BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

IN THE MATTER OF THE APPLICATION OF ATMOS ENERGY CORPORATION FOR REVIEW AND ADJUSTMENT OF ITS NATURAL GAS RATES	**Docket No. 08-ATMG-280-RTS**

DIRECT TESTIMONY OF

BRUCE H. FAIRCHILD

FOR ATMOS ENERGY CORPORATION

INTRODUCTION

Q. Please state your name and business address.

A. Bruce H. Fairchild, 3907 Red River, Austin, Texas 78751.

Q. By whom are you employed and in what position?

A. I am a principal in Financial Concepts and Applications, Inc. ("FINCAP"), a firm engaged in financial, economic, and policy consulting to business and government.

A. Qualifications

Q. Describe your educational background, professional qualifications, and prior experience.

A. I hold a BBA degree from Southern Methodist University and MBA and PhD degrees from the University of Texas at Austin. I am also a Certified Public Accountant. My previous employment includes

working in the Controller's Department at Sears, Roebuck and Company and serving as Assistant Director of Economic Research at the Public Utility Commission ("PUC") of Texas. I have also been on the business school faculties at the University of Colorado at Boulder and the University of Texas at Austin where I taught undergraduate and graduate courses in finance and accounting.

Q. Briefly describe your experience in utility-related matters.

A. While at the Texas PUC, I assisted in managing a division comprised of approximately twenty-five professionals responsible for financial analysis, cost allocation and rate design, economic and financial research, and data processing systems. I testified on behalf of the PUC staff in numerous cases involving most major investor-owned and cooperative electric, telephone, and water/sewer utilities in the state regarding a variety of financial, accounting, and economic issues. Since forming FINCAP in 1979, I have participated in a wide range of analytical assignments involving utility-related matters on behalf of utilities, industrial consumers, municipalities, and regulatory commissions. I have also prepared and presented expert witness testimony before a number of regulatory authorities addressing revenue requirements, cost allocation, and rate design issues in the areas of gas, electric, telephone, and water/sewer. I have been a frequent speaker at regulatory conferences and seminars and have published research concerning various regu-

latory issues. A resume that contains the details of my experience and qualifications is attached as Attachment A, with Attachment B listing my prior testimony before regulatory agencies since leaving the Texas PUC.

B. Overview

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to present my independent assessment of a fair rate of return on common equity for the Kansas jurisdictional gas distribution operations of Atmos Energy Corporation (Atmos).

Q. What is the role of the rate of return on equity in setting a utility's rates?

A. The return on equity generally serves to compensate shareholders for the use of their capital to finance the plant and equipment necessary to provide utility service. Investors only commit money in anticipation of earning a return on their investment commensurate with that from other investment alternatives having comparable risks. Consistent with both sound regulatory economics and the standards specified in the U.S Supreme Court cases of *Bluefield Water Works & Improvement Co.* (1923) and *Hope Natural Gas Co.* (1944), the return on equity allowed a utility must be sufficient to: 1) fairly compensate capital presently invested in the utility, 2) en-

able the utility to offer a return adequate to attract new capital on reasonable terms, and 3) maintain the utility's financial integrity.

Q. How did you go about developing your return on equity recommendation for Atmos' Kansas operations?

A. My evaluation began with a brief review of the operations and finances of Atmos and general conditions in the natural gas industry and capital markets. With this background, I developed the principles underlying the cost of equity concept and conducted various analyses to estimate the cost of equity. These consisted of applying the discounted cash flow (DCF) model and capital asset pricing model (CAPM) to Atmos and a group of nine other publicly traded natural gas local distribution companies (LDCs). Based on these analyses, I developed a cost on equity range, from which I selected my recommended return on equity for Atmos' Kansas operations taking into account flotation costs, the outlook for capital costs, and the specifics of the present filing. Finally, I checked the reasonableness of my recommended return on equity by comparing it against several benchmarks.

Q. Please summarize the conclusions of your testimony.

A. Application of the DCF model to Atmos and the group of LDCs produced cost of equity estimates of between approximately 10.2% and 11.2% and 9.4% and 10.4%, respectively, while application of the CAPM produced cost of equity estimates for Atmos of 10.4% and

11.2% and for the industry group of 10.9% and 11.8%. Taken together, these analyses indicated that investors require a return on equity from Atmos of between 10.2% and 11.2% and from the LDC group in approximately the 10% to 11% range.

After accounting for flotation costs, the outlook for increased capital costs, and Atmos' requested Customer Utilization Adjustment ("CUA"), I concluded that a fair return on equity for Atmos' Kansas operations is 11%. This recommended return on equity is consistent with Atmos' lower bond rating and more highly leveraged capital structure relative to the LDC industry group, and is supported by three checks of reasonableness looking at returns on equity historically authorized LDCs, realized rates of return for LDCs, and the rates of return on book equity that other LDCs are projected to earn over the next few years.

II. BACKGROUND

Q. What is the purpose of this section?

A. As a predicate to subsequent quantitative analyses, this section briefly reviews the operations and finances of Atmos. It also examines conditions in natural gas distribution industry along with those in the U.S. economy and capital markets.

A. Atmos Energy Corporation

Q. Briefly describe Atmos.

A. Atmos is engaged primarily in natural gas distribution, serving some 3.2 million customers in 12 states, including approximately 123,750 in Kansas. Atmos is also engaged in natural gas marketing, pipeline and storage operations, and other non-utility operations. At test year-end, March 31, 2007, Atmos had total assets of approximately $6.1 billion and revenues for its last fiscal year ended September 30, 2006 were some $6.2 billion.

Q. Where does Atmos obtain most of the external capital used to finance its investment in property, plant, and equipment?

A. Atmos' common stock is publicly traded on the New York Stock Exchange, and at March 31, 2007, it had approximately $2.1 billion in long-term debt outstanding. Atmos is rated triple-B by the two major bond rating agencies – Baa3 by Moody's Investor Services (Moody's) and BBB by Standard & Poor's Corporation (S&P) – which places it at the low end of the investment grade rating scale.

Q. How does Atmos financing compare with other LDCs?

A. In Schedule 1, Atmos' bond ratings and capital structure ratios at March 31, 2007 are compared with a group of nine publicly traded LDCs. These are the other firms included in *The Value Line Investment Survey's* (Value Line) Natural Gas (Distribution) industry that are predominantly involved in natural gas distribution and are not in the process of being acquired. As shown there, Atmos' triple-B bond ratings are lower than most of those of the LDCs com-

prising the industry group, which average a single-A rating, and its capital structure is more highly leveraged, as evidenced by its 48.1% equity ratio versus an average for the LDC group of 55.5%. This schedule also shows that Atmos' equity capitalization makes it one of the larger publicly traded LDCs and that its beta, which will be discussed later, is slightly lower than the industry average.

B. Natural Gas Utility Industry

Q. Please describe conditions in the gas industry over the last two decades.

A. Beginning in approximately 1980, the natural gas industry was buffetted by decreasing demand and prices, a gas glut, an ever-changing federal regulatory environment, and increased competition among industry participants and with other fuels. These developments spawned striking structural changes not only within the pipeline segment of the industry but for natural gas local distribution companies as well. At least initially, this process was largely driven by regulatory changes at the federal level, with the Federal Energy Regulatory Commission ("FERC") promoting greater competition in markets for wholesale energy supply. While FERC made the natural gas industry more competitive and broadened the market for gas supplies through its Order Nos. 436, 500, and 636, this dramatic restructuring also introduced considerable

uncertainties and dislocations felt heavily by conventional utility systems.

These structural changes on both the demand and supply sides eroded gas utilities' traditional monopoly status, with both pipelines and local distribution companies (or "LDCs") experiencing "by-pass" as large commercial, industrial, and wholesale customers sought to acquire gas supplies at the lowest possible cost and, in the process, abandoned traditional "full-service" utility suppliers. LDCs have had to confront new complexities and risks entailed in actively contracting for an economical, secure gas supply. Further, changes in transportation rate design mandated by FERC Order No. 636 shifted greater cost responsibility for pipeline demand costs to low load factor customers and, particularly, to LDCs who purchase transportation services from interstate pipelines. Coupled with an increasingly competitive market environment, these structural changes have resulted in greater business risk and operating leverage.

Q. What other factors are of concern to investors?

A. LDCs and their customers have also had to contend with dramatic fluctuations in gas costs due to extraordinary price volatility in gas markets. Besides discouraging potential customers from choosing natural gas, causing certain existing users to substitute alternative fuels, and leading to decreased customer usage, S&P also stated in

"Prolonged High Natural Gas Prices May Increase Credit Risk For U.S. Gas Distribution Companies," published in its *RatingsDirect* (January 17, 2006):

> [C]urrent high gas prices will remain a challenge for all LDCs and may further pressure ratings for those LDCs that have a negative outlook and whose financial measures are somewhat stretched for their current rating.

S&P subsequently noted in "Key Credit Factors For U.S. Natural Gas Distributors," also published in its *RatingsDirect* (February 28, 2006), that more volatile and higher natural gas prices are contributing to a negative credit outlook for natural gas distribution utilities.

Q. Does this exposure highlight the need for ongoing support of a gas utility's financial strength and ability to attract capital?

A. Yes. Given the significant volatility in natural gas markets and a utility's lack of control over market prices for gas, LDCs must have the financial wherewithal to weather the pressures caused by unfavorable energy market conditions. Because of investors' heightened awareness of the risks associated with higher and more volatile gas prices, supportive regulation remains crucial in preserving gas utilities' financial integrity and access to capital. In "Regulation and Credit Quality in the U.S. Utility Sector," *RatingsDirect* (January 30, 2003), S&P noted that:

> When examining the quality of regulation, Standard & Poor's factors in what level of support the utility might get in times of distress, when its needs are most acute.

S&P subsequently stated in "Prolonged High Natural Gas Prices May Increase Credit Risk For U.S. Gas Distribution Companies," *RatingsDirect* (January 17, 2006) that regulatory decisions have become a "dominant factor" in their assessment of credit quality and concluded that "[c]ontinued regulatory support is paramount to credit quality for LDCs, especially during periods of prolonged high natural gas prices."

Q. Are these the only risks faced by natural gas distribution utilities?

A. No. As Fitch Ratings Ltd ("Fitch") noted in its review of the utility industry, "U.S. Power & Gas 2006 Outlook," published in *Global Power/North American Special Report* (December 15, 2005), apart from exposure to more volatile commodity prices, "over the coming five years ... the sector is increasingly expected to face negative credit factors," including the pressures of rising interest rates and higher capital expenditures (p. 2). In addition, utilities continue to face numerous changes in financial accounting standards, such as those relating to accounting for post-retirement benefits other than pensions, which have regulatory as well as financial reporting implications. As *The Value Line Investment Survey* ("Value Line") reported in its June 15, 2007 edition:

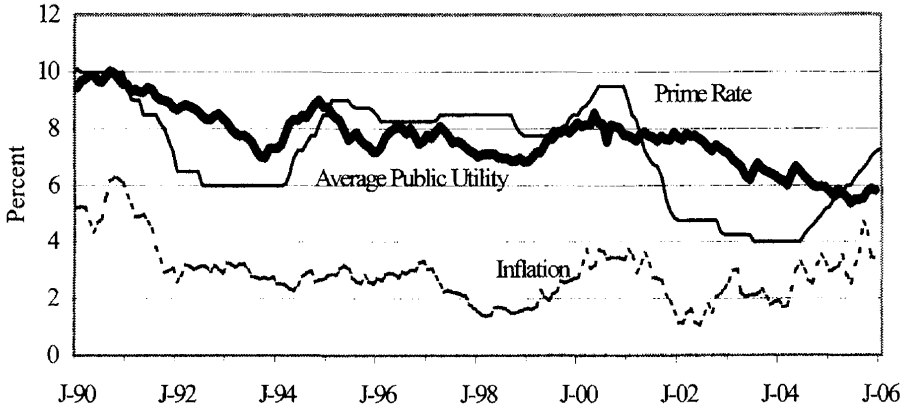
> Other factors that may directly affect these businesses are the price of gas distribution, regulation, interest rates, and the amount of customer usage. (p. 445)

Indeed, LDCs such as Atmos continue to face many of the same on-going challenges and risks confronting them in the past, including those related to inflation, weather, rate regulation, customer usage and growth, non-rate regulatory changes, tax law changes, environmental laws and regulations, operating hazards, general economic conditions, and capital market changes, as well as extraordinary risks such as legal liabilities and natural disasters.

C. Capital Markets

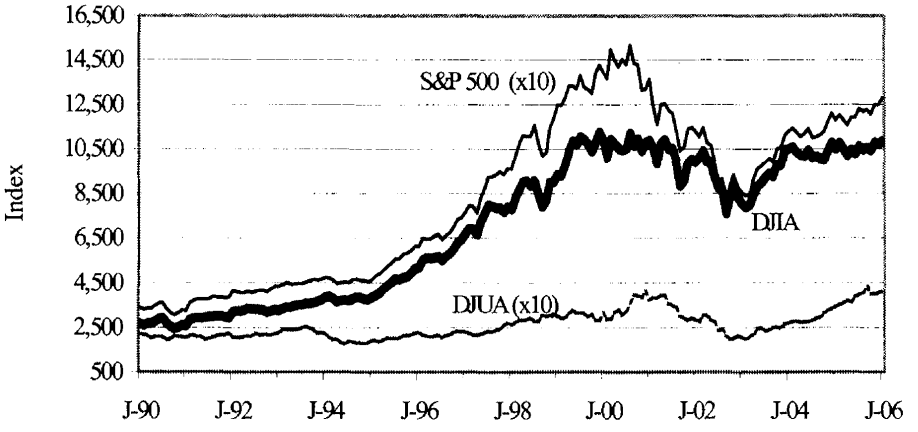
Q. What has been the pattern of interest rates over the last two decades?

A. Average long-term public utility bond rates, the monthly average prime rate, and inflation as measured by the CPI since 1990 are plotted in the graph below. After rising to approximately 10% in mid-1990, the average yield on long-term public utility bonds generally fell as economic conditions weakened in the aftermath of the 1991 Gulf war, with rates dipping below 7% in late 1993. Yields subsequently rose again in 1994, before beginning a general decline, with investors currently requiring approximately 6.3% from average public utility bonds:



Q. How has the market for common equity capital performed?

A. Between 1990 and early 2000, stock prices pushed steadily higher as the longest bull market in United States history continued unabated. While the S&P 500 had increased over four times in value by August 2000, mounting concerns regarding prospects for future growth, particularly for firms in the high technology and telecommunications sectors, pushed equity prices lower, in some cases precipitously. Although common stock prices have since recovered and recently reached record highs, buoyed in large part by widespread acquisition activity, the market remains volatile, with share values routinely changing in full percentage points during a single day's trading. The graph below plots the performances of the Dow-Jones Industrial Average, the S&P 500, and the Dow Jones Utility Average since 1990 (the latter two indices were scaled for comparability):



Q. What is the outlook for the U.S. economy?

A. While the economic picture has brightened significantly since the downturn that began in 2001, uncertainties over the durability and pace of economic growth persist, especially in the industrial and housing sections of the economy. Government and trade deficits and higher energy prices, which have been exacerbated by the fall-out from the natural disasters experienced in the Gulf Coast region, overhang the domestic economy. Continued conflict and instability in Iraq and the ongoing threat of terrorism and nuclear proliferation undermine consumer confidence and contribute to global economic uncertainty. These factors cause the outlook to remain tenuous, with persistent stock and bond price volatility providing tangible evidence of the uncertainties faced by the U.S. economy.

Q. How do these economic uncertainties affect LDCs?

A. Uncertainties over the extent and durability of the economic recovery have combined to heighten the risks faced by utilities. Stagna-

tion in economic growth would undoubtedly mean flat or declining gas sales, while the potential for increased inflation and interest rates places additional pressure on the adequacy of existing service rates. Meanwhile, higher and more volatile energy prices not only adversely impact gas utilities but the general economy as well. While the economy may continue on a path of fairly steady growth and the volatility in the capital and energy markets may abate, the uncertainties now present may well persist, which increase the risks faced by the natural gas industry, including LDCs.

III. COST OF EQUITY RANGE

Q. What is the purpose of this section of your testimony?

A. This section begins by introducing the cost of equity concept, explaining the risk-return tradeoff principle fundamental to capital markets, and discussing the importance of using multiple approaches to estimate the cost of equity. The DCF model is then developed and applied to Atmos and a group of other LDCs to estimate the cost of equity using this method. Next, the CAPM is described and alternative cost of equity estimates for Atmos and other LDCs developed using this risk premium approach. Finally, the results of the DCF and CAPM analyses are combined to arrive at cost of equity ranges.

A. Cost of Equity Concept

Q. How is a return on common equity customarily determined?

A. Unlike debt capital, there is no contractually guaranteed return on common equity capital, since shareholders are the residual owners of the utility. Nonetheless, common equity investors still require a return on their investment, with the "cost of equity" being the minimum rent that must be paid for the use of their money.

Q. What fundamental economic principle underlies this cost of equity concept?

A. The cost of equity concept is predicated on the notion that investors are risk averse, and will willingly accept additional risk only if they expect to be compensated for their bearing that risk. In capital markets where relatively risk-free assets are available, such as U.S. Treasury securities, investors can be induced to hold more risky assets only if they are offered a premium, or additional return, above the rate of return on a risk-free asset. Since all assets compete with each other for investors' funds, riskier assets must yield a higher expected rate of return than less risky assets in order for investors to be willing to hold them.

Given this risk-return tradeoff, the minimum required rate of return ("k") from an asset ("i") can be generally expressed as:

$$k_i = R_f + RPi$$

where: R_f = Risk-free rate of return; and

RP_I = Risk premium required to hold more risky asset i.

Thus, the minimum required rate of return for a particular asset at any point in time is a function of: 1) the yield on risk-free assets, and 2) its relative risk, with investors demanding correspondingly larger risk premiums for assets bearing greater risk.

Q. Is there evidence that the risk-return tradeoff principle actually operates in the capital markets?

A. Yes. The risk-return tradeoff can be readily documented in certain segments of the capital markets where required rates of return can be directly inferred from market data and generally accepted measures of risk exist. For example, bond yields are reflective of investors' expected rates of return, and bond ratings are indicative of the risk of fixed income securities. The observed yields on government securities and bonds of various rating categories demonstrate that the risk-return tradeoff does, in fact, exist in the capital markets.

To illustrate, average yields during June 2007 on selected U.S. government securities and on public utility bonds of different ratings reported by Moody's are shown in the following table. As evidenced there, as risk increases (measured by progressively lower bond ratings), the required rate of return (measured by yields) rises accordingly. Also shown are the indicated risk premiums over long-term government securities for the additional risk associated with each bond rating category:

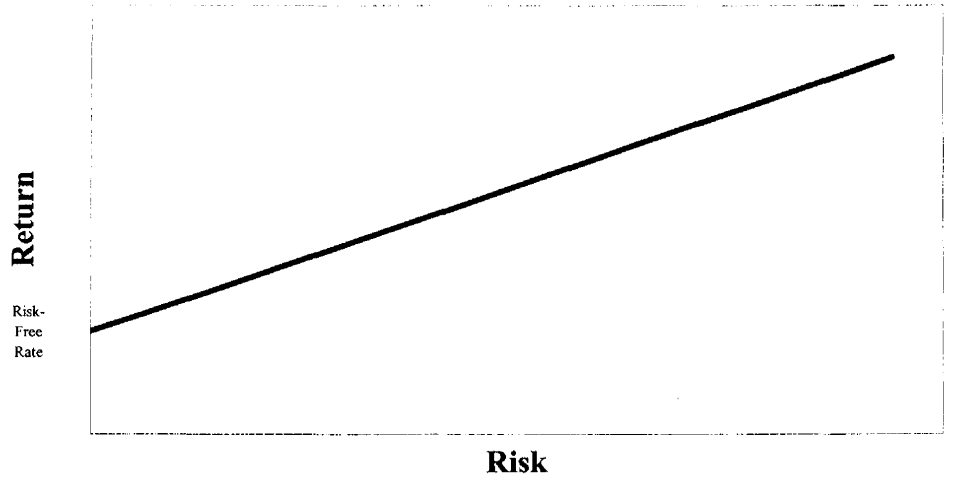
Bond and Rating	June 2007 Yield	Risk Premium Over 30-Year Treasury
U.S. Treasury		
5-Year	5.03%	--
30-Year	5.21%	--
Public Utility		
Aa	6.18%	0.97%
A	6.30%	1.09%
Baa	6.54%	1.33%

Q. Does the risk-return tradeoff observed with fixed income securities extend to common stocks and other assets?

A. Documenting the risk-return tradeoff for assets other than fixed income securities is complicated by two factors. First, there is no standard measure of risk applicable to all assets. Second, for most assets (*e.g.*, common stock), required rates of return cannot be directly observed. Yet there is every reason to believe that investors exhibit risk aversion in deciding whether to hold common stocks and other assets, just as when choosing among fixed income securities. Accordingly, it is generally accepted that the risk-return tradeoff evidenced with long-term debt extends to all assets.

The extension of the risk-return tradeoff from assets with observable required rates of return (*e.g.*, bonds) to other assets is represented by the concept of a "capital market line." In particular, competition between securities and among investors in the capital markets drives the prices of assets to equilibrium such that the expected rate of return from each is commensurate with its risk. Thus, the expected rate of return from any asset is a risk-free rate

of return plus a corresponding risk premium. This concept of a capital market line is illustrated below. The vertical axis represents required rates of return and the horizontal axis indicates relative riskiness, with the intercept of the capital market line being the risk-free rate of return.



Q. Is this risk-return tradeoff limited to differences between firms?

A. No. The risk-return tradeoff principle applies not only to investments in different firms, but also to different securities issued by the same firm. As discussed earlier, the securities issued by a utility vary considerably in risk because they have different characteristics and priorities. Long-term debt secured by a mortgage on property is senior among all capital in its claim on a utility's net revenues and is, therefore, the least risky because mortgage bondholders have a direct claim on the utility's property. Following first mortgage bonds are other debt instruments also holding contractual claims on the utility's net revenues, such as debentures.

The last investors in line are common shareholders. They only receive the net revenues, if any, that remain after all other claimants have been paid. As a result, the minimum rate of return that investors require from a utility's common stock, the most junior and riskiest of its securities, must be considerably higher than the yield offered by the utility's senior, long-term debt.

Q. What does the above discussion imply with respect to estimating the cost of equity for a utility?

A. Although the cost of equity cannot be observed directly, it is a function of the returns available from other investment alternatives and the risks to which the equity capital is exposed. Because it is unobservable, the cost of equity for a particular utility must be estimated by analyzing information about capital market conditions generally, assessing the relative risks of the utility specifically, and employing various quantitative methods that focus on investors' required rates of return. These various quantitative methods typically attempt to infer investors' required rates of return from stock prices, by extrapolating interest rates, or through an analysis of other financial data.

Q. Did you rely on a single method to estimate the cost of equity?

A. No. Despite the theoretical appeal of or precedent for using a particular method to estimate the cost of equity, no single approach can be regarded as wholly reliable. Therefore, I used both DCF and

CAPM methods to estimate the cost of equity. Indeed, it is essential that estimates of investors' minimum required rate of return produced by one method be compared with those produced by other methods, and that all cost of equity estimates be required to pass fundamental tests of reasonableness and economic logic.

B. Discounted Cash Flow Model

Q. How are DCF models used to estimate the cost of equity?

A. The use of DCF models to estimate the cost of equity is essentially an attempt to replicate the market valuation process which led to the price investors are willing to pay for a share of a company's common stock. It is predicated on the assumption that investors evaluate the risks and expected rates of return from all securities in the capital markets. Given these expected rates of return, the price of each share of stock is adjusted by the market so that investors are adequately compensated for the risks to which they are exposed. Therefore, we can look to the market to determine what investors believe a share of common stock is worth, and by estimating the cash flows they expect to receive from the stock in the way of future dividends and stock price, their required rate of return can be mathematically imputed. In other words, the cash flows that investors expect from a stock are estimated, and given its current market price, we can "back-into" the discount rate, or cost of equity, investors presumably used in arriving at that price.

Q. What market valuation process underlies DCF models?

A. DCF models are derived from a theory of valuation which posits that the price of a share of common stock is equal to the present value of the expected cash flows (*i.e.*, future dividends and stock price) that will be received while holding the stock, discounted at investors' required rate of return, or the cost of equity. Notationally, the general form of the DCF model is as follows:

$$P_0 = \frac{D_1}{(1+K_e)^1} + \frac{D_2}{(1+K_e)^2} + \ldots + \frac{D_t}{(1+K_e)^t} + \frac{P_t}{(1+K_e)^t}$$

where: P_0 = Current price per share;
P_t = Future price per share in period t;
D_t = Expected dividend per share in period t;
K_e = Cost of equity.

Q. Has this general form of the DCF model customarily been used to estimate the cost of equity in rate cases?

A. No. In an effort to reduce the number of required estimates and computational difficulties, the general form of the DCF model has been simplified to a "constant growth" form. But converting the general form of the DCF model to the constant growth DCF model requires that a number of assumptions be made. These include:

- A constant growth rate for both dividends and earnings;
- A stable dividend payout ratio;
- The discount rate exceeds the growth rate;
- A constant growth rate for book value and price;
- A constant earned rate of return on book value;

- No sales of stock at a price above or below book value;
- A constant price-earnings ratio;
- A constant discount rate (*i.e.*, no changes in risk or interest rate levels and a flat yield curve); and
- All of the above extend to infinity.

Given these assumptions, the general form of the DCF model can be reduced to the more manageable formula of:

$$P_0 = \frac{D_1}{k_e - g}$$

where: g = Investors' long-term growth expectations.

The cost of equity ("K_e") can be isolated by rearranging terms:

$$k_e = \frac{D_1}{P_0} + g$$

The constant growth form of the DCF model recognizes that the rate of return to stockholders consists of two parts: 1) dividend yield (D_1/P_0), and 2) growth (g). In other words, investors expect to receive a portion of their total return in the form of current dividends and the remainder through price appreciation.

Q. Are the assumptions underlying the constant growth form of the DCF model met in the real world?

A. The assumptions required to convert the general form of the DCF model to the constant growth form are never strictly met in practice. In some instances, where earnings are derived solely from stable activities, and earnings, dividends, and book value track fairly closely, the constant growth form of the DCF model may be a

reasonable working approximation of stock valuation. However, in other cases, where the circumstances cause the required assumptions to be severely violated, the constant growth DCF model may produce widely divergent and meaningless results. This is especially the case if the firm's earnings or dividends are unstable, or if investors are expecting the stock price to be affected by factors other than earnings and dividends.

Q. How did you estimate the cost of equity using the DCF model?

A. The DCF model was applied to Atmos and the group of nine publicly traded LDCs identified earlier, namely those firms included in Value Line's Natural Gas (Distribution) industry that are predominantly engaged in gas distribution and not in the process of being acquired.

Q. How is the constant growth form of the DCF model typically used to estimate the cost of equity?

A. The first step in implementing the constant growth DCF model is to determine the expected dividend yield (D_1/P_0) for the firm in question. This is usually calculated based on an estimate of dividends to be paid in the coming year divided by the current price of the stock.

Q. How did you calculate the dividend yield component of the constant growth DCF model for Atmos and the gas utility group?

A. Because estimating the cost of equity using the DCF model is an attempt to replicate how investors arrived at an observed stock price, all of its components should be contemporaneous. Price, dividend, and growth data from different points in time or averaged over long time periods violate the matching principle underlying the DCF model. Therefore, dividend yield was calculated by dividing an estimate of dividends to be paid by Atmos and each of the gas utilities in the group over the next twelve months, obtained from the index to Value Line's June 15, 2007 edition, by the average closing price of each firm's stock during June 2007. The expected dividends, representative price, and resulting dividend yield for Atmos and each of the nine other gas utilities are displayed on Schedule 2. As also shown there, Atmos' dividend yield is 4.2% and the average for the industry group is 3.6%.

Q. Please elaborate on how estimates of investors' long-term growth expectations are customarily developed for use in the constant growth DCF model.

A. In constant growth DCF theory, earnings, dividends, book value, and market price are all assumed to grow in lockstep, and the growth horizon of the DCF model is infinite. But implementation of the DCF model is more than just a theoretical exercise; it is an effort to replicate the mechanism investors used to arrive at observable stock prices. Therefore, the only "g" that matters in using the

DCF model to estimate the cost of equity is that which investors expect and have embodied in current market prices.

Q. What drives investors' growth expectations?

A. Trends in earnings, which ultimately support future dividends and share price, play a pivotal role in determining investors' long-term growth expectations. The 5-year earnings growth projections for Atmos and each of the nine gas utilities reported in the June 15, 2007 edition of Value Line, First Call's *Institutional Brokers Estimate System* ("I/B/E/S") growth projections reported in the June 2007 edition of S&P's *Earnings Guide*, and by Zacks in mid-June 2007 are displayed on Schedule 3, with those for Atmos and the averages for the group being summarized in the following table:

	Atmos	**LDC Group**
Value Line	6.0%	4.3%
I/B/E/S	5.0%	5.0%
Zack's	5.3%	4.1%

Also shown on Schedule 3 are the 10-year and 5-year historical earnings growth rates for Atmos and each of the nine gas utilities, which are 3.5% and 10%, respectively, for Atmos, and average 5.7% and 6.2%, respectively, for the industry group.

Q. How else are investor expectations of future long-term growth prospects for a firm often estimated for use in the constant growth DCF model?

A. In DCF theory and practice, growth in book equity comes from the reinvestment of earnings within the business and the effects of external financing. Accordingly, conventional applications of the constant growth DCF model often examine the relationships between variables that determine the "sustainable" growth attributable to these two factors.

Q. How is a firm's sustainable growth estimated?

A. The sustainable growth rate is calculated by the formula:

$$g = br + sv$$

where "b" is the expected earnings retention ratio (one minus the dividend payout ratio), "r" is the expected rate of return earned on book equity, "s" is the percent of common equity expected to be issued annually as new common stock, and "v" is the equity accretion ratio. The "br" term represents the growth from reinvesting earnings within the firm while the "sv" term represents the growth from external financing. This external financing growth results because existing shareholders share in a portion of any excess received from selling new shares at a price above book value.

Q. What growth rate does the sustainable growth method suggest for Atmos and the gas utility group?

A. The sustainable growth rates for Atmos and each of the gas utilities in the industry group based on Value Line's projections for

2010-2012 are developed in Schedule 4. As shown there, the sustainable growth method implies a long-term growth rate for Atmos of 6.7% and an average for the gas utility group of 6.2%.

Q. What are other projected and historical growth rates for Atmos and the industry group?

A. Schedule 5 displays Value Line projected growth rates and 10- and 5-year historical growth rates in book value per share, dividends per share, and stock price for Atmos and each of the nine gas utilities in the industry group. Those for Atmos range from 1.5% (projected dividend growth) to 8.5% (5-year historical book value growth), while the averages for the LDC group range from 2.3% (10-year historical dividend growth) to 8.8% (5-year historical price growth). Besides the fact that many of these growth rates, when combined with Atmos' and the group's dividend yields, imply costs of equity that barely exceed the interest rate on much less risky utility bonds, the wide variation in these other growth rates results in them providing limited guidance as to the prospective growth that investors expect from Atmos and the group of gas utilities.

Q. Is there anything occurring in the natural gas industry that affects the use of the DCF model to estimate the cost of equity?

A. Yes. As observed in the June 15, 2007 edition of Value Line:

> (A)cquisitions have brought down the number of publicly traded natural gas utilities over the years. Cur-

> rently, three of the companies in the following pages have agreed to be purchased. *Cascade Natural Gas, KeySpan Corporation* and *SEMCO Energy* are all in the process of being taken over. What's more, the industry continues to be of interest to outside suitors because of its stable results and ability to generate a good amount of cash. (page 445)

These prospects for continued mergers and acquisitions in the gas industry complicate estimating the cost of equity using the DCF model. The reason is that, while investors incorporate into LDCs' stock prices their expectations of the price appreciation that would be realized in the event of a merger or acquisition, this potential price growth is not reflected into the growth rates typically used in the DCF model. Therefore, growth estimates based on historical, projected, and sustainable growth rates understate investors' actual growth expectations, which results in a corresponding understatement of the cost of equity.

Q. What is your conclusion as to the growth that investors are expecting from Atmos and the industry group?

A. After excluding clearly unreliable indicators of growth, the plausible growth rates shown on Schedules 2, 3, and 4 indicated a range for Atmos of between 5% and 7% and for the LDC group of between approximately 4.25% and 6.25%. Meanwhile, Yahoo Finance and Zacks Investment Research report projected earnings growth rates for the gas distribution industry of 6.33% and 6.60%, respectively. Taken together, and considering the potential price growth related

to ongoing merger activity in the industry, I concluded that investors expect long-term growth from Atmos in the 6% to 7% range and from the LDC group in the 5.75% to 6.75% range.

Q. What DCF cost of equity estimates do these growth rate ranges imply for Atmos and the gas utility group?

A. Summing Atmos' dividend yield of 4.2% with a growth rate range of 6% to 7% produces a DCF cost of equity for Atmos of between approximately 10.2% and 11.2%, while combing the LDC group's average 3.6% dividend yield with a 5.75% to 6.75% growth rate range indicates a cost of equity for the industry group of between approximately 9.4% and 10.4%.

C. Capital Asset Pricing Model

Q. How else did you estimate the cost of equity?

A. The cost of equity to Atmos and the gas utility group was also estimated using the CAPM, which is a risk premium method. The risk premium method to estimate investors' required rate of return is an extension of the risk-return tradeoff observed with bonds to common stocks. The cost of equity is estimated by determining the additional return investors require to forego the relative safety of a bond and bear the greater risks associated with common stock, and then adding this equity risk premium to the current yield on bonds.

Q. Please describe the CAPM.

A. The CAPM is a theory of market equilibrium that serves as the basis for current financial education and management. Under the CAPM, investors are assumed to be fully diversified, so that the relevant risk of an individual asset (*e.g.*, common stock) is its volatility relative to the market as a whole, which is measured using a "beta" coefficient. Beta reflects the tendency of a stock's price to follow changes in the market, with stocks having a beta less than 1.00 being considered less risky and stocks with a beta greater than 1.00 being regarded as more risky. The CAPM is mathematically expressed as:

$$R_j = R_f + \beta_j (R_m - R_f)$$

where: R_j = required rate of return for stock j;
R_f = risk-free interest rate;
R_m = expected return on the market portfolio; and
β_j = beta, or systematic risk, for stock j.

While the CAPM is not without controversy, it is a routinely referenced in the financial literature and in regulatory proceedings, and firms' beta values are widely reported.

Q. How did you apply the CAPM?

A. I applied the CAPM using two methods to determine the risk premium for the market as a whole, or the $(R_m - R_f)$ term in the CAPM formula. The first was based on historical realized rates of return and the second was based on forward-looking estimates of investors' required rates of return. In both instances, the companies in-

cluded in the S&P 500 index were used as a proxy for the market portfolio and the 30-year U.S. Treasury bond served as the risk-free investment.

Q. Please describe the first method based on historical realized rates of return.

A. Under the realized rate of return approach, equity risk premiums are calculated by measuring the rate of return (including dividends, interest, and capital gains and losses) actually realized on an investment in common stocks and bonds over historical time periods. The realized rate of return on bonds is then subtracted from that earned on common stocks to measure equity risk premiums. Widely used in academia, the realized rate of return approach is based on the assumption that, given a sufficiently large number of observations over long historical periods, average realized market rates of return will converge to investors' required rates of return. From a more practical perspective, investors may base their expectations for the future on, or may have come to expect that they will earn, rates of return corresponding to those realized in the past.

Q. What is the market risk premium based on historical realized rates of return?

A. Perhaps the most exhaustive study of realized rates of return, and the one most frequently cited in regulatory proceedings, is that contained in Ibbotson Associates' *Stocks, Bonds, Bills and Inflation.* In

their *2006 Yearbook*, Ibbotson Associates reported that the annual rate of return realized on the S&P 500 has averaged 12.3% over the period 1926 through 2006, while the annual realized rate of return on 30-year Treasury bonds over this same period has averaged 5.8%. Thus, the market risk premium based on historical average annual realized rates of return is 6.5%.

Q. Please describe the second method based on forward-looking required rates of return.

A. Consistent with the CAPM being an expectational (*i.e.*, forward-looking) model, the second method estimated the market risk premium using current indicators of investors' required rates of return. For the market portfolio, the cost of equity was estimated by applying the DCF model to the 362 firms in the S&P 500 paying cash dividends, with each firm's dividend yield and growth rate being weighted by its proportionate share of total market value. The expected dividend yield for each firm was obtained from Value Line, with the expected growth rate being based on the 5-year earnings forecasts published for each firm by Value Line, I/B/E/S, and Zacks. As shown in footnote (b) on Schedule 6, summing the 2.04% expected dividend yield for this market group, which is composed primarily of non-regulated firms, with the average Value Line, I/B/E/S, and Zacks projected growth rate of 10.60% produced a required rate of return from the market portfolio (R_m) of 12.64%.

Q. What is the market risk premium based on forward-looking required rates of return?

A. From the 12.64% required rate of return on the market portfolio, a market risk premium was calculated by subtracting the average yield on 30-year Treasury bonds during June 2007 of 5.21%. This produced a forward-looking market risk premium of 7.43%.

Q. What was the next step in applying the CAPM?

A. Having calculated market risk premiums of 6.5% and 7.43% using historical realized rates of return and forward-looking rates of return, respectively, the next step was to calculate specific risk premiums for Atmos and the LDC industry group. This was done by multiplying the alternative market risk premiums by Atmos' beta of .80 and the group's average beta of .88, which were obtained from Value Line (Schedule 1). As shown on Schedule 6, this resulted in risk premiums for Atmos of 5.2% and 5.94%, and for the gas utility industry of 5.71% and 6.52%.

Q. What cost of equity estimates are produced for Atmos and the LDC group using the CAPM?

A. As shown in the lower portion of Schedule 6, summing the 5.2% and 5.94% Atmos risk premiums with the June 2007 30-year Treasury bond yield of 5.21% produced CAPM cost of equity estimates for Atmos of 10.41% and 11.15%. Similarly, summing the 5.72% and 6.54% industry risk premiums with the 5.21% risk-free interest

rate resulted in CAPM cost of equity estimates for the gas utility group of 10.93% and 11.75%.

D. Cost of Equity Range

Q. Please summarize your cost of equity estimates for Atmos and the LDC industry group?

A. The DCF and CAPM cost of equity estimates developed above for Atmos and the group of other LDCs are displayed in the following table:

	Atmos	LDC Group
DCF	10.2%-11.2%	9.4% - 10.4%
CAPM	10.4% - 11.2%	10.9% - 11.8%

The DCF analyses indicate that Atmos' cost of equity is considerably greater than the LDC industry, which is consistent with its lower bond ratings and more highly leveraged capital structure (Schedule 1). Meanwhile, the CAPM analyses indicate that Atmos has a slightly lower cost of equity than the industry group, which is the direct result of its beta being slightly lower than the average of the other LDCs.

Q. What is your conclusion as to the cost of equity range for Atmos and the LDC industry group?

A. Taken together, the above analyses indicate that investors require a return on equity from Atmos of between 10.2% and 11.2% and from the LDC industry group in approximately the 10% to 11% range.

IV. RETURN ON EQUITY RECOMMENDATION

Q. What is the purpose of this section of your testimony?

A. Having identified cost on equity ranges for Atmos and the LDC industry, this section discusses other factors properly considered in selecting a return on equity for Atmos' Kansas operations from within these ranges.

A. Flotation Costs

Q. What are flotation costs?

A. The common equity used to finance utility assets is provided from either the sale of stock in the capital markets or from retained earnings not paid out as dividends. When equity is raised through the sale of common stock, there are costs associated with "floating" the new equity securities. These flotation costs include services such as legal, accounting, and printing, as well as the fees and discounts paid to compensate brokers for selling the stock to the public. Also, some argue that the "market pressure" from the additional supply of common stock and other market factors may further reduce the amount of funds a utility nets when it issues common equity.

Q. Has Atmos recently incurred equity flotation costs?

A. Yes. In December 2006, Atmos issued 6,325,000 shares of new common stock at $31.50 per share, or a total of approximately $199 million. The net proceeds to Atmos from this offering were approximately $192 million, with the $7 million difference being the flotation costs necessarily incurred to issue and sell the shares. These flotation costs equated to approximately 3.5% of the offering price.

Q. Is there an established mechanism for a utility to recognize common equity flotation costs?

A. No. While debt flotation costs are recorded on the books of the utility and amortized over the life of the issue, serving to increase the effective cost of debt capital, there is no similar accounting treatment to ensure that common equity flotation costs are recorded and ultimately recognized. Alternatively, no rate of return is authorized on flotation costs necessarily incurred to obtain a portion of the common equity capital used to finance plant. In other words, equity flotation costs are not included in a utility's rate base since neither that portion of the gross proceeds from the sale of common stock used to pay flotation costs is available to invest in plant and equipment, nor are flotation costs capitalized as an intangible asset. Even though there is no accounting convention to accumulate and amortize the flotation costs associated with past common equity is-

sues, flotation costs are a necessary expense of obtaining equity capital. And unless some provision is made to recognize these past issuance costs, a utility's revenue requirements will not fully reflect all of the costs incurred for the use of investors' funds.

Q. How can common equity flotation costs be recognized in revenue requirements?

A. As indicated above, there is no direct mechanism to recognize flotation costs necessarily incurred in connection with the issuance of common stock as there is with debt. Therefore, flotation costs must be accounted-for indirectly, with an upward adjustment to the "bare-bones" cost of equity identified above being the most logical and prevalent mechanism to reflect these costs.

Q. How is the magnitude of the adjustment to the bare-bones cost of equity to account for flotation costs determined?

A. There are any number of ways in which a flotation cost adjustment can be calculated, with the adjustment ranging from just a few basis points to more than a full percent. For example, relating past flotation costs to total book common equity normally results in a nominal flotation cost adjustment of a few basis points, while adjusting the bare-bones cost of equity to encourage a target market-to-book ratio of, say, 110 percent, typically produces a flotation cost in excess of one percent. More modest approaches to calculating flotation cost adjustments, such as applying an average flotation cost

expense percentage (*i.e.*, 3 to 5 percent) to a utility's dividend yield, or its bare-bones cost of equity, usually result in flotation cost adjustments of between 15 and 50 basis points. Because the precise calculation of a flotation cost adjustment is problematic, rather than make a specific adjustment to the cost of equity, unrecovered flotation costs are often recognized by selecting the rate of return on common equity from above the mid-point of the cost of equity range.

B. Outlook for Capital Costs

Q. Is there currently anything else reasonably considered in selecting a point estimate from the cost of equity range?

A. Yes. As illustrated earlier, interest rates have been at historic lows during the last few years. It is generally expected, however, that long-term interest rates will rise in the near-term, which suggests that the cost of permanent capital, including common equity, will be higher in the upcoming years than it is currently.

Q. How do current interest rates on long-term bonds compare with those projected for the next few of years?

A. The following table compares June 2007 interest rates (as reported by Moody's) on 30-year Treasury, triple-A corporate bonds, and double-A utility bonds with those projected for 2008 through 2011 by Value Line in its "Forecast for the U.S. Economy" (May 25,

2007), GlobalInsight in its *The U.S. Economy: The 30-Year Focus* (First Quarter 2007), and the Energy Information Administration in its *Annual Energy Outlook 2007* (February 2007):

	June 2007	2008	2009	2010	2011
30-Year Treasury					
Value Line	5.1	5.0	5.3	5.6	5.8
GlobalInsight	5.1	5.3	5.6	5.7	5.7
AA-Utility Treas-					
GlobalInsight	6.2	6.2	6.6	6.9	7.0
EIA	6.2	6.9	7.2	7.4	7.5
AAA Corporate					
Value Line	5.8	5.6	6.1	6.4	6.6
GlobalInsight	5.8	5.7	6.2	6.4	6.5

As evidenced above, there is a clear consensus that the cost of permanent capital will be higher in the 2008-2010 timeframe than it is currently.

Q. How should this outlook for increased capital costs be incorporated into the return on equity?

A. So that the rates being established in this proceeding reflect the capital costs prevailing when those rates are in effect, an adjustment to the current cost of equity is necessary to account for the higher capital costs expected in 2008 and beyond. However, while there is a consensus that capital costs will be higher in 2008-2010 timeframe than they are currently, there is some disagreement about the magnitude of the increase. Therefore, as with flotation costs, rather than make a specific adjustment to the cost of equity, I rec-

ommend that the higher capital costs expected when rates are in effect be accommodated by selecting a return on equity from the upper end of the cost of equity range.

G. Customer Utilization Adjustment

Q. What changes to its rate structure is Atmos requesting?

A. As described by Mr. Gary Smith, Atmos is requesting a Customer Utilization Adjustment ("CUA"), which will adjust rates annually based on changes in customers' usage.

Q. What is the effect of Atmos' requested CUA from investors' perspective?

A. Atmos' requested CUA is likely to be viewed as a form of "decoupling", which is becoming an increasingly common feature of gas utility rate design throughout the U.S. Indeed, several of the gas utilities in the group used to estimate the industry cost of equity have mechanisms of one type or another (*e.g.*, AGL Resources and Piedmont Natural Gas) that compensate for declining use per customer. Meanwhile, the revenue and earnings losses due to declining use per customer that Atmos' requested CUA would reduce are only those that occur between rate cases. Use per customer is essentially "reset" in each rate case, so that the loss of revenues and earnings due to declining use per customer can also be ameliorated by more frequent rate cases or other common ratemaking techniques (*e.g.*,

recognizing known and measurable changes). As a result, the benefit of a decoupling mechanism with respect to declining customer is that it reduces regulatory lag, with its value depending on the frequency that the utility would otherwise file rate cases to address other expense, investment, and revenue issues.

Q. Would the requested CUA have a material impact on the risks faced by Atmos?

A. No. First, because the requested CUA would be based on the previous year's experience, there would still be regulatory lag with respect to compensating for declining customer usage. Second, declining use per customer is but one of the many risks faced by Atmos. For example, operating and financing risks related to rate regulation, gas costs, loss of industrial customers, costs disallowances, customer growth, bypass, non-rate regulatory changes, asset impairment, tax laws, environmental laws and regulations, operating hazards, industry restructuring, general economic conditions, inflation, credit requirements, and capital market conditions, just to name a few, remain. Thus, while Atmos' requested CUA may eliminate some of the revenue risks associated with the consumption patterns of residential customers, it does nothing to reduce the multitude of other risks faced by Atmos.

Q. How do you propose to account for Atmos' requested CUA in your recommended return on equity for its Kansas operations?

A. Because decoupling mechanisms are becoming increasingly widespread and several of the LDCs used to estimate the cost of equity (including Atmos) already have decoupling mechanisms approved in one or more of their jurisdictions, their benefit is already at least partially already accounted-for in the cost of equity ranges developed above. Therefore, while decoupling mechanisms are generally viewed favorably by the investment community, they do not have a dramatic effect on a gas company's overall investment risk, with any impact on the cost of equity being measured in just a few basis points. This notwithstanding, to reflect the benefits of the reduced regulatory lag associated with Atmos' requested CUA, I recommend that the upwards adjustments for flotation costs and the outlook for higher capital costs be decreased slightly.

D. Recommended Return on Equity

Q. What is your recommended return on equity for Atmos' Kansas operations?

A. I recommend a return on equity for Atmos' Kansas operations of 11%. Consistent with Atmos' lower bond rating and more highly leveraged capital structure, this recommendation is at the upper end of the 10% to 11% cost of equity range for the LDC industry group. Meanwhile, my recommended 11% return on equity is below the top of the 10.2% to 11.2% cost of equity range for Atmos, which takes

into account flotation costs and the outlook for increased capital costs modified for Atmos' requested CUA.

V. CHECKS OF REASONABLENESS

Q. Have you performed any checks of reasonableness of your recommended return on equity?

A. Yes. I checked my 11% recommendation for Atmos' Kansas operations by comparing it with alternative benchmarks indicative of a fair return on equity.

A. Authorized Returns on Equity

Q. What was your first check of reasonableness?

A. My first check was based on the returns on equity that regulators have historically authorized LDCs.

Q. What was the principal source of the data used to conduct this check?

A. Regulatory Research Associates, Inc. (RRA) and its predecessor have compiled the returns on equity authorized major electric, gas, and telephone utilities by regulatory commissions across the U.S. The average return on equity authorized natural gas utilities published by RRA in each quarter between 1980 and the third quarter of 2006, when RRA discontinued publishing these data, are displayed in Schedule 7. As shown there, the return on equity author-

ized LDCs over this approximately 27-year period averaged 12.43%.

Q. Is this 12.43% average the relevant benchmark for checking your recommendation for Atmos' Kansas operations?

A. No. Over this same 27-year period, the yield on single-A public utility bonds averaged 9.54%, which is considerably higher than the June 2007 yield of 6.30%. Therefore, it is necessary to adjust the historical data for current interest rate levels and to account also for the fact that authorized returns on equity do not move in lockstep with interest rates. In particular, when interest rate levels are relatively high, returns on equity tend to be lower (*i.e.*, equity risk premiums narrow), and when interest rates are relatively low, authorized returns on are greater (*i.e.*, equity risk premiums increase).

Q. How did you reflect these factors in your check of reasonableness using historically authorized returns on equity for LDCs?

A. To account for current interest rate levels and that authorized returns on equity do not move in lockstep with interest rates, I developed a regression equation relating authorized returns on equity to bond yields. Shown at the bottom of Schedule 9, substituting the June 2007 triple-B bond yield of 6.54%, which corresponds to Atmos' bond rating, into the resulting equation indicates a current return on equity of 10.84%. Meanwhile, inserting the June 2007 yield of 6.30% on single-A public utility bonds into the regression equa-

tion indicates a return on equity for the LDC group of 10.71%. Although slightly below my 11% return on equity recommendation, these benchmarks based on the returns on equity that regulators across have historically authorized LDCs generally support its reasonableness.

B. LDC Realized Rates of Return

Q. Please describe your second check of reasonableness.

A. My second check of reasonableness was a risk premium analysis based realized rates of return for LDCs and is similar to that described earlier in connection with the CAPM and the market portfolio.

Q. What was the principal source of the data used to conduct this check?

A. Between 1952 and 2001, *Mergent's Public Utility Manual* published stock price and dividend data for a group of natural gas distribution utilities. As developed in Schedule 8, over this 50-year period, the average rate of return realized from an investment in the common stocks of this group of LDCs exceeded that from an investment in single-A public utility bonds by 5.26 percent. Even though this series is no longer published, investors may still use it as a comparative benchmark.

Q. What return on equity is indicated by this LDC realized rate of return data?

A. Adding the 5.26 percent equity risk premium to the June 2007 6.54% yield on triple-B public utility bonds indicates a return on equity for Atmos of 11.80%, while combining this same equity risk premium with the June 2007 single-A public utility bonds of 6.30% suggests a return on equity for the LDC group of 11.56%. Both of these benchmarks are somewhat higher than 11% and also support the reasonableness of my recommended return on equity.

C. Projected Earned Returns on Equity

Q. What was the last check of reasonableness of your recommended 11% return in equity for Atmos' Kansas operations?

A. My last check involved comparing my recommendation with the rates of return on book equity Value Line projects other LDCs will earn over the next few years.

Q. What return is Value Line projecting other LDCs will earn on book equity?

A. Schedule 9 displays the return on common equity projected by Value Line for each of the nine LDCs in the industry group for the 2007, 2008, and 2010-2012 timeframes. As shown there, the averages for the group are 11.6% for 2007, 11.8% for 2008, and 12% for 2010-2012. These projected returns on book equity by Value Line

not only support the reasonableness of my recommended 11% return on equity but they also demonstrate the level of earnings that Atmos needs in order to offer investors a competitive return, be able to attract capital on reasonable terms, and maintain its financial integrity.

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

A. Yes, it does.

VERIFICATION

STATE OF TEXAS)
) ss.
COUNTY OF TRAVIS)

Bruce H. Fairchild, being duly sworn upon his oath, deposes and states that he is a Principal in Financial Concepts and Applications, Inc; that he has read and is familiar with the foregoing Direct Testimony filed herewith; and that the statements made therein are true to the best of his knowledge, information, and belief.

BRUCE H. FAIRCHILD

Subscribed and sworn to before me this 11 day of September 2007.

REBECCA A. POWALS
Notary Public
STATE OF TEXAS
My Comm. Exp. November 27, 2010

NOTARY PUBLIC

My appointment Expires:

November 27, 2010

GAS UTILITY GROUP DATA

Company	Bond Ratings S&P (a)	Bond Ratings Moody's (b)	Capital Structure Ratios (c) LT Debt	Capital Structure Ratios (c) Preferred	Capital Structure Ratios (c) Common	Equity Capitalization (Millions) d)	Beta (d)
Atmos Energy	**BBB**	**Baa3**	**51.9%**	**0.0%**	**48.1%**	**2,900**	**0.80**
AGL Resources	A-	A3	48.6%	0.0%	51.4%	3,300	0.95
Laclede Group	A	A3	47.9%	0.1%	52.1%	675	0.90
New Jersey Resources	A+	Aa3	34.2%	0.0%	65.8%	1,500	0.80
Nicor Inc.	AA	Aa3	35.3%	0.0%	64.7%	2,100	1.30
Northwest Natural Gas	AA-	A2	45.5%	0.0%	54.5%	1,300	0.75
Piedmont Natural Gas	A	A3	47.2%	0.0%	52.8%	1,900	0.80
South Jersey Industries	BBB+	Baa1	43.8%	0.0%	56.2%	1,100	0.70
Southwest Gas Corp	BBB-	Baa3	58.4%	0.0%	41.6%	1,600	0.85
WGL Holdings	AA-	A2	38.0%	1.7%	60.3%	1,500	0.85
LDC GROUP AVERAGE	**A**	**A3**	**44.3%**	**0.2%**	**55.5%**	**1,664**	**0.88**

(a) Standard & Poor's.com
(b) Moody's.com
(c) Form 10Qs.
(d) The Value Line Investment Survey (June 15, 2007).

DISCOUNTED CASH FLOW ANALYSIS

DIVIDEND YIELD

Company	Expected Dividend (a)	Price (b)	Dividend Yield (c)
Atmos Energy	**$ 1.29**	**$ 30.56**	**4.2%**
AGL Resources	$ 1.64	$ 40.60	4.0%
Laclede Group	$ 1.47	$ 31.58	4.7%
New Jersey Resources	$ 1.56	$ 52.31	3.0%
Nicor Inc.	$ 1.90	$ 44.36	4.3%
Northwest Natural Gas	$ 1.50	$ 47.42	3.2%
Piedmont Natural Gas	$ 1.01	$ 25.71	3.9%
South Jersey Industries	$ 1.01	$ 36.23	2.8%
Southwest Gas Corp	$ 0.86	$ 35.45	2.4%
WGL Holdings	$ 1.38	$ 33.36	4.1%
LDC GROUP AVERAGE			**3.6%**

(a) The Value Line Investment Survey (June 15, 2007).
(b) Yahoo Finance (Average during June 2007).
(c) Expected Dividend / Price.

DISCOUNTED CASH FLOW ANALYSIS

EARNINGS GROWTH RATES

	Projected Growth			Historical Growth	
Company	**Value Line (a)**	**I/B/E/S (b)**	**Zacks (c)**	**10-Year (a)**	**5-Year (a)**
Atmos Energy	**6.0%**	**5.0%**	**5.3%**	**3.5%**	**10.0%**
AGL Resources	3.5%	4.0%	4.0%	7.0%	15.0%
Laclede Group	2.0%	NA	3.0%	3.0%	6.5%
New Jersey Resources	3.0%	5.0%	3.0%	7.5%	8.0%
Nicor Inc.	4.5%	5.0%	2.0%	1.5%	-3.0%
Northwest Natural Gas	6.5%	5.0%	5.3%	2.0%	3.0%
Piedmont Natural Gas	4.0%	5.0%	5.5%	5.5%	5.0%
South Jersey Industries	NMF	7.0%	6.5%	8.5%	9.5%
Southwest Gas Corp	9.0%	5.0%	5.0%	12.0%	6.0%
WGL Holdings	2.0%	4.0%	3.0%	4.5%	6.0%
LDC GROUP AVERAGE	**4.3%**	**5.0%**	**4.1%**	**5.7%**	**6.2%**

(a) The Value Line Investment Survey (June 15, 2007).
(b) Standard & Poors Earnings Guide (June 2007).
(c) Zacks Quotes and Research (June 11, 2007).

SUSTAINABLE GROWTH RATES (a)

Company	2010-2012 Projected: Earnings per Share	Dividends per Share	Book Value per Share	Price per Share	Shares Outstanding: 2006	Shares Outstanding: Proj. 10-12	Earnings Retention Growth: Retention Ratio	Earnings Retention Growth: Return on Equity	Earnings Retention Growth: "b x r"	External Financing Growth: 2010-2012 Market-to-Book Ratio	External Financing Growth: Growth Rate in Shares	External Financing Growth: "s"	External Financing Growth: "v"	External Financing Growth: "s x v"	Sustainable Growth
Atmos Energy	**$ 2.50**	**$ 1.35**	**$ 25.20**	**$ 35.00**	**81.74**	**107.00**	**46.0%**	**9.9%**	**4.6%**	**1.39**	**5.5%**	**7.7%**	**28.0%**	**2.2%**	**6.7%**
AGL Resources	$ 3.10	$ 1.80	$ 22.50	$ 47.50	77.70	80.00	41.9%	13.8%	5.8%	2.11	0.6%	1.2%	52.6%	0.7%	6.4%
Laclede Group	$ 2.35	$ 1.60	$ 24.50	$ 37.50	21.36	25.00	31.9%	9.6%	3.1%	1.53	3.2%	4.9%	34.7%	1.7%	4.8%
New Jersey Resources	$ 3.15	$ 1.72	$ 30.05	$ 45.00	27.63	30.00	45.4%	10.5%	4.8%	1.50	1.7%	2.5%	33.2%	0.8%	5.6%
Nicor Inc.	$ 3.15	$ 2.00	$ 24.40	$ 50.00	44.90	45.00	36.5%	12.9%	4.7%	2.05	0.0%	0.1%	51.2%	0.0%	4.8%
Northwest Natural Gas	$ 3.10	$ 1.86	$ 27.35	$ 55.00	27.24	29.00	40.0%	11.3%	4.5%	2.01	1.3%	2.5%	50.3%	1.3%	5.8%
Piedmont Natural Gas	$ 1.60	$ 1.15	$ 14.45	$ 35.00	74.61	71.80	28.1%	11.1%	3.1%	2.42	-0.8%	-1.9%	58.7%	-1.1%	2.0%
South Jersey Industries	$ 3.00	$ 1.20	$ 17.95	$ 42.50	29.33	32.00	60.0%	16.7%	10.0%	2.37	1.8%	4.2%	57.8%	2.4%	12.4%
Southwest Gas Corp	$ 2.70	$ 0.90	$ 25.25	$ 50.00	41.77	47.50	66.7%	10.7%	7.1%	1.98	2.6%	5.2%	49.5%	2.6%	9.7%
WGL Holdings	$ 2.40	$ 1.52	$ 22.10	$ 32.50	48.89	49.00	36.7%	10.9%	4.0%	1.47	0.0%	0.1%	32.0%	0.0%	4.0%
LDC GROUP AVERAGE									**5.2%**					**0.9%**	**6.2%**

(a) The Value Line Investment Survey (June 15, 2007).

OTHER PROJECTED AND HISTORICAL GROWTH RATES

Company	Net Book Value (a)			Dividends per Share (a)			Price per Share (b)		
	Pro-jected	Historical 10-Year	Historical 5-Year	Pro-jected	Historical 10-Year	Historical 5-Year	Pro-jected	Historical 10-Year	Historical 5-Year
Atmos Energy	**4.5%**	**6.5%**	**8.5%**	**1.5%**	**3.0%**	**2.0%**	**3.4%**	**2.0%**	**7.0%**
AGL Resources	2.5%	6.5%	10.5%	5.5%	2.5%	4.0%	4.0%	7.3%	12.6%
Laclede Group	5.0%	3.0%	3.5%	2.5%	1.0%	0.5%	4.4%	3.2%	6.6%
New Jersey Resources	7.5%	6.5%	8.5%	4.0%	3.0%	3.5%	-3.7%	9.4%	12.5%
Nicor Inc.	5.0%	3.0%	2.5%	1.0%	4.0%	2.5%	3.0%	2.1%	-1.3%
Northwest Natural Gas	4.0%	4.0%	3.5%	5.5%	1.0%	1.5%	3.8%	5.8%	10.8%
Piedmont Natural Gas	4.0%	6.5%	6.5%	4.0%	5.5%	5.0%	8.0%	7.1%	7.7%
South Jersey Industries	4.5%	6.0%	13.5%	5.5%	2.0%	3.5%	4.1%	12.2%	16.8%
Southwest Gas Corp	4.0%	3.0%	3.5%	1.5%	0.0%	0.0%	9.0%	6.4%	8.1%
WGL Holdings	3.5%	4.0%	3.0%	2.5%	1.5%	1.5%	-0.7%	2.9%	5.6%
LDC GROUP AVERAGE	**4.4%**	**4.7%**	**6.1%**	**3.6%**	**2.3%**	**2.4%**	**3.5%**	**6.3%**	**8.8%**

(a) The Value Line Investment Survey (June 15, 2007).
(b) The Value Line Investment Survey (June 15, 2007, June 21, 2002, and June 27, 1997).

CAPITAL ASSET PRICING MODEL

	Historical Rates Rates of Return (a)		Forward-Looking Rates of Return (b)(c)	
	Atmos	LDC Group	Atmos	LDC Group
Market Required Rate of Return	12.30%	12.30%	12.64%	12.64%
Long-term Government Bond Return	5.80%	5.80%	5.21%	5.21%
Market Risk Premium (d)	6.50%	6.50%	7.43%	7.43%
Beta (e)	0.80	0.88	0.80	0.88
Atmos/LDC Group Risk Premium (f)	5.20%	5.72%	5.94%	6.54%
Risk-free Rate of Interest (c)	5.21%	5.21%	5.21%	5.21%
CAPM Cost of Equity Estimates (g)	**10.41%**	**10.93%**	**11.15%**	**11.75%**

(a) Stocks, Bonds, Bills, and Inflation: Market Results for 1926-2006.

(b) Calculated by applying DCF model applied to S&P 500 firms paying dividends:

Expected Dividend Yield		2.04%
Projected Earnings Growth Rate:		
Value Line	9.90%	
I/B/E/S	10.94%	
Zacks	10.96%	
Average		10.60%
Market Required Rate of Return		12.64%

(c) June 2007 yield on 30-year Treasury bond from Moody's Credit Perspectives (July 9, 2007): 5.21%

(d) Market Required Rate of Return minus Long-term Government Bond Return.

(e) Schedule 1.

(f) Market risk premium times beta.

(g) Atmos/LDC Group Risk Premium plus Risk-free Interest Rate.

AUTHORIZED RATES OF RETURN ON EQUITY

Year	Qtr.	Allowed ROE (a)	Single-A Utility Bond Yield (b)	Risk Premium	Year	Qtr.		Allowed ROE (a)	Single-A Utility Bond Yield (b)	Risk Premium
1980	1	13.45%	13.49%	-0.04%	1993	1		11.75%	8.07%	3.68%
	2	14.38%	12.87%	1.51%		2		11.71%	7.81%	3.90%
	3	13.87%	12.88%	0.99%		3		11.39%	7.28%	4.11%
	4	14.35%	14.11%	0.24%		4		11.15%	7.22%	3.93%
1981	1	14.69%	14.77%	-0.08%	1994	1		11.12%	7.55%	3.57%
	2	14.61%	15.82%	-1.21%		2		10.81%	8.29%	2.52%
	3	14.86%	16.65%	-1.79%		3		10.95%	8.51%	2.44%
	4	15.70%	16.57%	-0.87%		4	(c)	11.64%	8.87%	2.77%
1982	1	15.55%	16.72%	-1.17%	1995	2		11.00%	7.93%	3.07%
	2	15.62%	16.26%	-0.64%		3		11.07%	7.72%	3.35%
	3	15.72%	15.88%	-0.16%		4		11.56%	7.37%	4.19%
	4	15.62%	14.56%	1.06%	1996	1		11.45%	7.44%	4.01%
1983	1	15.41%	14.15%	1.26%		2		10.88%	7.98%	2.90%
	2	14.84%	13.58%	1.26%		3		11.25%	7.96%	3.29%
	3	15.24%	13.52%	1.72%		4		11.32%	7.62%	3.70%
	4	15.41%	13.38%	2.03%	1997	1		11.31%	7.76%	3.55%
1984	1	15.39%	13.56%	1.83%		2		11.70%	7.88%	3.82%
	2	15.07%	14.72%	0.35%		3		12.00%	7.49%	4.51%
	3	15.37%	14.47%	0.90%		4	(c)	11.01%	7.25%	3.76%
	4	15.33%	13.38%	1.95%	1998	2		11.37%	7.12%	4.25%
1985	1	15.03%	13.31%	1.72%		3		11.41%	6.99%	4.42%
	2	15.44%	12.95%	2.49%		4		11.69%	6.97%	4.72%
	3	14.64%	12.11%	2.53%	1999	1		10.82%	7.11%	3.71%
	4	14.44%	11.49%	2.95%		2	(c)	10.82%	7.48%	3.34%
1986	1	14.05%	10.18%	3.87%		4		10.33%	8.05%	2.28%
	2	13.28%	9.41%	3.87%	2000	1		10.71%	8.29%	2.42%
	3	13.09%	9.39%	3.70%		2		11.08%	8.45%	2.63%
	4	13.62%	9.31%	4.31%		3		11.33%	8.25%	3.08%
1987	1	12.61%	8.96%	3.65%		4		12.50%	8.03%	4.47%
	2	13.13%	9.77%	3.36%	2001	1		11.16%	7.74%	3.42%
	3	12.56%	10.61%	1.95%		2	(c)	10.75%	7.93%	2.82%
	4	12.73%	11.05%	1.68%		4		10.65%	7.68%	2.97%
1988	1	12.94%	10.32%	2.62%	2002	1		10.67%	7.65%	3.02%
	2	12.48%	10.71%	1.77%		2		11.64%	7.50%	4.14%
	3	12.79%	10.94%	1.85%		3		11.50%	7.19%	4.31%
	4	12.98%	9.98%	3.00%		4		10.78%	7.15%	3.63%
1989	1	12.99%	10.13%	2.86%	2003	1		11.38%	6.93%	4.45%
	2	13.25%	9.94%	3.31%		2		11.36%	6.40%	4.96%
	3	12.56%	9.53%	3.03%		3		10.61%	6.64%	3.97%
	4	12.94%	9.50%	3.44%		4		10.84%	6.35%	4.49%
1990	1	12.60%	9.72%	2.88%	2004	1		11.10%	6.09%	5.01%
	2	12.81%	9.91%	2.90%		2		10.25%	6.48%	3.77%
	3	12.34%	9.93%	2.41%		3		10.37%	6.13%	4.24%
	4	12.77%	9.89%	2.88%		4		10.66%	5.94%	4.72%
1991	1	12.69%	9.58%	3.11%	2005	1		10.65%	5.74%	4.91%
	2	12.53%	9.50%	3.03%		2		10.52%	5.52%	5.00%
	3	12.43%	9.33%	3.10%		3		10.47%	5.51%	4.96%
	4	12.38%	9.02%	3.36%		4		10.40%	5.82%	4.58%
1992	1	12.42%	8.91%	3.51%	2006	1		10.63%	5.85%	4.78%
	2	11.98%	8.86%	3.12%		2		10.50%	6.37%	4.13%
	3	11.87%	8.47%	3.40%		3		9.60%	6.19%	3.41%
	4	11.94%	8.53%	3.41%	**Average**			**12.43%**	**9.54%**	**2.90%**

Atmos

Return on Equity = Intercept + (Slope X Interest Rate)

Return on Equity = 7.36% + (.5317 X Triple-B Interest Rate)

Return on Equity = 7.36% + (.5317 X 6.54%)

Return on Equity = 7.36% + 3.48%

Return on Equity = 10.84%

LDC Group

Return on Equity = Intercept + (Slope X Interest Rate)

Return on Equity = 7.36% + (.5317 X Single-A Interest Rate)

Return on Equity = 7.36% + (.5317 X 6.30%)

Return on Equity = 7.36% + 3.35%

Return on Equity = 10.71%

(a) Regulatory Research Associates, Inc., Major Rate Case Decisions, (January 2006, January 24, 2001, and January 16, 1990), and Regulatory Focus (October 5, 2006).
(b) Mergent Public Utility Manual (2003); Mergent Bond Record (September 2005); Moody's Credit Perspectives (Various Editions).
(c) No decisions reported for following quarter.
(d) Moody's Credit Perspectives (July 9, 2007).

LDC REALIZED RATE OF RETURN

	Moody's Gas Distribution Stocks (a)			Moody's Single-A Utility Bonds (b)		
	December Price	Dividend	Annual Realized Rate of Return	December Yield	Price	Annual Realized Rate of Return
1952	$20.57			3.22%		
1953	$21.23	$1.09	8.51%	3.38%	$97.33	0.55%
1954	$26.47	$1.19	30.29%	3.11%	$104.64	8.02%
1955	$28.10	$1.32	11.14%	3.35%	$95.98	-0.91%
1956	$28.23	$1.43	5.55%	3.91%	$91.17	-5.48%
1957	$25.78	$1.49	-3.40%	4.36%	$93.23	-2.86%
1958	$38.71	$1.53	56.09%	4.49%	$98.07	2.43%
1959	$39.59	$1.63	6.48%	4.96%	$93.35	-2.16%
1960	$48.21	$1.79	26.29%	4.65%	$104.53	9.49%
1961	$64.96	$1.91	38.71%	4.65%	$100.00	4.65%
1962	$59.73	$2.01	-4.96%	4.44%	$103.13	7.78%
1963	$64.62	$2.13	11.75%	4.46%	$99.70	4.14%
1964	$68.24	$2.27	9.11%	4.54%	$98.82	3.28%
1965	$64.31	$2.40	-2.24%	4.83%	$95.84	0.38%
1966	$53.50	$2.75	-12.53%	5.67%	$88.92	-6.25%
1967	$50.49	$2.67	-0.64%	6.67%	$87.99	-6.34%
1968	$53.80	$2.79	12.08%	6.87%	$97.64	4.31%
1969	$43.88	$2.88	-13.09%	8.59%	$82.53	-10.60%
1970	$52.33	$2.97	26.03%	8.48%	$101.13	9.72%
1971	$47.86	$3.06	-2.69%	7.90%	$106.24	14.72%
1972	$53.54	$3.10	18.35%	7.48%	$104.69	12.59%
1973	$43.43	$3.21	-12.89%	8.24%	$92.05	-0.47%
1974	$29.71	$3.31	-23.97%	10.27%	$81.95	-9.81%
1975	$38.29	$3.43	40.42%	10.11%	$101.44	11.71%
1976	$51.80	$3.65	44.82%	8.62%	$115.10	25.21%
1977	$50.88	$3.85	5.66%	8.64%	$99.80	8.42%
1978	$45.97	$4.07	-1.65%	9.70%	$90.15	-1.21%
1979	$53.50	$4.33	25.80%	11.79%	$83.37	-6.93%
1980	$56.61	$4.59	14.39%	14.63%	$81.23	-6.98%
1981	$53.50	$4.95	3.25%	16.29%	$90.04	4.67%
1982	$50.62	$5.28	4.49%	14.43%	$112.45	28.74%
1983	$55.79	$5.45	20.98%	13.52%	$106.45	20.88%
1984	$69.70	$5.71	35.17%	13.11%	$102.98	16.50%
1985	$76.58	$6.06	18.57%	10.97%	$118.06	31.17%
1986	$90.89	$5.68	26.10%	9.12%	$118.00	28.97%
1987	$77.25	$5.86	-8.56%	10.98%	$84.31	-6.57%
1988	$86.76	$6.15	20.27%	10.06%	$108.31	19.29%
1989	$117.05	$6.45	42.35%	9.44%	$105.88	15.94%
1990	$108.86	$6.70	-1.27%	9.73%	$97.31	6.75%
1991	$124.32	$6.94	20.58%	8.88%	$108.43	18.16%
1992	$138.79	$7.08	17.33%	8.43%	$104.63	13.51%
1993	$154.06	$7.23	16.21%	7.34%	$112.32	20.75%
1994	$126.96	$7.36	-12.81%	8.76%	$85.78	-6.88%
1995	$155.94	$7.48	28.72%	7.23%	$117.47	26.23%
1996	$166.64	$7.76	11.84%	7.59%	$96.02	3.25%
1997	$191.04	$7.99	19.44%	7.16%	$104.94	12.53%
1998	$177.24	$8.12	-2.97%	6.91%	$102.94	10.10%
1999	$166.84	$8.18	-1.25%	8.14%	$87.03	-6.06%
2000	$200.68	$8.22	25.21%	7.84%	$103.25	11.39%
2001	$203.07	$8.22	5.29%	7.83%	$100.11	7.95%
Average			**12.29%**			**7.03%**

Average Gas Utility Stock Return	12.29%
Average Utility Bond Return	7.03%
Risk Premium	**5.26%**

PROJECTED EARNED RETURN ON BOOK EQUITY (a)

Company	2007	2008	2010-12
AGL Resources	13.0%	13.5%	14.0%
Laclede Group	9.0%	9.5%	10.0%
New Jersey Resources	13.0%	12.5%	10.5%
Nicor Inc.	14.0%	14.0%	13.0%
Northwest Natural Gas	11.0%	11.0%	11.5%
Piedmont Natural Gas	11.5%	11.5%	11.5%
South Jersey Industries	13.5%	14.0%	16.5%
Southwest Gas Corp	9.0%	10.0%	10.5%
WGL Holdings	10.5%	10.5%	10.5%
LDC GROUP AVERAGE	**11.6%**	**11.8%**	**12.0%**

(a) The Value Line Investment Survey (June 15, 2007).

APPENDIX A

BRUCE H. FAIRCHILD

FINCAP, INC.
Financial Concepts and Applications
Economic and Financial Counsel

3907 Red River
Austin, Texas 78751
(512) 458–4644
FAX (512) 458–4768
fincap2@texas.net

Summary of Qualifications

M.B.A. and Ph.D. in finance, accounting, and economics; Certified Public Accountant. Extensive consulting experience involving regulated industries, valuation of closely-held businesses, and other economic analyses. Previously held managerial and technical positions in government, academia, and business, and taught at the undergraduate, graduate, and executive education levels. Broad experience in technical research, computer modeling, and expert witness testimony.

Employment

Principal, FINCAP, Inc. (Sep. 1979 to present)	Economic consulting firm specializing in regulated industries and valuation of closely-held businesses. Assignments have involved electric, gas, telecommunication, and water/sewer utilities, with clients including utilities, consumer groups, municipalities, regulatory agencies, and cogenerators. Areas of participation have included revenue requirements, rate of return, rate design, tariff analysis, avoided cost, forecasting, and negotiations. Other assignments have involved some seventy valuations as well as various economic (e.g., damage) analyses, typically in connection with litigation. Presented expert witness testimony before courts and regulatory agencies on over one hundred occasions.
Adjunct Assistant Professor, University of Texas at Austin (Sep. 1979 to May. 1981)	Taught undergraduate courses in finance: Fin. 370 – Integrative Finance and Fin. 357 – Managerial Finance.
Assistant Director, Economic Research Division, Public Utility Commission of Texas (Sep. 1976 to Aug. 1979)	Division consisted of approximately twenty-five financial analysts, economists, and systems analysts responsible for rate of return, rate design, special projects, and computer systems. Directed Staff participation in rate cases, presented testimony on approximately thirty-five occasions, and was involved in some forty other cases ultimately settled. Instrumental in the initial development of rate of return and financial policy for newly-created agency. Performed independent research and managed State and Federal funded projects. Assisted in preparing appeals to the Texas Supreme Court and testimony presented before the Interstate Commerce Commission and Department of Energy. Maintained communications with financial community, industry representatives, media, and consumer groups. Appointed by Commissioners as Acting Director.

Assistant Professor, College of Business Administration, University of Colorado at Boulder (Jan. 1977 to Dec. 1978)	Taught graduate and undergraduate courses in finance: Fin. 305 – Introductory Finance, Fin. 401 – Managerial Finance, Fin. 402 – Case Problems in Finance, and Fin. 602 – Graduate Corporate Finance.
Teaching Assistant, University of Texas at Austin (Jan. 1973 to Dec. 1976)	Taught undergraduate courses in finance and accounting: Acc. 311 – Financial Accounting, Acc. 312 – Managerial Accounting, and Fin. 357 – Managerial Finance. Elected to College of Business Administration Teaching Assistants' Committee.
Internal Auditor, Sears, Roebuck and Company, Dallas, Texas (Nov. 1970 to Aug 1972)	Performed audits on internal operations involving cash, accounts receivable, merchandise, accounting, and operational controls, purchasing, payroll, etc. Developed operating and administrative policy and instruction. Performed special assignments on inventory irregularities and Justice Department Civil Investigative Demands.
Accounts Payable Clerk, Transcontinental Gas Pipeline Corp., Houston, Texas (May. 1969 to Aug. 1969)	Processed documentation and authorized payments to suppliers and creditors.

Education

Ph.D., Finance, Accounting, and Economics, University of Texas at Austin (Sep. 1974 to May 1980)	Doctoral program included coursework in corporate finance, investment theory, accounting, and economics. Elected to honor society of Phi Kappa Phi. Received University outstanding doctoral dissertation award Dissertation: *Estimating the Cost of Equity to Texas Public Utility Companies*
M.B.A., Finance and Accounting, University of Texas at Austin, (Sep. 1972 to Aug. 1974)	Awarded Wright Patman Scholarship by World and Texas Credit Union Leagues. Professional Report: *Planning a Small Business Enterprise in Austin, Texas*
B.B.A., Accounting and Finance, Southern Methodist University, Dallas, Texas (Sep. 1967 to Dec. 1971)	Dean's List 1967-1971 and member of Phi Gamma Delta Fraternity.

Other Professional Activities

Certified Public Accountant, Texas Certificate No. 13,710 (October 1974); entire exam passed in May 1972. Member of the American Institute of Certified Public Accountants and Texas Society of Certified Public Accountants.

Member of Financial Management Association, Southwestern Finance Association, and American Finance Association. Participated as session chairman, moderator, and paper discussant at annual meetings of these and other professional associations.

Visiting lecturer in Executive M.B.A program at the University of Stellenbosch Graduate Business School, Belleville, South Africa (1983 and 1984).

Associate Editor of *Austin Financial Digest*, 1974-1975. Wrote and edited a series of investment and economic articles published in a local investment advisory service.

Military

Texas Army National Guard, Feb. 1970 to Sep. 1976. Specialist 5th Class with duty assignments including recovery vehicle operator for armor unit and company clerk for finance unit.

Bibliography

Monographs

"On the Use of Security Analysts' Growth Projections in the DCF Model," with William E. Avera, *Earnings Regulation Under Inflation*, J. R. Foster and S. R. Holmberg, eds., Institute for Study of Regulation (1982).

"An Examination of the Concept of Using Relative Customer Class Risk to Set Target Rates of Return in Electric Cost-of-Service Studies", with William E. Avera, Electricity Consumers Resource Council (ELCON) (1981); portions reprinted in *Public Utilities Fortnightly* (Nov. 11, 1982).

"The Spring Thing (A) and (B)" and "Teaching Notes", with Mike E. Miles, a two-part case study in the evaluation, management, and control of risk; distributed by *Harvard's Intercollegiate Case Clearing House*; reprinted in *Strategy and Policy: Concepts and Cases*, A. A. Strickland and A. J. Thompson, Business Publications, Inc. (1978) and *Cases in Managing Financial Resources*, I. Matur and D. Loy, Reston Publishing Co., Inc. (1984).

"Energy Conservation in Existing Residences, Project Director for development of instruction manual and workshops promoting retrofitting of existing homes, *Governor's Office of Energy Resources* and *Department of Energy* (1977-1978).

"Linear Algebra," "Calculus," "Sets and Functions," and "Simulation Techniques," contributed to and edited four mathematics programmed learning texts for MBA students, *Texas Bureau of Business Research* (1975).

Articles and Notes

"How to Value Personal Service Practices," with Keith Wm. Fairchild, *The Practical Accountant* (August 1989).

"The Impact of Regulatory Climate on Utility Capital Costs: An Alternative Test," with Adrien M. McKenzie, *Public Utilities Fortnightly* (May 25, 1989).

"North Arctic Industries, Limited," with Keith Wm. Fairchild, *Case Research Journal* (Spring 1988).

"Regulatory Effects on Electric Utilities' Cost of Capital Reexamined," with Louis E. Buck, Jr., *Public Utilities Fortnightly* (September 2, 1982).

"Capital Needs for Electric Utility Companies in Texas: 1976-1985", *Texas Business Review* (January-February 1979), reprinted in "The Energy Picture: Problems and Prospects", J. E. Pluta, ed., *Bureau of Business Research* (1980).

"Some Thoughts on the Rate of Return to Public Utility Companies," with William E. Avera, *Proceedings of the NARUC Biennial Regulatory Information Conference* (1978).

"Regulatory Problems of EFTS," with Robert McLeod, *Issues in Bank Regulation* (Summer 1978) reprinted in *Illinois Banker* (January 1979).

"Regulation of EFTS as a Public Utility," with Robert McLeod, *Proceedings of the Conference on Bank Structure and Competition* (1978).

"Equity Management of REA Cooperatives," with Jerry Thomas, *Proceedings of the Southwestern Finance Association* (1978).

"Capital Costs Within a Firm," *Proceedings of the Southwestern Finance Association* (1977).

"The Cost of Capital to a Wholly-Owned Public Utility Subsidiary," *Proceedings of the Southwestern Finance Association* (1977).

Selected Papers and Presentations

"Legislative Changes Affecting Texas Utilities," Texas Committee of Utility and Railroad Tax Representatives, Fall Meeting, Austin, Texas (September 1995).

"Rate of Return," "Origins of Information," Economics," and "Deferred Taxes and ITC's," New Mexico State University and National Association of Regulatory Utility Commissioners Public Utility Conferences on Regulation and the Rate-Making Process, Albuquerque, New Mexico (October 1983, 1984, 1985, 1986, 1987, 1988, 1990, 1991, 1992, 1994, and 1995, and September 1989); Pittsburgh, Pennsylvania (April 1993); and Baltimore, Maryland (May 1994 and 1995).

"Developing a Cost-of-Service Study," 1994 Texas Section American Water Works Association Annual Conference, Amarillo, Texas (March 1994).

"Financial Aspects of Cost of Capital and Common Cost Considerations," Kidder, Peabody & Co. Two-Day Rate Case Workshop for Regulated Utility Companies, New York, New York (June 1993).

"Cost-of-Service Studies and Rate Design," General Management of Electric Utilities (A Training Program for Electric Utility Managers from Developing Countries), Austin, Texas (October 1989 and November 1990 and 1991).

"Rate Base and Revenue Requirements," The University of Texas Regulatory Institute Fundamentals of Utility Regulation, Austin, Texas (June 1989 and 1990).

"Determining the Cost of Capital in Today's Diversified Companies," New Mexico State University Public Utilities Course Part II, Advanced Analysis of Pricing and Utility Revenues, San Francisco, California (June 1990).

"Estimating the Cost of Equity," Oklahoma Association of Tax Representatives, Tulsa, Oklahoma (May 1990).

"Impact of Regulations," Business and the Economy, Leadership Dallas, Dallas, Texas (November 1989).

"Accounting and Finance Workshop" and "Divisional Cost of Capital," New Mexico State University Current Issues Challenging the Regulatory Process, Albuquerque, New Mexico (April 1985 and 1986) and Santa Fe, New Mexico (March 1989).

"Divisional Cost of Equity by Risk Comparability and DCF Analyses," NARUC Advanced Regulatory Studies Program, Williamsburg, Virginia (February 1988) and USTA Rate of Return Task Force, Chicago, Illinois (June 1988).

"Revenue Requirements," Revenue, Pricing, and Regulation in Texas Water Utilities, Texas Water Utilities Conference, Austin, Texas (August 1987 and May 1988).

"Rate Filing – Basic Ratemaking," Texas Gas Association Accounting Workshop, Austin, Texas (March 1988).

"The Effects of Regulation on Fair Market Value: P.H. Robinson – A Case Study," Annual Meeting of the Texas Committee of Utility and Railroad Tax Representatives, Austin, Texas (September 1987).

"How to Value Closely-held Businesses," TSCPA 1987 Entrepreneurs Conference, San Antonio, Texas (May 1987).

"Revenue Requirements" and "Determining the Rate of Return", New Mexico State University Regulation and the Rate-Making Process, Southwestern Water Utilities Conference, Albuquerque, New Mexico (July 1986) and El Paso, Texas (November 1980).

"How to Evaluate Personal Service Practices," TSCPA CPE Exposition 1985, Houston and Dallas, Texas (December 1985).

"How to Start a Small Business – Accounting and Record Keeping," University of Texas Management Development Program, Austin, Texas (October 1984).

"Project Financing of Public Utility Facilities", TSCPA Conference on Public Utilities Accounting and Ratemaking, San Antonio, Texas (April 1984).

"Valuation of Closely-Held Businesses," Concho Valley Estate Planning Council, San Angelo, Texas (September 1982).

"Rating Regulatory Performance and Its Impact on the Cost of Capital," New Mexico State University Seminar on Regulation and the Cost of Capital, El Paso, Texas (May 1982).

"Effect of Inflation on Rate of Return," Cost of Capital Conference and Workshop, Pinehurst, North Carolina (April 1981).

"Original Cost Versus Current Cost Regulation: A Re-examination," Financial Management Association, New Orleans, Louisiana (October 1980).

"Capital Investment Analysis for Electric Utilities," The University of Texas at Dallas, Richardson, Texas (June 1980).

"The Determinants of Capital Costs to the Electric Utility Industry," with Cedric E. Grice, Southwestern Finance Association, San Antonio, Texas (March 1980).

"The Entrepreneur and Management: A Case Study," Small Business Administration Seminar, Austin, Texas (October 1979).

"Capital Budgeting by Public Utilities: A New Perspective," with W. Clifford Atherton, Jr., Financial Management Association, Boston, Massachusetts (October 1979).

"Issues in Regulated Industries – Electric Utilities," University of Texas at Dallas 4th Annual Public Utilities Conference, Dallas, Texas (July 1979).

"Investment Conditions and Strategies in Today's Markets," American Society of Women Accountants, Austin, Texas (January 1979).

"Attrition: A Practical Problem in Determining a Fair Return to Public Utility Companies," Financial Management Association, Minneapolis, Minnesota (October 1978).

"The Cost of Equity to Wholly-Owned Electric Utility Subsidiaries," with William L. Beedles, Financial Management Association, Minneapolis, Minnesota (October 1978).

"PUC Retrofitting Program," Texas Electric Cooperatives Spring Workshop, Austin, Texas (May 1978).

"The Economics of Regulated Industries," Consumer Economics Forum, Houston, Texas (November 1977).

"Public Utilities as Consumer Targets – Is the Pressure Justified?," University of Texas at Dallas 2nd Annual Public Utilities Conference, Dallas, Texas (July 1977).

APPENDIX B

BRUCE H. FAIRCHILD

SUMMARY OF TESTIMONY BEFORE REGULATORY AGENCIES

No.	Utility Case	Agency	Docket	Date	Nature of Testimony
1.	Arkansas Electric Cooperative	Arkansas PSC	U-3071	Aug-80	Wholesale Rate Design
2.	East Central Oklahoma Electric Cooperative	Oklahoma CC	26925	Sep-80	Retail Rate Design
3.	Kansas Gas & Electric Company	Kansas CC	115379-U	Nov-80	PURPA Rate Design Standards
4.	Kansas Gas & Electric Company	Kansas CC	128139-U	May-81	Attrition
5.	City of Austin Electric Department	City of Austin	--	Jun-81	PURPA Rate Design Standards
6.	Tarrant County Water Control and Improvement District No. 1	Texas Water Commission	--	Oct-81	Wholesale Rate Design
7.	Owentown Gas Company	Texas RRC	2720	Jan-82	Revenue Requirements and Retail Rate Design
8.	Kansas Gas & Electric Company	Kansas CC	134792-U	Aug-82	Attrition
9.	Mississippi Power Company	Mississippi PSC	U-4190	Sep-82	Working Capital
10.	Lone Star Gas Company	Texas RRC	3757; 3794	Feb-83	Rate of Return on Equity
11.	Kansas Gas & Electric Company	Kansas CC	134792-U	Feb-83	Rate of Return on Equity
12.	Southwestern Bell Telephone Company	Oklahoma CC	28002	Oct-83	Rate of Return on Equity
13.	Morgas Company	Texas RRC	4063	Nov-83	Revenue Requirements
14.	Seagull Energy	Texas RRC	4541	Jul-84	Rate of Return
15.	Southwestern Bell Telephone Company	FCC	84-800	Nov-84	Rate of Return on Equity
16.	Kansas Gas & Electric Company, Kansas City Power & Light Company, and Kansas Electric Power Cooperatives	Kansas CC	142098-U; 142099-U; 142100-U	May-85	Nuclear Plant Capital Costs and Allowance for Funds Used During Construction
17.	Lone Star Gas Company	Texas RRC	5207	Oct-85	Overhead Cost Allocation
18.	Westar Transmission Company	Texas RRC	5787	Nov-85 Jan-86 Jul-86	Rate of Return, Rate Design, and Gas Processing Plant Economics
19.	City of Houston	Texas Water Commission	RC-022; RC-023	Nov-86	Line Losses and Known and Measurable Changes
20.	ENSTAR Natural Company	Alaska PUC	TA 50-4; R-87-2; U-87-2	Nov-86 May-87 May-87	Cost Allocation, Rate Design, and Tax Rate Changes
21.	Brazos River Authority	Texas Water Commission	RC-020	Jan-87	Revenue Requirements and Rate Design
22.	East Texas Industrial Gas Company	Texas RRC	5878	Feb-87	Revenue Requirements and Rate Design
23.	Seagull Energy	Texas RRC	6629	Jun-87	Revenue Requirements

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Summary of Testimony Before Regulatory Agencies
(Continued)

No.	Utility Case	Agency	Docket	Date	Nature of Testimony
24.	ENSTAR Natural Company	Alaska PUC	U-87-42	Jul-87 Sep-87 Sep-87	Cost Allocation, Rate Design, and Contracts
25.	High Plains Natural Gas Company	Texas RRC	6779	Sep-87	Rate of Return
26.	Hughes Texas Petroleum	Texas RRC	2-91,855	Jan-88	Interim Rates
27.	Cavallo Pipeline Company	Texas RRC	7086	Sep-88	Revenue Requirements
28.	Union Gas System, Inc.	Kansas CC	165591-U	Mar-89 Aug-89	Rate of Return
29.	ENSTAR Natural Gas Company	Alaska PUC	U-88-70	Mar-89	Cost Allocation and Bypass
30.	Morgas Co.	Texas RRC	7538	Aug-89	Rate of Return and Cost Allocation
31.	Corpus Christi Transmission Company	Texas RRC	7346	Sep-89	Revenue Requirements
32.	Amoco Gas Co.	Texas RRC	7550	Oct-89	Rate of Return and Cost Allocation
33.	Iowa Southern Utilities	Iowa Utilities Board	RPU-89-7	Nov-89 Mar-90	Rate of Return on Equity
34.	Southwestern Bell Telephone Company	FCC	89-624	Feb-90 Apr-90	Rate of Return on Equity
35.	Lower Colorado River Authority	Texas PUC	9427	Mar-90 Aug-90 Aug-90	Revenue Requirement
36.	Rio Grande Valley Gas Company	Texas RRC	7604	May-90	Consolidated FIT and Depreciation
37.	Southern Union Gas Company	El Paso PURB	--	Oct-90	Disallowed Expenses and FIT
38.	Iowa Southern Utilities	Iowa Utilities Board	RPU-90-8	Nov-90 Feb-91	Rate of Return on Equity
39.	East Texas Gas Systems	Texas RRC	7863	Dec-90	Revenue Requirements
40.	San Jacinto Gas Transmission	Texas RRC	7865	Dec-90	Revenue Requirements
41.	Southern Union Gas Company	Austin; Texas RRC	-- 7878	Feb-91 Feb-91	Rate of Return and Acquisition Adjustment
42.	Southern Union Gas Company	Port Arthur; Texas RRC	-- 8033	Mar-91 Aug-91 Oct-91	Rate of Return and Acquisition Adjustment
43.	Cavallo Pipeline Company	Texas RRC	8016	Jun-91	Revenue Requirements
44.	New Orleans Public Service Inc.	New Orleans City Council	CD-91-1	Jun-91 Mar-92	Rate of Return on Equity
45.	Houston Pipe Line Company	Texas RRC	8017	Jul-91	Rate of Return

Bruce H. Fairchild
Summary of Testimony Before Regulatory Agencies

(Continued)

No.	Utility Case	Agency	Docket	Date	Nature of Testimony
46.	Southern Union Gas Company	El Paso PURB	--	Aug-91 Sep-91	Acquisition Adjustment
47.	Southwestern Gas Pipeline, Inc.	Texas RRC	8040	Jan-92 Feb-92	Rate Design and Settlement
48.	City of Fort Worth	Texas Water Commission	8748-A 9261-A	Mar-92 Aug-92 Dec-92 Oct-94 Nov-94	Interim Rates, Revenue Requirements, and Public Interest
49.	Southern Union Gas Company	Oklahoma Corp. Com.	--	Jun-92	Rate of Return
50.	Minnegasco	Minnesota PUC	G-008/GR-92-400	Jul-92 Dec-92	Rate of Return
51.	Guadalupe-Blanco River Authority	Texas PUC	11266	Sep-92	Cost Allocation and Bond Funds
52.	Dorchester Intra-State Gas System	Texas RRC	8111	Oct-92 Nov-92	Rate Impact of System Upgrade
53.	Corpus Christi Transmission Company GP and GPII	Texas RRC	8300 8301	Oct-92 Oct-92	Revenue Requirements
54.	East Texas Industrial Gas Company	Texas RRC	8326	Mar-93	Revenue Requirements
55.	Arkansas Louisiana Gas Company	Arkansas PSC	93-081-U	Apr-93 Oct-93	Rate of Return on Equity
56.	Texas Utilities Electric Company	Texas PUC	11735	Jun-93 Jul-93	Impact of Nuclear Plant Construction Delay
57.	Minnegasco	Minnesota PUC	G-008/GR-93-1090	Nov-93 Apr-94	Rate of Return
58.	Gulf States Utilities Company	Municipalities	--	May-94 Oct-94 Nov-94	Rate of Return on Equity
59.	Louisiana Power & Light Company	Louisiana PSC	U-20925	Aug-94 Feb-95	Rate of Return on Equity
60.	San Jacinto Gas Transmission	Texas RRC	8429	Sep-94	Revenue Requirements
61.	Cavallo Pipeline Company	Texas RRC	8465	Sep-94	Revenue Requirements
62.	Eastrans Limited Partnership	Texas RRC	8385	Oct-94	Revenue Requirements
63.	Gulf States Utilities Company	Louisiana PSC	U-19904	Oct-94	Rate of Return on Equity
64.	Entergy Services, Inc.	FERC	ER95-112-000	Mar-95 Nov-95	Rate of Return on Equity
65.	East Texas Gas Systems	Texas RRC	8435	Apr-95	Revenue Requirements
66.	System Energy Resources, Inc.	FERC	ER95-1042-000	May-95 Dec-95 Jan-96	Rate of Return on Equity

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Summary of Testimony Before Regulatory Agencies
(Continued)

No.	Utility Case	Agency	Docket	Date	Nature of Testimony
67.	Minnegasco	Minnesota PUC	G-008/GR-95-700	Aug-95 Dec-95	Rate of Return
68.	Entex	Louisiana PSC	U-21586	Aug-95	Rate of Return
69.	City of Fort Worth	Texas NRCC	SOAH 582-95-1084	Nov-95	Public Interest of Contract
70.	Seagull Energy Corporation	Texas RRC	8589	Nov-95	Revenue Requirements
71.	Corpus Christi Transmission Company LP	Texas RRC	8449	Feb-96	Revenue Requirements
72.	Missouri Gas Energy	Missouri PSC	GR-96-285	Apr-96 Sep-96 Oct-96	Rate of Return
73.	Entex	Mississippi PSC	96-UA-202	May-96	Rate of Return
74.	Entergy Gulf States, Inc.	Louisiana PSC	U-22084	May-96	Rate of Return on Equity (Gas)
75.	Entergy Gulf States, Inc.	Louisiana PSC	U-22092	May-96 Oct-96	Rate of Return on Equity
76.	American Gas Storage, L.P.	Texas RRC	8591	Sep-96	Revenue Requirements
77.	Entergy Louisiana, Inc.	Louisiana PSC	U-20925	Sep-96 Oct-96	Rate of Return on Equity
78.	Lone Star Pipeline and Gas Company	Texas RRC	8664	Oct-96 Jan-97	Rate of Return
79.	Entergy Arkansas, Inc.	Arkansas PSC	96-360-U	Oct-96 Sep-97	Rate of Return on Equity
80.	East Texas Gas Systems	Texas RRC	8658	Nov-96	Revenue Requirements
81.	Entergy Gulf States, Inc.	Texas PUC	16705	Nov-96 Jul-97	Rate of Return on Equity
82.	Eastrans Limited Partnership	Texas RRC	8657	Nov-96	Revenue Requirements
83.	Enserch Processing, Inc.	Texas RRC	8763	Nov-96	Interim Rates
84.	Entergy New Orleans, Inc.	City of New Orleans	UD-97-1	Feb-97 Mar-97 May-98	Rate of Return on Equity
85.	ENSTAR Natural Gas Company	Alaska PUC	U-96-108	Mar-97 Apr-97	Service Area Certificate
86.	San Jacinto Gas Transmission	Texas RRC	8741	Sep-97	Revenue Requirements
87.	Missouri Gas Energy	Missouri PSC	GR-98-140	Nov-97 Apr-98 May-98	Rate of Return
88.	Corpus Christi Transmission Company LP	Texas RRC	8762	Dec-97	Revenue Requirements
89.	Texas-New Mexico Power Company	Texas PUC	17751	Feb-98	Excess Cost Over Market
90.	Southern Union Gas Company	Texas RRC	8878	May-98	Rate of Return

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Summary of Testimony Before Regulatory Agencies
(Continued)

No.	Utility Case	Agency	Docket	Date	Nature of Testimony
91.	Entergy Louisiana, Inc.	Louisiana PSC	U-20925	May-98 Jul-98	Financial Integrity
92.	Entergy Gulf States, Inc.	Louisiana PSC	U-22092	May-98 Jul-98	Financial Integrity
93.	ACGC Gathering Company, LLC	Texas RRC	8896	Sep-98	Cost-based Rates
94.	American Gas Storage, L.P.	Texas RRC	8855	Oct-98	Revenue Requirements
95.	Duke Energy Intrastate Network	Texas RRC	8940	Jun-99	Rate of Return
96.	Aquila Energy Corporation	Texas RRC	8970	Aug-99	Revenue Requirements
97.	San Jacinto Gas Transmission	Texas RRC	8974	Sep-99	Revenue Requirements
98.	Southern Union Gas Company	El Paso PURB	--	Oct-99	Rate of Return
99.	TXU Lone Star Pipeline	Texas RRC	8976	Oct-99 Feb-00	Rate of Return
100.	Sharyland Utilities, L.P.	Texas PUC	21591	Nov-99	Rate of Return
101.	TXU Lone Star Gas Distribution	Texas RRC	9145	Apr-00 Aug-00	Rate of Return
102.	Rotherwood Eastex Gas Storage	Texas RRC	9136	May-00	Revenue Requirements
103.	Eastex Gas Storage & Exchange, Inc.	Texas RRC	9137	May-00	Revenue Requirements
104.	Eastex Gas Storage & Exchange, Inc.	Texas RRC	9138	Jul-00	Revenue Requirements
105.	East Texas Gas Systems	Texas RRC	9139	Jul-00	Revenue Requirements
106.	Eastrans Limited Partnership	Texas RRC	9140	Aug-00	Revenue Requirements
107.	Reliant Energy – Entex	City of Tyler	--	Oct-00	Rate of Return
108.	City of Fort Worth	Texas NRCC	SOAH 582-00-1092	Dec-00	CCN – Rates and Financial Ability
109.	Entergy Services, Inc.	FERC	RTO1-75	Dec-00	Rate of Return on Equity
110	ENSTAR Natural Gas Company	Alaska PUC	U-00-88	Jun-01 Aug-01 Nov-01 Sep-02 Dec-02	Revenue Requirements, Cost Allocation, and Rate Design
111.	TXU Gas Distribution	Texas RRC	9225	Jul-01	Rate of Return
112.	Centana Intrastate Pipeline LLC	Texas RRC	9243	Aug-01	Rate of Return
113.	Maxwell Water Supply Corp.	Texas NRCC	SOAH-582-01-0802	Oct-01 Mar-02 Apr-02	Reasonableness of Rates
114.	Reliant Energy Arkla	Arkansas PSC	01-243-U	Dec-01 Jun-01	Rate of Return
115.	Entergy Services, Inc.	FERC	ER01-2214-000	Mar-02	Rate of Return on Equity

Bruce H. Fairchild
Summary of Testimony Before Regulatory Agencies
(Continued)

No.	Utility Case	Agency	Docket	Date	Nature of Testimony
116.	TXU Lone Star Pipeline	Texas RRC	9292	Apr-02	Rate of Return
117.	Southern Union Gas Company	El Paso PURB	--	Apr-02	Rate of Return
118.	San Jacinto Gas Transmission Co.	Texas RRC	9301	May-02	Rate of Return
119.	Duke Energy Intrastate Network	Texas RRC	9302	May-02	Rate of Return
120.	Reliant Energy Arkla	Oklahoma CC	200200166	May-02	Rate of Return
121.	TXU Gas Distribution	Texas RRC	9313	Jul-02 Sep-02	Rate of Return
122.	Entergy Mississippi, Inc.	Mississippi PSC	2002-UN-256	Aug-02	Rate of Return on Equity
123.	Aquila Storage & Transportation LP	Texas RRC	9323	Sep-02	Revenue Requirements
124.	Panther Pipeline Ltd.	Texas RRC	9291	Oct-02	Revenue Requirements
125.	SEMCO Energy	Michigan PSC	U-13575	Nov-02	Revenue Requirements
126.	CenterPoint Energy Entex	Louisiana PSC	U-26720	Jan-03	Rate of Return
127.	Crosstex CCNG Transmission Ltd.	Texas RRC	9363	May-03	Revenue Requirements
128.	TXU Gas Company	Texas RRC	9400	May-03 Jan-04	Rate of Return
129.	Eastrans Limited Partnership	Texas RRC	9386	May-03	Rate of Return
130.	CenterPoint Energy Entex	City of Houston		Jun-03	Rate of Return
131.	East Texas Gas Systems, L.P.	Texas RRC	9385	Jun-03	Rate of Return
132.	ENSTAR Natural Gas Company	Alaska RCA	U-03-084	Aug-03 Nov-03	Line Extension Surcharge
133.	CenterPoint Energy Arkla	Louisiana PSC		Nov-03	Rate of Return
134.	ENSTAR Natural Gas Company	Alaska RCA	U-03-091	Feb-04	Cost Separation and Taxes
135.	Sid Richardson Pipeline, Ltd.	Texas RRC	9532	Jun-04 Nov-04	Revenue Requirements
136.	ETC Katy Pipeline, Ltd.	Texas RRC	9524	Sep-04	Revenue Requirements
137.	CenterPoint Energy Entex	Mississippi PSC	03-UN-0831	Sep-04	Rate Formula
138.	Centana Intrastate Pipeline LLC	Texas RRC	9527	Sep-04	Rate of Return
139.	SEMCO Energy	Michigan PSC	U-14338	Dec-04	Revenue Requirements
140.	Atmos Energy – Energas	Texas RRC	9539	Feb-05	Regulatory Policy
141.	Crosstex North Texas Pipeline, L.P.	Texas RRC	9613	Sep-05	Revenue Requirements
142.	SiEnergy, L.P.	Texas RRC	9604	Dec-05	Rate of Return, Income Taxes, and Cost Allocation
143.	ENSTAR Natural Gas Company	Alaska RCA	TA-140-4	Feb-06	Connection Fees
144.	SEMCO Energy	Michigan PSC	U-14984	May-06 Dec-06	Revenue Requirements

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Summary of Testimony Before Regulatory Agencies

(Continued)

No.	Utility Case	Agency	Docket	Date	Nature of Testimony
145.	Atmos Energy – Mid-Tex	Texas RRC	9676	May-06 Oct-06	Revenue Requirements
146.	EasTrans Limited Partnership	Texas RRC	9659	Jun-06	Rate of Return
147.	Kinder Morgan Texas Pipeline, L.P.	Texas RRC	9688	Jul-06	Rate of Return
148.	Crosstex CCNG Transmission Ltd.	Texas RRC	9660	Aug-06	Revenue Requirements
149.	Enbridge Pipelines (North Texas), LP	Texas RRC	9691	Oct-06	Rate of Return
150.	Panther Interstate Pipeline Energy	FERC	CP03-338-00	Mar-07	Revenue Requirements
151.	El Paso Electric Company	Texas PUC	34494	Jul-07	CCN
152.	El Paso Electric Company	New Mex. PSC	07-___-UT	Jul-07	CCN