00%	4.00%	-0.50%	4.00%	5.00%
3	CASCADE NATURAL GAS	3.00%	0.50%	2.00%	13.50% *	2.00%	1.50%
4	KEYSPAN CORP	4.00%	3.50%	4.00%	2.00%	4.50%	2.50%
5	LACLEDE GAS COMPANY	1.50%	1.00%	2.50%	-3.50%	1.00%	2.00%
6	NEW JERSEY RESOURCES	10.00%	1.50%	3.50%	7.00%	2.50%	5.00%
7	NICOR INC	4.00%	4.50%	3.50%	5.50%	5.00%	3.00%
8	NORTHWEST NATURAL GAS	5.50%	1.00%	4.00%	0.00%	1.00%	4.00%
9	NUI CORP	3.00%	-4.50%	3.50%	1.50%	1.50%	4.00%
10	PEOPLES ENERGY CORP	3.50%	2.00%	3.00%	3.00%	2.00%	3.00%
11	PIEDMONT NATURAL GAS	5.50%	5.50%	6.00%	3.50%	6.00%	5.50%
12	SOUTH JERSEY INDUSTRIES	5.00%	0.50%	2.00%	6.50%	0.50%	2.50%
13	SOUTHWEST GAS CORP	1.50%	-4.00%	0.00%	18.50% *	0.00%	2.00%
14	UGI CORP	8.50%	2.50%	-2.00%	15.50%	2.00%	-2.50%
15	WGL HOLDINGS INC	3.00%	2.00%	4.50%	-1.50%	2.00%	4.50%
16	AVERAGE	4.37%	2.23%	3.46%	7.18%	2.46%	3.36%

Average does not include negative percentages or zero

Source: Value Line Investment Survey, September 19, 2003

RF
BB
RB
TS
LS

SIGNATURE PAGE

STATE OF ~~MISSOURI~~ KANSAS)
) ss.
COUNTY OF ~~COLE~~ JOHNSON)

I, John Dunn, do hereby certify:

That I have read the foregoing deposition;

That I have made such changes in form and/or substance to the deposition as might be necessary to render the same true and correct;

That having made such changes thereon, I hereby subscribe my name to the deposition.

I declare under penalty of perjury that the foregoing is true and correct.

Executed the 1st day of June, 2004, at Overland Park, Kansas.

JOHN DUNN

Notary Public:
Bernadine K. Farley

My ~~Commission~~ Appointment expires:
October 20, 2005

NOTARY PUBLIC STATE OF KANSAS
BERNADINE K. FARLEY
My Appt. Exp. 10/20/05

ORIGINAL

KF/John Dunn
Re: MGE/Tariffs - GR-2004-0209

ERRATA SHEET

Witness: John Dunn
In Re: MGE - GR-2004-0209

Upon reading the deposition and before subscribing thereto, the deponent indicated the following changes should be made:

Page 26 Line 11 Should read: TRUNKLING
Reason assigned for change: TRUNKLING IS A COMPANY NAME
Page 29 Line 21 Should read: TRUNKLING
Reason assigned for change: SAME REASON

Page 34 Line 25 Should read: 7.863%
Reason assigned for change: memory refreshed
Page 46 Line 3 Should read: no way
Reason assigned for change: typo

Page 55 Line 18-21 Should read: Thompson financial
Reason assigned for change: original answer incorrect
Page 55 Line 22-24 Should read: no
Reason assigned for change: original answer incorrect

Page 62 Line 17 Should read: KANEB
Reason assigned for change: correction of error
Page 65 Line 12 Should read: KANEB
Reason assigned for change: correction of error

Page 71 Line 21 Should read: owned
Reason assigned for change: correct tense
Page 76 Line 25 Should read: denominator
Reason assigned for change: correct error

Page 130 Line 21 Should read: NARUC
Reason assigned for change: correct error
Page Line Should read:
Reason assigned for change:

Reporter: Kellene K. Feddersen, RPR, CSR, CCR

SCHEDULE JCD - 5

SOUTHERN UNION COMPANY
MISSOURI GAS ENERGY
PROXY GROUP
GROWTH ANALYSIS
VALUE LINE FORECAST

Line No.	COMPANY	FORECAST		
		EARNINGS	DIVIDENDS	BK VALUE
	(a)	(b)	(c)	(d)
1	AGL RESOURCES, INC.	8.00%	0.00%	6.00%
2	ATMOS ENERGY CORP	9.00%	2.00%	2.50%
3	CASCADE NATURAL GAS	4.50%	0.50%	5.00%
4	KEYSPAN CORP	7.50%	1.00%	5.00%
5	LACLEDE GAS COMPANY	5.50%	0.50%	3.00%
6	NEW JERSEY RESOURCES	8.50%	3.00%	11.00%
7	NICOR INC	3.00%	3.50%	4.00%
8	NORTHWEST NATURAL GAS	5.00%	1.00%	4.00%
9	NUI CORP	7.00%	0.50%	0.00%
10	PEOPLES ENERGY CORP	4.00%	1.50%	6.50%
11	PIEDMONT NATURAL GAS	7.50%	4.00%	5.50%
12	SOUTH JERSEY INDUSTRIES	5.50%	1.50%	7.00%
13	SOUTHWEST GAS CORP	9.50%	0.00%	4.50%
14	UGI CORP	12.50%	4.00%	17.00%
15	WGL HOLDINGS INC	7.00%	1.00%	3.00%
16	AVERAGE	6.93%	1.85%	6.00%

Average does not include negative percentages or zero

Source: Value Line Investment Survey, September 19, 2003

SCHEDULE JCD - 6

SOUTHERN UNION COMPANY
MISSOURI GAS ENERGY
PROXY GROUP
EARNINGS PER SHARE

Line No.	COMPANY	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	AVERAGE GROWTH
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
1	AGL RESOURCES, INC.	$ 1.08	$ 1.17	$ 1.33	$ 1.37	$ 1.37	$ 1.41	$ 0.91	$ 1.29	$ 1.50	$ 1.82	7.98%
2	ATMOS ENERGY CORP	1.19	0.97	1.22	1.51	1.34	1.84	0.81	1.03	1.47	1.45	7.74%
3	CASCADE NATURAL GAS	1.05	0.60	0.80	0.39	0.93	0.84	1.24	1.39	1.47	1.13	12.26%
4	KEYSPAN CORP	1.73	1.85	1.90	1.96	2.12	-1.34	1.62	2.10	1.72	2.75	-32.41%
5	LACLEDE GAS COMPANY	1.61	1.42	1.27	1.87	1.84	1.58	1.47	1.37	1.61	1.18	-1.53%
6	NEW JERSEY RESOURCES	1.15	1.26	1.29	1.37	1.48	1.55	1.66	1.79	1.95	2.09	6.88%
7	NICOR INC	1.97	2.07	1.96	2.42	2.55	2.31	2.57	2.94	3.01	2.88	4.77%
8	NORTHWEST NATURAL GAS	1.74	1.63	1.61	1.97	1.76	1.02	1.70	1.79	1.88	1.62	2.81%
9	NUI CORP	1.70	1.25	1.21	1.52	1.75	1.45	1.75	2.07	1.70	1.08	-2.38%
10	PEOPLES ENERGY CORP	2.11	2.13	1.78	2.96	2.81	2.25	2.39	2.71	3.16	2.80	5.63%
11	PIEDMONT NATURAL GAS	1.45	1.35	1.45	1.67	1.85	1.96	1.86	2.01	2.02	1.89	3.27%
12	SOUTH JERSEY INDUSTRIES	1.55	1.21	1.65	1.70	1.71	1.28	2.01	2.16	2.29	2.43	7.73%
13	SOUTHWEST GAS CORP	0.63	1.22	0.10	0.25	0.77	1.65	1.27	1.21	1.15	1.16	49.14%
14	UGI CORP	0.28	0.78	0.40	0.70	0.97	0.81	0.89	1.06	1.40	1.80	35.17%
15	WGL HOLDINGS INC	1.31	1.42	1.45	1.85	1.85	1.54	1.47	1.79	1.88	1.14	0.47%
16	AVERAGE	$ 1.37	$ 1.36	$ 1.29	$ 1.57	$ 1.67	$ 1.54	$ 1.57	$ 1.78	$ 1.88	$ 1.81	11.99%

Average does not include negative percentages or zero

Source: Value Line Investment Survey, September 19, 2003

SCHEDULE JCD - 7

SOUTHERN UNION COMPANY
MISSOURI GAS ENERGY
PROXY GROUP
DIVIDENDS PER SHARE

Line No.	COMPANY	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	AVERAGE GROWTH
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
1	AGL RESOURCES, INC.	$ 1.04	$ 1.04	$ 1.04	$ 1.06	$ 1.08	$ 1.08	$ 1.08	$ 1.08	$ 1.08	$ 1.08	0.42%
2	ATMOS ENERGY CORP	0.86	0.88	0.92	0.96	1.01	1.06	1.10	1.14	1.16	1.18	3.59%
3	CASCADE NATURAL GAS	0.94	0.96	0.96	0.72	0.96	0.96	0.96	0.96	0.96	0.96	1.16%
4	KEYSPAN CORP	1.32	1.35	1.39	1.42	1.46	1.50	1.78	1.78	1.78	1.78	3.51%
5	LACLEDE GAS COMPANY	1.22	1.22	1.24	1.26	1.30	1.32	1.34	1.34	1.34	1.34	1.05%
6	NEW JERSEY RESOURCES	1.01	1.01	1.01	1.03	1.07	1.09	1.12	1.15	1.17	1.20	1.94%
7	NICOR INC	1.22	1.25	1.28	1.32	1.40	1.48	1.54	1.66	1.76	1.84	4.69%
8	NORTHWEST NATURAL GAS	1.17	1.17	1.18	1.20	1.21	1.22	1.23	1.24	1.25	1.26	0.83%
9	NUI CORP	1.60	1.60	0.90	0.90	0.94	0.98	0.98	0.98	0.98	0.98	-3.89%
10	PEOPLES ENERGY CORP	1.78	1.80	1.80	1.82	1.87	1.91	1.95	2.00	2.03	2.07	1.69%
11	PIEDMONT NATURAL GAS	0.95	1.01	1.09	1.15	1.21	1.28	1.36	1.44	1.52	1.60	5.97%
12	SOUTH JERSEY INDUSTRIES	1.43	1.44	1.44	1.44	1.44	1.44	1.44	1.46	1.48	1.51	0.61%
13	SOUTHWEST GAS CORP	0.74	0.80	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	1.18%
14	UGI CORP	0.66	0.91	0.93	0.94	0.95	0.97	0.98	1.02	1.05	1.08	6.14%
15	WGL HOLDINGS INC	1.09	1.11	1.12	1.14	1.17	1.20	1.22	1.24	1.26	1.27	1.71%
16	AVERAGE	$ 1.14	$ 1.17	$ 1.14	$ 1.15	$ 1.19	$ 1.22	$ 1.26	$ 1.29	$ 1.31	$ 1.33	2.46%

Average does not include negative percentages or zero

Source: Value Line Investment Survey, September 19, 2003

SCHEDULE JCD - 8

SOUTHERN UNION COMPANY
MISSOURI GAS ENERGY
PROXY GROUP
BOOK VALUE PER SHARE

Line No.	COMPANY	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	AVERAGE GROWTH
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
1	AGL RESOURCES, INC.	$ 9.90	$ 10.19	$ 10.12	$ 10.56	$ 10.99	$ 11.42	$ 11.59	$ 11.50	$ 12.19	$ 12.52	2.67%
2	ATMOS ENERGY CORP	9.64	9.78	10.20	10.75	11.04	12.21	12.09	12.28	14.31	13.75	4.18%
3	CASCADE NATURAL GAS	9.96	9.81	9.76	10.09	10.16	10.07	10.36	10.79	11.01	10.34	0.46%
4	KEYSPAN CORP	15.54	16.27	16.94	18.17	19.09	23.18	20.28	20.65	20.73	20.67	3.55%
5	LACLEDE GAS COMPANY	12.19	12.44	13.05	13.72	14.26	14.57	14.96	14.99	15.26	15.07	2.40%
6	NEW JERSEY RESOURCES	9.81	9.64	9.70	10.10	10.38	10.88	11.35	12.43	13.20	13.06	3.29%
7	NICOR INC	13.05	13.26	13.67	14.74	15.43	15.97	16.80	15.56	16.39	16.55	2.76%
8	NORTHWEST NATURAL GAS	13.08	13.63	14.55	15.37	16.02	16.59	17.12	17.93	18.56	18.88	4.17%
9	NUI CORP	14.92	15.59	15.31	16.16	17.56	17.59	18.61	19.79	21.29	18.03	2.39%
10	PEOPLES ENERGY CORP	18.02	18.39	18.38	19.49	20.43	21.03	21.66	22.02	22.76	22.74	2.64%
11	PIEDMONT NATURAL GAS	10.90	11.36	12.31	13.07	13.90	14.91	15.71	16.52	17.26	17.82	5.62%
12	SOUTH JERSEY INDUSTRIES	14.33	14.46	14.67	16.06	12.86	12.45	13.48	14.50	15.62	19.34	4.01%
13	SOUTHWEST GAS CORP	15.96	16.38	14.55	14.20	14.09	15.67	16.31	16.82	17.27	17.91	1.45%
14	UGI CORP	8.67	8.75	7.71	7.60	7.63	7.37	6.09	6.11	6.24	7.64	-0.88%
15	WGL HOLDINGS INC	11.04	11.51	11.95	12.79	13.48	13.86	14.72	15.31	16.24	15.78	4.09%
16	AVERAGE	$ 12.47	$ 12.76	$ 12.86	$ 13.52	$ 13.82	$ 14.52	$ 14.74	$ 15.15	$ 15.89	$ 16.01	3.12%

Average does not include negative percentages or zero

Source: Value Line Investment Survey, September 19, 2003

SCHEDULE JCD - 9

SOUTHERN UNION COMPANY
MISSOURI GAS ENERGY
PROXY GROUP
RETURN ON EQUITY

Line No.	COMPANY	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	AGL RESOURCES, INC.	10.8%	11.3%	12.5%	12.1%	11.3%	12.3%	7.9%	11.5%	12.3%	14.5%
2	ATMOS ENERGY CORP	12.3%	9.8%	11.9%	13.9%	12.0%	14.9%	6.6%	8.2%	9.6%	10.4%
3	CASCADE NATURAL GAS	9.7%	5.9%	8.1%	3.5%	9.1%	8.3%	12.0%	12.9%	13.3%	10.9%
4	KEYSPAN CORP	10.6%	11.2%	11.1%	10.7%	10.9%	NMF	8.2%	10.0%	8.2%	13.3%
5	LACLEDE GAS COMPANY	13.2%	11.3%	9.2%	13.6%	12.9%	10.8%	9.5%	9.1%	10.5%	7.8%
6	NEW JERSEY RESOURCES	11.5%	12.9%	13.1%	13.5%	14.3%	14.4%	14.8%	14.6%	14.9%	15.7%
7	NICOR INC	15.4%	15.9%	14.4%	16.6%	16.7%	14.6%	15.4%	19.2%	18.7%	17.5%
8	NORTHWEST NATURAL GAS	13.2%	11.8%	10.9%	12.7%	11.0%	6.0%	9.9%	10.0%	10.2%	8.5%
9	NUI CORP	11.3%	7.6%	7.9%	8.3%	9.0%	8.2%	9.4%	10.4%	7.8%	5.6%
10	PEOPLES ENERGY CORP	11.7%	11.6%	9.7%	15.2%	13.7%	10.7%	11.0%	12.4%	13.9%	12.3%
11	PIEDMONT NATURAL GAS	13.2%	11.8%	11.4%	12.6%	13.1%	13.2%	11.8%	12.1%	11.7%	10.6%
12	SOUTH JERSEY INDUSTRIES	10.5%	8.0%	11.2%	10.6%	13.3%	10.3%	14.6%	14.8%	12.8%	12.5%
13	SOUTHWEST GAS CORP	3.9%	7.4%	0.7%	1.7%	5.4%	10.0%	7.8%	7.2%	6.6%	6.5%
14	UGI CORP	3.1%	8.9%	5.2%	9.2%	12.9%	11.0%	17.2%	17.6%	22.5%	23.8%
15	WGL HOLDINGS INC	11.7%	12.2%	12.0%	14.4%	13.7%	11.1%	9.9%	11.7%	11.2%	7.2%
16	AVERAGE	10.81%	10.51%	9.95%	11.24%	11.95%	11.13%	11.07%	12.11%	12.28%	11.81%

Source: Value Line Investment Survey, September 19, 2003

SCHEDULE JCD - 10

SOUTHERN UNION COMPANY
MISSOURI GAS ENERGY
PROXY GROUP
DIVIDEND YIELD

Line No.	COMPANY	June 20, 2003 Value Line Yield	September 19, 2003 Value Line Yield	September 19, 2003 Reuters
	(a)	(b)	(c)	(d)
1	AGL RESOURCES, INC.	4.3%	4.0%	4.0%
2	ATMOS ENERGY CORP	4.8%	5.0%	5.0%
3	CASCADE NATURAL GAS	4.9%	5.0%	4.8%
4	KEYSPAN CORP	4.9%	5.2%	5.1%
5	LACLEDE GAS COMPANY	5.0%	4.9%	4.8%
6	NEW JERSEY RESOURCES	3.4%	3.4%	3.4%
7	NICOR INC	4.9%	5.3%	5.2%
8	NORTHWEST NATURAL GAS	4.5%	4.3%	4.3%
9	NUI CORP	6.2%	5.9%	5.9%
10	PEOPLES ENERGY CORP	4.7%	5.1%	5.0%
11	PIEDMONT NATURAL GAS	4.2%	4.2%	4.2%
12	SOUTH JERSEY INDUSTRIES	4.2%	4.0%	3.9%
13	SOUTHWEST GAS CORP	3.7%	3.6%	3.6%
14	UGI CORP.	3.3%	3.8%	3.8%
15	WGL HOLDINGS INC	4.6%	4.6%	4.7%
16	AVERAGE	4.51%	4.55%	4.51%

Source: Value Line Investment Survey, September 19, 2003
Reuters

SCHEDULE JCD - 11

SOUTHERN UNION COMPANY
MISSOURI GAS ENERGY
RECOMMENDED RATE OF RETURN
June 30, 2003

Line No.	Description	Amount		Cap Ratio	Cost Rate	Weighted Cost
	(a)	(b)		(c)	(d)	(e)
1	Long term debt	979,765,000	(a)	46.13%	7.348%	3.389%
2	Preferred securities	223,750,000		10.53%	7.863%	0.828%
3	Common equity	920,437,000		43.34%	12.000%	5.200%
4	Total	2,123,952,000		100.00%		9.417%

(a) - Does not include debt of Panhandle Eastern Pipe Line Company

Regulatory Research Associates, Inc
REGULATORY FOCUS

30 MONTGOMERY STREET JERSEY CITY, NEW JERSEY 07302 (201) 433-5507

Regulatory Study
April 5, 2004

MAJOR RATE CASE DECISIONS--JANUARY-MARCH 2004

For the first three months of 2004, the average electric equity return authorization by state commissions was 11% (three determinations), virtually identical to the 10.97% average in calendar-2003. The average gas equity return authorization for the first quarter of 2004 was 11.1% (four determinations), up slightly from the 10.99% average in calendar-2003. During the first quarter of 2004, there was one (10%) telecommunications equity return authorization.

In recent years there have been relatively few equity return determinations. The reasons include: industry restructuring/intensifying competition; more efficient utility operations; technological improvements; relatively low inflation and interest rates; accelerated depreciation/amortization programs; the increased utilization of "black box" settlements; and, the growing use of performance, or price-based, regulation. As the number of equity return determinations has declined, the average authorized return now has less of a relationship to the return that the typical electric, gas, or telecommunications company has an opportunity to earn. In addition, electric industry restructuring in many states has led to the unbundling of rates, with commissions authorizing return and revenue requirement parameters for distribution operations only, which further complicates data comparability. The tables included in this study are extensions of those contained in the January 22, 2004 Regulatory Study entitled *Major Rate Case Decisions--January 2002-December 2003--Supplemental Study*. Refer to that report for information concerning individual rate case decisions that were rendered in 2002 and 2003.

The table on page 2 shows annual average equity returns authorized since 1994, and by quarter since 1998, in major electric, gas, and telecommunications rate decisions, followed by the number of determinations during each period. The tables on page 3 present the composite industry data for items in the chronology of this and earlier reports, summarized annually since 1994, and quarterly for the most recent nine quarters. The individual electric, gas, and telecommunications cases decided in the first three months of 2004 are listed on page 4, with the decision date shown first, followed by the company name, the abbreviation for the state issuing the decision, the authorized rate of return (ROR), return on equity (ROE), and percentage of common equity in the adopted capital structure. Next we show the month and year in which the adopted test year ended, whether the commission utilized an average or a year-end rate base, and the amount of the permanent rate change authorized. The dollar amounts represent the permanent rate change ordered at the time decisions were rendered. A case is generally considered "major" if the rate change initially requested was $5 million or greater, or the authorized rate change was at least $3 million. Gas rate requests that are considered in conjunction with major electric requests are recorded and reported as individual cases, regardless of size.

Average Equity Returns Authorized January 1994 - March 2004

(Return Percent - No. of Observations)

	Period	Electric Utilities	Gas Utilities	Telephone Utilities
1994	Full Year	11.34 (31)	11.35 (28)	11.81 (11)
1995	Full Year	11.55 (33)	11.43 (16)	12.08 (8)
1996	Full Year	11.39 (22)	11.19 (20)	11.74 (4)
1997	Full Year	11.40 (11)	11.29 (13)	11.56 (5)
1998	1st Quarter	11.31 (4)	--- (0)	11.30 (1)
	2nd Quarter	12.20 (1)	11.37 (3)	--- (0)
	3rd Quarter	11.80 (2)	11.41 (3)	--- (0)
	4th Quarter	11.83 (3)	11.69 (4)	--- (0)
1998	Full Year	11.66 (10)	11.51 (10)	11.30 (1)
1999	1st Quarter	10.58 (4)	10.82 (3)	13.00 (1)
	2nd Quarter	10.94 (4)	10.82 (3)	--- (0)
	3rd Quarter	10.63 (8)	--- (0)	--- (0)
	4th Quarter	11.08 (4)	10.33 (3)	--- (0)
1999	Full Year	10.77 (20)	10.66 (9)	13.00 (1)
2000	1st Quarter	11.06 (5)	10.71 (1)	11.50 (1)
	2nd Quarter	11.11 (2)	11.08 (4)	--- (0)
	3rd Quarter	11.68 (2)	11.33 (5)	11.25 (1)
	4th Quarter	12.08 (3)	12.50 (2)	--- (0)
2000	Full Year	11.43 (12)	11.39 (12)	11.38 (2)
2001	1st Quarter	11.38 (2)	11.16 (4)	--- (0)
	2nd Quarter	10.88 (2)	10.75 (1)	--- (0)
	3rd Quarter	10.78 (8)	--- (0)	--- (0)
	4th Quarter	11.50 (6)	10.65 (2)	--- (0)
2001	Full Year	11.09 (18)	10.95 (7)	--- (0)
2002	1st Quarter	10.87 (5)	10.67 (3)	--- (0)
	2nd Quarter	11.41 (6)	11.64 (4)	--- (0)
	3rd Quarter	11.06 (4)	11.50 (3)	--- (0)
	4th Quarter	11.20 (7)	10.78 (11)	--- (0)
2002	Full Year	11.16 (22)	11.03 (21)	--- (0)
2003	1st Quarter	11.47 (7)	11.38 (5)	--- (0)
	2nd Quarter	11.16 (4)	11.36 (4)	--- (0)
	3rd Quarter	9.95 (5)	10.61 (5)	--- (0)
	4th Quarter	11.09 (6)	10.84 (11)	--- (0)
2003	Full Year	10.97 (22)	10.99 (25)	--- (0)
2004	1st Quarter	11.00 (3)	11.10 (4)	10.00 (1)

Electric Utilities--Summary Table*

	Period	ROR %	ROE %	Eq. as % Cap. Struc.	Amt. $ Mil.
1994	Full Year	9.29 (30)	11.34 (31)	45.15 (30)	1,116.9 (40)
1995	Full Year	9.44 (30)	11.55 (33)	45.90 (30)	455.7 (43)
1996	Full Year	9.21 (20)	11.39 (22)	44.34 (20)	-5.6 (38)
1997	Full Year	9.16 (12)	11.40 (11)	48.79 (11)	-553.3 (33)
1998	Full Year	9.44 (9)	11.66 (10)	46.14 (8)	-429.3 (31)
1999	Full Year	8.81 (18)	10.77 (20)	45.08 (17)	-1,683.8 (30)
2000	Full Year	9.20 (12)	11.43 (12)	48.85 (12)	-291.4 (34)
2001	Full Year	8.93 (15)	11.09 (18)	47.20 (13)	14.2 (21)
2002	1st Quarter	8.51 (5)	10.87 (5)	46.15 (4)	-495.3 (5)
	2nd Quarter	9.05 (5)	11.41 (6)	44.35 (6)	61.0 (8)
	3rd Quarter	7.88 (3)	11.06 (4)	47.22 (3)	-81.0 (5)
	4th Quarter	9.01 (7)	11.20 (7)	47.80 (6)	39.9 (6)
2002	Full Year	8.72 (20)	11.16 (22)	46.27 (19)	-475.4 (24)
2003	1st Quarter	9.07 (6)	11.47 (7)	49.94 (5)	48.2 (7)
	2nd Quarter	9.07 (4)	11.16 (4)	49.46 (4)	116.2 (5)
	3rd Quarter	8.22 (5)	9.95 (5)	46.09 (5)	69.6 (5)
	4th Quarter	9.07 (5)	11.09 (6)	52.17 (5)	210.4 (5)
2003	Full Year	8.86 (20)	10.97 (22)	49.41 (19)	444.4 (22)
2004	1st Quarter	8.94 (3)	11.00 (3)	44.94 (3)	-711.2 (5)

Gas Utilities--Summary Table*

1994	Full Year	9.51 (32)	11.35 (28)	48.12 (27)	422.9 (42)
1995	Full Year	9.64 (16)	11.43 (16)	49.98 (15)	-61.5 (31)
1996	Full Year	9.25 (23)	11.19 (20)	47.69 (19)	193.4 (34)
1997	Full Year	9.13 (13)	11.29 (13)	47.78 (11)	-82.5 (21)
1998	Full Year	9.46 (10)	11.51 (10)	49.50 (10)	93.9 (20)
1999	Full Year	8.86 (9)	10.66 (9)	49.06 (9)	51.0 (14)
2000	Full Year	9.33 (13)	11.39 (12)	48.59 (12)	135.9 (20)
2001	Full Year	8.51 (6)	10.95 (7)	43.96 (5)	114.0 (11)
2002	1st Quarter	8.55 (3)	10.67 (3)	49.10 (2)	86.7 (5)
	2nd Quarter	9.38 (3)	11.64 (4)	49.67 (3)	-9.3 (4)
	3rd Quarter	8.66 (4)	11.50 (3)	45.43 (3)	102.3 (6)
	4th Quarter	8.76 (10)	10.78 (11)	48.58 (10)	123.9 (11)
2002	Full Year	8.80 (20)	11.03 (21)	48.29 (18)	303.6 (26)
2003	1st Quarter	8.97 (4)	11.38 (5)	50.69 (4)	35.9 (6)
	2nd Quarter	9.09 (3)	11.36 (4)	50.32 (3)	14.2 (5)
	3rd Quarter	8.54 (4)	10.61 (5)	45.74 (4)	89.5 (6)
	4th Quarter	8.64 (11)	10.84 (11)	51.06 (11)	120.5 (13)
2003	Full Year	8.75 (22)	10.99 (25)	49.93 (22)	260.1 (30)
2004	1st Quarter	8.52 (4)	11.10 (4)	45.61 (4)	82.3 (7)

Telephone Utilities--Summary Table*

1994	Full Year	9.91 (12)	11.81 (11)	57.46 (11)	-236.6 (16)
1995	Full Year	9.81 (8)	12.08 (8)	55.02 (7)	-264.0 (14)
1996	Full Year	9.65 (2)	11.74 (4)	56.00 (2)	-348.2 (11)
1997	Full Year	9.57 (5)	11.56 (5)	55.84 (5)	-154.4 (7)
1998	Full Year	9.37 (1)	11.30 (1)	52.00 (1)	-323.3 (13)
1999	Full Year	11.34 (1)	13.00 (1)	66.90 (1)	-570.1 (19)
2000	Full Year	9.52 (2)	11.38 (2)	56.59 (2)	-390.4 (14)
2001	Full Year	9.61 (1)	--- (0)	--- (0)	-130.0 (8)
2002	1st Quarter	--- (0)	--- (0)	--- (0)	1.8 (1)
	2nd Quarter	--- (0)	--- (0)	--- (0)	19.5 (2)
	3rd Quarter	--- (0)	--- (0)	--- (0)	-13.6 (1)
	4th Quarter	--- (0)	--- (0)	--- (0)	--- (0)
2002	Full Year	--- (0)	--- (0)	--- (0)	7.7 (4)
2003	1st Quarter	--- (0)	--- (0)	--- (0)	--- (0)
	2nd Quarter	--- (0)	--- (0)	--- (0)	-27.6 (1)
	3rd Quarter	--- (0)	--- (0)	--- (0)	-35.0 (1)
	4th Quarter	--- (0)	--- (0)	--- (0)	--- (0)
2003	Full Year	--- (0)	--- (0)	--- (0)	-62.6 (2)
2004	1st Quarter	8.02 (1)	10.00 (1)	44.18 (1)	3.1 (1)

* Number of observations each period indicated in parentheses.

ELECTRIC UTILITY DECISIONS

Date	Company (State)	ROR %	ROE %	Common Eq. as % Cap. Str.	Test Year & Rate Base	Amt. $ Mil.
2003	***FULL-YEAR AVERAGES/TOTAL***	**8.86**	**10.97**	**49.41**		**444.4**
	OBSERVATIONS	**20**	**22**	**19**		**22**
1/13/04	Madison Gas and Electric (WI)	9.37 (G)	12.00	55.91	12/04-A	11.7
2/18/04	United Illuminating (CT)	---	---	---	---	5.2 (B)
2/26/04	Pacific Gas and Electric (CA)	---	---	---	---	-799.0 (B)
3/2/04	PacifiCorp (WY)	8.42	10.75	44.95	9/02-YE	22.9
3/24/04	Nevada Power (NV)	9.03	10.25	33.97	5/03-YE	48.0
2004	***1ST QUARTER AVERAGES/TOTAL***	**8.94**	**11.00**	**44.94**		**-711.2**
	OBSERVATIONS	**3**	**3**	**3**		**5**

GAS UTILITY DECISIONS

2003	***FULL-YEAR AVERAGES/TOTAL***	**8.75**	**10.99**	**49.93**		**260.1**
	OBSERVATIONS	**22**	**25**	**22**		**30**
1/13/04	AmerenUE (MO)	---	---	---	---	13.0 (B)
1/13/04	Madison Gas and Electric (WI)	9.37 (G)	12.00	55.91	12/04-A	1.0
1/13/04	Public Service Co. of New Mexico (NM)	8.16	10.25	47.77	9/02-YE	22.0 (B)
1/21/04	Aquila (NE)	---	---	---	---	6.2 (I,B)
2/9/04	City Gas Co. of Florida (FL)	7.36	11.25	36.77 *	9/04-A	6.7 (I)
2/19/04	Wisconsin Gas (WI)	---	---	---	12/04	26.0
3/16/04	Southwest Gas (CA)	9.17	10.90	42.00	12/03-A	7.4 (1)
2004	***1ST QUARTER AVERAGES/TOTAL***	**8.52**	**11.10**	**45.61**		**82.3**
	OBSERVATIONS	**4**	**4**	**4**		**7**

TELEPHONE UTILITY DECISIONS

2003	***FULL-YEAR AVERAGES/TOTAL***	**---**	**---**	**---**	**---**	**-62.6**
	OBSERVATIONS					**2**
1/29/04	CenturyTel of North West Arkansas (AR)	8.02	10.00	44.18	6/02-YE	3.1 (B)
2004	***1ST QUARTER AVERAGES/TOTAL***	**8.02**	**10.00**	**44.18**	6/02-YE	3.1
	OBSERVATIONS	**1**	**1**	**1**		**1**

FOOTNOTES

- A- Average
- B- Order followed stipulation or settlement by the parties. Decision particulars not necssarily precedent-setting or specifically adopted by the regulatory body.
- G- Return on capital
- I- Interim rates implemented prior to the issuance of final order, normally under bond and subject to refund.
- YE- Year-end
- * Capital structure includes cost-free items or tax credit balances at the overall rate of return.
- (1) Represents the combined increase authorized the company's southern California and northern California rate jurisdictions.

Dennis Sperduto